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**LABORATORY REPORT**

September 24, 2009

Brian Baker  
Environmental Health & Engineering, Inc.  
117 Fourth Avenue  
Needham, MA 02494

**RE: 16512**

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on August 28, 2009. For your reference, these analyses have been assigned our service request number P0903021.

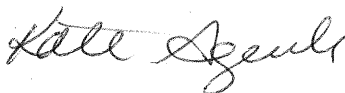
All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 308 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**Columbia Analytical Services, Inc.**



Kate Aguilera  
Project Manager

Client: Environmental Health & Engineering, Inc.  
Project: 16512

CAS Project No: P0903021

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## CASE NARRATIVE

The samples were received intact under chain of custody on August 28, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

### Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.*

Client: Environmental Health & Engineering, Incorporated

Folder: P0903021

Project: 16512

### Detailed Sample Information

<u>CAS Sample ID</u>	<u>Client Sample ID</u>	<u>Container Type</u>	<u>P1 (Hg)</u>	<u>P1 (psig)</u>	<u>Pf1 (Hg)</u>	<u>Pi2 (Hg)</u>	<u>Pi2 (psig)</u>	<u>Pf2</u>	<u>Cont ID</u>	<u>Order #</u>	<u>FC ID</u>	<u>Bottle Order #</u>
P0903021-001.01	104276	6.0 L-Summa Canister Ambient	-5.1	-2.5	3.5				AC01289	14338		
P0903021-002.01	104282	6.0 L-Summa Canister Ambient	-5.0	-2.5	3.5				AC01411	14403		
P0903021-003.01	104275	6.0 L-Summa Canister Ambient	-4.9	-2.4	3.5				AC00937	14403		
P0903021-004.01	104273	6.0 L-Summa Canister Ambient	-4.1	-2.0	3.5				AC01267	14403		
P0903021-005.01	104274	6.0 L-Summa Canister Ambient	-5.9	-2.9	3.5				AC00666	14338		

### Miscellaneous Items - received

- AVG00856
- FC00617
- AVG00953
- FC00765
- AVG00978
- AVG00621
- AVG01037
- FC00231
- FC00358
- FC00762

10903021

FROM: Environmental Health and Engineering, Inc. 117 Fourth Avenue Needham, MA 02494-2725

TO: Columbia

Please send invoices to ATTN: Accounts Payable Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 16215

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA

Table with 4 columns: SAMPLE ID, SAMPLE TYPE, ANALYTICAL METHOD/NUMBER, OTHER: Time/Date/Vol. Rows include sample IDs 104276 through 104274 with handwritten sample types (S, D) and analytical methods (TD 15 EPA Full List).

Special instructions:

- Standard turn around time [checked] Rush by date/time [ ] Other [ ] Fax results 781-247-4305 [ ] RETURN SAMPLES [ ] Electronic transfer - datacoordinator@eheinc.com [ ] Additional report recipient M.Fragala@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 8/26/09

Received by: FedEx 870423330494 of (company name) Fed Ex Date:

Relinquished by: FedEx of (company name) Date:

Received by: [Signature] of (company name) CAS Date: 08/28/09

Relinquished by: of (company name) Date:

Received by: of (company name) Date:

Lab Data Received by: of Environmental Health & Engineering, Inc. Date:



**Columbia Analytical Services, Inc.**  
**Sample Acceptance Check Form**

Client: Environmental Health & Engineering, Inc.

Work order: P0903021

Project: Project # 16512 / 16512

Sample(s) received on: 8/28/2009

Date opened: 8/28/2009

by: SSTAPLES

*Note:* This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |  | Yes                                 | No                                  | N/A                                 |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2 Container(s) <b>supplied by CAS</b> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3 Did <b>sample containers</b> arrive in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4 Was a <b>chain-of-custody</b> provided?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5 Was the <b>chain-of-custody</b> properly completed?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6 Did <b>sample container labels</b> and/or tags agree with custody papers?                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7 Was <b>sample volume</b> received adequate for analysis?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8 Are samples within specified holding times?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 9 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Cooler Temperature _____ °C    Blank Temperature _____ °C  |                                     |                                     |                                     |
| 10 Was a <b>trip blank</b> received?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Trip blank supplied by CAS: _____  |                                     |                                     |                                     |
| 11 Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Do they contain moisture?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 14 <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0903021-001.01	6.0 L Ambient Can					
P0903021-002.01	6.0 L Ambient Can					
P0903021-003.01	6.0 L Ambient Can					
P0903021-004.01	6.0 L Ambient Can					
P0903021-005.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

Chain of Custody is missing time collected

COC indicates project #16215 however this is actually project #16512

\*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12);

Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc. (pH>12) RSK - MBEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

## RESULTS OF VOLATILE ORGANIC ANALYSIS

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104276  
**Client Project ID:** 16512

Test Code: EPA TO-15  
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
 Analyst: Liliana Marghitoiu  
 Sampling Media: 6.0 L Summa Canister  
 Test Notes:  
 Container ID: AC01289

CAS Project ID: P0903021  
 CAS Sample ID: P0903021-001

Date Collected: 8/26/09  
 Date Received: 8/28/09  
 Date Analyzed: 9/3/09 & 9/9/09  
 Volume(s) Analyzed: 1.00 Liter(s)  
 0.20 Liter(s)

Initial Pressure (psig): -2.5      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	3.4	0.75	1.9	0.43	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.5	0.75	0.51	0.15	
74-87-3	Chloromethane	0.94	0.15	0.46	0.072	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
106-99-0	1,3-Butadiene	0.17	0.15	0.077	0.067	
74-83-9	Bromomethane	ND	0.15	ND	0.038	
75-00-3	Chloroethane	ND	0.15	ND	0.056	
64-17-5	Ethanol	100	7.5	55	4.0	
75-05-8	Acetonitrile	320	0.75	190	0.44	D
107-02-8	Acrolein	9.1	0.75	4.0	0.33	
67-64-1	Acetone	160	7.5	65	3.1	
75-69-4	Trichlorofluoromethane	1.5	0.15	0.27	0.027	
67-63-0	2-Propanol (Isopropyl Alcohol)	9.8	0.75	4.0	0.30	
107-13-1	Acrylonitrile	ND	0.75	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.038	
75-09-2	Methylene Chloride	ND	0.75	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.048	
76-13-1	Trichlorotrifluoroethane	0.55	0.15	0.072	0.019	
75-15-0	Carbon Disulfide	1.4	0.75	0.45	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.038	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.037	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.041	
108-05-4	Vinyl Acetate	ND	7.5	ND	2.1	
78-93-3	2-Butanone (MEK)	12	0.75	4.1	0.25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Verified By: \_\_\_\_\_ Date: 9/11/09



**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
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CAS Project ID: P0903021  
 CAS Sample ID: P0903021-001

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**Sampling Media:** 6.0 L Summa Canister  
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Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	2.5	0.75	0.54	0.16	
127-18-4	Tetrachloroethene	0.26	0.15	0.038	0.022	
108-90-7	Chlorobenzene	ND	0.15	ND	0.032	
100-41-4	Ethylbenzene	6.7	0.75	1.6	0.17	
179601-23-1	m,p-Xylenes	22	0.75	5.0	0.17	
75-25-2	Bromoform	ND	0.75	ND	0.072	
100-42-5	Styrene	10	0.75	2.4	0.18	
95-47-6	o-Xylene	8.0	0.75	1.8	0.17	
111-84-2	n-Nonane	1.4	0.75	0.26	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.75	ND	0.15	
80-56-8	alpha-Pinene	190	0.75	35	0.13	D
103-65-1	n-Propylbenzene	1.3	0.75	0.25	0.15	
622-96-8	4-Ethyltoluene	2.0	0.75	0.42	0.15	
108-67-8	1,3,5-Trimethylbenzene	2.2	0.75	0.44	0.15	
95-63-6	1,2,4-Trimethylbenzene	7.4	0.75	1.5	0.15	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.029	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.025	
106-46-7	1,4-Dichlorobenzene	0.28	0.15	0.047	0.025	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.025	
5989-27-5	d-Limonene	45	0.75	8.1	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.75	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.75	ND	0.10	
91-20-3	Naphthalene	3.1	0.75	0.58	0.14	
87-68-3	Hexachlorobutadiene	ND	0.75	ND	0.070	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

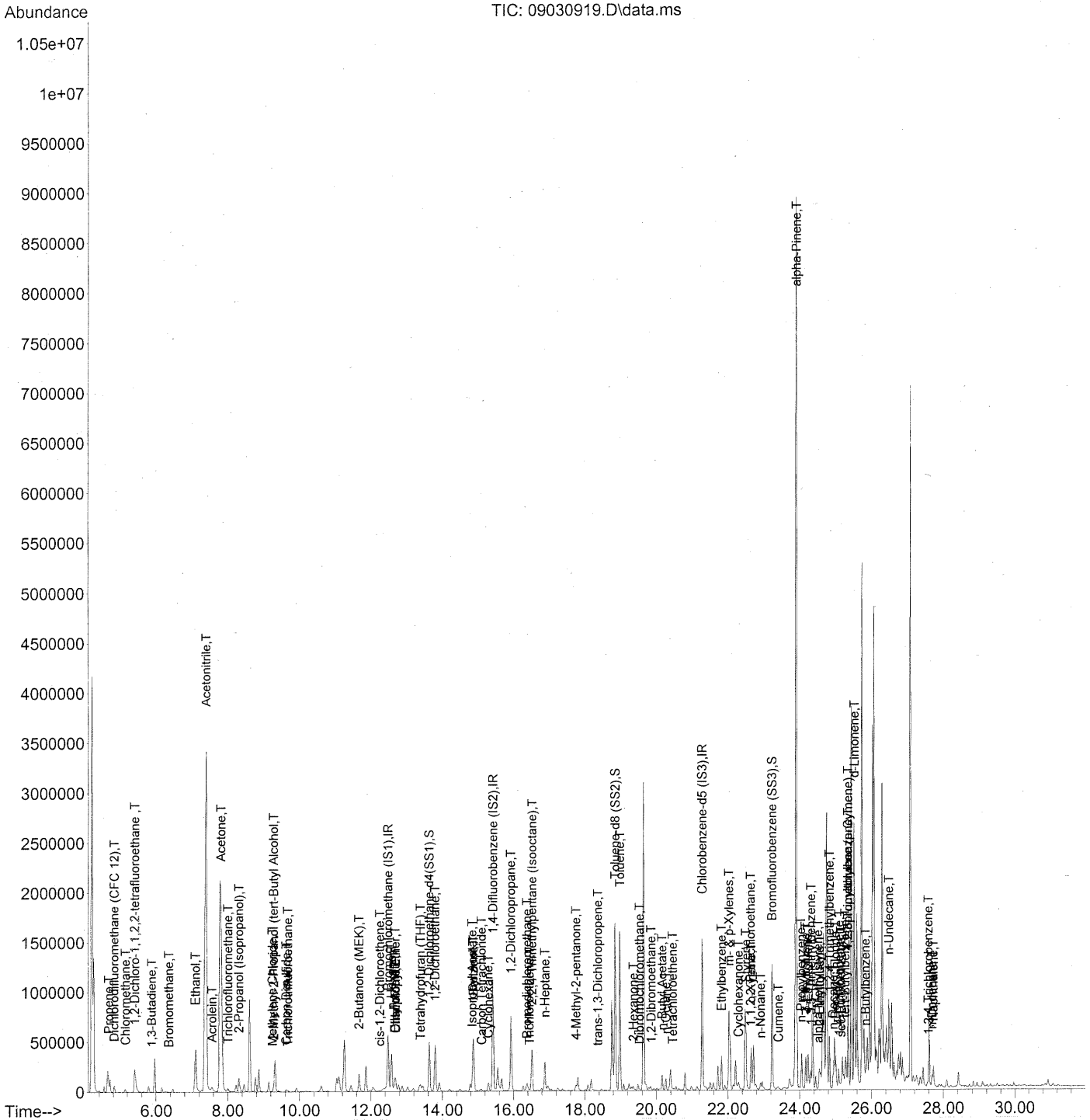
Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

*9/11/09*

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 11:04 pm  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 10:04:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\03\  
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 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	259137	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1289274	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	631131	25.000	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) 1,2-Dichloroethane-d4(...)	13.63	65	492266	23.972	ng	-0.02
Spiked Amount	25.000		Recovery	=	95.88%	✓
57) Toluene-d8 (SS2)	18.85	98	1415260	25.092	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.36%	✓
73) Bromofluorobenzene (SS3)	23.23	174	415098	25.571	ng	0.00
Spiked Amount	25.000		Recovery	=	102.28%	✓

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	42203m	2.251	ng	
3) Dichlorodifluoromethan...	4.82	85	55586	1.694	ng	98
4) Chloromethane	5.15	50	13911	0.631	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	859	0.063	ng	67
6) Vinyl Chloride	5.60	62	745	N.D.		
7) 1,3-Butadiene	5.87	54	1765	0.114	ng	# 80
8) Bromomethane	6.35	94	664	0.052	ng	# 69
9) Chloroethane	6.67	64	106	N.D.		
10) Ethanol	7.10	45	804189	69.188	ng	99
11) Acetonitrile	7.39	41	6676229	206.791	ng	100
12) Acrolein	7.56	56	53943	6.078	ng	100
13) Acetone	7.81	58	1253888	104.313	ng	# 79
14) Trichlorofluoromethane	8.01	101	29421	1.017	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	262555	6.570	ng	97
16) Acrylonitrile	0.00	53	0	N.D.	d	
17) 1,1-Dichloroethene	9.04	96	86	N.D.		
18) 2-Methyl-2-Propanol (t...	9.28	59	17548	0.439	ng	# 1
19) Methylene Chloride	9.25	84	5888	0.386	ng	99
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.	d	
21) Trichlorotrifluoroethane	9.67	151	4251	0.371	ng	97
22) Carbon Disulfide	9.63	76	51475	0.949	ng	99
23) trans-1,2-Dichloroethene	10.67	61	378	N.D.		
24) 1,1-Dichloroethane	11.03	63	779	N.D.		
25) Methyl tert-Butyl Ether	11.20	73	906	N.D.		
26) Vinyl Acetate	0.00	86	0	N.D.	d	
27) 2-Butanone (MEK)	11.67	72	78700	8.105	ng	# 91
28) cis-1,2-Dichloroethene	12.25	61	1318	0.064	ng	78
29) Diisopropyl Ether	12.68	87	9488	0.669	ng	# 1
30) Ethyl Acetate	12.67	61	14703	2.818	ng	90
31) n-Hexane	12.58	57	238773	9.187	ng	99

*see dil*

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 11:04 pm  
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 Sample : P0903021-001 (1000ml)  
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 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	92152	3.597	ng	97
34) Tetrahydrofuran (THF)	13.38	72	21991	2.088	ng #	43
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	292526	13.608	ng	98
38) 1,1,1-Trichloroethane	14.18	97	671	N.D.		
39) Isopropyl Acetate	14.84	61	2380	0.243	ng #	1
40) 1-Butanol	14.85	56	184447	11.494	ng #	42
41) Benzene	14.87	78	478949	7.902	ng	100
42) Carbon Tetrachloride	15.10	117	7950	0.391	ng	94
43) Cyclohexane	15.29	84	45688	2.045	ng	99
44) tert-Amyl Methyl Ether	15.84	73	455	N.D.		
45) 1,2-Dichloropropane	15.92	63	1138	0.076	ng #	13
46) Bromodichloromethane	16.37	83	27359	1.370	ng	75
47) Trichloroethene	16.44	130	1398	0.095	ng	96
48) 1,4-Dioxane	16.52	88	393	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	471239	6.832	ng	94
50) Methyl Methacrylate	0.00	100	0	N.D.	d	
51) n-Heptane	16.88	71	86875	5.530	ng	96
52) cis-1,3-Dichloropropene	17.65	75	734	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	13333	0.963	ng	99
54) trans-1,3-Dichloropropene	18.36	75	2180	0.094	ng	84
55) 1,1,2-Trichloroethane	18.45	97	512	N.D.		
58) Toluene	18.98	91	1387310	22.837	ng	100
59) 2-Hexanone	19.36	43	38229	1.030	ng	97
60) Dibromochloromethane	19.53	129	4010	0.263	ng	88
61) 1,2-Dibromoethane	19.86	107	821	0.051	ng	98
62) n-Butyl Acetate	20.16	43	126327	2.966	ng	98
63) n-Octane	20.27	57	23479	1.679	ng	98
64) Tetrachloroethene	20.46	166	2671	0.174	ng	99
65) Chlorobenzene	0.00	112	0	N.D.	d	
66) Ethylbenzene	21.82	91	313982	4.519	ng	99
67) m- & p-Xylenes	22.03	91	799296	14.450	ng	100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	275550	6.765	ng	98
70) o-Xylene	22.65	91	297164	5.348	ng	99
71) n-Nonane	22.91	43	30692m	0.919	ng	
72) 1,1,2,2-Tetrachloroethane	22.63	83	2051	0.081	ng # MRL	19
74) Cumene	23.41	105	19416	0.276	ng	99
75) alpha-Pinene	23.90	93	4336537	118.716	ng Ser Arp	91
76) n-Propylbenzene	24.04	91	75034	0.839	ng #	76
77) 3-Ethyltoluene	24.17	105	187466	2.783	ng	99
78) 4-Ethyltoluene	24.22	105	91272	1.373	ng	97
79) 1,3,5-Trimethylbenzene	24.31	105	80453	1.454	ng	99



Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 11:04 pm  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 10:04:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

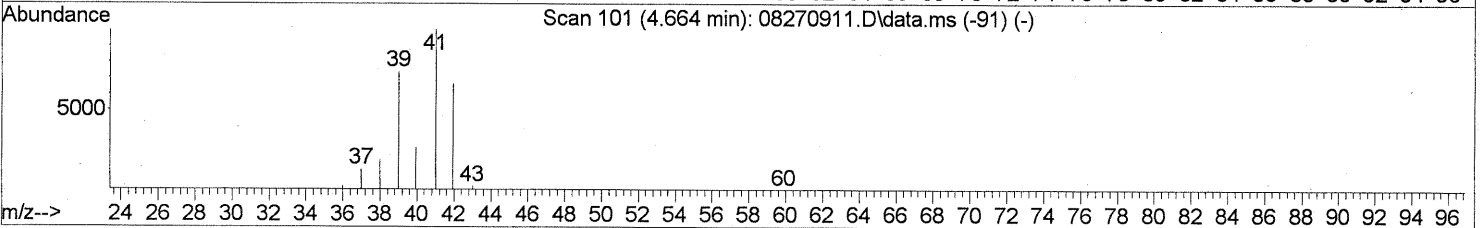
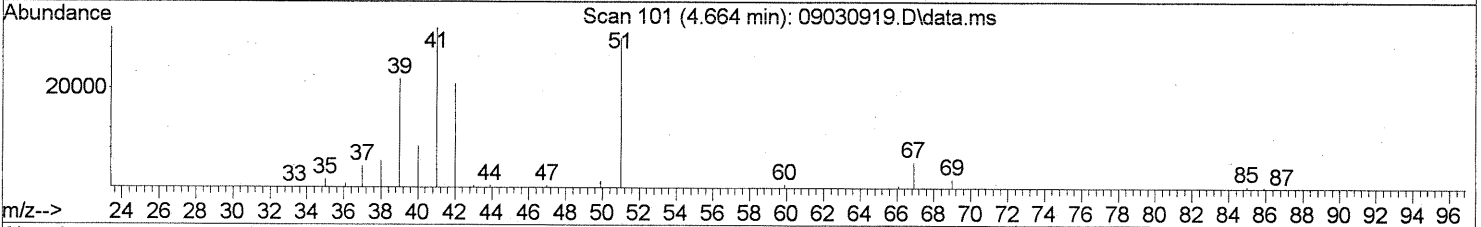
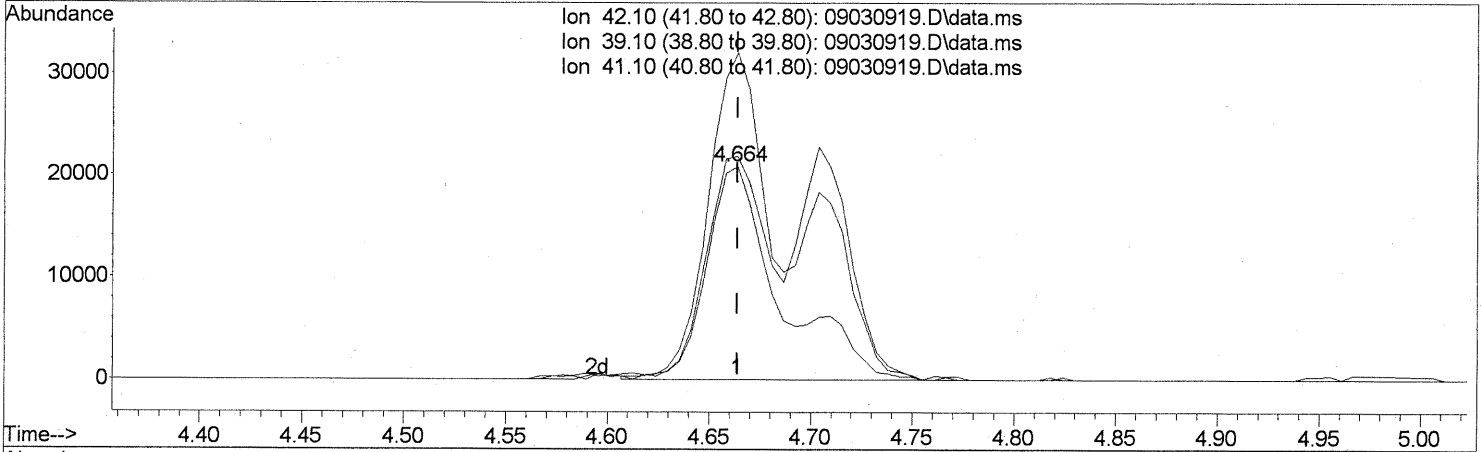
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	1473	0.051	ng #	79
81) 2-Ethyltoluene	24.55	105	71724	1.038	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	282327	4.998	ng	90
83) n-Decane	24.93	57	48577	1.440	ng #	42
84) Benzyl Chloride	24.99	91	4580	0.082	ng #	57
85) 1,3-Dichlorobenzene	25.03	146	1141	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	6019	0.189	ng	100
87) sec-Butylbenzene	25.15	105	6246	0.081	ng #	76
88) 4-Isopropyltoluene (p-...	25.35	119	132666	1.907	ng	97
89) 1,2,3-Trimethylbenzene	25.35	105	91483	1.545	ng NR	96
90) 1,2-Dichlorobenzene	25.53	146	654	N.D.		
91) d-Limonene	25.53	68	686685	30.450	ng	85
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	154721	4.419	ng #	1
94) 1,2,4-Trichlorobenzene	27.58	180	1343	0.067	ng	90
95) Naphthalene	27.72	128	160368	2.054	ng	99
96) n-Dodecane	27.69	57	37942	0.951	ng	98
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	43467	1.856	ng #	89
99) tert-Butylbenzene	25.27	119	10674	0.195	ng	99
100) n-Butylbenzene	25.83	91	40563	0.645	ng #	22

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(2) Propene (T)

4.664min (+0.000) 2.80ng *SP*

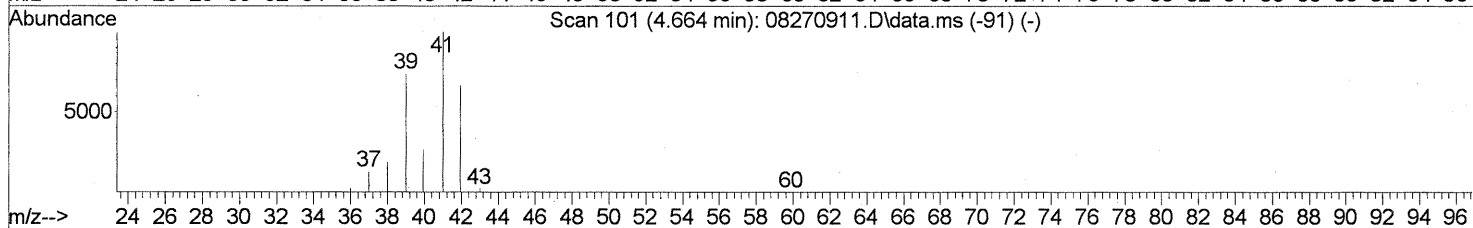
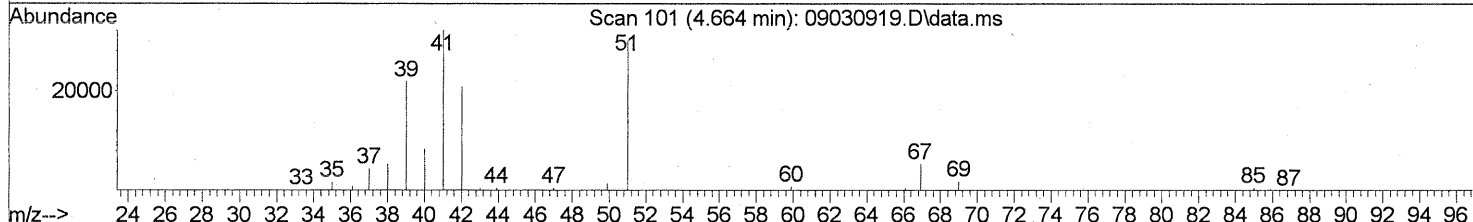
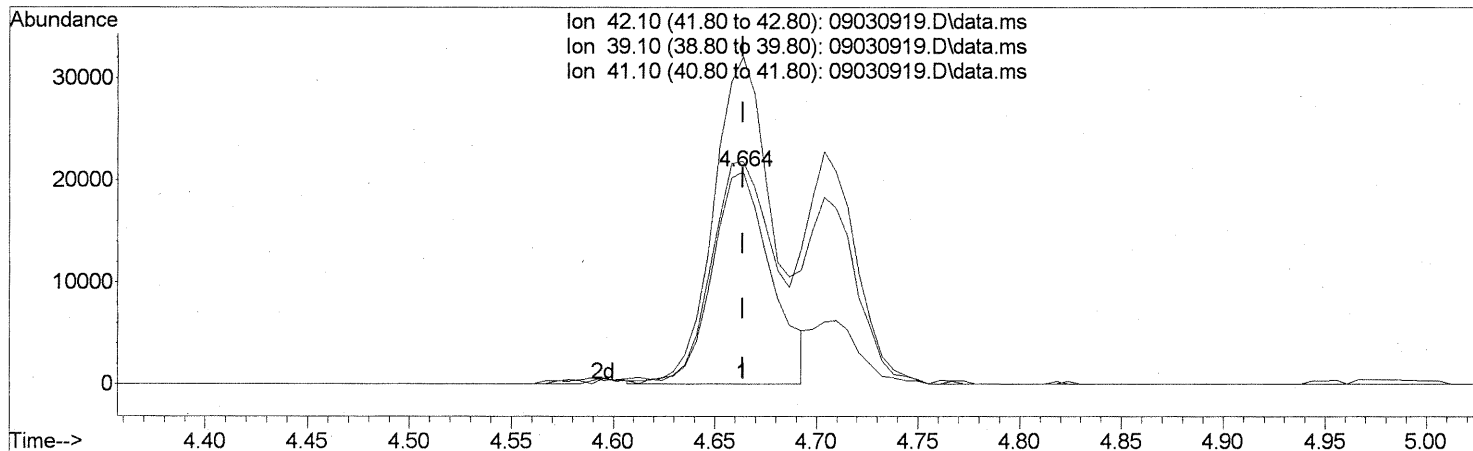
response 52424

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	87.63#
41.10	149.80	118.46#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(2) Propene (T)  
 4.664min (+0.000) 2.25ng m  
 response 42203

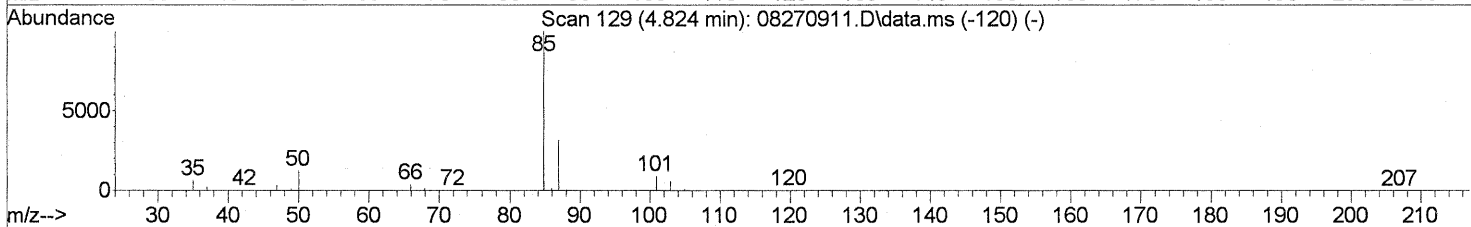
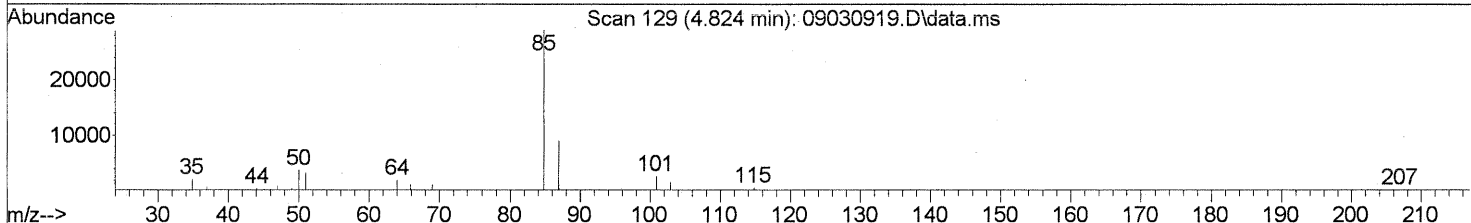
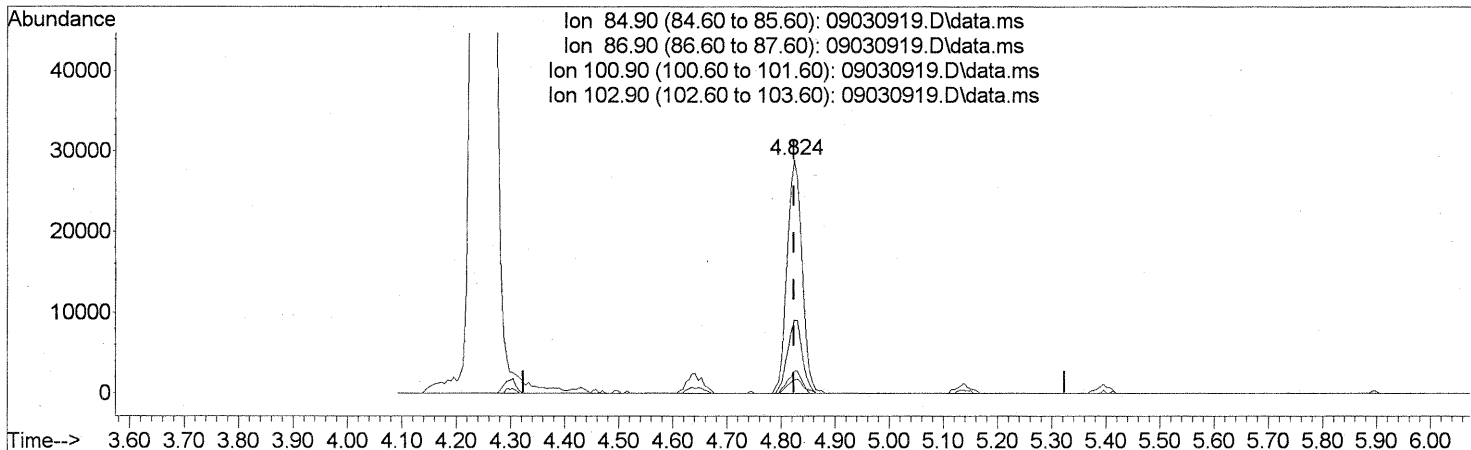
Ion	Exp%	Act%
42.10	100	100
39.10	109.70	108.85
41.10	149.80	147.15
0.00	0.00	0.00

*SP-71C*  
*W 9/10/09*  
*W 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.824min (+0.000) 1.69ng

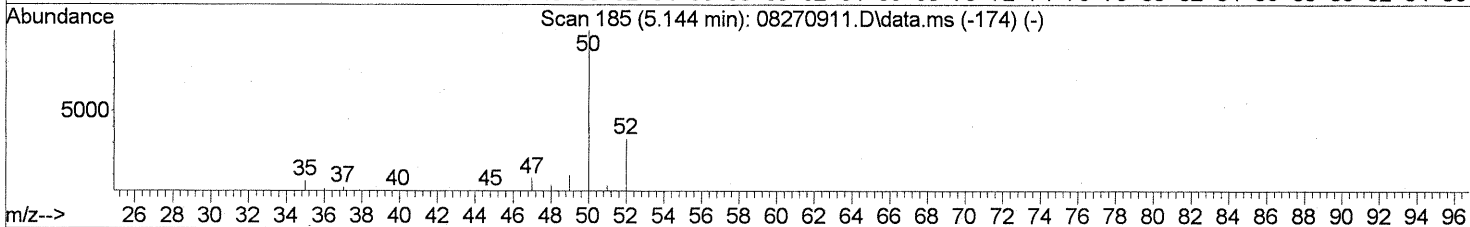
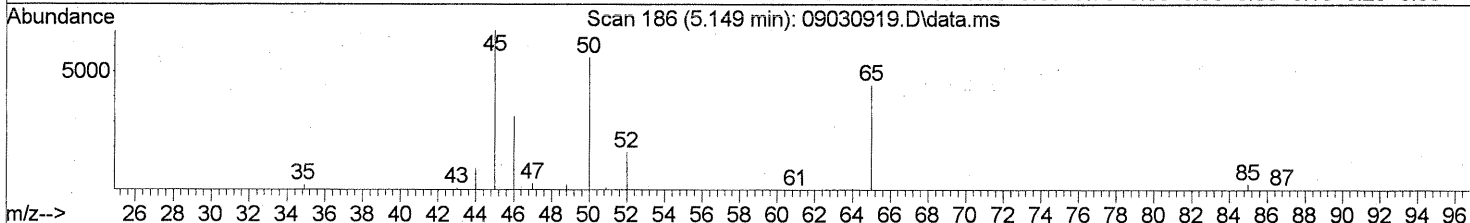
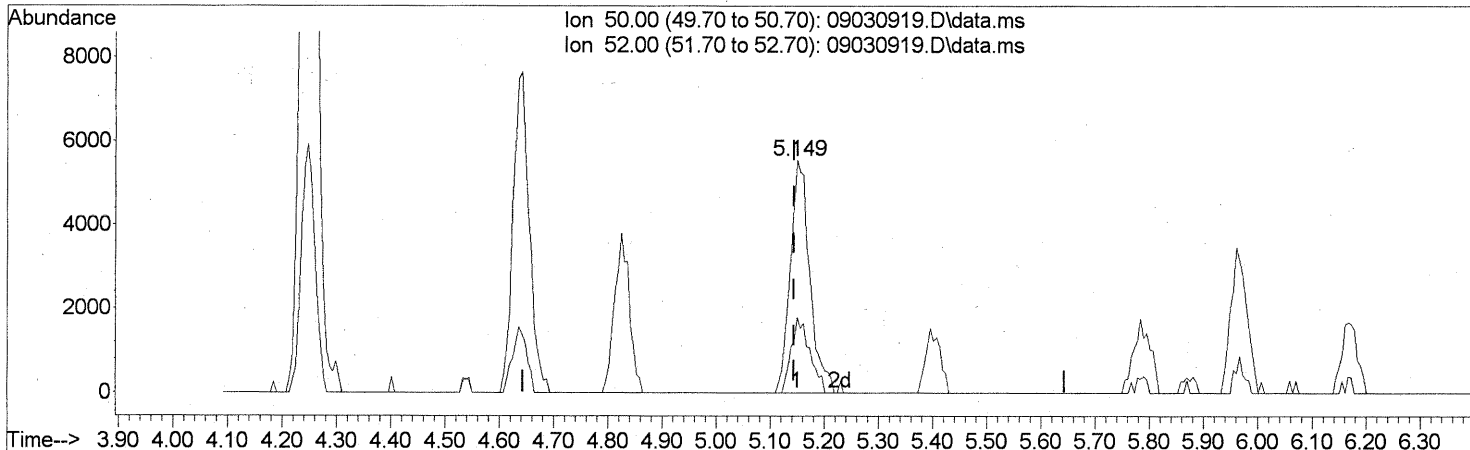
response 55586

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	31.02
100.90	8.80	9.26
102.90	5.60	5.74

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

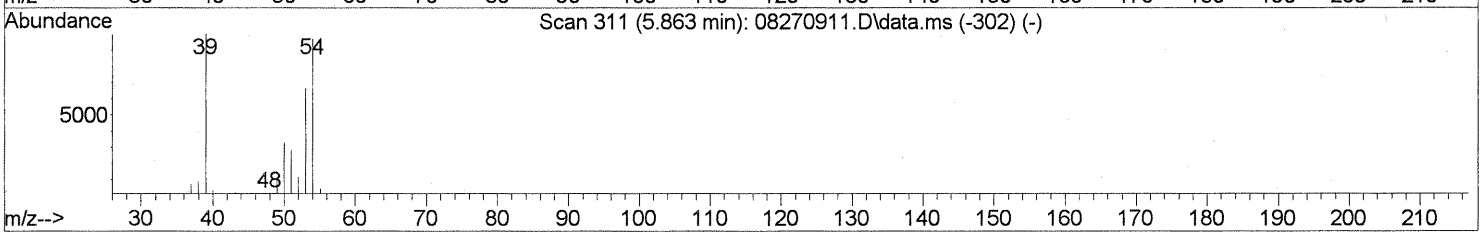
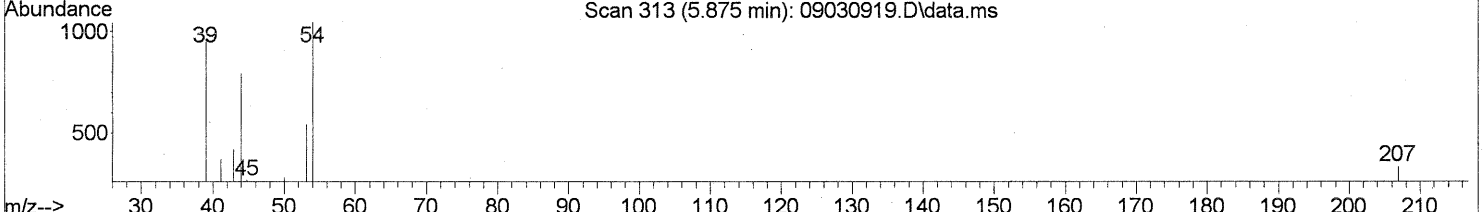
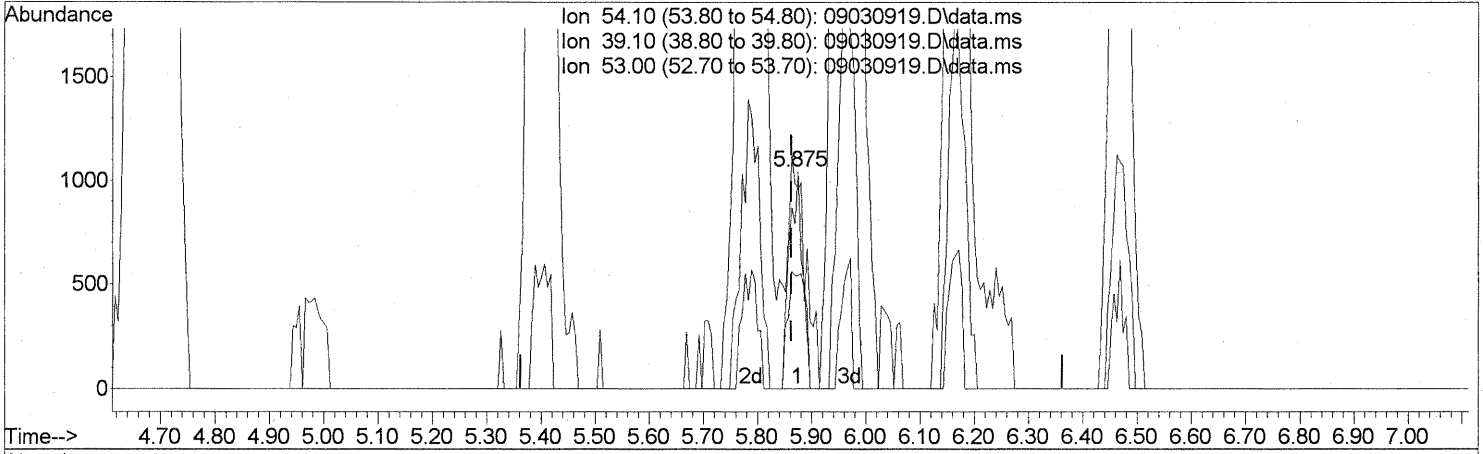
(4) Chloromethane (T)  
 5.149min (+0.006) 0.63ng  
 response 13911

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	30.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

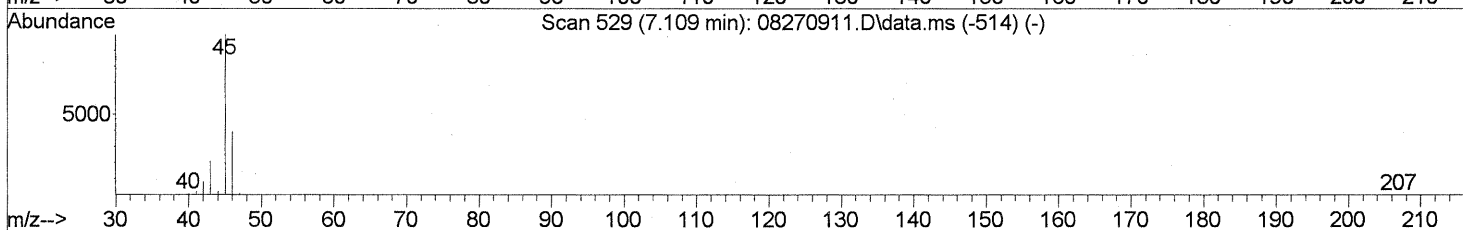
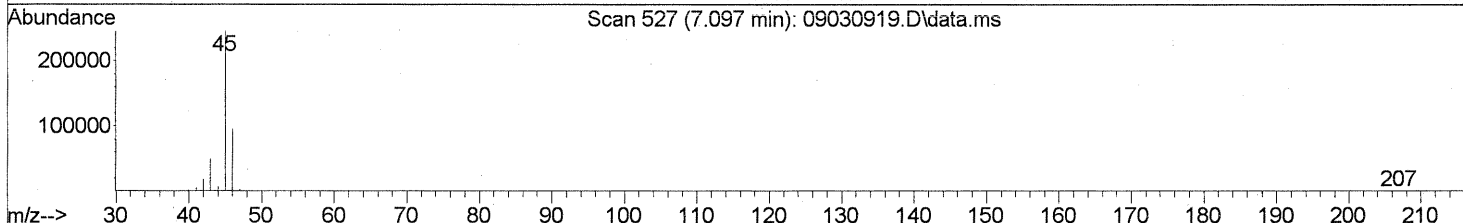
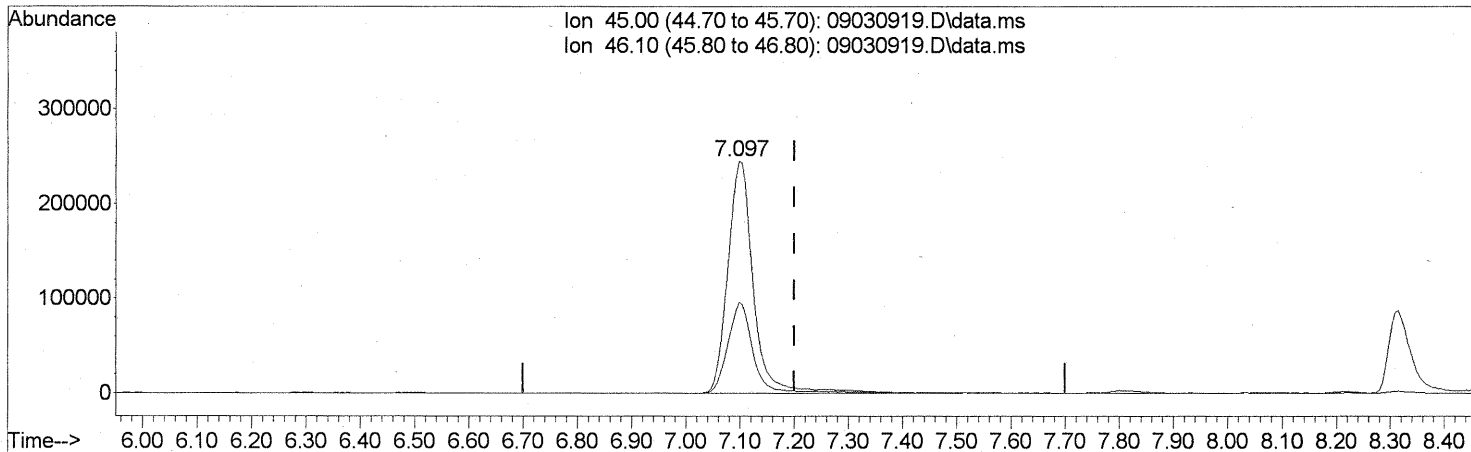
(7) 1,3-Butadiene (T)  
 5.875min (+0.011) 0.11ng  
 response 1765

Ion	Exp%	Act%
54.10	100	100
39.10	104.80	133.65#
53.00	66.90	71.84
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

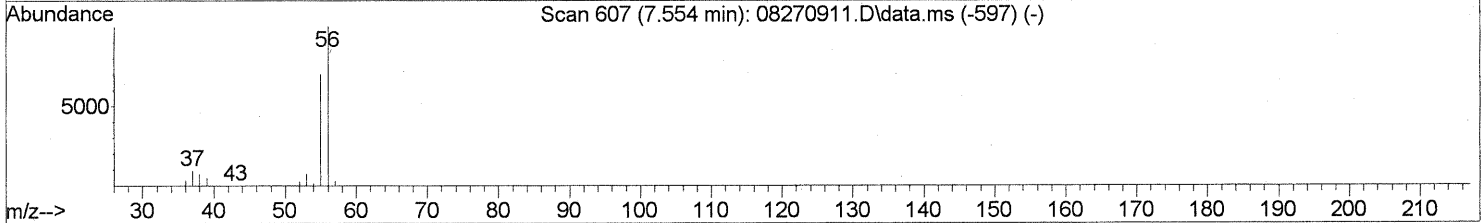
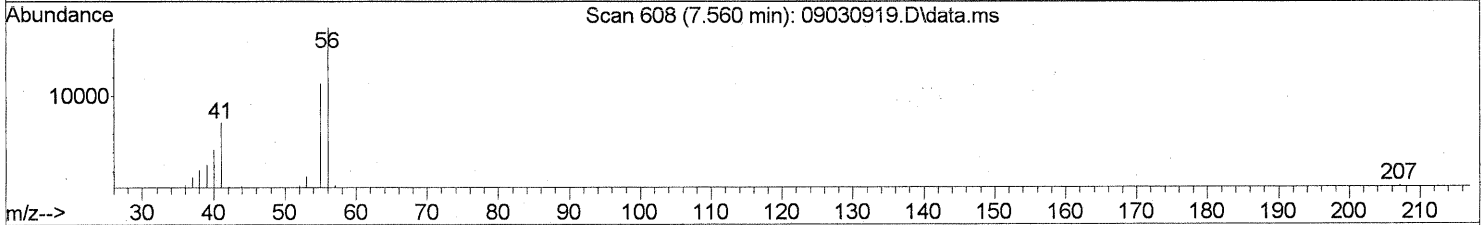
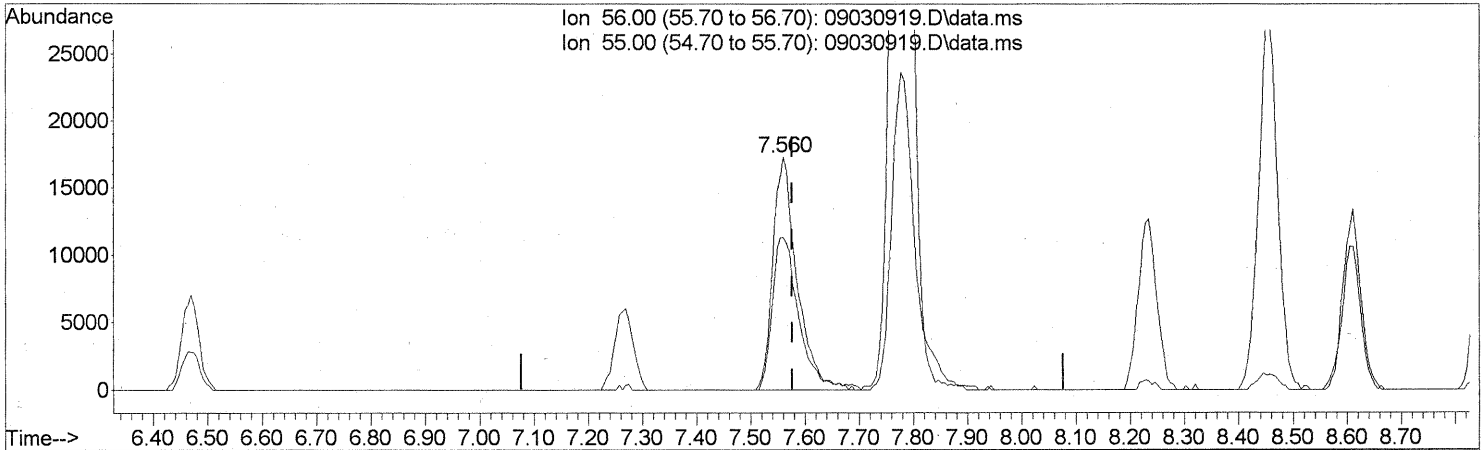
(10) Ethanol (T)  
 7.097min (-0.103) 69.19ng  
 response 804189

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(12) Acrolein (T)  
 7.560min (-0.017) 6.08ng  
 response 53943

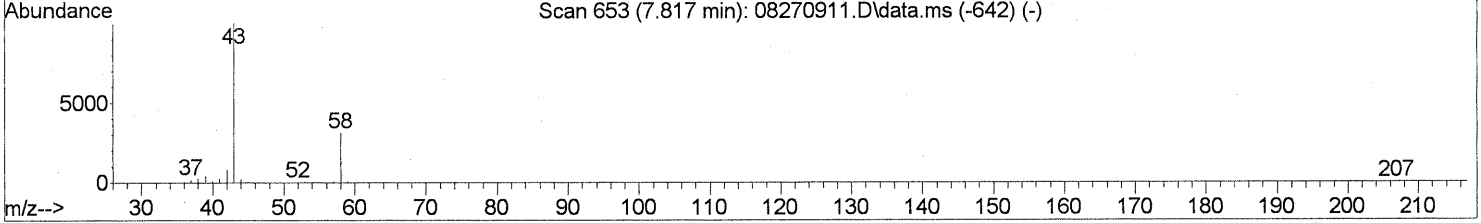
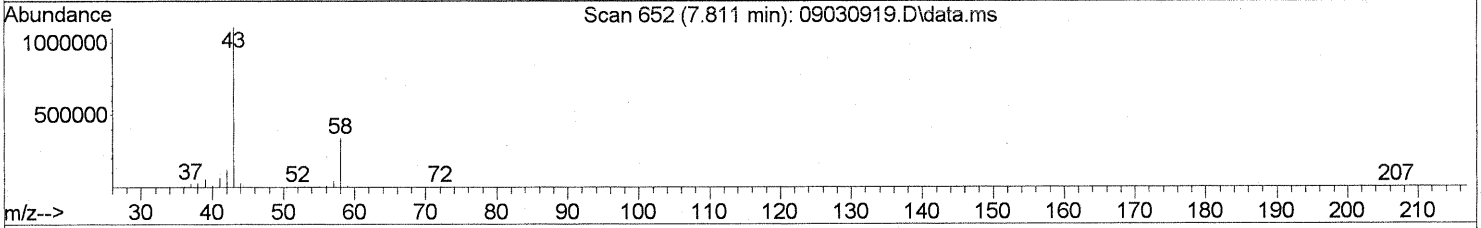
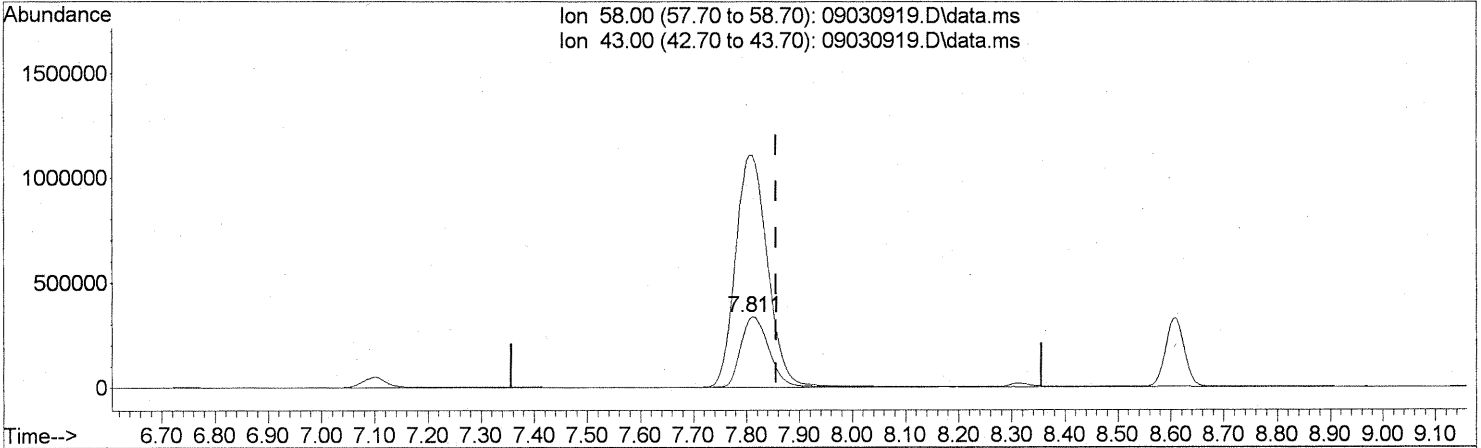
Ion	Exp%	Act%
56.00	100	100
55.00	71.10	71.14
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030919.D  
Acq On : 3 Sep 2009 23:04  
Operator : LM/CC  
Sample : P0903021-001 (1000ml)  
Misc : EH&E 104276  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



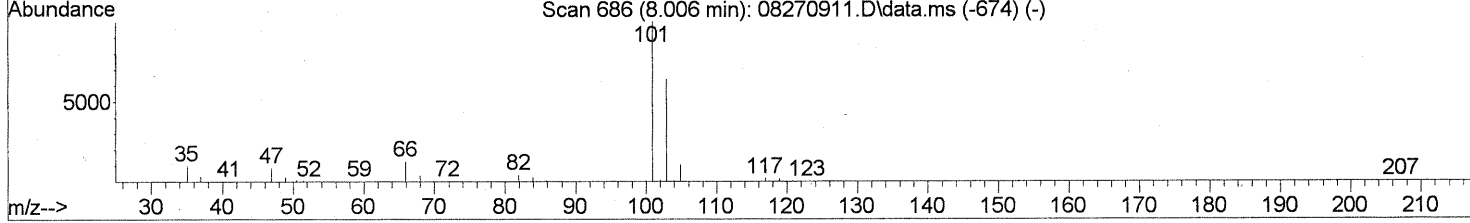
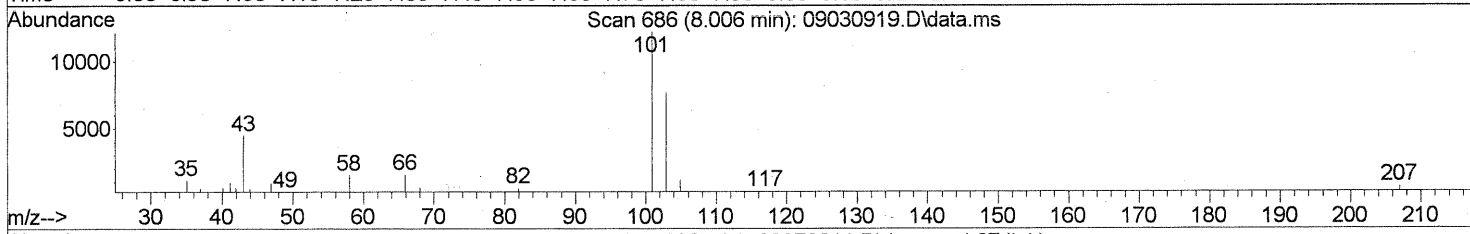
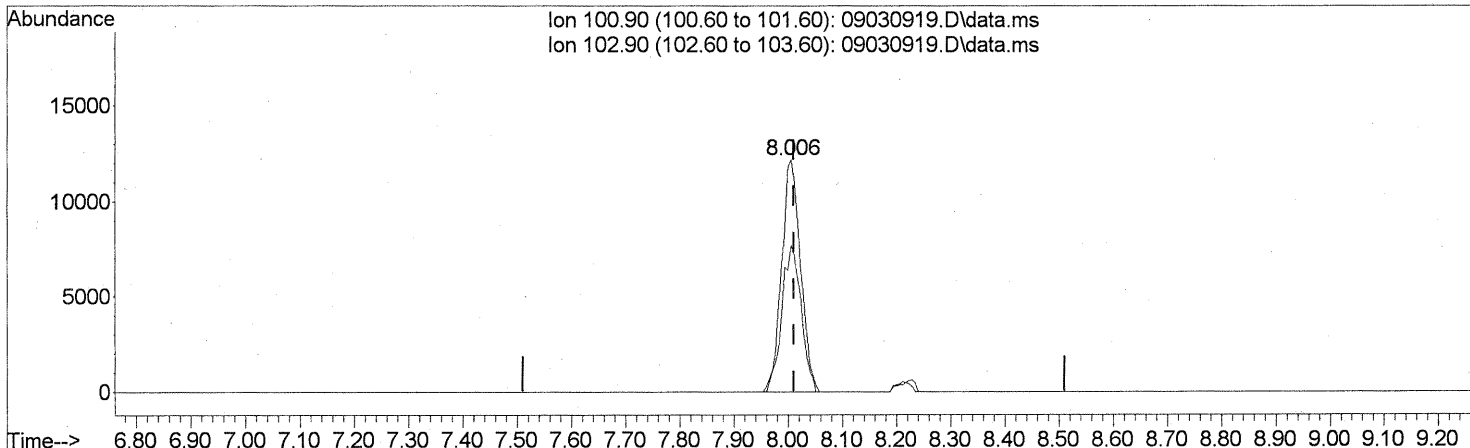
TIC: 09030919.D\data.ms

(13) Acetone (T)		
7.811min (-0.046) 104.31ng		
response 1253888		
Ion	Exp%	Act%
58.00	100	100
43.00	331.30	374.59#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

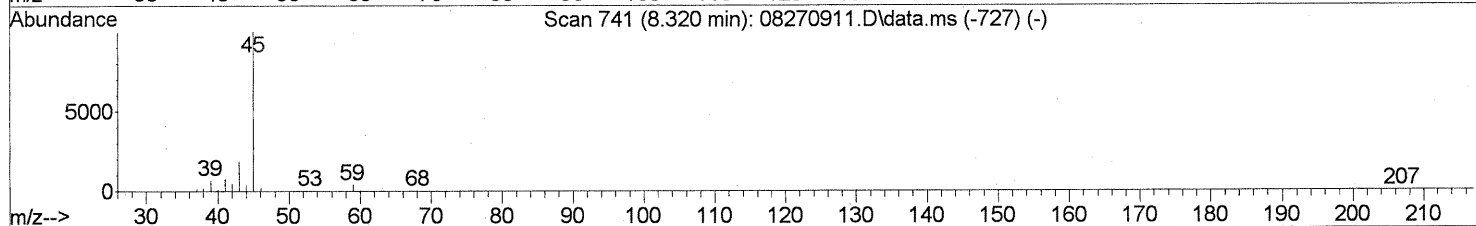
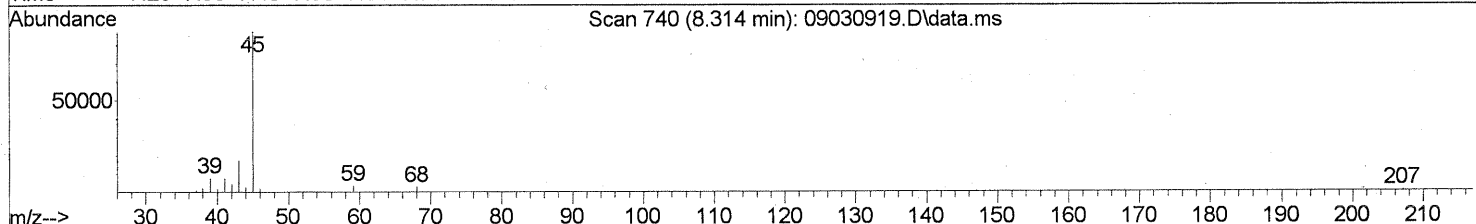
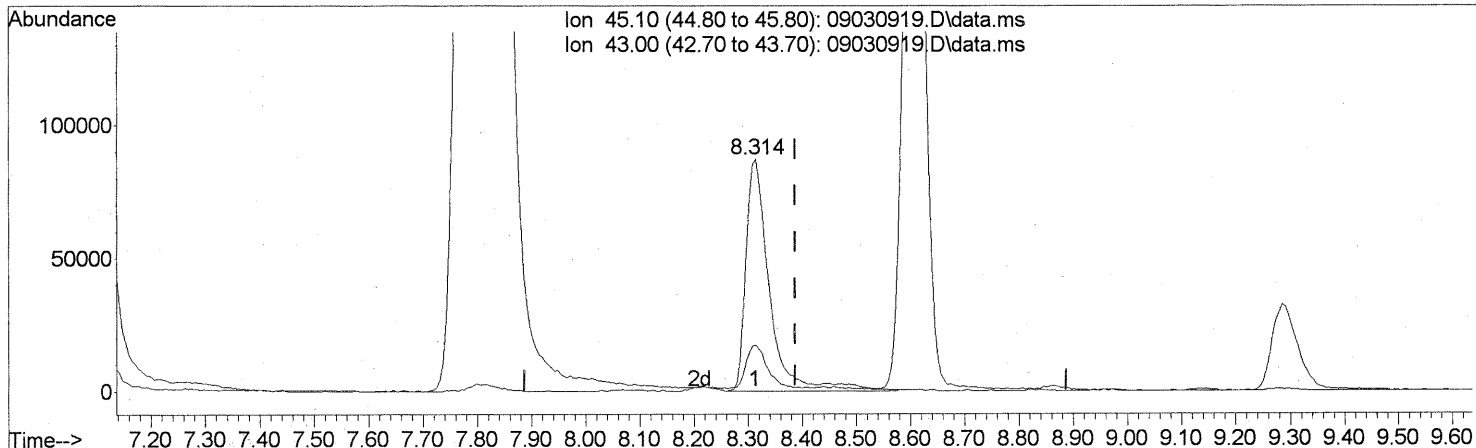
(14) Trichlorofluoromethane (T)  
 8.006min (-0.006) 1.02ng  
 response 29421

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	64.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 08:52:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

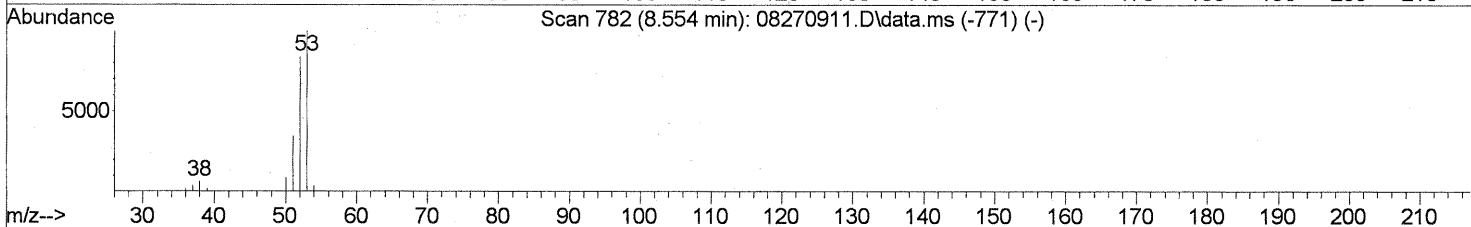
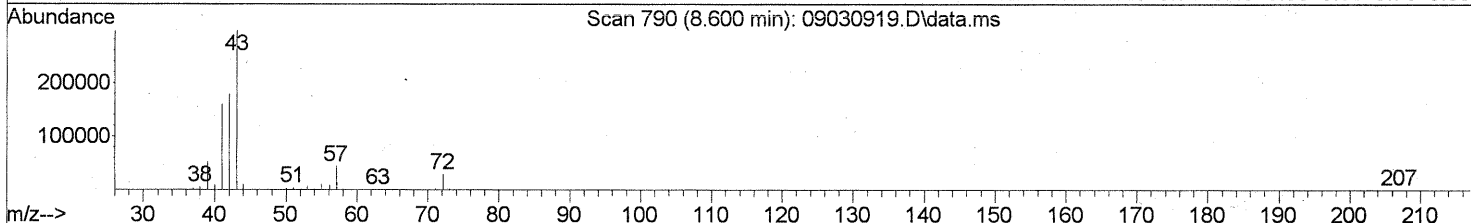
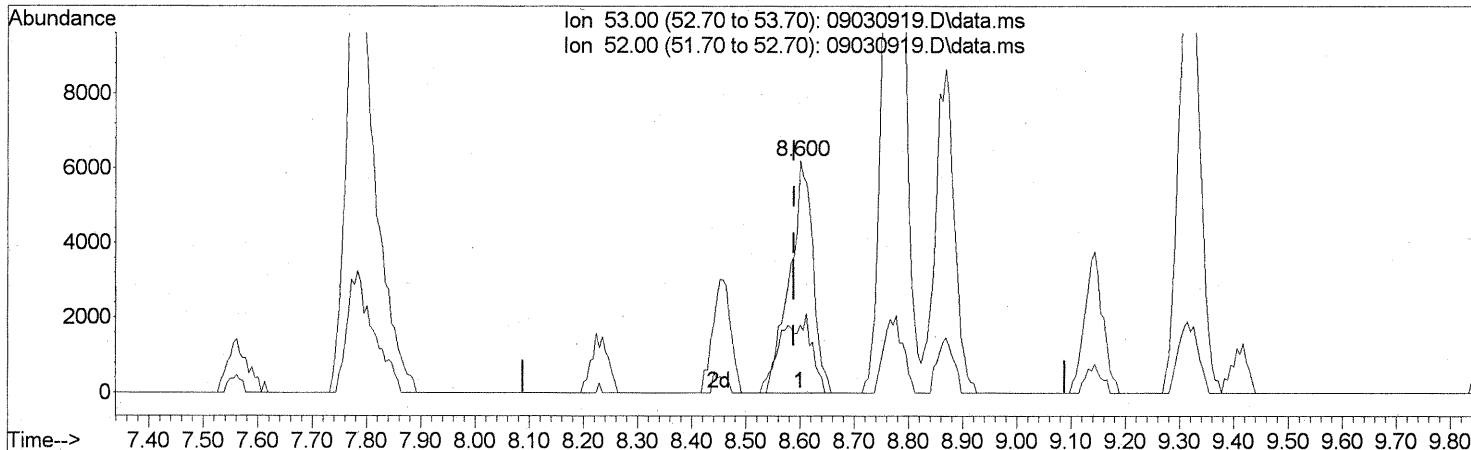
(15) 2-Propanol (Isopropanol) (T)  
 8.314min (-0.074) 6.57ng  
 response 262555

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	17.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(16) Acrylonitrile (T)  
 8.600min (+0.011) 0.95ng  
 response 18818

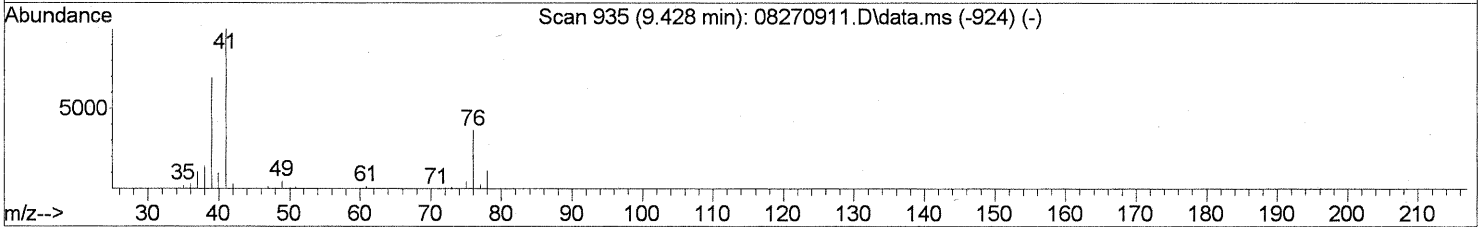
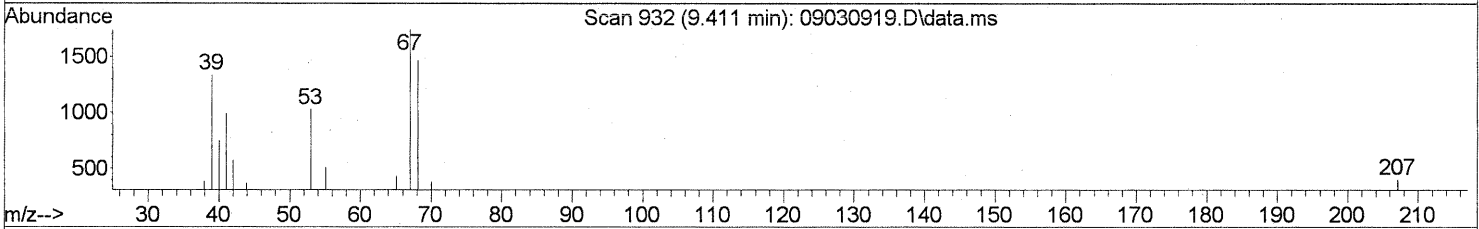
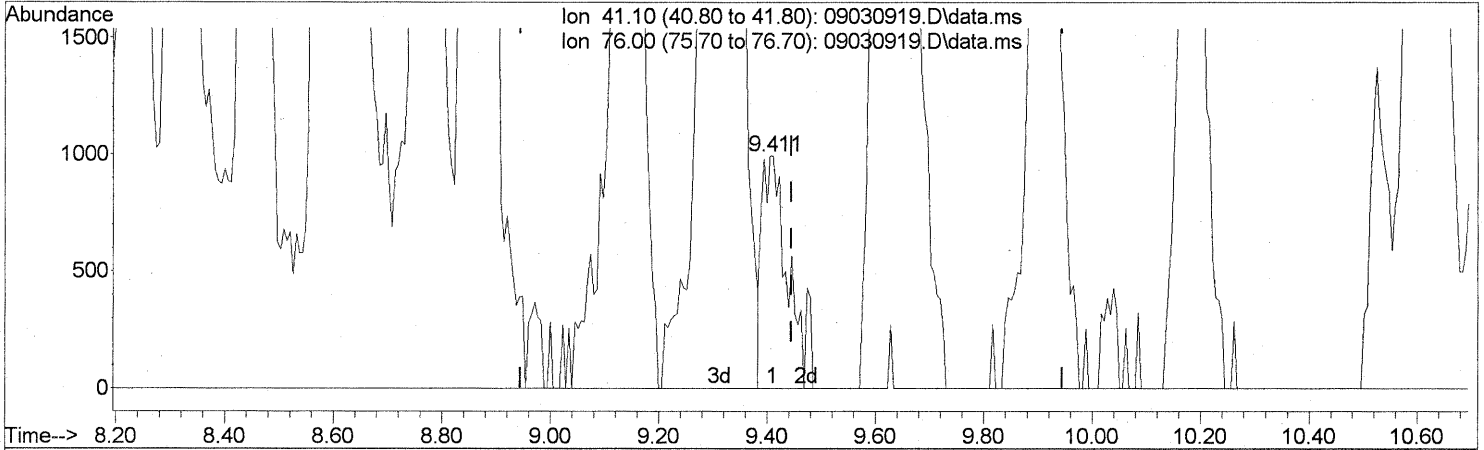
Ion	Exp%	Act%
53.00	100	100
52.00	80.50	42.23#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(20) 3-Chloro-1-propene (Allyl Chloride) (T)

9.411min (-0.034) 0.13ng

response 3102

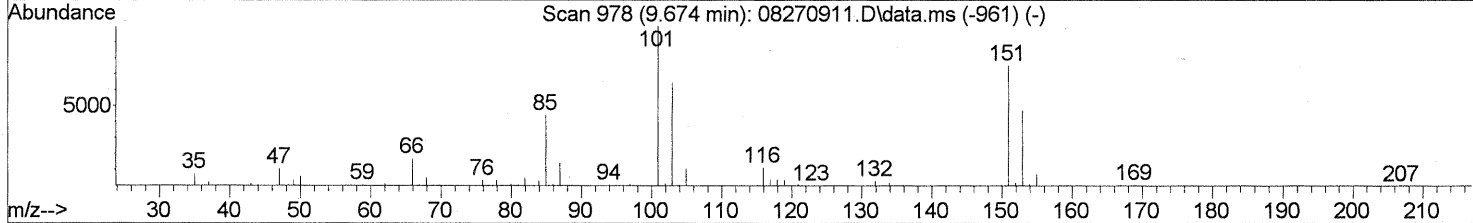
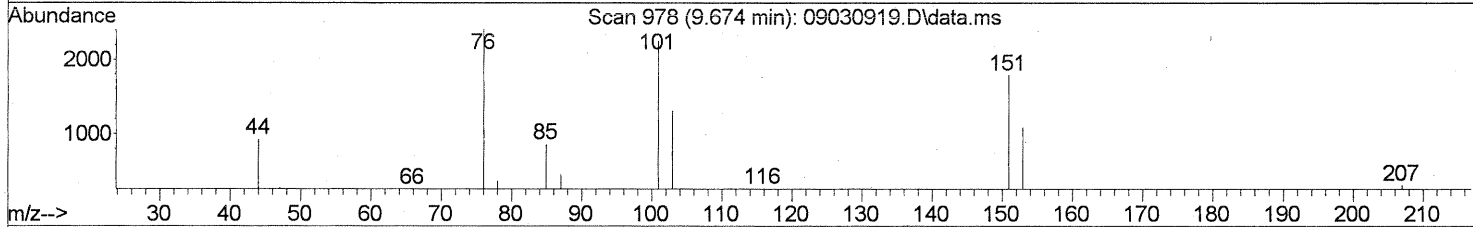
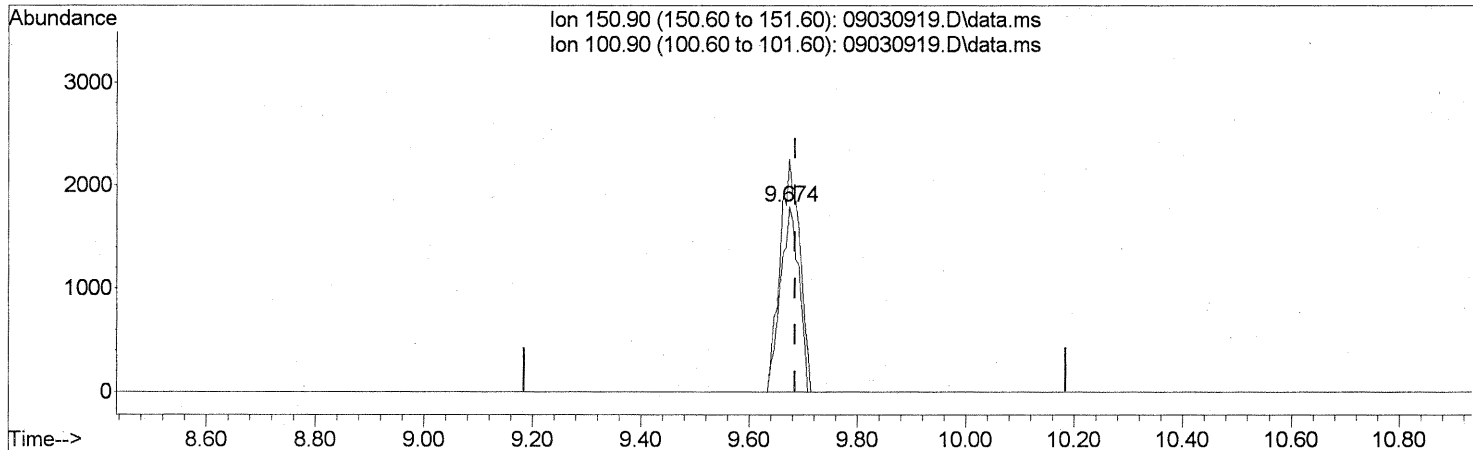
Ion	Exp%	Act%
41.10	100	100
76.00	33.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*lm 9/10/09*  
*lu 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.674min (-0.011) 0.37ng

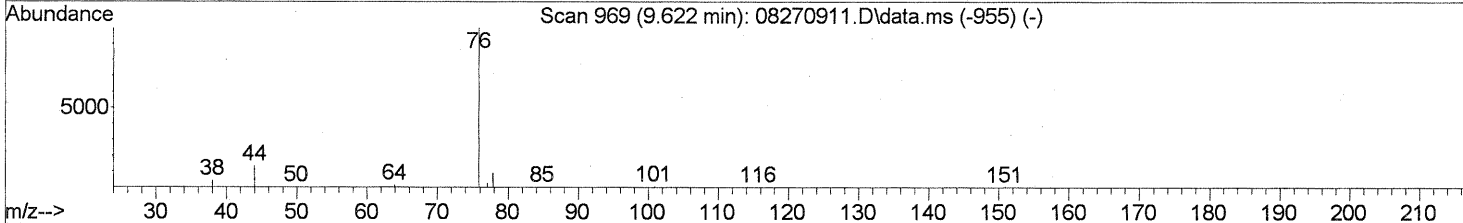
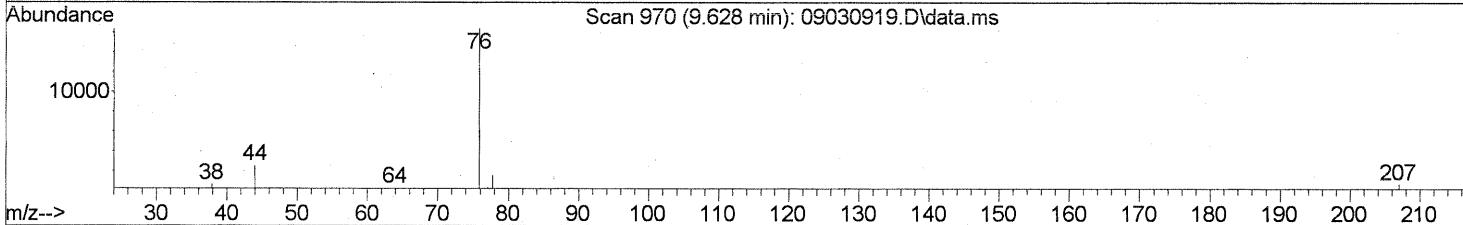
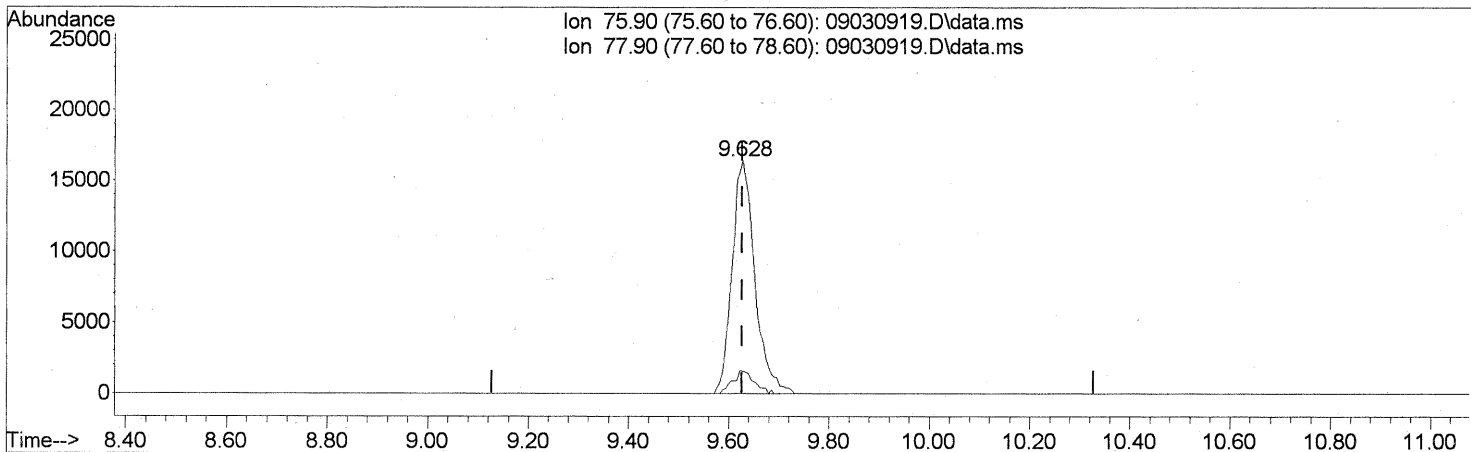
response 4251

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	135.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

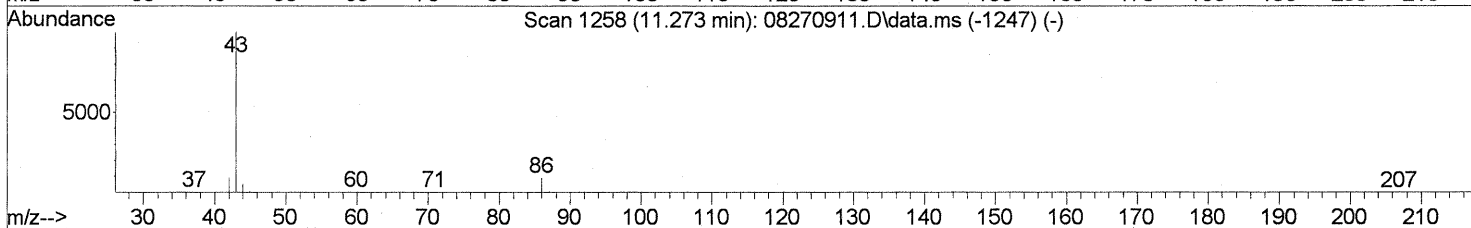
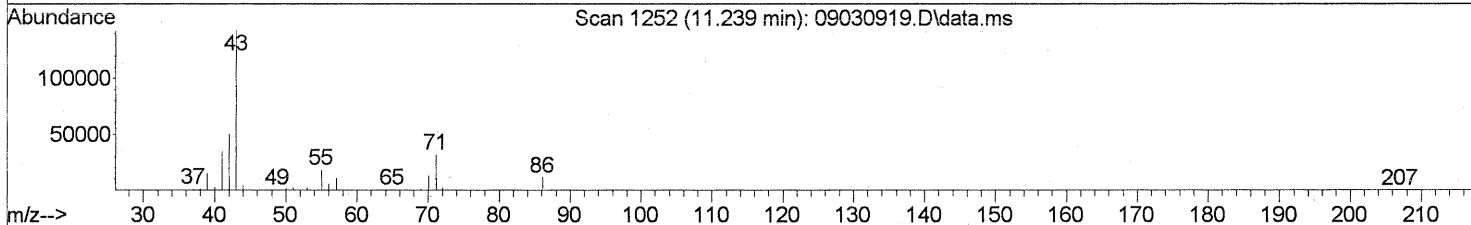
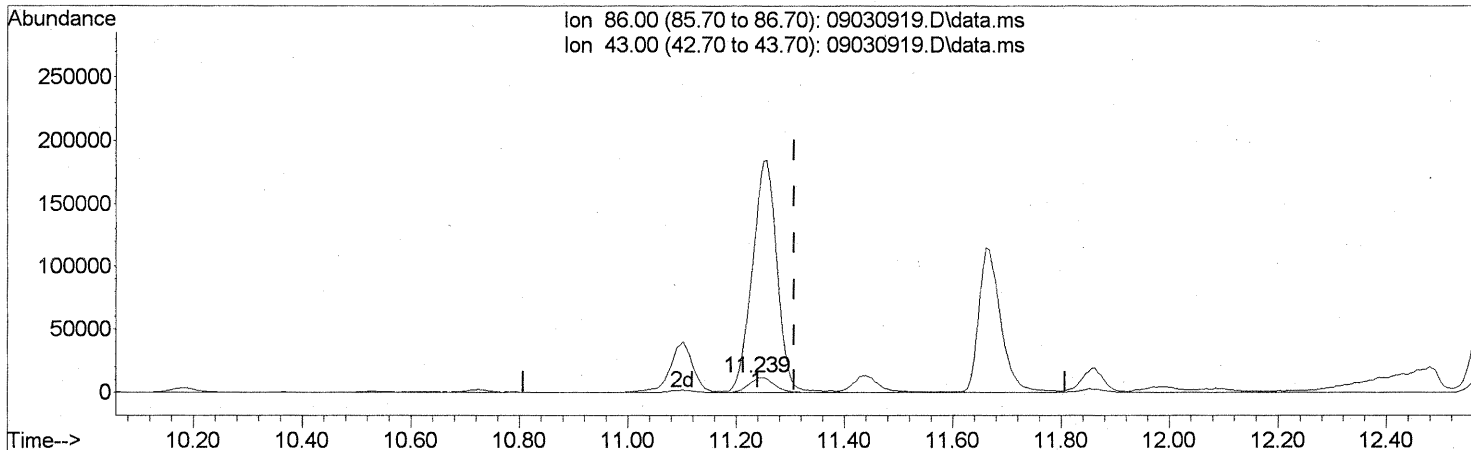
(22) Carbon Disulfide (T)  
 9.628min (+0.000) 0.95ng  
 response 51475

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	9.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(26) Vinyl Acetate (T)

11.239min (-0.069) 12.30ng

response 37055

Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1571.77#
0.00	0.00	0.00
0.00	0.00	0.00

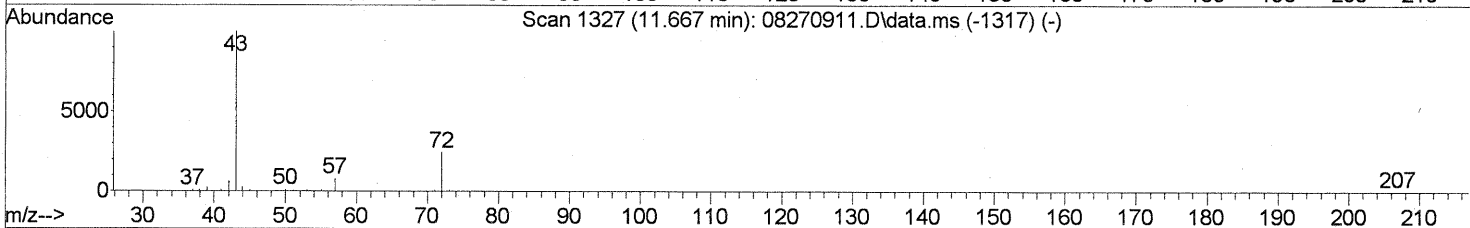
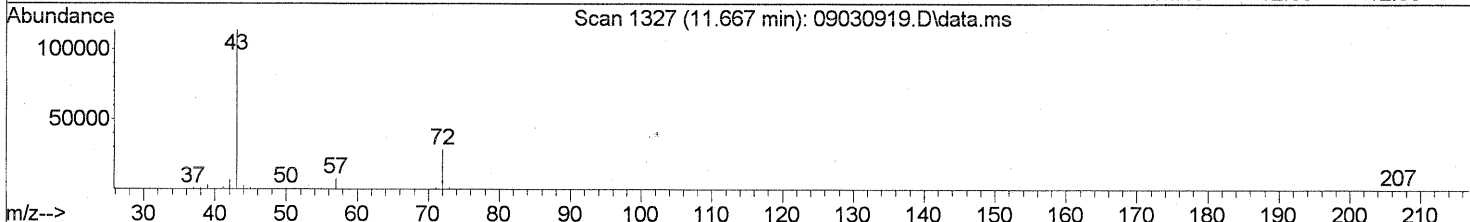
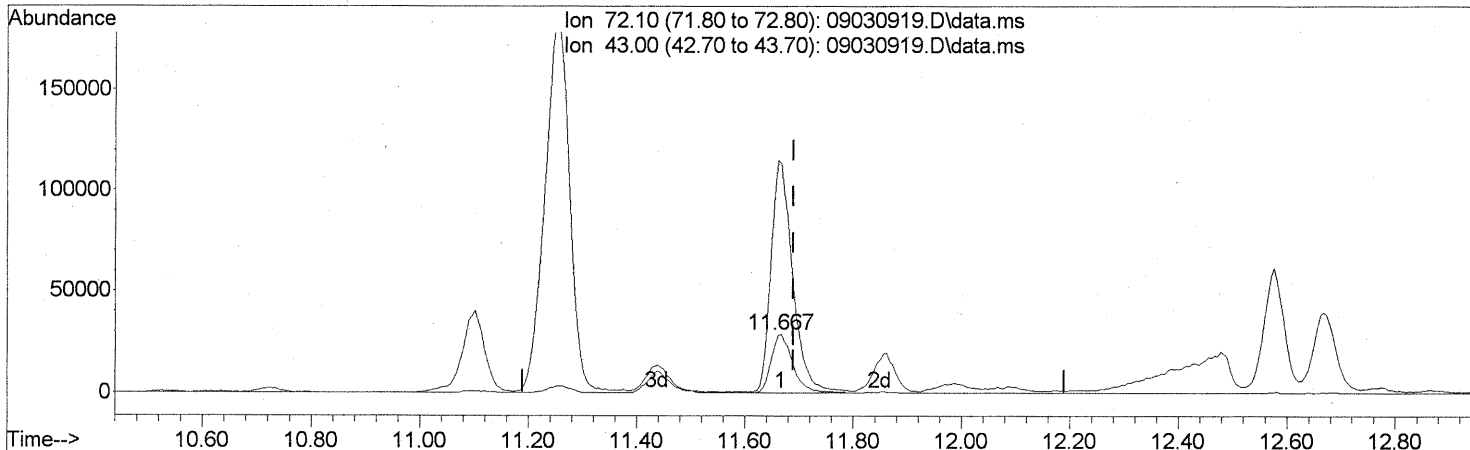
*FD*  
*11/9/10/09*  
*11/9/10/09*



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(27) 2-Butanone (MEK) (T)

11.667min (-0.023) 8.11ng

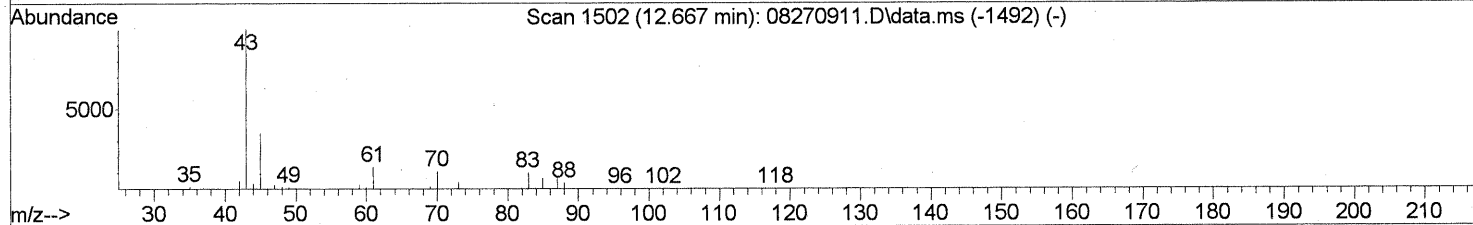
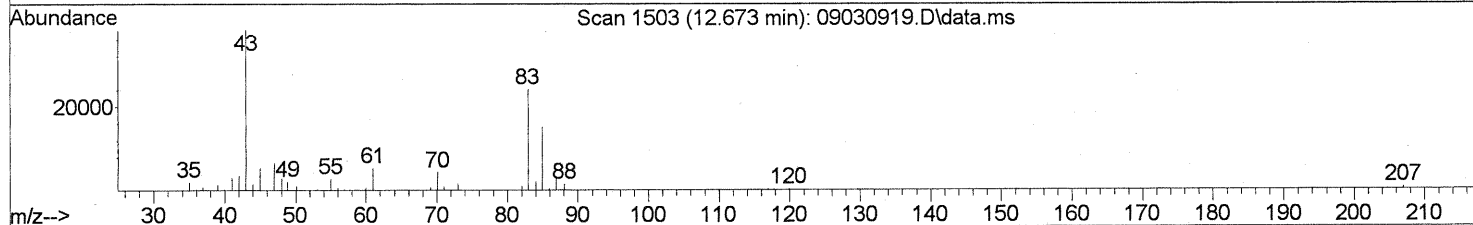
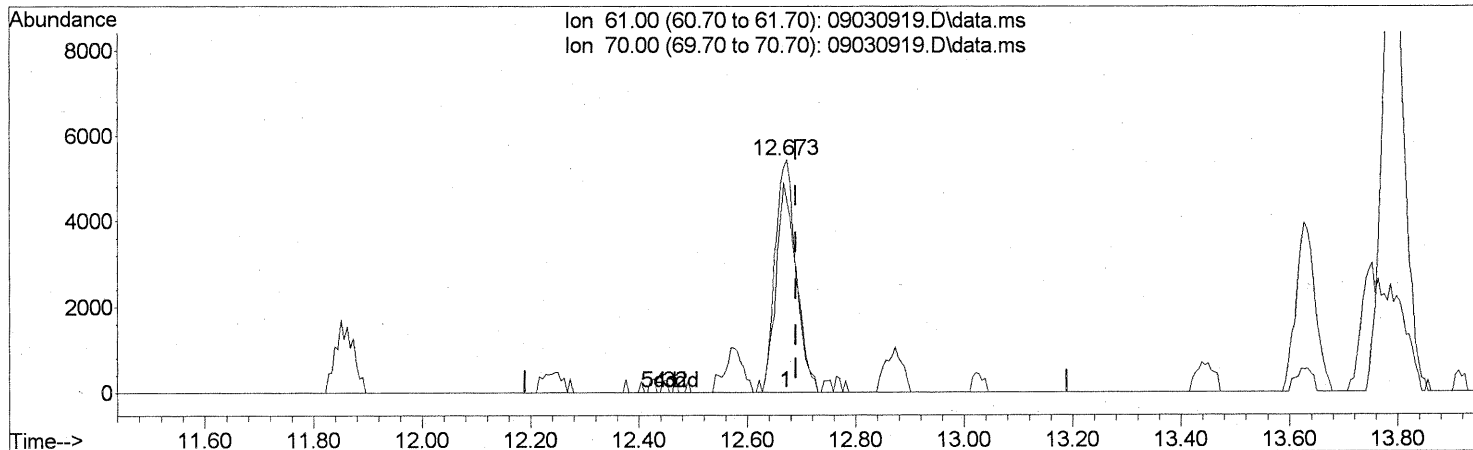
response 78700

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	403.07#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

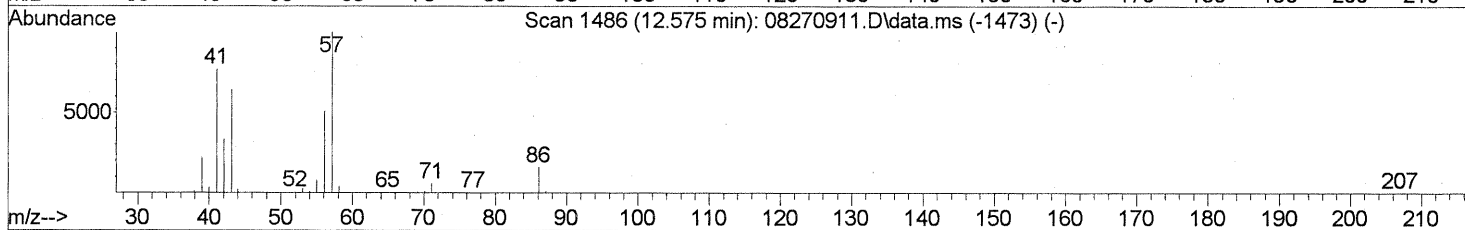
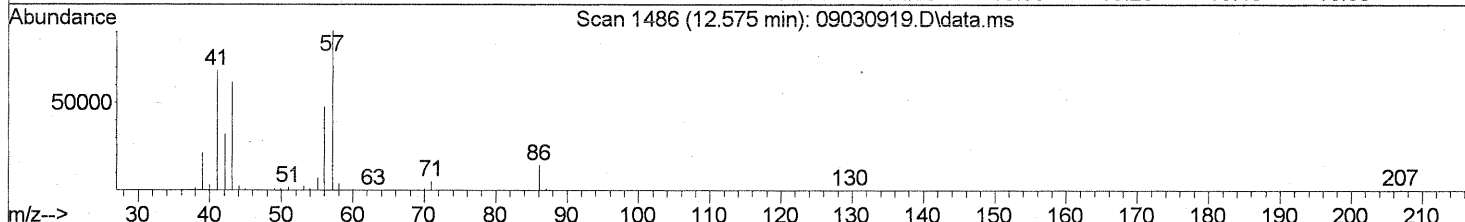
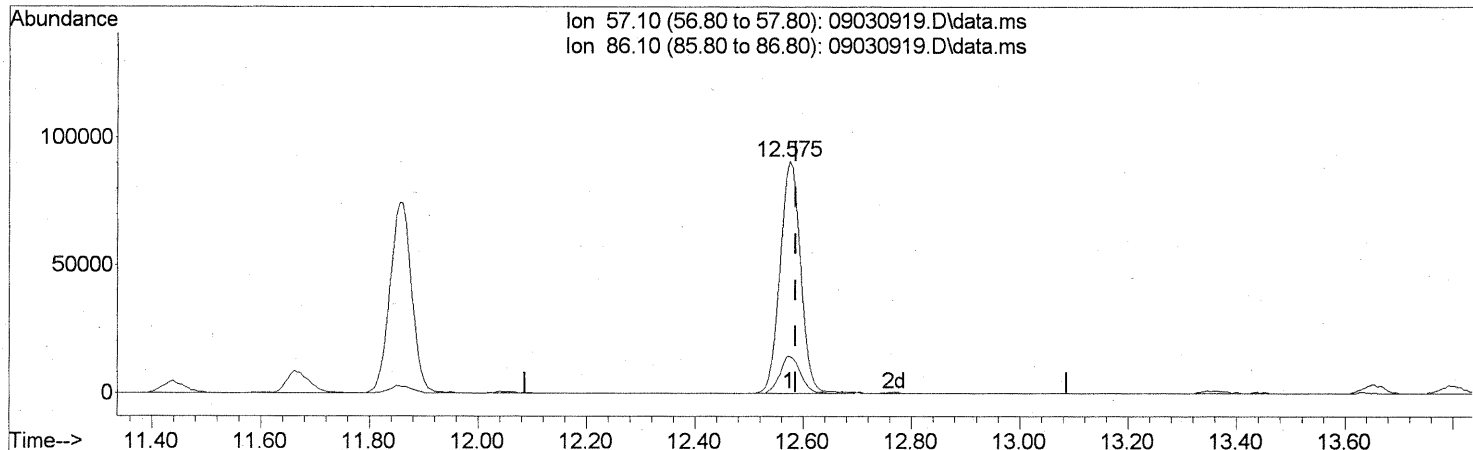
(30) Ethyl Acetate (T)  
 12.673min (-0.017) 2.82ng  
 response 14703

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	87.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

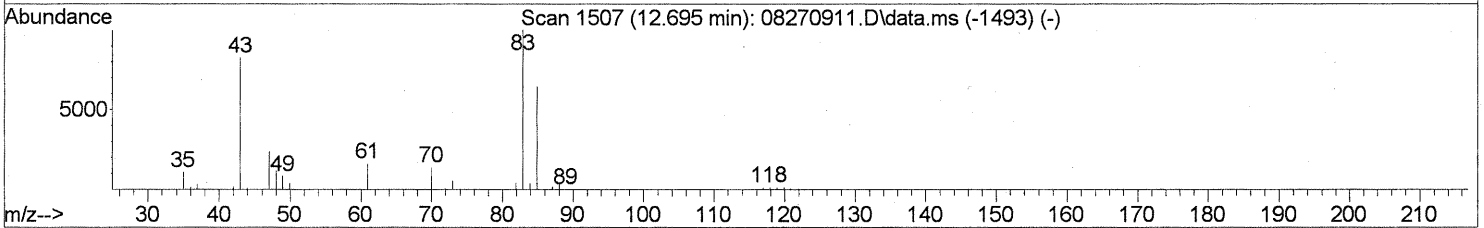
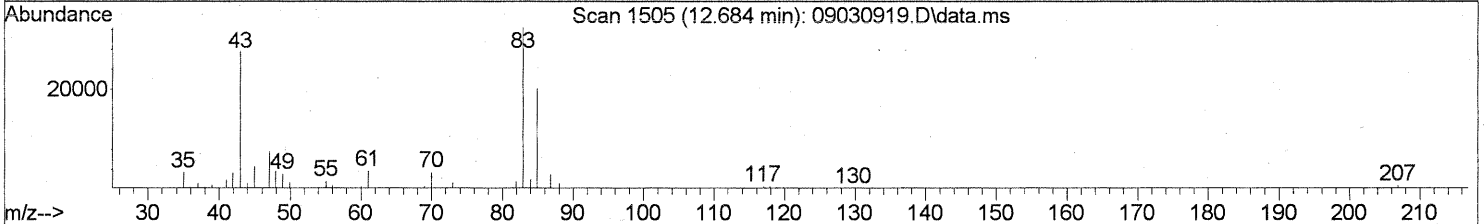
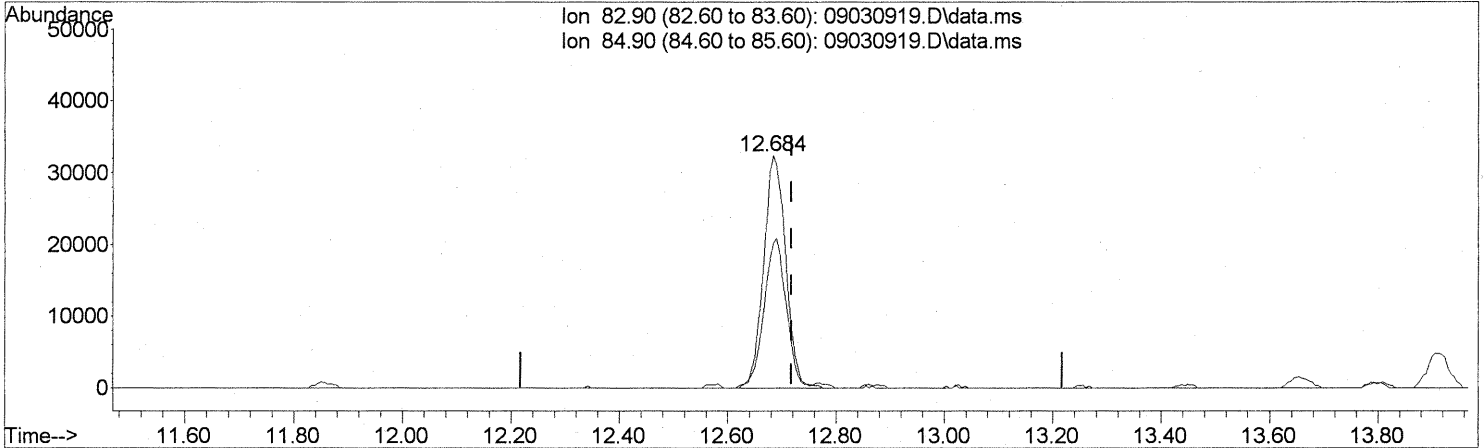
(31) n-Hexane (T)  
 12.575min (-0.011) 9.19ng  
 response 238773

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	15.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

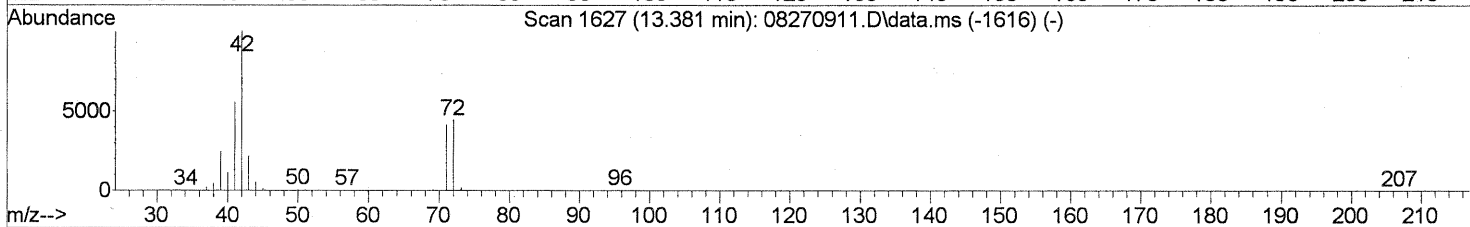
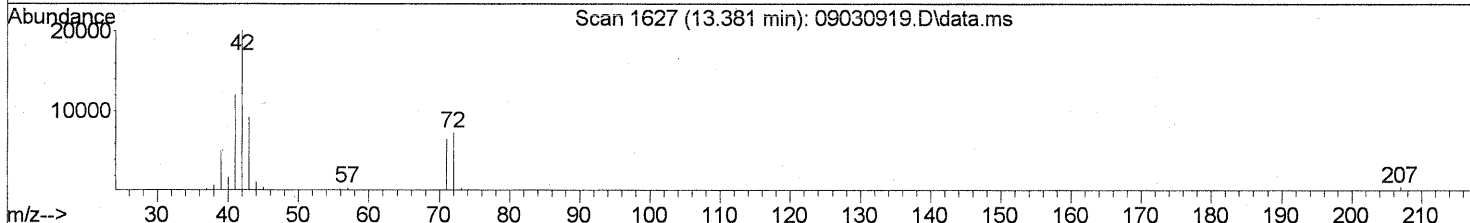
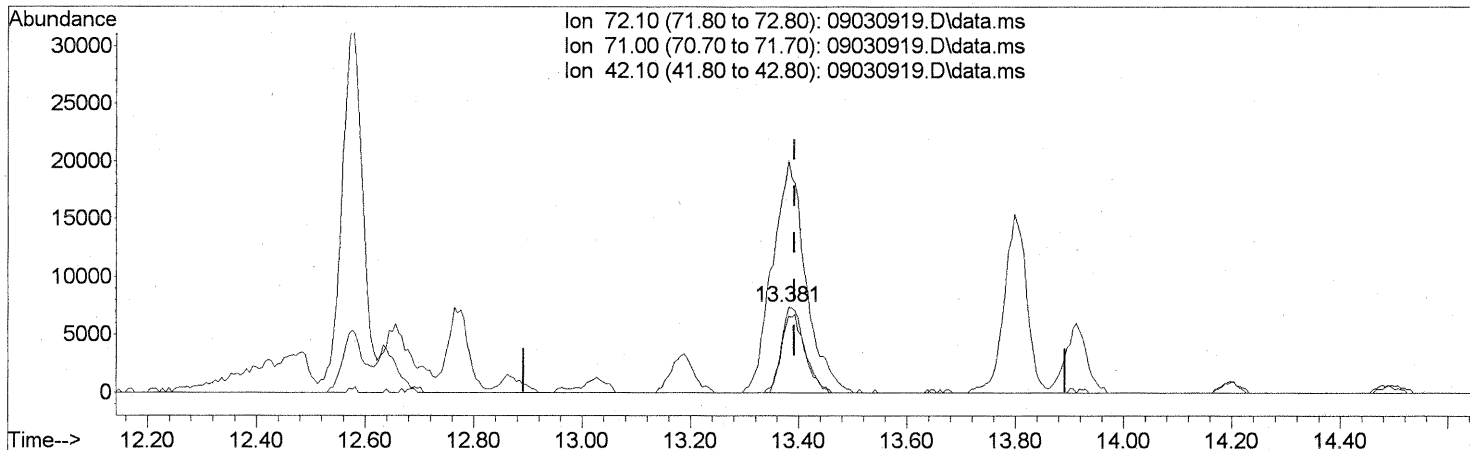
(32) Chloroform (T)  
 12.684min (-0.034) 3.60ng  
 response 92152

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	64.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(34) Tetrahydrofuran (THF) (T)

13.381min (-0.011) 2.09ng

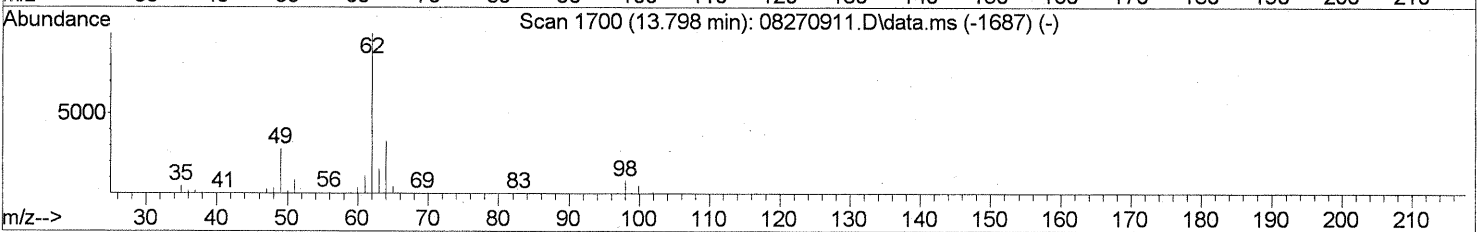
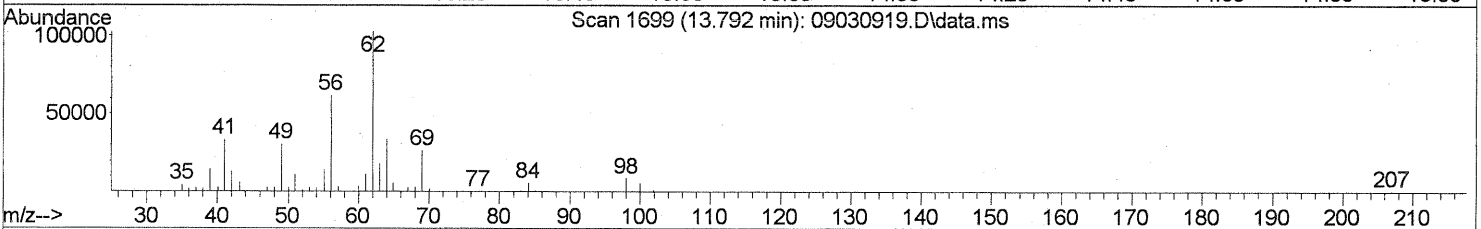
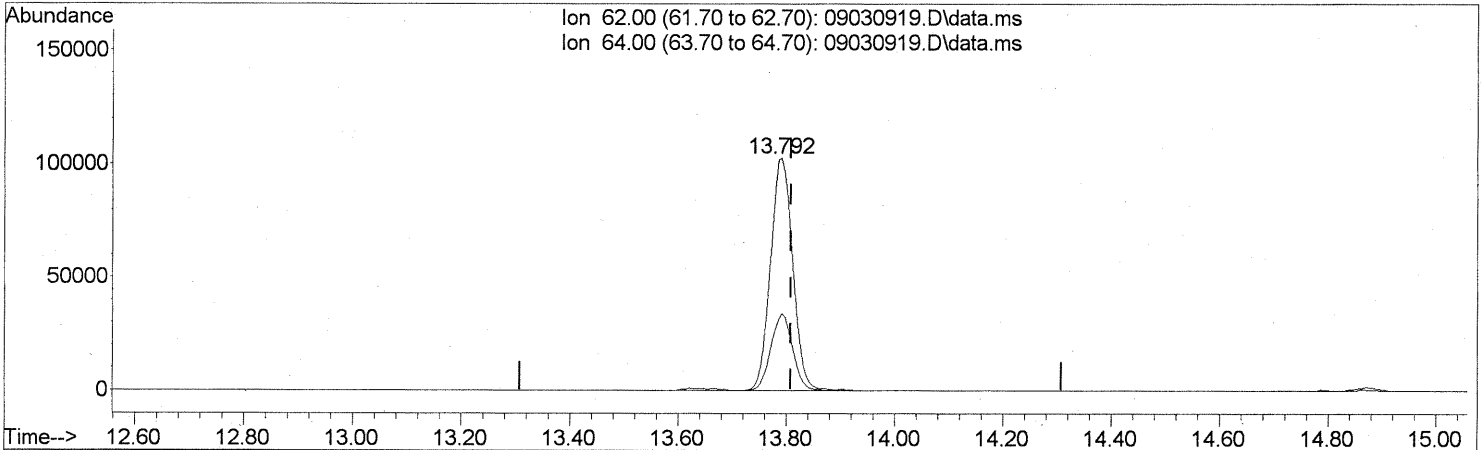
response 21991

Ion	Exp%	Act%
72.10	100	100
71.00	92.50	91.41
42.10	254.10	390.17#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(36) 1,2-Dichloroethane (T)

13.792min (-0.017) 13.61ng

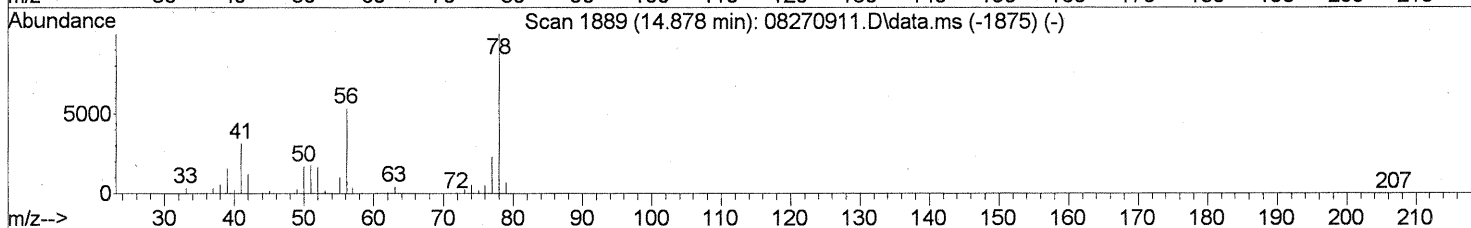
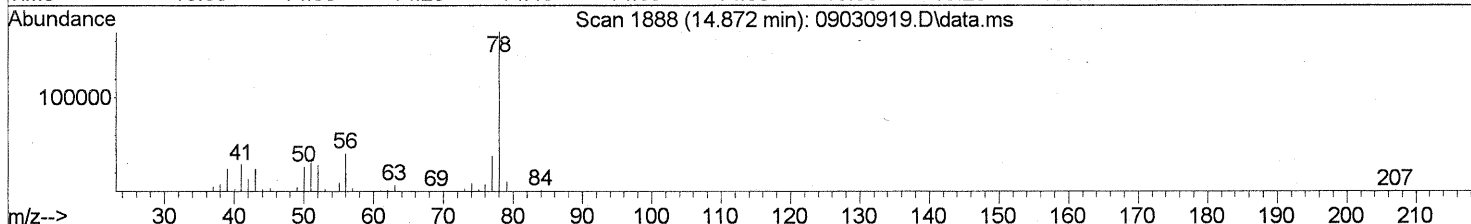
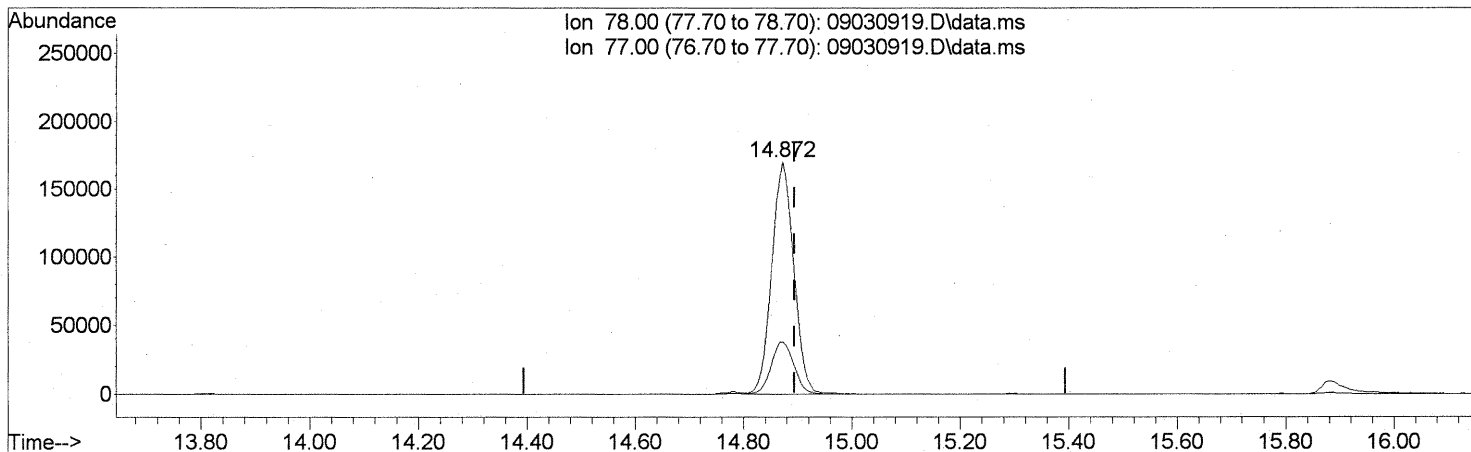
response 292526

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	32.07
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

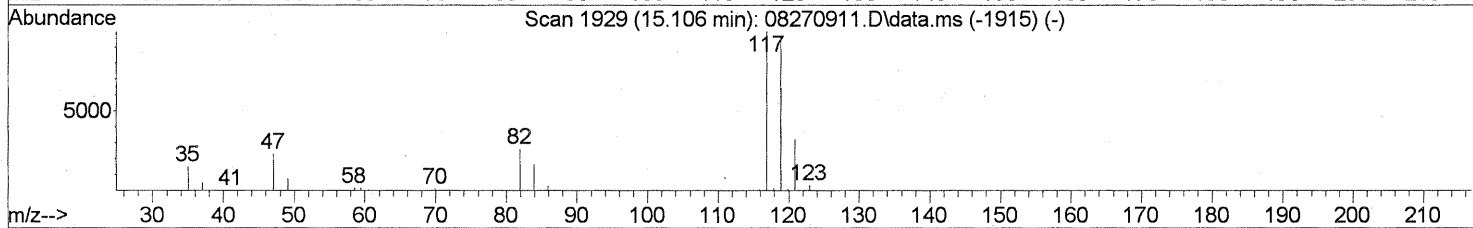
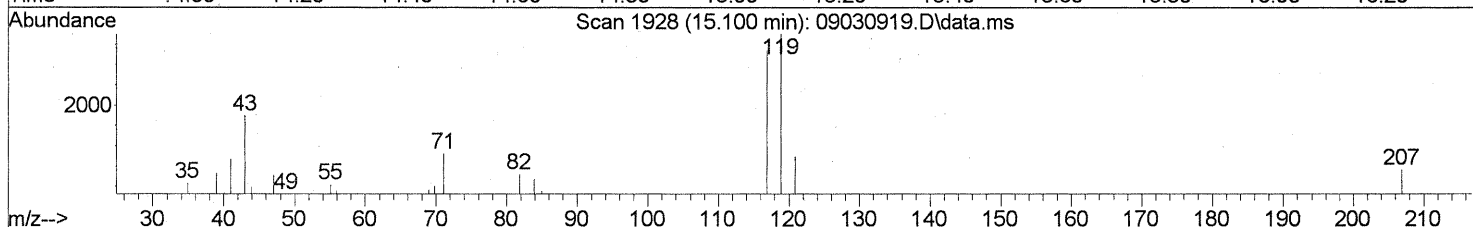
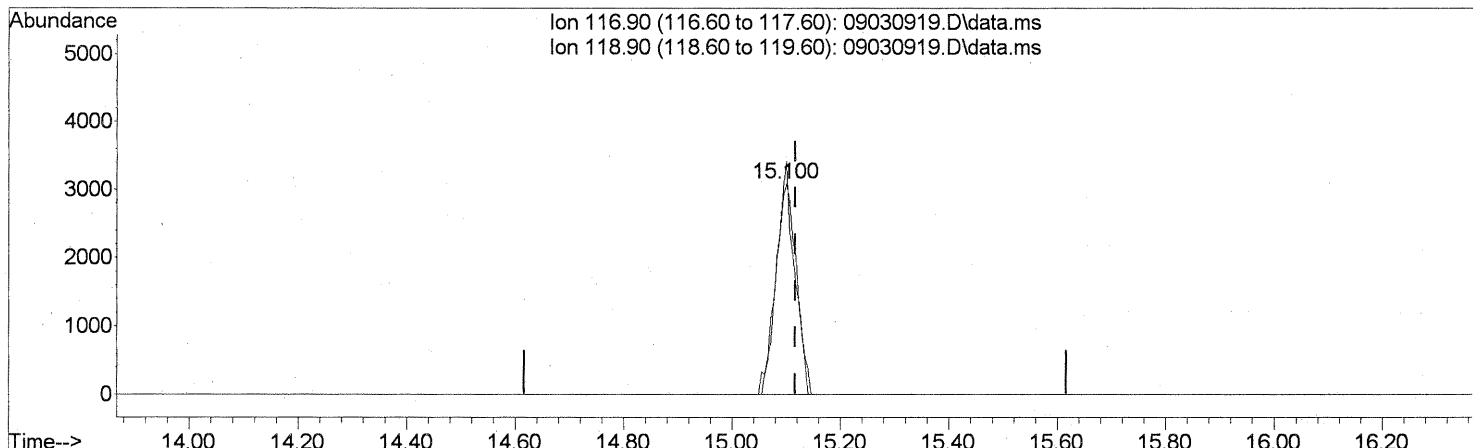
(41) Benzene (T)  
 14.872min (-0.023) 7.90ng  
 response 478949

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(42) Carbon Tetrachloride (T)  
 15.100min (-0.017) 0.39ng  
 response 7950

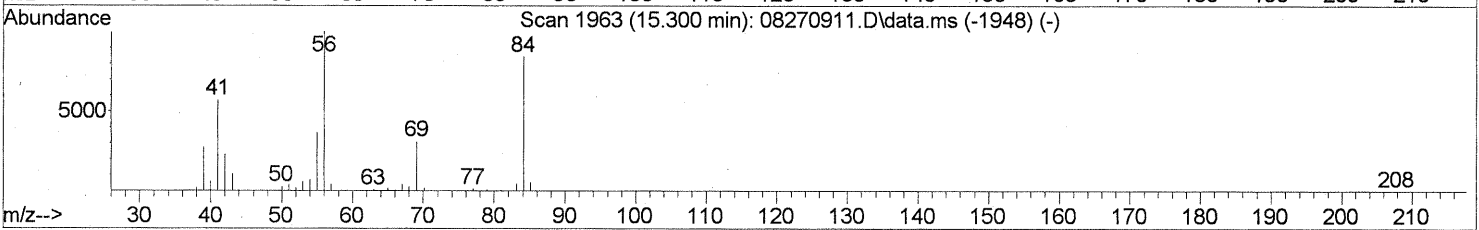
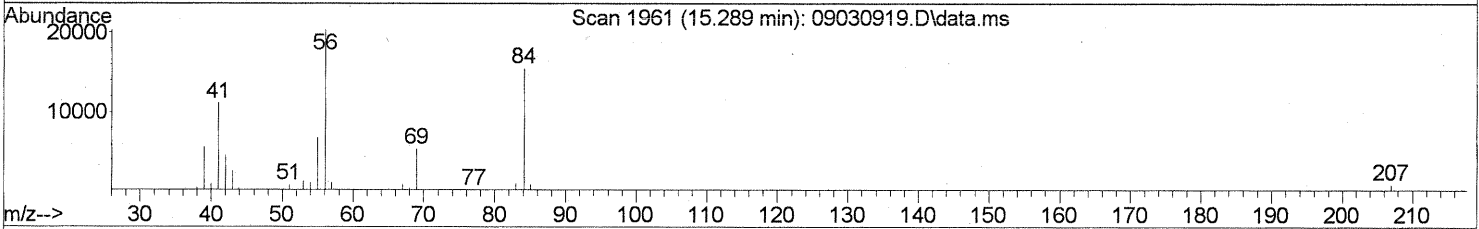
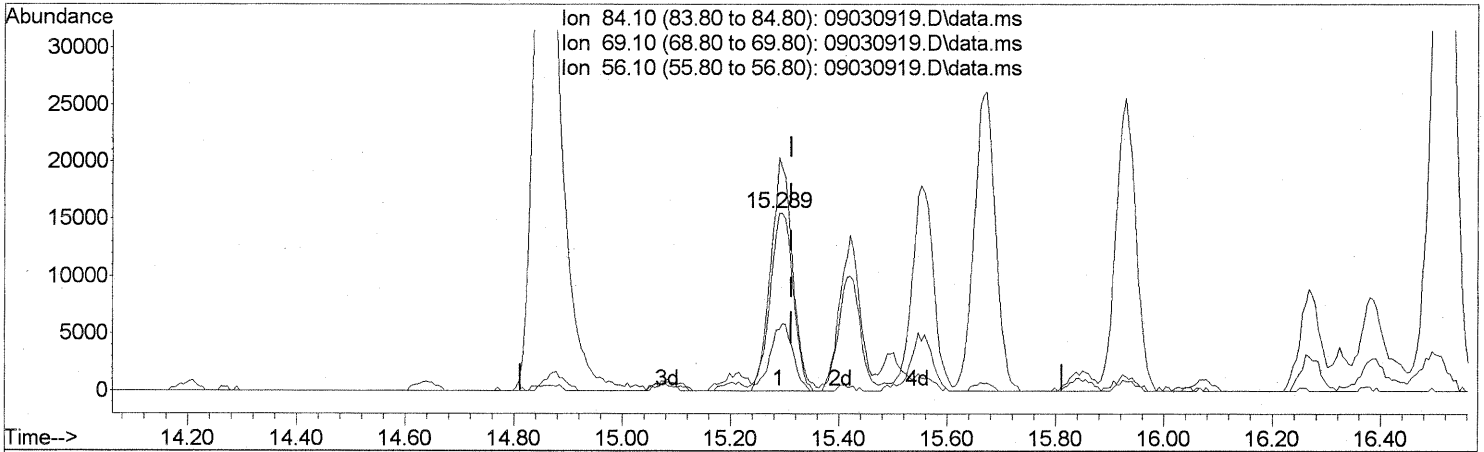
Ion	Exp%	Act%
116.90	100	100
118.90	96.20	102.30
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

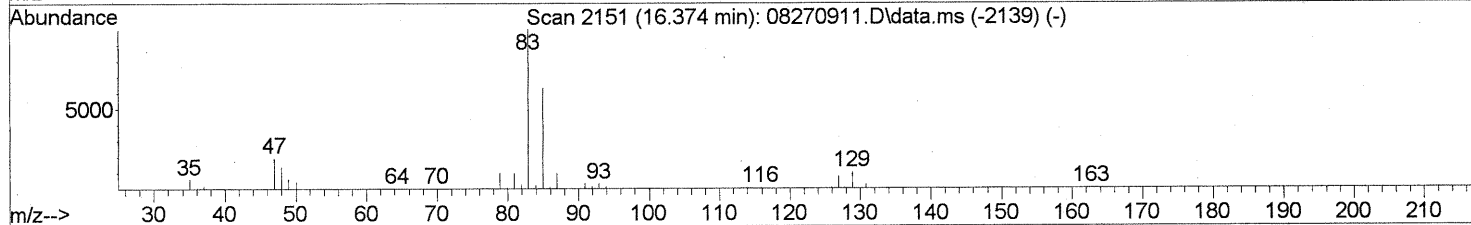
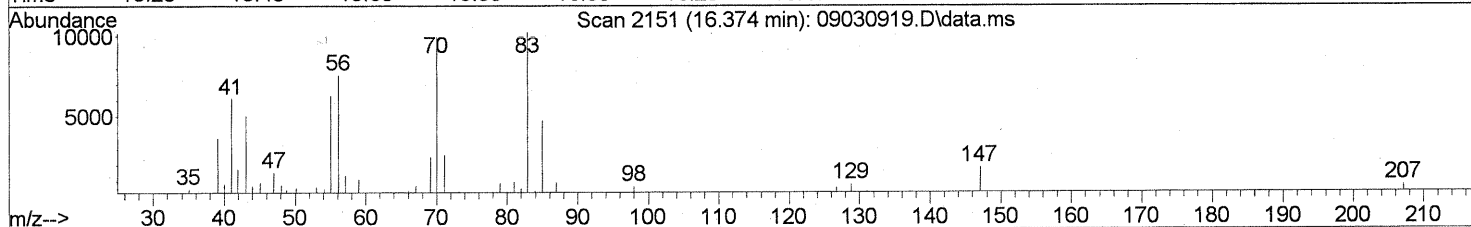
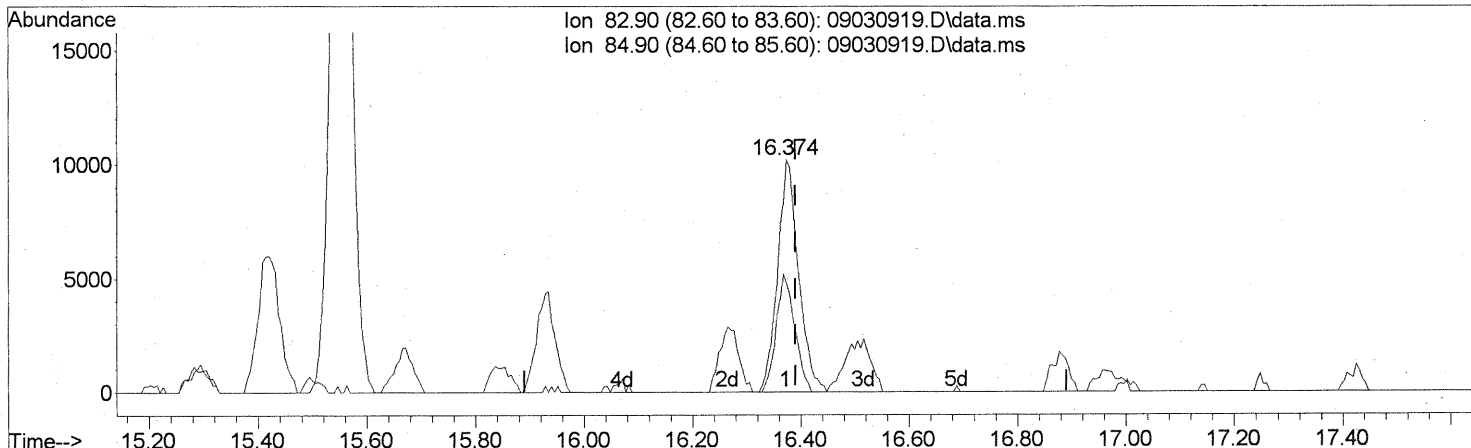
(43) Cyclohexane (T)  
 15.289min (-0.023) 2.05ng  
 response 45688

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	36.80
56.10	124.50	124.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(46) Bromodichloromethane (T)

16.374min (-0.017) 1.37ng

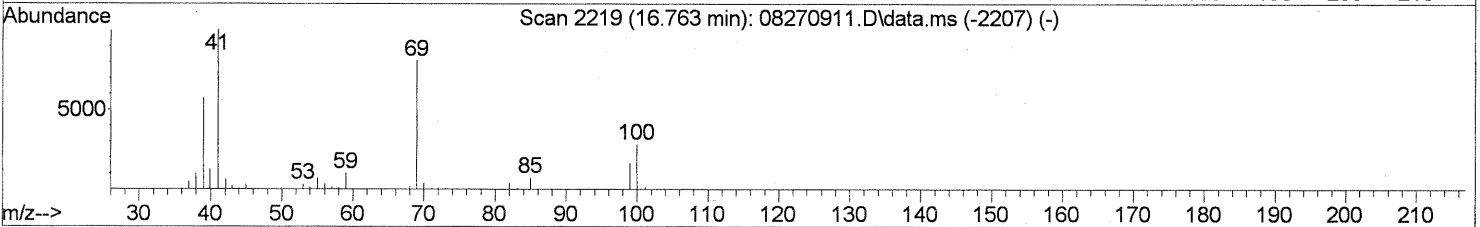
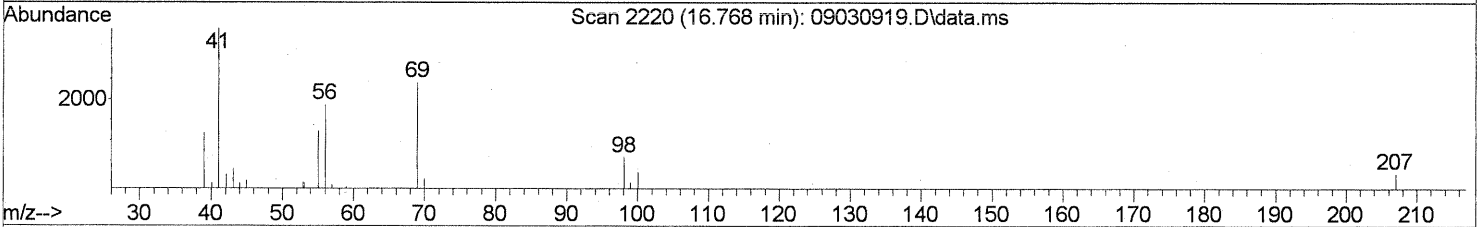
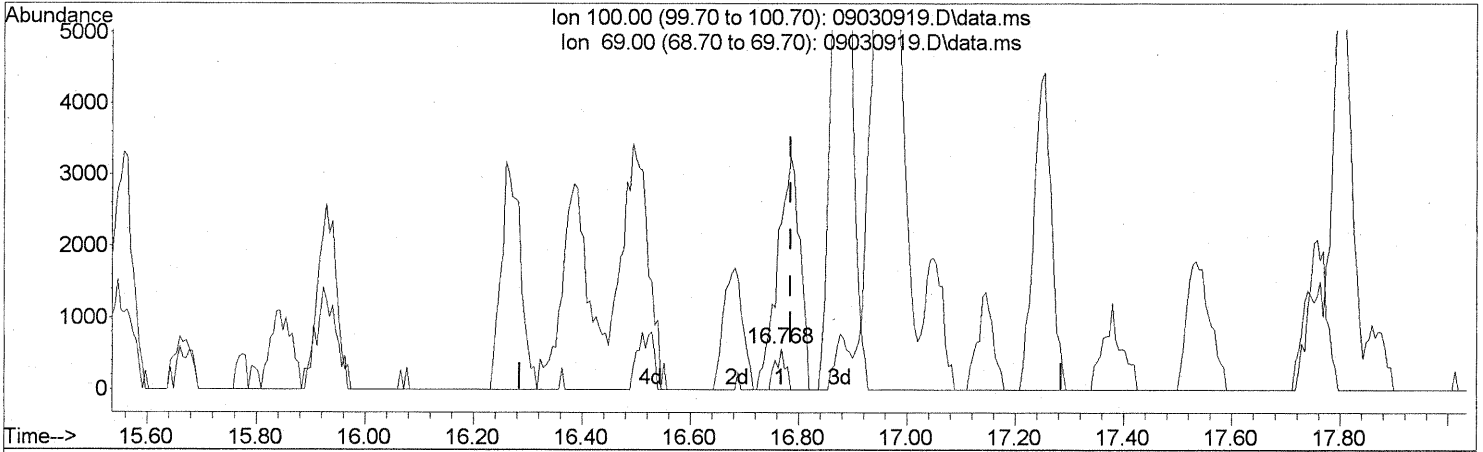
response 27359

Ion	Exp%	Act%
82.90	100	100
84.90	64.50	44.90
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(50) Methyl Methacrylate (T)

16.768min (-0.017) 0.13ng

response 736

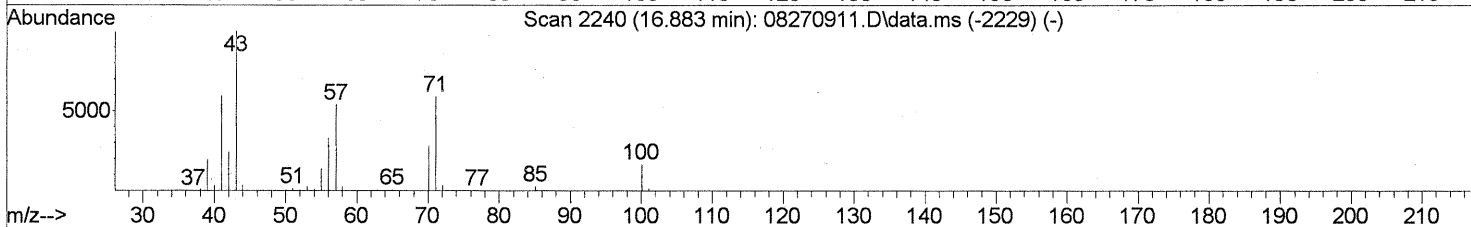
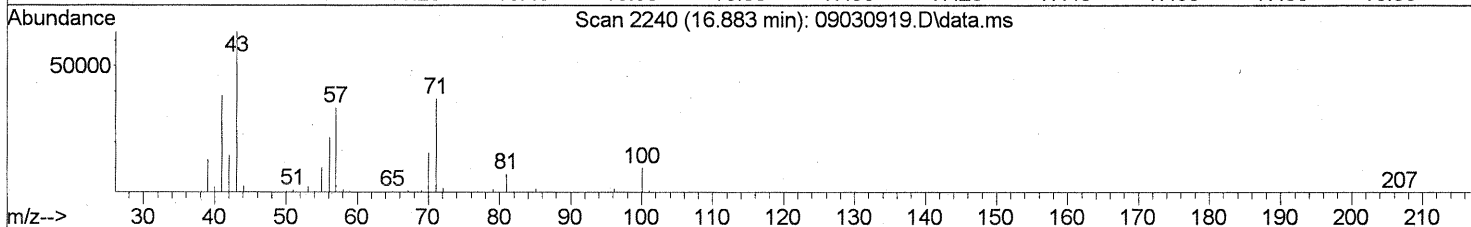
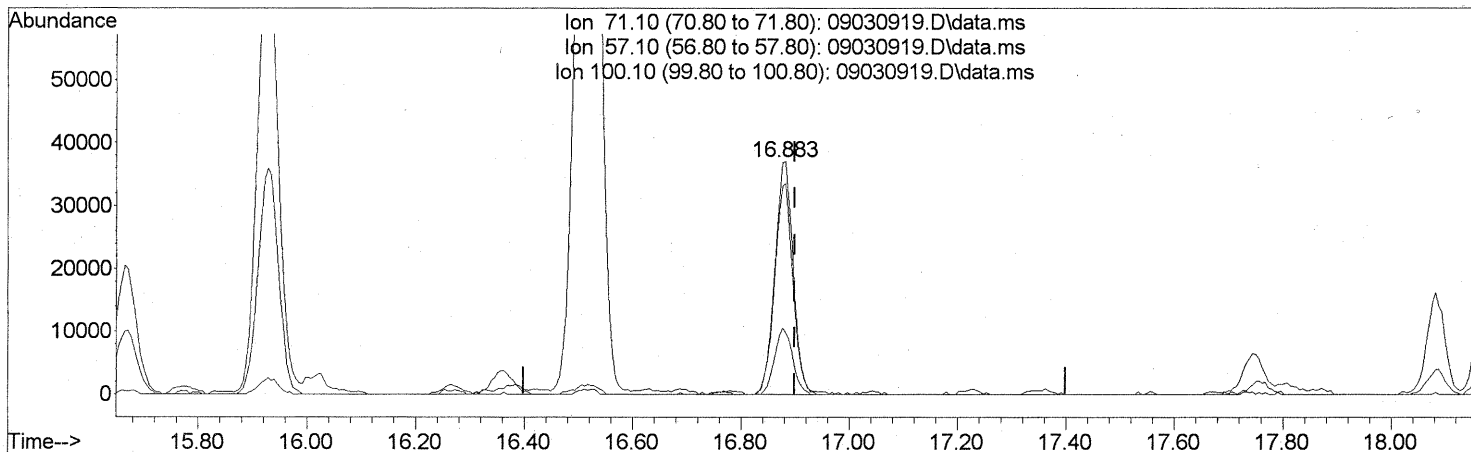
Ion	Exp%	Act%
100.00	100	100
69.00	293.60	1267.12#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*LM 9/10/09*  
*UH 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

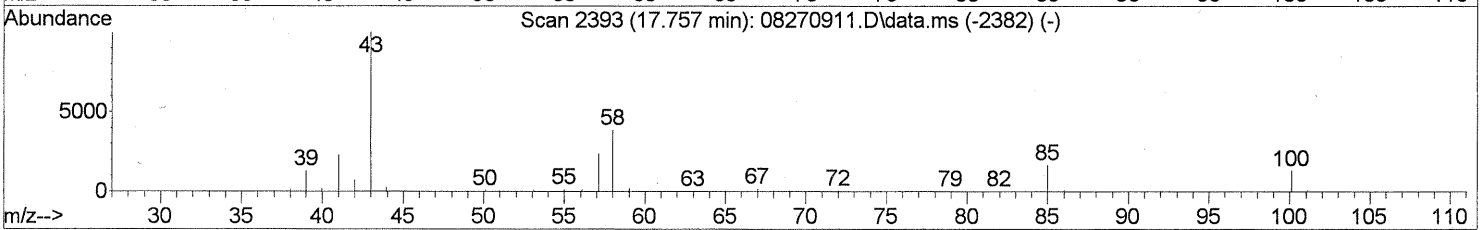
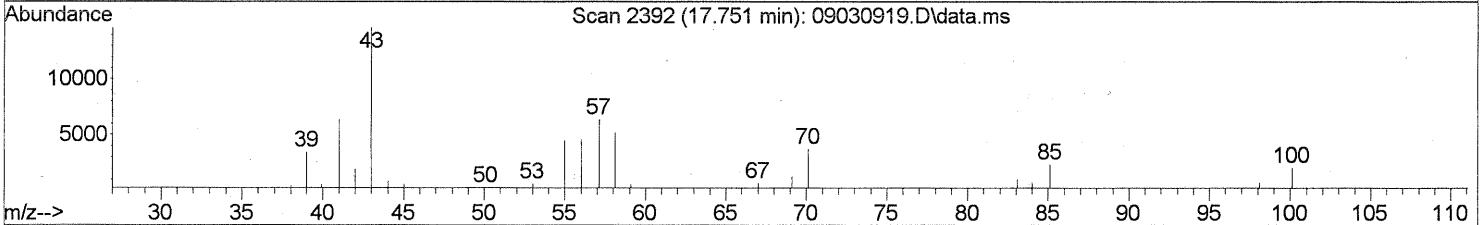
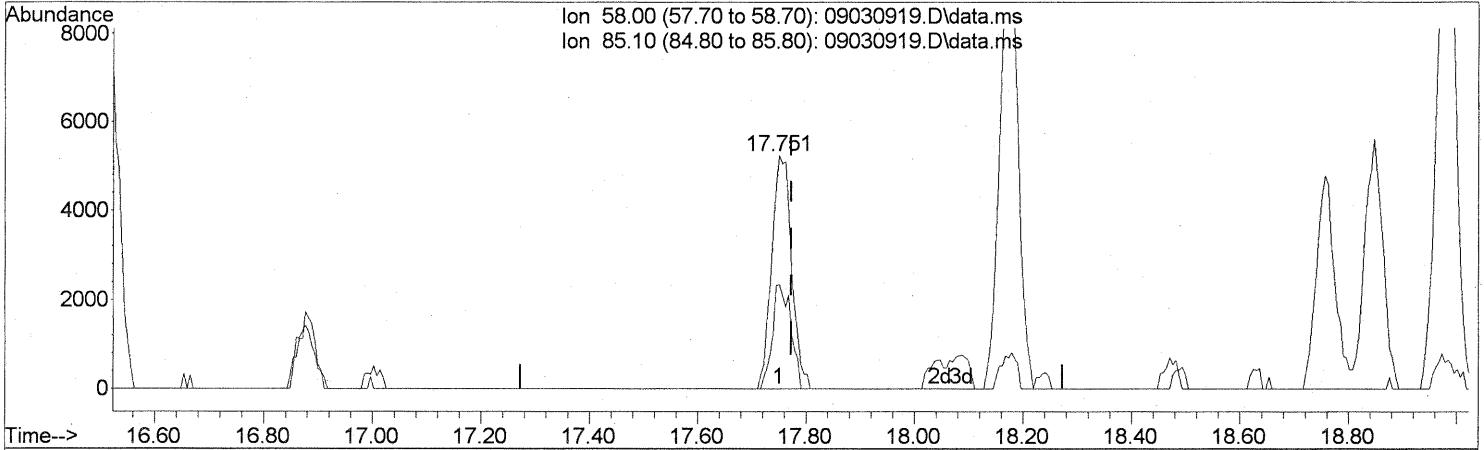
(51) n-Heptane (T)  
 16.883min (-0.017) 5.53ng  
 response 86875

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	91.52
100.10	22.00	28.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

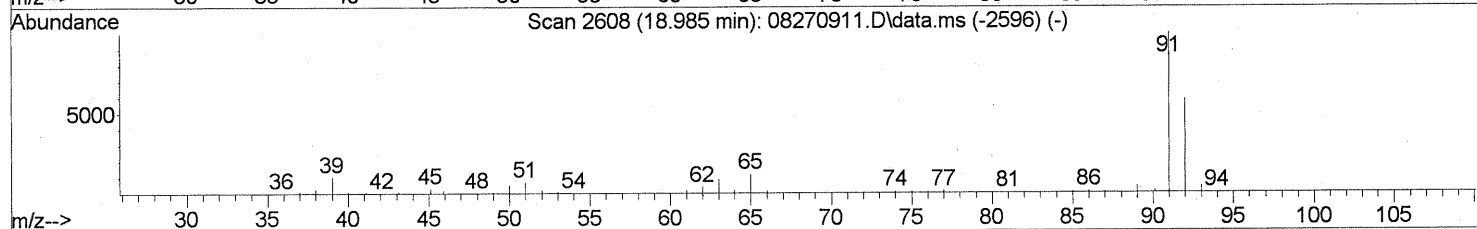
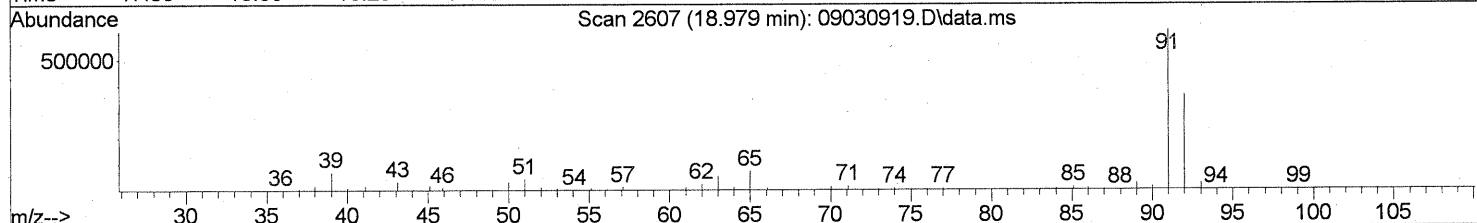
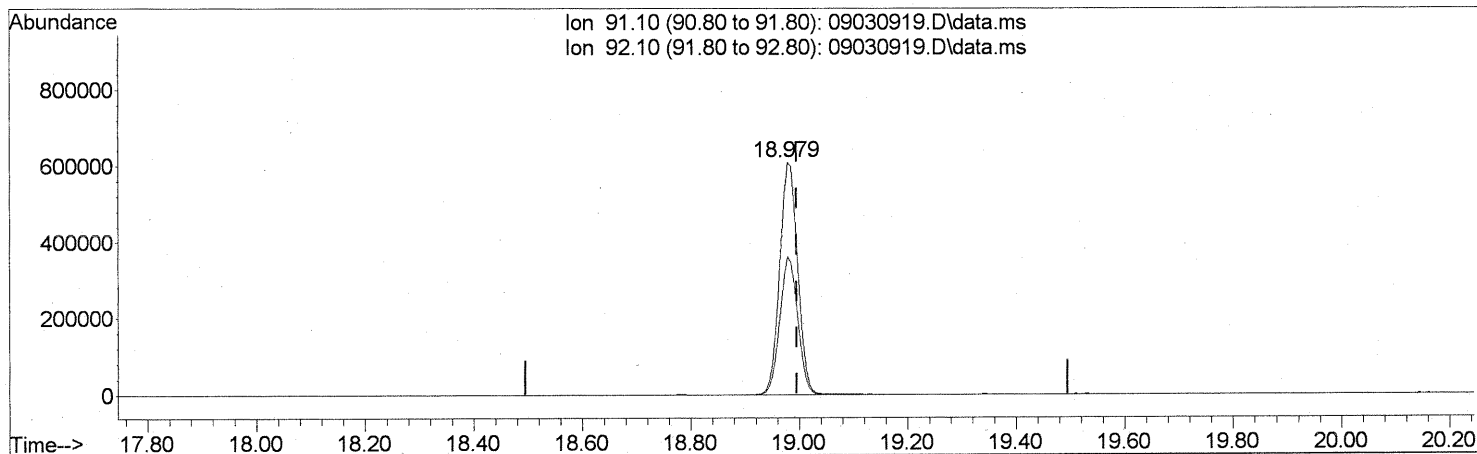
(53) 4-Methyl-2-pentanone (T)  
 17.751min (-0.023) 0.96ng  
 response 13333

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	41.56
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

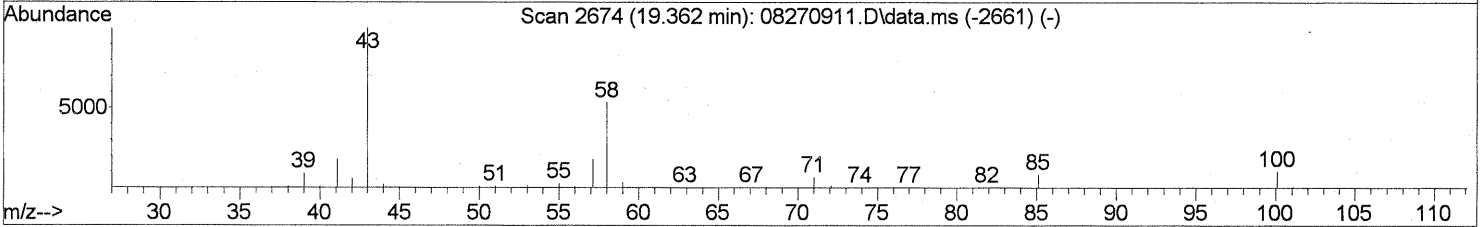
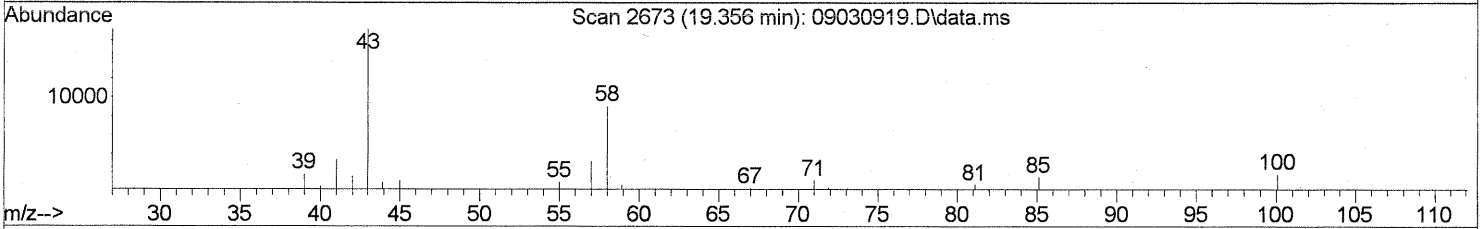
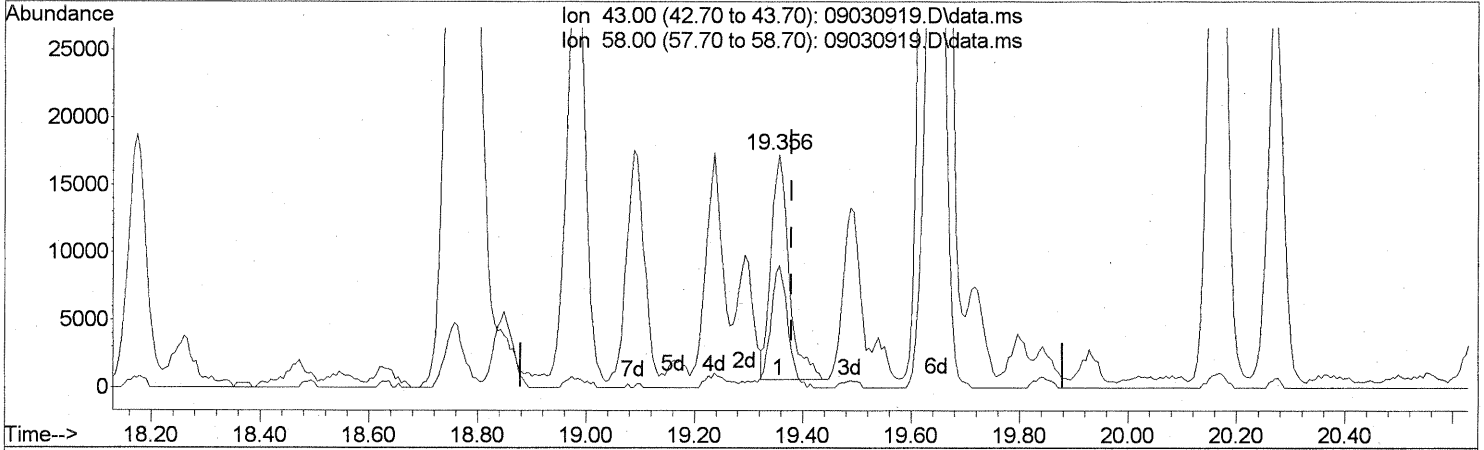
(58) Toluene (T)  
 18.979min (-0.017) 22.84ng  
 response 1387310

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



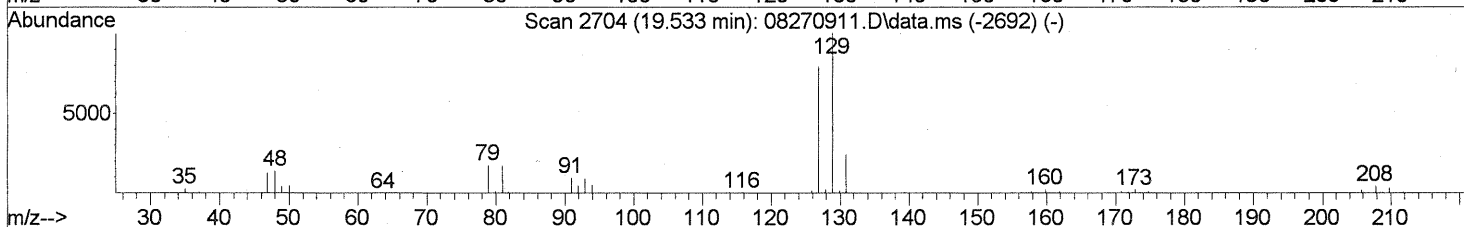
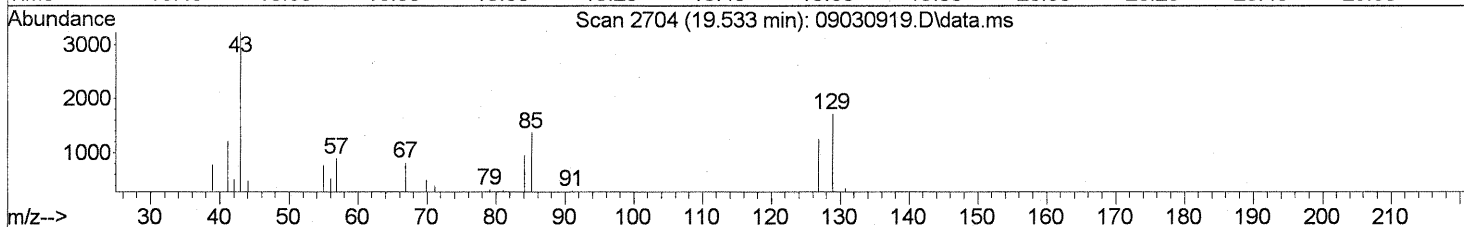
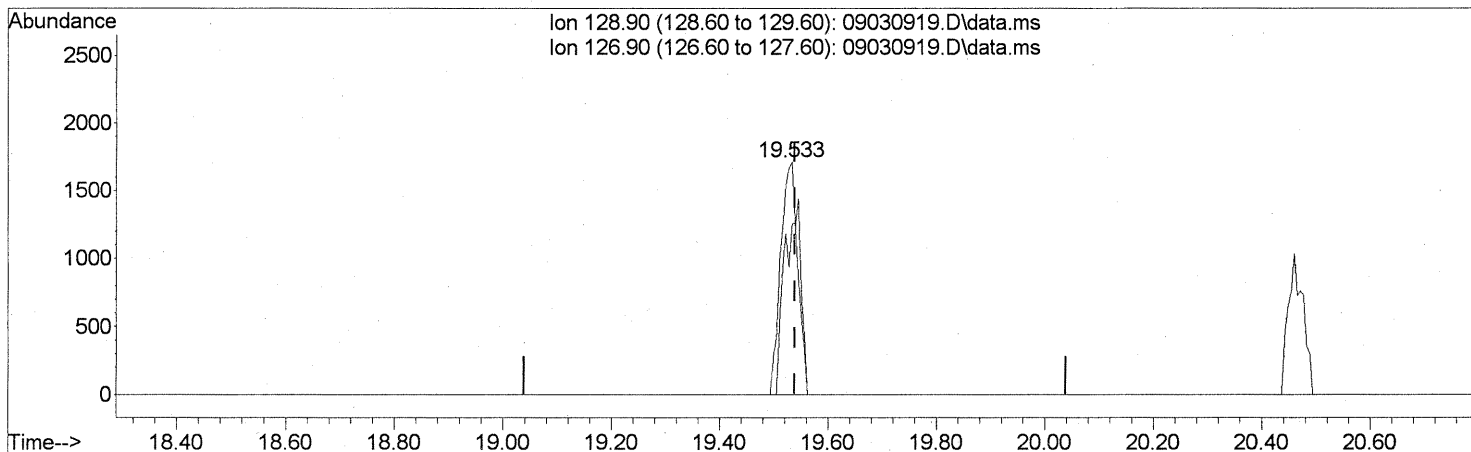
TIC: 09030919.D\data.ms

(59) 2-Hexanone (T)		
19.356min (-0.023) 1.03ng		
response 38229		
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	53.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(60) Dibromochloromethane (T)

19.533min (-0.006) 0.26ng

response 4010

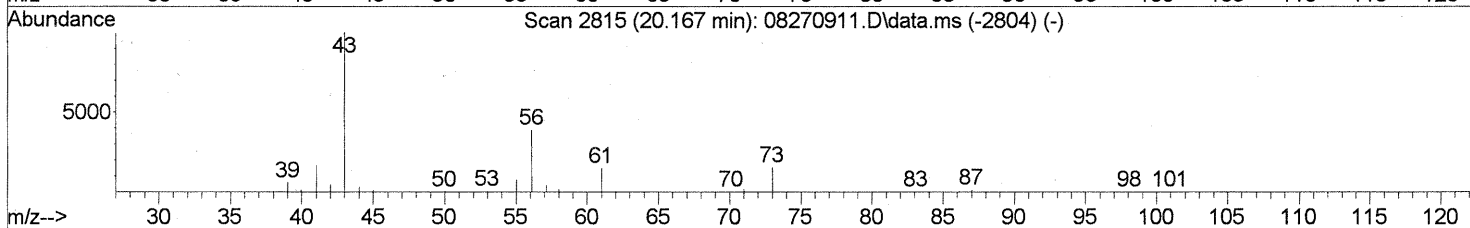
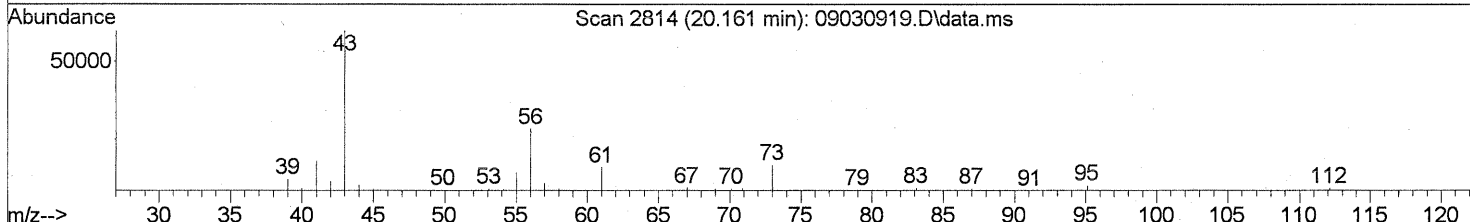
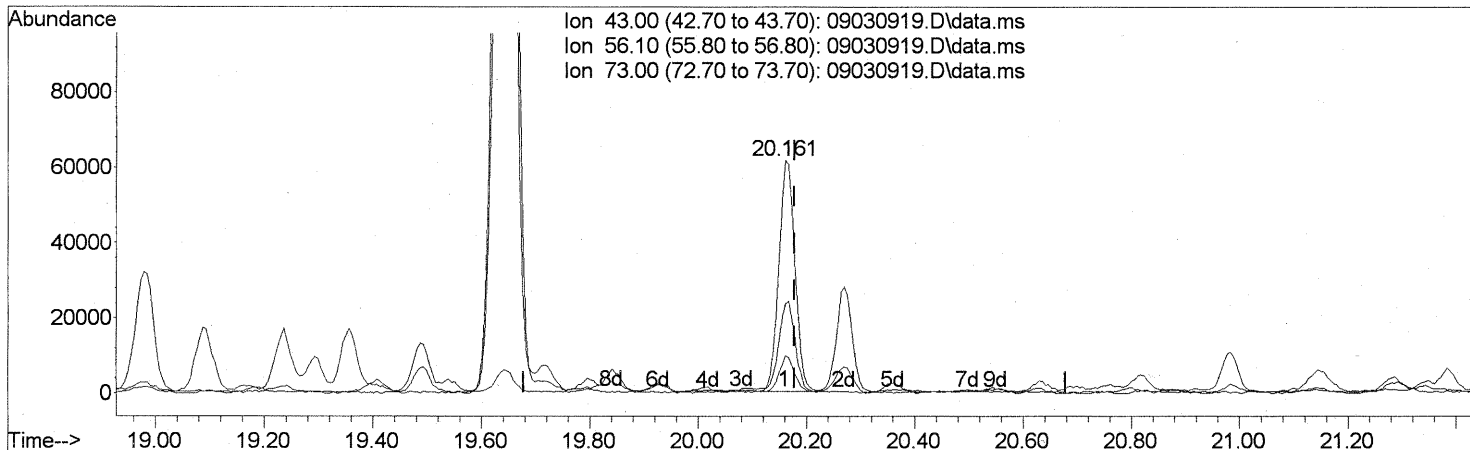
Ion	Exp%	Act%
128.90	100	100
126.90	77.50	67.23
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

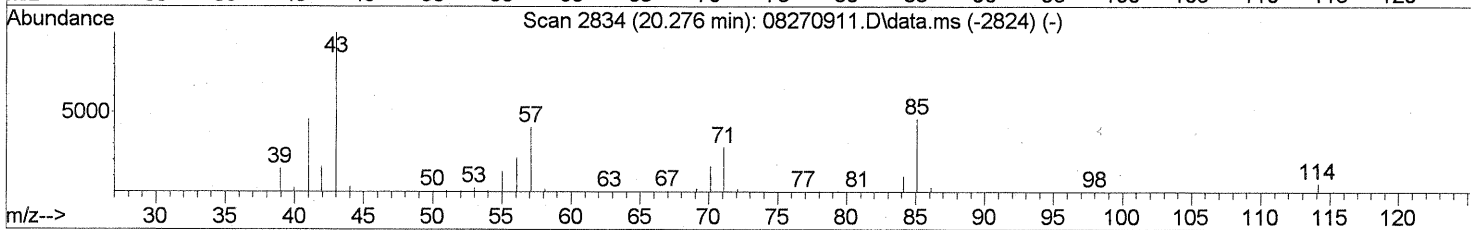
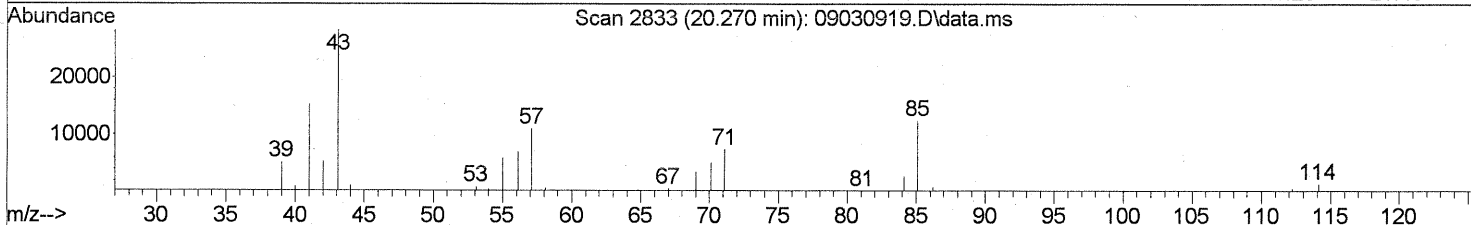
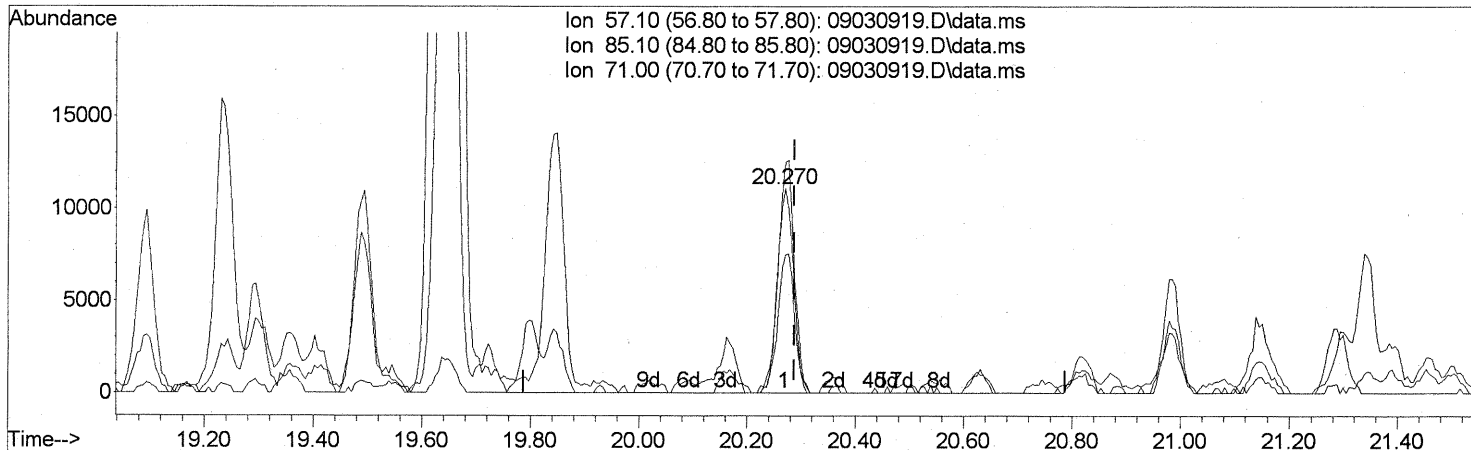
(62) n-Butyl Acetate (T)  
 20.161min (-0.017) 2.97ng  
 response 126327

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	39.46
73.00	14.30	17.83
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

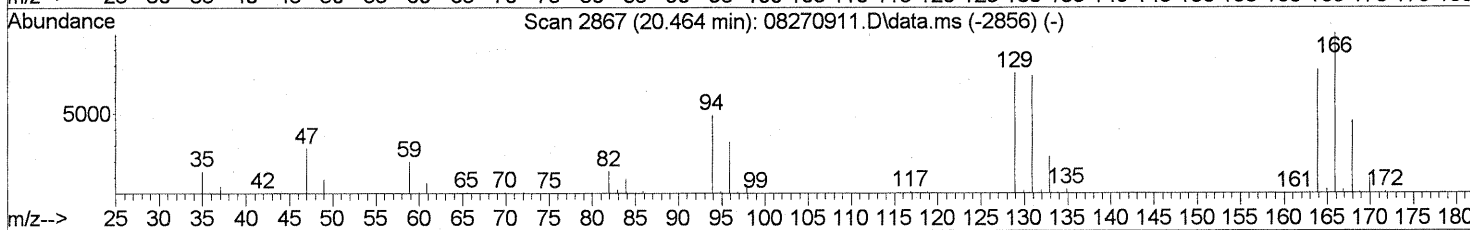
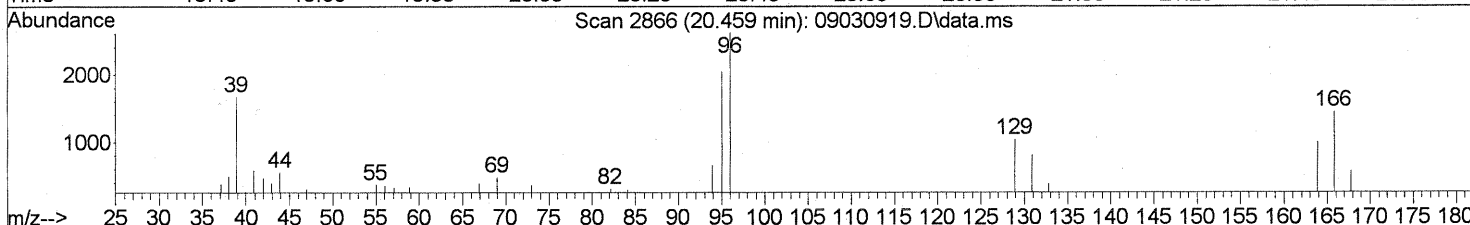
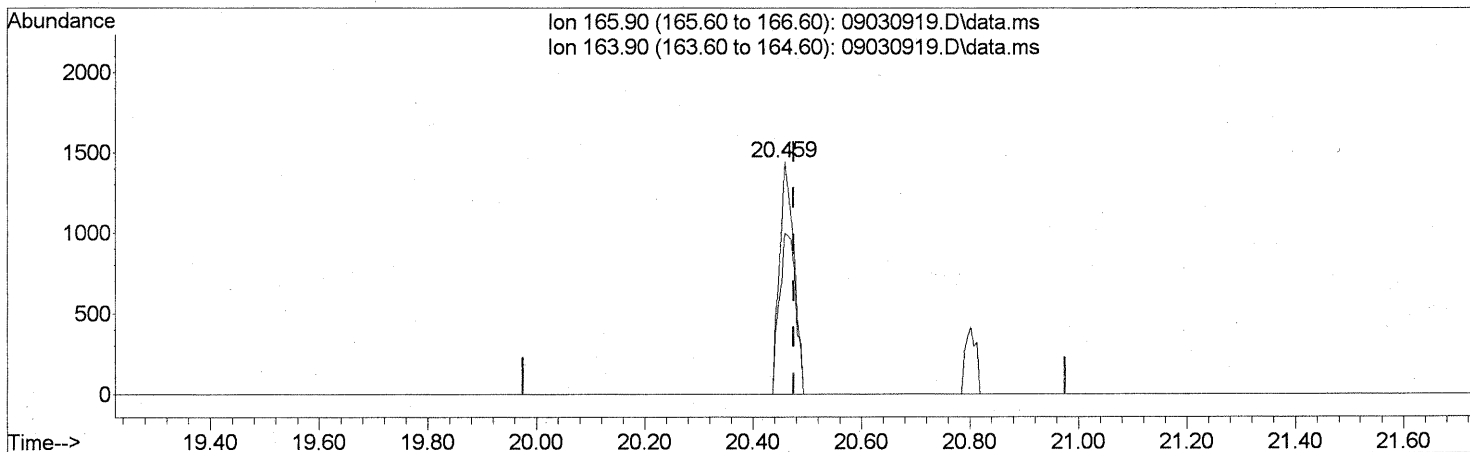
(63) n-Octane (T)  
 20.270min (-0.017) 1.68ng  
 response 23479

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	110.47
71.00	69.10	68.33
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

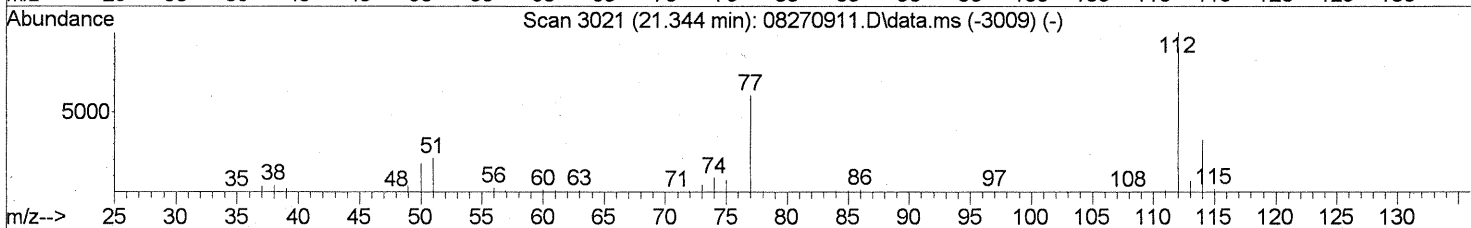
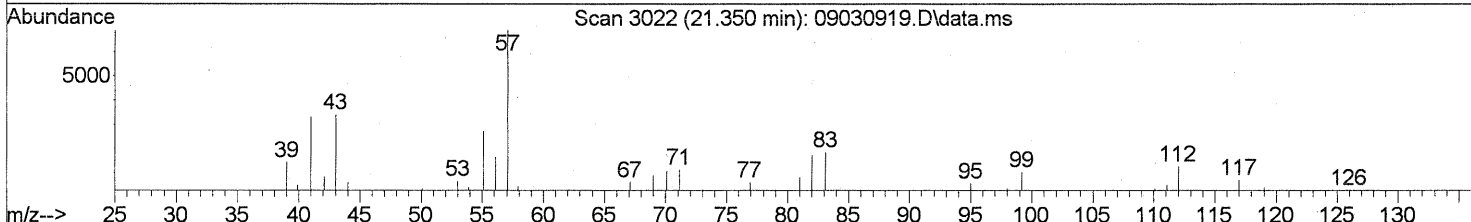
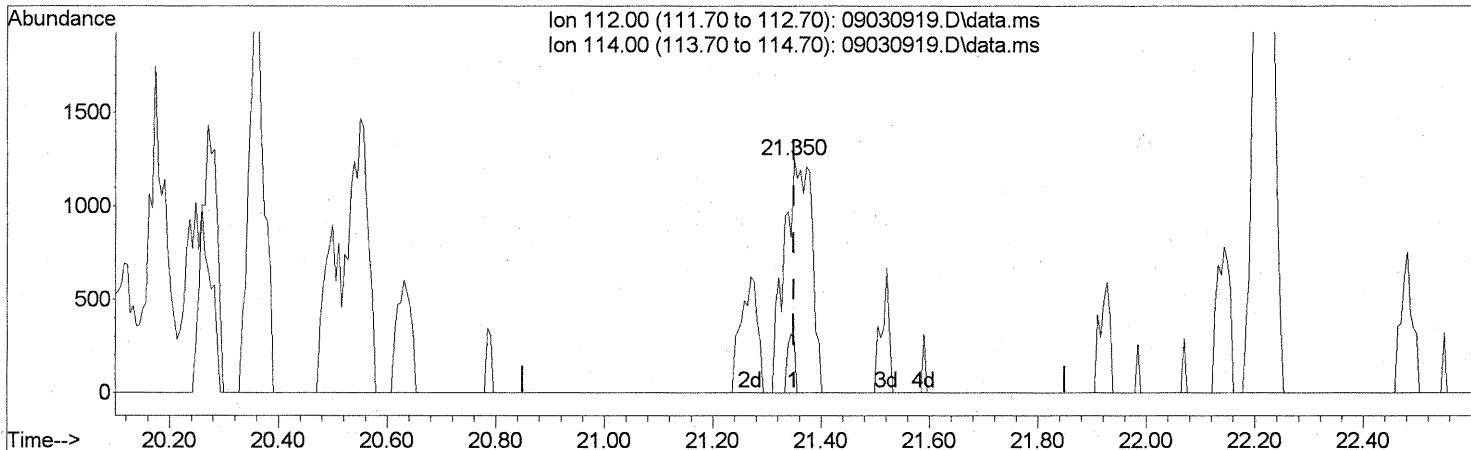
(64) Tetrachloroethene (T)  
 20.459min (-0.017) 0.17ng  
 response 2671

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	78.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(65) Chlorobenzene (T)  
 21.350min (+0.000) 0.11ng  
 response 4375

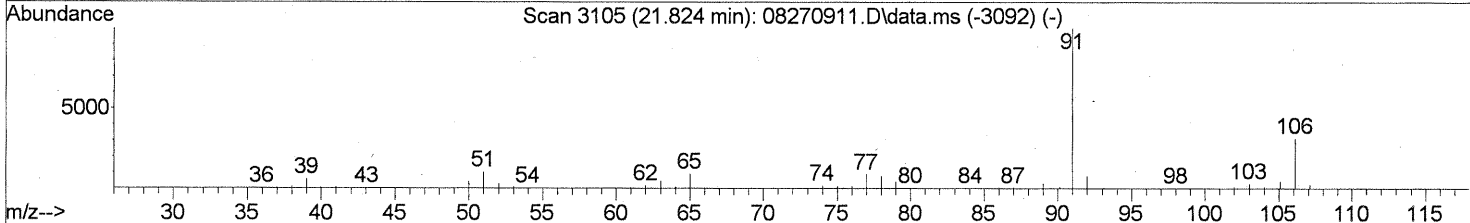
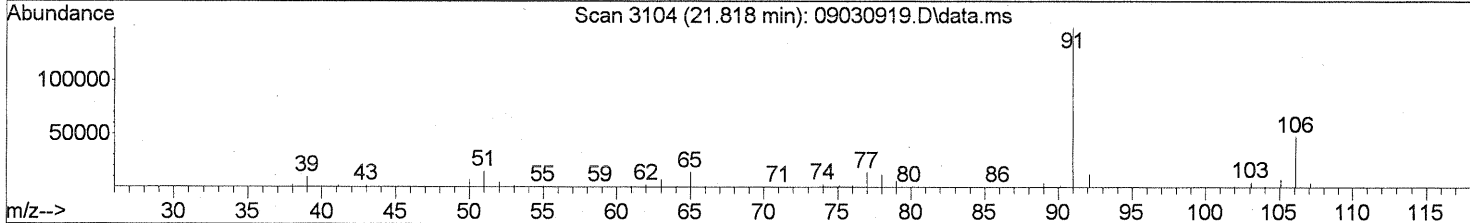
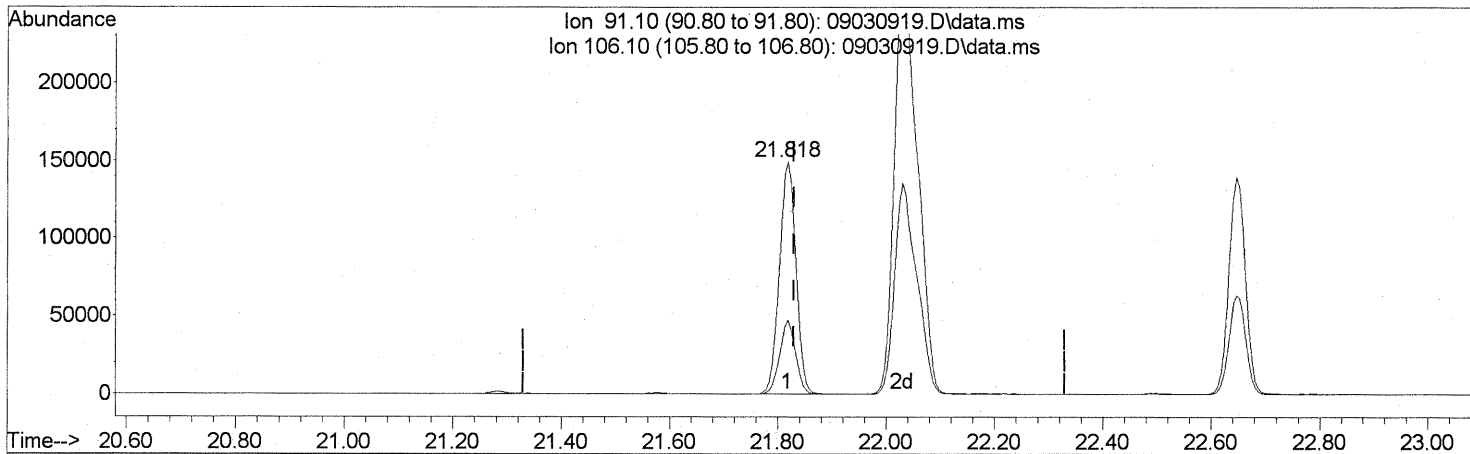
Ion	Exp%	Act%
112.00	100	100
114.00	32.00	6.63#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

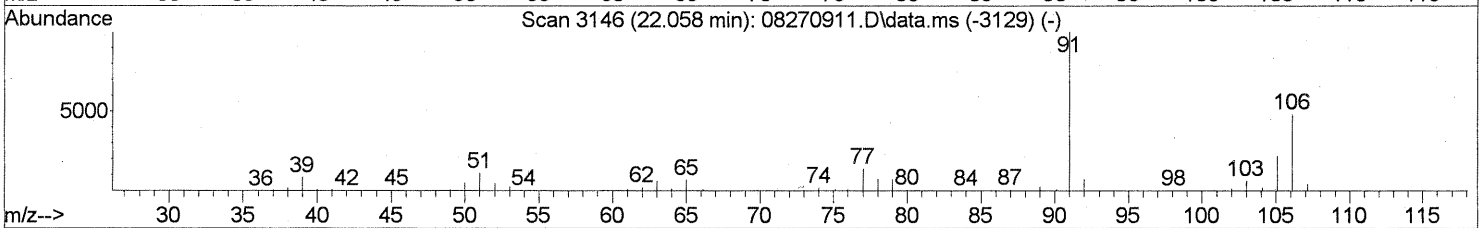
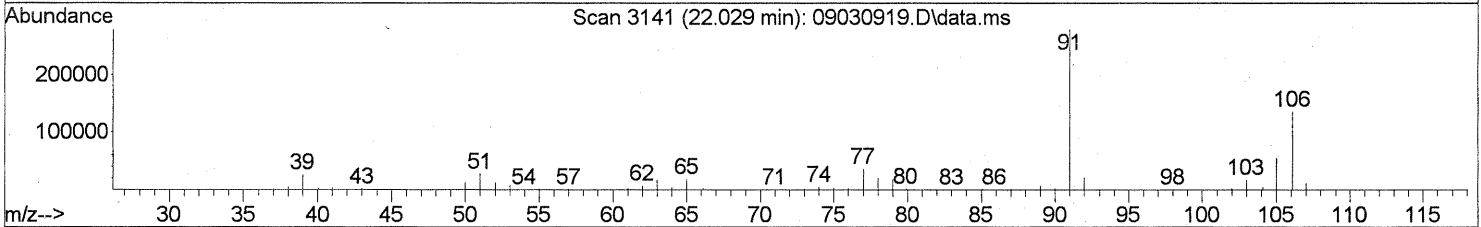
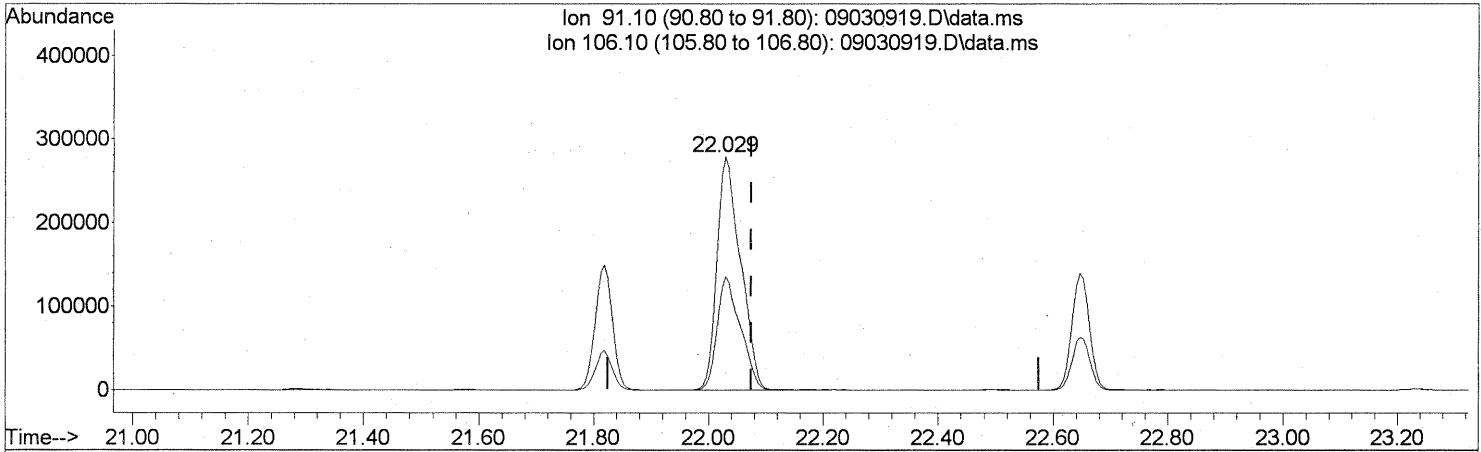
(66) Ethylbenzene (T)  
 21.818min (-0.011) 4.52ng  
 response 313982

Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

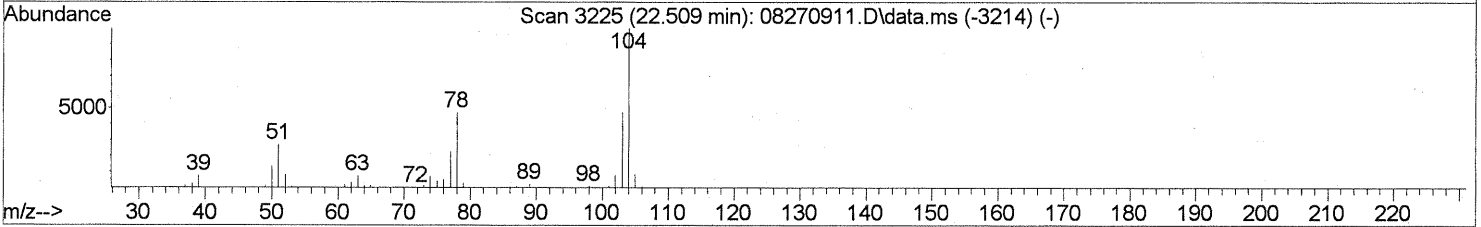
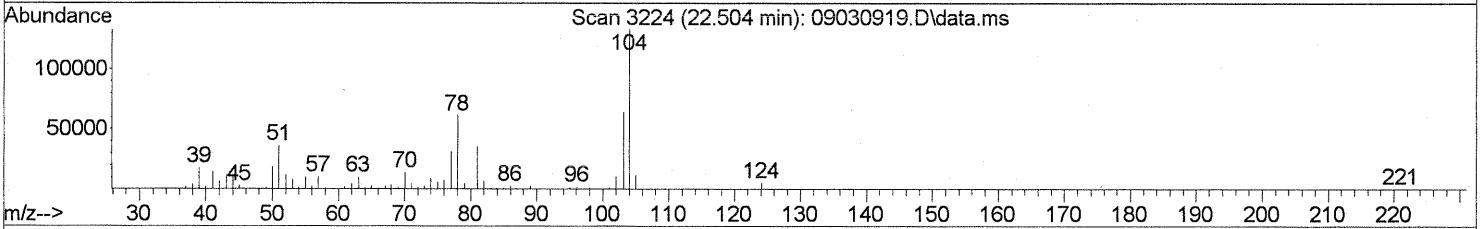
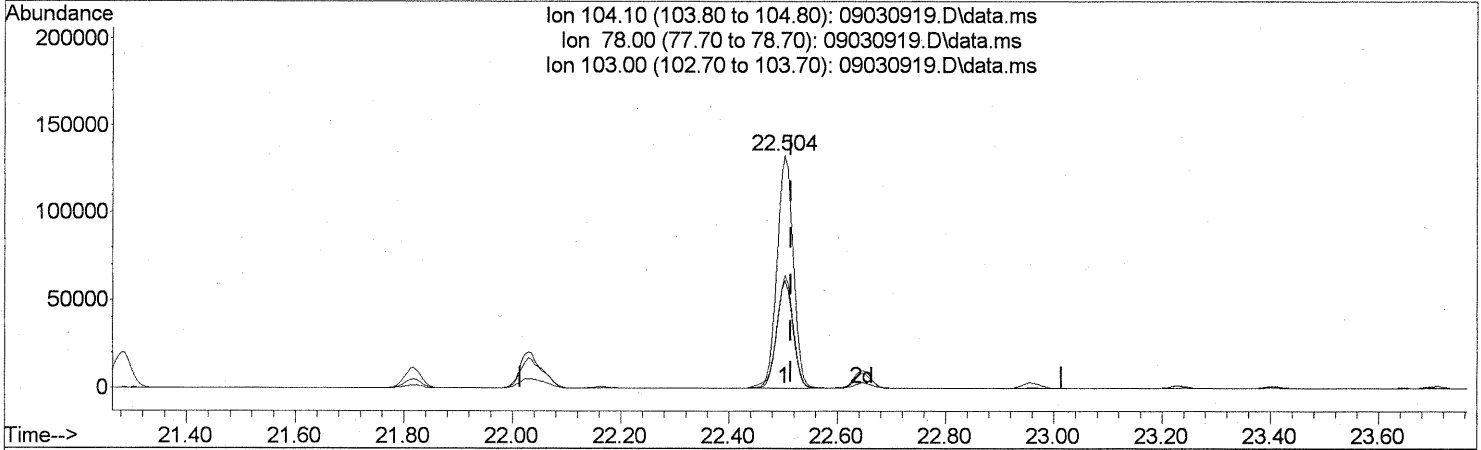
(67) m- & p-Xylenes (T)  
 22.029min (-0.046) 14.45ng  
 response 799296

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	47.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

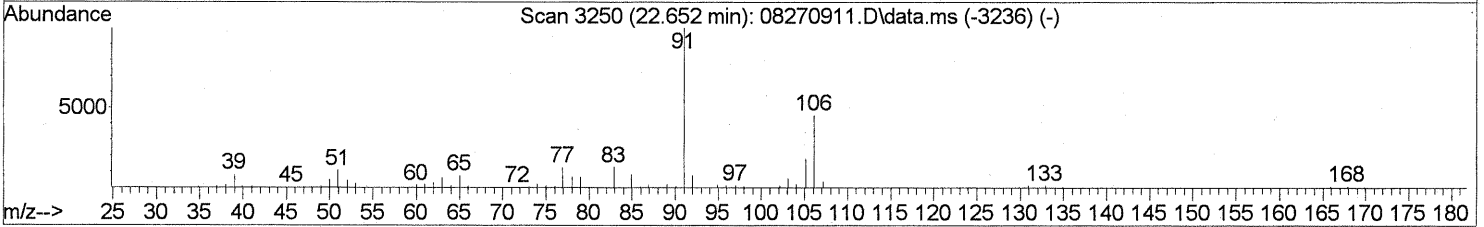
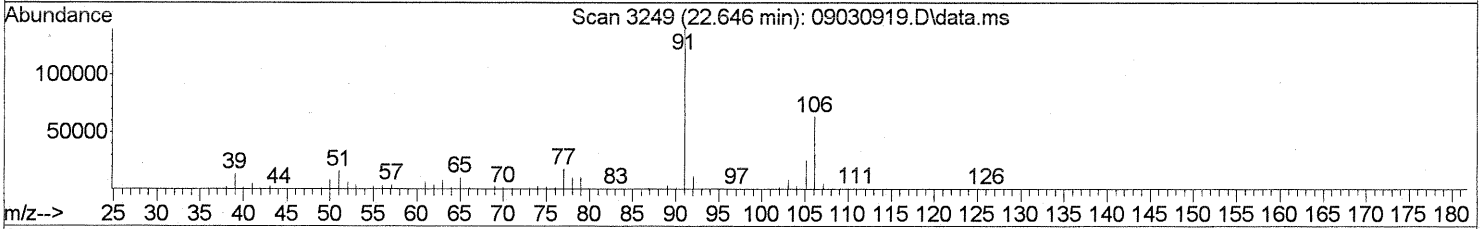
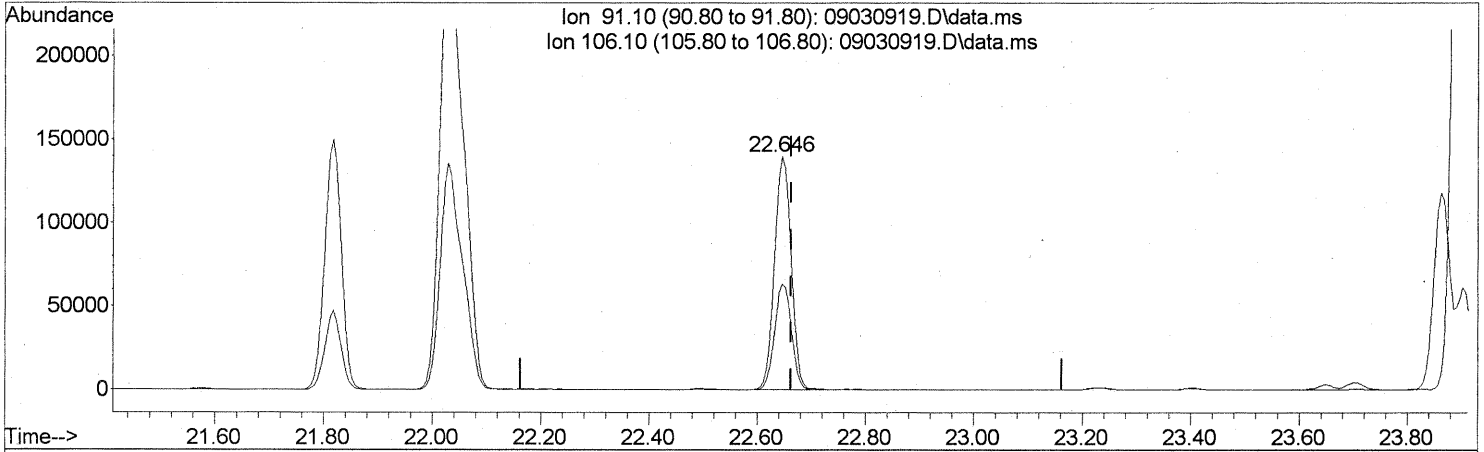
(69) Styrene (T)  
 22.504min (-0.011) 6.77ng  
 response 275550

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.95
103.00	47.00	49.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(70) o-Xylene (T)  
 22.646min (-0.017) 5.35ng  
 response 297164

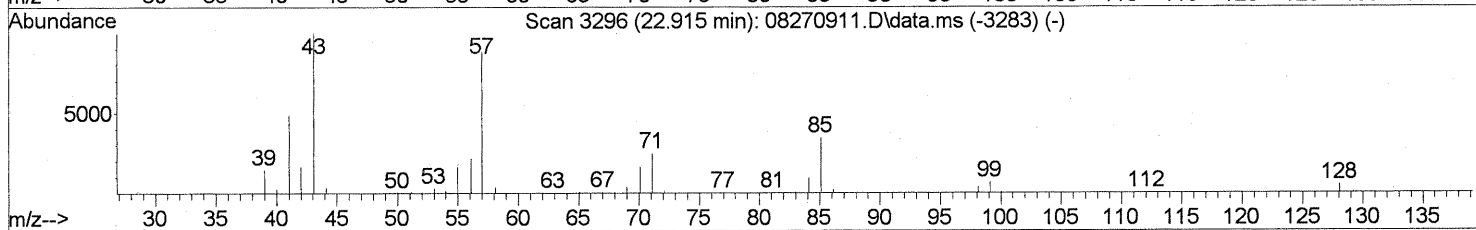
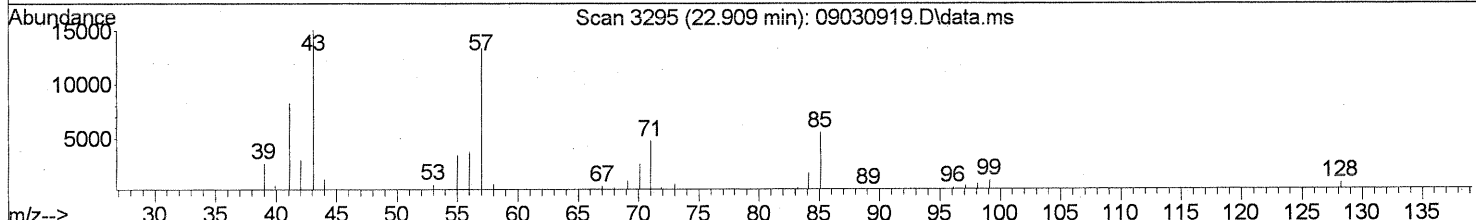
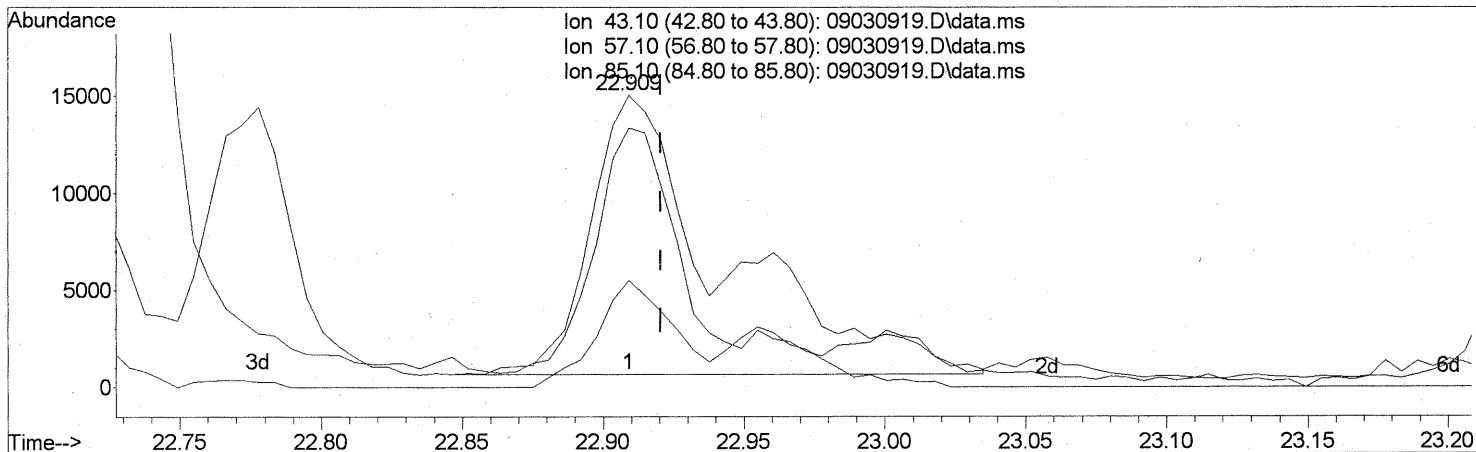
Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.68
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
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 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(71) n-Nonane (T)  
 22.909min (-0.011) 1.43ng  
 response 47599

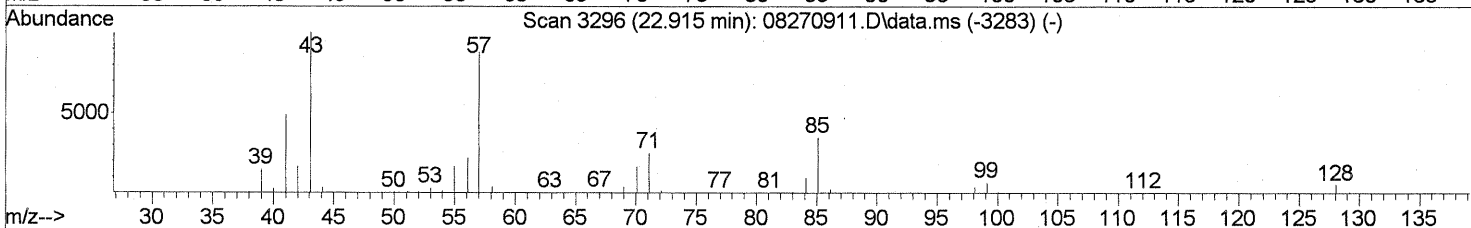
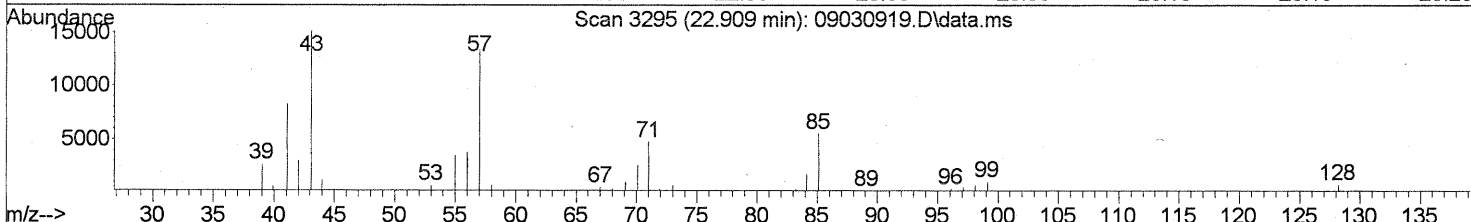
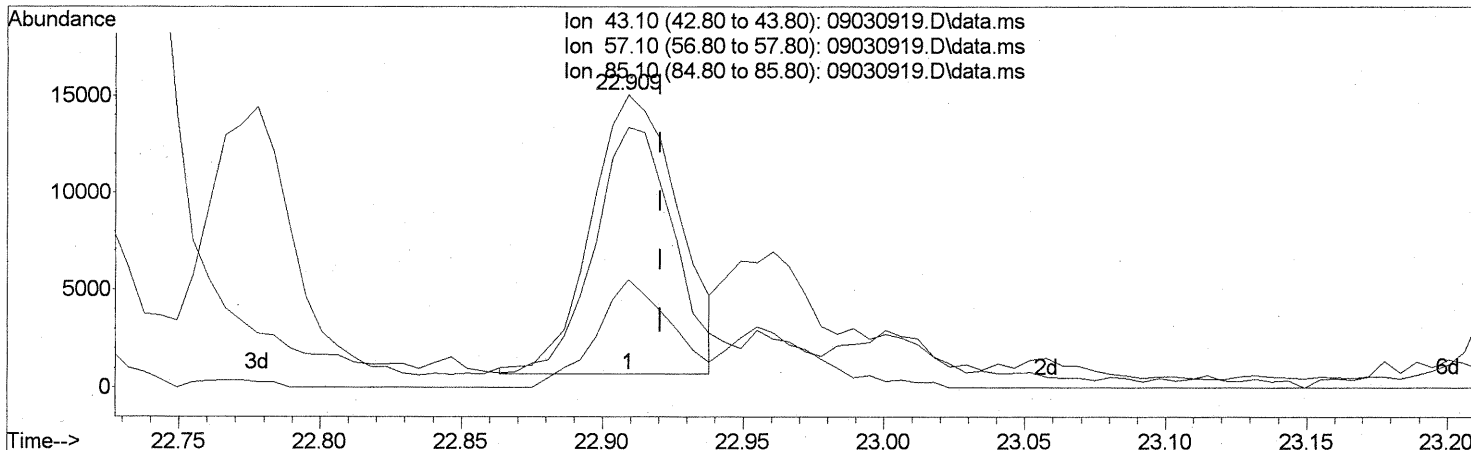
Ion	Exp%	Act%
43.10	100	100
57.10	85.90	59.24#
85.10	32.20	21.88
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(71) n-Nonane (T)  
 22.909min (-0.011) 0.92ng m  
 response 30692

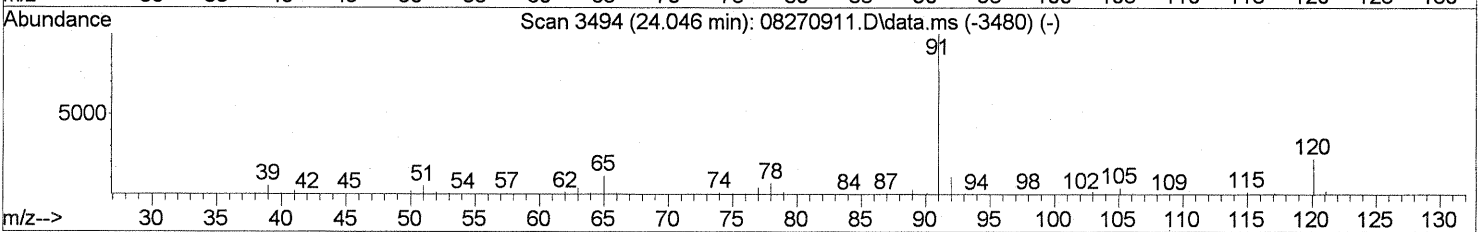
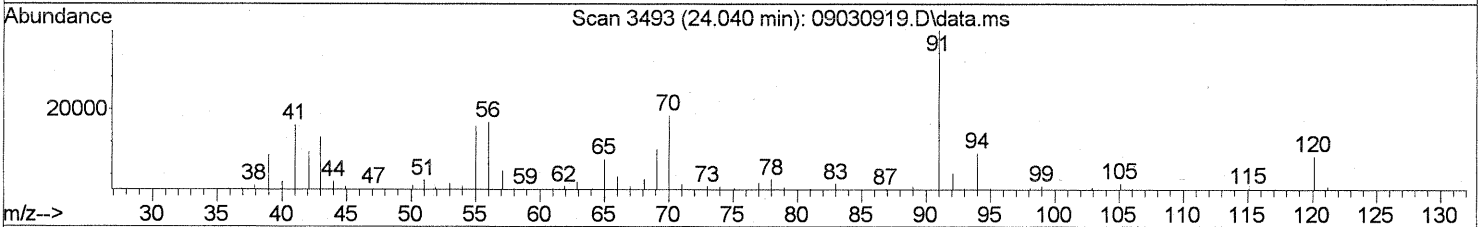
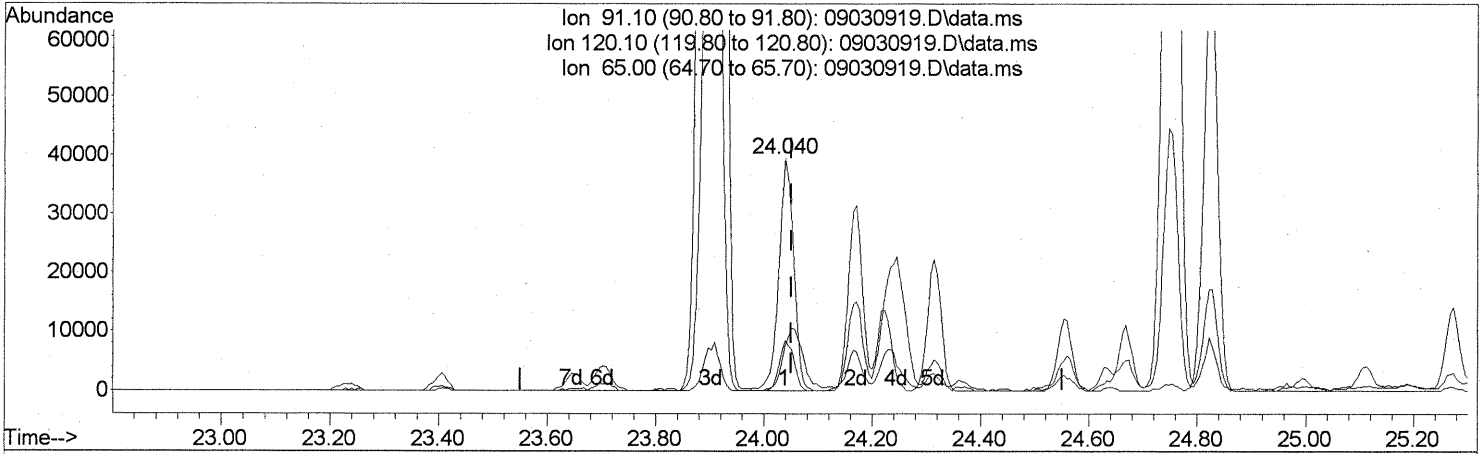
Ion	Exp%	Act%
43.10	100	100
57.10	85.90	91.87
85.10	32.20	33.94
0.00	0.00	0.00

*PT-1C*  
*W 9/10/09*  
*W 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

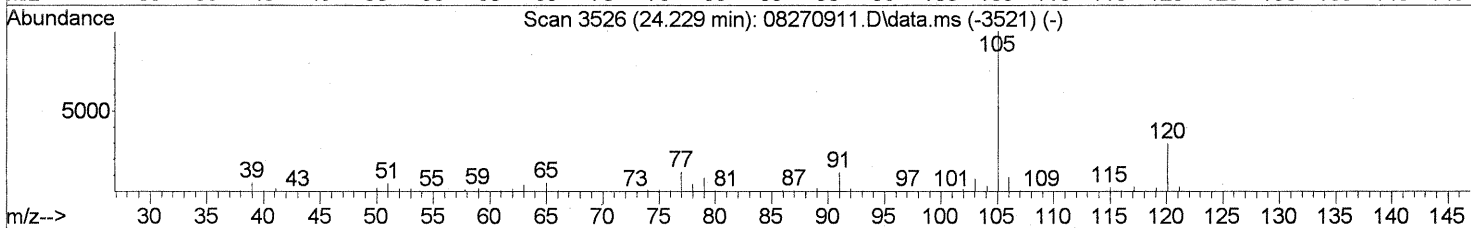
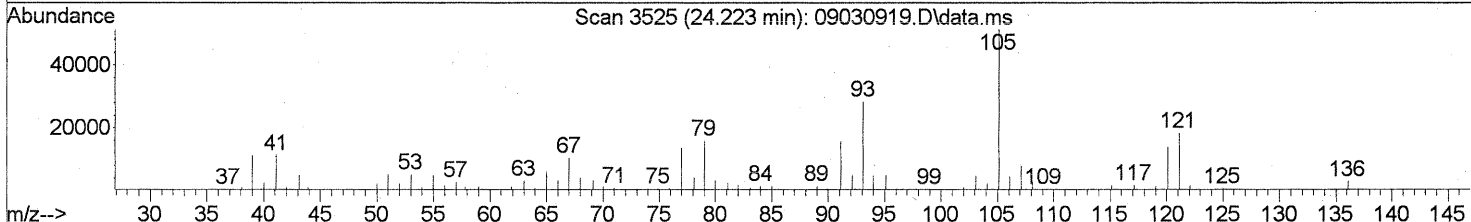
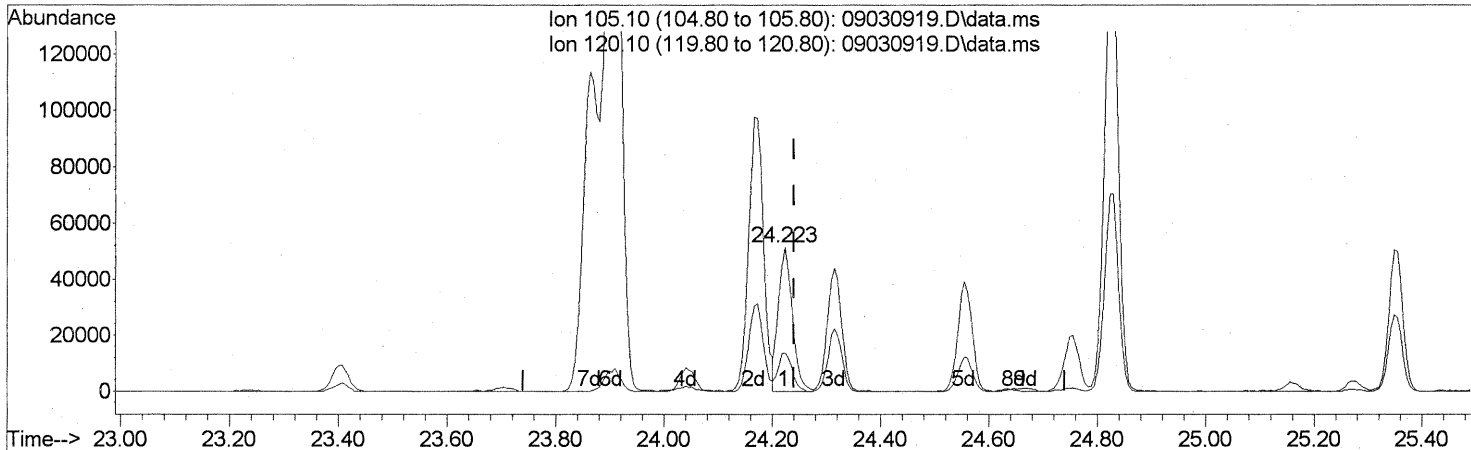
(76) n-Propylbenzene (T)  
 24.040min (-0.011) 0.84ng  
 response 75034

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	20.82
65.00	11.80	36.77#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

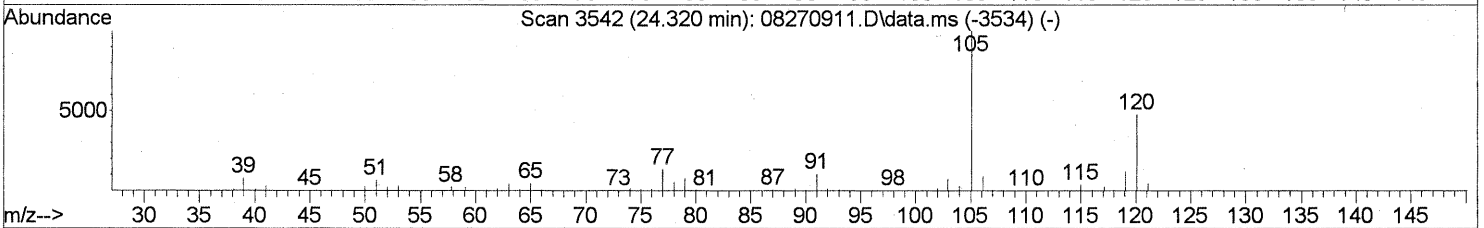
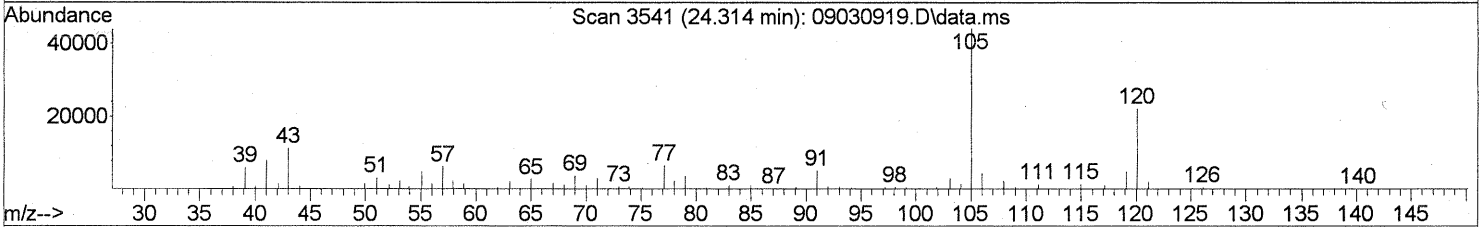
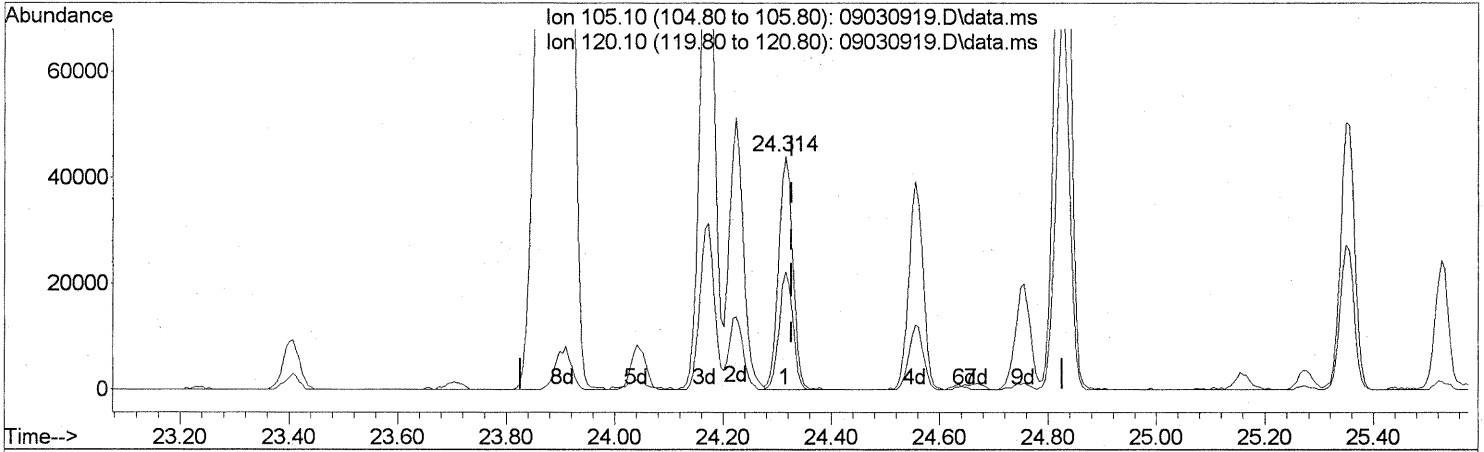
(78) 4-Ethyltoluene (T)  
 24.223min (-0.017) 1.37ng  
 response 91272

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	27.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

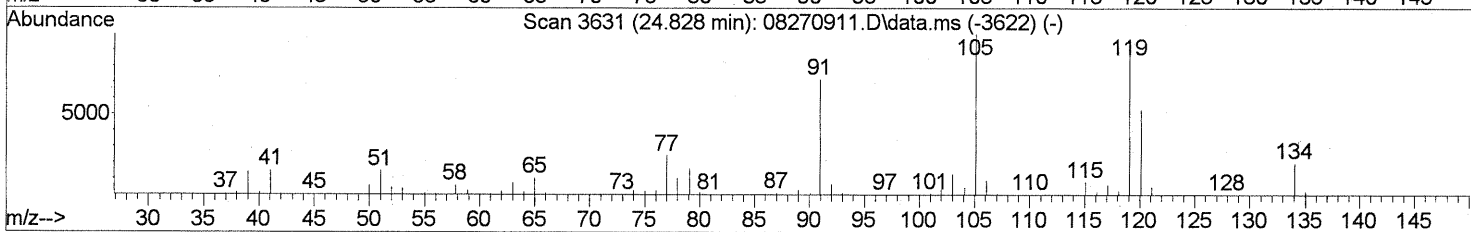
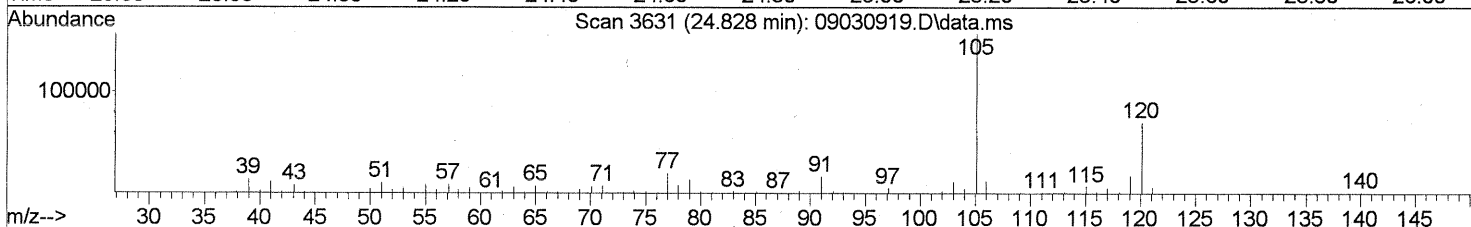
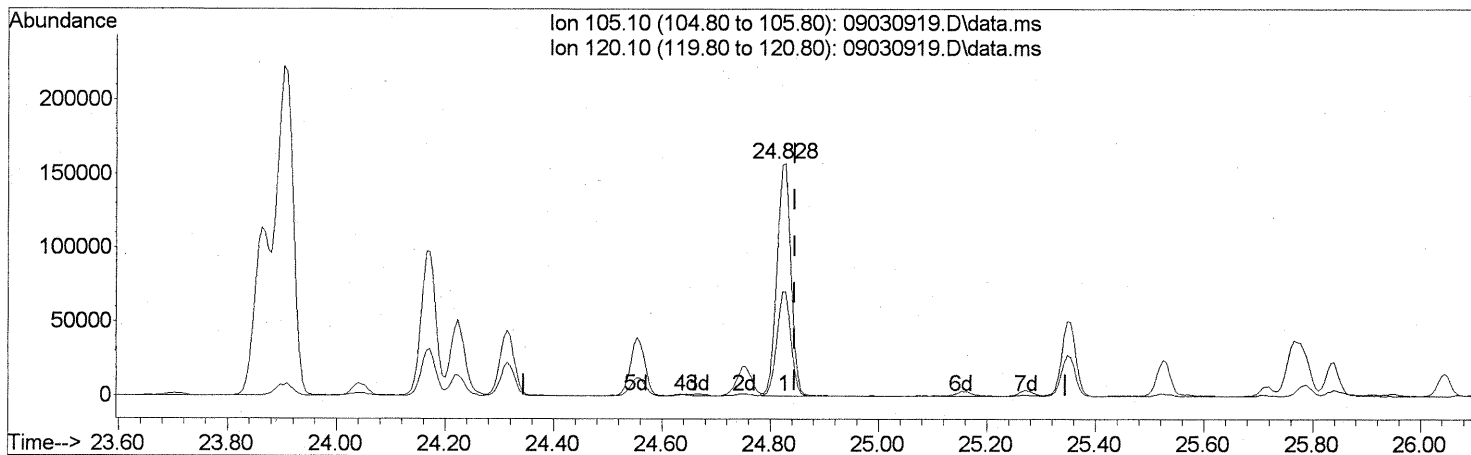
(79) 1,3,5-Trimethylbenzene (T)  
 24.314min (-0.011) 1.45ng  
 response 80453

Ion	Exp%	Act%
105.10	100	100
120.10	47.70	48.64
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)

24.828min (-0.017) 5.00ng

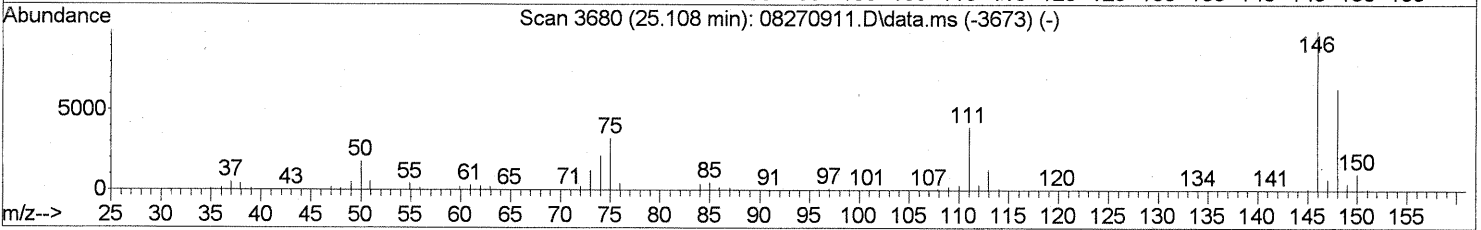
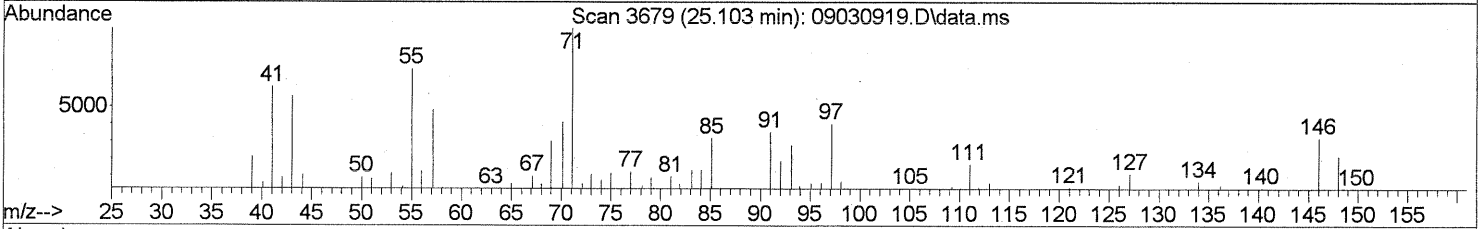
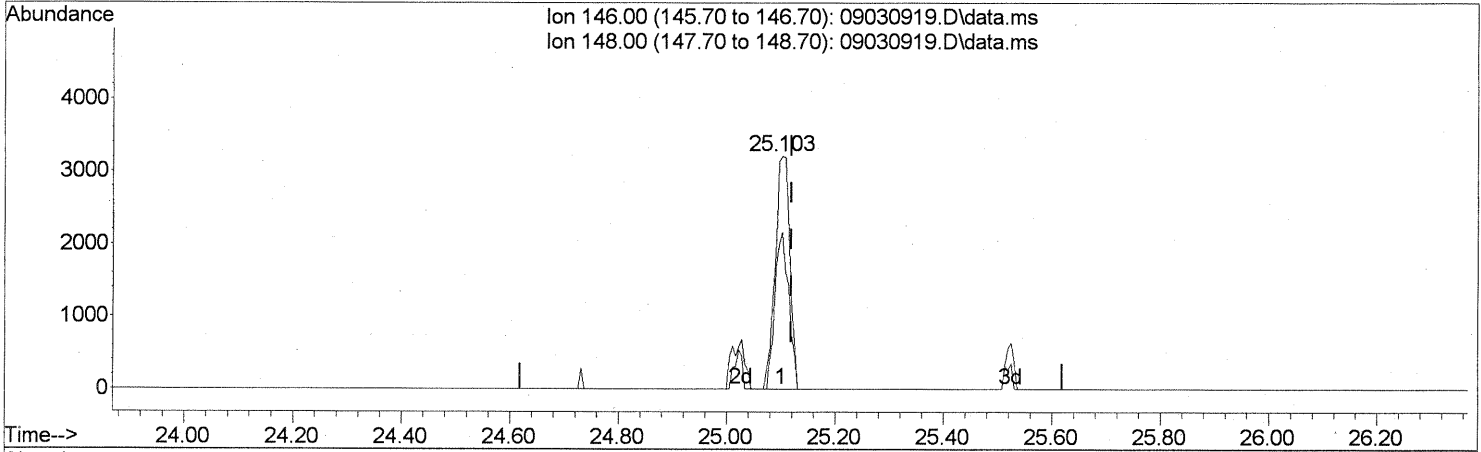
response 282327

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	44.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.19ng

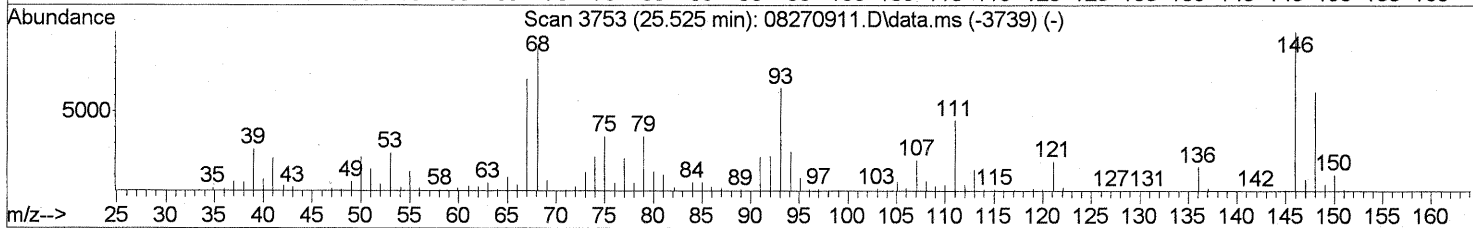
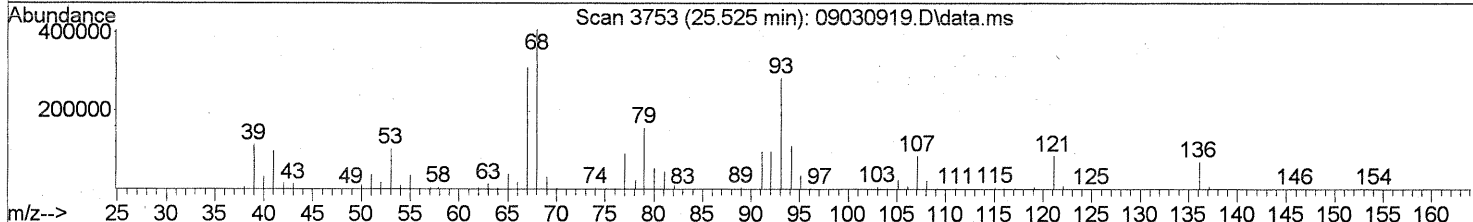
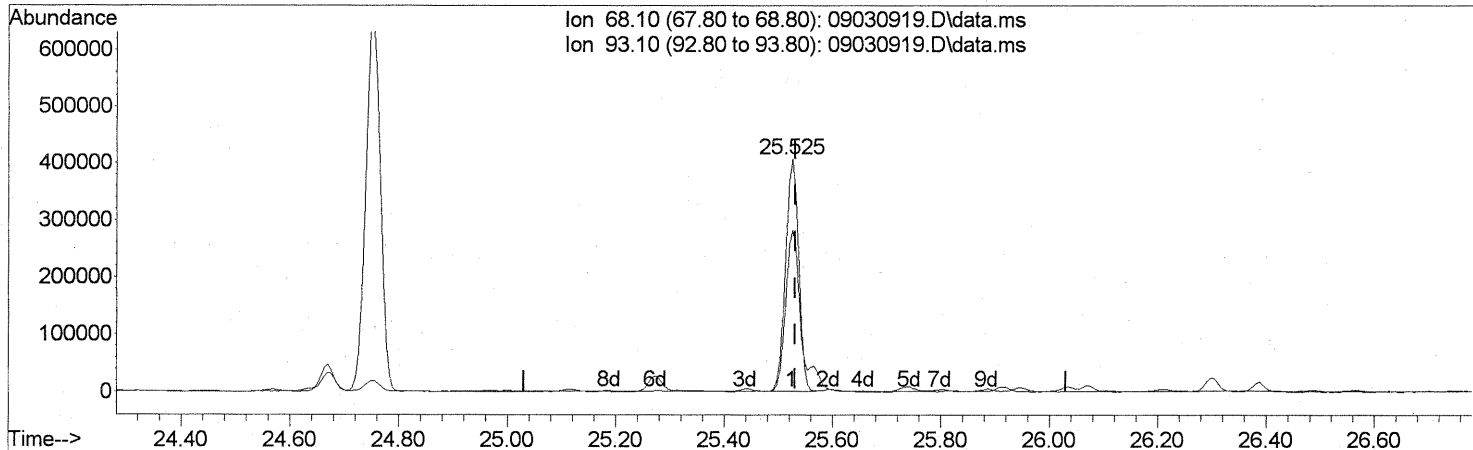
response 6019

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	63.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

(91) d-Limonene (T)  
 25.525min (-0.006) 30.45ng  
 response 686685

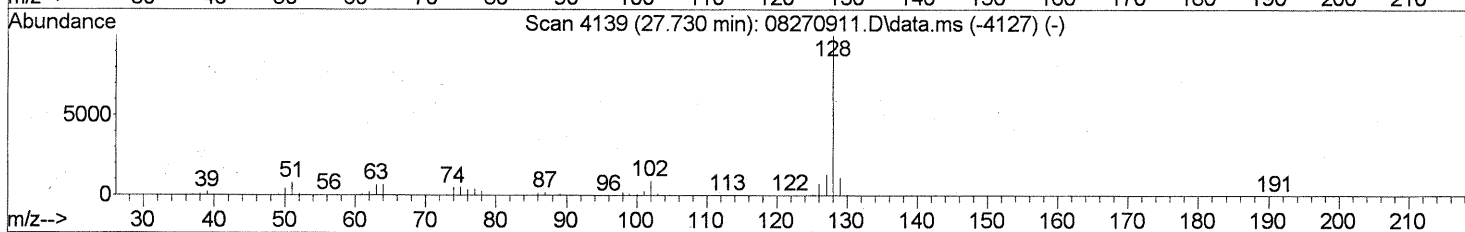
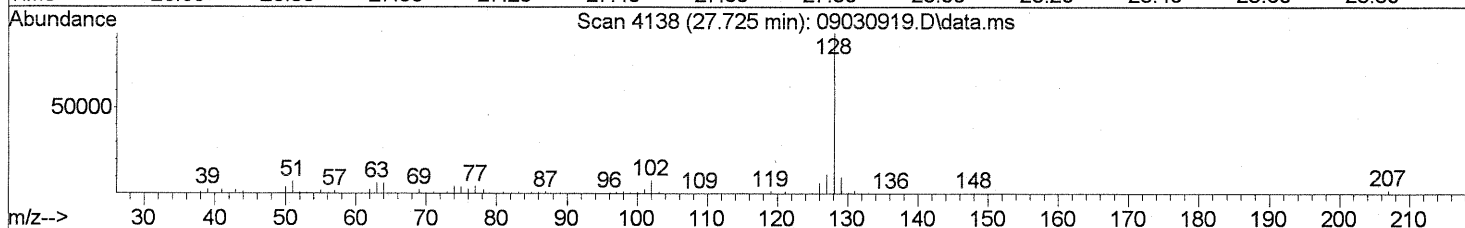
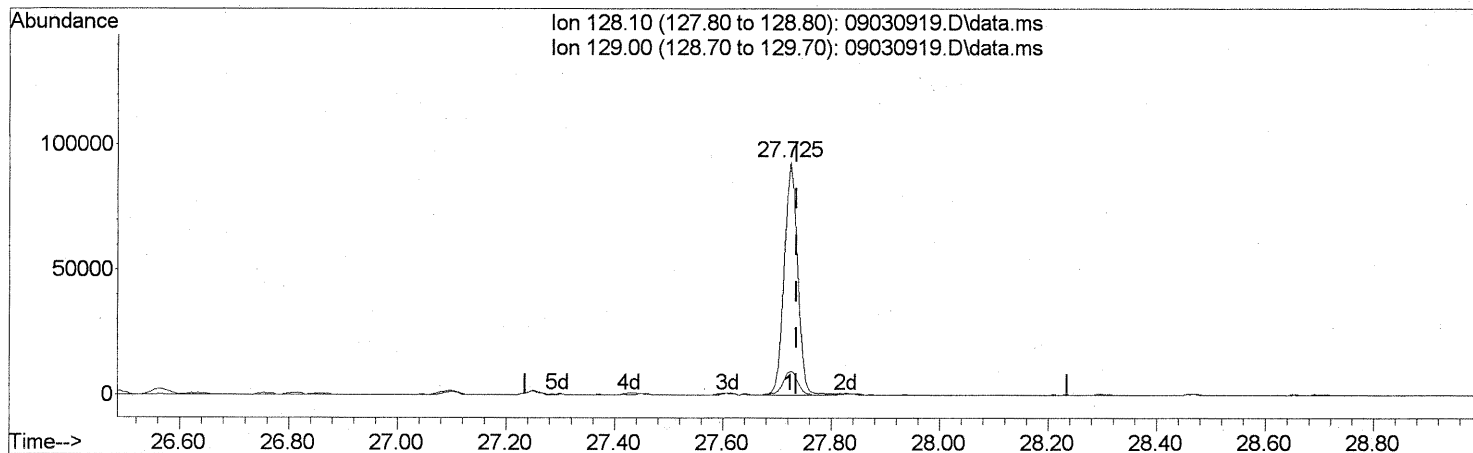
Ion	Exp%	Act%
68.10	100	100
93.10	69.80	81.94
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030919.D  
 Acq On : 3 Sep 2009 23:04  
 Operator : LM/CC  
 Sample : P0903021-001 (1000ml)  
 Misc : EH&E 104276  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 10 09:59:01 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030919.D\data.ms

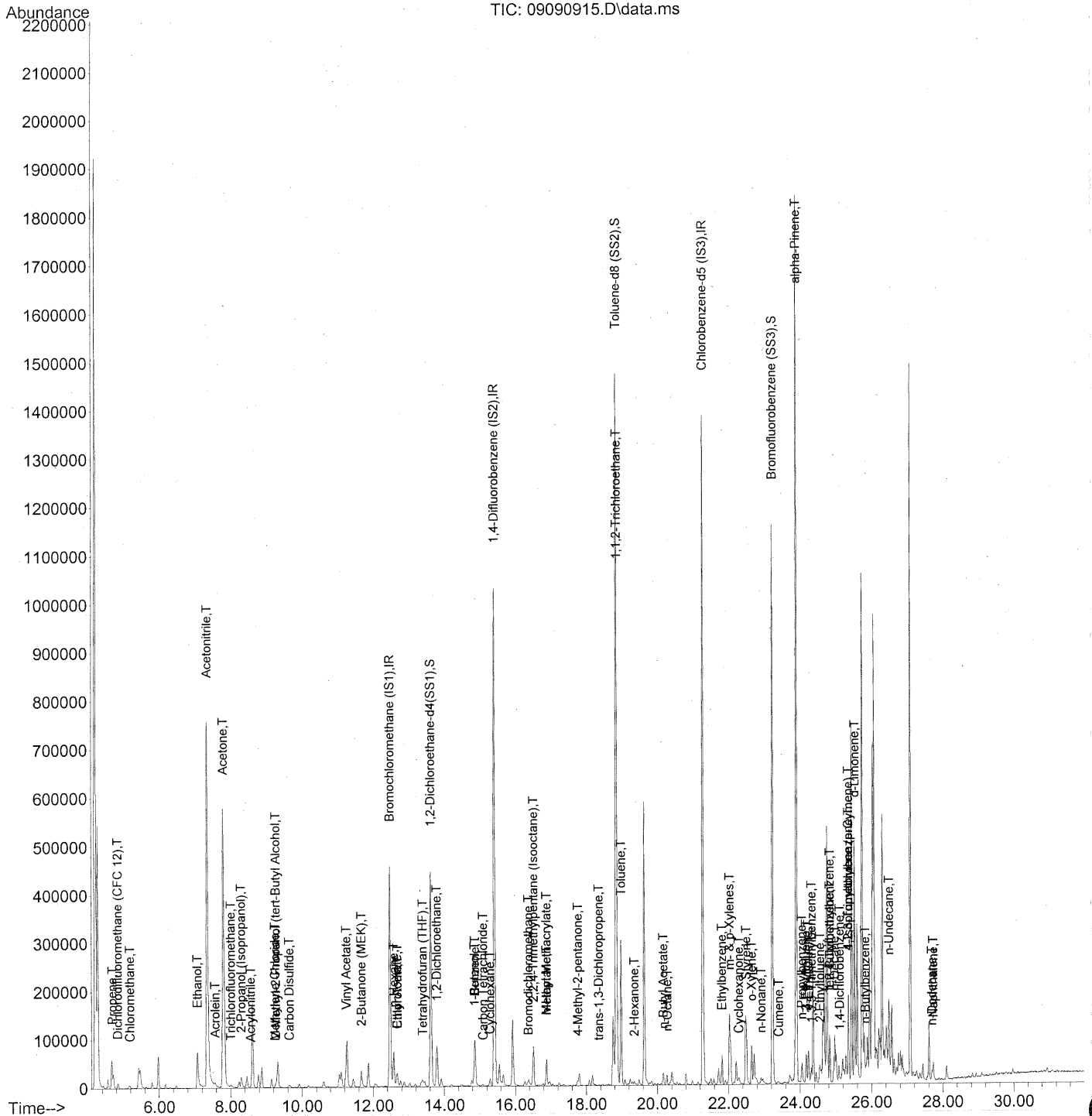
(95) Naphthalene (T)  
 27.725min (-0.011) 2.05ng  
 response 160368

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	11.28
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 7:24 pm  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 7:24 pm  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	235082	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1172571	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	575641	25.000	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4(...)	13.62	65	458196	24.596	ng	-0.03
Spiked Amount				25.000		
Recovery				=		98.40%
57) Toluene-d8 (SS2)	18.85	98	1277458	24.832	ng	-0.01
Spiked Amount				25.000		
Recovery				=		99.32%
73) Bromofluorobenzene (SS3)	23.23	174	376408	25.423	ng	-0.01
Spiked Amount				25.000		
Recovery				=		101.68%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.68	42	10749	0.632	ng	# 73
3) Dichlorodifluoromethan...	4.84	85	10725	0.360	ng	96
4) Chloromethane	5.18	50	5848	0.292	ng	92
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.07	45	148251	14.060	ng	99
11) Acetonitrile	7.34	41	1258063	42.955	ng	99
12) Acrolein	7.57	56	9661	1.200	ng	99
13) Acetone	7.80	58	248008	22.743	ng	# 85
14) Trichlorofluoromethane	8.01	101	5475	0.209	ng	90
15) 2-Propanol (Isopropanol)	8.30	45	44009	1.214	ng	94
16) Acrylonitrile	8.56	53	1126	0.063	ng	# 9
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.26	59	6847	0.189	ng	# 75
19) Methylene Chloride	9.25	84	1631	0.118	ng	99
20) 3-Chloro-1-propene (Al...	9.42	41	217	N.D.		
21) Trichlorotrifluoroethane	9.67	151	253	N.D.		
22) Carbon Disulfide	9.64	76	11569	0.235	ng	81
23) trans-1,2-Dichloroethene	10.67	61	212	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.24	86	7559	2.766	ng	# 7
27) 2-Butanone (MEK)	11.67	72	16196	1.839	ng	94
28) cis-1,2-Dichloroethene	12.24	61	199	N.D.		
29) Diisopropyl Ether	12.57	87	104	N.D.		
30) Ethyl Acetate	12.67	61	2787	0.589	ng	99
31) n-Hexane	12.58	57	44767	1.899	ng	98

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Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 7:24 pm  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	17449	0.751	ng	94
34) Tetrahydrofuran (THF)	13.39	72	4581	0.480	ng #	51
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	56165	2.880	ng	96
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	14.87	61	87	N.D.		
40) 1-Butanol	14.85	56	32550	2.230	ng #	29
41) Benzene	14.87	78	90070	1.634	ng	99
42) Carbon Tetrachloride	15.09	117	1464	0.079	ng	99
43) Cyclohexane	15.29	84	8053	0.396	ng	99
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.37	83	4817	0.265	ng	82
47) Trichloroethene	16.44	130	100	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.51	57	91807	1.464	ng	95
50) Methyl Methacrylate	16.88	100	4748	0.929	ng #	1
51) n-Heptane	16.88	71	16502	1.155	ng	96
52) cis-1,3-Dichloropropene	17.65	75	547	N.D.		
53) 4-Methyl-2-pentanone	17.76	58	2062	0.164	ng	86
54) trans-1,3-Dichloropropene	18.35	75	1100	0.052	ng	93
55) 1,1,2-Trichloroethane	18.86	97	111141	8.653	ng #	7
58) Toluene	18.98	91	261462	4.719	ng	100
59) 2-Hexanone	19.35	43	8147	0.241	ng	90
60) Dibromochloromethane	19.53	129	258	N.D.		
61) 1,2-Dibromoethane	19.86	107	463	N.D.		
62) n-Butyl Acetate	20.16	43	22496	0.579	ng	90
63) n-Octane	20.28	57	4415	0.346	ng	95
64) Tetrachloroethene	20.46	166	212	N.D.		
65) Chlorobenzene	21.34	112	1298	N.D.		
66) Ethylbenzene	21.81	91	58087	0.917	ng	98
67) m- & p-Xylenes	22.03	91	145496	2.884	ng	99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	49602	1.335	ng	98
70) o-Xylene	22.65	91	53661	1.059	ng	97
71) n-Nonane	22.91	43	9229	0.303	ng	93
72) 1,1,2,2-Tetrachloroethane	22.71	83	107	N.D.		
74) Cumene	23.40	105	3435	0.053	ng	96
75) alpha-Pinene	23.90	93	866438	26.006	ng	94
76) n-Propylbenzene	24.05	91	13858	0.170	ng	89
77) 3-Ethyltoluene	24.17	105	35241	0.574	ng	98
78) 4-Ethyltoluene	24.22	105	17190	0.283	ng	99
79) 1,3,5-Trimethylbenzene	24.31	105	15239	0.302	ng	94

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 7:24 pm  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

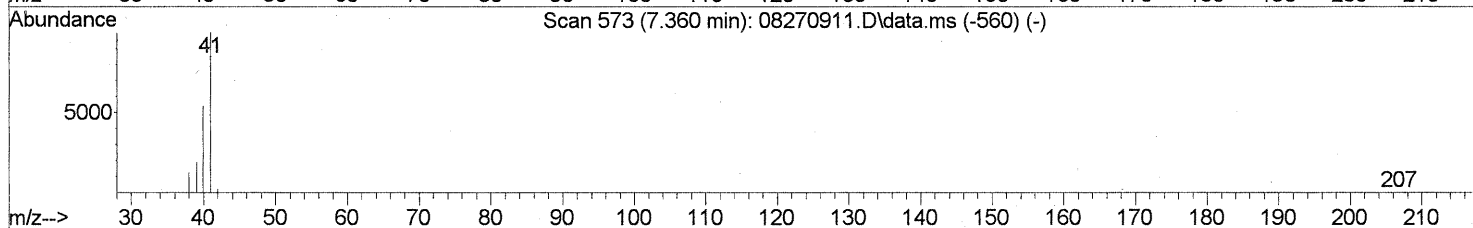
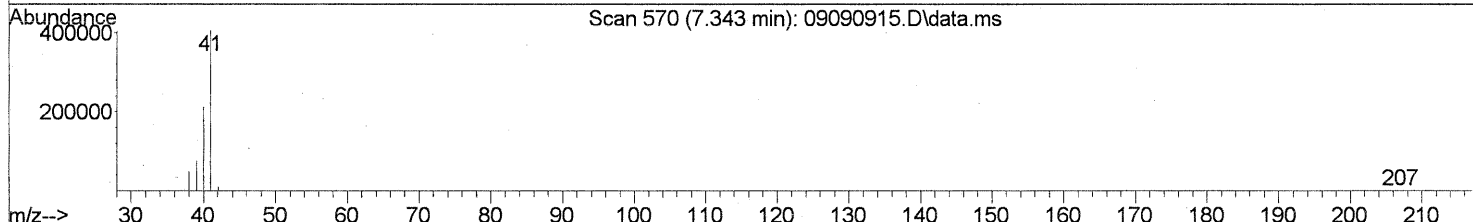
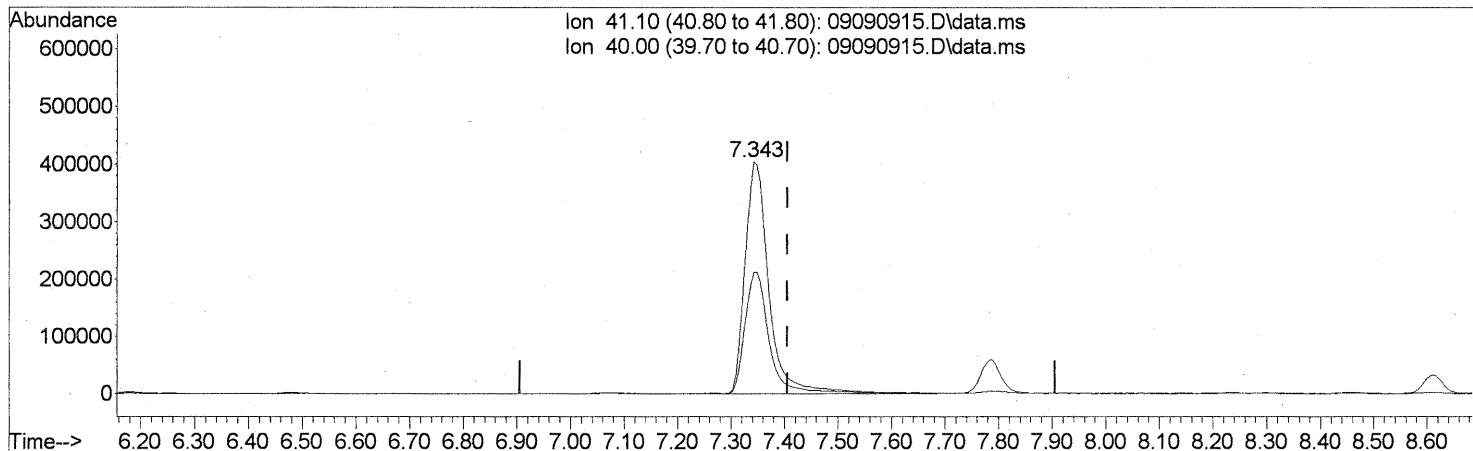
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.50	118	115	N.D.		
81) 2-Ethyltoluene	24.55	105	13386	0.212	ng	95
82) 1,2,4-Trimethylbenzene	24.82	105	52165	1.012	ng	88
83) n-Decane	24.97	57	60514	1.967	ng	71
84) Benzyl Chloride	24.99	91	2096	N.D.		
85) 1,3-Dichlorobenzene	25.03	146	755	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	1880	0.065	ng	99
87) sec-Butylbenzene	25.16	105	1080	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	24928	0.393	ng	96
89) 1,2,3-Trimethylbenzene	25.35	105	16960	0.314	ng	95
90) 1,2-Dichlorobenzene	25.52	146	344	N.D.		
91) d-Limonene	25.53	68	125189	6.086	ng	85
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.48	57	29928	0.937	ng	# 1
94) 1,2,4-Trichlorobenzene	27.58	180	644	N.D.		
95) Naphthalene	27.72	128	29248	0.411	ng	97
96) n-Dodecane	27.69	57	8611	0.237	ng	98
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	9146	0.428	ng	95
99) tert-Butylbenzene	24.82	119	6020	0.121	ng	# 56
100) n-Butylbenzene	25.82	91	8461	0.147	ng	# 24

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 19:24  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090915.D\data.ms

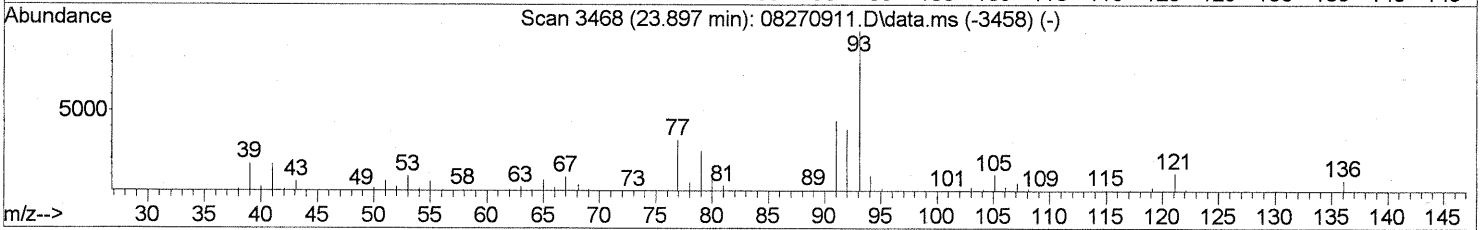
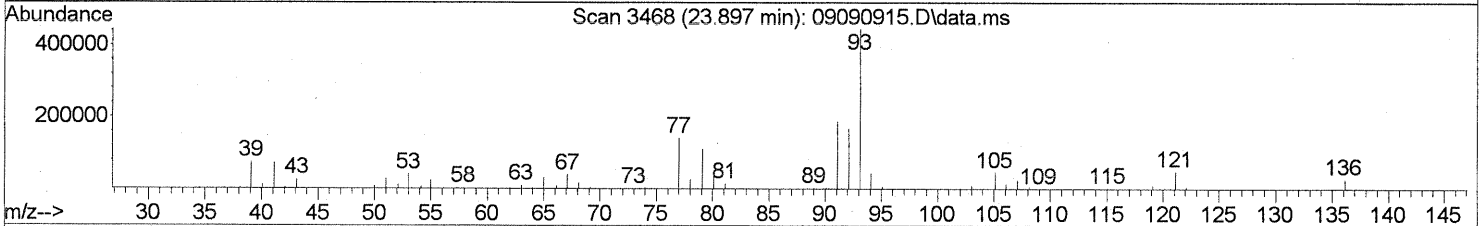
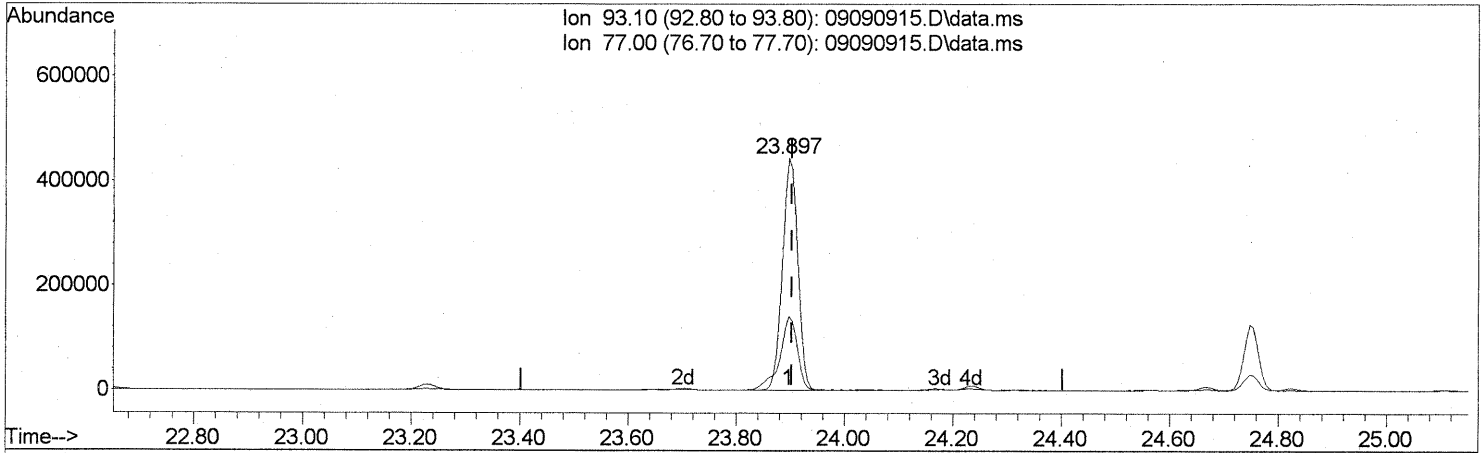
(11) Acetonitrile (T)  
 7.343min (-0.063) 42.95ng  
 response 1258063

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090915.D  
 Acq On : 9 Sep 2009 19:24  
 Operator : LM/CC  
 Sample : P0903021-001dil (200ml)  
 Misc : EH&E 104276  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 10 08:30:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090915.D\data.ms

(75) alpha-Pinene (T)  
 23.897min (-0.006) 26.01ng  
 response 866438

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	36.41
0.00	0.00	0.00
0.00	0.00	0.00

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104282  
**Client Project ID:** 16512  
**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC01411

**CAS Project ID:** P0903021  
**CAS Sample ID:** P0903021-002  
**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/3/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Initial Pressure (psig): -2.5      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
115-07-1	Propene	ND	0.75	ND	0.43	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.75	0.45	0.15	
74-87-3	Chloromethane	0.41	0.15	0.20	0.072	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.067	
74-83-9	Bromomethane	ND	0.15	ND	0.038	
75-00-3	Chloroethane	ND	0.15	ND	0.056	
64-17-5	Ethanol	ND	7.5	ND	4.0	
75-05-8	Acetonitrile	2.1	0.75	1.2	0.44	
107-02-8	Acrolein	1.0	0.75	0.43	0.33	
67-64-1	Acetone	14	7.5	6.0	3.1	
75-69-4	Trichlorofluoromethane	1.1	0.15	0.19	0.027	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.75	ND	0.30	
107-13-1	Acrylonitrile	ND	0.75	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.038	
75-09-2	Methylene Chloride	ND	0.75	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.048	
76-13-1	Trichlorotrifluoroethane	0.50	0.15	0.066	0.019	
75-15-0	Carbon Disulfide	ND	0.75	ND	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.038	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.037	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.041	
108-05-4	Vinyl Acetate	ND	7.5	ND	2.1	
78-93-3	2-Butanone (MEK)	1.8	0.75	0.60	0.25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: 9/11/09



COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: Environmental Health & Engineering, Inc.

Client Sample ID: 104282

Client Project ID: 16512

CAS Project ID: P0903021

CAS Sample ID: P0903021-002

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Analyst: Liliana Marghitoiu

Sampling Media: 6.0 L Summa Canister

Test Notes:

Container ID: AC01411

Date Collected: 8/26/09

Date Received: 8/28/09

Date Analyzed: 9/3/09

Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.5 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.15	ND	0.038	
141-78-6	Ethyl Acetate	ND	0.75	ND	0.21	
110-54-3	n-Hexane	ND	0.75	ND	0.21	
67-66-3	<b>Chloroform</b>	<b>4.4</b>	0.15	<b>0.90</b>	0.031	
109-99-9	Tetrahydrofuran (THF)	ND	0.75	ND	0.25	
107-06-2	1,2-Dichloroethane	ND	0.15	ND	0.037	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.027	
71-43-2	<b>Benzene</b>	<b>0.55</b>	0.15	<b>0.17</b>	0.047	
56-23-5	<b>Carbon Tetrachloride</b>	<b>0.45</b>	0.15	<b>0.072</b>	0.024	
110-82-7	Cyclohexane	ND	0.75	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.032	
75-27-4	Bromodichloromethane	ND	0.15	ND	0.022	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.75	ND	0.21	
80-62-6	Methyl Methacrylate	ND	0.75	ND	0.18	
142-82-5	n-Heptane	ND	0.75	ND	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.75	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.75	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.75	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.027	
108-88-3	<b>Toluene</b>	<b>1.2</b>	0.75	<b>0.33</b>	0.20	
591-78-6	2-Hexanone	ND	0.75	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.15	ND	0.017	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.019	
123-86-4	n-Butyl Acetate	ND	0.75	ND	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104282  
**Client Project ID:** 16512

Test Code: EPA TO-15  
 Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
 Analyst: Liliana Marghitoiu  
 Sampling Media: 6.0 L Summa Canister  
 Test Notes:  
 Container ID: AC01411

CAS Project ID: P0903021  
 CAS Sample ID: P0903021-002

Date Collected: 8/26/09  
 Date Received: 8/28/09  
 Date Analyzed: 9/3/09  
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.5      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.49

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.75	ND	0.16	
127-18-4	<b>Tetrachloroethene</b>	<b>0.20</b>	0.15	<b>0.029</b>	0.022	
108-90-7	Chlorobenzene	ND	0.15	ND	0.032	
100-41-4	Ethylbenzene	ND	0.75	ND	0.17	
179601-23-1	m,p-Xylenes	ND	0.75	ND	0.17	
75-25-2	Bromoform	ND	0.75	ND	0.072	
100-42-5	Styrene	ND	0.75	ND	0.18	
95-47-6	o-Xylene	ND	0.75	ND	0.17	
111-84-2	n-Nonane	ND	0.75	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.75	ND	0.15	
80-56-8	alpha-Pinene	ND	0.75	ND	0.13	
103-65-1	n-Propylbenzene	ND	0.75	ND	0.15	
622-96-8	4-Ethyltoluene	ND	0.75	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.75	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.75	ND	0.15	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.029	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.025	
106-46-7	1,4-Dichlorobenzene	ND	0.15	ND	0.025	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.025	
5989-27-5	d-Limonene	ND	0.75	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.75	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.75	ND	0.10	
91-20-3	Naphthalene	ND	0.75	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.75	ND	0.070	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

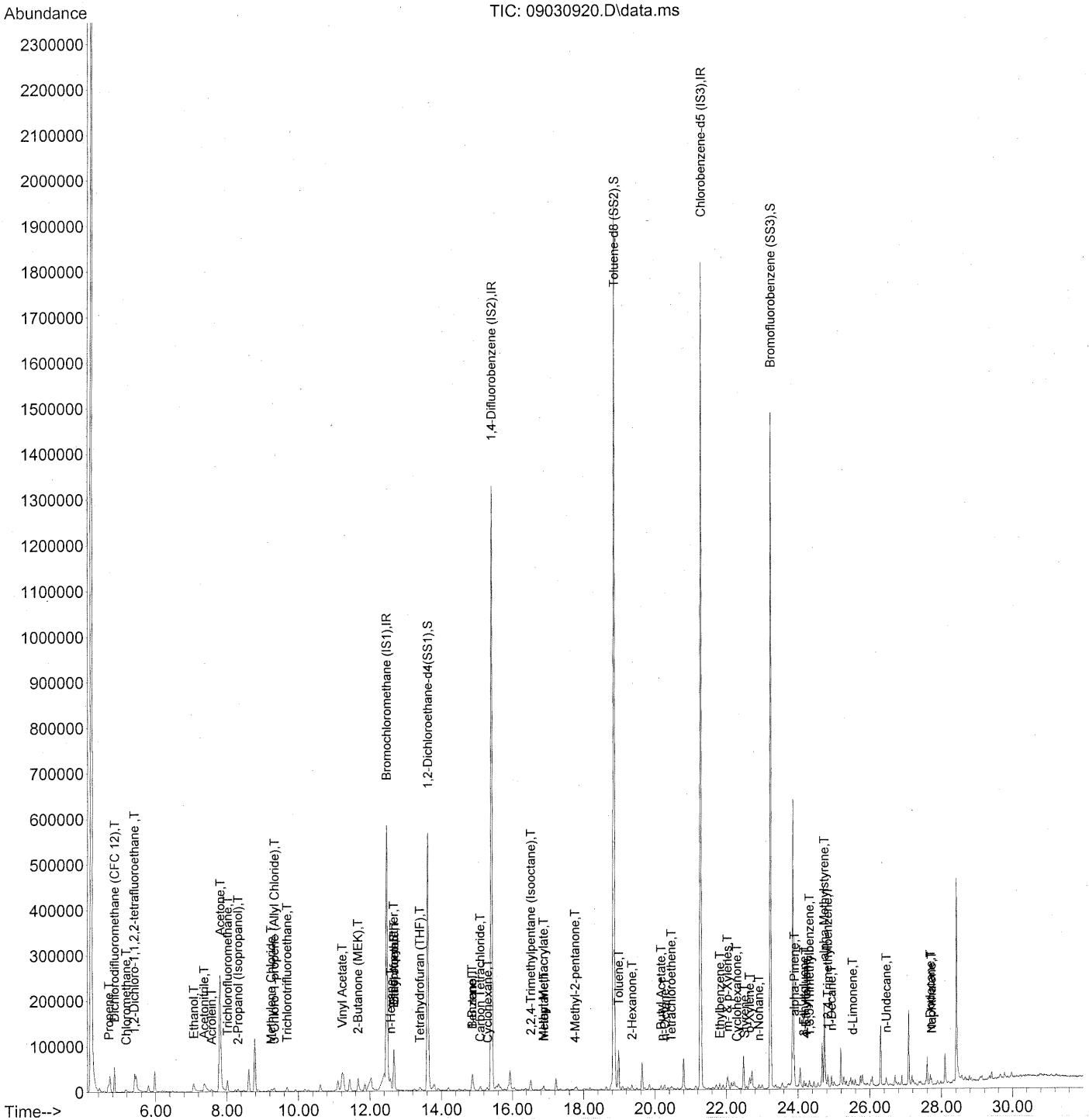
Date: \_\_\_\_\_

9/11/09

**70**

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 11:46 pm  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:06:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 11:46 pm  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:06:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	307945	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1533162	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	750053	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	587669	24.082	ng	-0.03
Spiked Amount	25.000			Recovery =	96.32%	
57) Toluene-d8 (SS2)	18.85	98	1673268	24.962	ng	-0.01
Spiked Amount	25.000			Recovery =	99.84%	
73) Bromofluorobenzene (SS3)	23.23	174	485524	25.167	ng	-0.01
Spiked Amount	25.000			Recovery =	100.68%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.70	42	8886	<del>0.399</del>	ng	# 1
3) Dichlorodifluoromethan...	4.85	85	57812	1.482	ng	100
4) Chloromethane	5.18	50	7145	0.273	ng	95
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	906	<del>0.056</del>	ng	# 62
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	6.70	64	98	N.D.		
10) Ethanol	7.07	45	56180	<del>4.067</del>	ng	88
11) Acetonitrile	7.36	41	53409	1.392	ng	96
12) Acrolein	7.57	56	7056	0.669	ng	100
13) Acetone	7.81	58	137433	9.621	ng	94
14) Trichlorofluoromethane	8.02	101	25278	0.735	ng	96
15) 2-Propanol (Isopropanol)	8.31	45	8790	<del>0.185</del>	ng	<i>CMRL</i> 71
16) Acrylonitrile	8.57	53	446	N.D.		
17) 1,1-Dichloroethene	9.05	96	88	N.D.		
18) 2-Methyl-2-Propanol (t...	9.28	59	2059	N.D.		
19) Methylene Chloride	9.24	84	3375	<del>0.186</del>	ng	86
20) 3-Chloro-1-propene (Al...	9.33	41	2391	0.085	ng	# 41
21) Trichlorotrifluoroethane	9.68	151	4602	0.338	ng	99
22) Carbon Disulfide	9.64	76	2406	N.D.		
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.23	86	6800	<del>1.900</del>	ng	# 94
27) 2-Butanone (MEK)	11.67	72	13798	1.196	ng	99
28) cis-1,2-Dichloroethene	12.03	61	110	N.D.		
29) Diisopropyl Ether	12.67	87	9004	0.534	ng	# 1
30) Ethyl Acetate	12.68	61	788	<del>0.127</del>	ng	# 1
31) n-Hexane	12.58	57	12056	<del>0.390</del>	ng	96

**72**

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 11:46 pm  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:06:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	89537	2.941	ng	98
34) Tetrahydrofuran (THF)	13.40	72	2228	0.178	ng #	85
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	329	N.D.		
38) 1,1,1-Trichloroethane	14.17	97	88	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.87	56	17211	0.902	ng #	31
41) Benzene	14.87	78	26524	0.368	ng	98
42) Carbon Tetrachloride	15.09	117	7322	0.303	ng	98
43) Cyclohexane	15.30	84	3175	0.120	ng #	77
44) tert-Amyl Methyl Ether	15.78	73	100	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.37	83	994	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	27486	0.335	ng	89
50) Methyl Methacrylate	16.87	100	504	0.075	ng #	1
51) n-Heptane	16.88	71	2551	0.137	ng	90
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.76	58	1464	0.089	ng #	64
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	18.98	91	60252	0.835	ng	99
59) 2-Hexanone	19.36	43	9977	0.226	ng	88
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.17	43	7261	0.143	ng	86
63) n-Octane	20.28	57	2264	0.136	ng	88
64) Tetrachloroethene	20.46	166	2391	0.131	ng	91
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.82	91	11872	0.144	ng	98
67) m- & p-Xylenes	22.03	91	29572	0.450	ng	98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.51	104	4248	0.088	ng	98
70) o-Xylene	22.65	91	11541	0.175	ng	98
71) n-Nonane	22.90	43	4321	0.109	ng	85
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.40	105	1095	N.D.		
75) alpha-Pinene	23.90	93	15894	0.366	ng #	42
76) n-Propylbenzene	24.05	91	4113	N.D.		
77) 3-Ethyltoluene	24.17	105	9198	0.115	ng	93
78) 4-Ethyltoluene	24.22	105	4939	0.063	ng	91
79) 1,3,5-Trimethylbenzene	24.31	105	3706	0.056	ng	74

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 11:46 pm  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 10 10:06:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

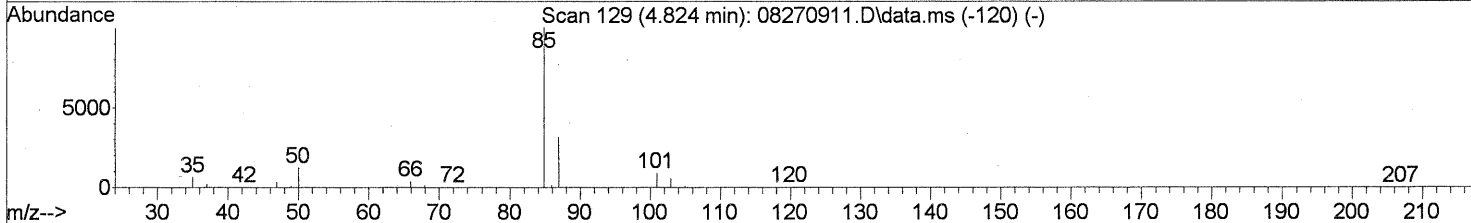
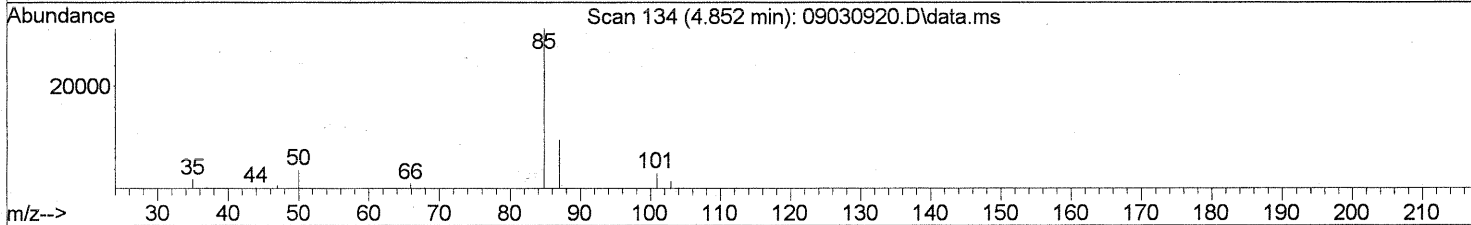
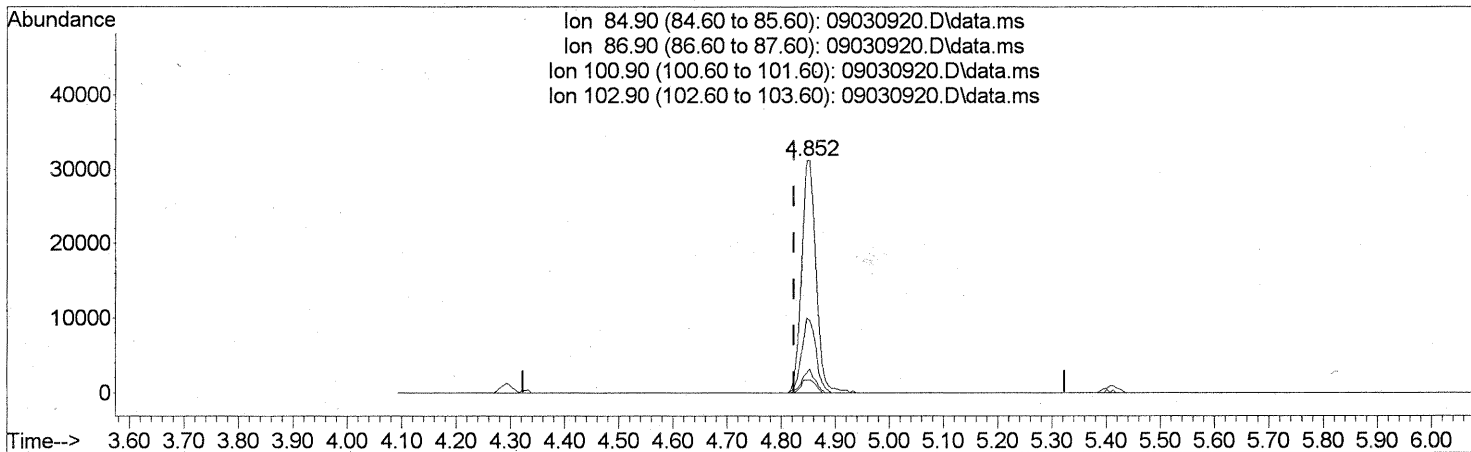
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	2229	0.065	ng	# 1
81) 2-Ethyltoluene	24.55	105	3971	N.D.		
82) 1,2,4-Trimethylbenzene	24.82	105	11464	<del>0.171</del>	ng	90
83) n-Decane	24.93	57	9505	0.237	ng	83
84) Benzyl Chloride	25.00	91	883	N.D.		
85) 1,3-Dichlorobenzene	25.11	146	502	N.D.		
86) 1,4-Dichlorobenzene	25.11	146	502	N.D.		
87) sec-Butylbenzene	25.16	105	460	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	2663	N.D.		
89) 1,2,3-Trimethylbenzene	25.35	105	3078	N.D.		
90) 1,2-Dichlorobenzene	25.11	146	502	N.D.		
91) d-Limonene	25.52	68	3842	<del>0.143</del>	ng	93
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	7576	0.182	ng	# 56
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.72	128	10135	<del>0.109</del>	ng	94
96) n-Dodecane	27.69	57	8294	0.175	ng	94
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	3880	0.139	ng	94
99) tert-Butylbenzene	24.82	119	1408	N.D.		
100) n-Butylbenzene	25.86	91	2103	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.852min (+0.029) 1.48ng

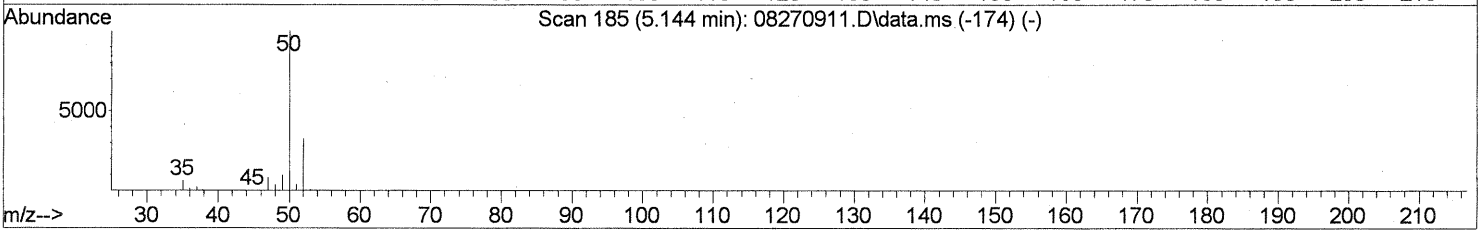
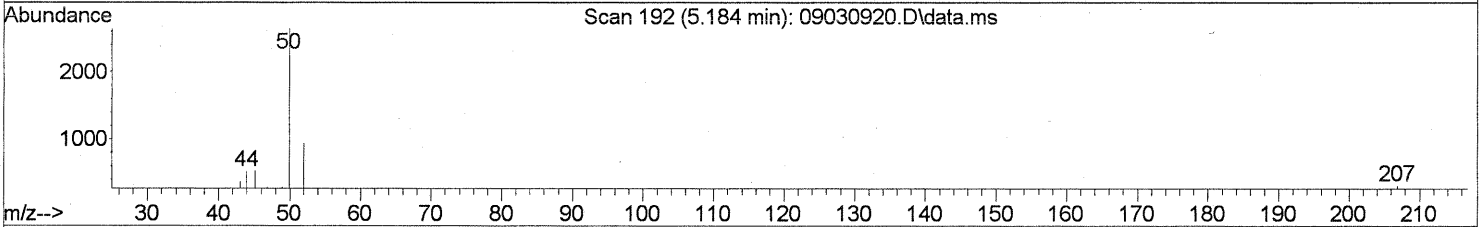
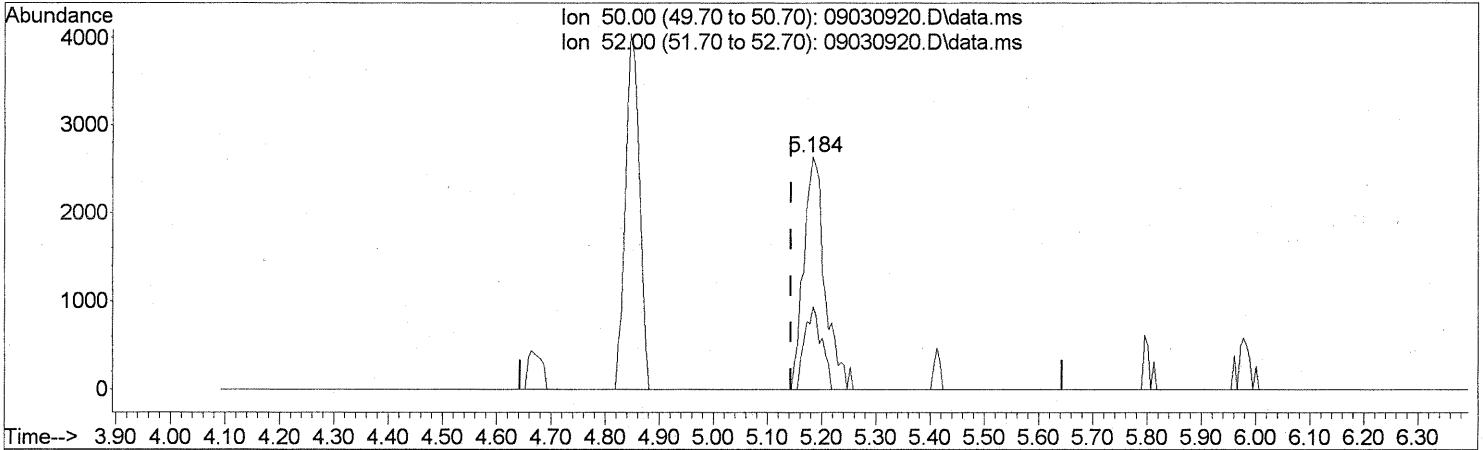
response 57812

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	31.75
100.90	8.80	8.78
102.90	5.60	5.38

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(4) Chloromethane (T)  
 5.184min (+0.040) 0.27ng  
 response 7145

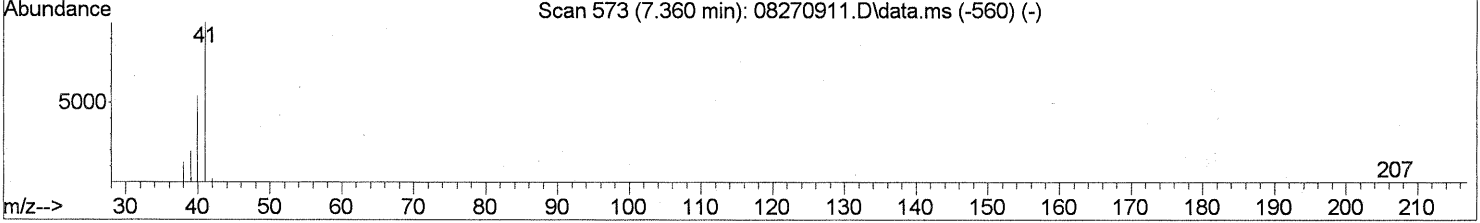
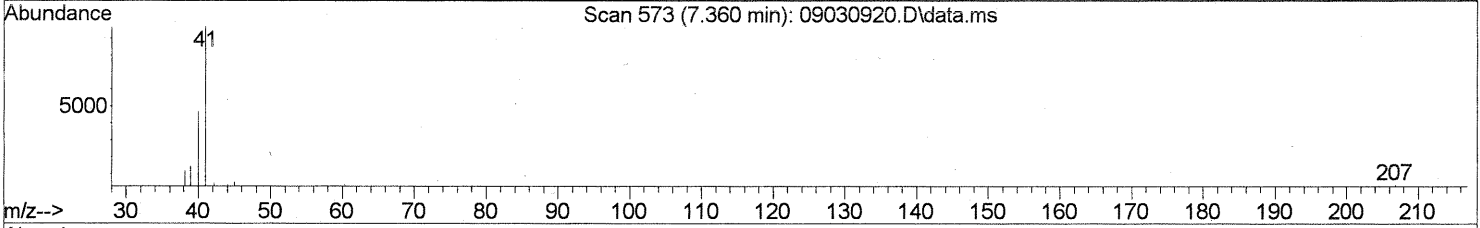
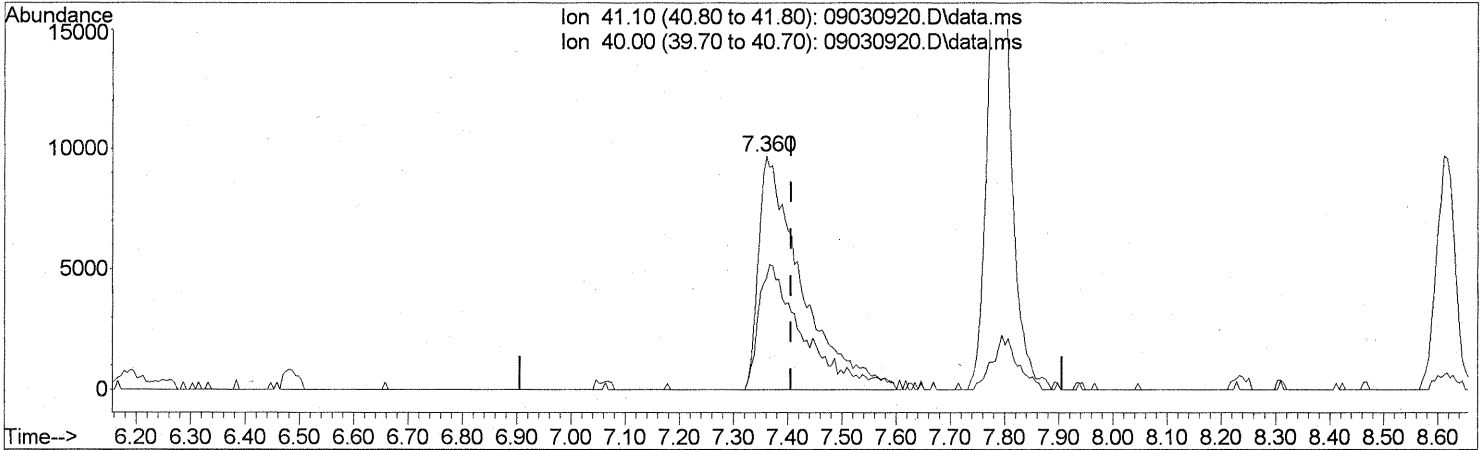
Ion	Exp%	Act%
50.00	100	100
52.00	31.60	28.62
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

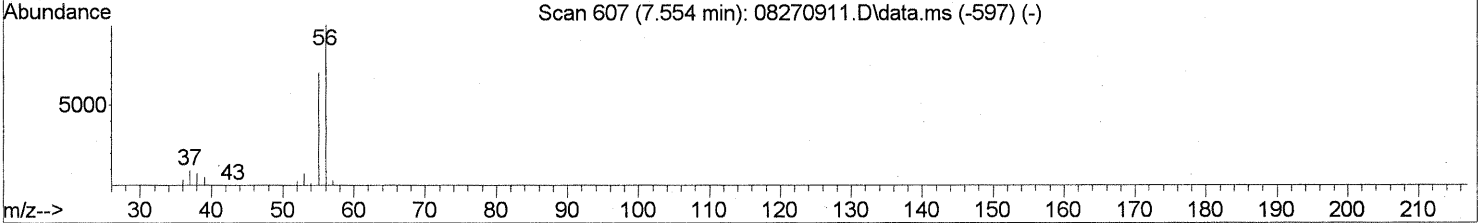
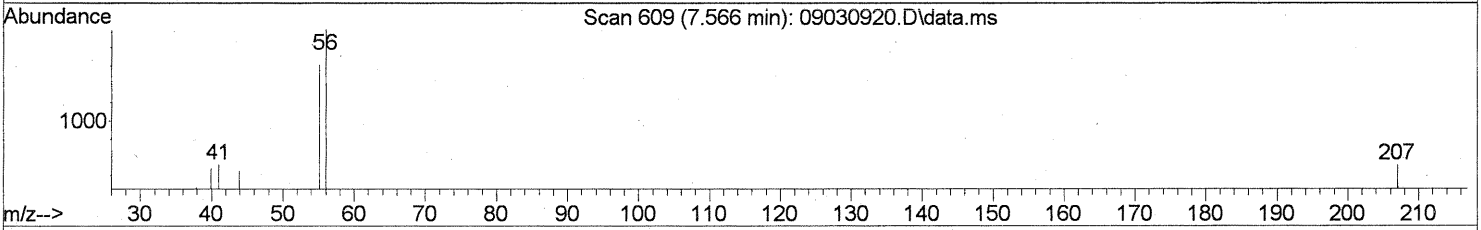
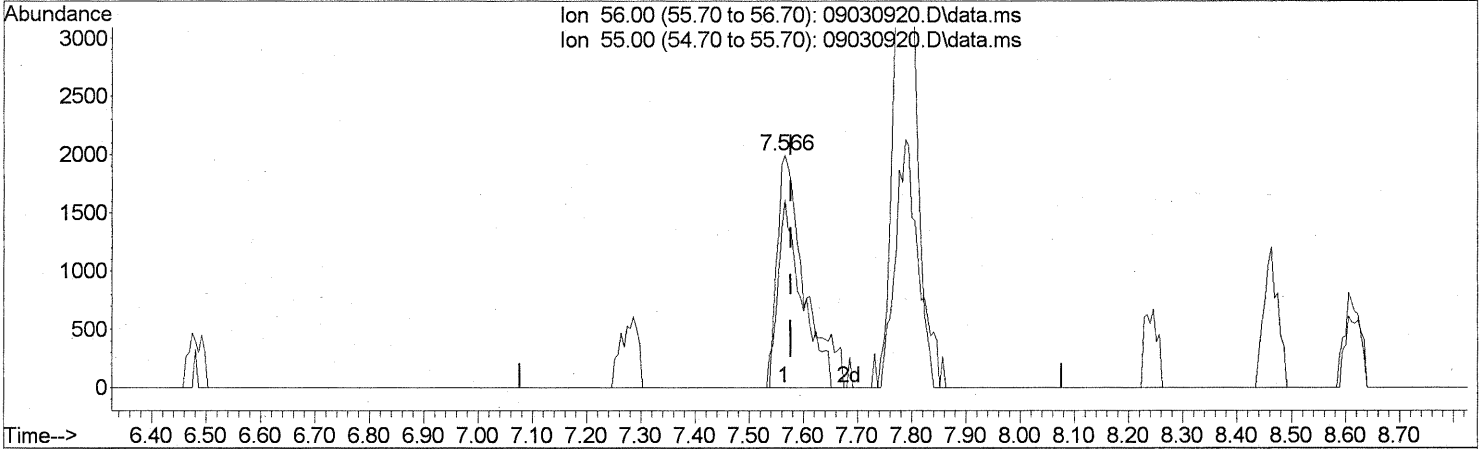
(11) Acetonitrile (T)  
 7.360min (-0.046) 1.39ng  
 response 53409

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	56.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

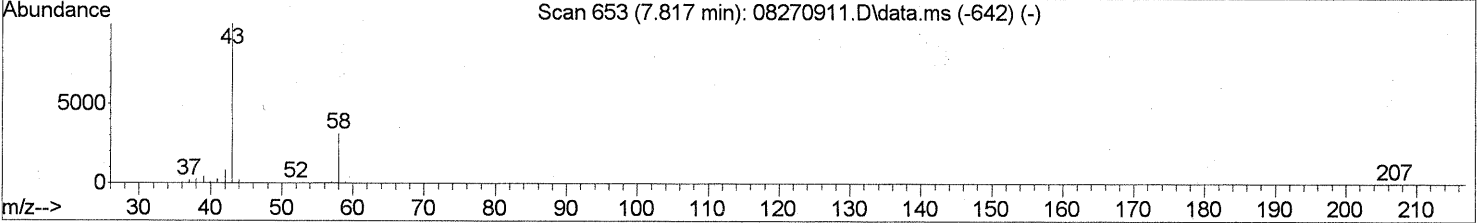
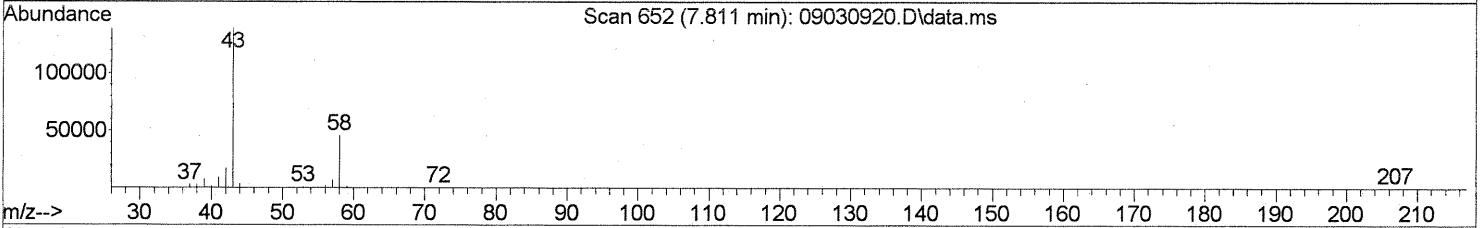
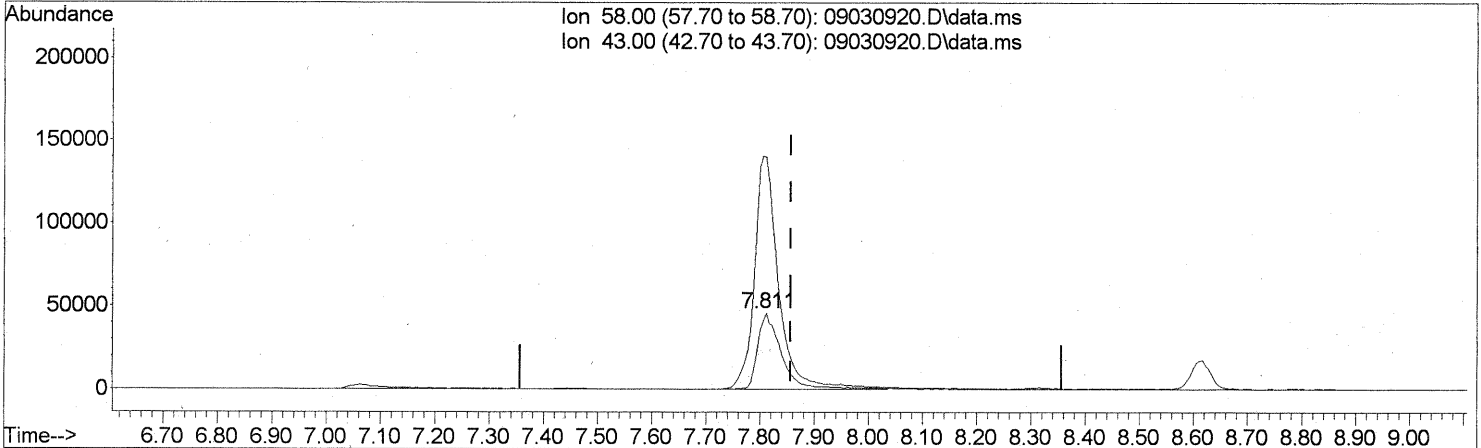
(12) Acrolein (T)  
 7.566min (-0.011) 0.67ng  
 response 7056

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	71.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

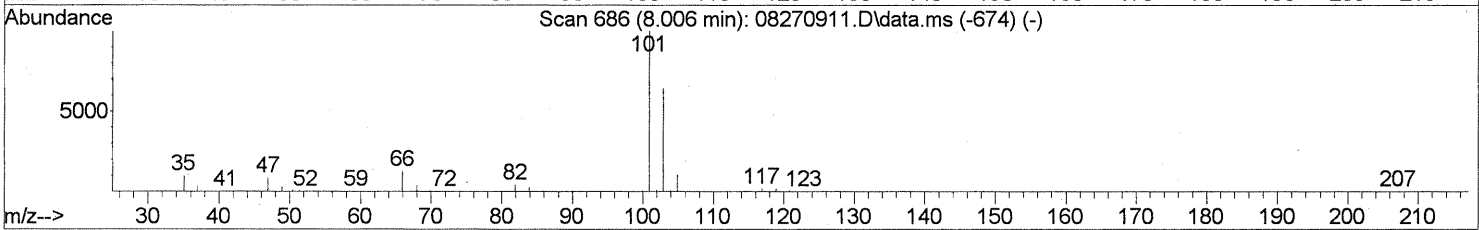
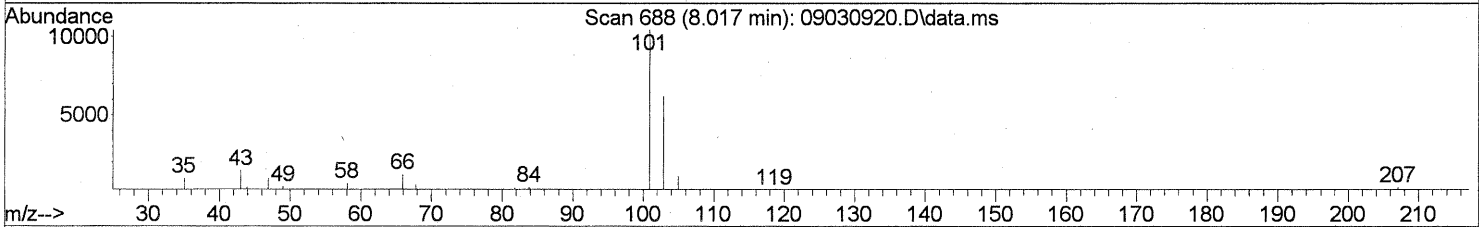
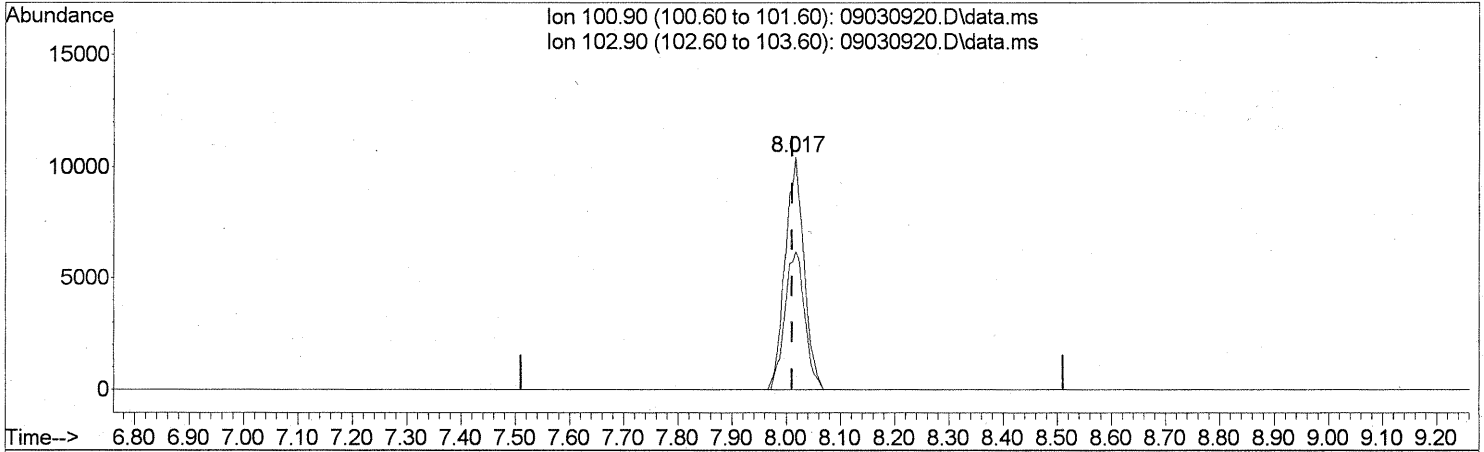
(13) Acetone (T)  
 7.811min (-0.046) 9.62ng  
 response 137433

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	318.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(14) Trichlorofluoromethane (T)

8.017min (+0.006) 0.74ng

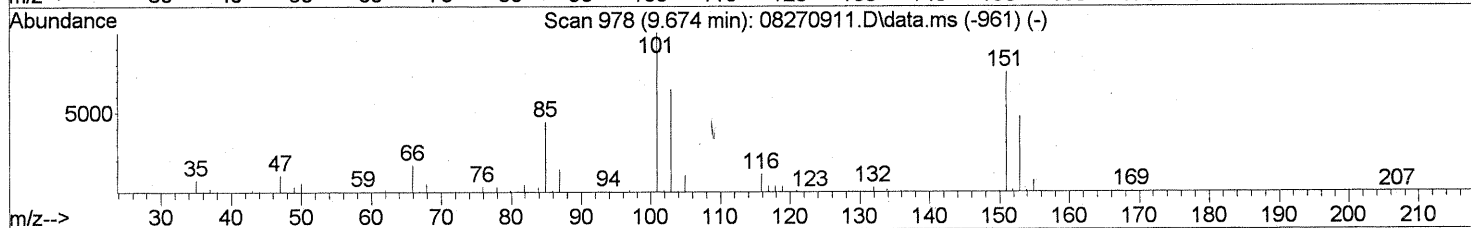
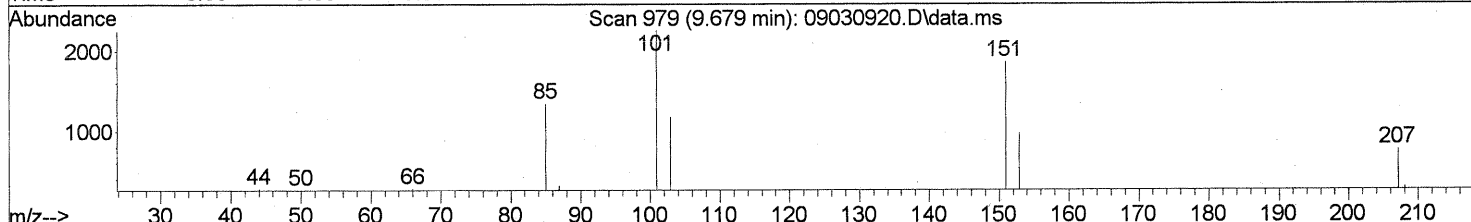
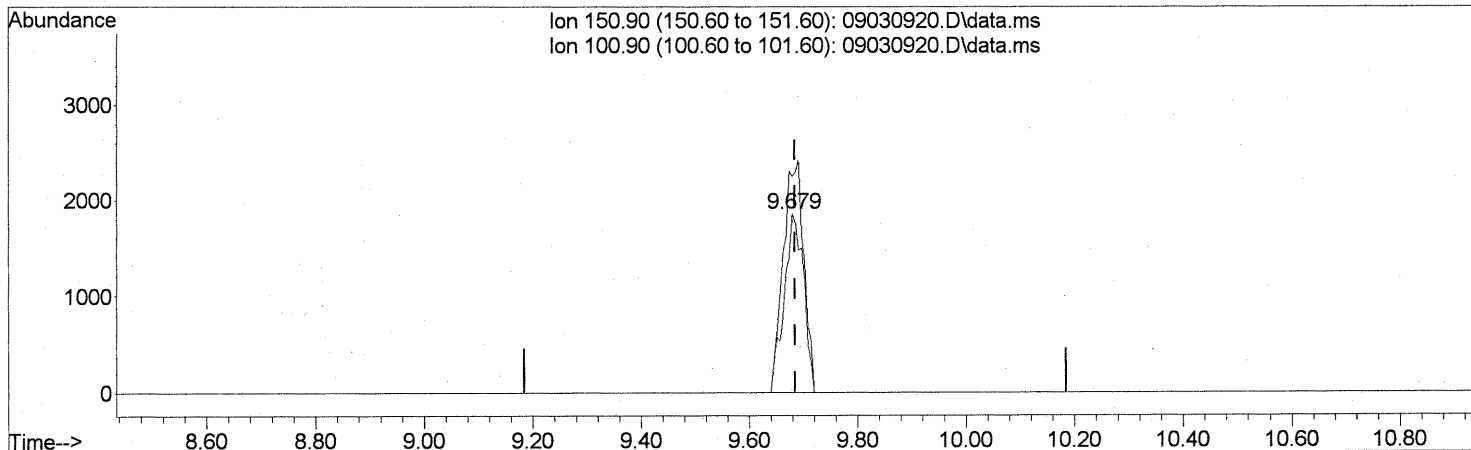
response 25278

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	62.52
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.34ng

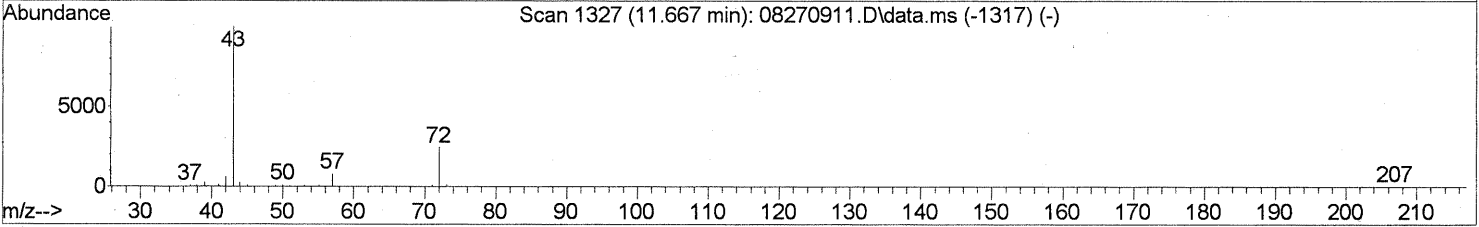
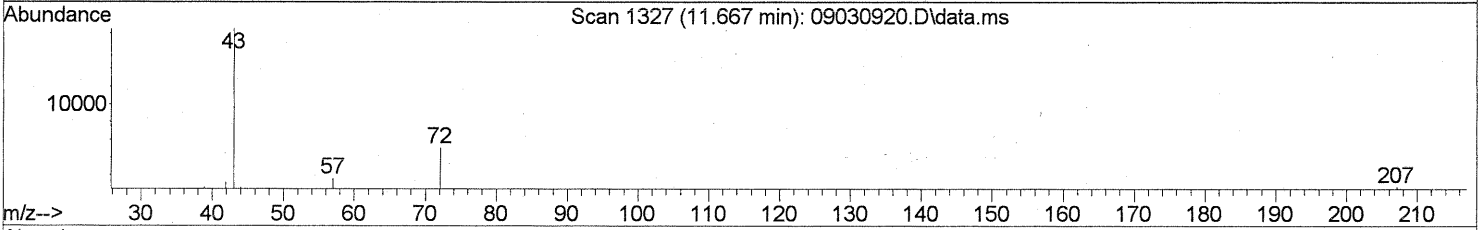
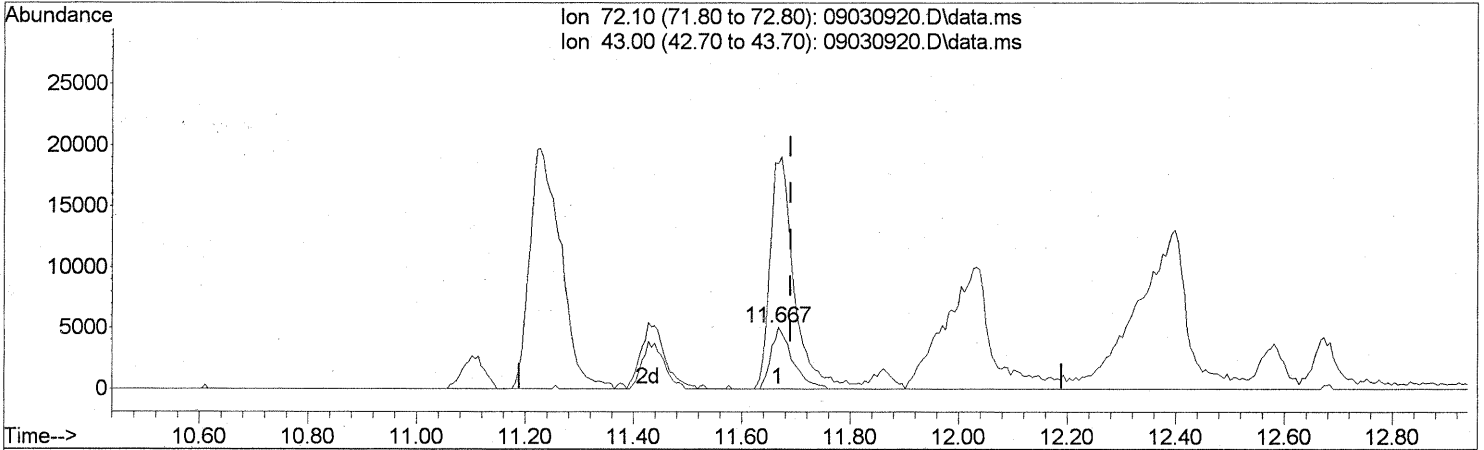
response 4602

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	137.68
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(27) 2-Butanone (MEK) (T)

11.667min (-0.023) 1.20ng

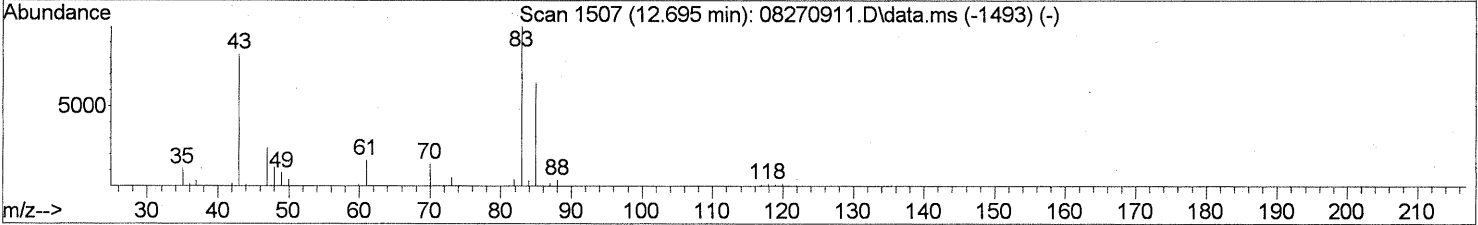
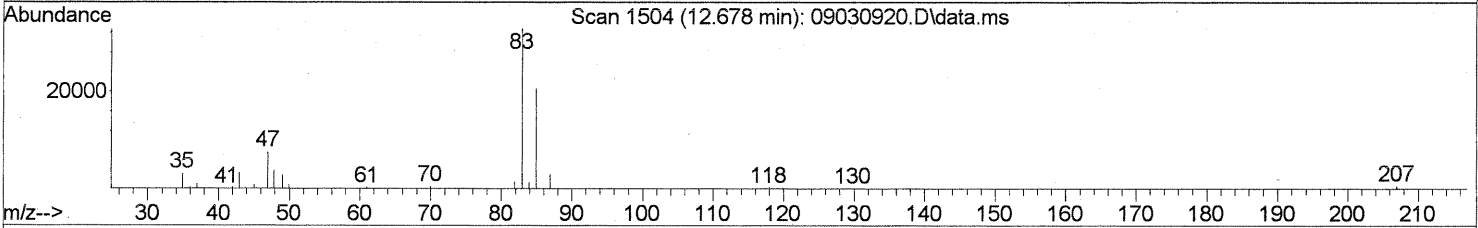
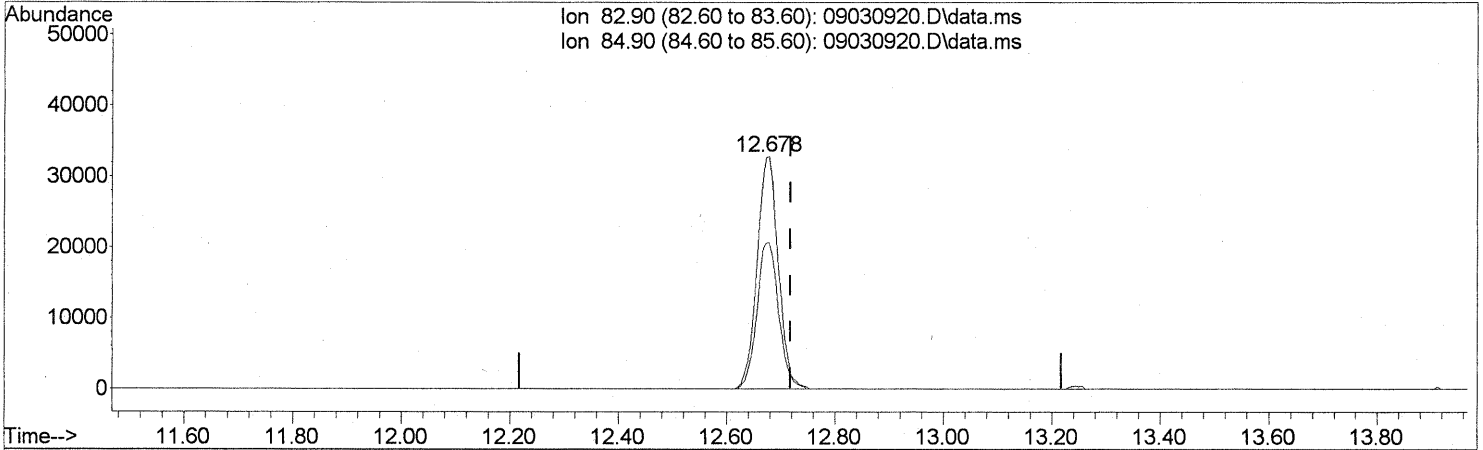
response 13798

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	426.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



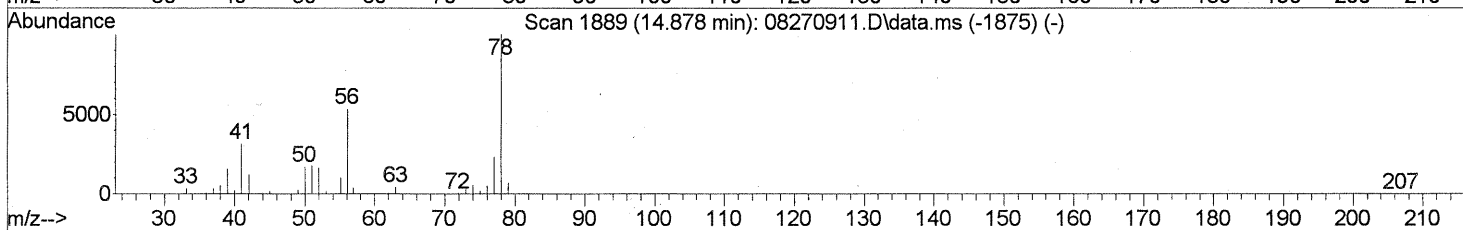
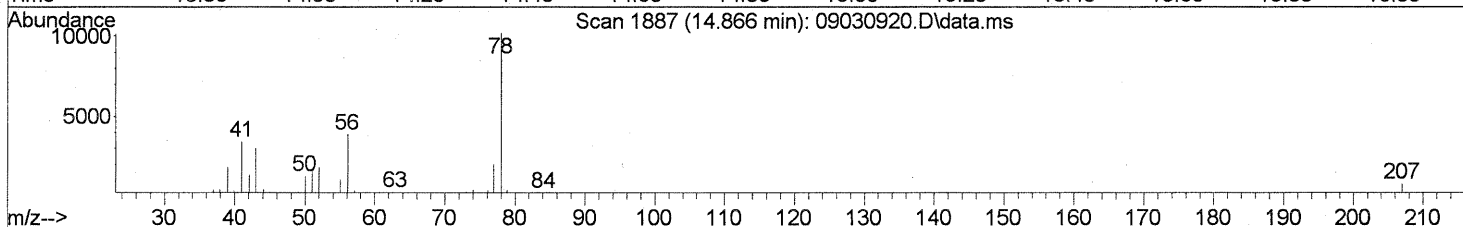
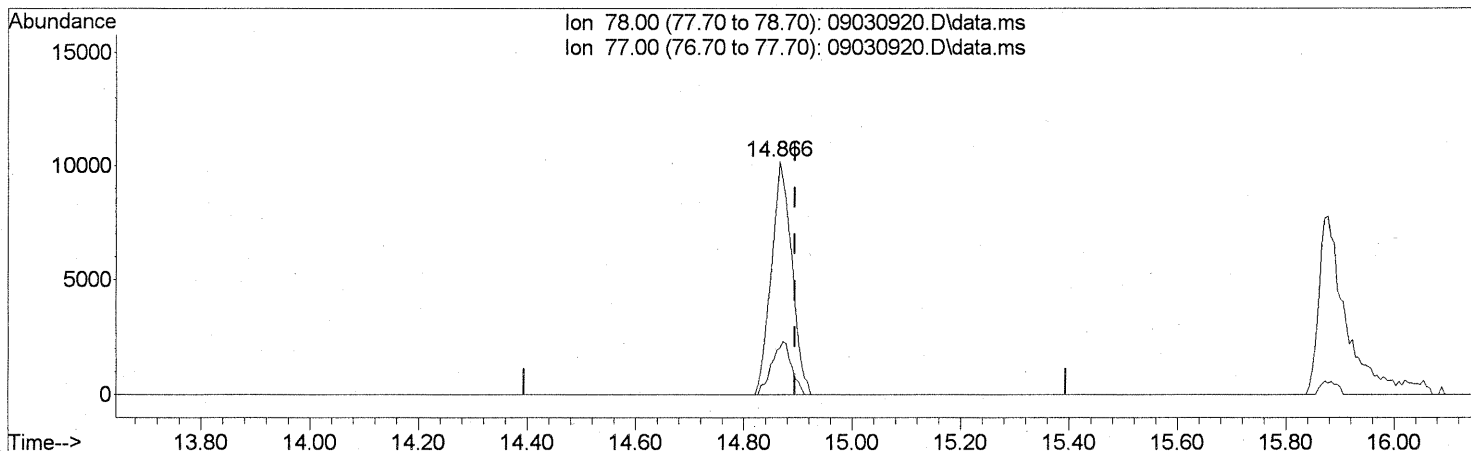
TIC: 09030920.D\data.ms

(32) Chloroform (T)  
 12.678min (-0.040) 2.94ng  
 response 89537

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	64.39
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(41) Benzene (T)  
 14.866min (-0.029) 0.37ng  
 response 26524

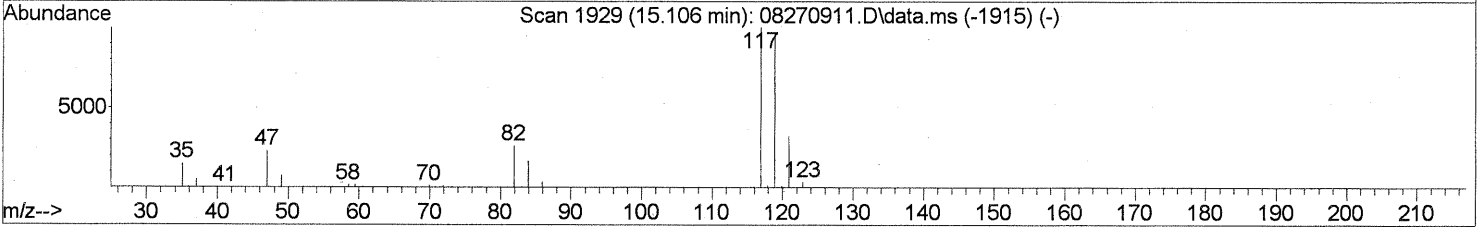
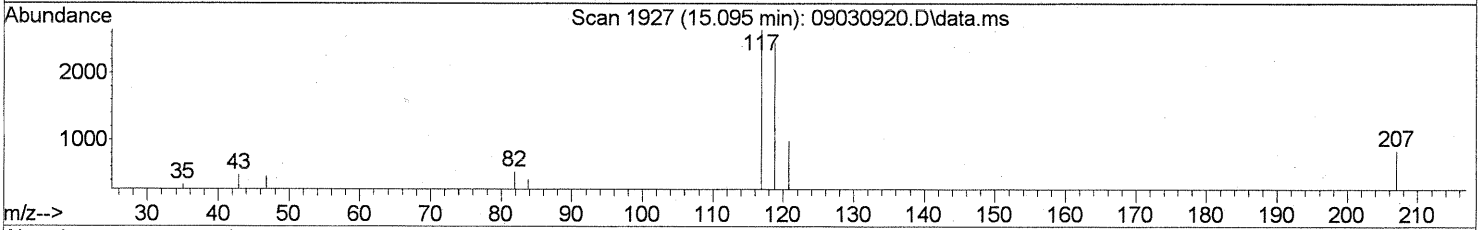
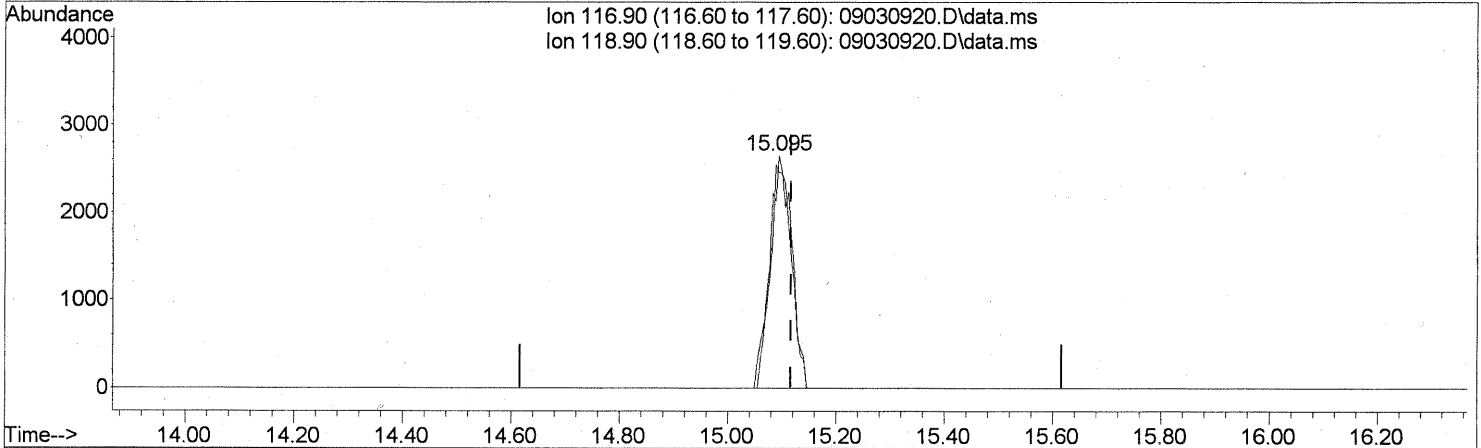
Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.05
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(42) Carbon Tetrachloride (T)

15.095min (-0.023) 0.30ng

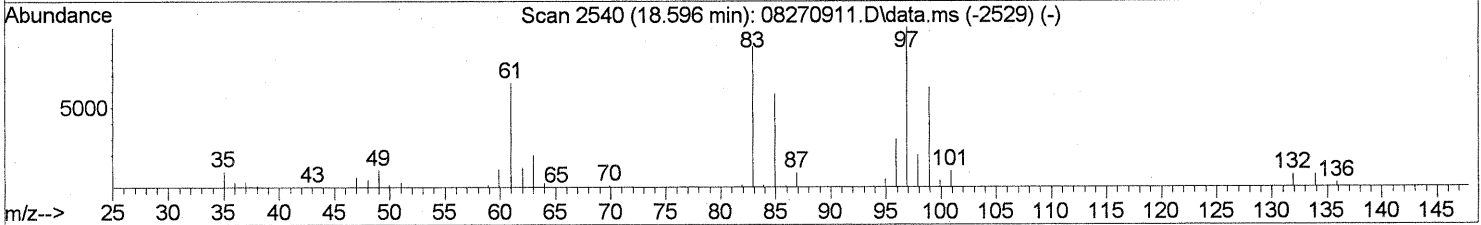
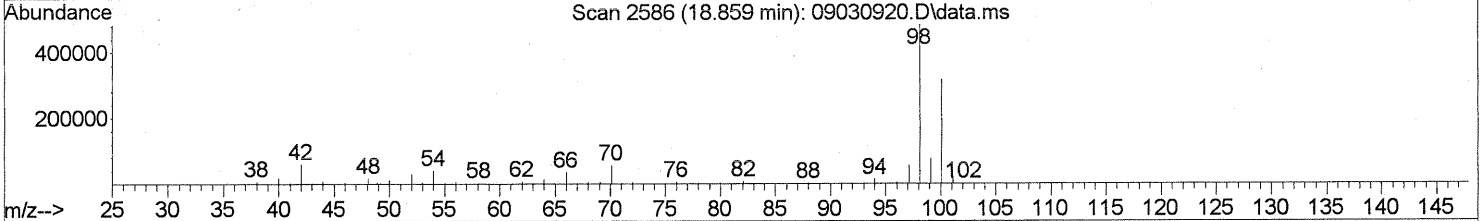
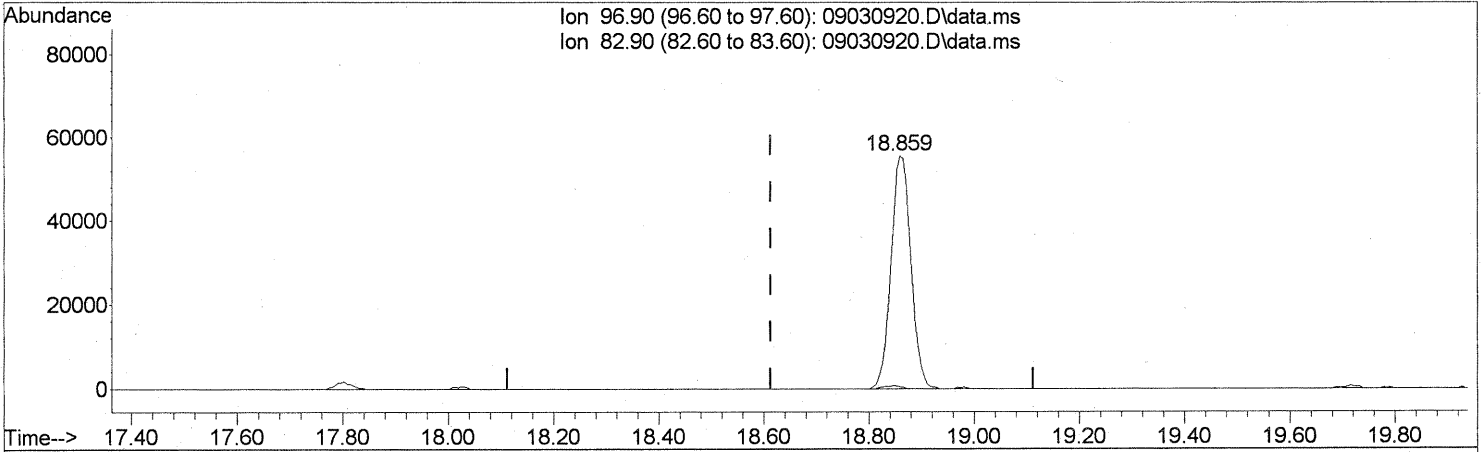
response 7322

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	98.13
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(55) 1,1,2-Trichloroethane (T)

18.859min (+0.246) 8.66ng

response 145424

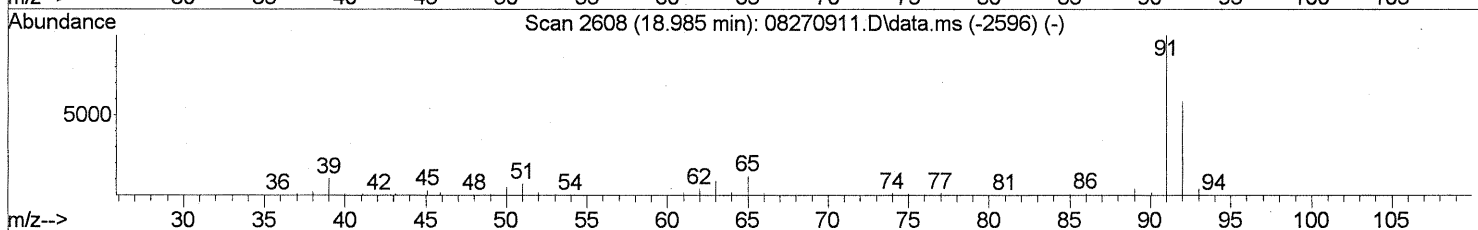
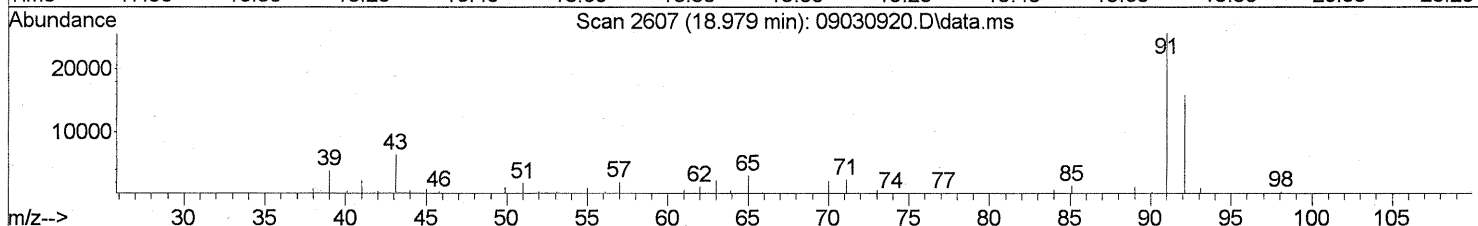
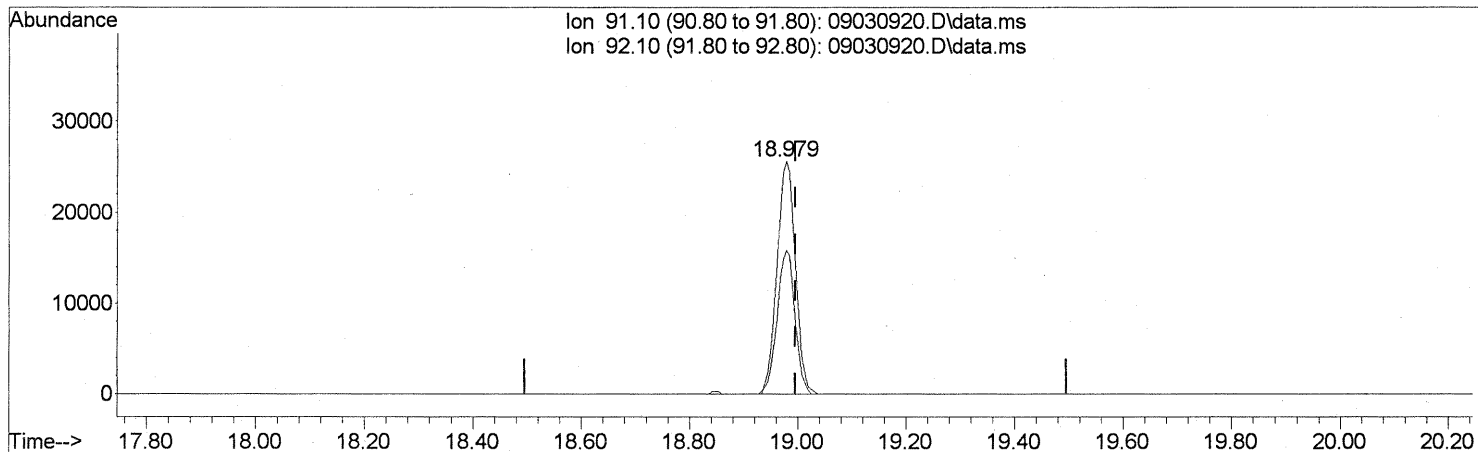
Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.09#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*mm 9/10/09*  
*ur 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

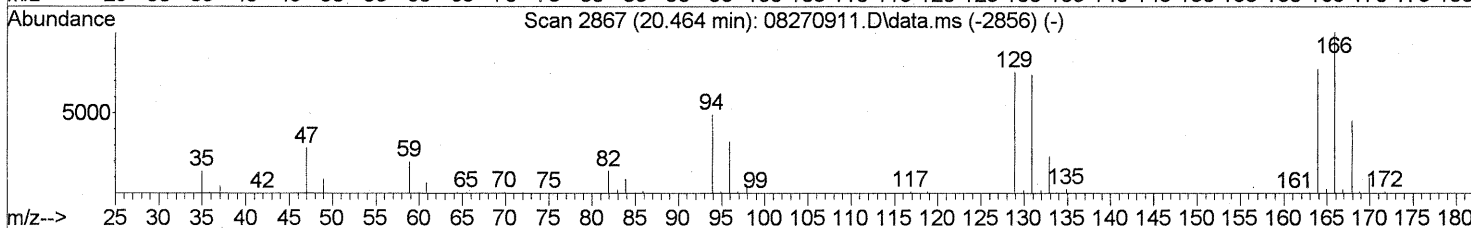
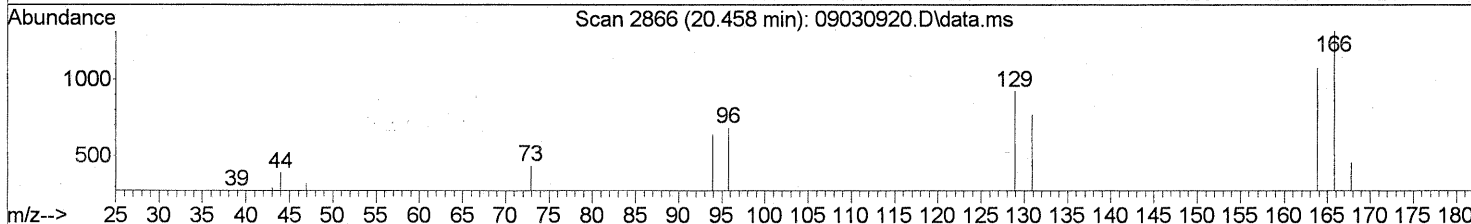
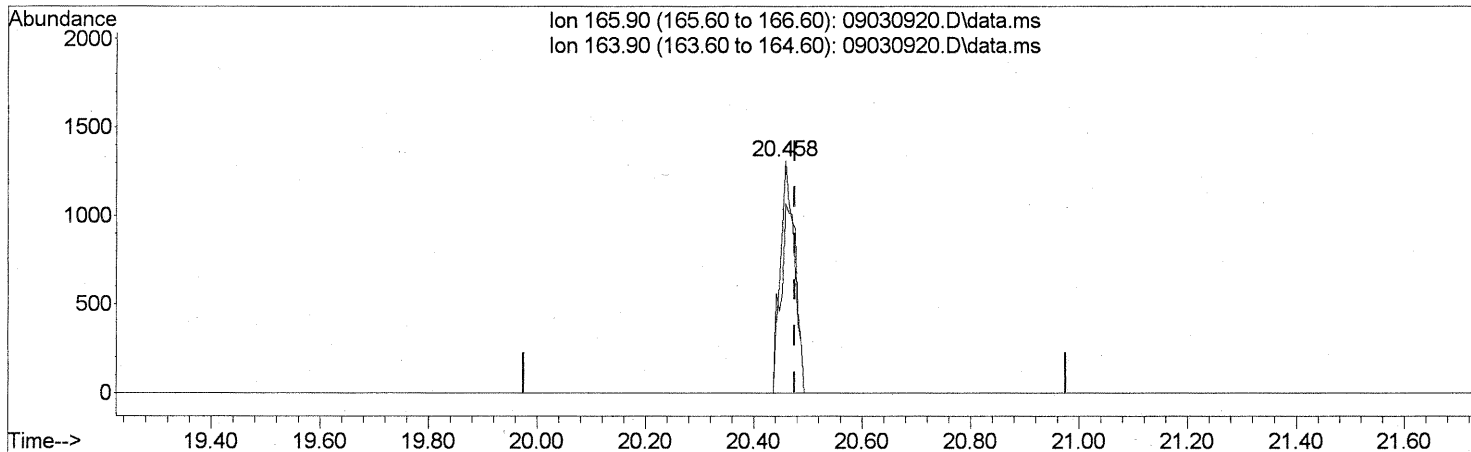
(58) Toluene (T)  
 18.979min (-0.017) 0.83ng  
 response 60252

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030920.D  
 Acq On : 3 Sep 2009 23:46  
 Operator : LM/CC  
 Sample : P0903021-002 (1000ml)  
 Misc : EH&E 104282  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 04 08:52:50 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030920.D\data.ms

(64) Tetrachloroethene (T)

20.458min (-0.017) 0.13ng

response 2391

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	86.99
0.00	0.00	0.00
0.00	0.00	0.00

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** 104275

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P0903021-003

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Analyst: Liliana Marghitoiu

Sampling Media: 6.0 L Summa Canister

Test Notes:

Container ID: AC00937

Date Collected: 8/26/09

Date Received: 8/28/09

Date Analyzed: 9/4/09 & 9/9/09

Volume(s) Analyzed: 1.00 Liter(s)

0.20 Liter(s)

Initial Pressure (psig): -2.4      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	3.1	0.74	1.8	0.43	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.5	0.74	0.51	0.15	
74-87-3	Chloromethane	0.83	0.15	0.40	0.072	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.067	
74-83-9	Bromomethane	ND	0.15	ND	0.038	
75-00-3	Chloroethane	ND	0.15	ND	0.056	
64-17-5	Ethanol	100	7.4	56	3.9	
75-05-8	Acetonitrile	240	0.74	140	0.44	D
107-02-8	Acrolein	9.2	0.74	4.0	0.32	
67-64-1	Acetone	160	7.4	67	3.1	
75-69-4	Trichlorofluoromethane	1.5	0.15	0.27	0.026	
67-63-0	2-Propanol (Isopropyl Alcohol)	10	0.74	4.3	0.30	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.037	
75-09-2	Methylene Chloride	ND	0.74	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.047	
76-13-1	Trichlorotrifluoroethane	0.62	0.15	0.081	0.019	
75-15-0	Carbon Disulfide	1.1	0.74	0.37	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.037	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.037	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.041	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	
78-93-3	2-Butanone (MEK)	12	0.74	4.0	0.25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Verified By: 

Date: 9/11/09

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104275  
**Client Project ID:** 16512  
**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC00937

**CAS Project ID:** P0903021  
**CAS Sample ID:** P0903021-003

**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09 & 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)  
 0.20 Liter(s)

Initial Pressure (psig): -2.4      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.15	ND	0.037	
141-78-6	Ethyl Acetate	3.7	0.74	1.0	0.21	
110-54-3	n-Hexane	13	0.74	3.5	0.21	
67-66-3	Chloroform	5.3	0.15	1.1	0.030	
109-99-9	Tetrahydrofuran (THF)	3.0	0.74	1.0	0.25	
107-06-2	1,2-Dichloroethane	15	0.15	3.8	0.037	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.027	
71-43-2	Benzene	11	0.15	3.6	0.046	
56-23-5	Carbon Tetrachloride	0.59	0.15	0.093	0.024	
110-82-7	Cyclohexane	2.9	0.74	0.85	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.032	
75-27-4	Bromodichloromethane	1.9	0.15	0.29	0.022	
79-01-6	Trichloroethene	0.16	0.15	0.030	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
80-62-6	Methyl Methacrylate	ND	0.74	ND	0.18	
142-82-5	n-Heptane	7.9	0.74	1.9	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	1.6	0.74	0.38	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.027	
108-88-3	Toluene	33	0.74	8.8	0.20	
591-78-6	2-Hexanone	1.4	0.74	0.34	0.18	
124-48-1	Dibromochloromethane	0.35	0.15	0.041	0.017	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.019	
123-86-4	n-Butyl Acetate	4.2	0.74	0.88	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: 9/11/09

TO15scan.xls - 75 Compounds - PageNo.:

**90**

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104275  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P0903021-003

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC00937

**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09 & 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)  
 0.20 Liter(s)

Initial Pressure (psig): -2.4      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	3.1	0.74	0.66	0.16	
127-18-4	Tetrachloroethene	0.25	0.15	0.036	0.022	
108-90-7	Chlorobenzene	ND	0.15	ND	0.032	
100-41-4	Ethylbenzene	6.3	0.74	1.4	0.17	
179601-23-1	m,p-Xylenes	21	0.74	4.7	0.17	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	10	0.74	2.4	0.17	
95-47-6	o-Xylene	7.7	0.74	1.8	0.17	
111-84-2	n-Nonane	1.5	0.74	0.28	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.74	ND	0.15	
80-56-8	alpha-Pinene	220	0.74	40	0.13	D
103-65-1	n-Propylbenzene	1.1	0.74	0.23	0.15	
622-96-8	4-Ethyltoluene	1.9	0.74	0.39	0.15	
108-67-8	1,3,5-Trimethylbenzene	2.0	0.74	0.41	0.15	
95-63-6	1,2,4-Trimethylbenzene	6.7	0.74	1.4	0.15	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.029	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.025	
106-46-7	1,4-Dichlorobenzene	0.19	0.15	0.032	0.025	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.025	
5989-27-5	d-Limonene	46	0.74	8.3	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	2.7	0.74	0.52	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

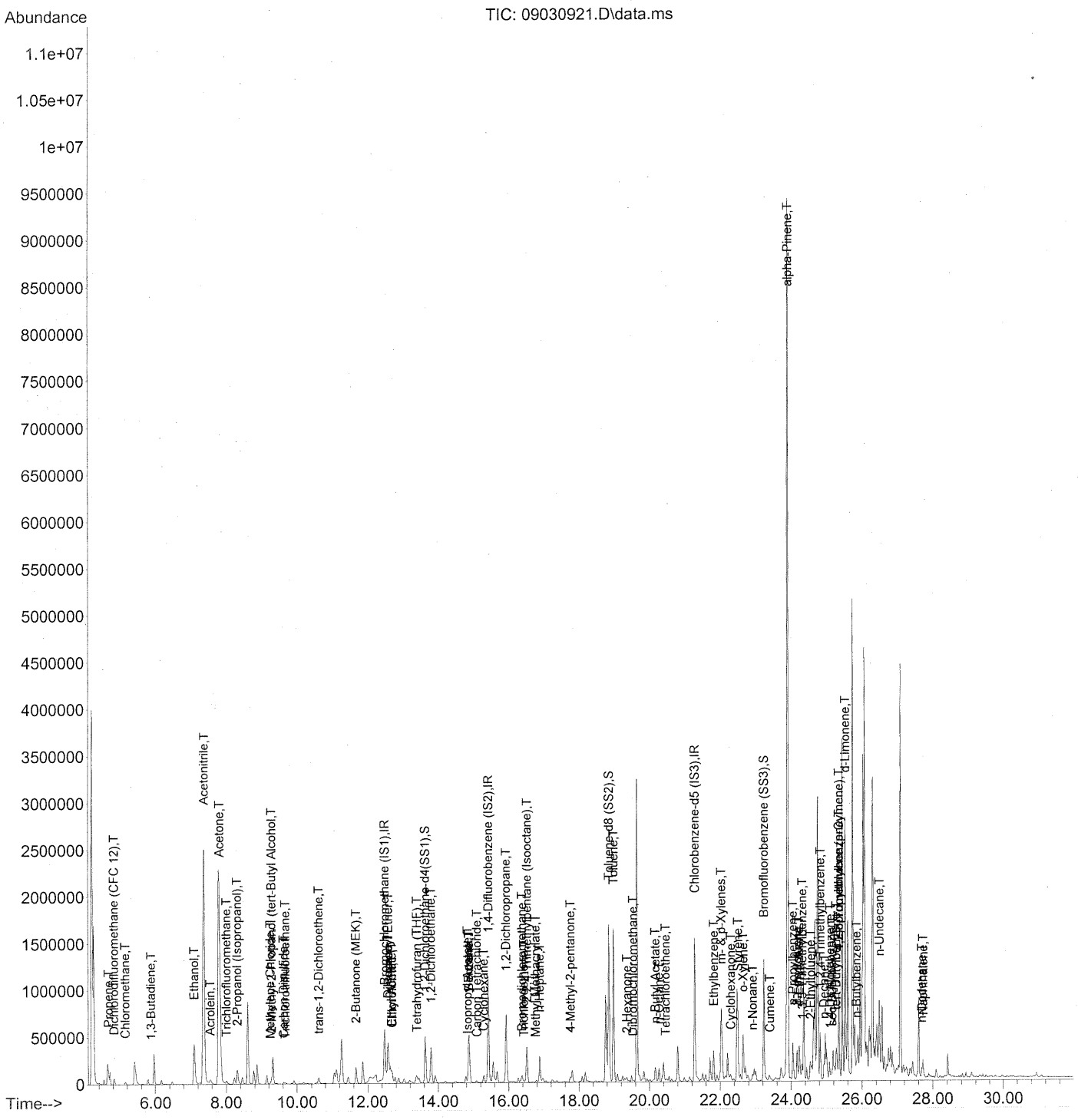
Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030921.D  
Acq On : 4 Sep 2009 12:28 am  
Operator : LM/CC  
Sample : P0903021-003 (1000ml)  
Misc : EH&E 104275  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:13:36 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 12:28 am  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:13:36 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	259389	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1291350	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	632991	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.63	65	495717	24.116	ng	-0.02
Spiked Amount	25.000		Recovery	=	96.48%	
57) Toluene-d8 (SS2)	18.85	98	1415200	25.017	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.08%	
73) Bromofluorobenzene (SS3)	23.23	174	416786	25.599	ng	0.00
Spiked Amount	25.000		Recovery	=	102.40%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	39119m	2.085	ng	
3) Dichlorodifluoromethan...	4.82	85	55785	1.698	ng	99
4) Chloromethane	5.15	50	12443	0.563	ng	97
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	624	N.D.		
6) Vinyl Chloride	5.60	62	399	N.D.		
7) 1,3-Butadiene	5.87	54	1376	<del>0.089</del>	ng	# 35
8) Bromomethane	6.36	94	323	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.10	45	824062	70.829	ng	100
11) Acetonitrile	7.38	41	4528695	<del>140.137</del>	ng	100
12) Acrolein	7.55	56	54954	6.186	ng	99
13) Acetone	7.81	58	1288604	107.097	ng	# 84
14) Trichlorofluoromethane	8.01	101	29414	1.016	ng	95
15) 2-Propanol (Isopropanol)	8.31	45	282577	7.064	ng	99
16) Acrylonitrile	0.00	53	0	N.D.	d	
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.28	59	16345	0.408	ng	# 1
19) Methylene Chloride	9.25	84	4981	<del>0.326</del>	ng	97
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.	d	
21) Trichlorotrifluoroethane	9.67	151	4777	0.417	ng	95
22) Carbon Disulfide	9.62	76	42188	0.777	ng	96
23) trans-1,2-Dichloroethene	10.60	61	1148	<del>0.053</del>	ng	# 19
24) 1,1-Dichloroethane	11.04	63	777	N.D.		
25) Methyl tert-Butyl Ether	11.17	73	326	N.D.		
26) Vinyl Acetate	0.00	86	0	N.D.	d	
27) 2-Butanone (MEK)	11.67	72	77652	7.990	ng	94
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.	d	
29) Diisopropyl Ether	12.58	87	2188	0.154	ng	# 1
30) Ethyl Acetate	12.67	61	12893	2.469	ng	95
31) n-Hexane	12.58	57	219762	8.447	ng	99

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 12:28 am  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:13:36 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.69	83	91733	3.577 ng		95
34) Tetrahydrofuran (THF)	13.39	72	21631	2.052 ng	#	40
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	221459	10.292 ng		98
38) 1,1,1-Trichloroethane	14.19	97	634	N.D.		
39) Isopropyl Acetate	14.83	61	1216	0.124 ng	#	1
40) 1-Butanol	14.86	56	162029	10.081 ng	#	39
41) Benzene	14.87	78	470868	7.757 ng		100
42) Carbon Tetrachloride	15.09	117	8084	0.397 ng		98
43) Cyclohexane	15.29	84	44447	1.987 ng		95
44) tert-Amyl Methyl Ether	15.84	73	1711	N.D.		
45) 1,2-Dichloropropane	15.92	63	1198	0.080 ng		95
46) Bromodichloromethane	16.37	83	26069	1.303 ng	#	73
47) Trichloroethene	16.43	130	1598	0.108 ng	#	77
48) 1,4-Dioxane	16.24	88	95	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	437406	6.331 ng		93
50) Methyl Methacrylate	16.76	100	511	0.091 ng	#	1
51) n-Heptane	16.88	71	84378	5.363 ng		95
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	14568	1.051 ng		90
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.45	97	647	N.D.		
58) Toluene	18.98	91	1357852	22.286 ng		100
59) 2-Hexanone	19.36	43	35058m	0.941 ng		
60) Dibromochloromethane	19.53	129	3637	0.237 ng		95
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.16	43	120125	2.812 ng		95
63) n-Octane	20.27	57	29019	2.070 ng		97
64) Tetrachloroethene	20.46	166	2584	0.167 ng		88
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.82	91	296110	4.249 ng		99
67) m- & p-Xylenes	22.03	91	771135	13.899 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	282049	6.905 ng		98
70) o-Xylene	22.65	91	288847	5.183 ng		99
71) n-Nonane	22.91	43	33042	0.987 ng		91
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.40	105	18204	0.258 ng		96
75) alpha-Pinene	23.90	93	4603967	125.667 ng		91
76) n-Propylbenzene	24.05	91	68746	0.766 ng	#	69
77) 3-Ethyltoluene	24.17	105	179312	2.654 ng		100
78) 4-Ethyltoluene	24.22	105	87378	1.310 ng		97
79) 1,3,5-Trimethylbenzene	24.31	105	75492	1.360 ng		98

*See file*

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 12:28 am  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 10 10:13:36 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

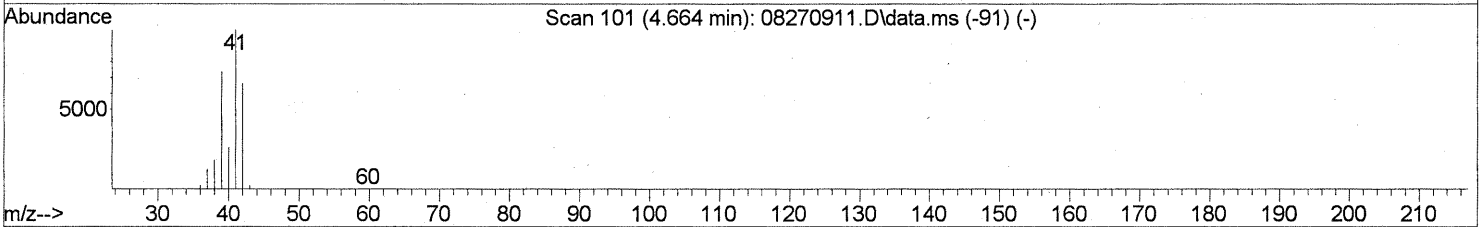
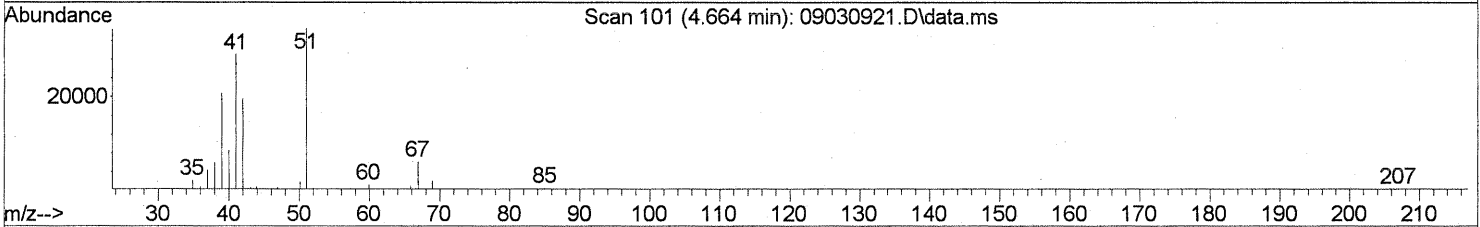
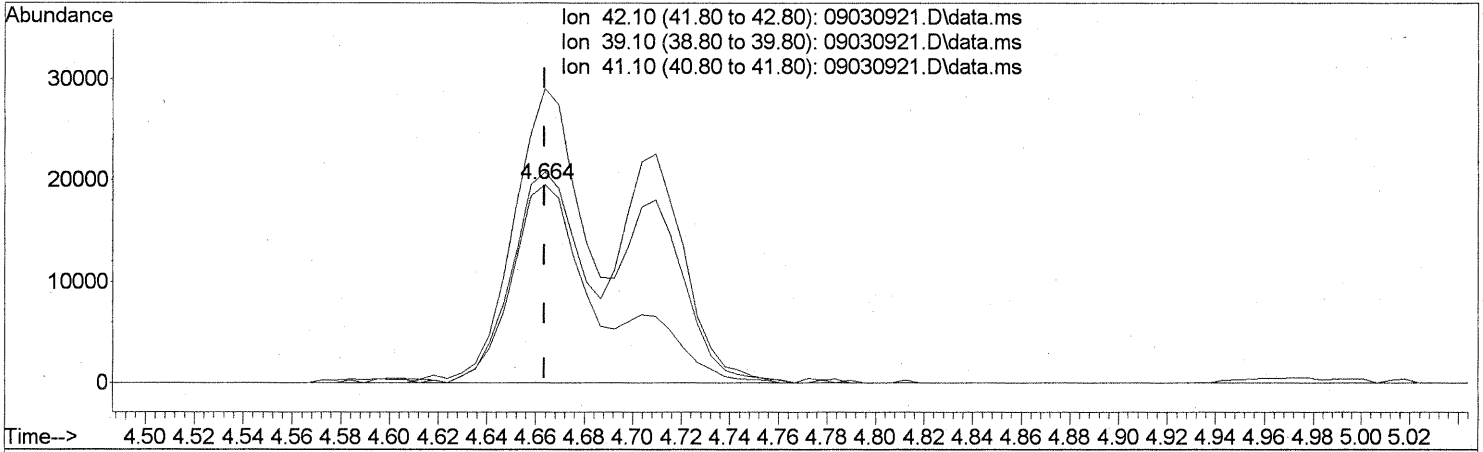
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.50	118	1348	N.D.		
81) 2-Ethyltoluene	24.55	105	68032	0.981 ng		99
82) 1,2,4-Trimethylbenzene	24.82	105	257861	4.551 ng		90
83) n-Decane	24.93	57	61694	1.824 ng	#	42
84) Benzyl Chloride	25.00	91	803	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D. d		
86) 1,4-Dichlorobenzene	25.10	146	4068	0.128 ng		89
87) sec-Butylbenzene	25.16	105	5905	0.076 ng	#	71
88) 4-Isopropyltoluene (p-...	25.35	119	133095	1.908 ng		97
89) 1,2,3-Trimethylbenzene	25.35	105	83740	1.410 ng	NR	96
90) 1,2-Dichlorobenzene	0.00	146	0	N.D. d		
91) d-Limonene	25.53	68	709673	31.377 ng		85
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	151852	4.324 ng	#	1
94) 1,2,4-Trichlorobenzene	27.58	180	90	N.D.		
95) Naphthalene	27.72	128	142927	1.825 ng		97
96) n-Dodecane	27.69	57	31560	0.788 ng		90
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	39846	1.696 ng	#	88
99) tert-Butylbenzene	25.27	119	10041	0.183 ng		96
100) n-Butylbenzene	25.84	91	38453	0.609 ng	#	44

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(2) Propene (T)

4.664min (+0.000) 2.69ng

*SP*

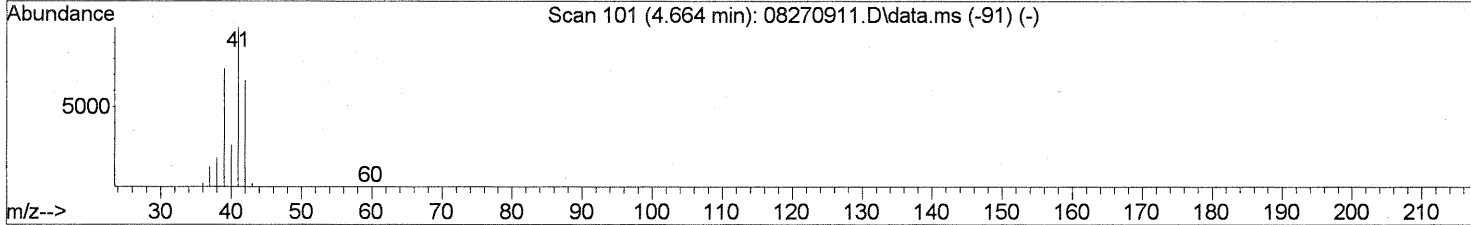
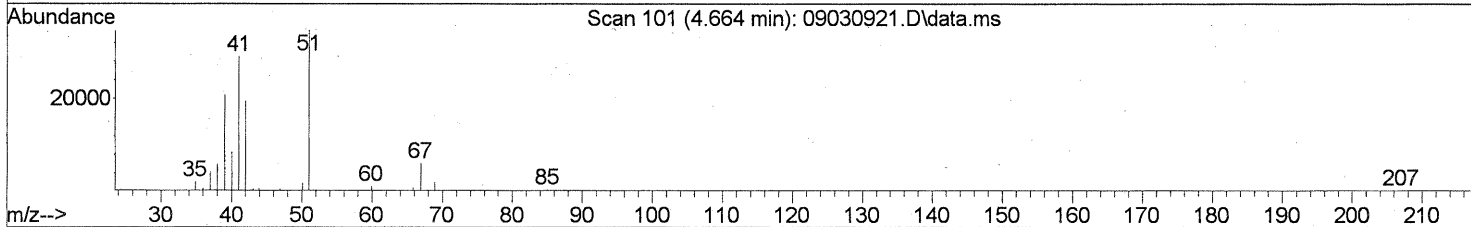
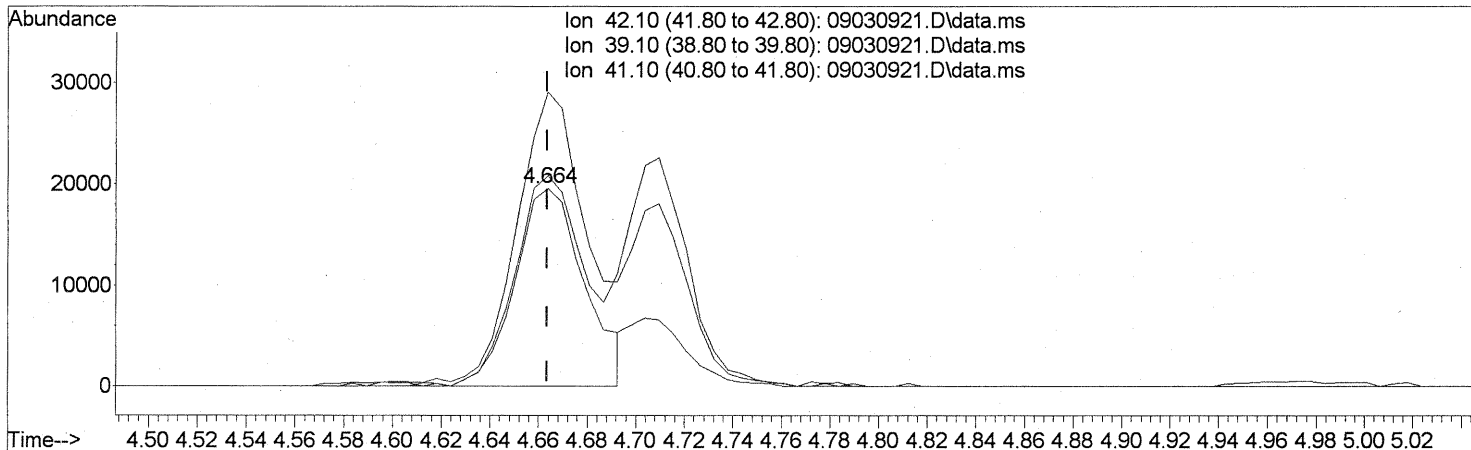
response 50417

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	81.14#
41.10	149.80	119.03#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(2) Propene (T)  
 4.664min (+0.000) 2.08ng m  
 response 39119

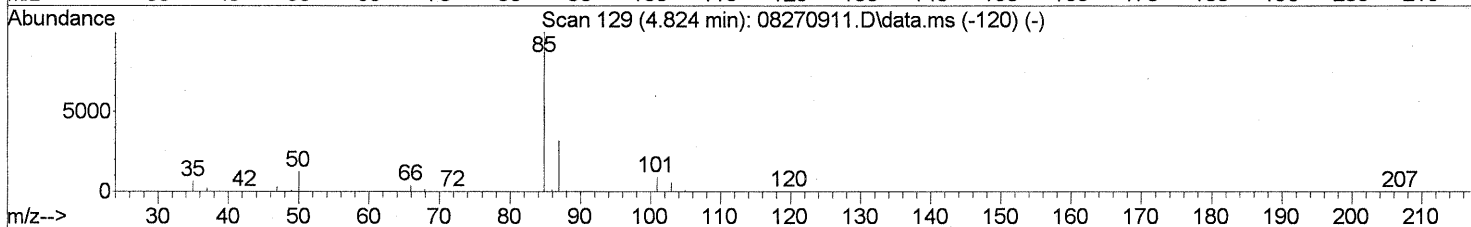
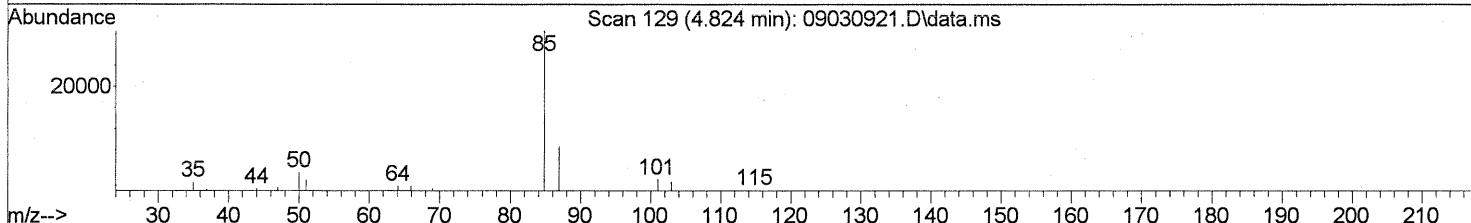
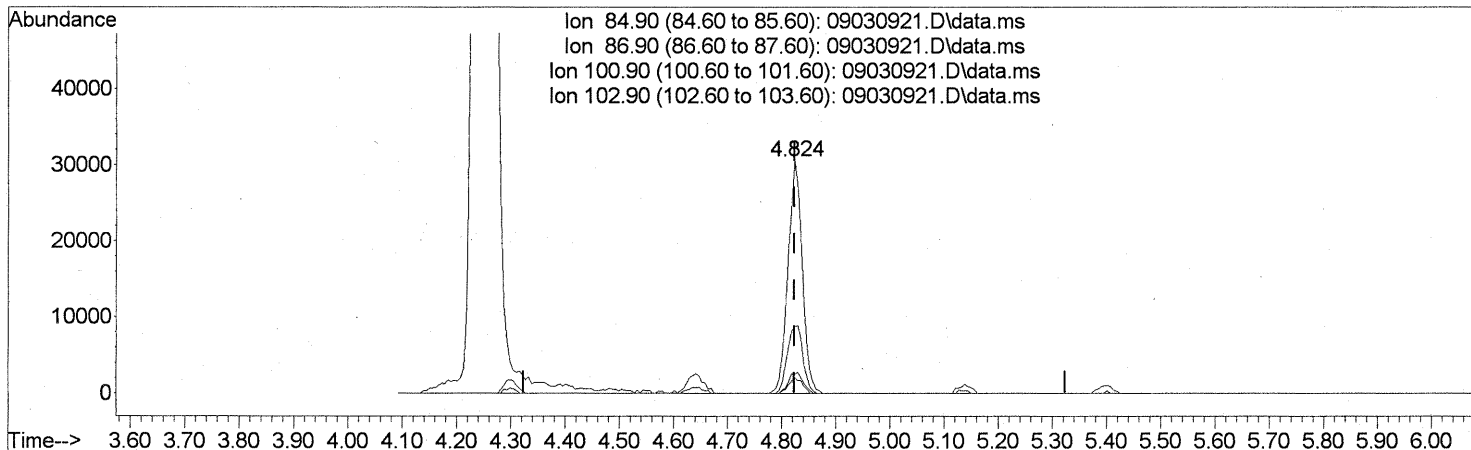
Ion	Exp%	Act%
42.10	100	100
39.10	109.70	104.57
41.10	149.80	153.41
0.00	0.00	0.00

*SP>IC*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.824min (+0.000) 1.70ng

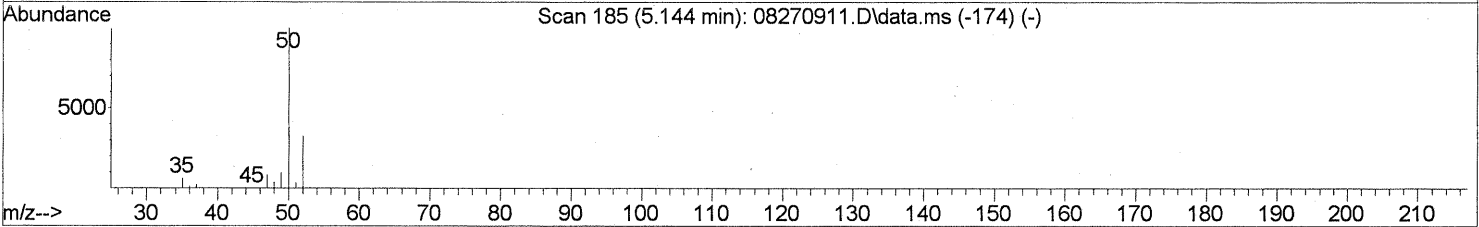
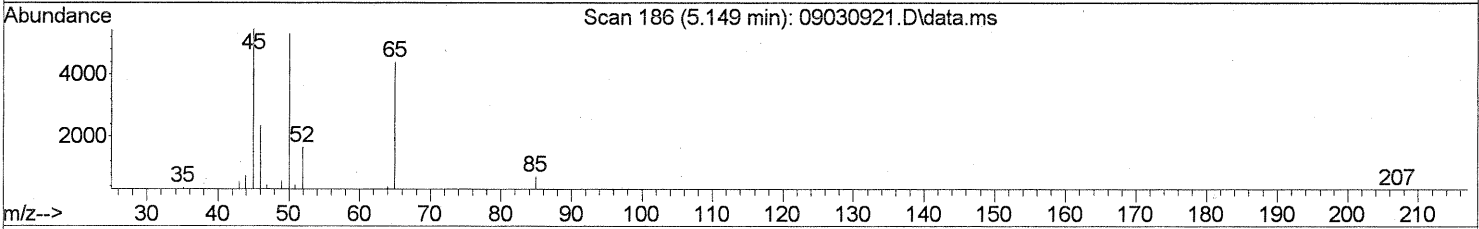
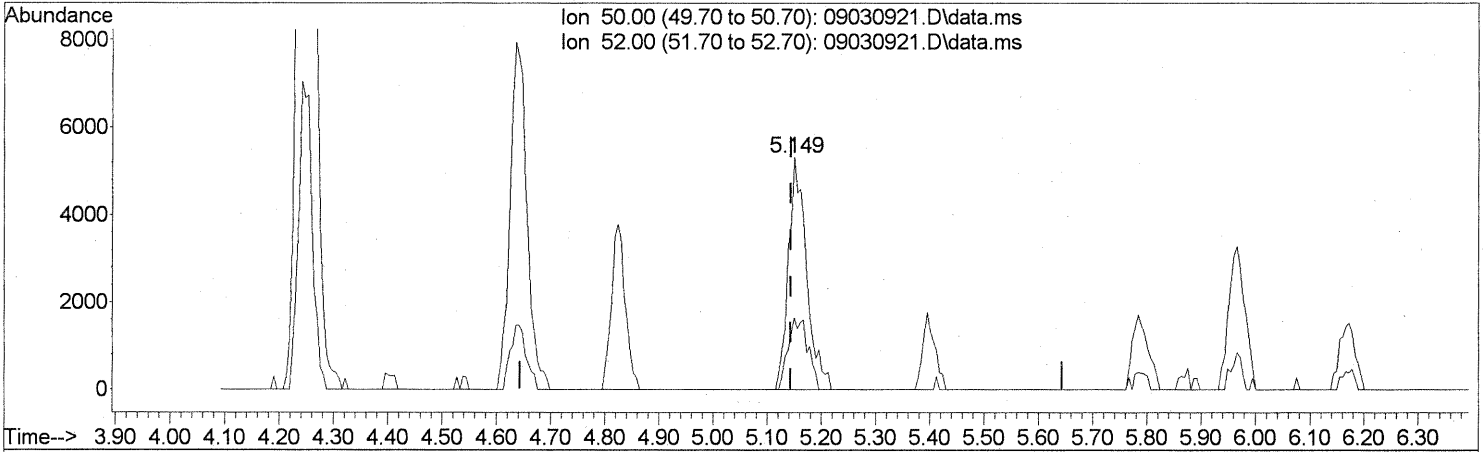
response 55785

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	31.49
100.90	8.80	9.05
102.90	5.60	6.27

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

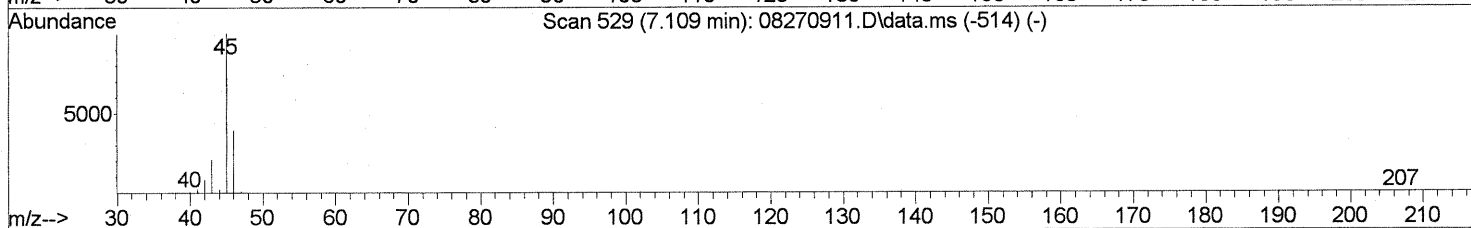
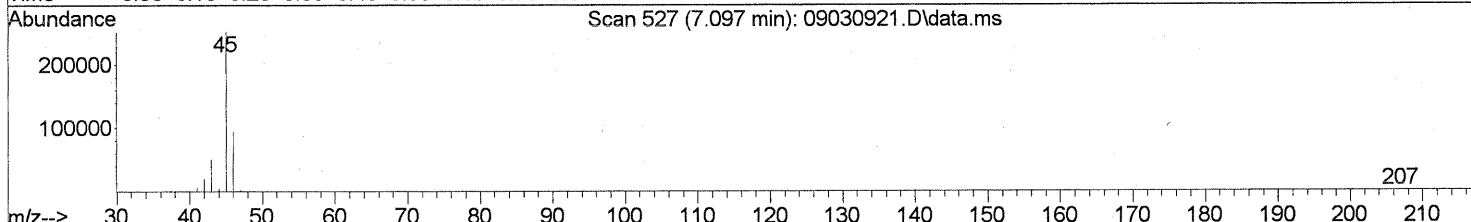
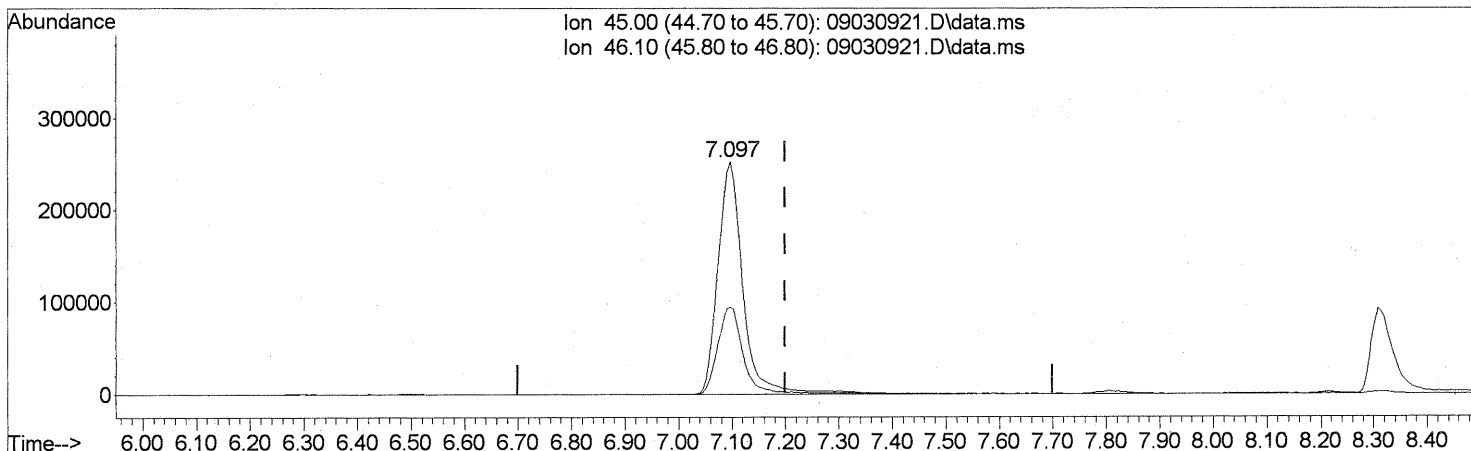
(4) Chloromethane (T)  
 5.149min (+0.006) 0.56ng  
 response 12443

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	33.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(10) Ethanol (T)  
 7.097min (-0.103) 70.83ng  
 response 824062

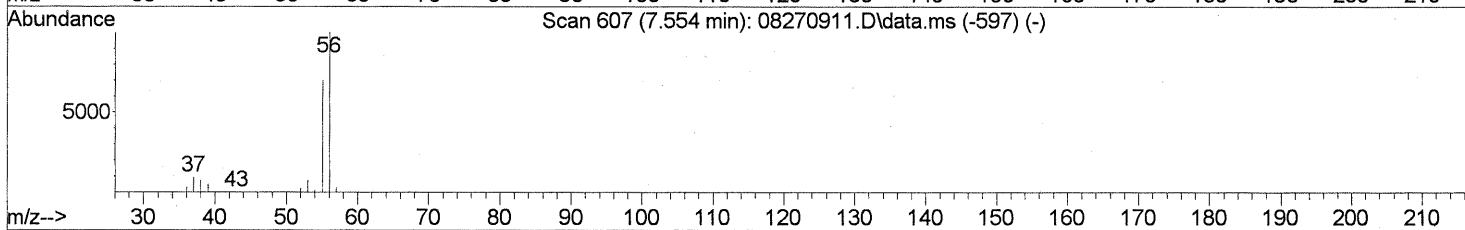
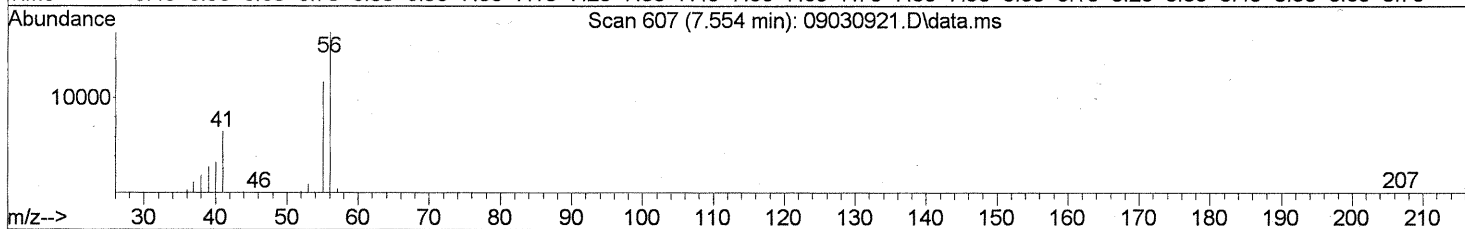
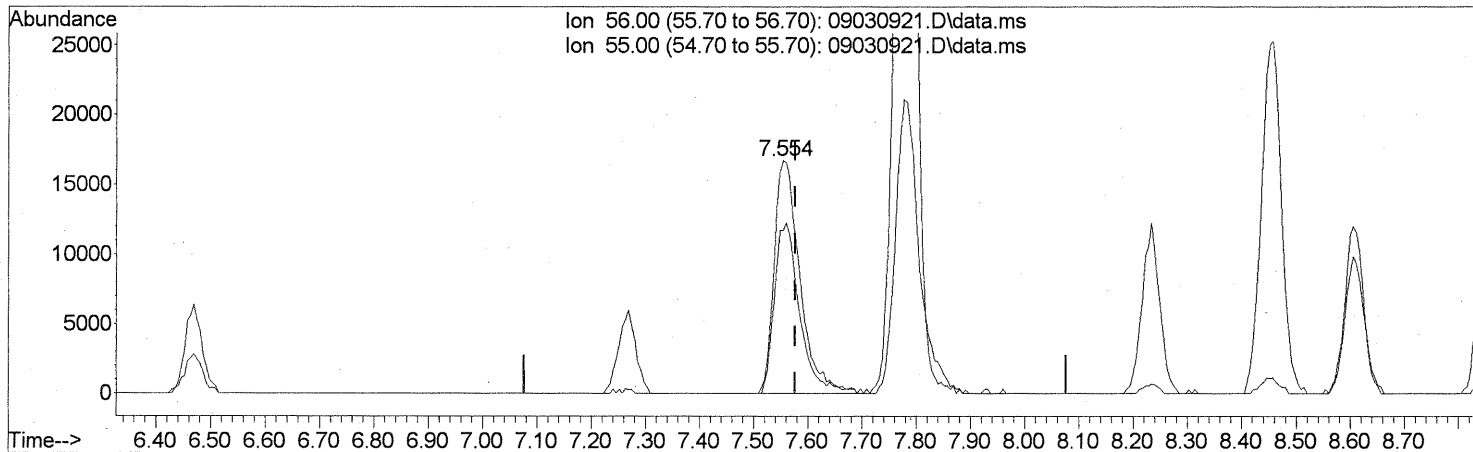
Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.27
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

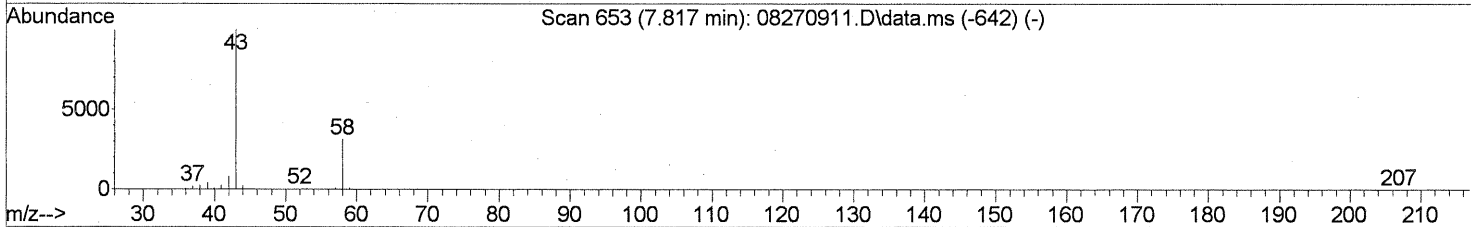
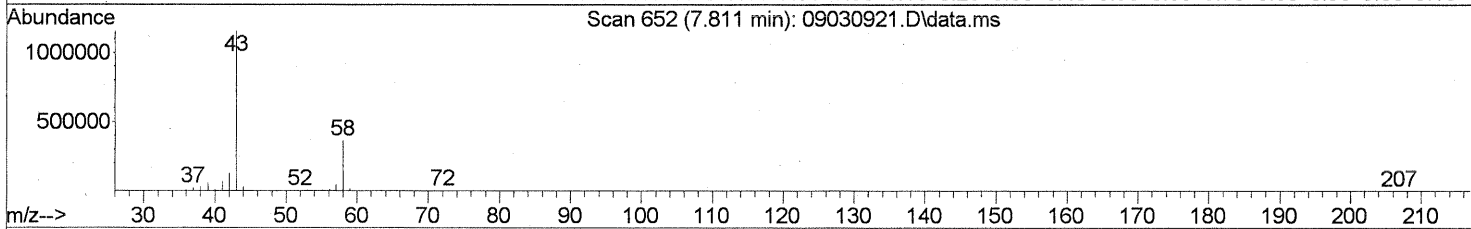
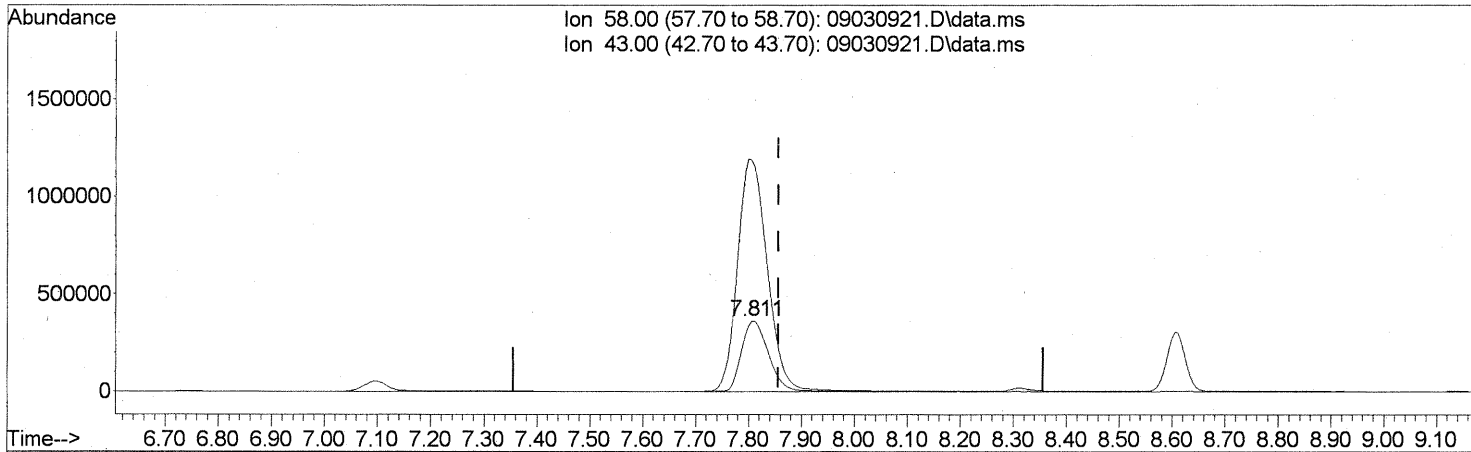
(12) Acrolein (T)  
 7.554min (-0.023) 6.19ng  
 response 54954

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	71.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

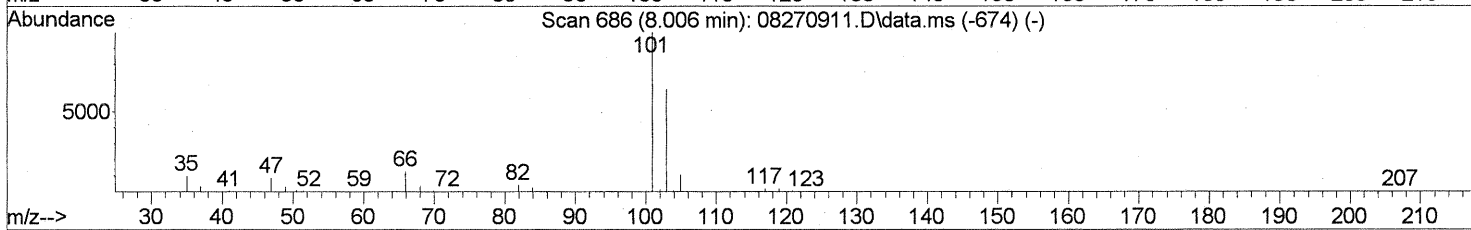
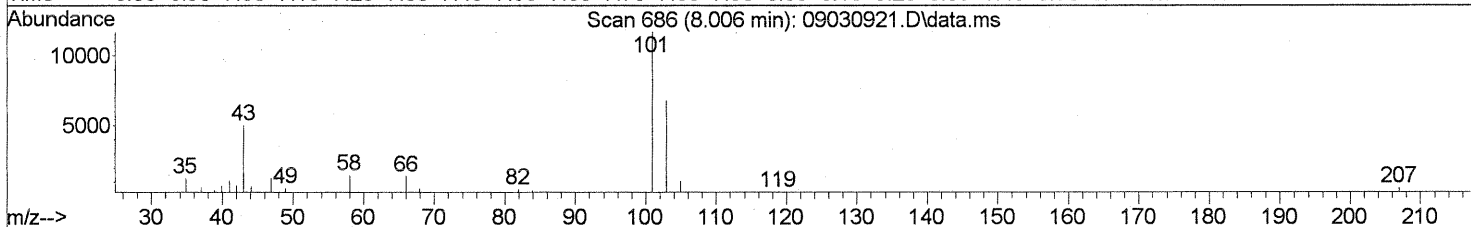
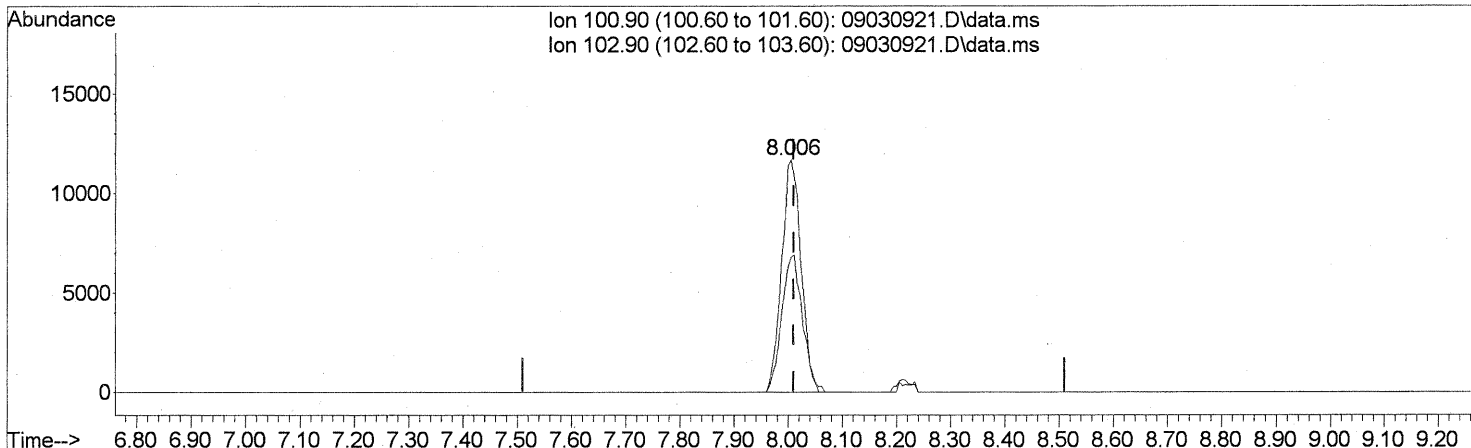
(13) Acetone (T)  
 7.811min (-0.046) 107.10ng  
 response 1288604

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	364.21#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(14) Trichlorofluoromethane (T)

8.006min (-0.006) 1.02ng

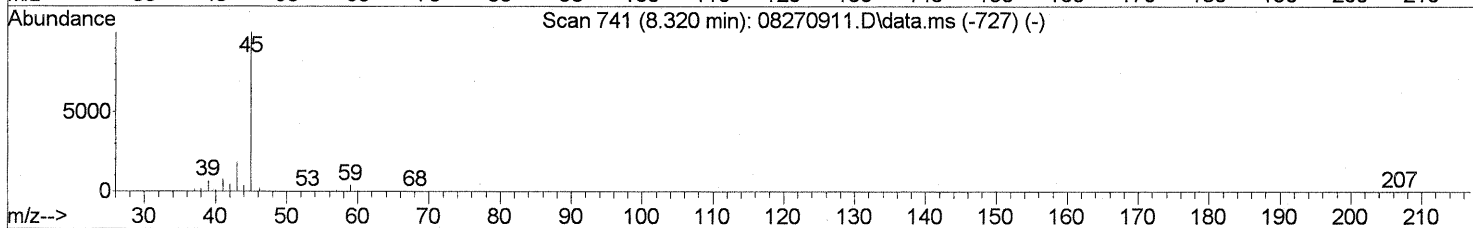
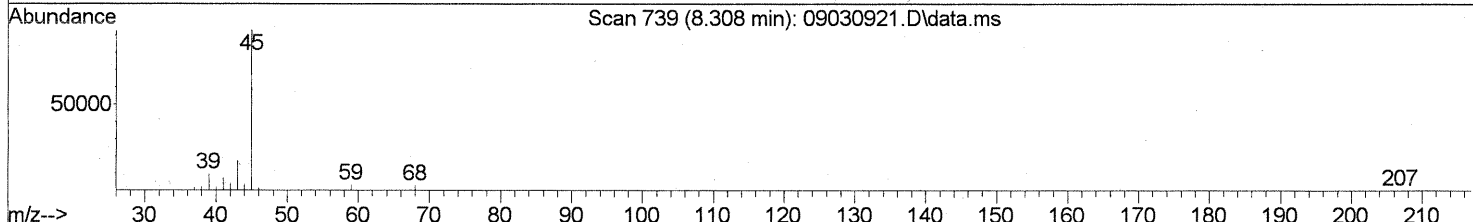
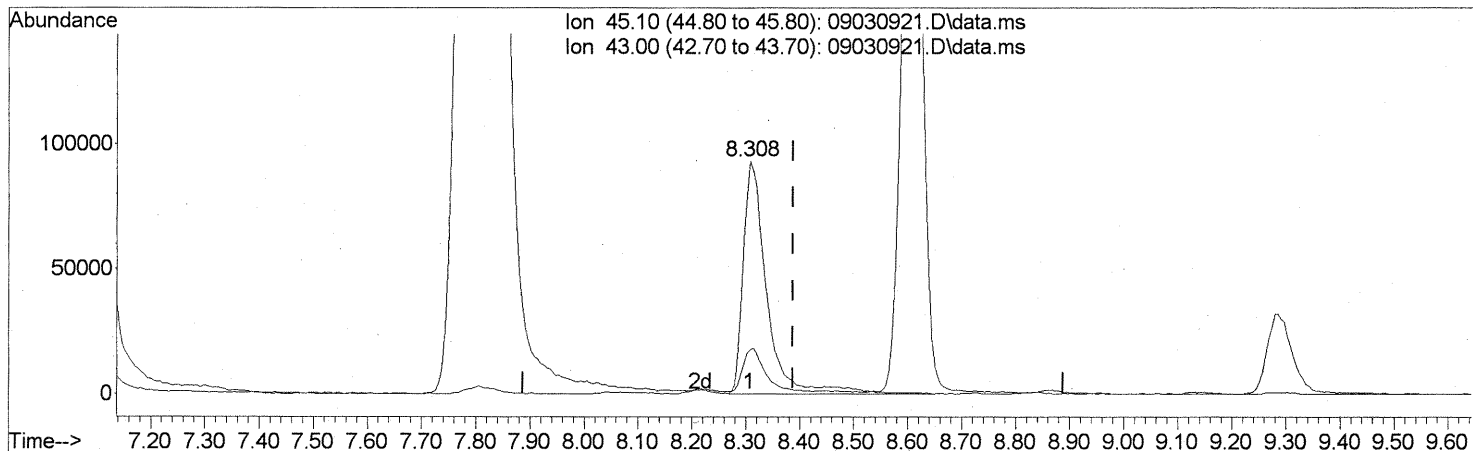
response 29414

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	61.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.308min (-0.080) 7.06ng

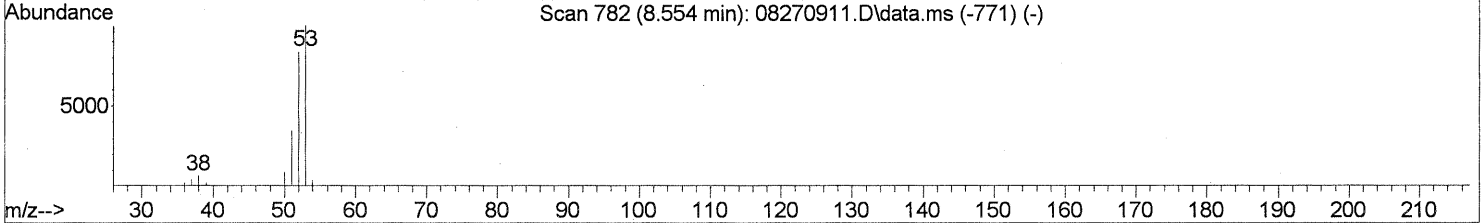
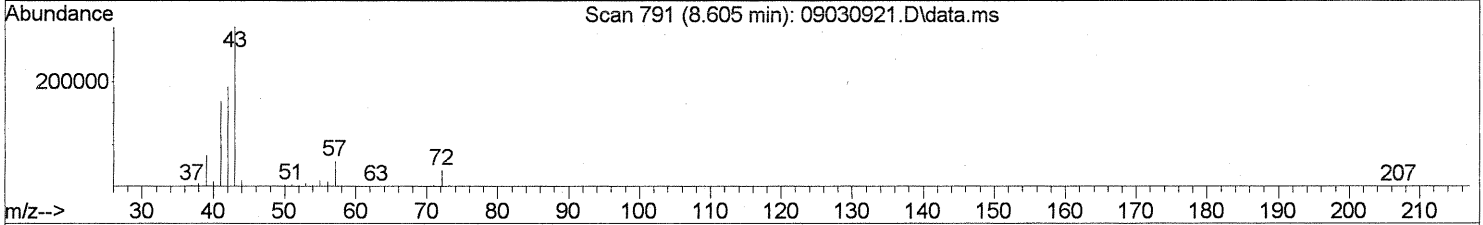
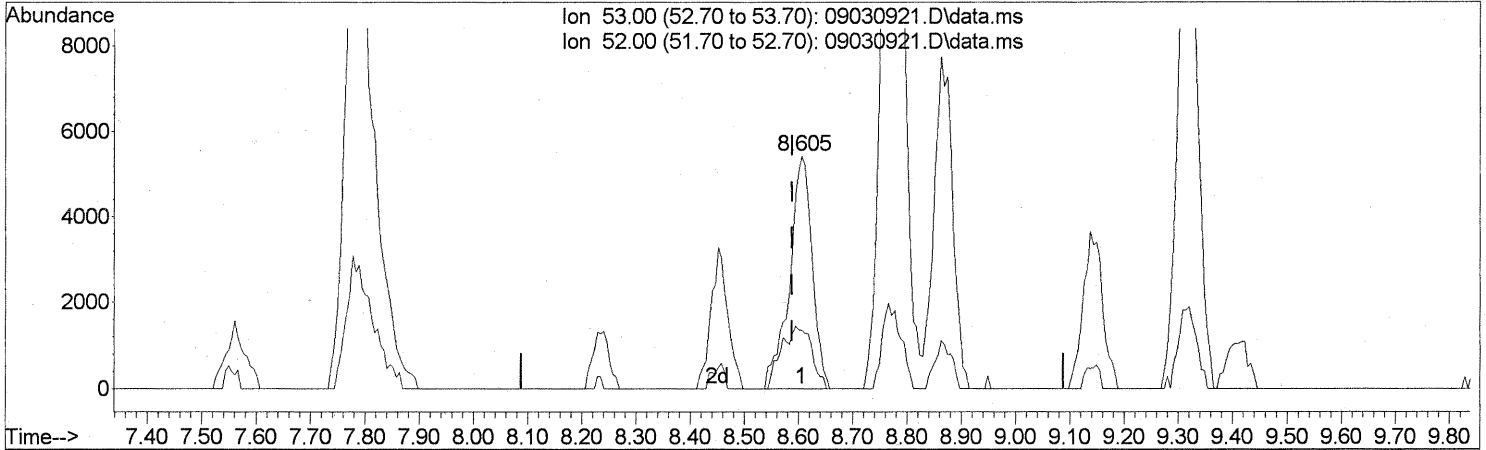
response 282577

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	18.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

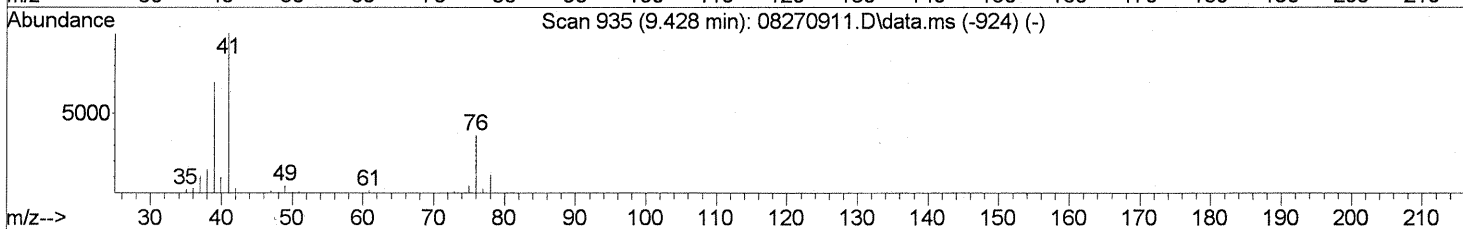
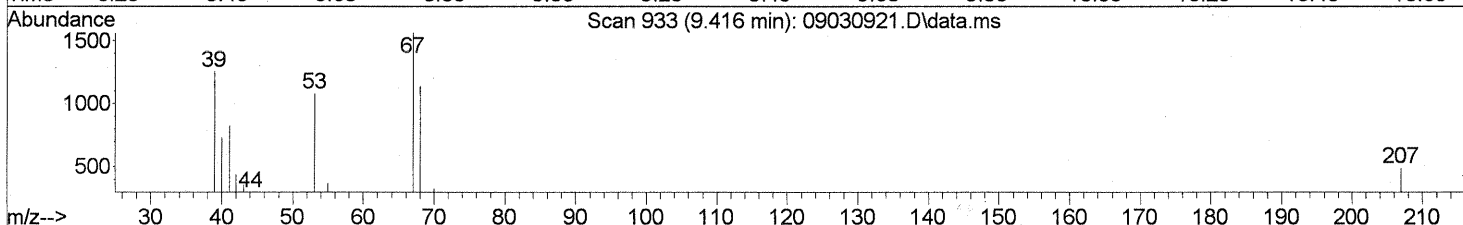
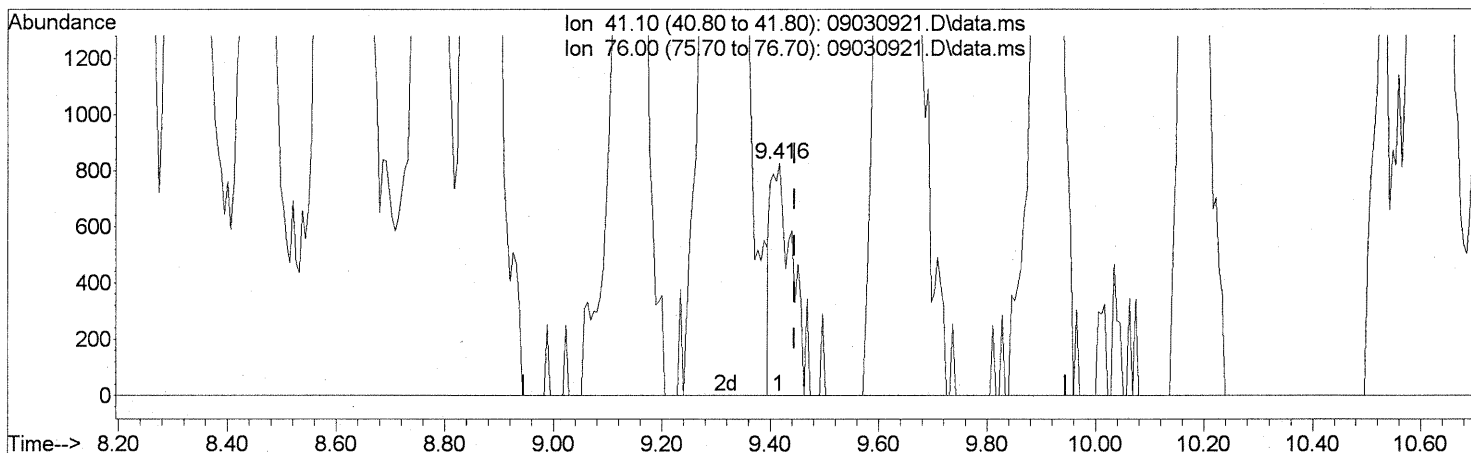
(16) Acrylonitrile (T)  
 8.605min (+0.017) 0.79ng  
 response 15755

Ion	Exp%	Act%
53.00	100	100
52.00	80.50	35.21#
0.00	0.00	0.00
0.00	0.00	0.00

FP  
 27 9/10/09  
 LM 9/10/09

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(20) 3-Chloro-1-propene (Allyl Chloride) (T)

9.416min (-0.029) 0.10ng

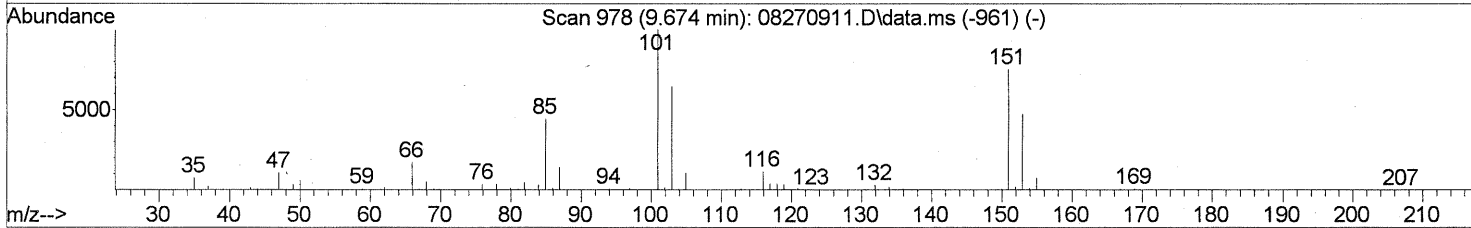
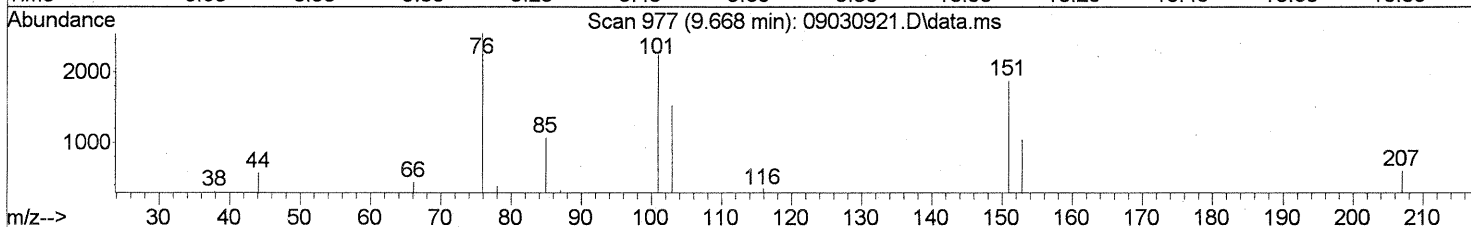
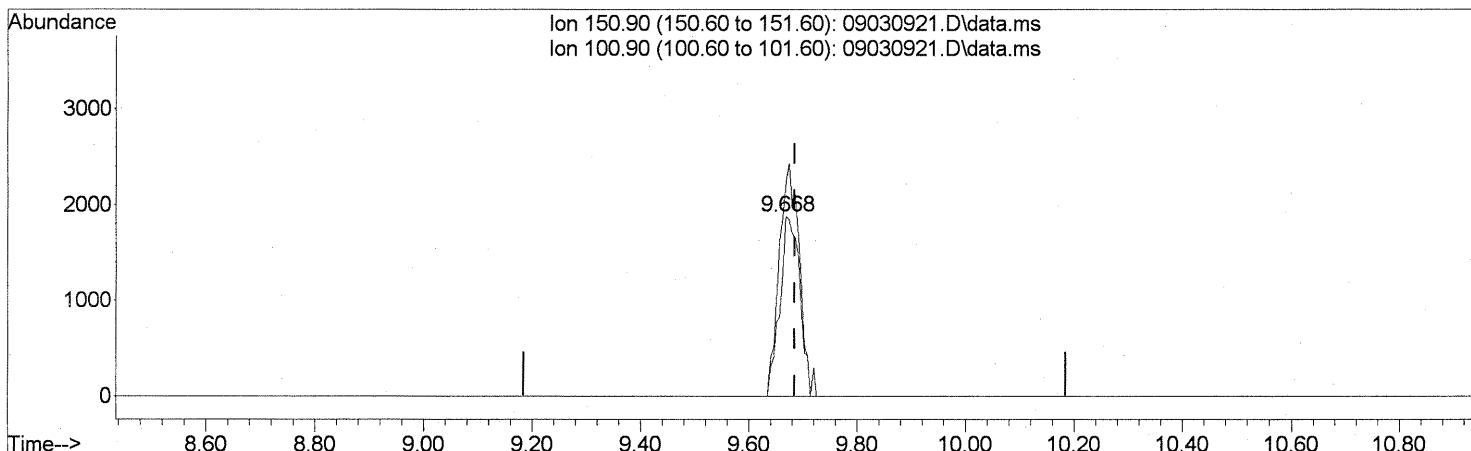
response 2349

Ion	Exp%	Act%
41.10	100	100
76.00	33.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*17 9/10/09*  
*UH 9/10/09*

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.668min (-0.017) 0.42ng

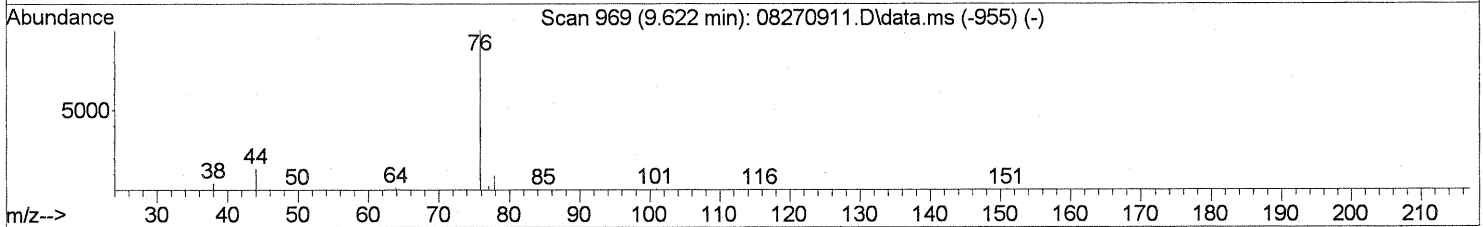
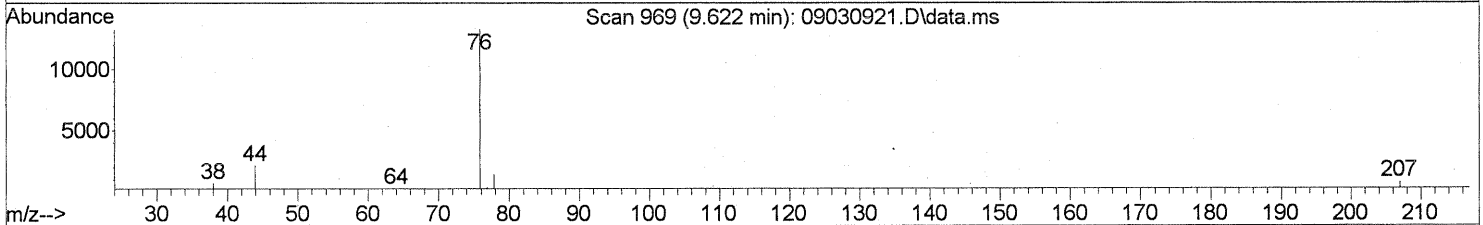
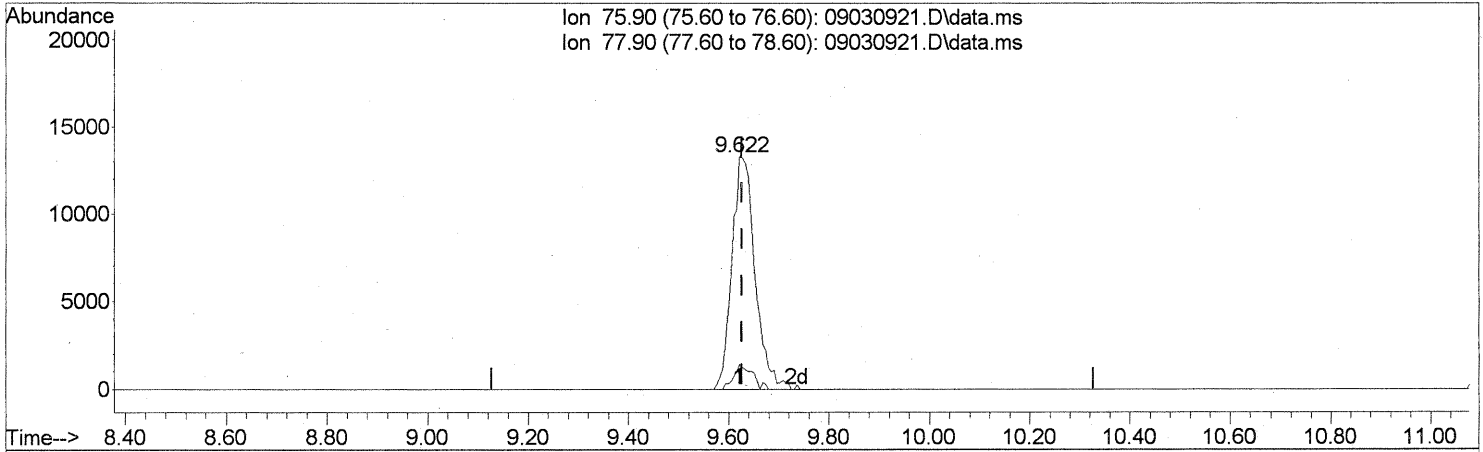
response 4777

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	131.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

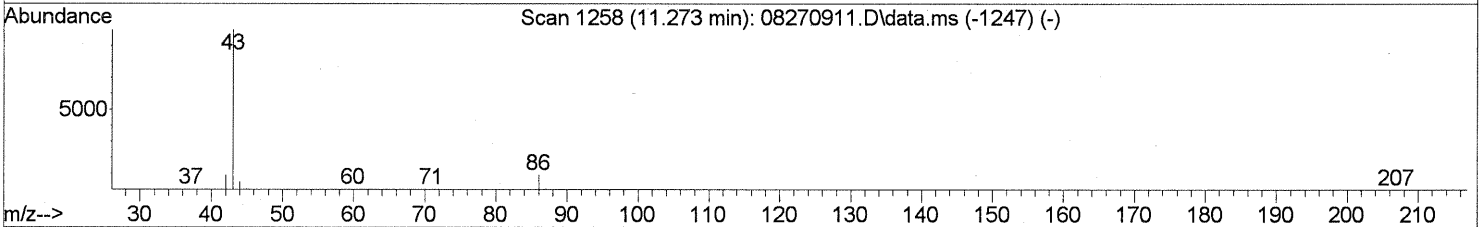
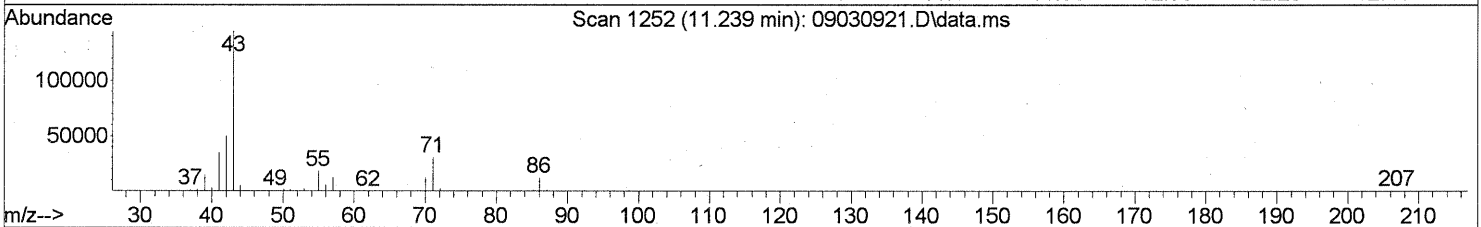
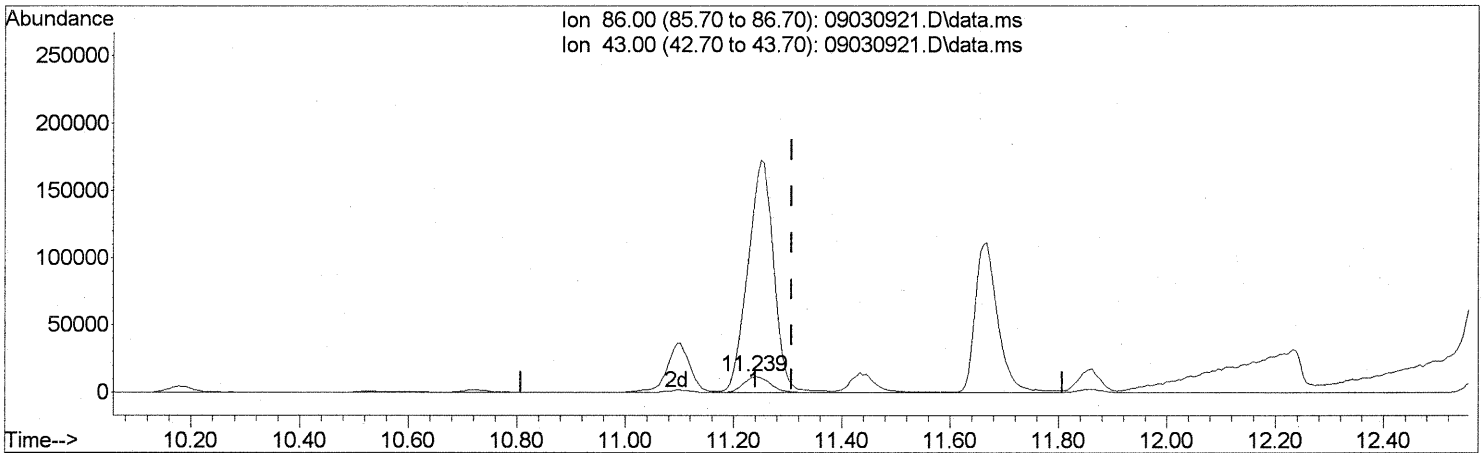
(22) Carbon Disulfide (T)  
 9.622min (-0.006) 0.78ng  
 response 42188

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	8.12
0.00	0.00	0.00
0.00	0.00	0.00



Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030921.D  
Acq On : 4 Sep 2009 00:28  
Operator : LM/CC  
Sample : P0903021-003 (1000ml)  
Misc : EH&E 104275  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



TIC: 09030921.D\data.ms

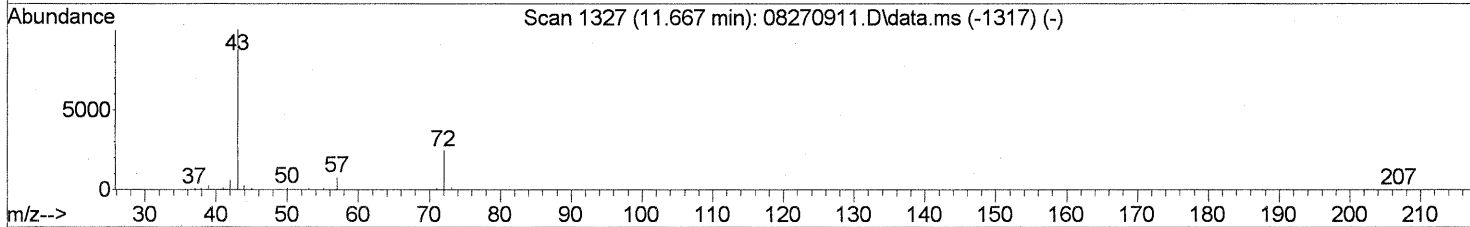
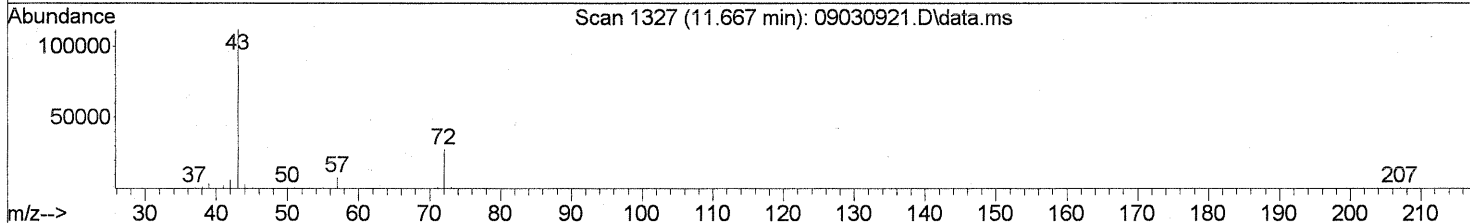
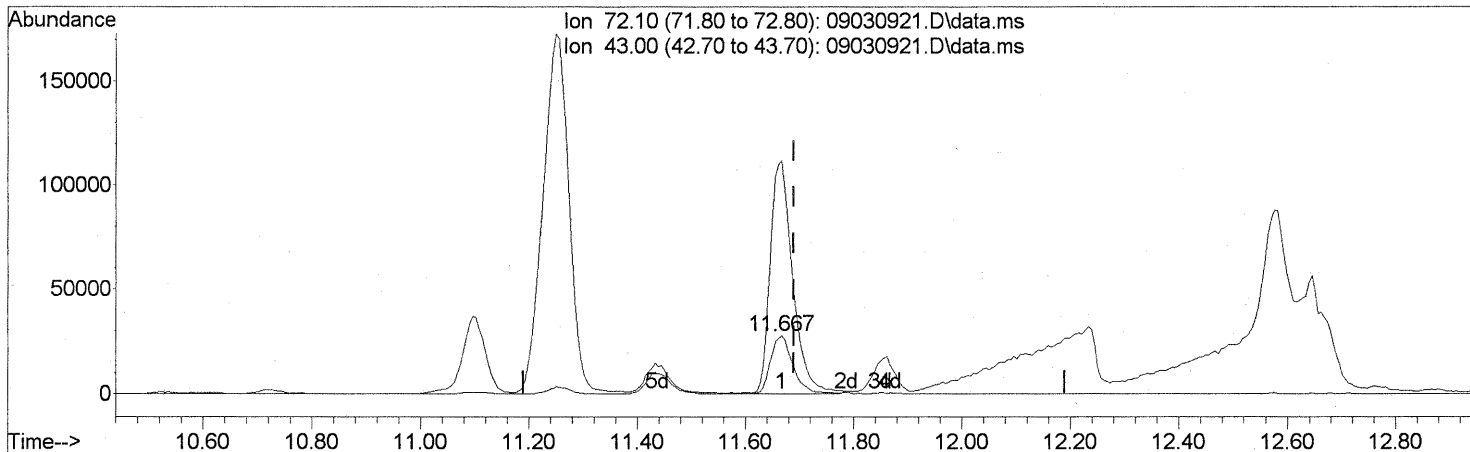
(26) Vinyl Acetate (T)		
11.239min (-0.069) 12.82ng		
response 38658		
Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1468.20#
0.00	0.00	0.00
0.00	0.00	0.00

*FP  
m 9/10/09  
u 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

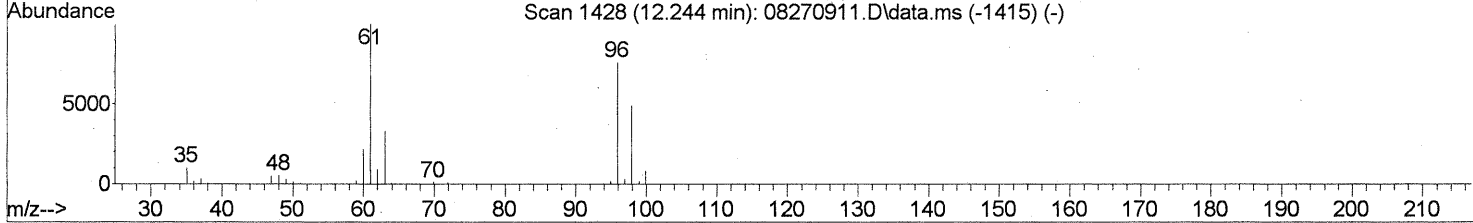
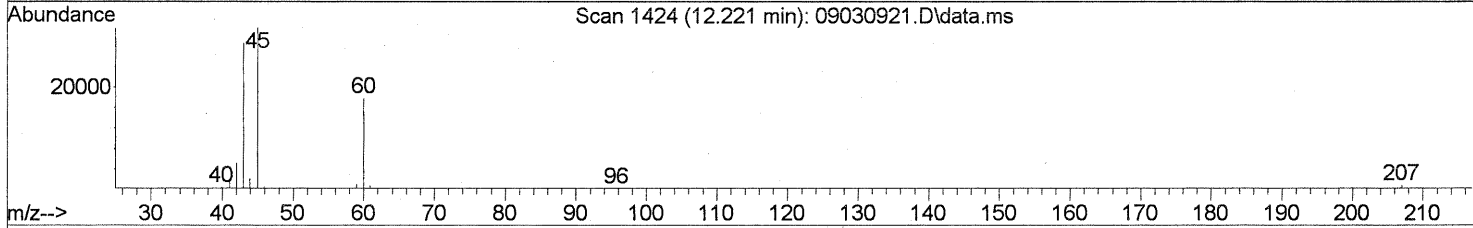
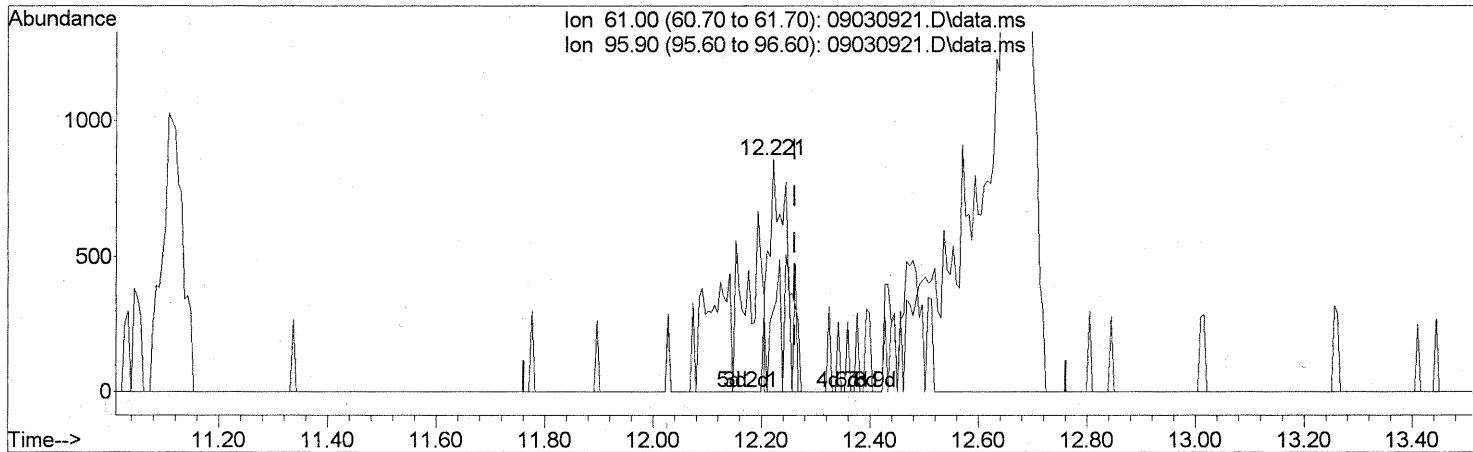
(27) 2-Butanone (MEK) (T)  
 11.667min (-0.023) 7.99ng  
 response 77652

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	409.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(28) cis-1,2-Dichloroethene (T)  
 12.221min (-0.040) 0.10ng  
 response 2007

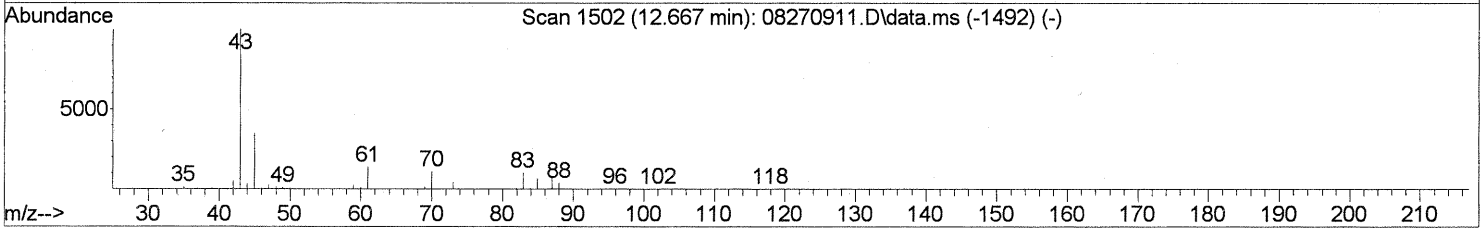
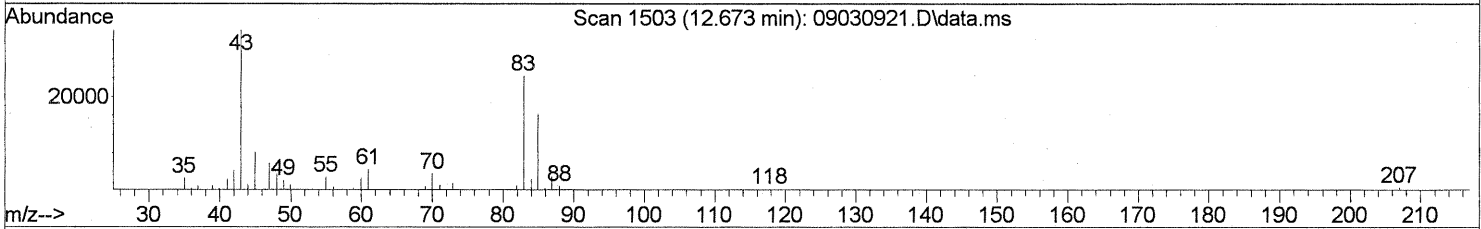
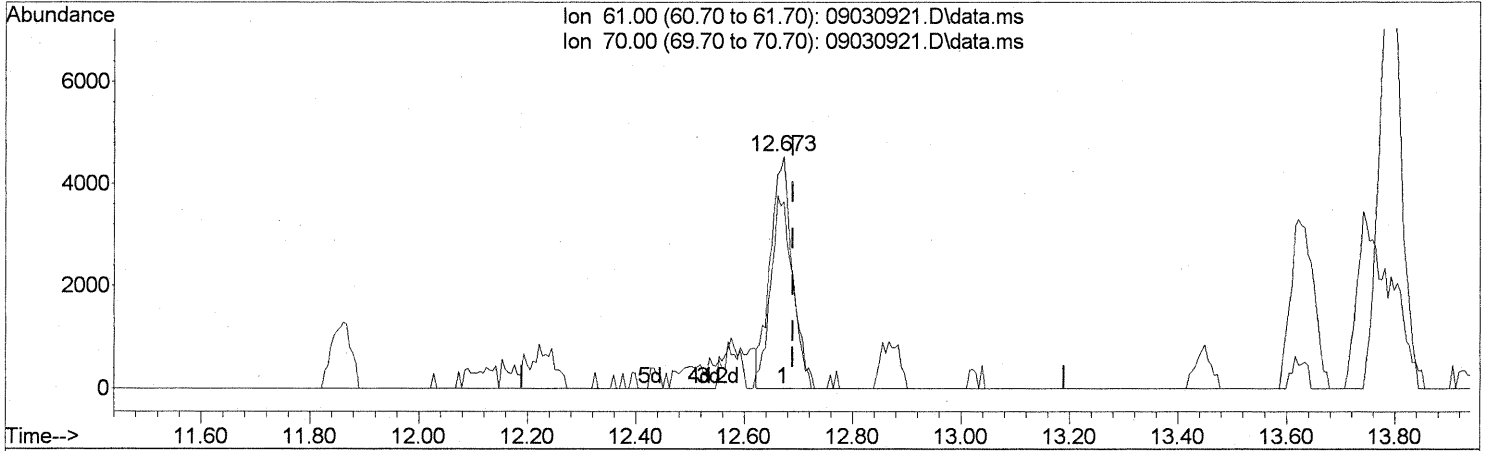
Ion	Exp%	Act%
61.00	100	100
95.90	67.90	29.00#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*09/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
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Quant Time: Sep 04 08:53:02 2009  
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 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

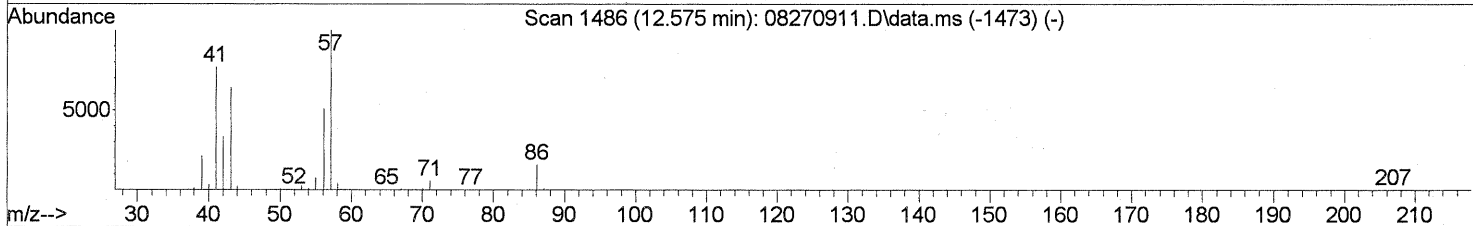
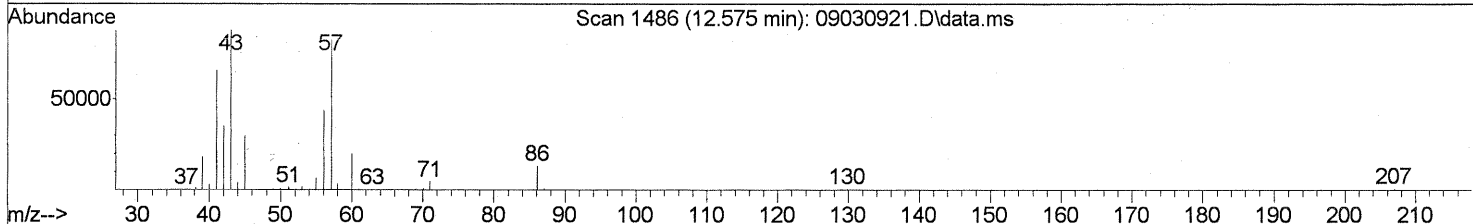
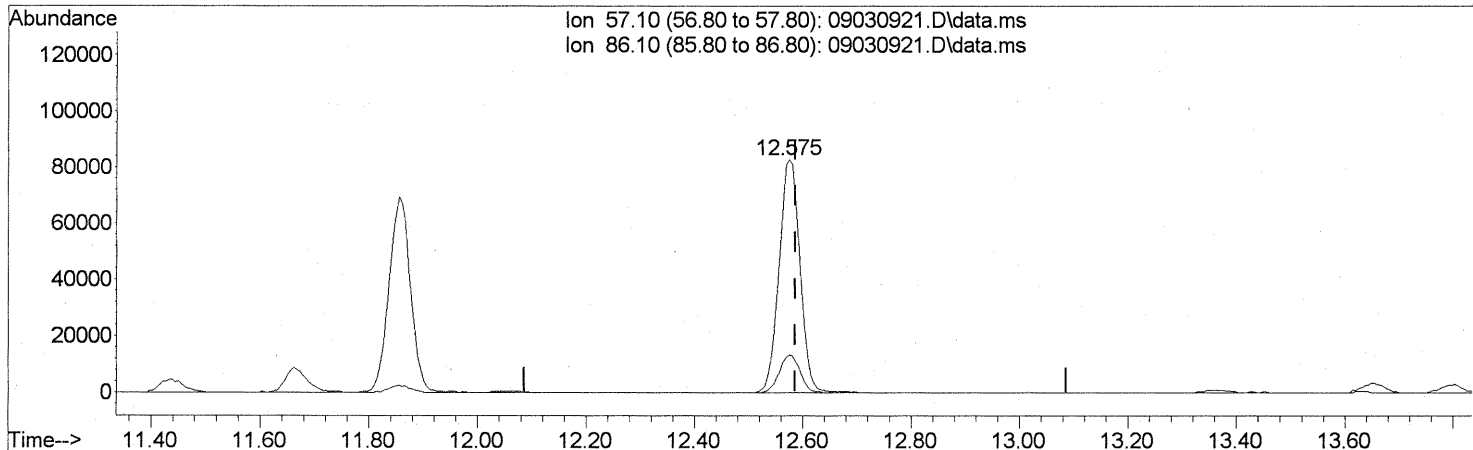
(30) Ethyl Acetate (T)  
 12.673min (-0.017) 2.47ng  
 response 12893

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	83.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

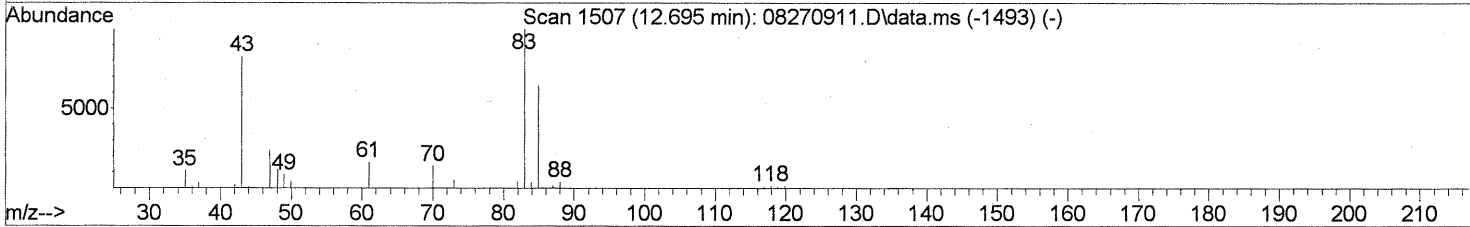
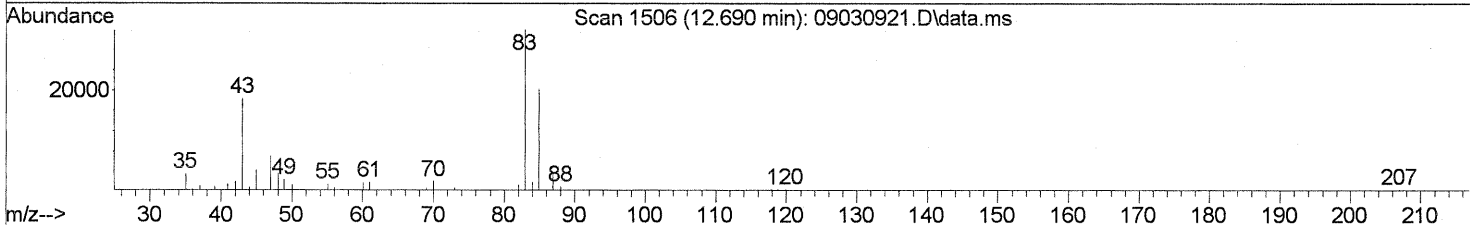
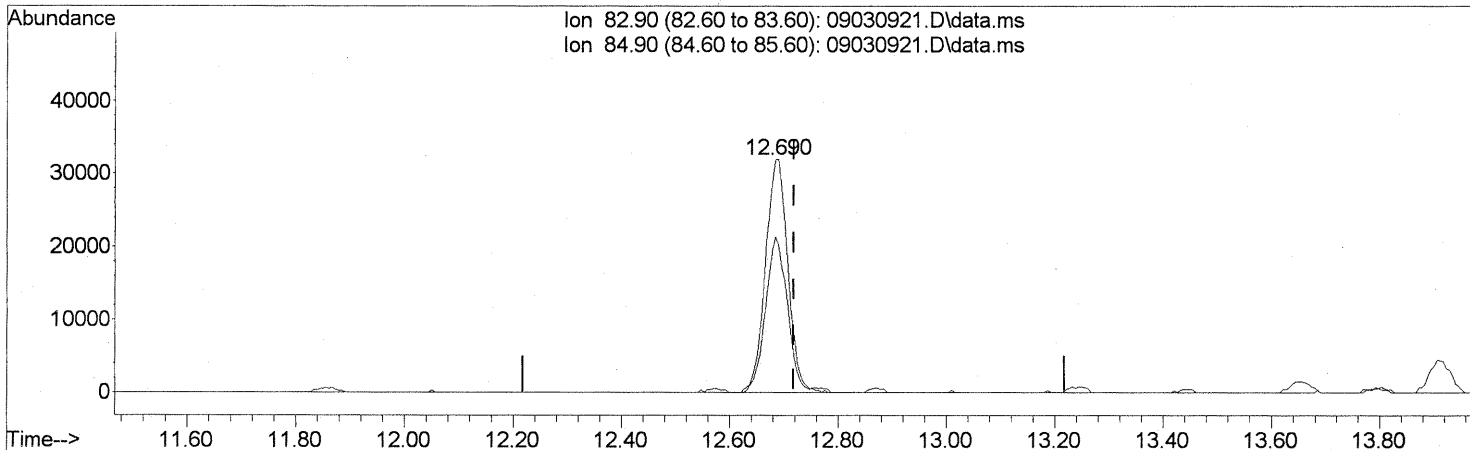
(31) n-Hexane (T)  
 12.575min (-0.011) 8.45ng  
 response 219762

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	15.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

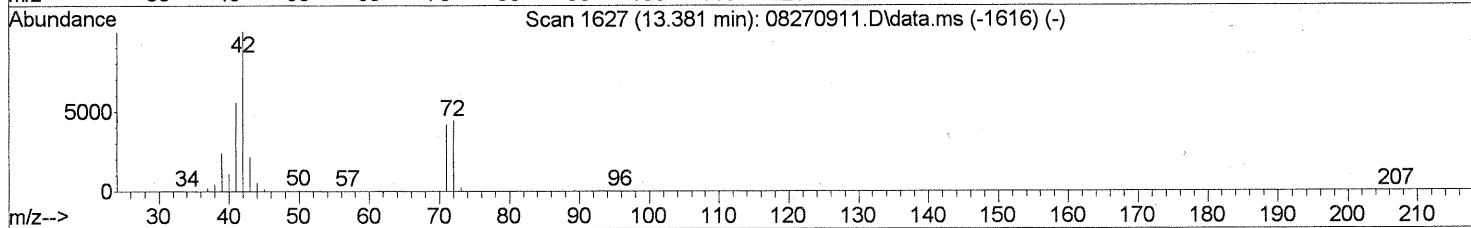
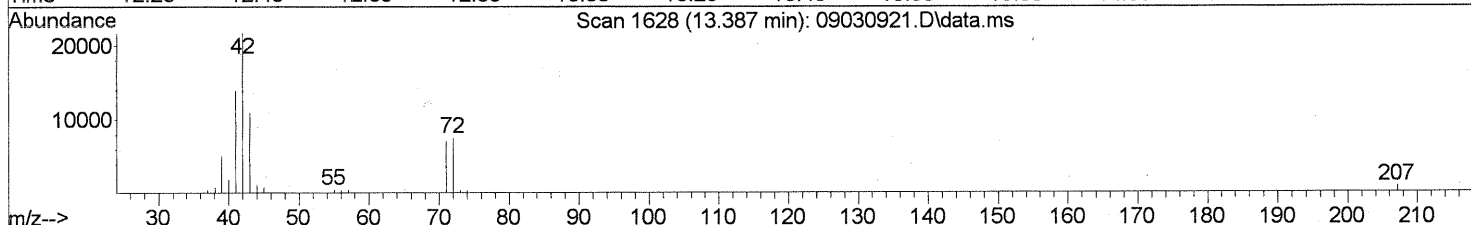
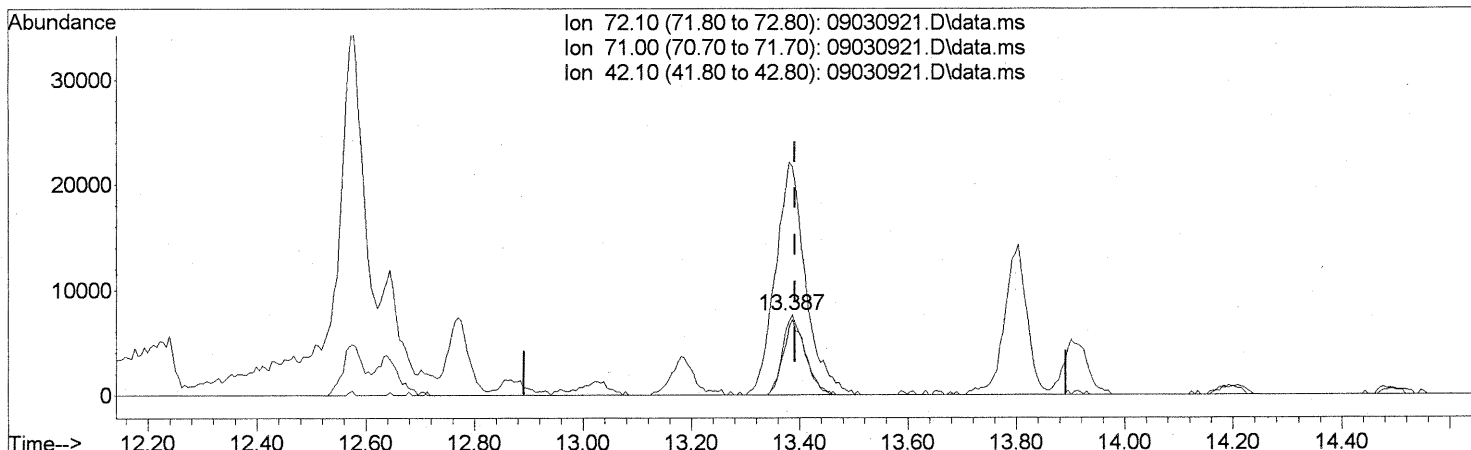
(32) Chloroform (T)  
 12.690min (-0.029) 3.58ng  
 response 91733

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	66.58
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(34) Tetrahydrofuran (THF) (T)

13.387min (-0.005) 2.05ng

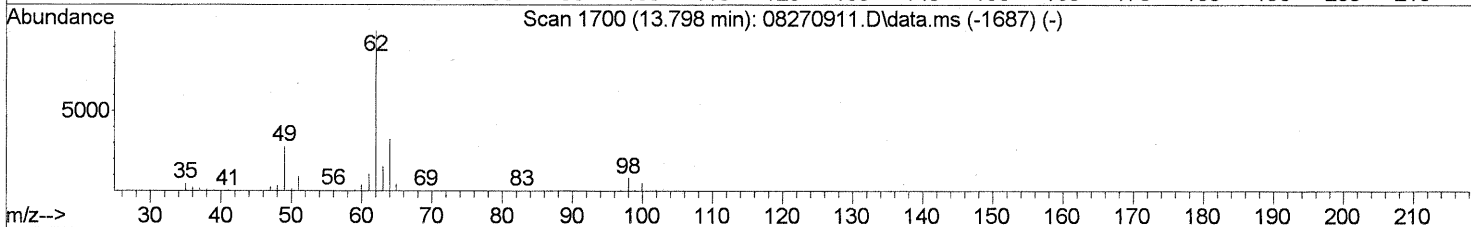
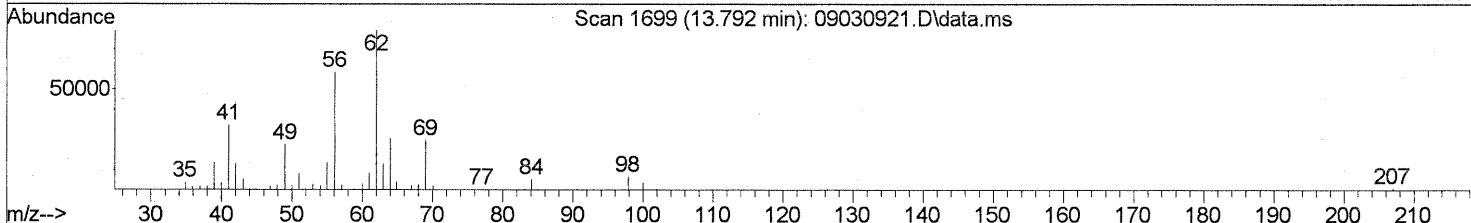
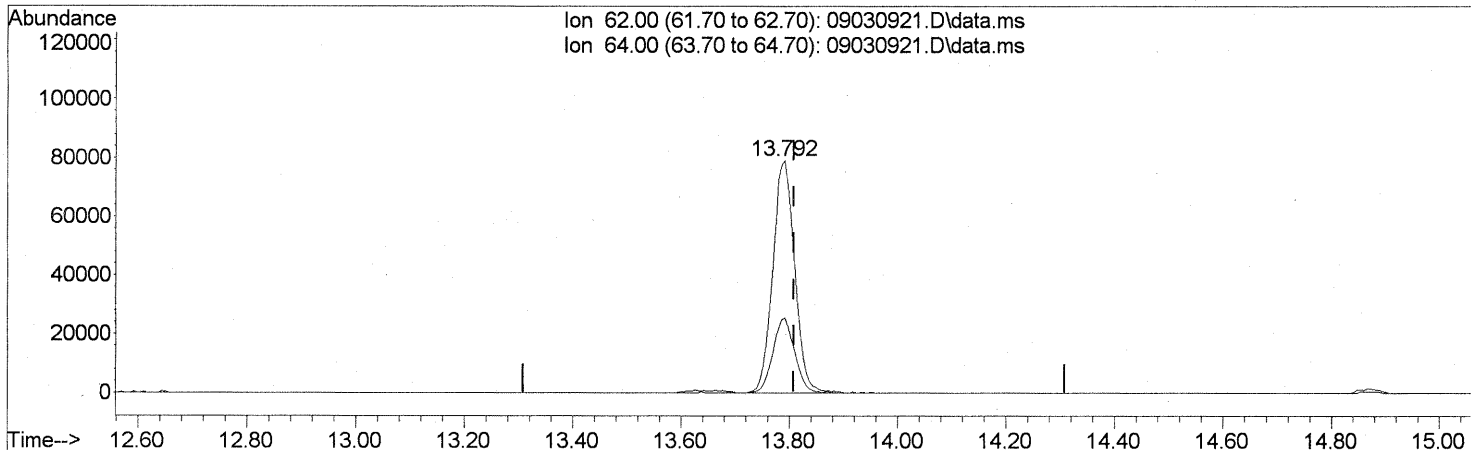
response 21631

Ion	Exp%	Act%
72.10	100	100
71.00	92.50	93.71
42.10	254.10	396.43#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(36) 1,2-Dichloroethane (T)

13.792min (-0.017) 10.29ng

response 221459

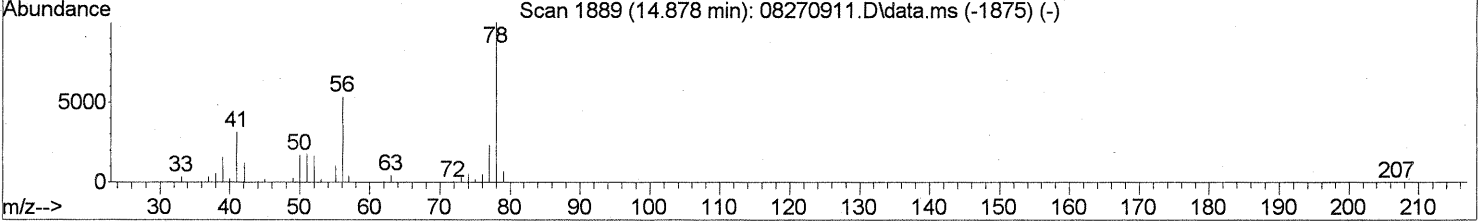
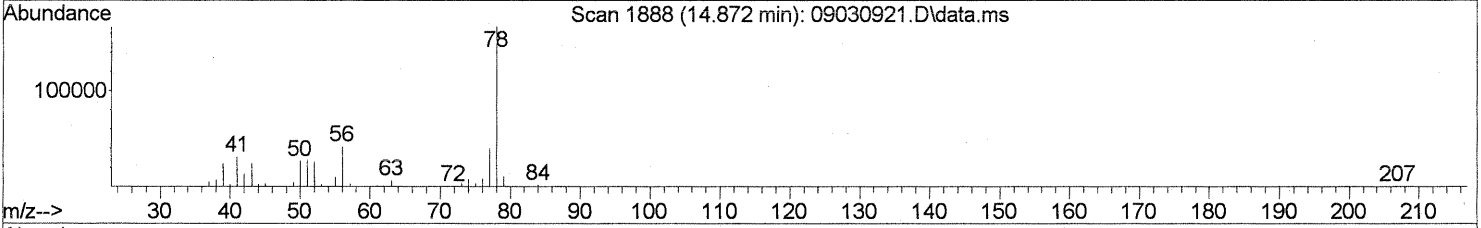
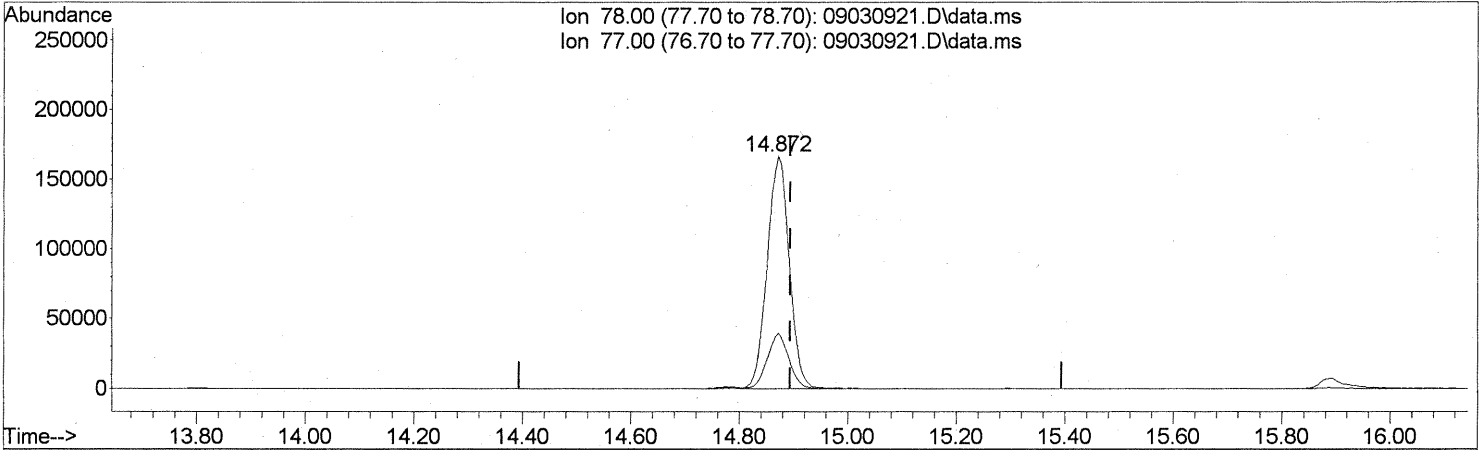
Ion	Exp%	Act%
62.00	100	100
64.00	33.10	31.79
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030921.D  
Acq On : 4 Sep 2009 00:28  
Operator : LM/CC  
Sample : P0903021-003 (1000ml)  
Misc : EH&E 104275  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



TIC: 09030921.D\data.ms

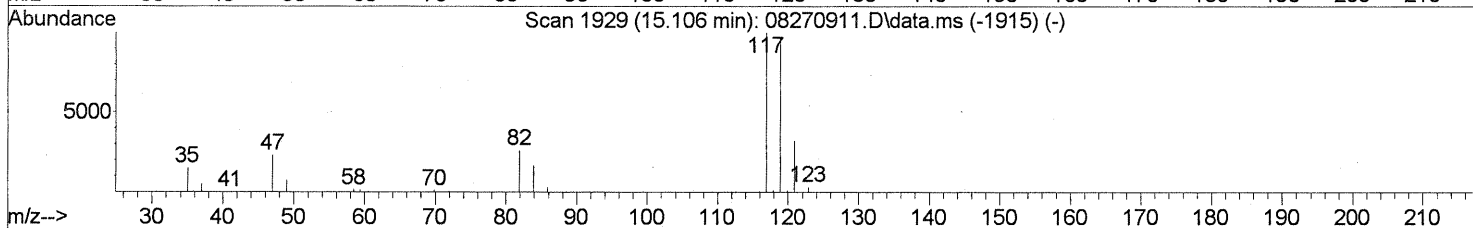
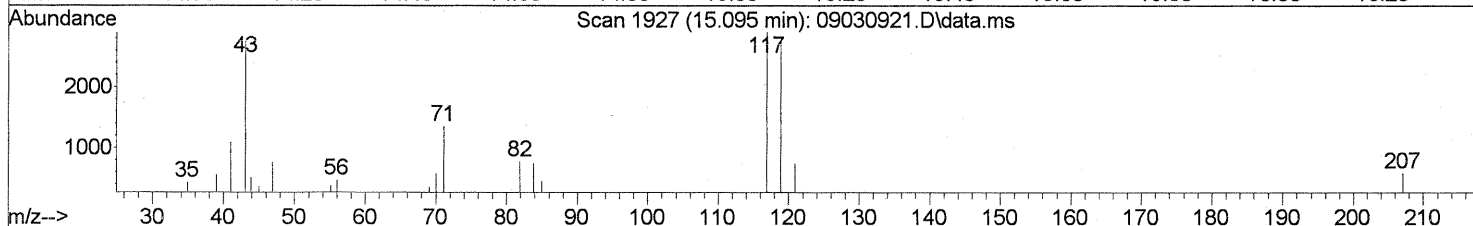
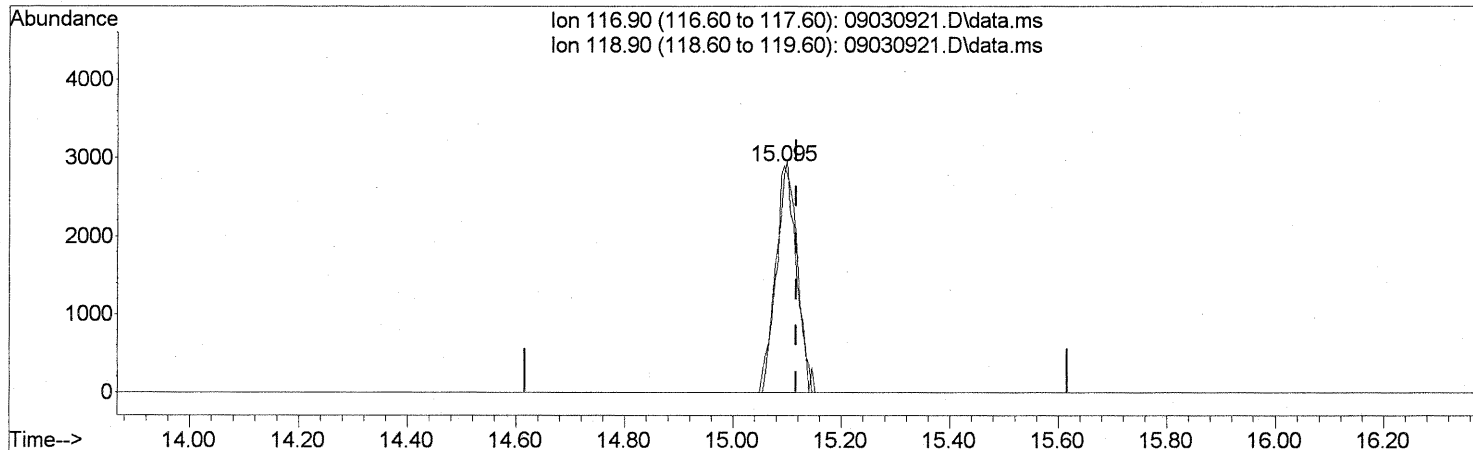
(41) Benzene (T)  
14.872min (-0.023) 7.76ng  
response 470868

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(42) Carbon Tetrachloride (T)

15.095min (-0.023) 0.40ng

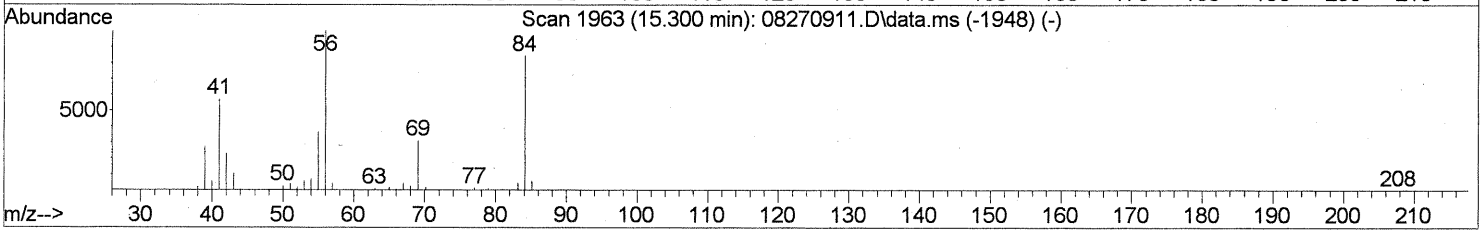
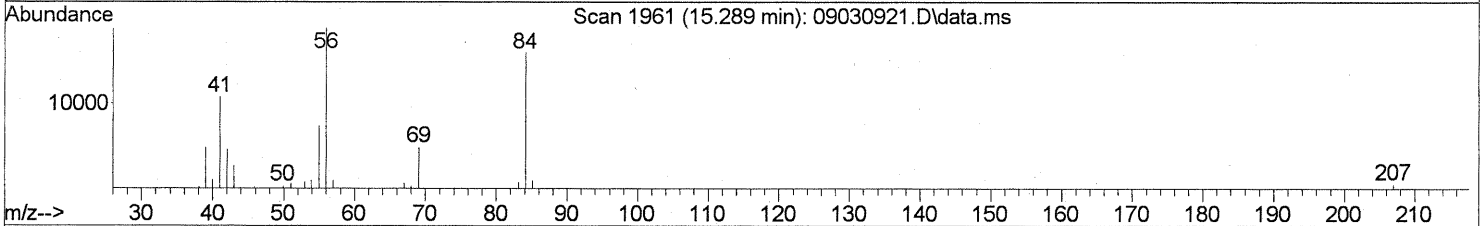
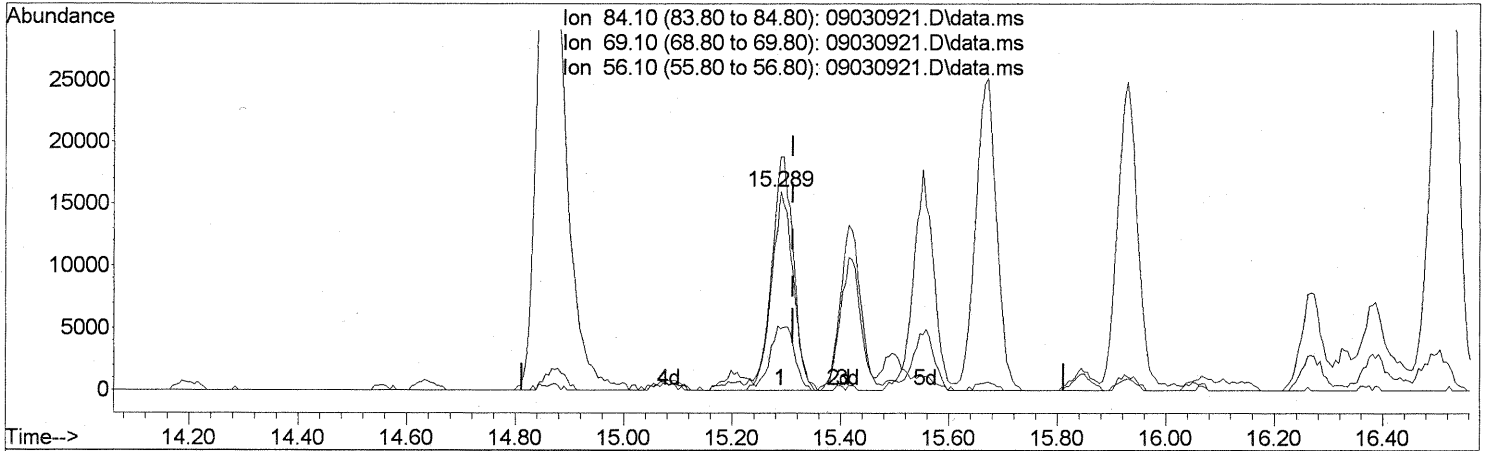
response 8084

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	94.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

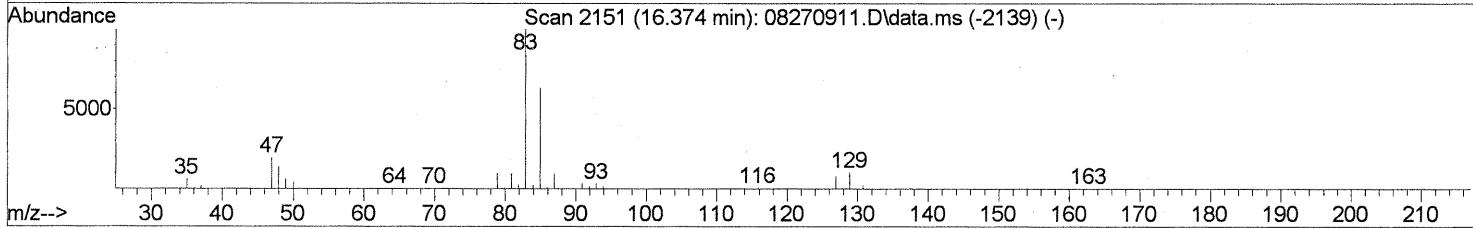
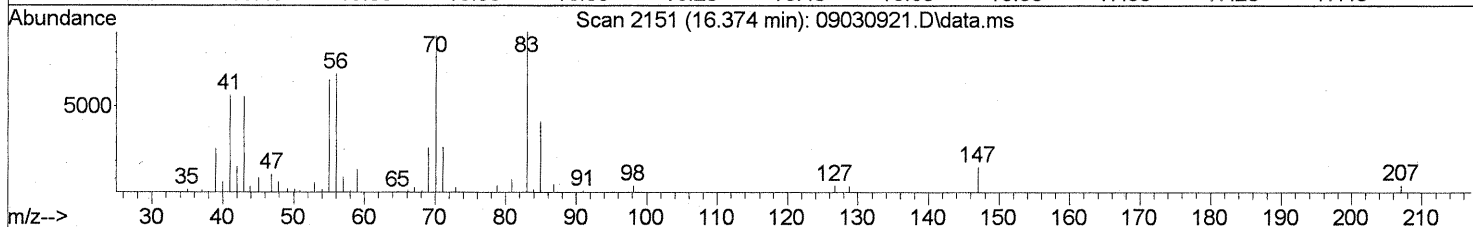
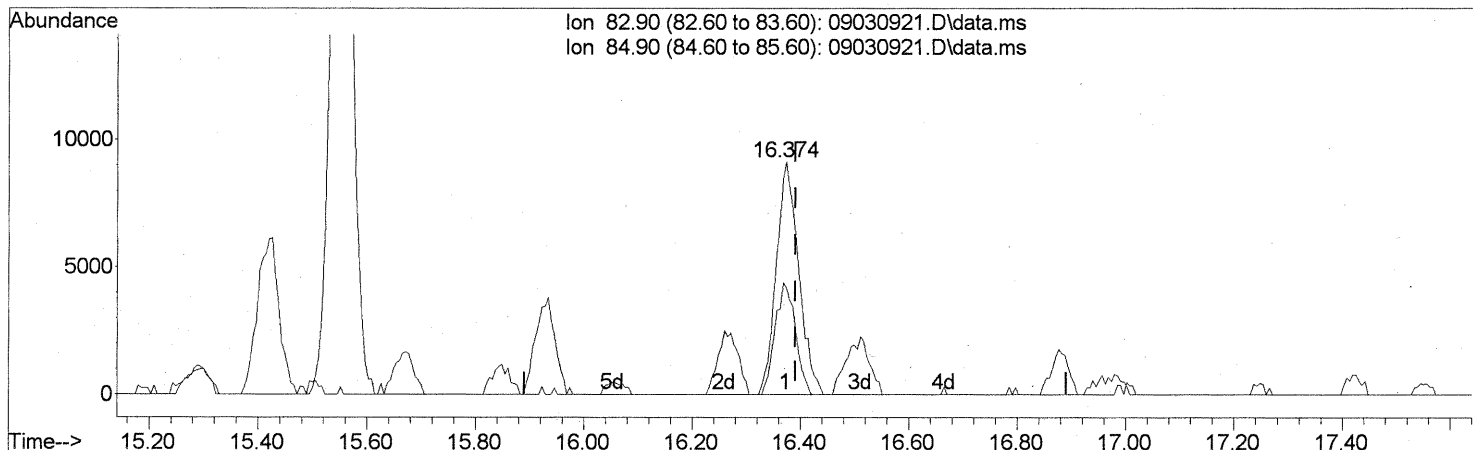
(43) Cyclohexane (T)  
 15.289min (-0.023) 1.99ng  
 response 44447

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	35.80
56.10	124.50	118.66
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(46) Bromodichloromethane (T)

16.374min (-0.017) 1.30ng

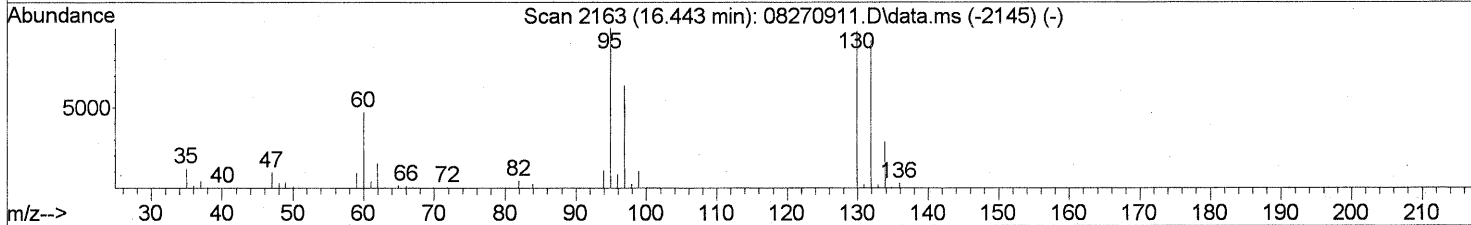
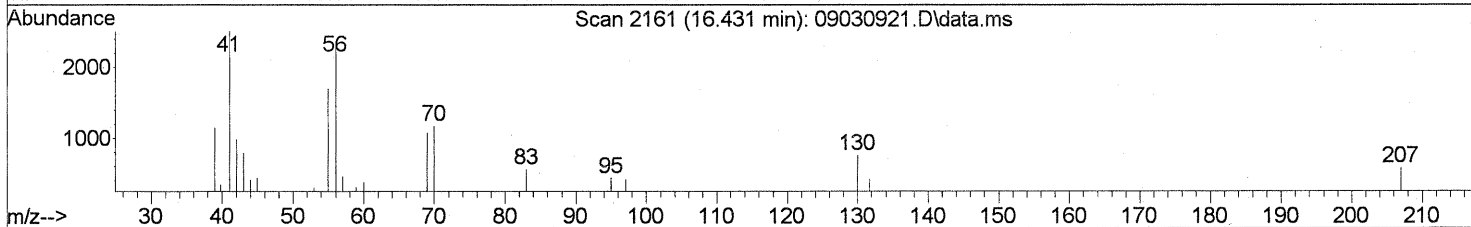
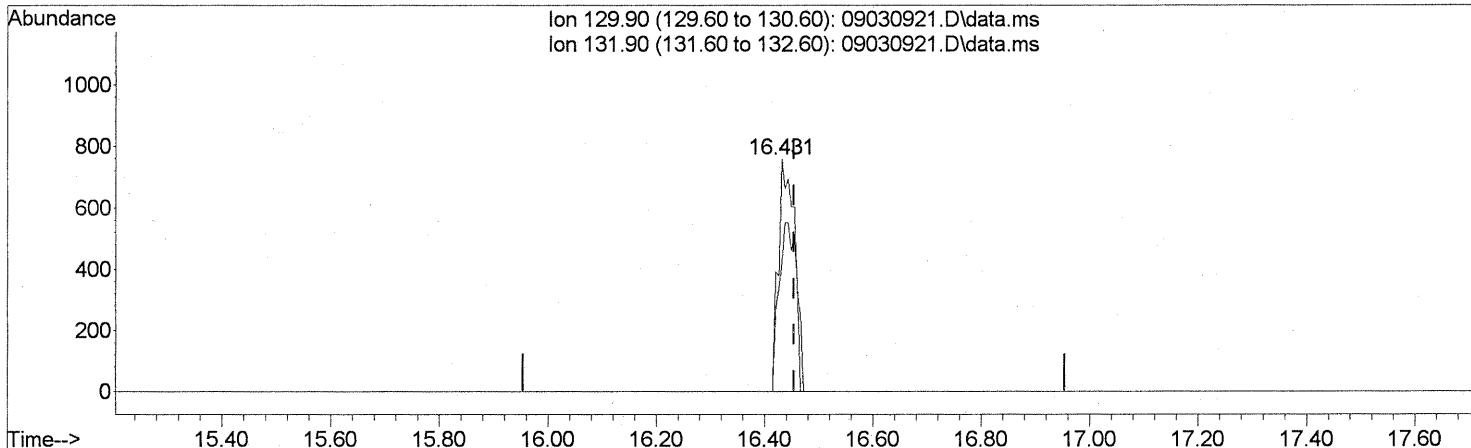
response 26069

Ion	Exp%	Act%
82.90	100	100
84.90	64.50	43.55#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

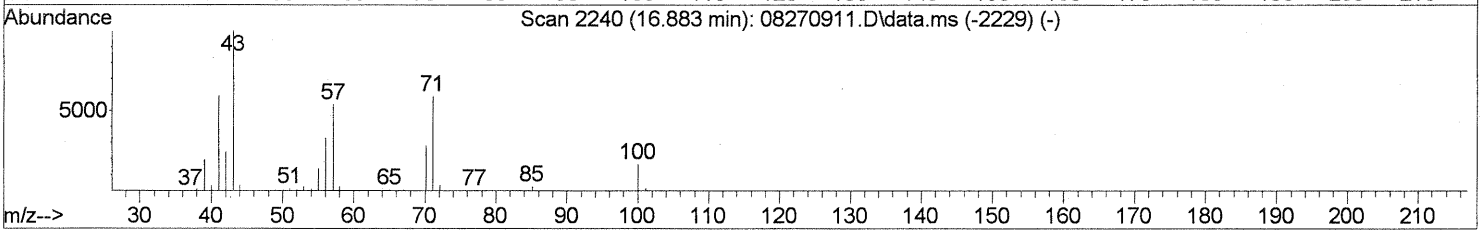
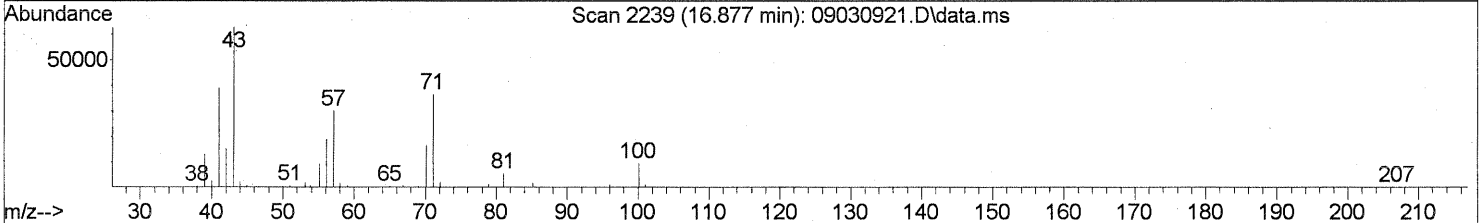
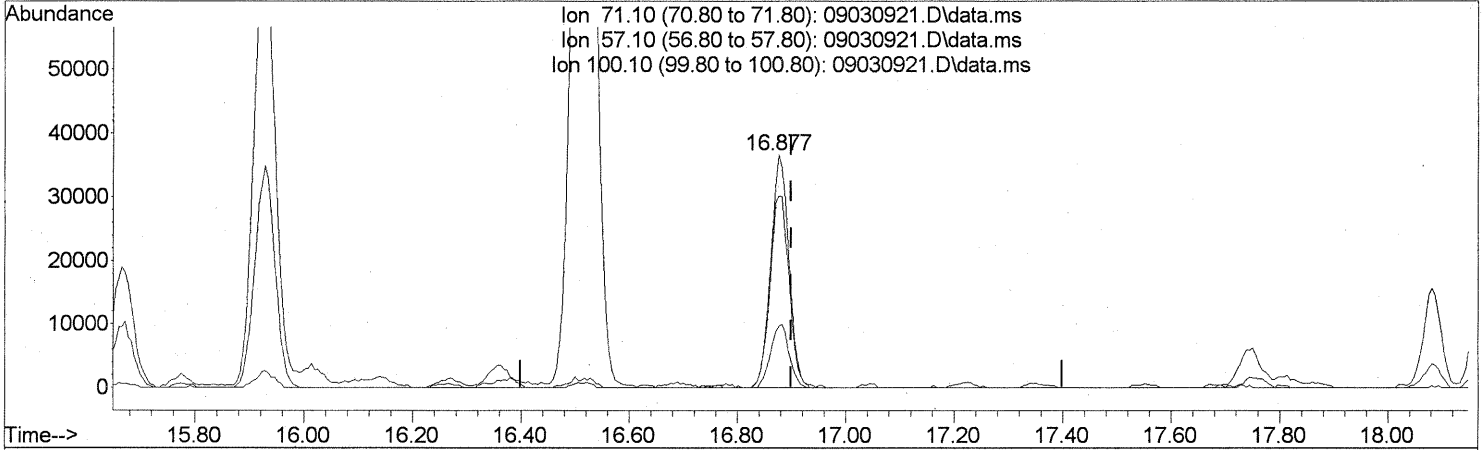
(47) Trichloroethene (T)  
 16.431min (-0.023) 0.11ng  
 response 1598

Ion	Exp%	Act%
129.90	100	100
131.90	96.50	73.90#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

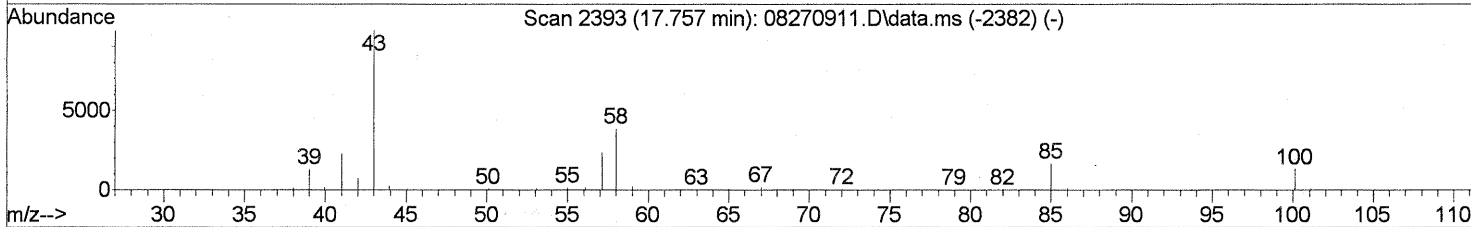
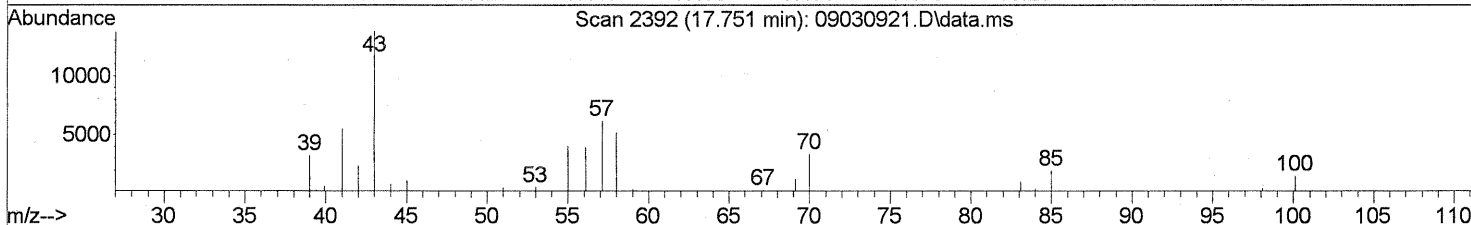
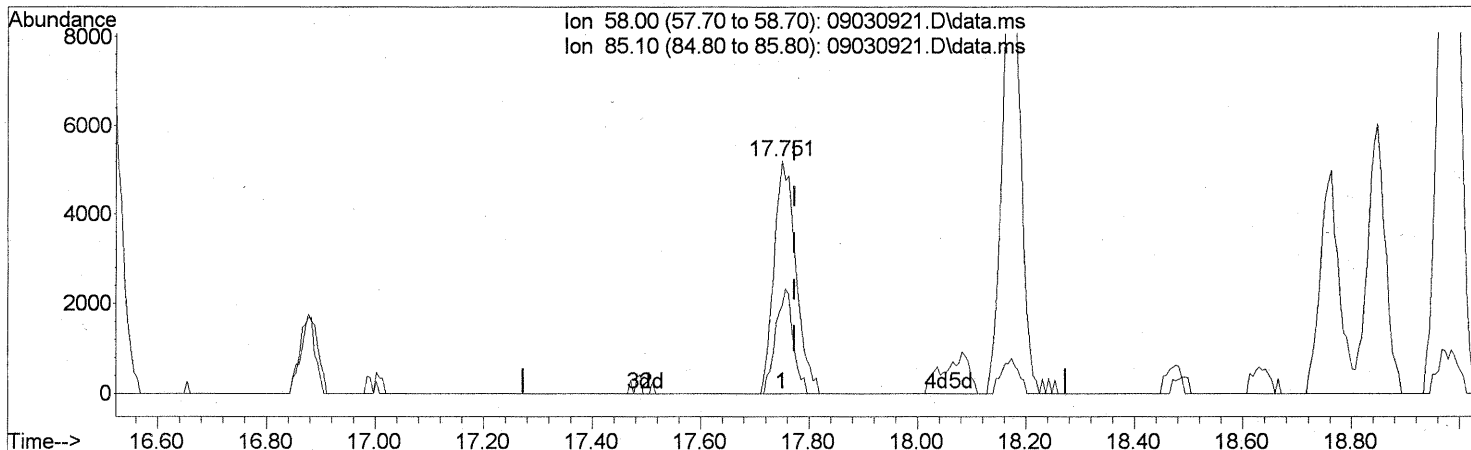
(51) n-Heptane (T)  
 16.877min (-0.023) 5.36ng  
 response 84378

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	87.06
100.10	22.00	27.62
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(53) 4-Methyl-2-pentanone (T)

17.751min (-0.023) 1.05ng

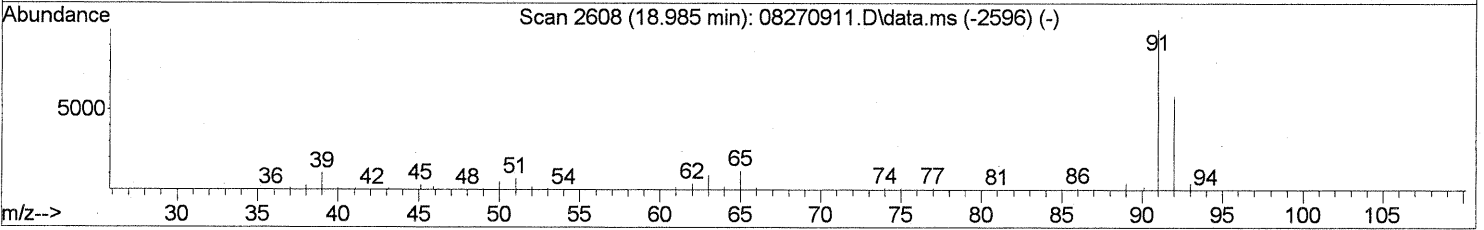
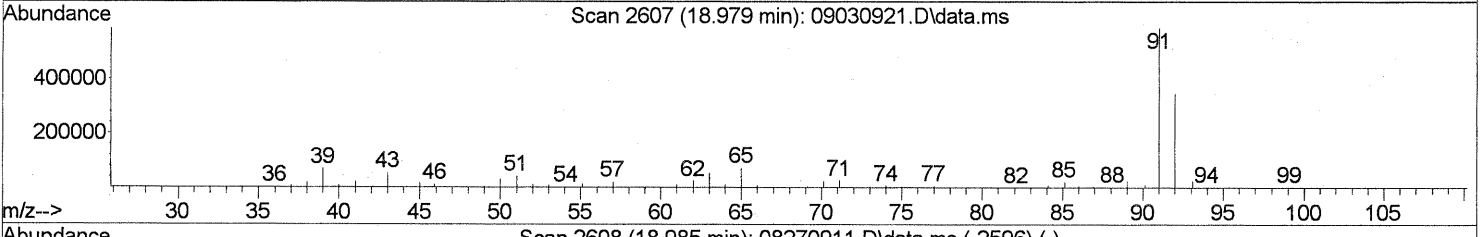
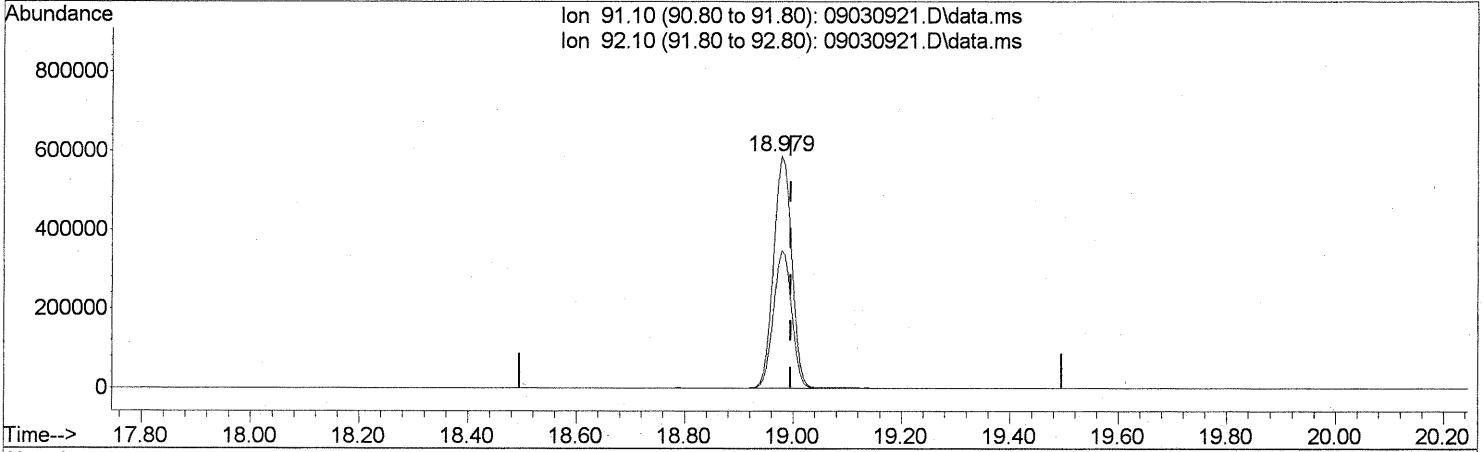
response 14568

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	35.78
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(58) Toluene (T)  
 18.979min (-0.017) 22.29ng  
 response 1357852

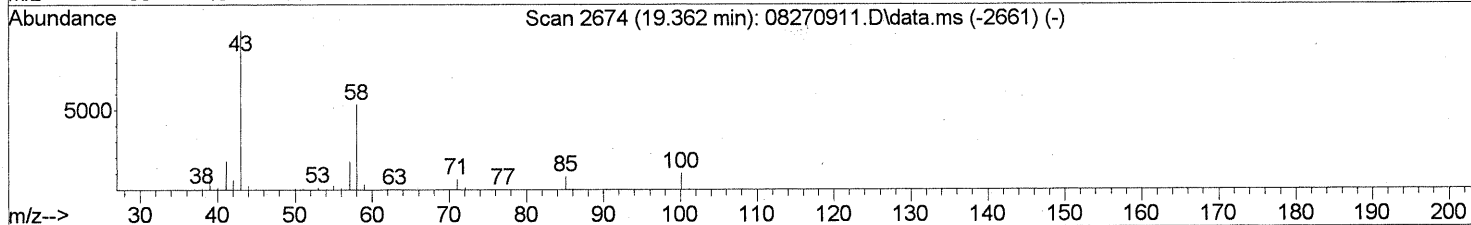
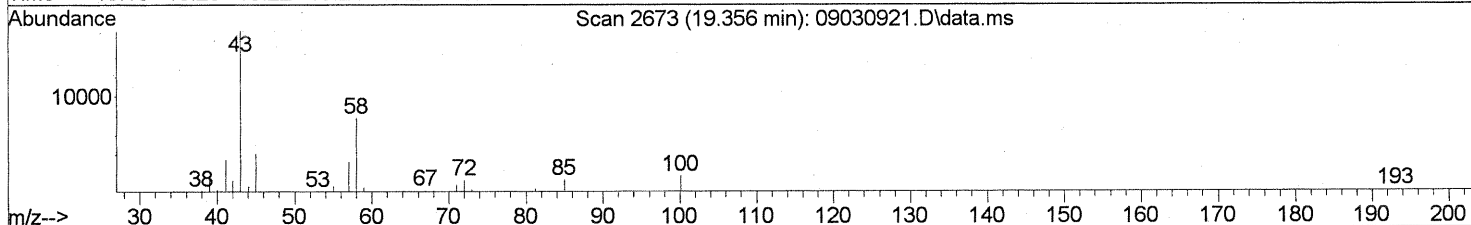
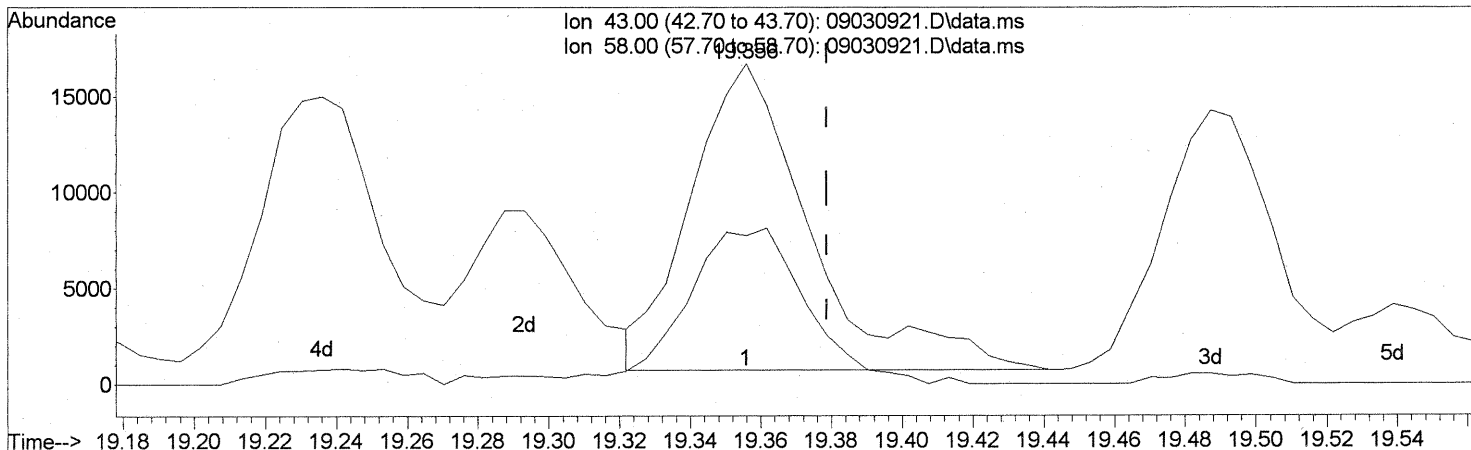
Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.01
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 1.02ng  
 response 37835

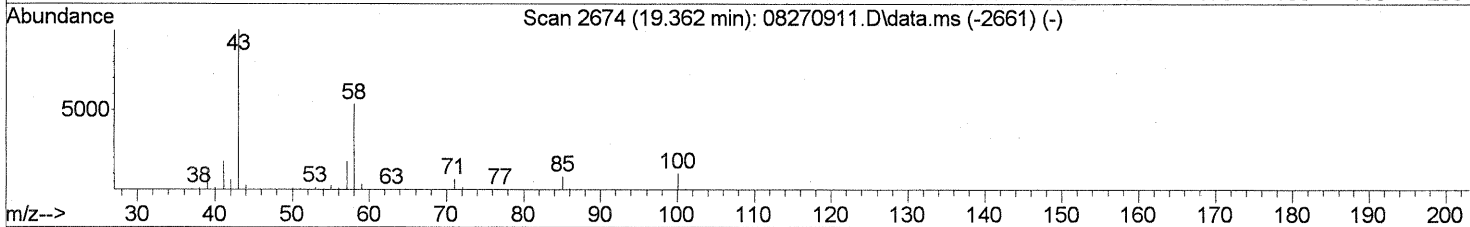
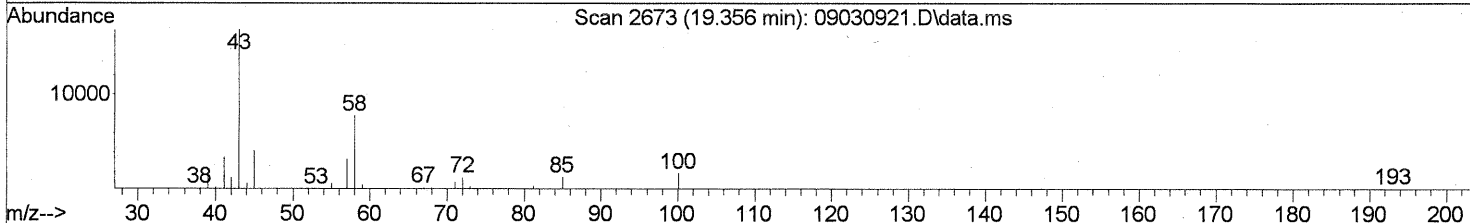
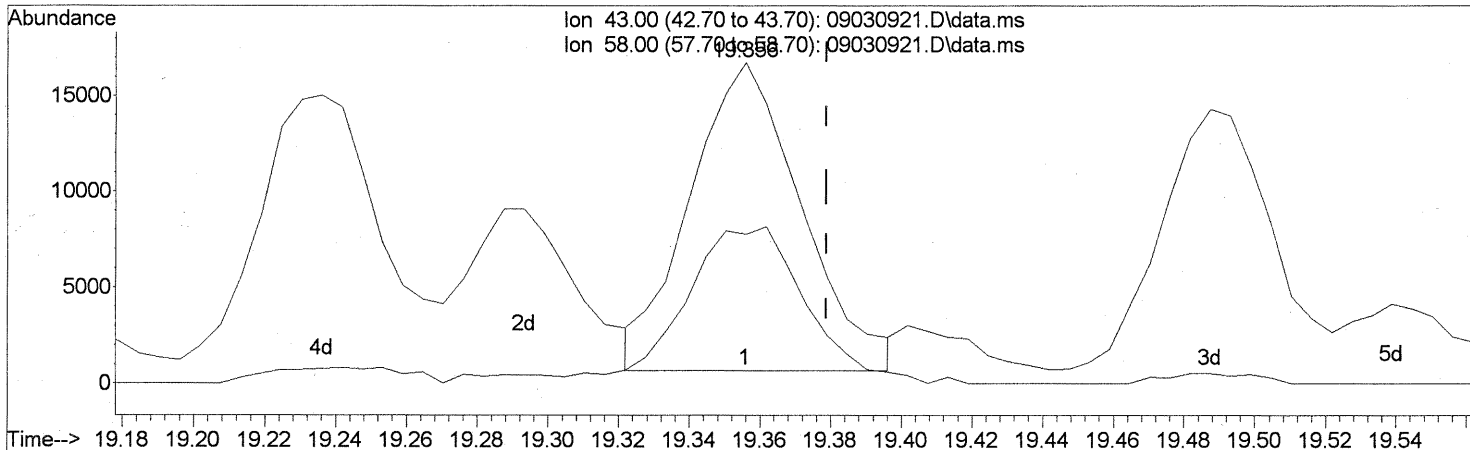
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	51.28
0.00	0.00	0.00
0.00	0.00	0.00

*PT*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 0.94ng m  
 response 35058

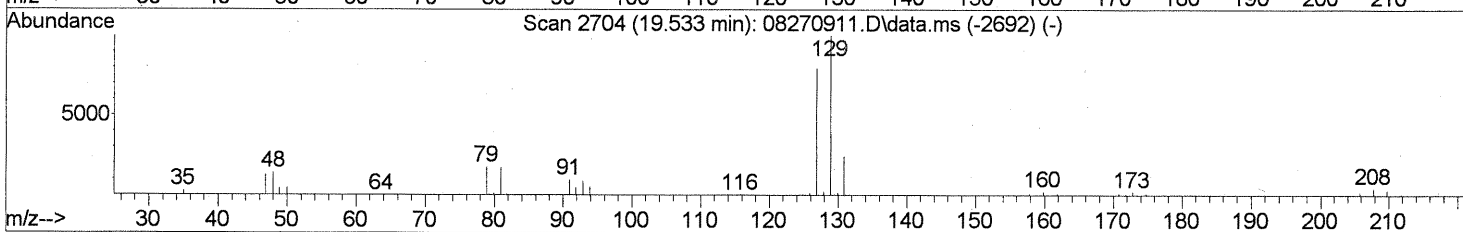
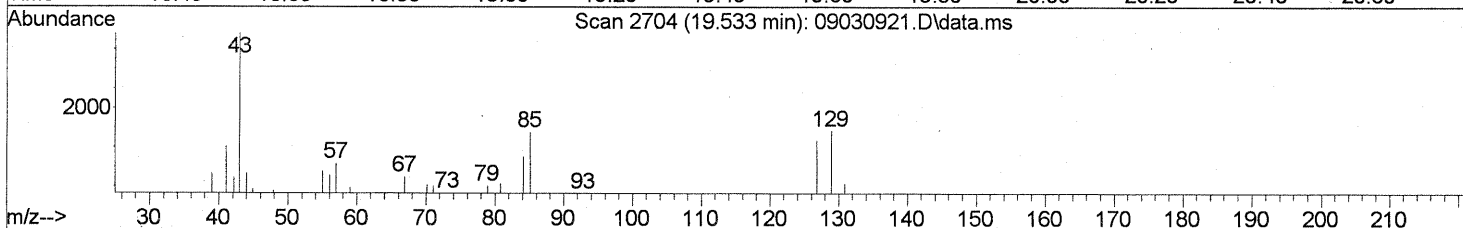
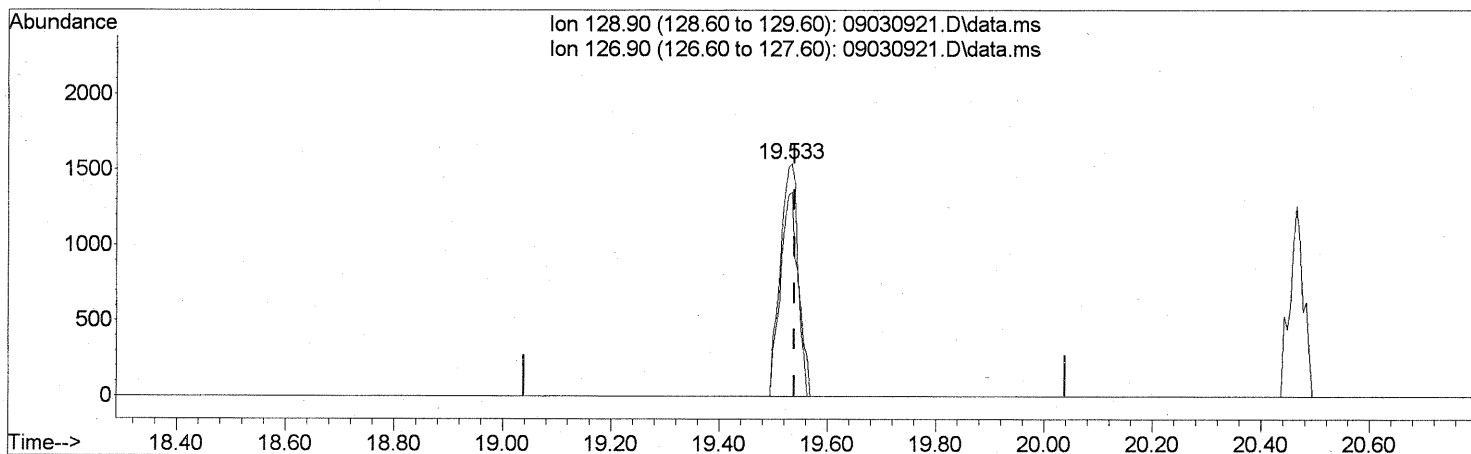
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	55.35
0.00	0.00	0.00
0.00	0.00	0.00

*PT -> IE  
 179/10/09  
 11 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(60) Dibromochloromethane (T)

19.533min (-0.006) 0.24ng

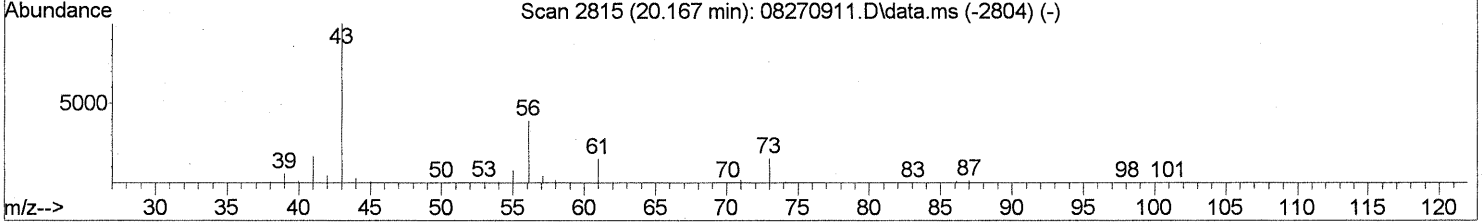
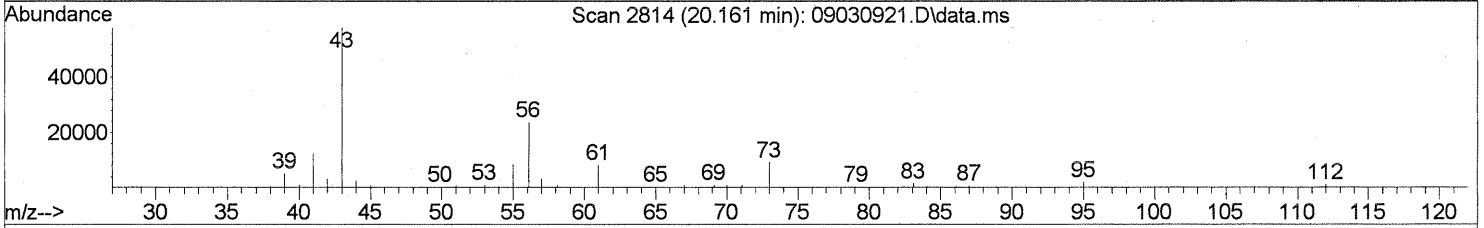
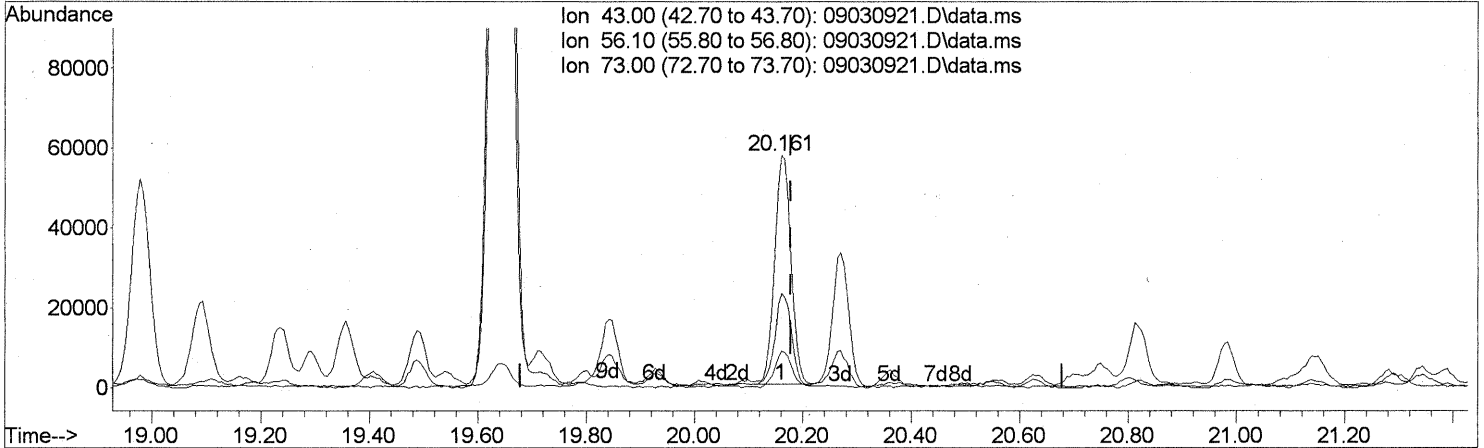
response 3637

Ion	Exp%	Act%
128.90	100	100
126.90	77.50	81.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

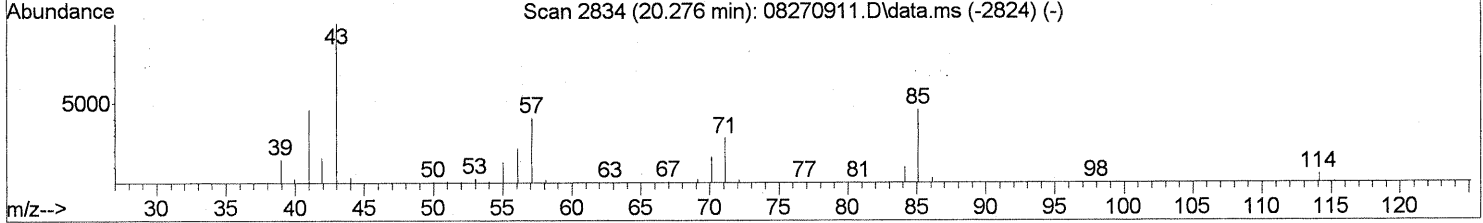
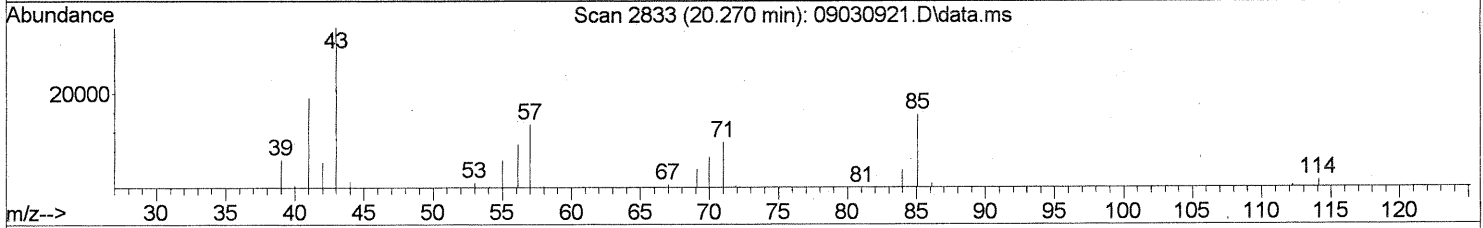
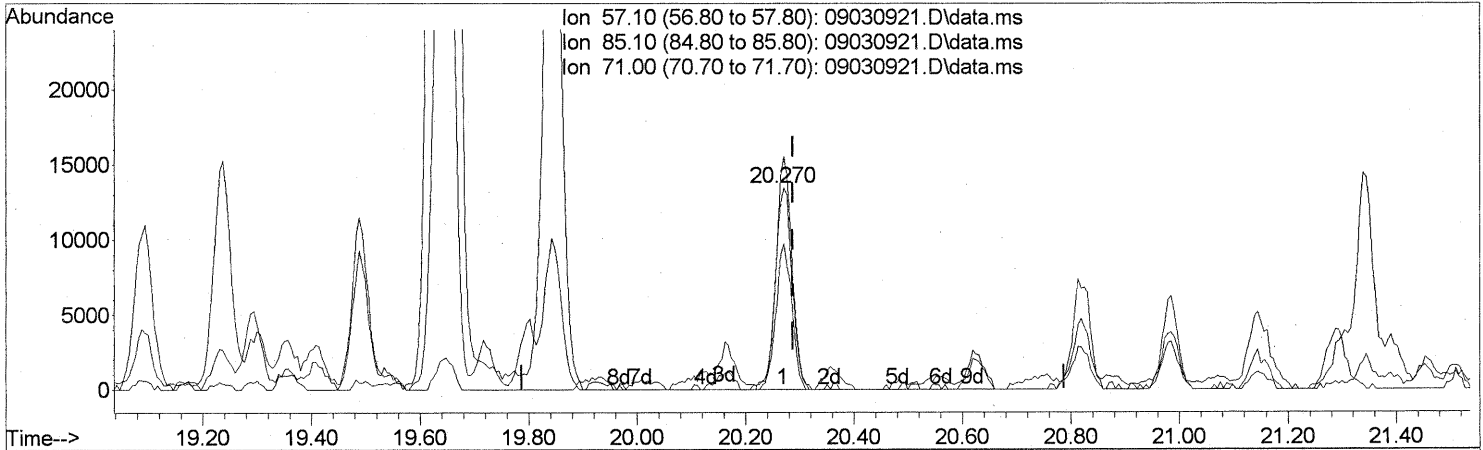
(62) n-Butyl Acetate (T)  
 20.161min (-0.017) 2.81ng  
 response 120125

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	41.60
73.00	14.30	18.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030921.D  
Acq On : 4 Sep 2009 00:28  
Operator : LM/CC  
Sample : P0903021-003 (1000ml)  
Misc : EH&E 104275  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration

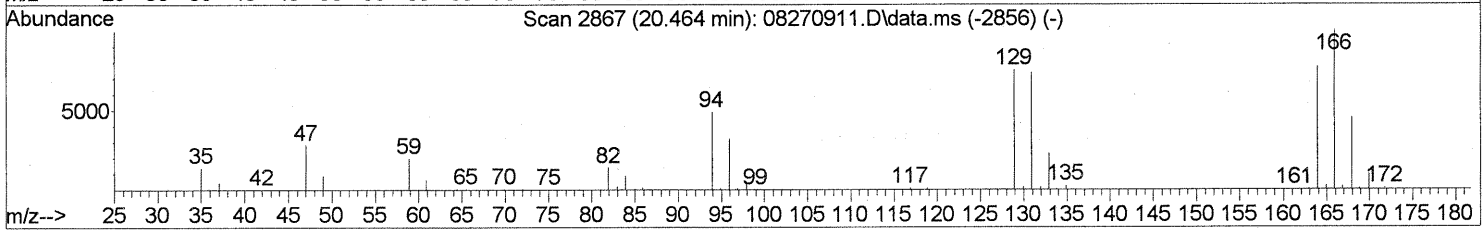
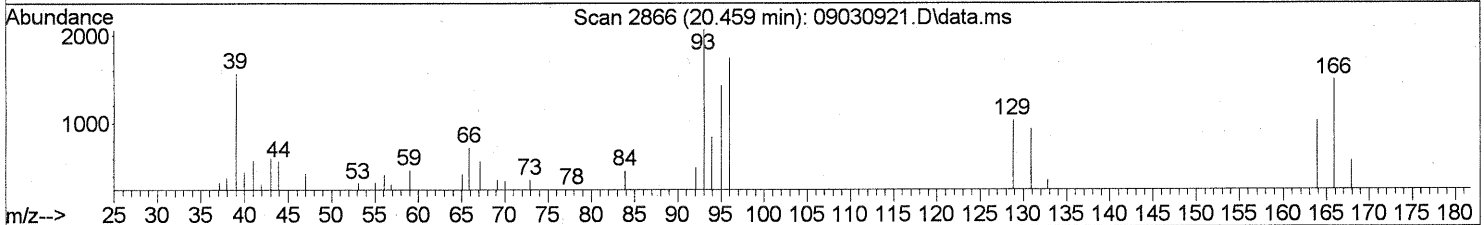
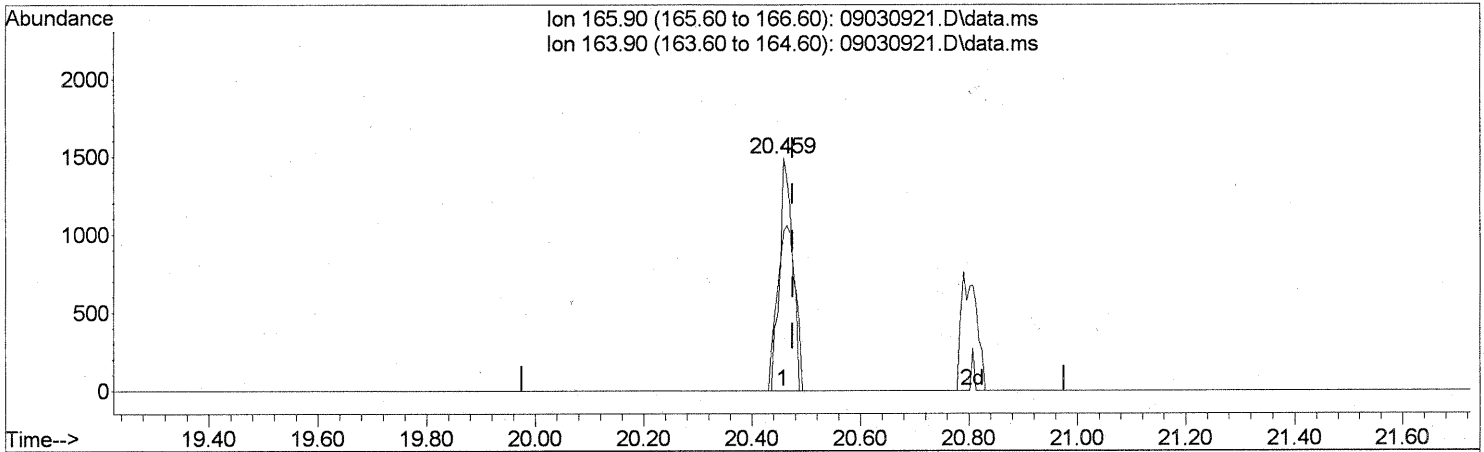


TIC: 09030921.D\data.ms

(63) n-Octane (T)		
20.270min (-0.017) 2.07ng		
response 29019		
Ion	Exp%	Act%
57.10	100	100
85.10	113.70	108.56
71.00	69.10	69.40
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



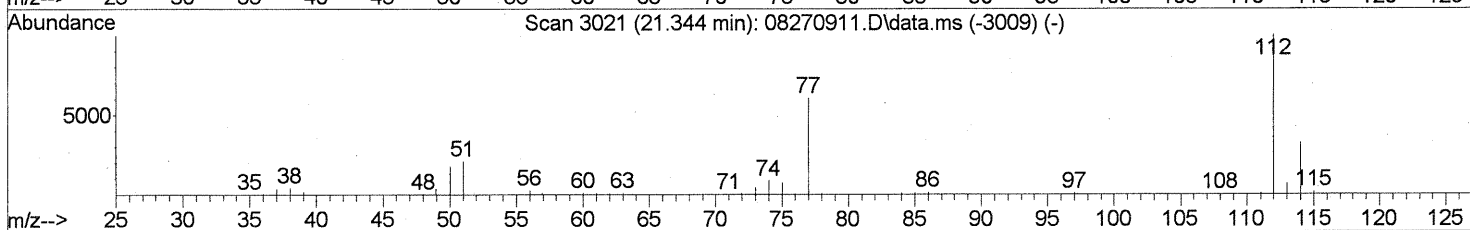
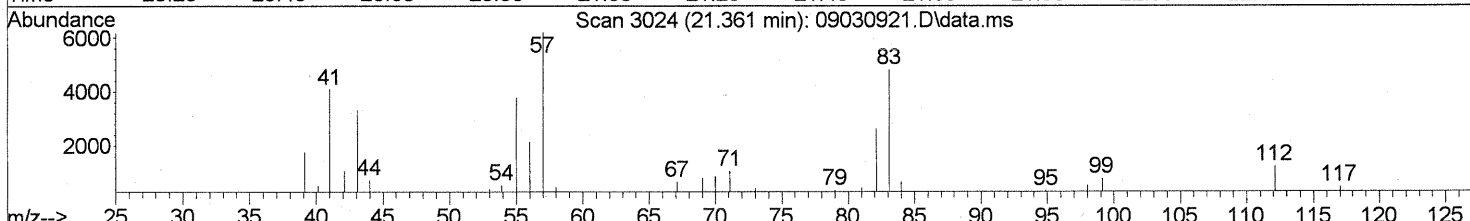
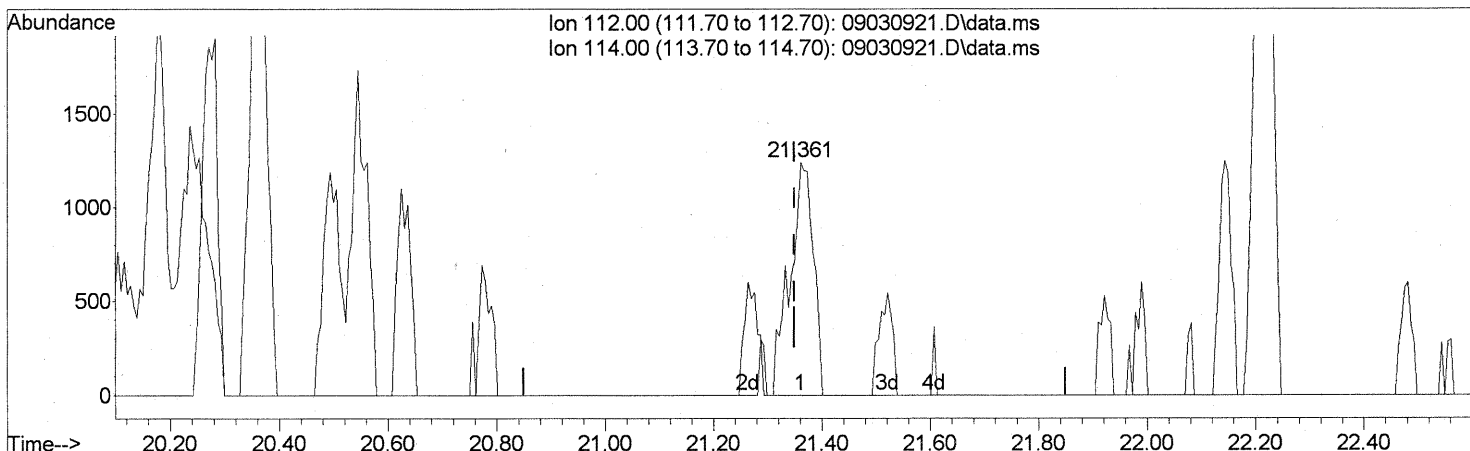
TIC: 09030921.D\data.ms

(64) Tetrachloroethene (T)  
 20.459min (-0.017) 0.17ng  
 response 2584

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	88.93
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(65) Chlorobenzene (T)  
 21.361min (+0.011) 0.10ng  
 response 3714

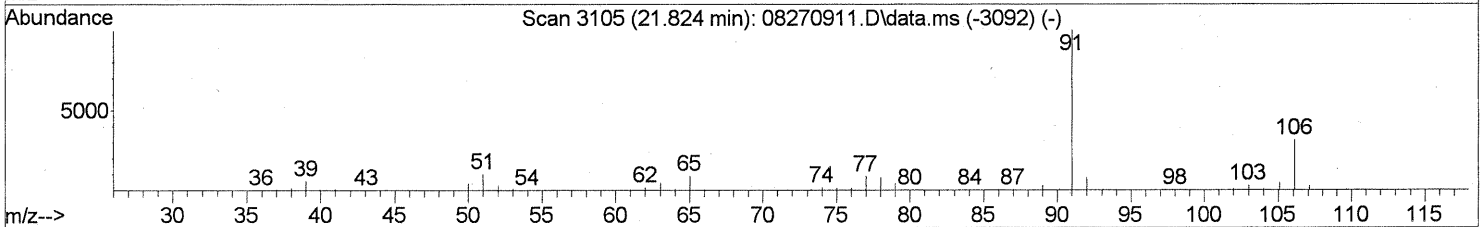
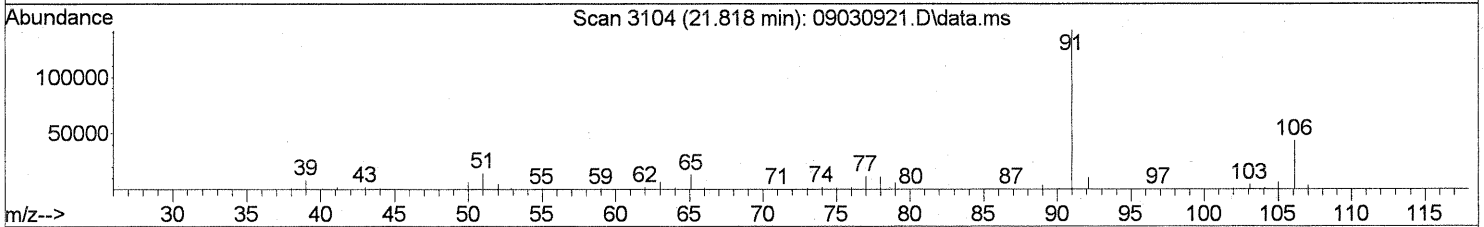
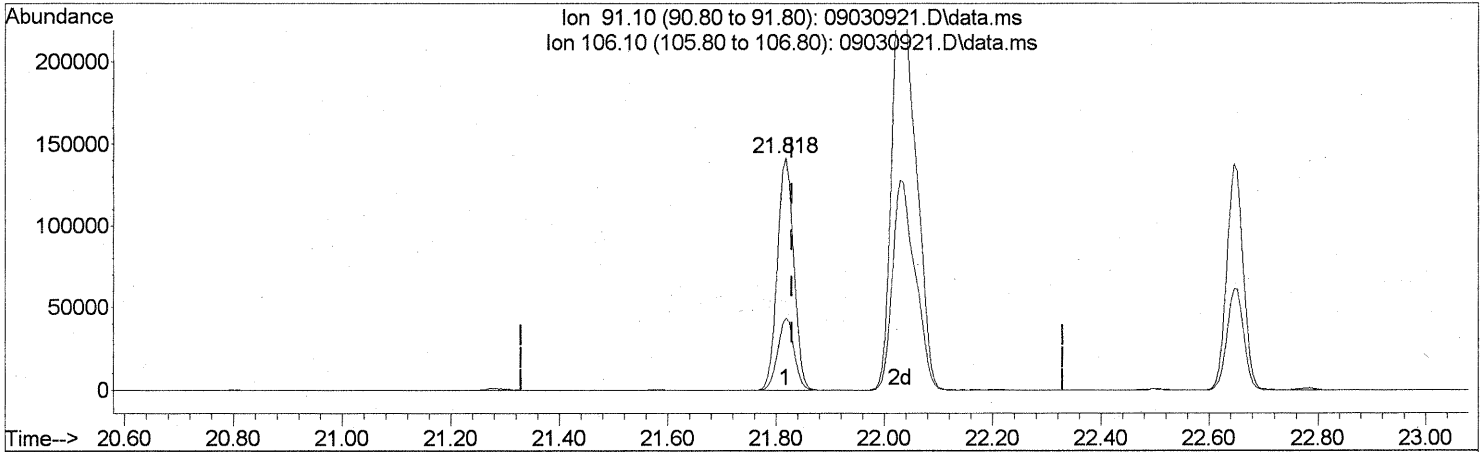
Ion	Exp%	Act%
112.00	100	100
114.00	32.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*279/10/09*  
*44 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

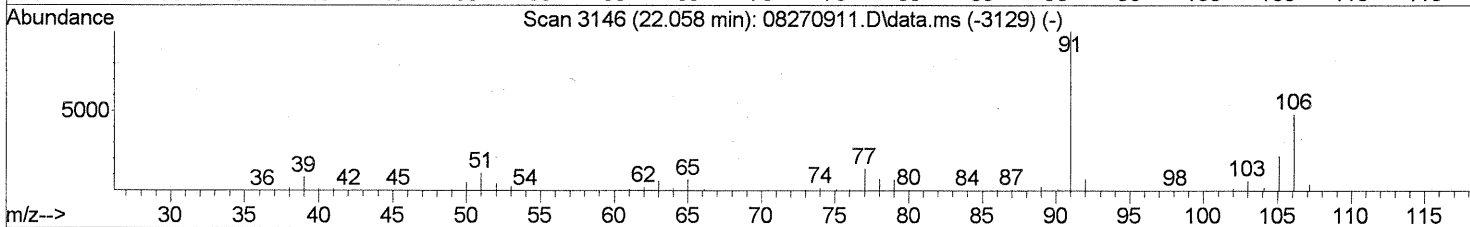
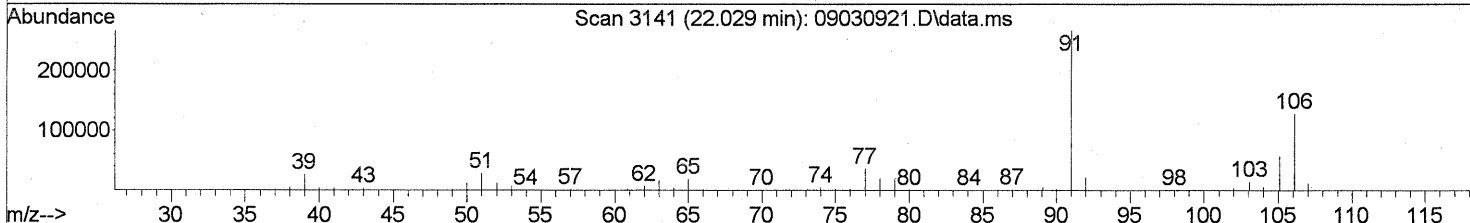
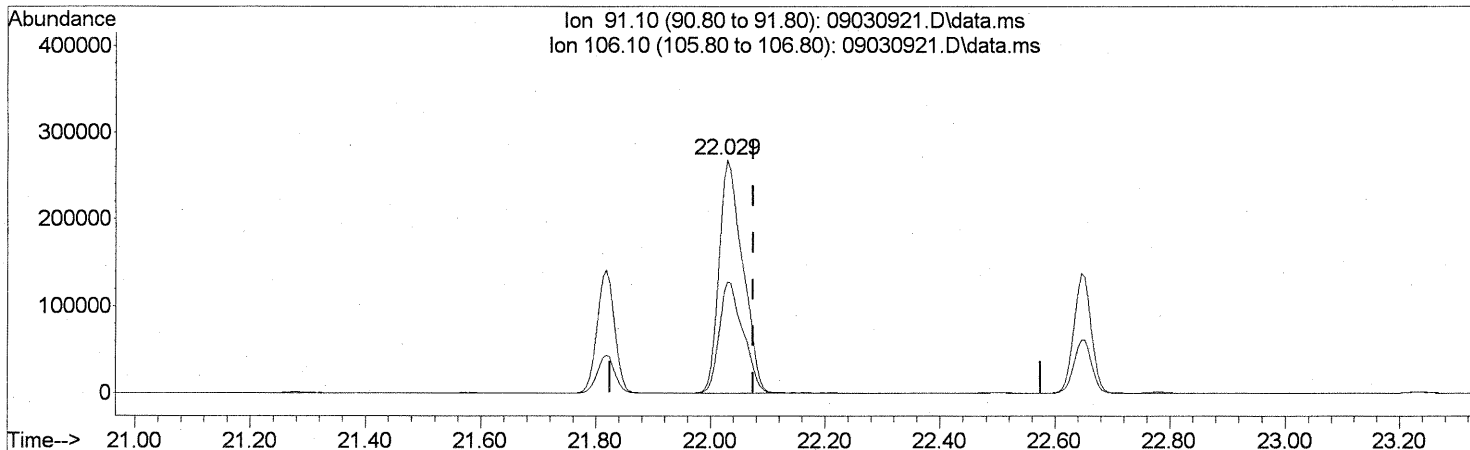
(66) Ethylbenzene (T)		
21.818min (-0.011) 4.25ng		
response 296110		
Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.72
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

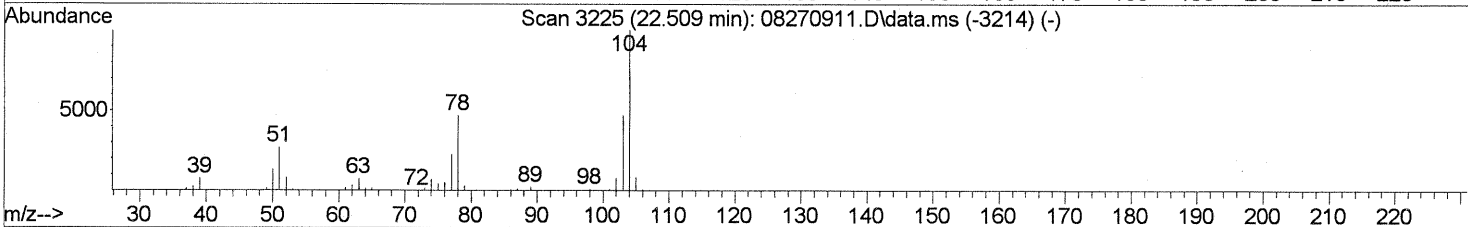
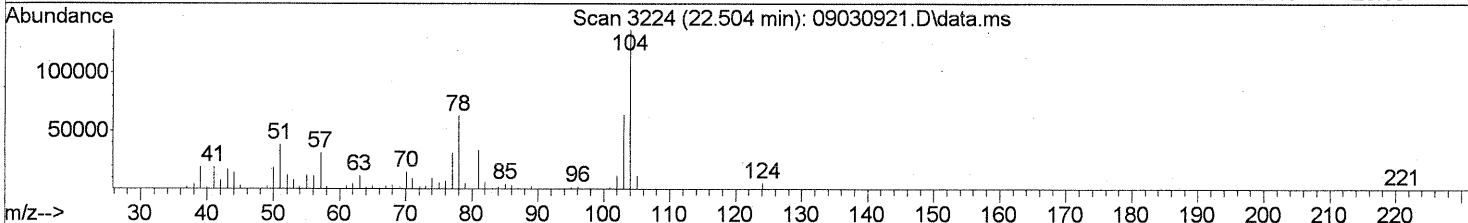
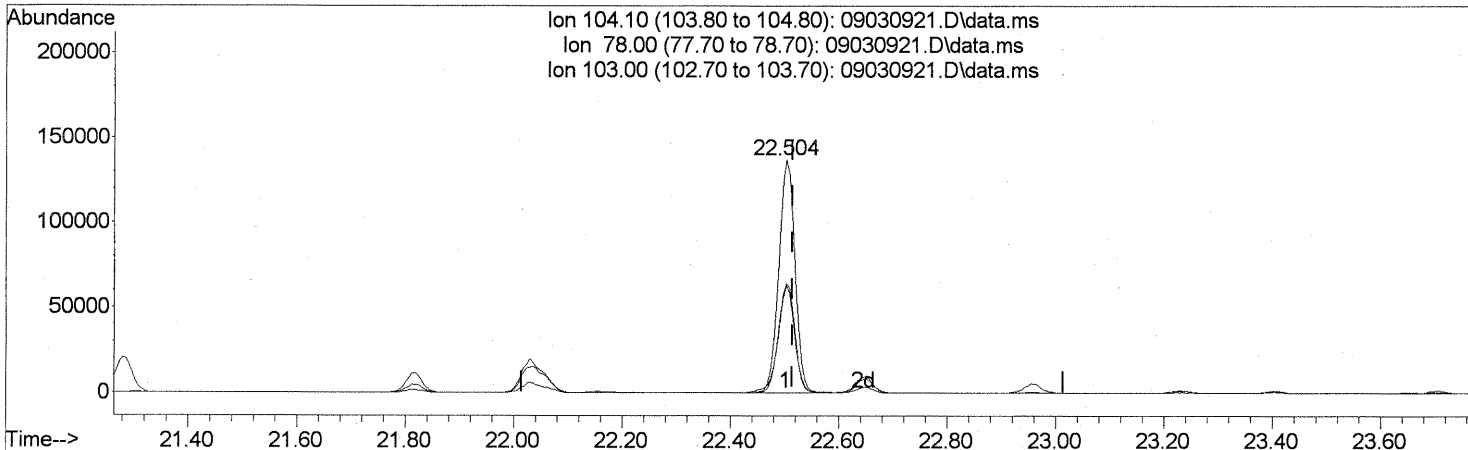
(67) m- & p-Xylenes (T)  
 22.029min (-0.046) 13.90ng  
 response 771135

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	47.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

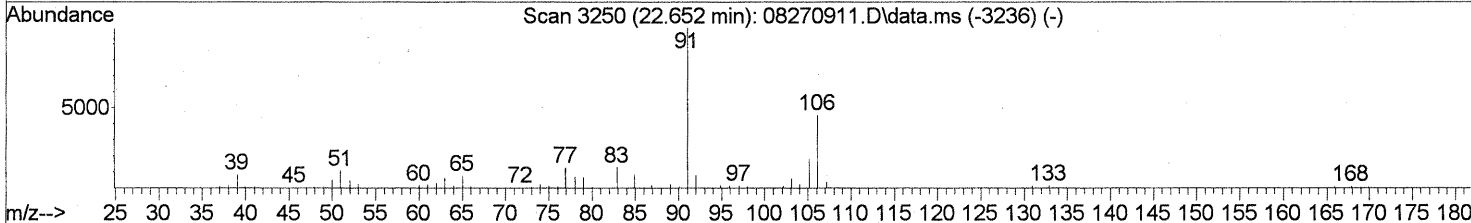
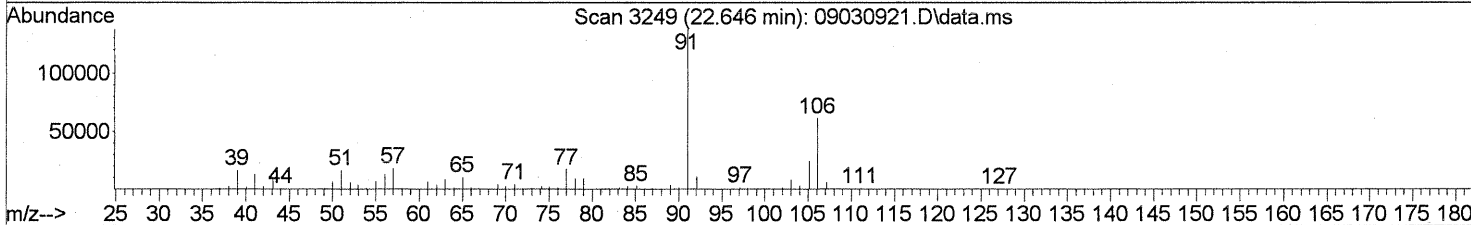
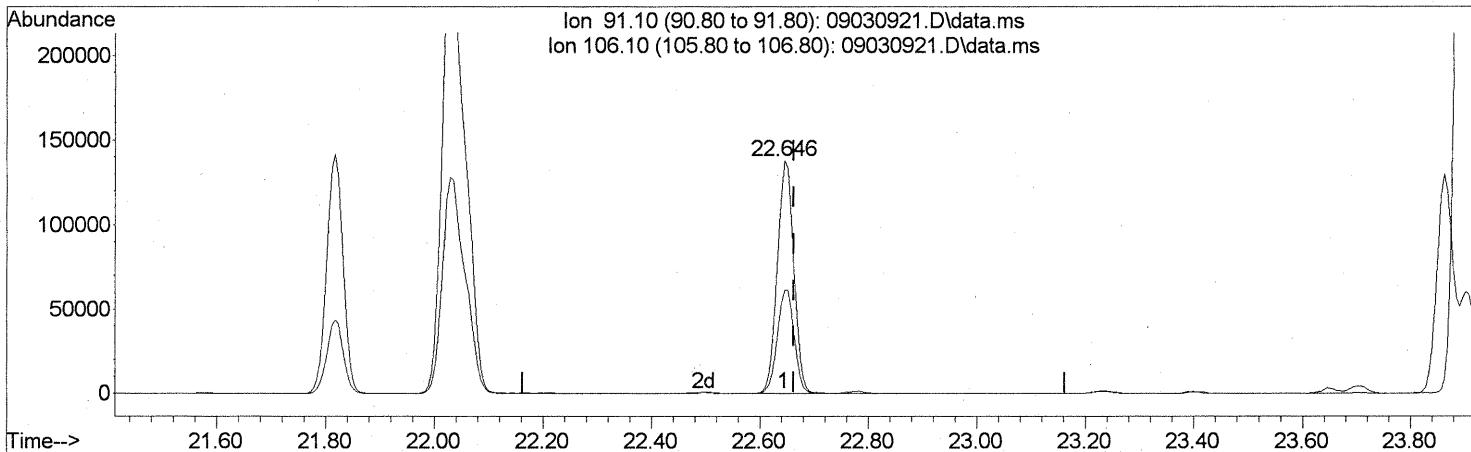
(69) Styrene (T)  
 22.504min (-0.011) 6.90ng  
 response 282049

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.98
103.00	47.00	48.63
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

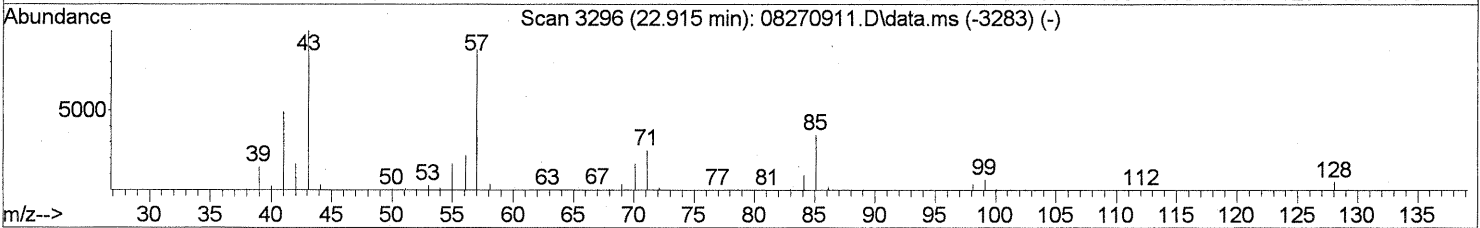
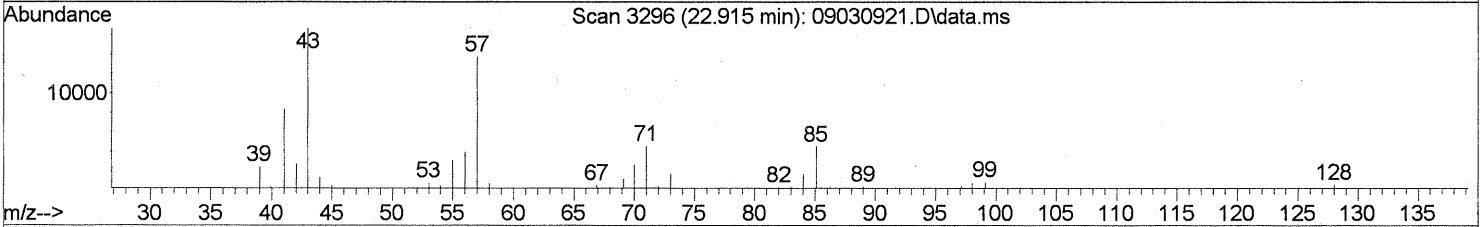
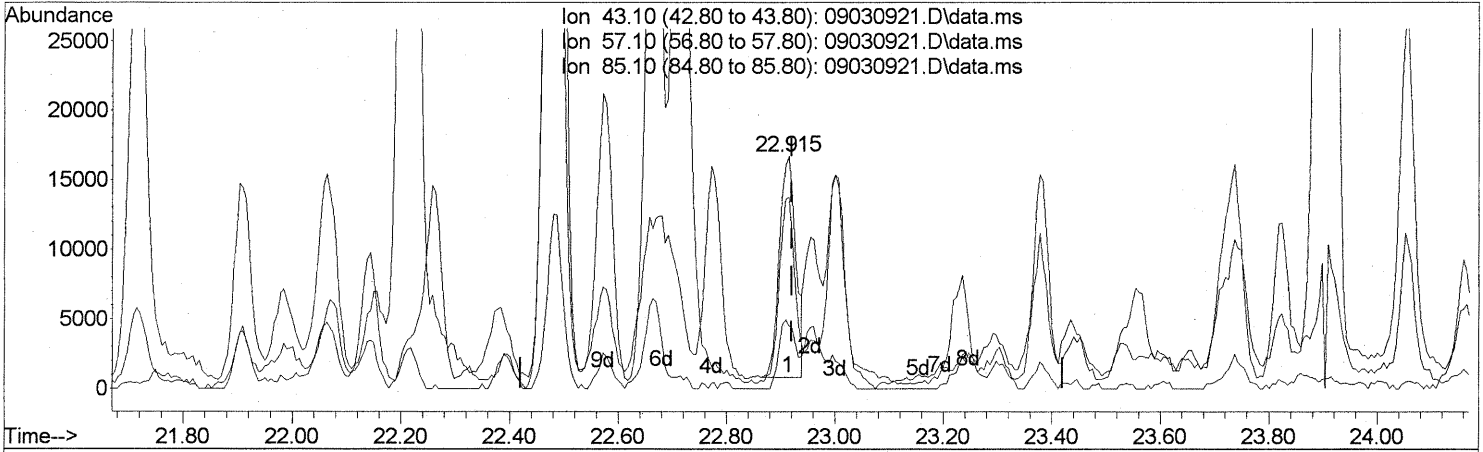
(70) o-Xylene (T)  
 22.646min (-0.017) 5.18ng  
 response 288847

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

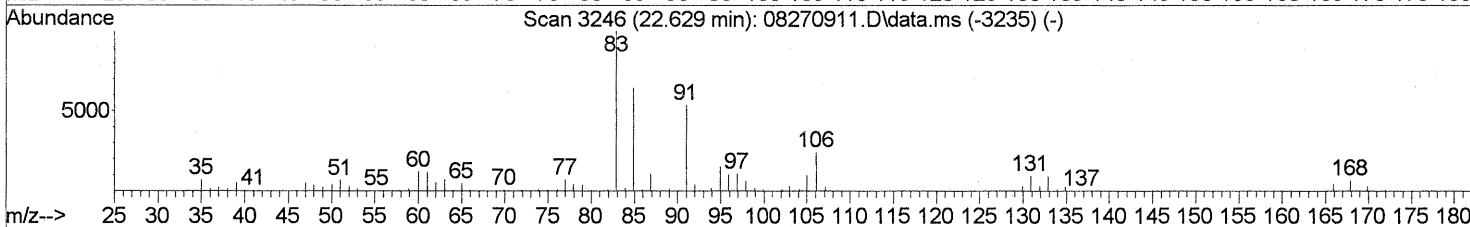
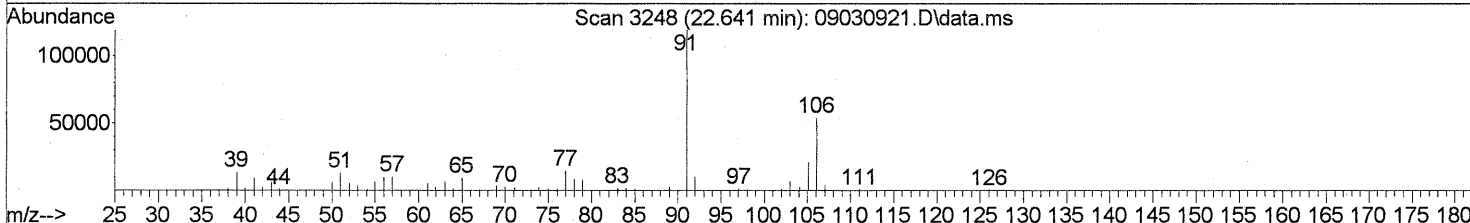
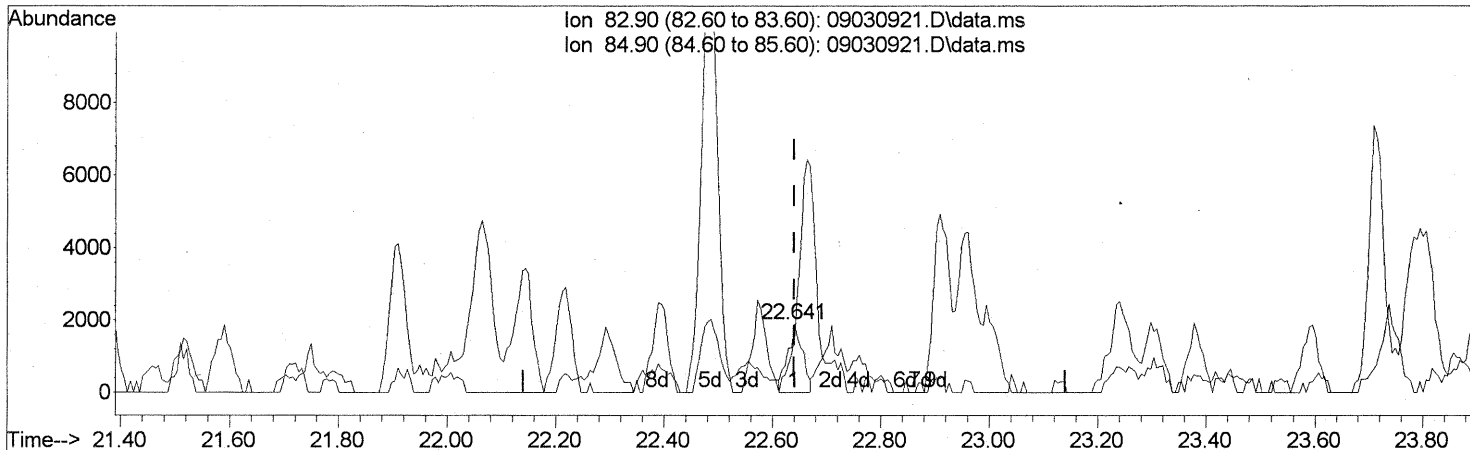
(71) n-Nonane (T)  
 22.915min (-0.006) 0.99ng  
 response 33042

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	97.01
85.10	32.20	32.50
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(72) 1,1,2,2-Tetrachloroethane (T)  
 22.641min (+0.000) 0.14ng  
 response 3568

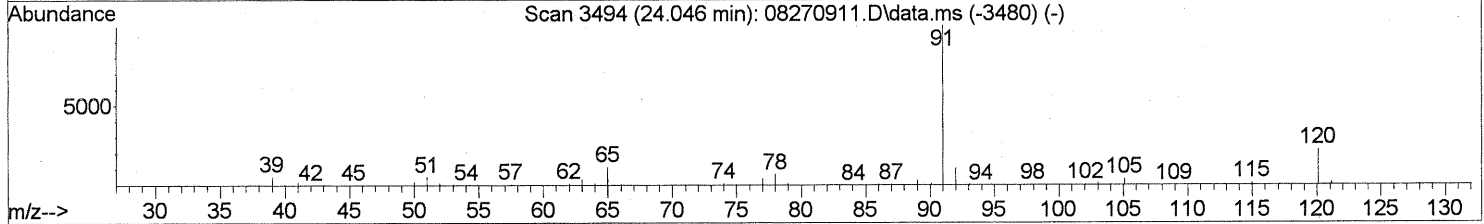
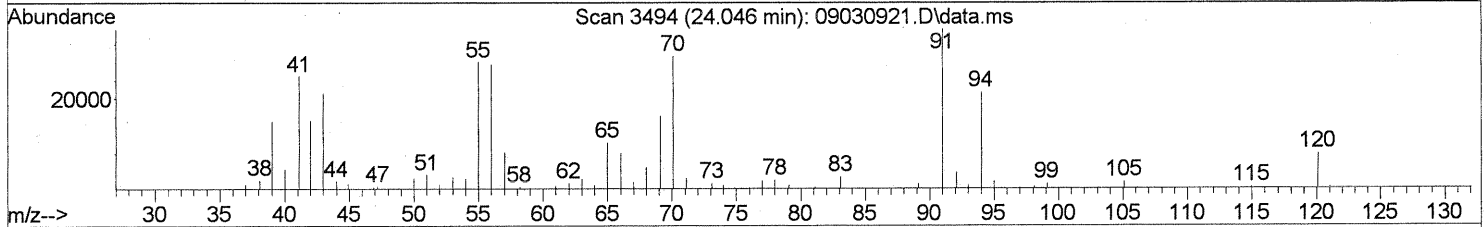
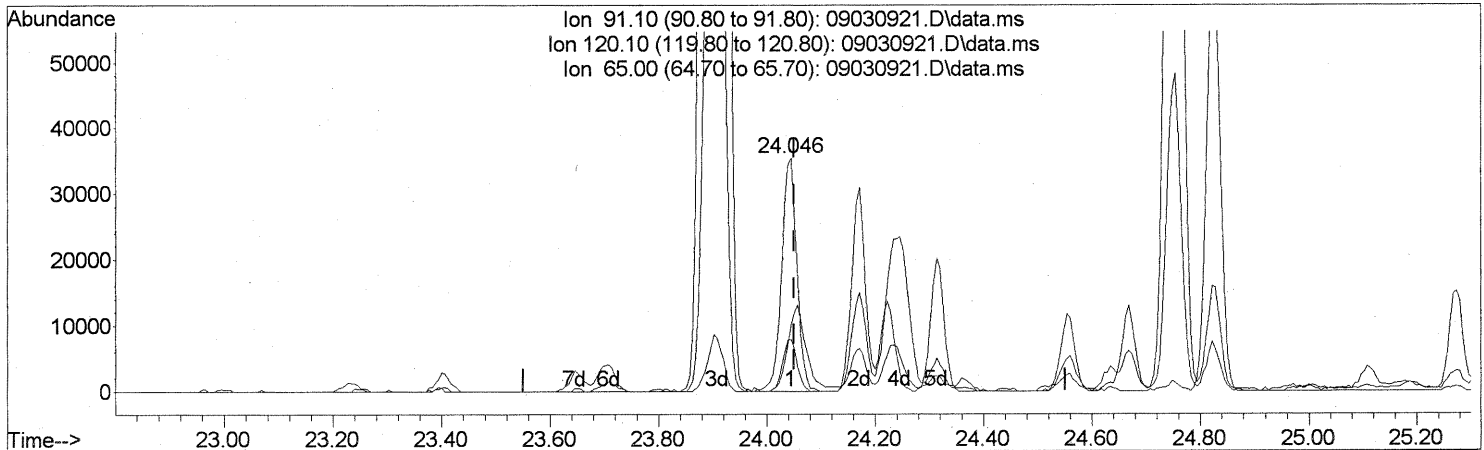
Ion	Exp%	Act%
82.90	100	100
84.90	62.90	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*M 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

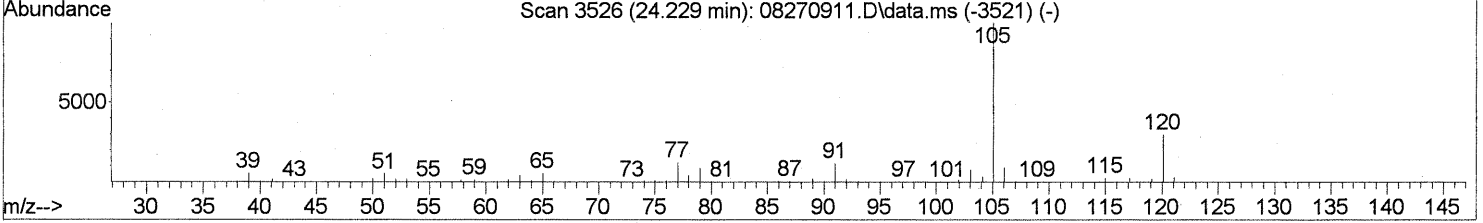
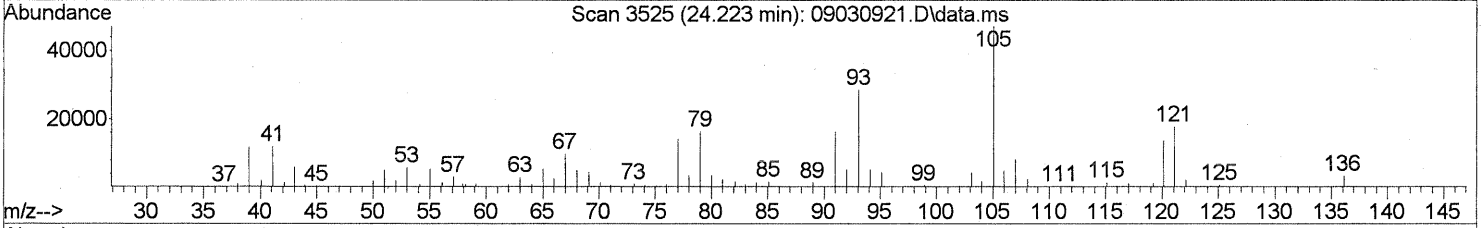
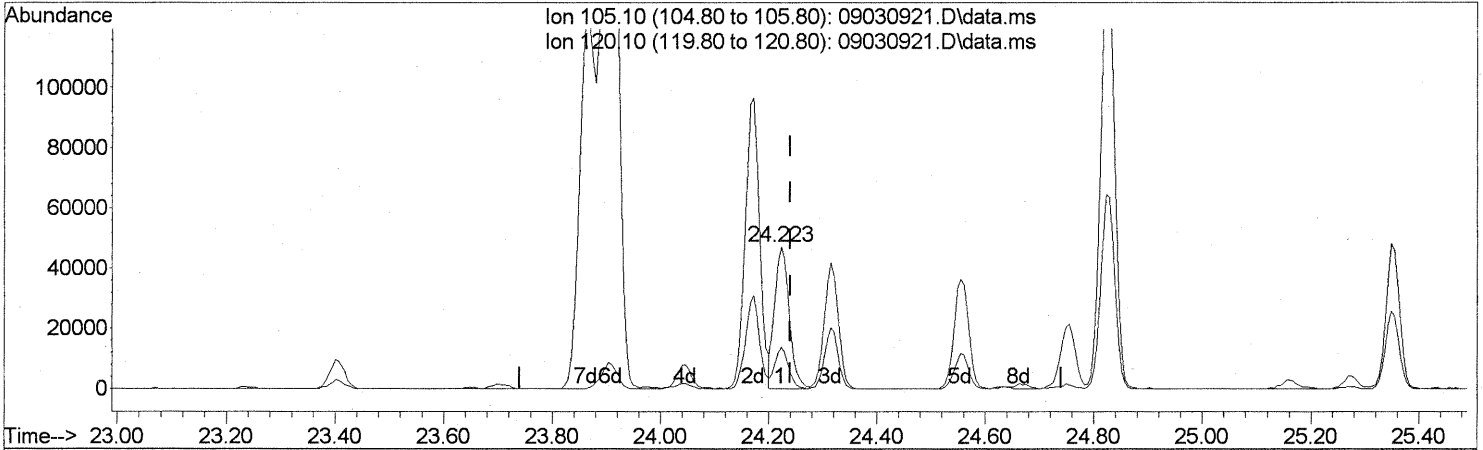
(76) n-Propylbenzene (T)  
 24.046min (-0.006) 0.77ng  
 response 68746

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	21.18
65.00	11.80	45.22#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



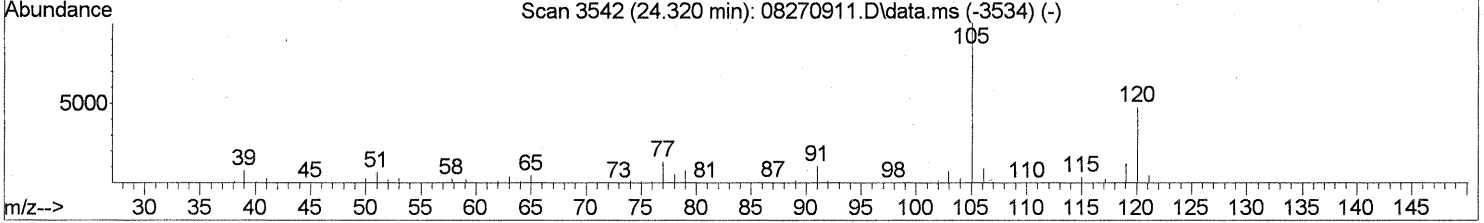
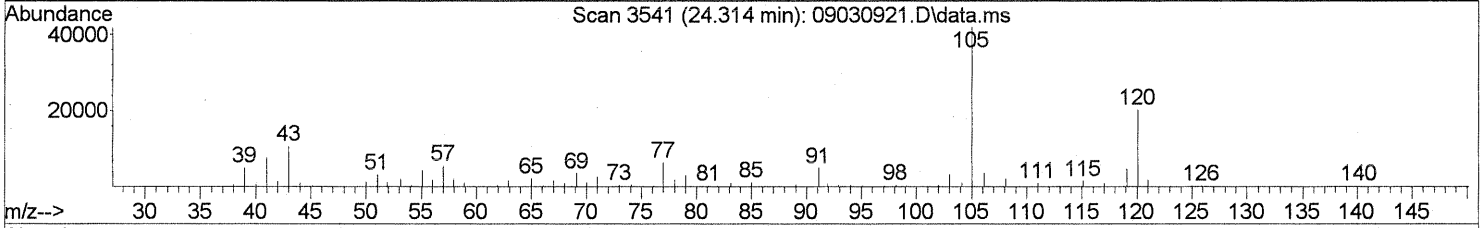
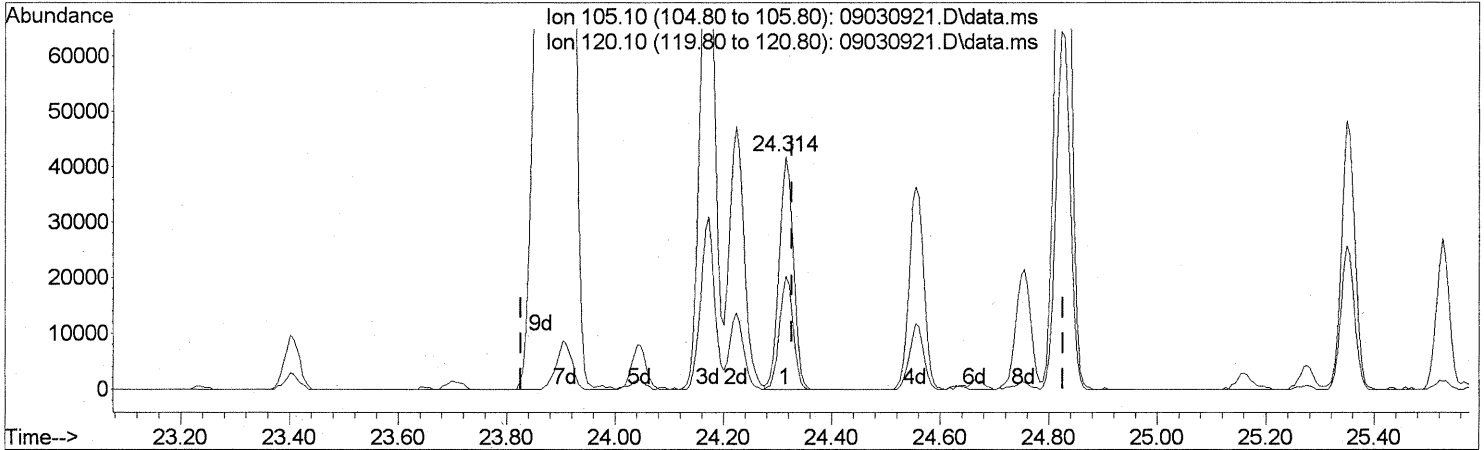
TIC: 09030921.D\data.ms

(78) 4-Ethyltoluene (T)		
24.223min (-0.017) 1.31ng		
response 87378		
Ion	Exp%	Act%
105.10	100	100
120.10	28.70	27.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(79) 1,3,5-Trimethylbenzene (T)  
 24.314min (-0.011) 1.36ng  
 response 75492

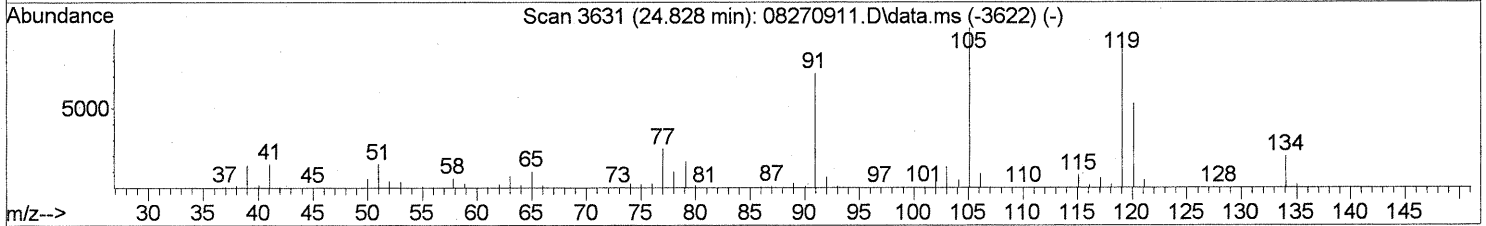
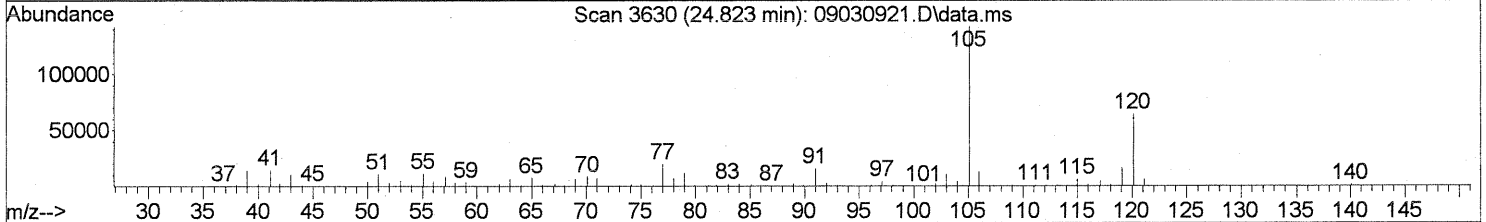
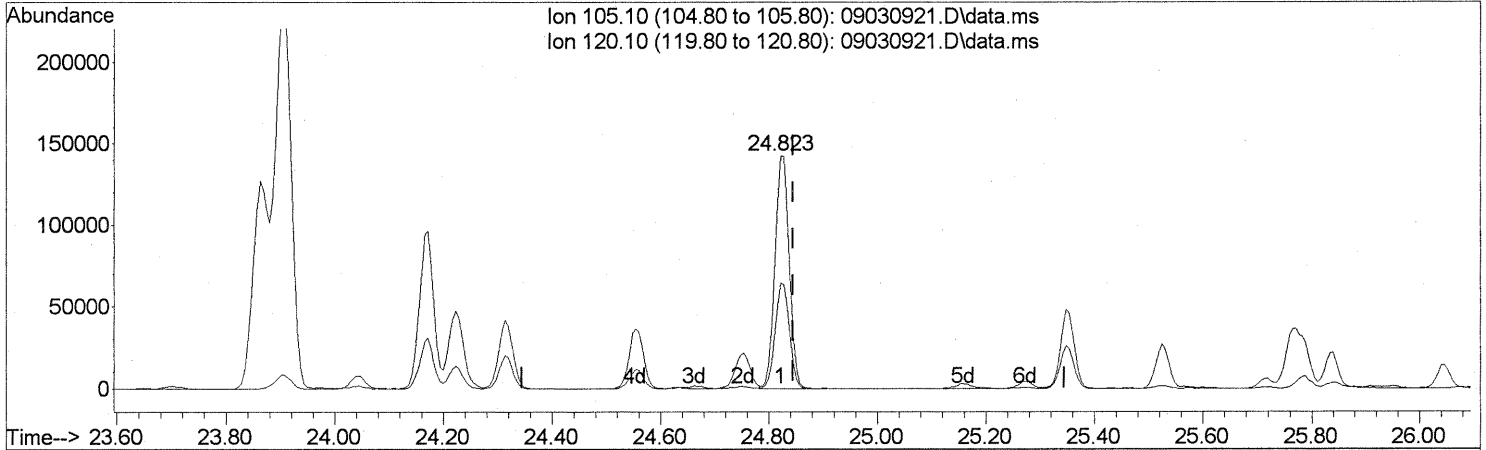
Ion	Exp%	Act%
105.10	100	100
120.10	47.70	46.12
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)

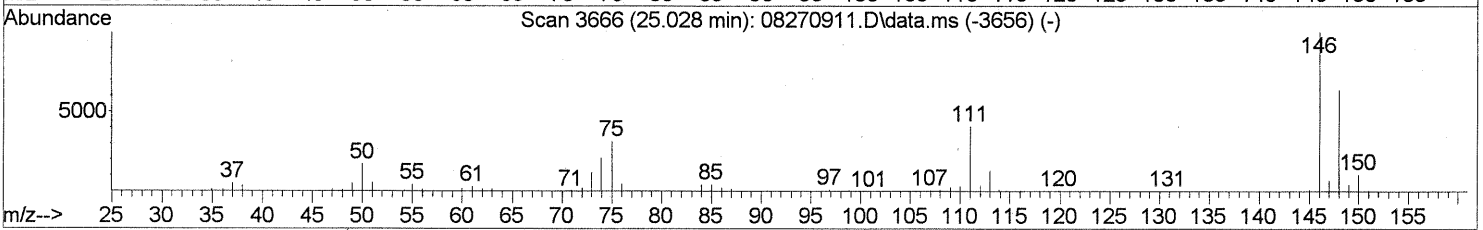
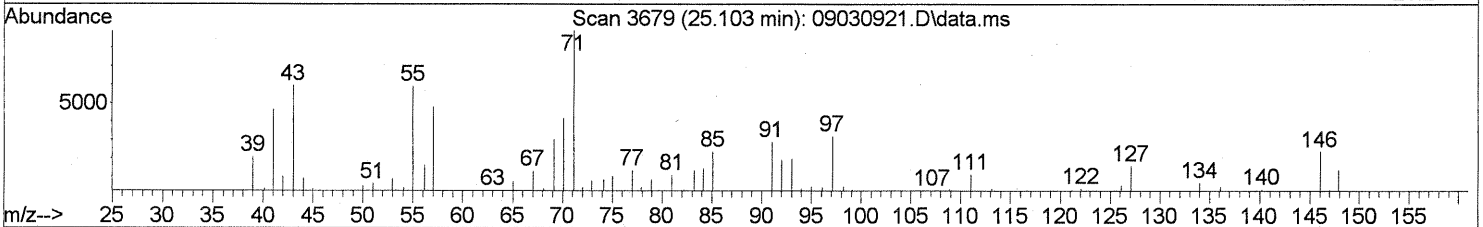
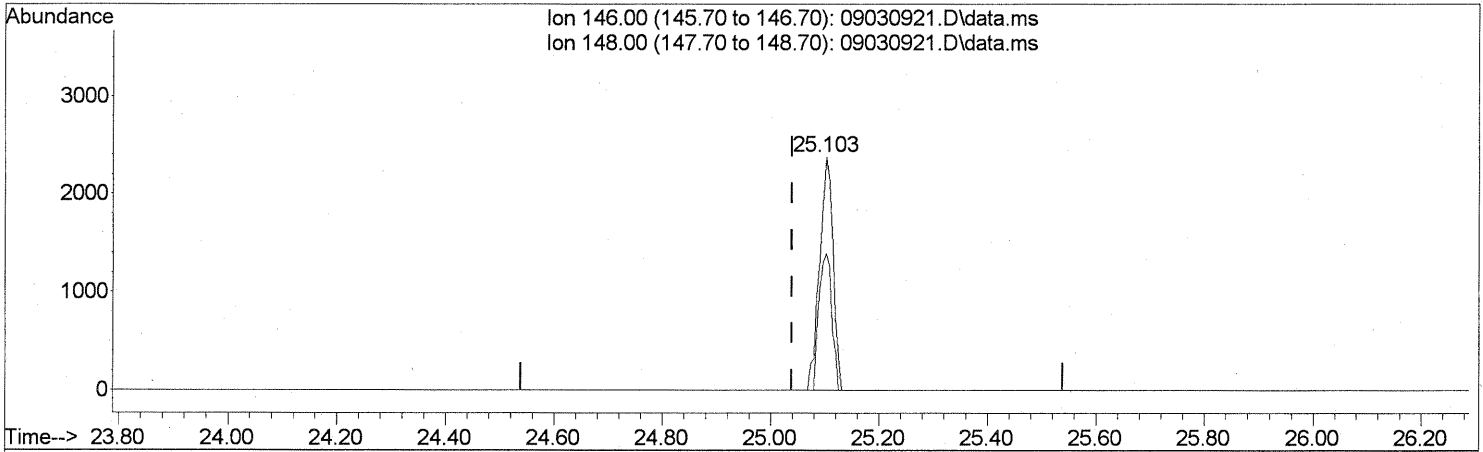
24.823min (-0.023) 4.55ng

response 257861

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	45.11
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(85) 1,3-Dichlorobenzene (T)  
 25.103min (+0.063) 0.13ng  
 response 4068

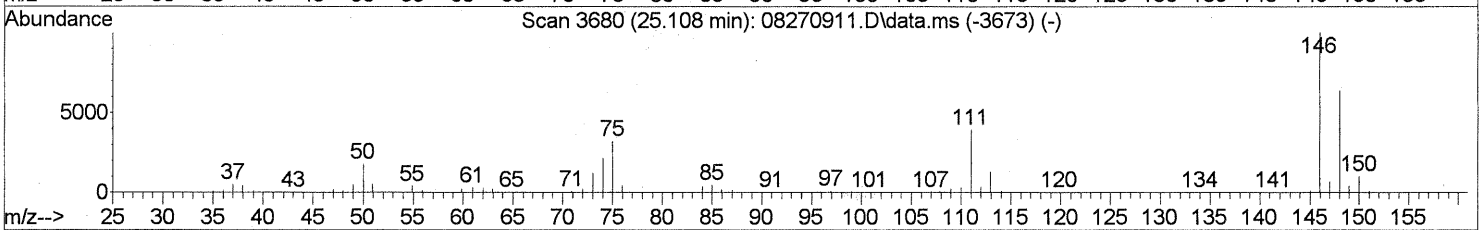
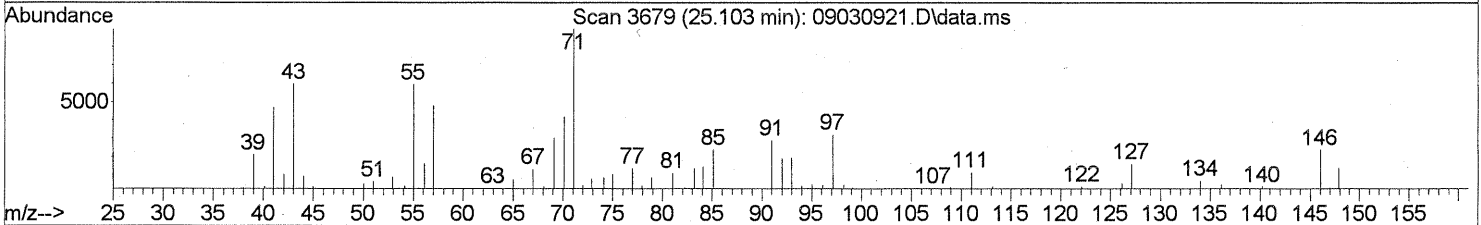
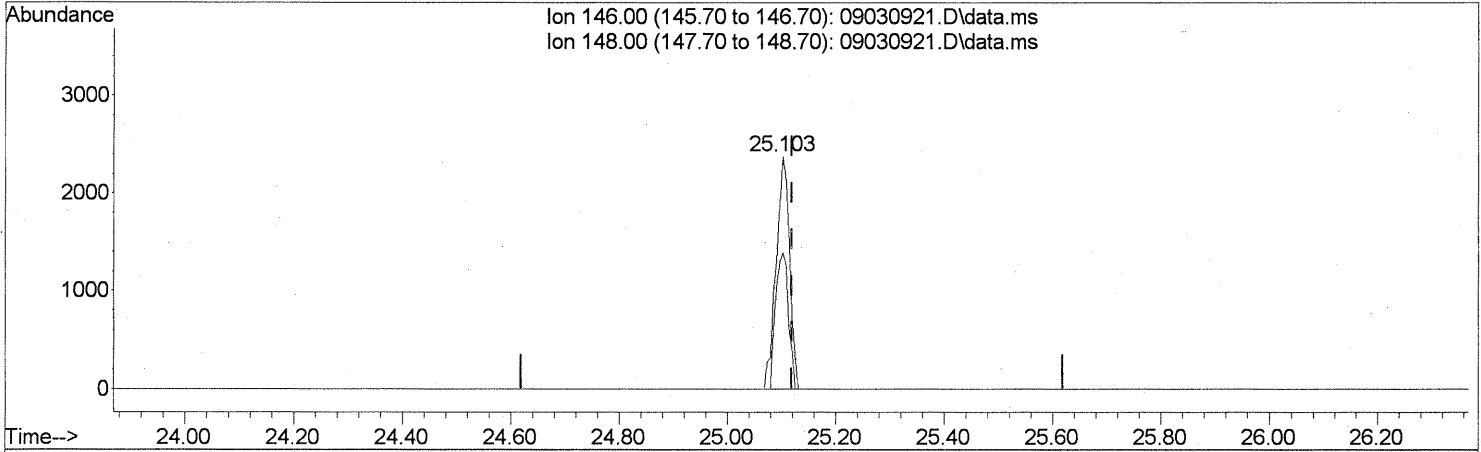
Ion	Exp%	Act%
146.00	100	100
148.00	64.00	55.65
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*11/9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.13ng

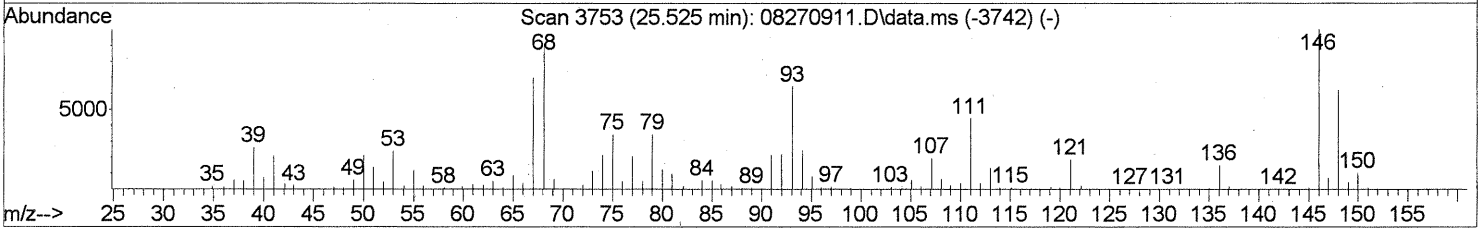
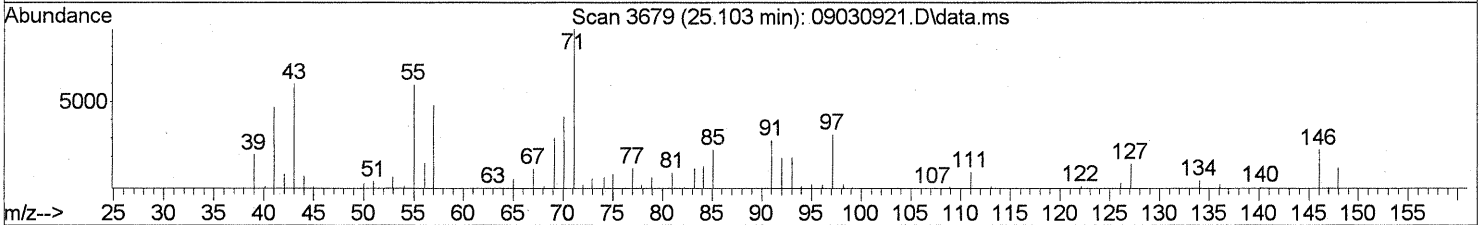
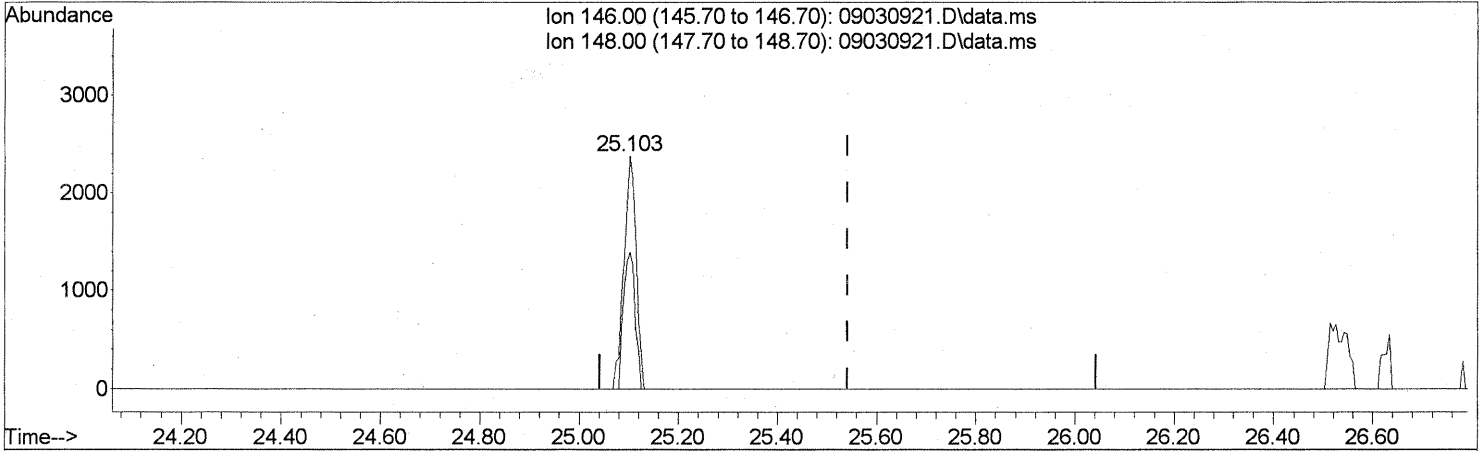
response 4068

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	55.65
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

(90) 1,2-Dichlorobenzene (T)

25.103min (-0.440) 0.14ng

response 4068

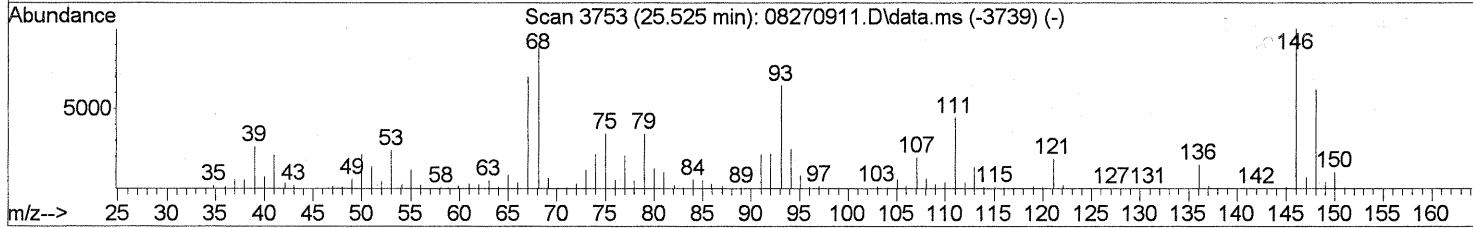
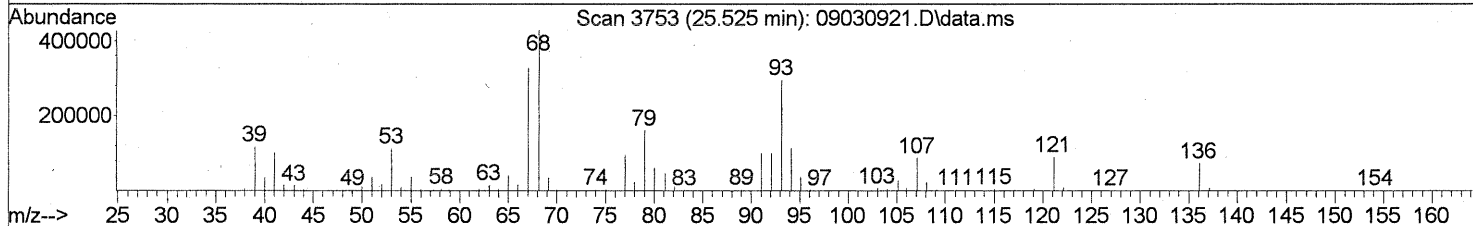
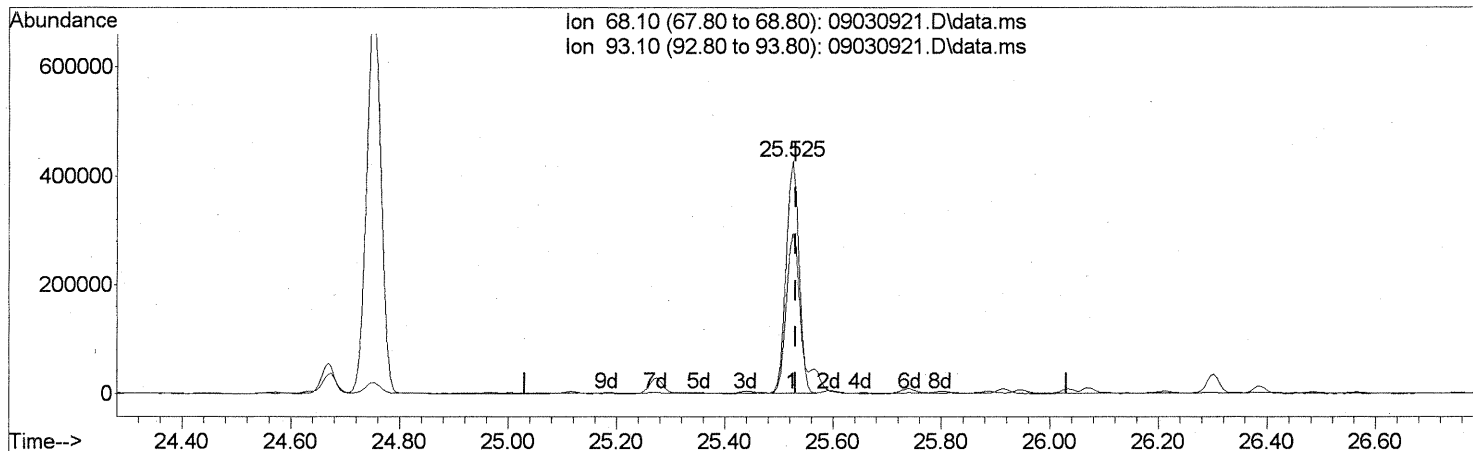
Ion	Exp%	Act%
146.00	100	100
148.00	62.80	55.65
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030921.D\data.ms

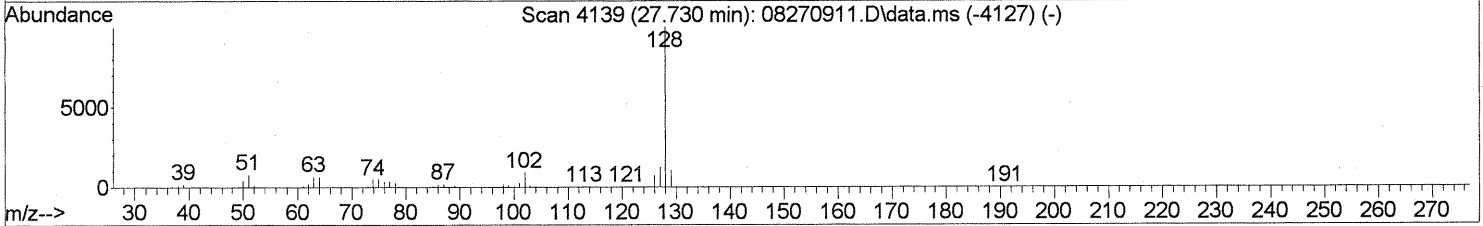
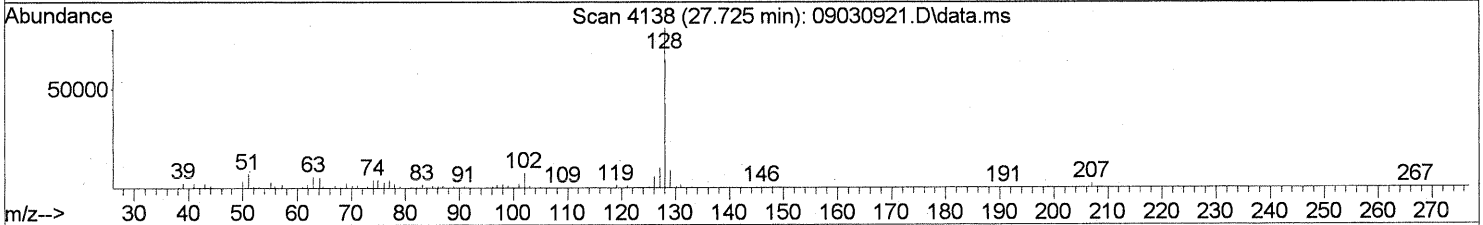
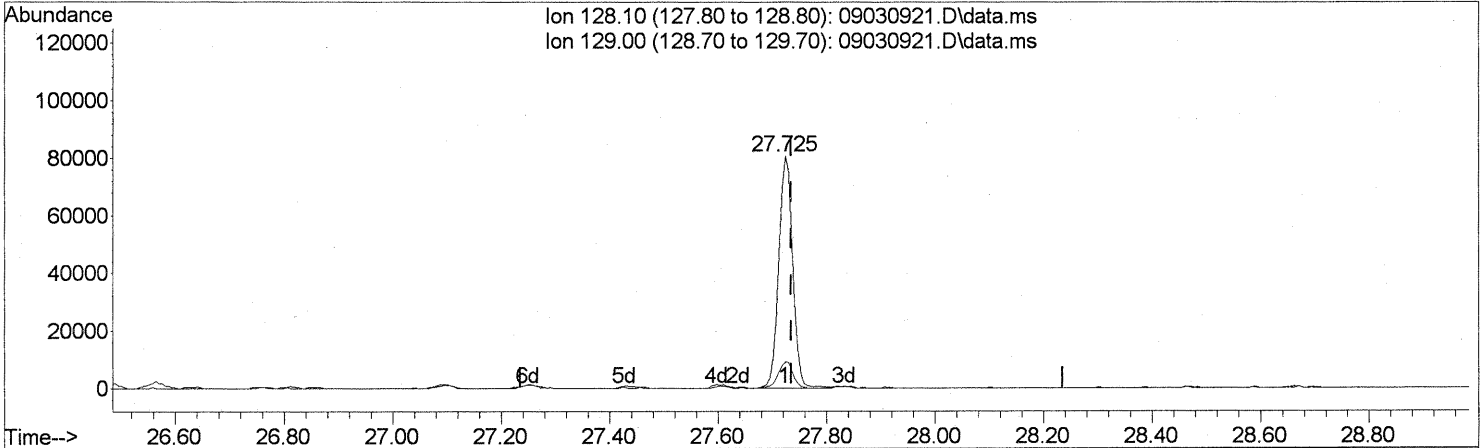
(91) d-Limonene (T)  
 25.525min (-0.006) 31.38ng  
 response 709673

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	81.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030921.D  
 Acq On : 4 Sep 2009 00:28  
 Operator : LM/CC  
 Sample : P0903021-003 (1000ml)  
 Misc : EH&E 104275  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 08:53:02 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



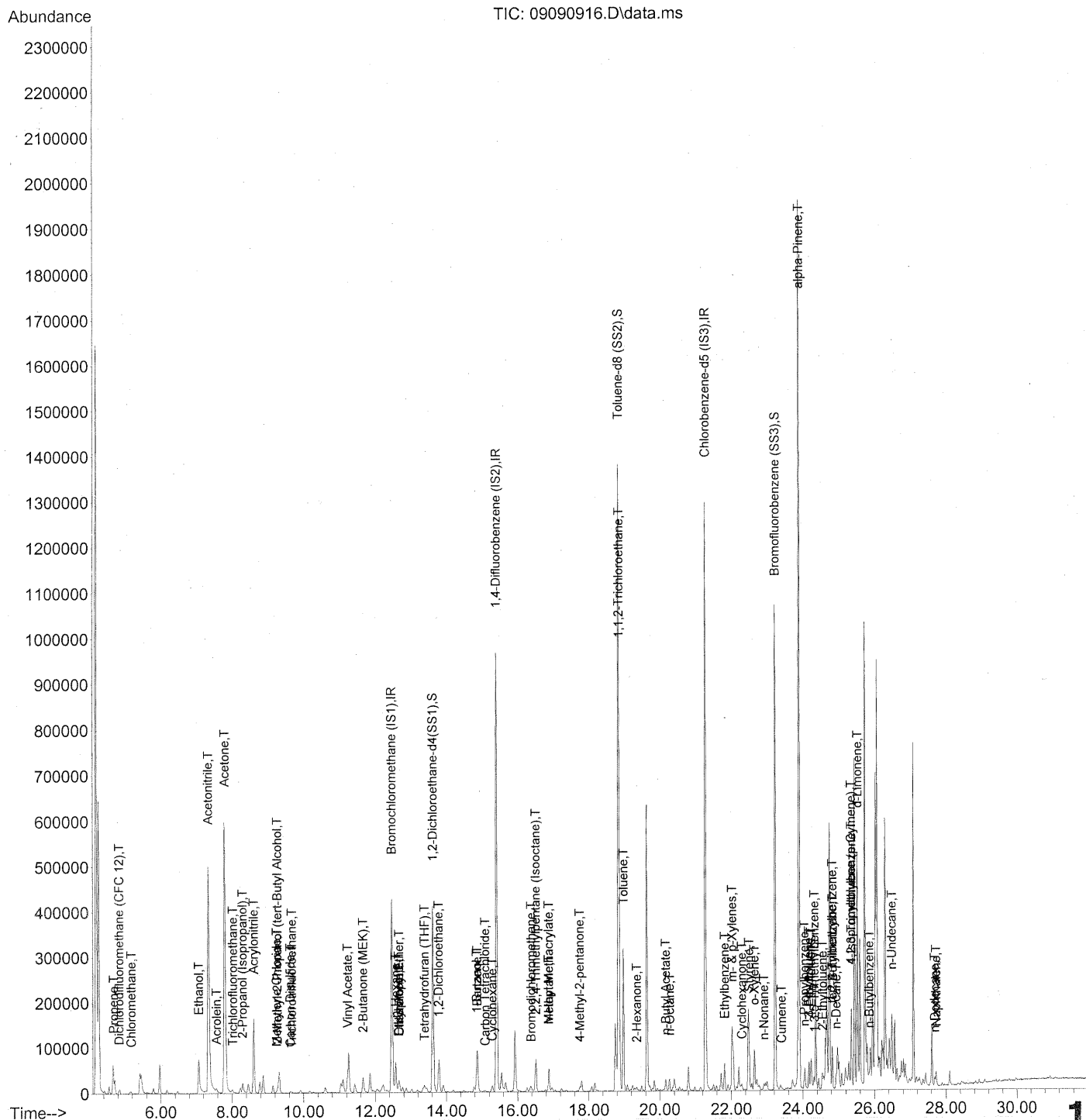
TIC: 09030921.D\data.ms

(95) Naphthalene (T)  
 27.725min (-0.011) 1.83ng  
 response 142927

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	12.04
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 8:05 pm  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 8:05 pm  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
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Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	215556	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1091099	25.000	ng	-0.03
56) Chlorobenzene-d5 (IS3)	21.28	82	534807	25.000	ng	0.00

## System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	421128	24.654	ng	-0.03
Spiked Amount	25.000		Recovery	=	98.60%	✓
57) Toluene-d8 (SS2)	18.84	98	1191407	24.927	ng	-0.02
Spiked Amount	25.000		Recovery	=	99.72%	✓
73) Bromofluorobenzene (SS3)	23.23	174	351649	25.564	ng	0.00
Spiked Amount	25.000		Recovery	=	102.24%	✓

## Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.68	42	11105	0.712	ng	# 74
3) Dichlorodifluoromethan...	4.84	85	10563	0.387	ng	99
4) Chloromethane	5.17	50	5151	0.281	ng	92
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.79	54	89	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.06	45	156366	16.173	ng	98
11) Acetonitrile	7.33	41	855798	31.867	ng	99
12) Acrolein	7.56	56	9662	1.309	ng	99
13) Acetone	7.79	58	255215	25.524	ng	87
14) Trichlorofluoromethane	8.02	101	5365	0.223	ng	95
15) 2-Propanol (Isopropanol)	8.29	45	50005	1.504	ng	99
16) Acrylonitrile	8.61	53	3082	0.187	ng	# 32
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.27	59	9456	0.284	ng	# 1
19) Methylene Chloride	9.25	84	1096	0.086	ng	81
20) 3-Chloro-1-propene (Al...	9.38	41	220	N.D.		
21) Trichlorotrifluoroethane	9.67	151	764	0.080	ng	87
22) Carbon Disulfide	9.63	76	8041	0.178	ng	77
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.23	86	8250	3.292	ng	# 1
27) 2-Butanone (MEK)	11.66	72	15746	1.950	ng	98
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	12.67	87	1792	0.152	ng	# 1
30) Ethyl Acetate	12.66	61	2340	0.539	ng	96
31) n-Hexane	12.57	57	41118	1.902	ng	100

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Quantitation Report (Not Reviewed)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 8:05 pm  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.67	83	17131	0.804	ng	95
34) Tetrahydrofuran (THF)	13.38	72	5004	0.571	ng #	44
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.78	62	42674	2.387	ng	95
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	14.86	61	302	N.D.		
40) 1-Butanol	14.85	56	28533	2.101	ng #	30
41) Benzene	14.87	78	88365	1.723	ng	99
42) Carbon Tetrachloride	15.09	117	1535	0.089	ng	81
43) Cyclohexane	15.29	84	8105	0.429	ng	92
44) tert-Amyl Methyl Ether	15.83	73	108	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.38	83	4579	0.271	ng	78
47) Trichloroethene	16.43	130	94	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.51	57	80896	1.386	ng	93
50) Methyl Methacrylate	16.88	100	4227	0.889	ng #	1
51) n-Heptane	16.88	71	15138	1.139	ng	95
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	1984	0.169	ng	96
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.86	97	100587	8.416	ng #	7
58) Toluene	18.98	91	255590	4.965	ng	99
59) 2-Hexanone	19.35	43	5103	0.162	ng #	68
60) Dibromochloromethane	19.53	129	208	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.16	43	21985	0.609	ng	88
63) n-Octane	20.28	57	5102	0.431	ng	98
64) Tetrachloroethene	20.46	166	168	N.D.		
65) Chlorobenzene	21.36	112	229	N.D.		
66) Ethylbenzene	21.82	91	55246	0.938	ng	98
67) m- & p-Xylenes	22.03	91	143126	3.053	ng	99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	50682	1.468	ng	99
70) o-Xylene	22.65	91	53579	1.138	ng	100
71) n-Nonane	22.91	43	9789	0.346	ng #	82
72) 1,1,2,2-Tetrachloroethane	22.63	83	427	N.D.		
74) Cumene	23.41	105	3495	0.059	ng	80
75) alpha-Pinene	23.90	93	937071	30.274	ng	94
76) n-Propylbenzene	24.05	91	13191	0.174	ng #	81
77) 3-Ethyltoluene	24.17	105	33840	0.593	ng	99
78) 4-Ethyltoluene	24.22	105	16192	0.287	ng	99
79) 1,3,5-Trimethylbenzene	24.32	105	13799	0.294	ng	98

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Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 8:05 pm  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

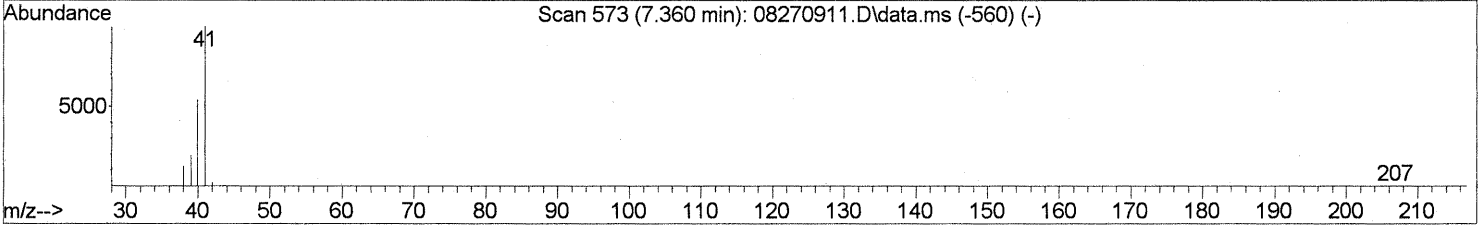
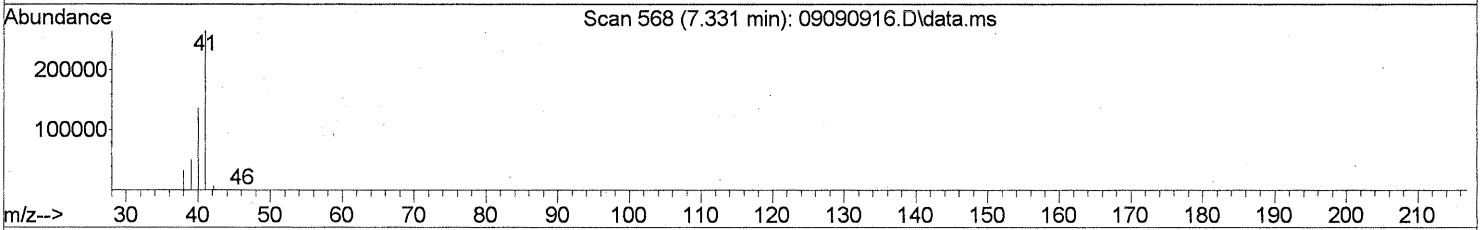
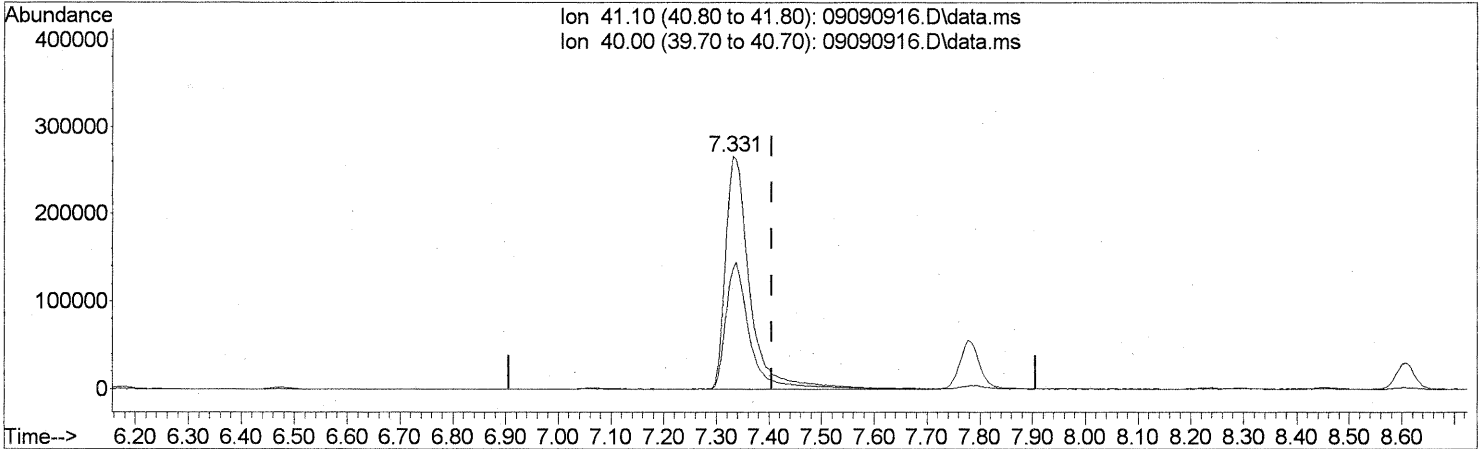
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.73	118	571	N.D.		
81) 2-Ethyltoluene	24.55	105	12722	0.217	ng	99
82) 1,2,4-Trimethylbenzene	24.82	105	47862	1.000	ng	90
83) n-Decane	24.93	57	11876	0.416	ng	# 42
84) Benzyl Chloride	25.01	91	273	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	904	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	904	N.D.		
87) sec-Butylbenzene	25.17	105	1074	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	25901	0.439	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	15877	0.316	ng	93
90) 1,2-Dichlorobenzene	25.10	146	904	N.D.		
91) d-Limonene	25.53	68	131492	6.881	ng	86
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	28281	0.953	ng	# 1
94) 1,2,4-Trichlorobenzene	27.59	180	89	N.D.		
95) Naphthalene	27.72	128	26403	0.399	ng	100
96) n-Dodecane	27.69	57	6731	0.199	ng	92
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	8808	0.444	ng	94
99) tert-Butylbenzene	24.83	119	5562	0.120	ng	# 56
100) n-Butylbenzene	25.85	91	7596	0.142	ng	# 51

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 20:05  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090916.D\data.ms

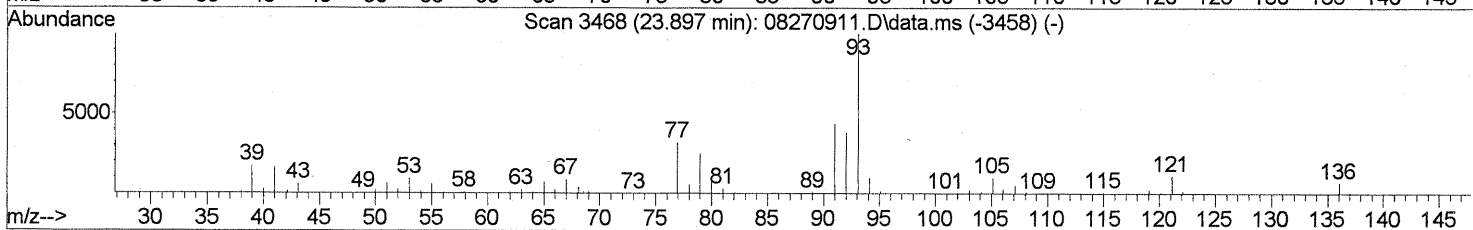
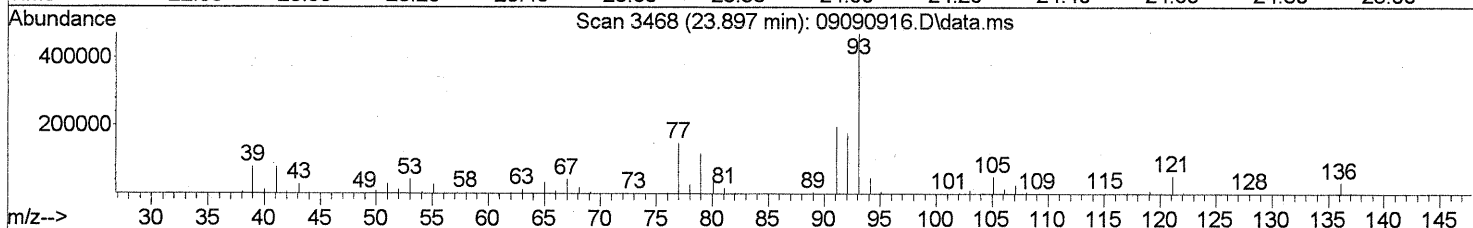
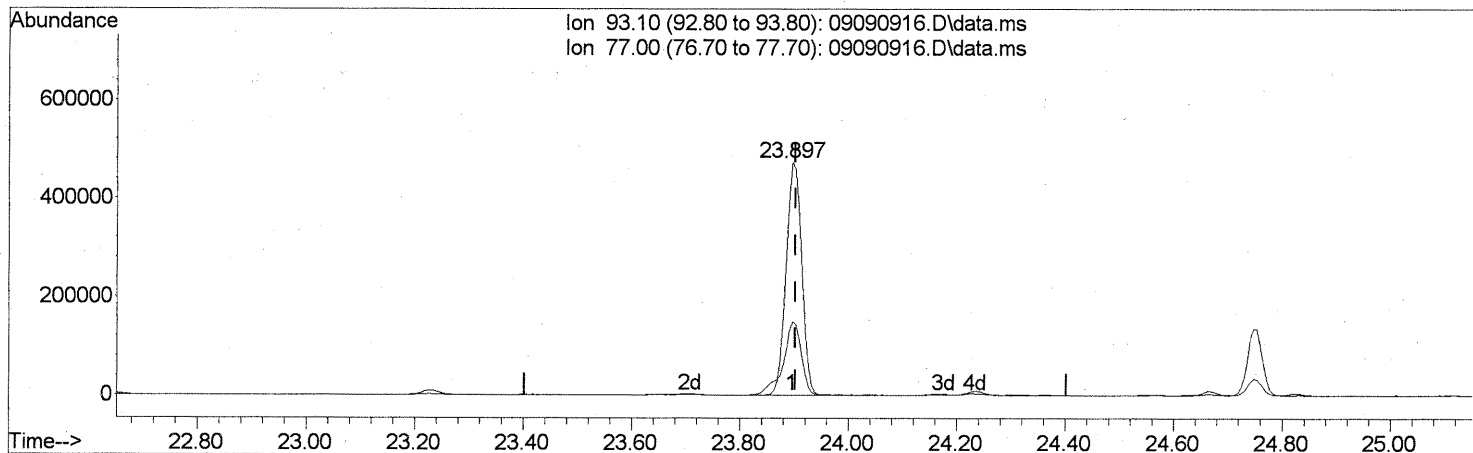
(11) Acetonitrile (T)  
 7.331min (-0.075) 31.87ng  
 response 855798

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.15
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090916.D  
 Acq On : 9 Sep 2009 20:05  
 Operator : LM/CC  
 Sample : P0903021-003dil (200ml)  
 Misc : EH&E 104275  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 10 08:30:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090916.D\data.ms

(75) alpha-Pinene (T)  
 23.897min (-0.006) 30.27ng  
 response 937071

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	36.75
0.00	0.00	0.00
0.00	0.00	0.00

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104273  
**Client Project ID:** 16512  
**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC01267

**CAS Project ID:** P0903021  
**CAS Sample ID:** P0903021-004  
**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09 & 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)  
 0.20 Liter(s)

Initial Pressure (psig): -2.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	2.9	0.72	1.7	0.42	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.4	0.72	0.49	0.14	
74-87-3	Chloromethane	0.86	0.14	0.41	0.069	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.72	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.14	ND	0.056	
106-99-0	1,3-Butadiene	ND	0.14	ND	0.065	
74-83-9	Bromomethane	ND	0.14	ND	0.037	
75-00-3	Chloroethane	ND	0.14	ND	0.054	
64-17-5	Ethanol	96	7.2	51	3.8	
75-05-8	Acetonitrile	210	0.72	120	0.43	D
107-02-8	Acrolein	8.9	0.72	3.9	0.31	
67-64-1	Acetone	150	7.2	62	3.0	
75-69-4	Trichlorofluoromethane	1.5	0.14	0.26	0.025	
67-63-0	2-Propanol (Isopropyl Alcohol)	9.9	0.72	4.0	0.29	
107-13-1	Acrylonitrile	ND	0.72	ND	0.33	
75-35-4	1,1-Dichloroethene	ND	0.14	ND	0.036	
75-09-2	Methylene Chloride	ND	0.72	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.14	ND	0.046	
76-13-1	Trichlorotrifluoroethane	0.59	0.14	0.077	0.019	
75-15-0	Carbon Disulfide	1.1	0.72	0.35	0.23	
156-60-5	trans-1,2-Dichloroethene	ND	0.14	ND	0.036	
75-34-3	1,1-Dichloroethane	ND	0.14	ND	0.035	
1634-04-4	Methyl tert-Butyl Ether	ND	0.14	ND	0.040	
108-05-4	Vinyl Acetate	ND	7.2	ND	2.0	
78-93-3	2-Butanone (MEK)	11	0.72	3.8	0.24	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** 104273

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P0903021-004

**Test Code:** EPA TO-15

**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

**Analyst:** Liliana Marghitoiu

**Sampling Media:** 6.0 L Summa Canister

**Test Notes:**

**Container ID:** AC01267

**Date Collected:** 8/26/09

**Date Received:** 8/28/09

**Date Analyzed:** 9/4/09 & 9/9/09

**Volume(s) Analyzed:** 1.00 Liter(s)

0.20 Liter(s)

Initial Pressure (psig): -2.0      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.43

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	ND	0.036	
141-78-6	Ethyl Acetate	2.9	0.72	0.79	0.20	
110-54-3	n-Hexane	12	0.72	3.3	0.20	
67-66-3	Chloroform	5.2	0.14	1.1	0.029	
109-99-9	Tetrahydrofuran (THF)	2.7	0.72	0.93	0.24	
107-06-2	1,2-Dichloroethane	19	0.14	4.6	0.035	
71-55-6	1,1,1-Trichloroethane	ND	0.14	ND	0.026	
71-43-2	Benzene	9.9	0.14	3.1	0.045	
56-23-5	Carbon Tetrachloride	0.58	0.14	0.093	0.023	
110-82-7	Cyclohexane	2.7	0.72	0.79	0.21	
78-87-5	1,2-Dichloropropane	ND	0.14	ND	0.031	
75-27-4	Bromodichloromethane	1.7	0.14	0.26	0.021	
79-01-6	Trichloroethene	ND	0.14	ND	0.027	
123-91-1	1,4-Dioxane	ND	0.72	ND	0.20	
80-62-6	Methyl Methacrylate	ND	0.72	ND	0.17	
142-82-5	n-Heptane	7.1	0.72	1.7	0.17	
10061-01-5	cis-1,3-Dichloropropene	ND	0.72	ND	0.16	
108-10-1	4-Methyl-2-pentanone	1.4	0.72	0.34	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.72	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.14	ND	0.026	
108-88-3	Toluene	30	0.72	8.1	0.19	
591-78-6	2-Hexanone	1.2	0.72	0.30	0.17	
124-48-1	Dibromochloromethane	0.26	0.14	0.030	0.017	
106-93-4	1,2-Dibromoethane	ND	0.14	ND	0.019	
123-86-4	n-Butyl Acetate	3.8	0.72	0.80	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

**154**

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104273  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P0903021-004

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC01267

**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09 & 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)  
 0.20 Liter(s)

Initial Pressure (psig): -2.0      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.43

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	2.0	0.72	0.43	0.15	
127-18-4	Tetrachloroethene	0.26	0.14	0.038	0.021	
108-90-7	Chlorobenzene	ND	0.14	ND	0.031	
100-41-4	Ethylbenzene	5.9	0.72	1.4	0.16	
179601-23-1	m,p-Xylenes	19	0.72	4.5	0.16	
75-25-2	Bromoform	ND	0.72	ND	0.069	
100-42-5	Styrene	8.6	0.72	2.0	0.17	
95-47-6	o-Xylene	7.3	0.72	1.7	0.16	
111-84-2	n-Nonane	1.4	0.72	0.28	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.021	
98-82-8	Cumene	ND	0.72	ND	0.15	
80-56-8	alpha-Pinene	180	0.72	33	0.13	D
103-65-1	n-Propylbenzene	1.1	0.72	0.22	0.15	
622-96-8	4-Ethyltoluene	1.9	0.72	0.39	0.15	
108-67-8	1,3,5-Trimethylbenzene	1.9	0.72	0.39	0.15	
95-63-6	1,2,4-Trimethylbenzene	6.6	0.72	1.3	0.15	
100-44-7	Benzyl Chloride	ND	0.14	ND	0.028	
541-73-1	1,3-Dichlorobenzene	ND	0.14	ND	0.024	
106-46-7	1,4-Dichlorobenzene	0.16	0.14	0.026	0.024	
95-50-1	1,2-Dichlorobenzene	ND	0.14	ND	0.024	
5989-27-5	d-Limonene	43	0.72	7.6	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.72	ND	0.074	
120-82-1	1,2,4-Trichlorobenzene	ND	0.72	ND	0.096	
91-20-3	Naphthalene	2.9	0.72	0.56	0.14	
87-68-3	Hexachlorobutadiene	ND	0.72	ND	0.067	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

D = The reported result is from a dilution.

Verified By: \_\_\_\_\_

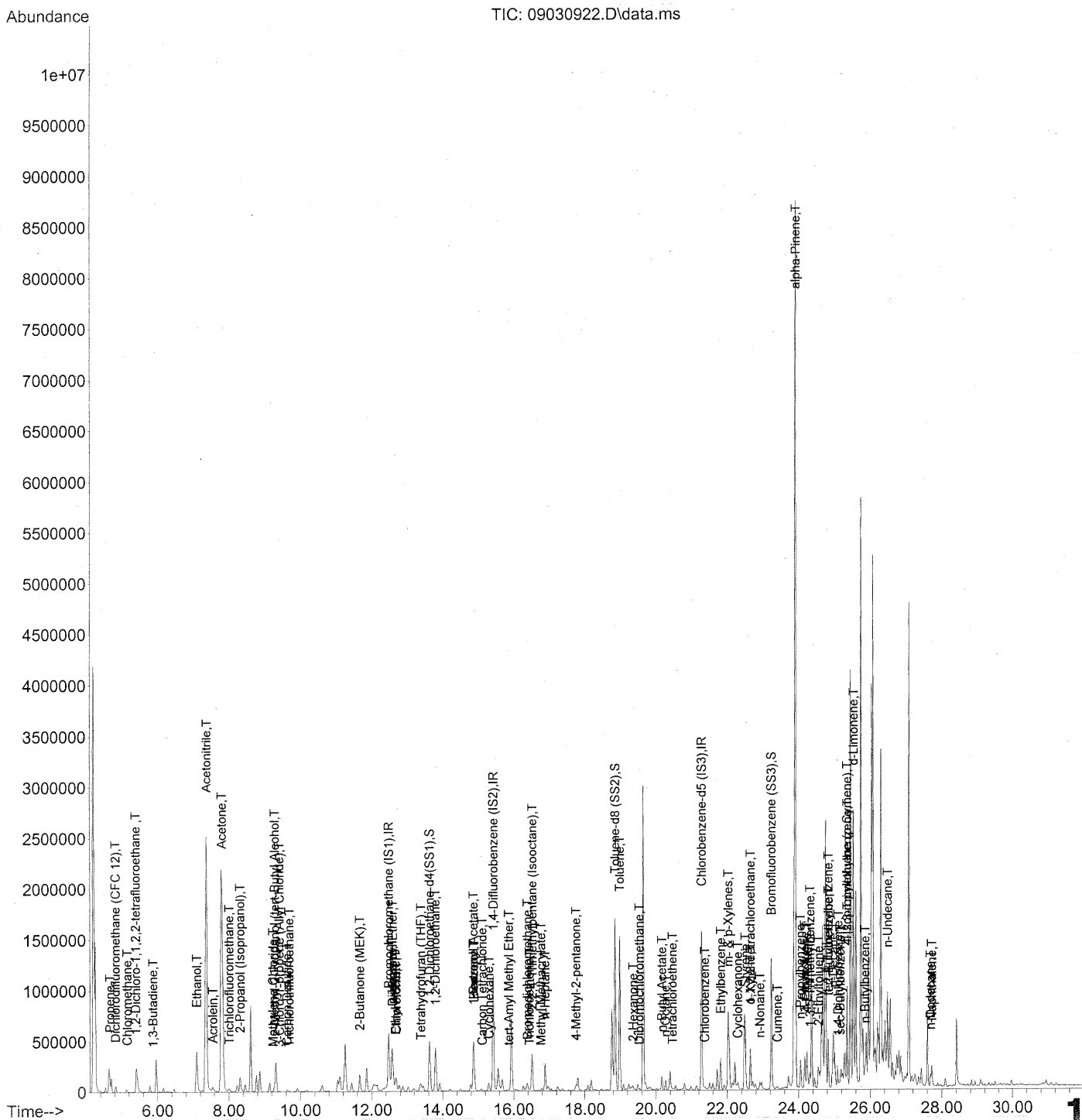
Date: \_\_\_\_\_

9/11/09

**155**

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10 am  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:15 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration





Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10 am  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:15 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*09/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	261940	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1314481	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	642115	25.000	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) 1,2-Dichloroethane-d4(...)	13.63	65	502362	24.201	ng	-0.02
Spiked Amount				25.000		
				Recovery =	96.80%	✓
57) Toluene-d8 (SS2)	18.85	98	1436608	25.034	ng	-0.01
Spiked Amount				25.000		
				Recovery =	100.12%	✓
73) Bromofluorobenzene (SS3)	23.23	174	418307	25.328	ng	0.00
Spiked Amount				25.000		
				Recovery =	101.32%	✓

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	38032	2.007	ng	96
3) Dichlorodifluoromethan...	4.82	85	55637	1.677	ng	98
4) Chloromethane	5.14	50	13345	0.598	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.38	135	725	0.053	ng	66
6) Vinyl Chloride	5.59	62	508	N.D.		
7) 1,3-Butadiene	5.87	54	1447	0.093	ng	# 25
8) Bromomethane	6.35	94	556	N.D.		
9) Chloroethane	6.68	64	102	N.D.		
10) Ethanol	7.10	45	788724	67.131	ng	100
11) Acetonitrile	7.38	41	4485833	137.458	ng	100
12) Acrolein	7.55	56	55792	6.219	ng	99
13) Acetone	7.81	58	1245088	102.473	ng	# 84
14) Trichlorofluoromethane	8.01	101	29688	1.015	ng	99
15) 2-Propanol (Isopropanol)	8.31	45	279779	6.926	ng	97
16) Acrylonitrile	0.00	53	0	N.D.	d	
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.29	59	20195	0.499	ng	# 1
19) Methylene Chloride	9.23	84	5235	0.340	ng	95
20) 3-Chloro-1-propene (Al...	9.41	41	2263	0.094	ng	# 41
21) Trichlorotrifluoroethane	9.68	151	4768	0.412	ng	98
22) Carbon Disulfide	9.62	76	41709	0.761	ng	99
23) trans-1,2-Dichloroethene	10.59	61	789	N.D.		
24) 1,1-Dichloroethane	11.05	63	719	N.D.		
25) Methyl tert-Butyl Ether	11.18	73	738	N.D.		
26) Vinyl Acetate	0.00	86	0	N.D.	d	
27) 2-Butanone (MEK)	11.66	72	76394	7.784	ng	# 91
28) cis-1,2-Dichloroethene	12.23	61	649	N.D.		
29) Diisopropyl Ether	12.58	87	2098	0.146	ng	# 1
30) Ethyl Acetate	12.67	61	10537	1.998	ng	90
31) n-Hexane	12.58	57	213195	8.115	ng	98

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Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10 am  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:15 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	93705	3.618 ng		94
34) Tetrahydrofuran (THF)	13.38	72	20302	1.907 ng	#	42
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	284691	13.102 ng		98
38) 1,1,1-Trichloroethane	14.17	97	902	N.D.		
39) Isopropyl Acetate	14.86	61	4118	0.412 ng	#	1
40) 1-Butanol	14.85	56	172383	10.536 ng	#	41
41) Benzene	14.87	78	428519	6.935 ng		100
42) Carbon Tetrachloride	15.11	117	8445	0.407 ng		97
43) Cyclohexane	15.29	84	43419	1.907 ng		95
44) tert-Amyl Methyl Ether	15.85	73	3809	0.083 ng	#	40
45) 1,2-Dichloropropane	15.92	63	739	N.D.		
46) Bromodichloromethane	16.38	83	24579	1.207 ng	#	74
47) Trichloroethene	16.44	130	1285	0.085 ng		90
48) 1,4-Dioxane	16.51	88	101	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	421146	5.989 ng	#	95
50) Methyl Methacrylate	16.76	100	488	0.085 ng	#	1
51) n-Heptane	16.88	71	79844	4.985 ng		96
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	13816	0.979 ng		95
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.46	97	302	N.D.		
58) Toluene	18.98	91	1317971	21.324 ng		99
59) 2-Hexanone	19.36	43	32083m	0.849 ng		
60) Dibromochloromethane	19.53	129	2814	0.181 ng		85
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.16	43	114472	2.642 ng		97
63) n-Octane	20.26	57	20126	1.415 ng		96
64) Tetrachloroethene	20.46	166	2827	0.181 ng		96
65) Chlorobenzene	21.37	112	3594	0.091 ng	#	43
66) Ethylbenzene	21.82	91	292323	4.135 ng		99
67) m- & p-Xylenes	22.03	91	764517	13.584 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	249745	6.027 ng		98
70) o-Xylene	22.65	91	288223	5.099 ng		100
71) n-Nonane	22.91	43	34412	1.013 ng		94
72) 1,1,2,2-Tetrachloroethane	22.65	83	2008	0.077 ng	#	57
74) Cumene	23.40	105	17953	0.251 ng		97
75) alpha-Pinene	23.90	93	4221185	113.582 ng		98
76) n-Propylbenzene	24.05	91	69394	0.762 ng	#	77
77) 3-Ethyltoluene	24.17	105	178459	2.604 ng		99
78) 4-Ethyltoluene	24.22	105	89819	1.328 ng		96
79) 1,3,5-Trimethylbenzene	24.31	105	76362	1.356 ng		99

MAZL 94/11/09  
 Ser AP 57

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10 am  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 10 10:23:15 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

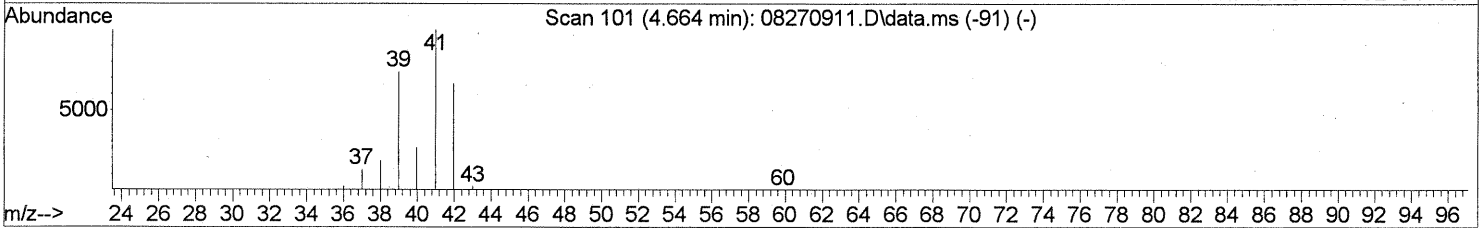
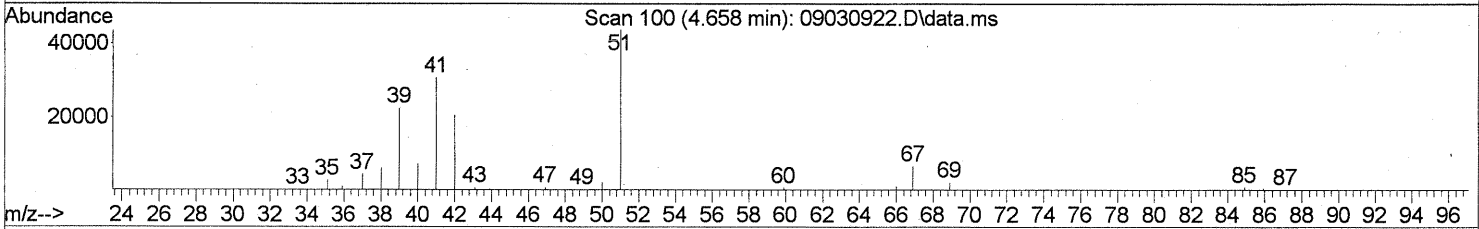
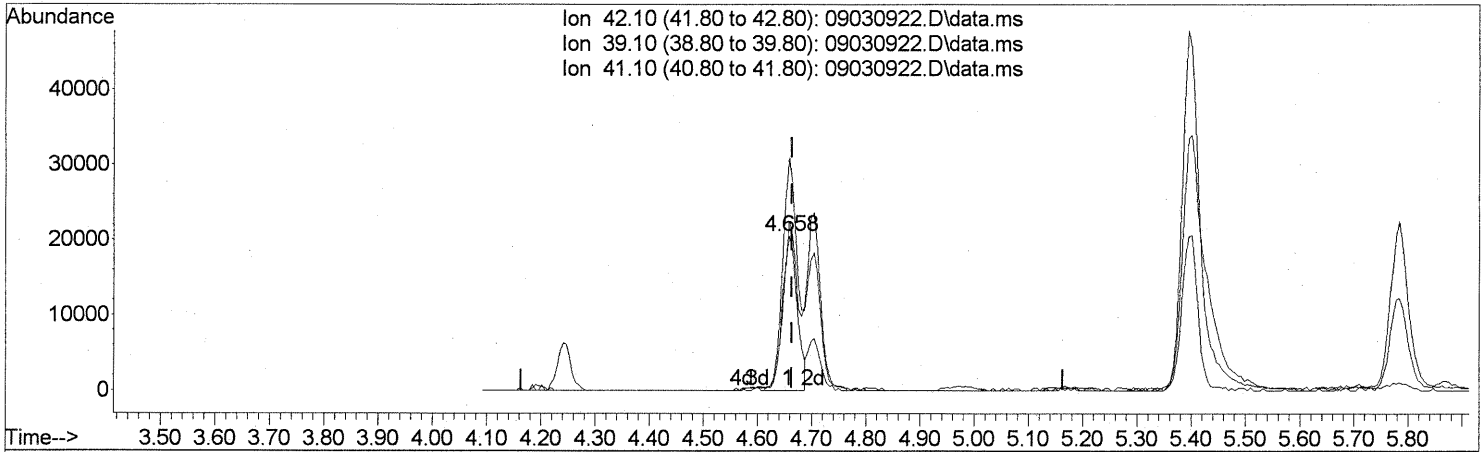
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.50	118	1011	N.D.		
81) 2-Ethyltoluene	24.55	105	68625	0.976 ng		99
82) 1,2,4-Trimethylbenzene	24.82	105	264621	4.604 ng		88
83) n-Decane	24.97	57	355084	10.348 ng		73
84) Benzyl Chloride	24.99	91	1729	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.	d	
86) 1,4-Dichlorobenzene	25.10	146	3563	0.110 ng		88
87) sec-Butylbenzene	25.16	105	6247	0.080 ng	#	76
88) 4-Isopropyltoluene (p-...	25.35	119	128280	1.813 ng		97
89) 1,2,3-Trimethylbenzene	25.35	105	85263	1.415 ng	MR	97
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	d	
91) d-Limonene	25.53	68	683413	29.787 ng		84
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	162694	4.567 ng	#	1
94) 1,2,4-Trichlorobenzene	27.59	180	95	N.D.		
95) Naphthalene	27.72	128	161537	2.034 ng		99
96) n-Dodecane	27.69	57	36047	0.888 ng		97
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	40252	1.689 ng		86
99) tert-Butylbenzene	24.83	119	31868	0.573 ng	#	56
100) n-Butylbenzene	25.85	91	34570	0.540 ng	#	39

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

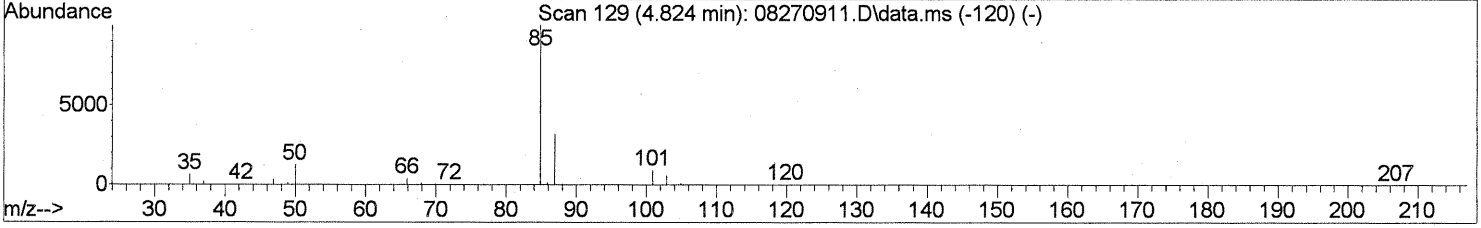
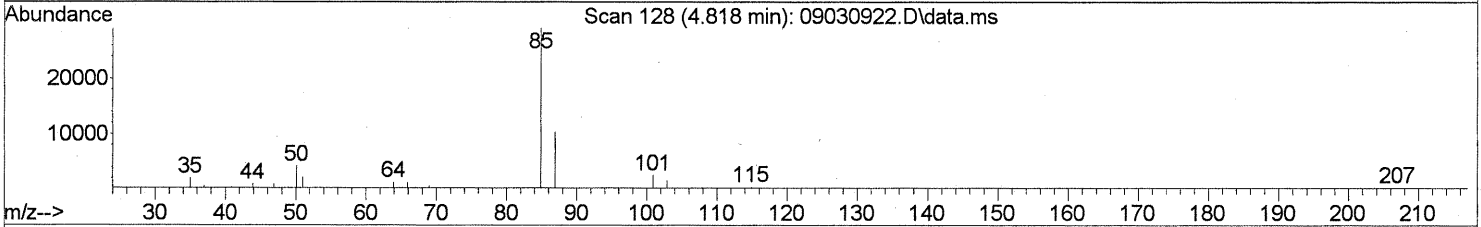
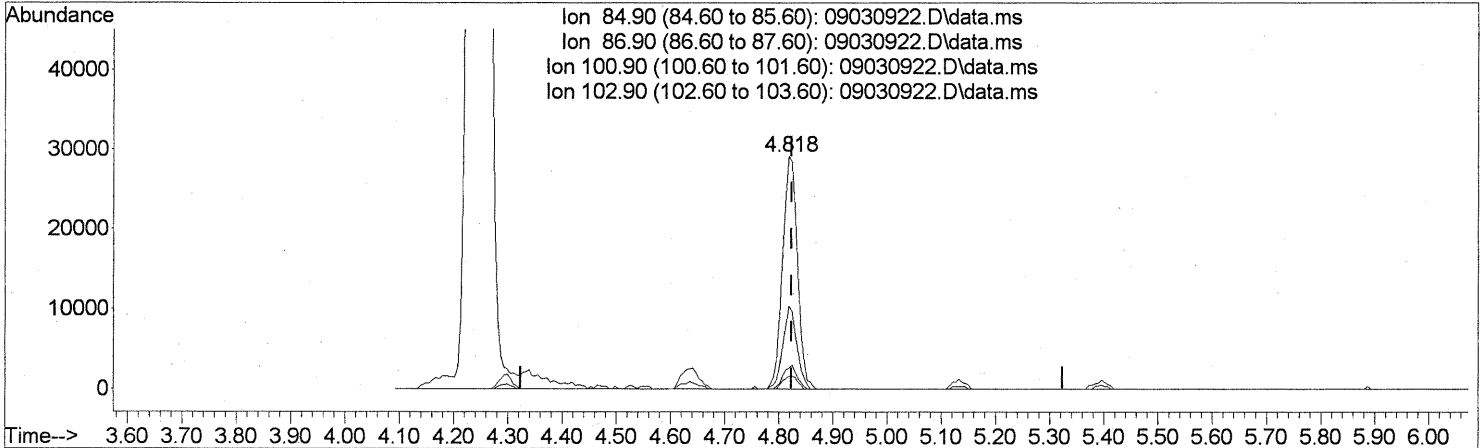
(2) Propene (T)  
 4.658min (-0.006) 2.01ng  
 response 38032

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	109.41
41.10	149.80	157.97
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.818min (-0.006) 1.68ng

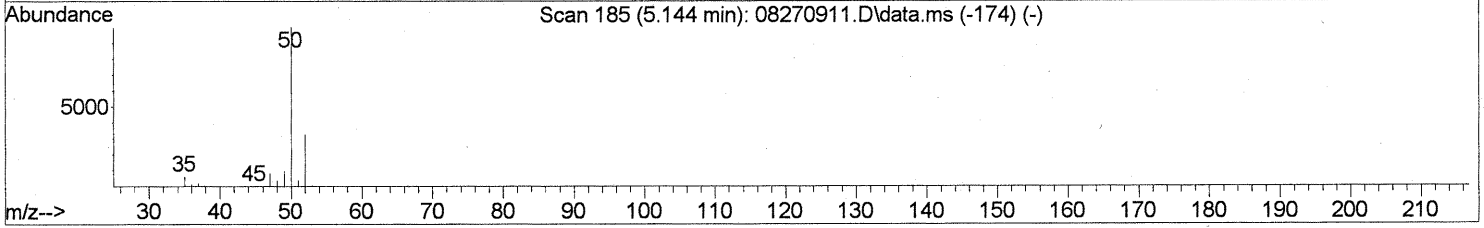
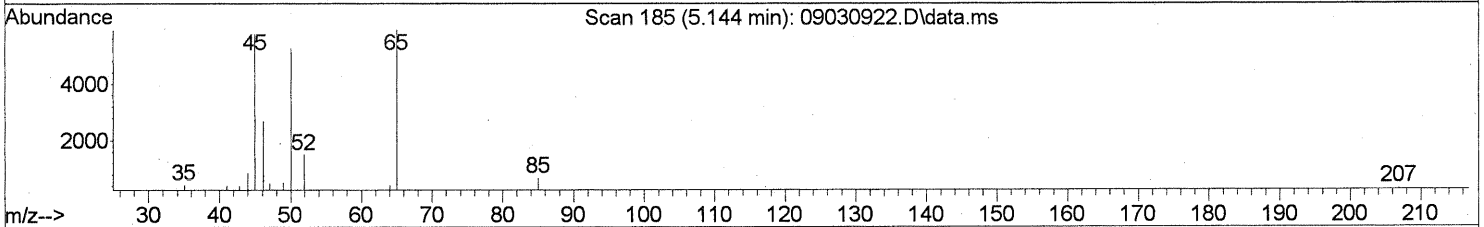
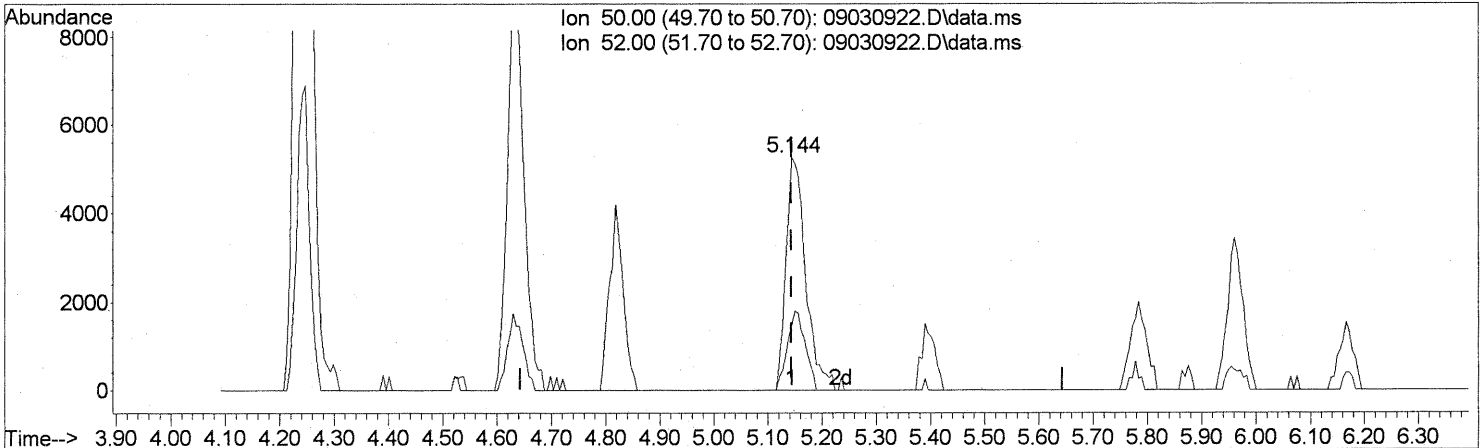
response 55637

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	33.19
100.90	8.80	9.26
102.90	5.60	5.27

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

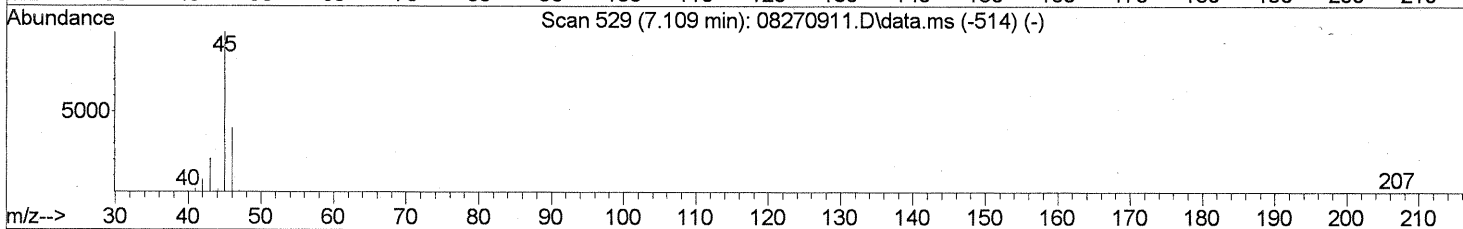
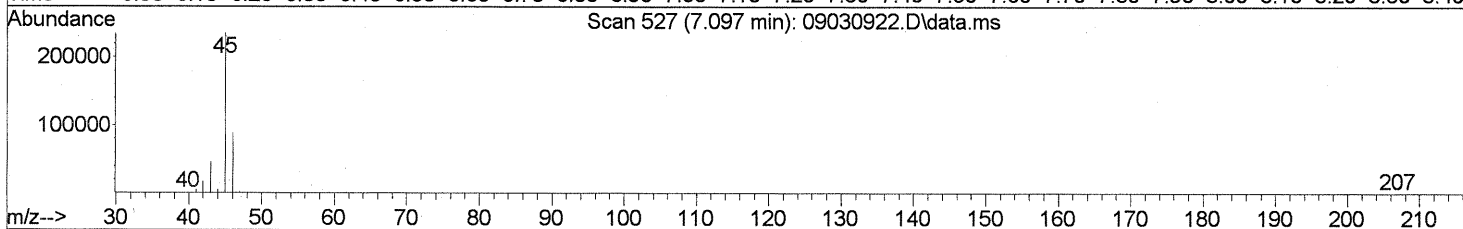
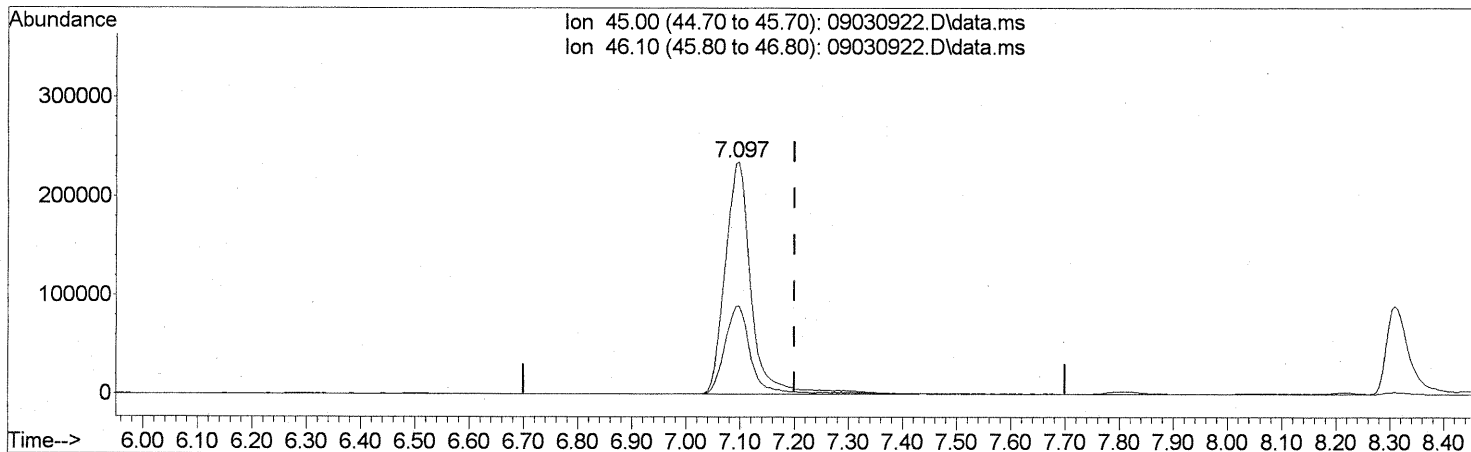
(4) Chloromethane (T)  
 5.144min (+0.000) 0.60ng  
 response 13345

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	31.17
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030922.D  
Acq On : 4 Sep 2009 1:10  
Operator : LM/CC  
Sample : P0903021-004 (1000ml)  
Misc : EH&E 104273  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



TIC: 09030922.D\data.ms

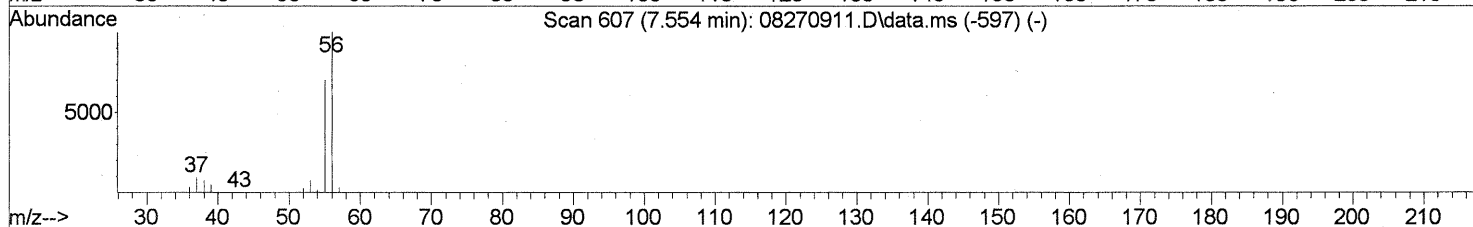
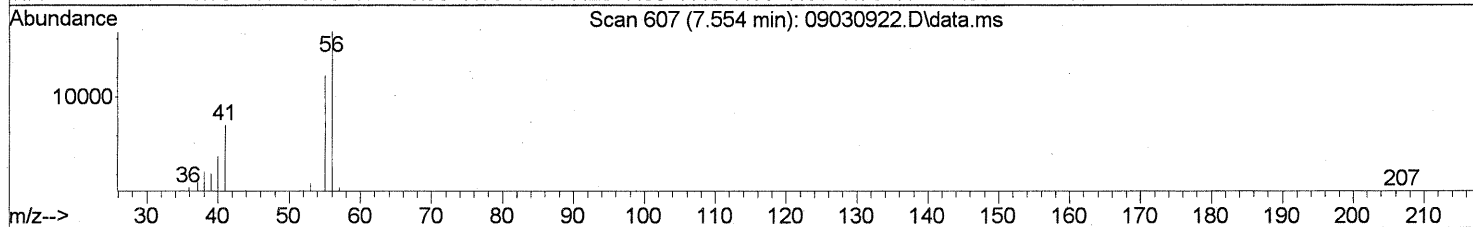
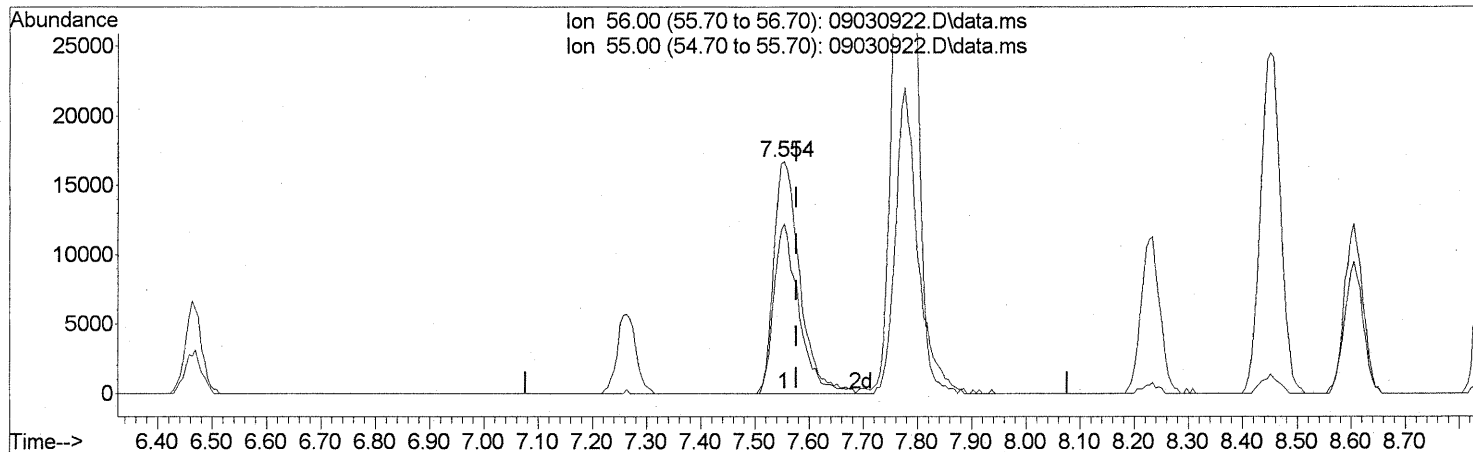
(10) Ethanol (T)  
7.097min (-0.103) 67.13ng  
response 788724

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	37.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(12) Acrolein (T)  
 7.554min (-0.023) 6.22ng  
 response 55792

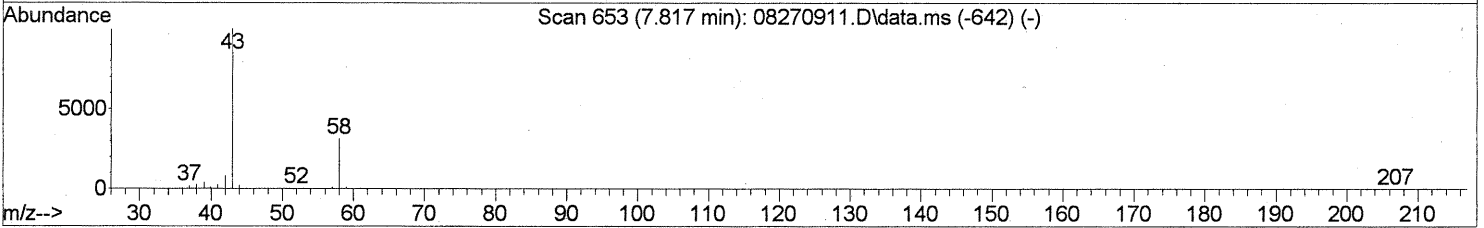
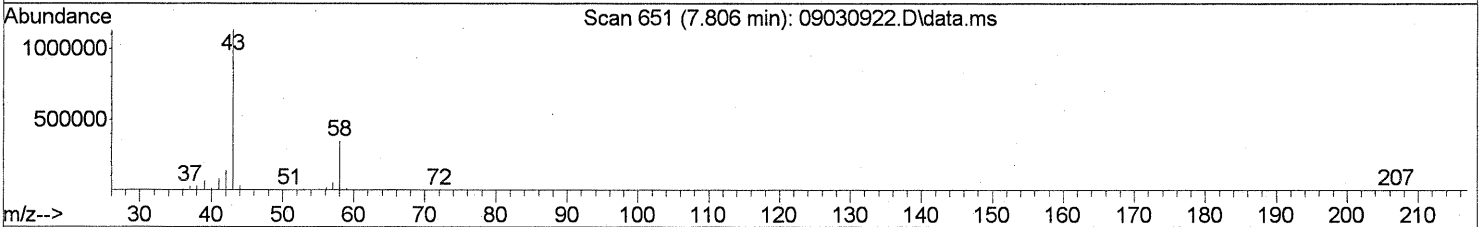
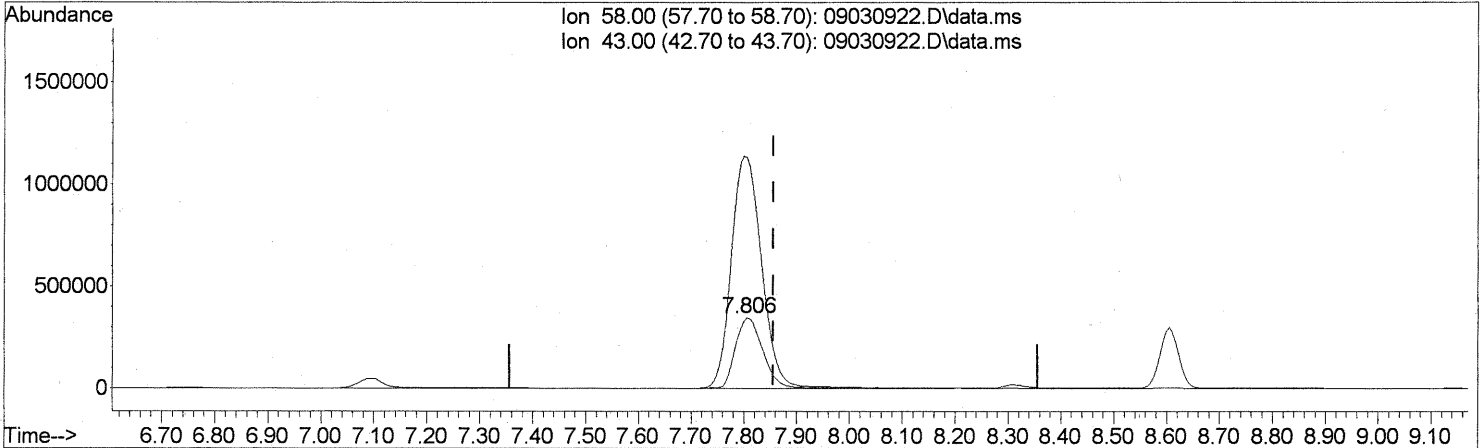
Ion	Exp%	Act%
56.00	100	100
55.00	71.10	70.31
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

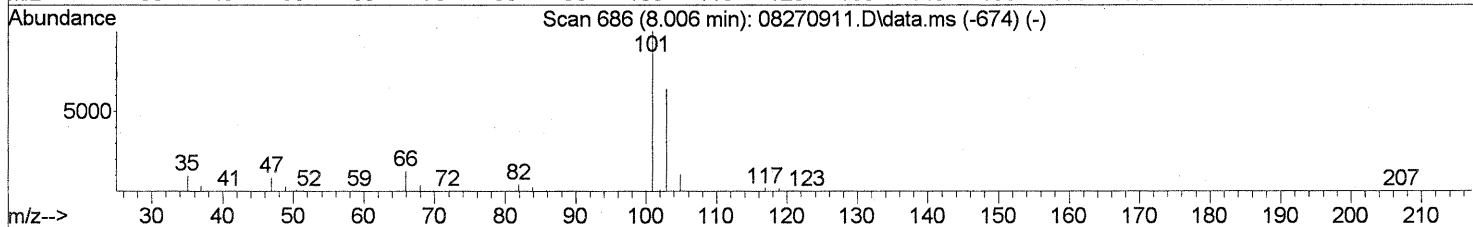
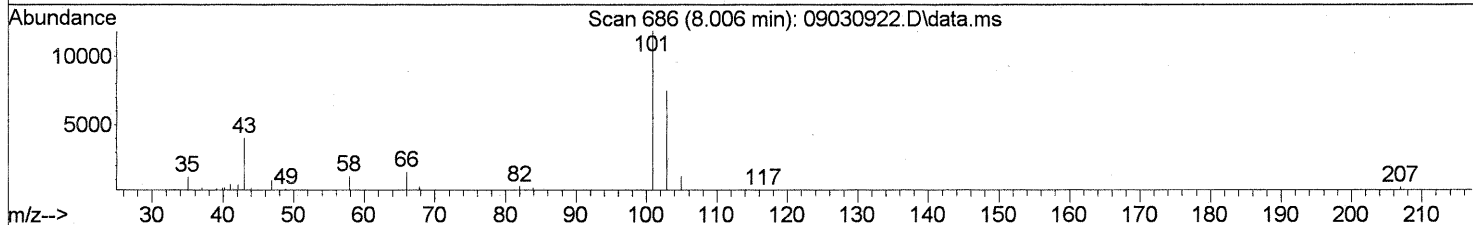
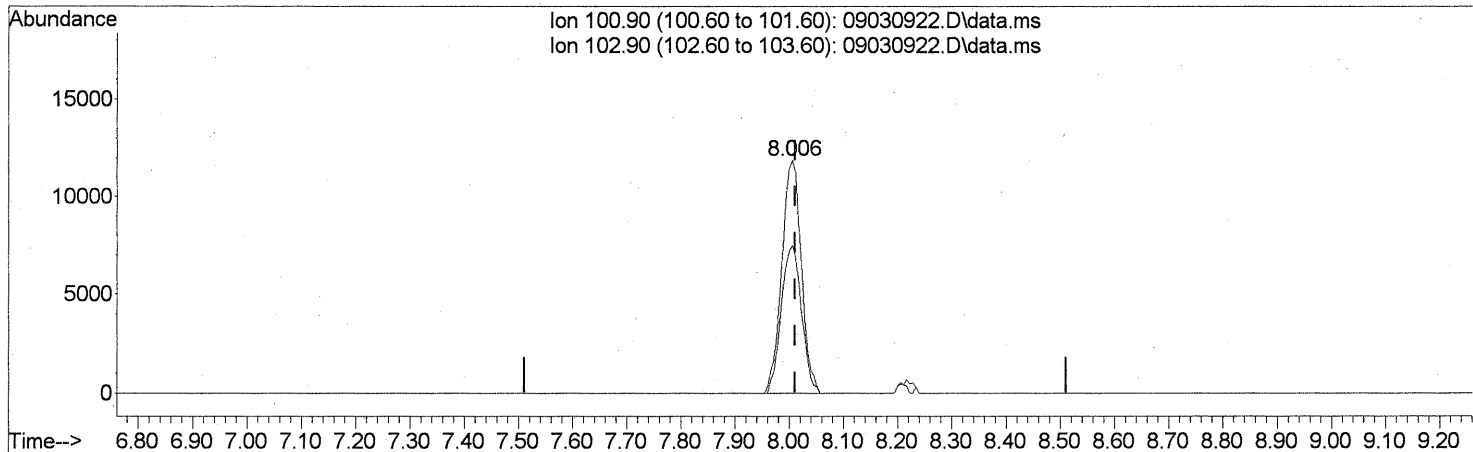
(13) Acetone (T)  
 7.806min (-0.051) 102.47ng  
 response 1245088

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	365.45#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(14) Trichlorofluoromethane (T)

8.006min (-0.006) 1.02ng

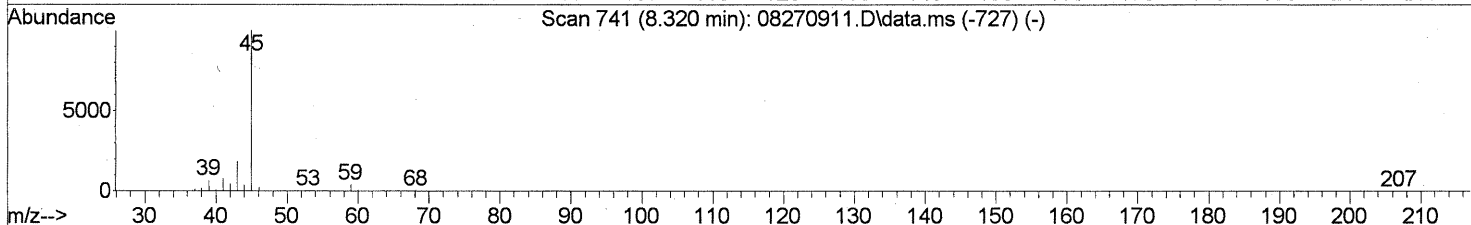
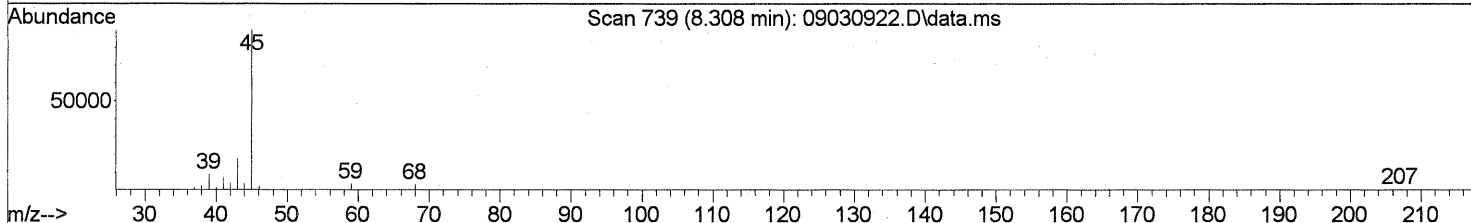
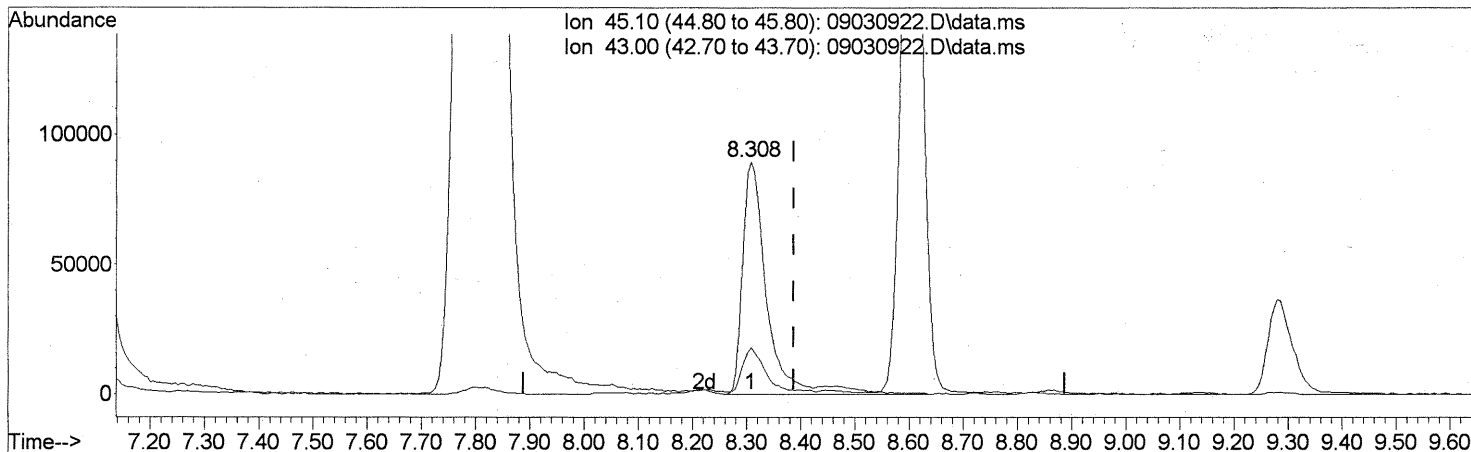
response 29688

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	65.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.308min (-0.080) 6.93ng

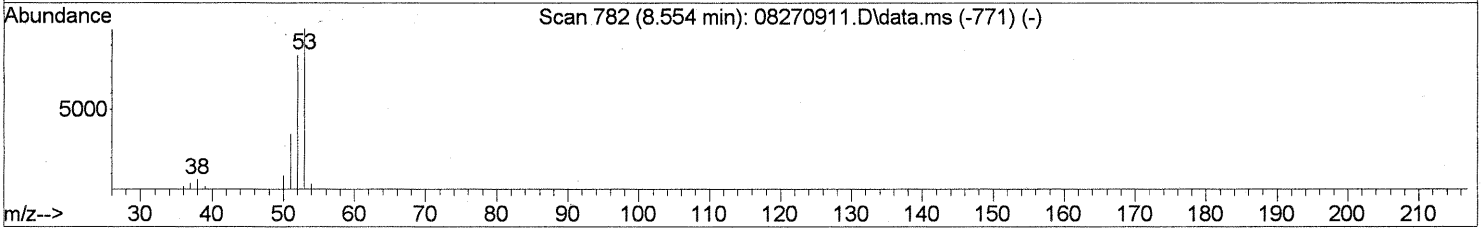
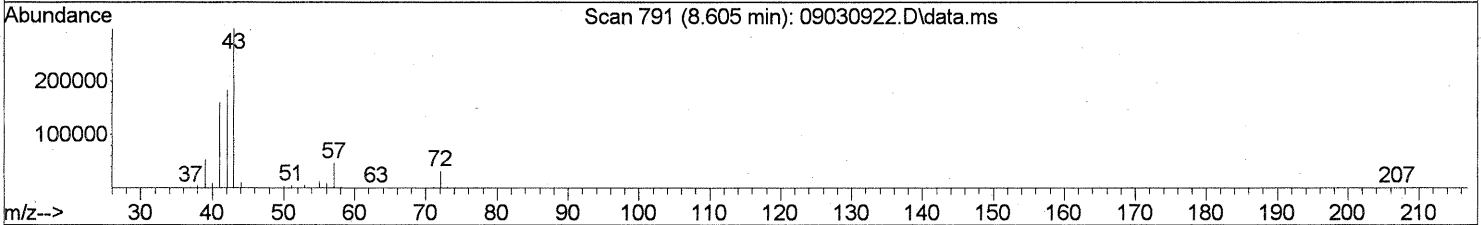
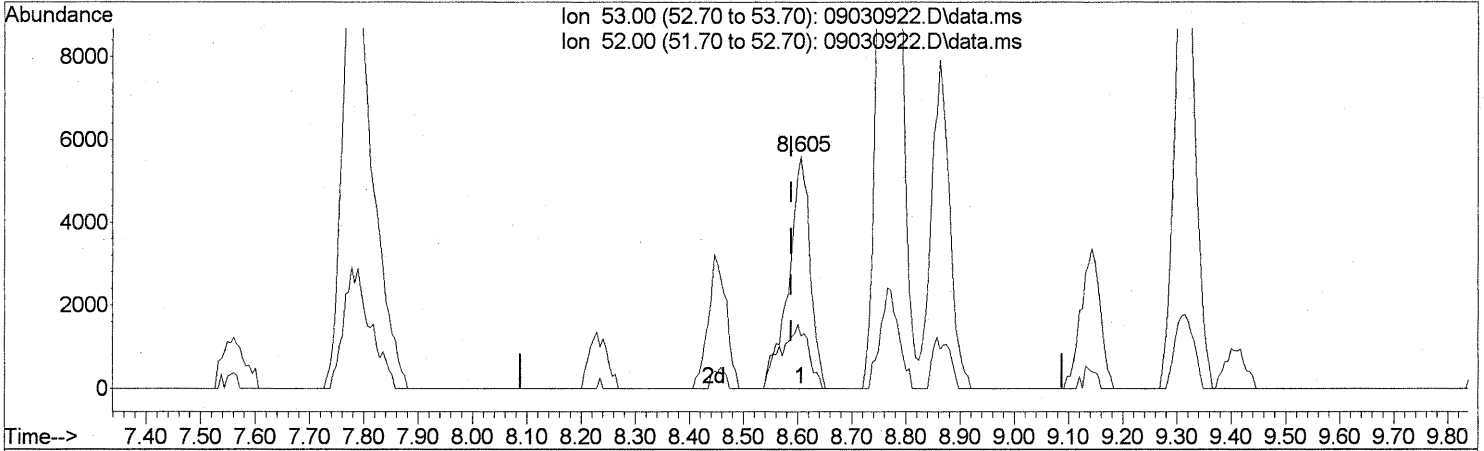
response 279779

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	17.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(16) Acrylonitrile (T)  
 8.605min (+0.017) 0.77ng  
 response 15430

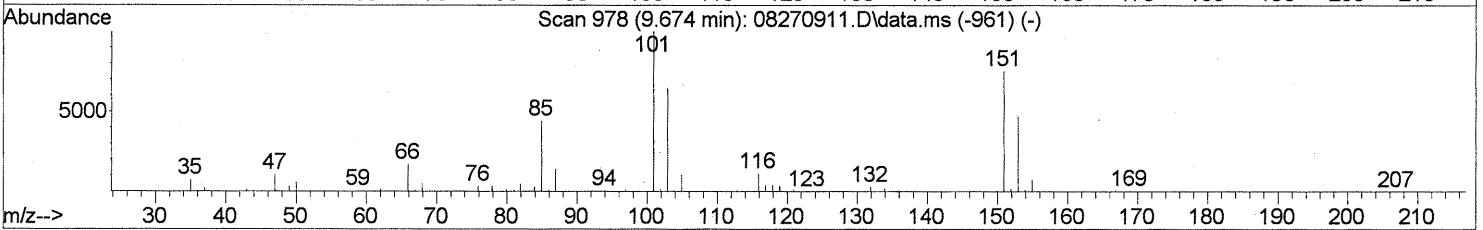
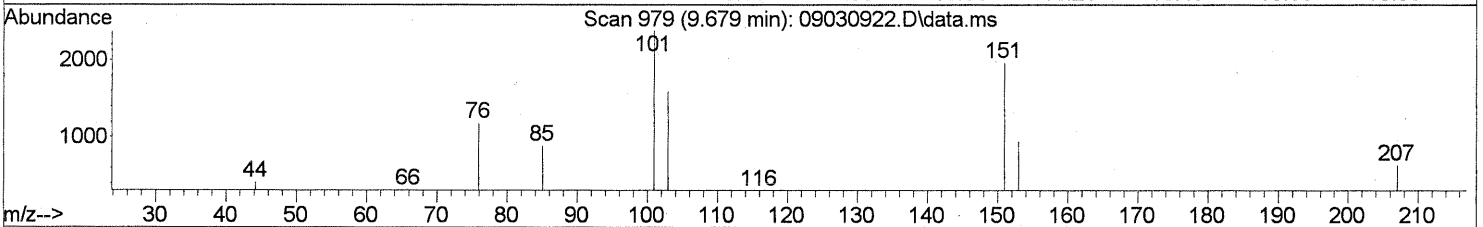
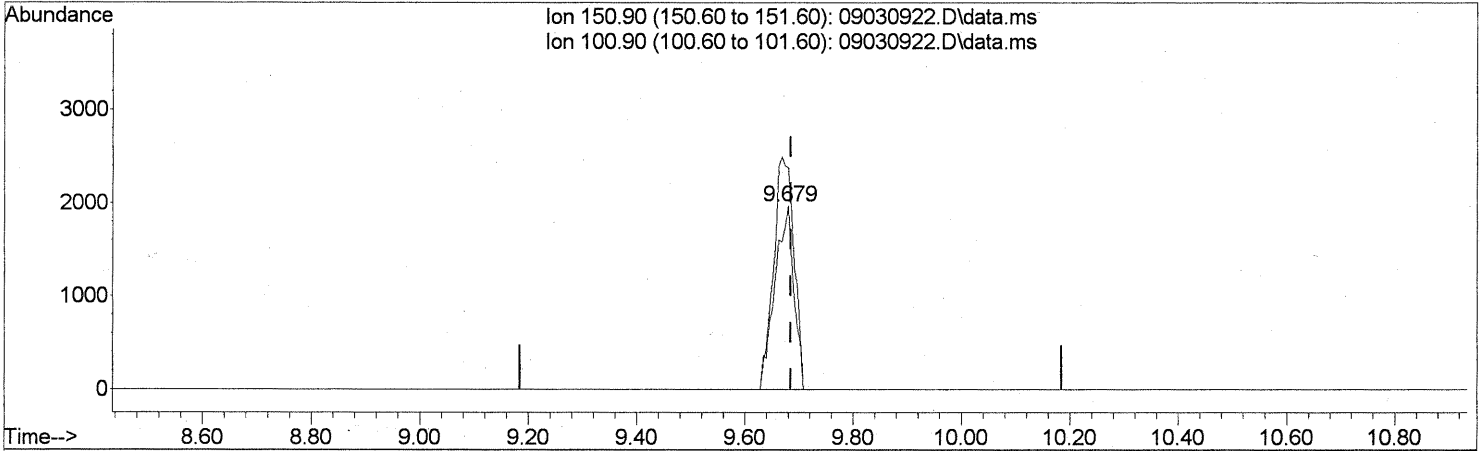
Ion	Exp%	Act%
53.00	100	100
52.00	80.50	35.65#
0.00	0.00	0.00
0.00	0.00	0.00

FP  
 m 9/10/09  
 m 9/10/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.41ng

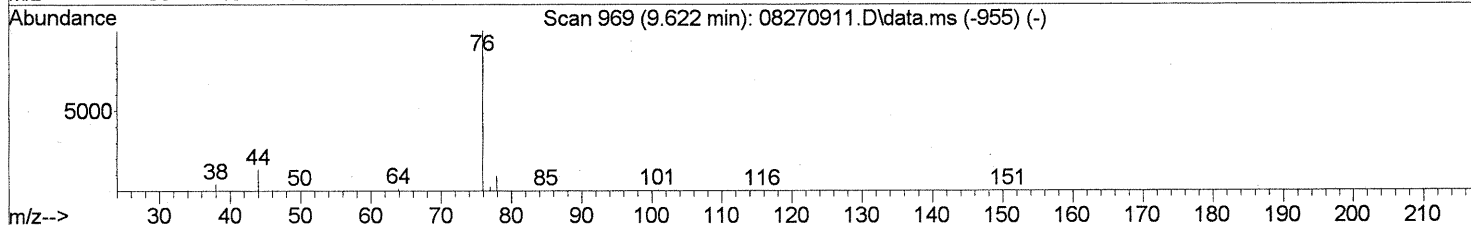
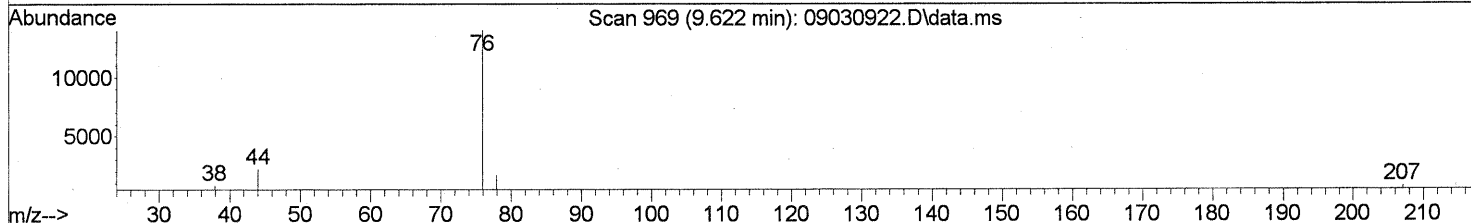
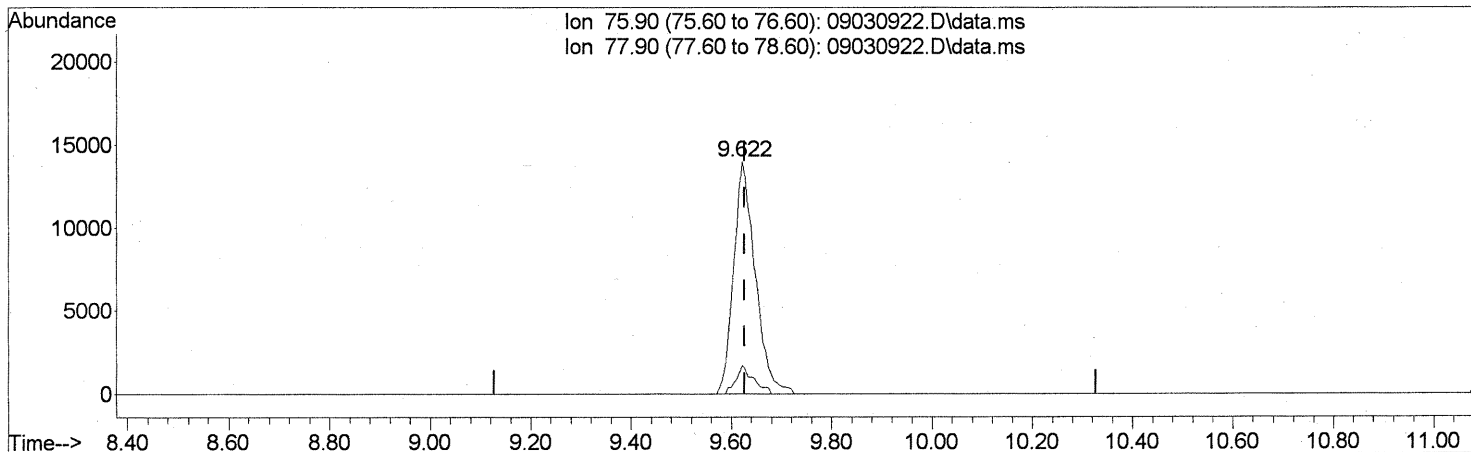
response 4768

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	135.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

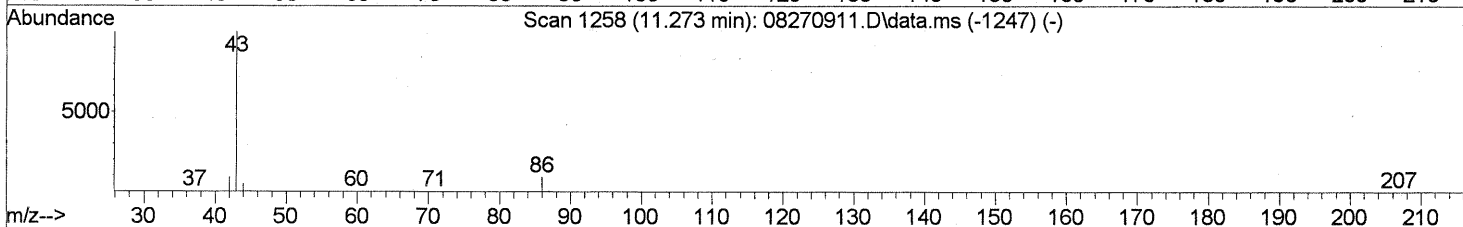
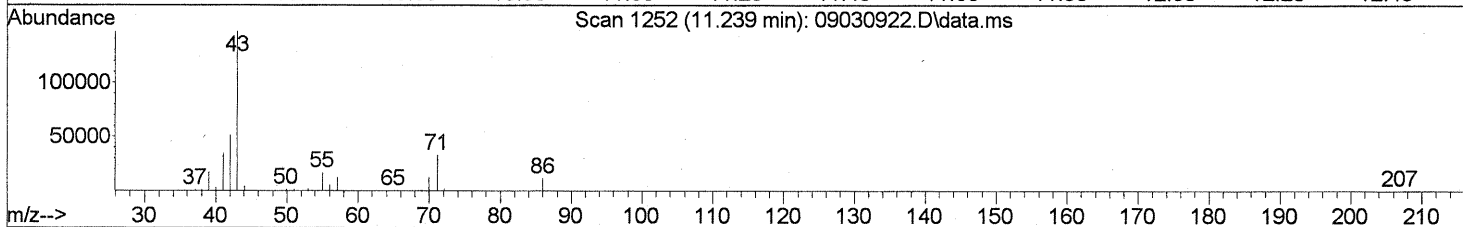
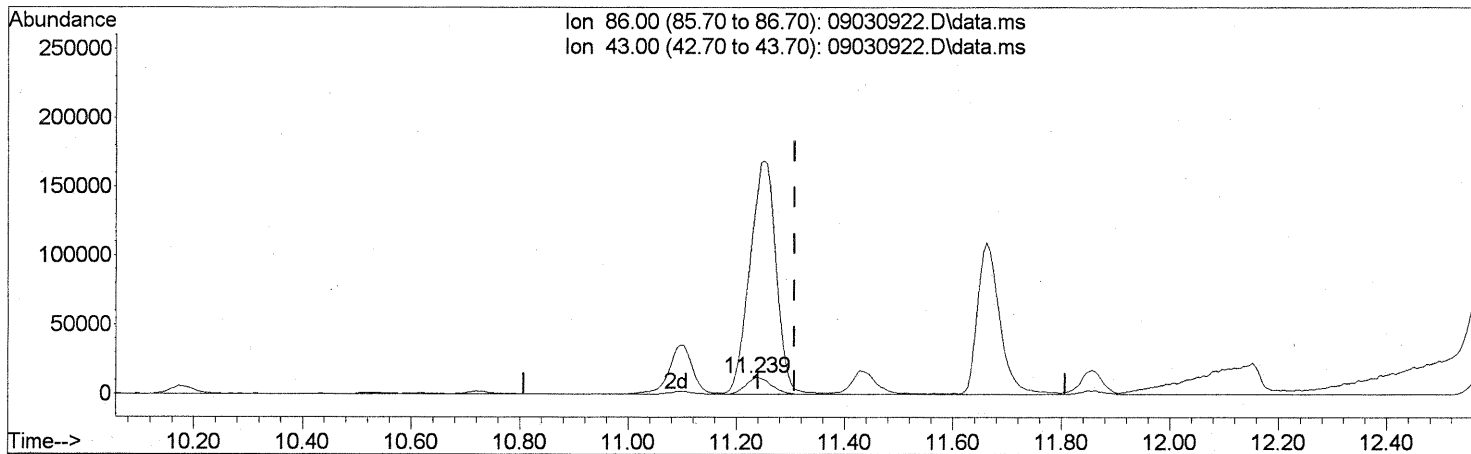
(22) Carbon Disulfide (T)  
 9.622min (-0.006) 0.76ng  
 response 41709

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	9.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(26) Vinyl Acetate (T)  
 11.239min (-0.068) 12.49ng  
 response 38029

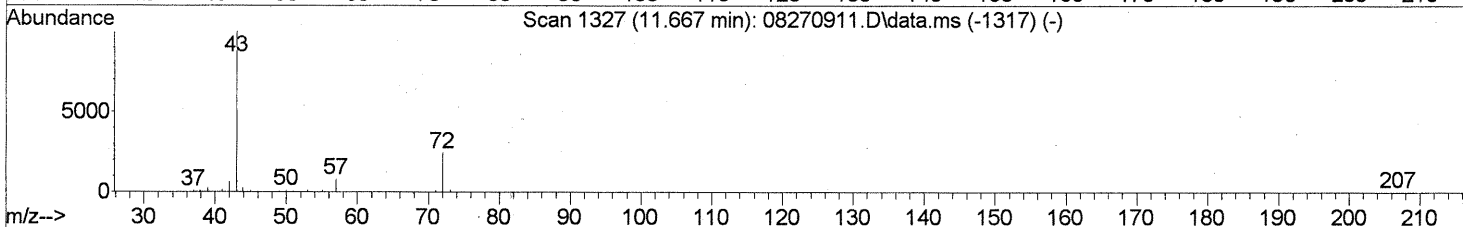
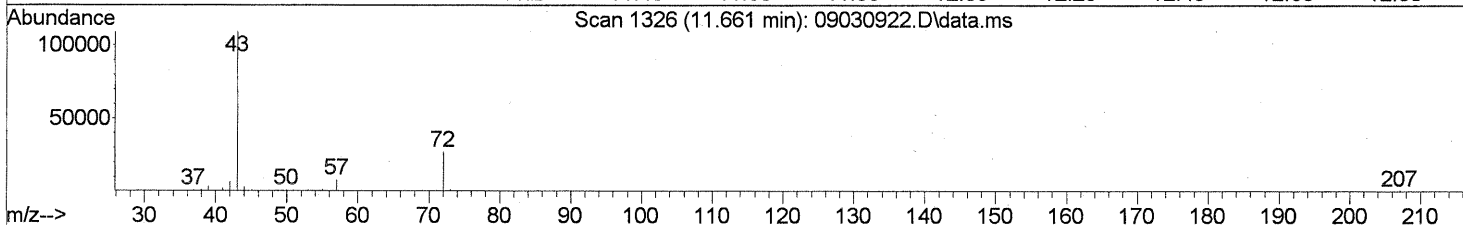
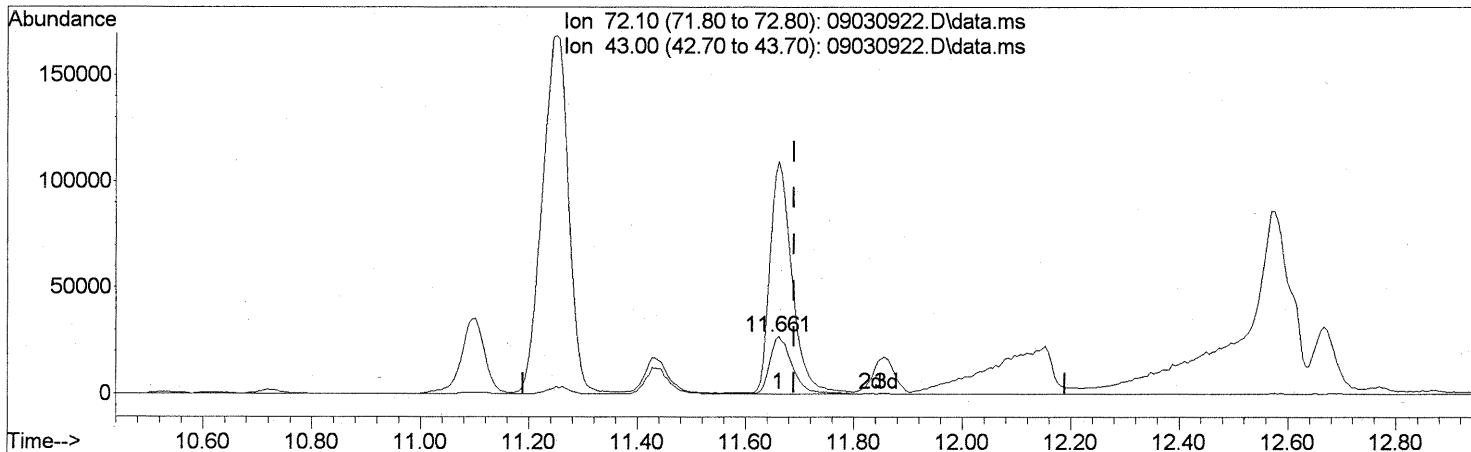
Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1479.12#
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*11/9/09*  
*11/9/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(27) 2-Butanone (MEK) (T)

11.661min (-0.029) 7.78ng

response 76394

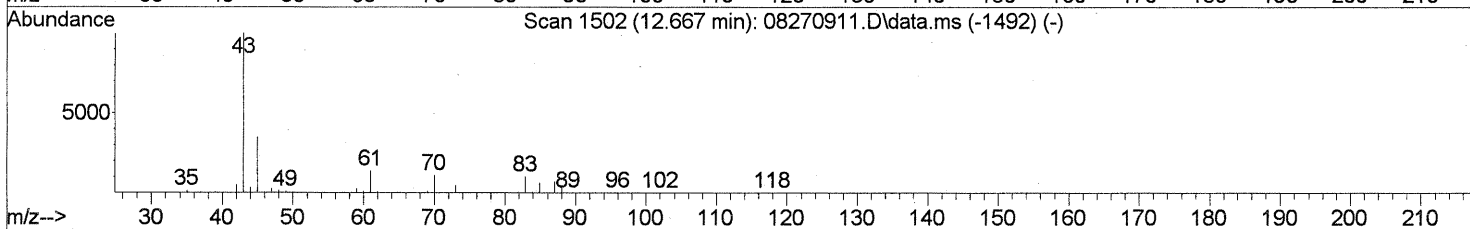
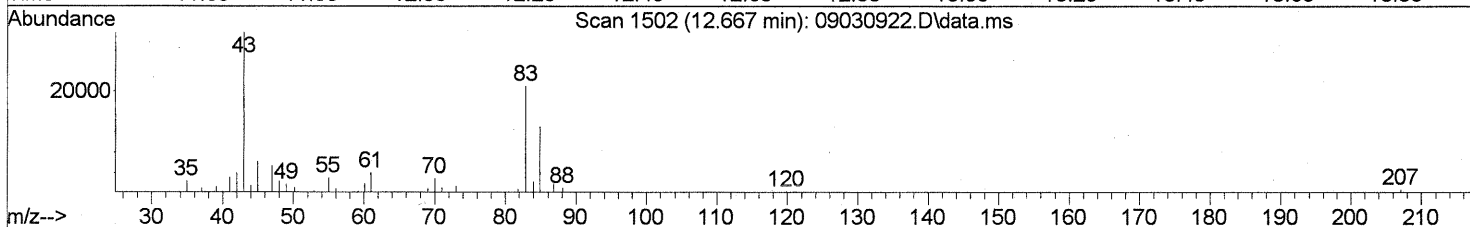
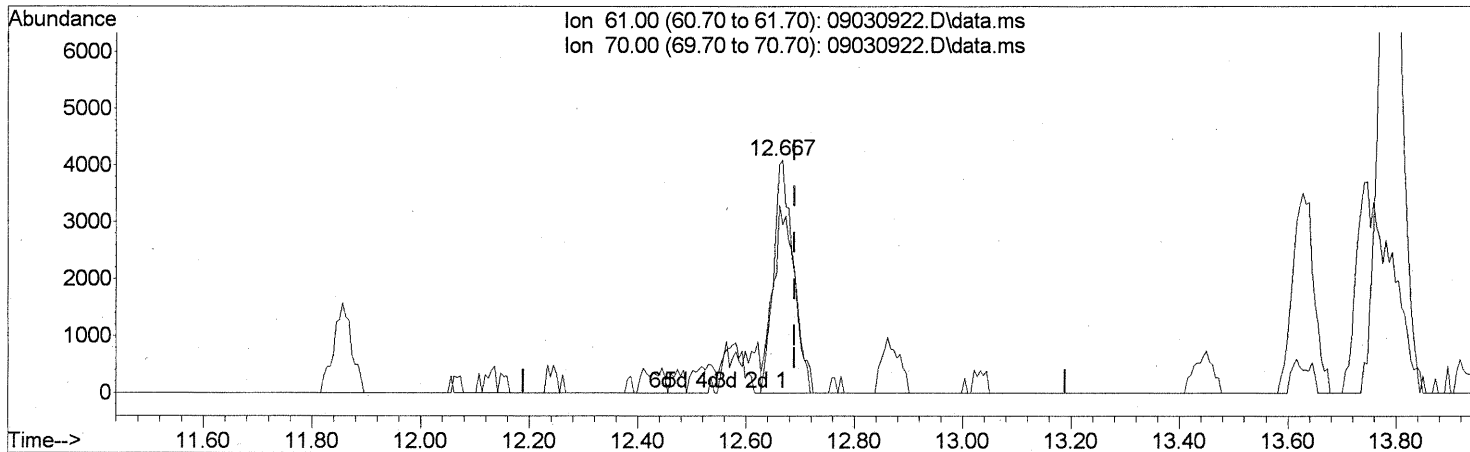
Ion	Exp%	Act%
72.10	100	100
43.00	424.60	402.80#
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

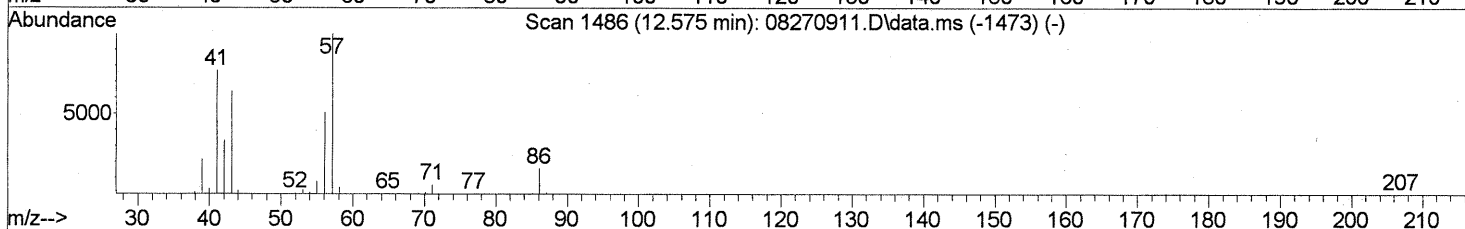
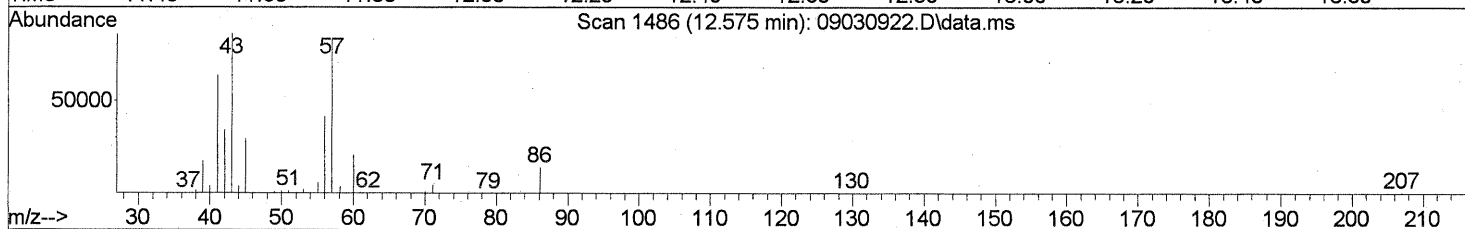
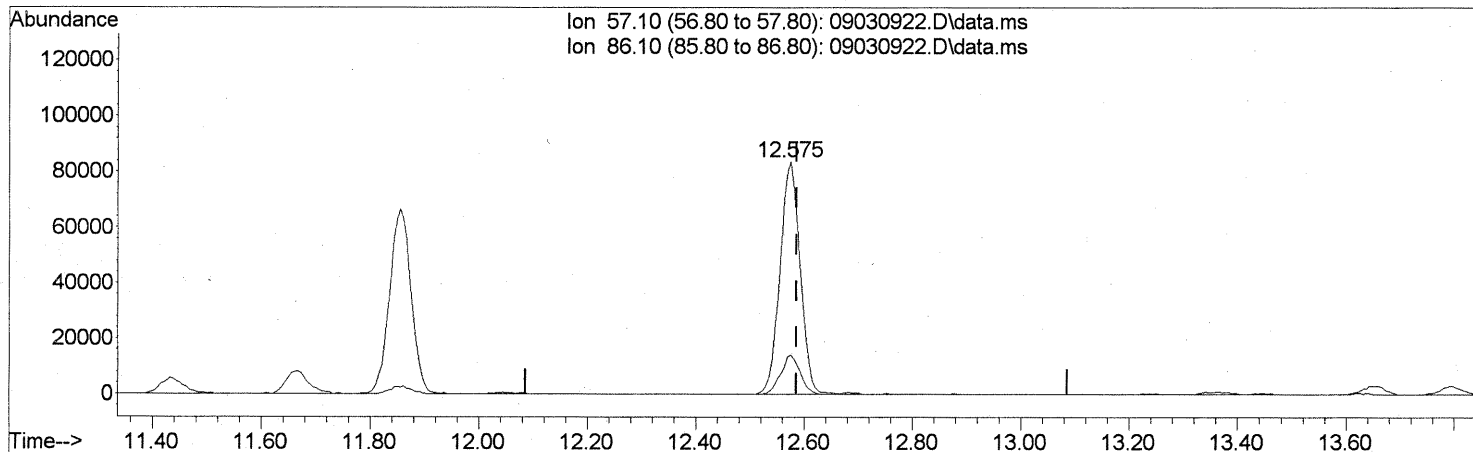
(30) Ethyl Acetate (T)  
 12.667min (-0.023) 2.00ng  
 response 10537

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	87.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

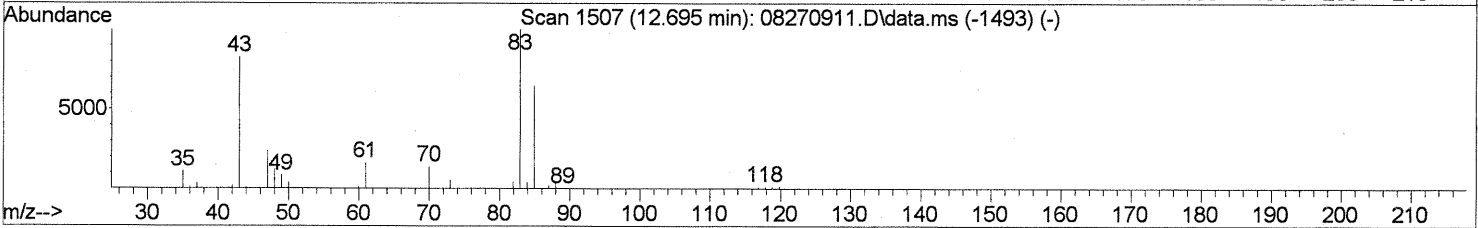
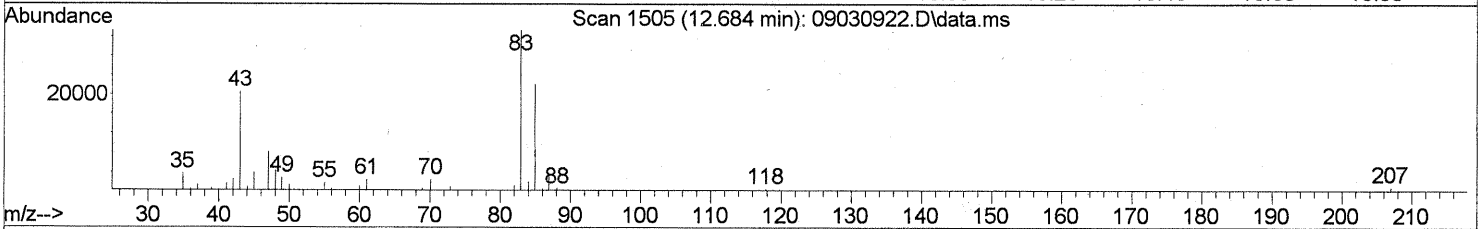
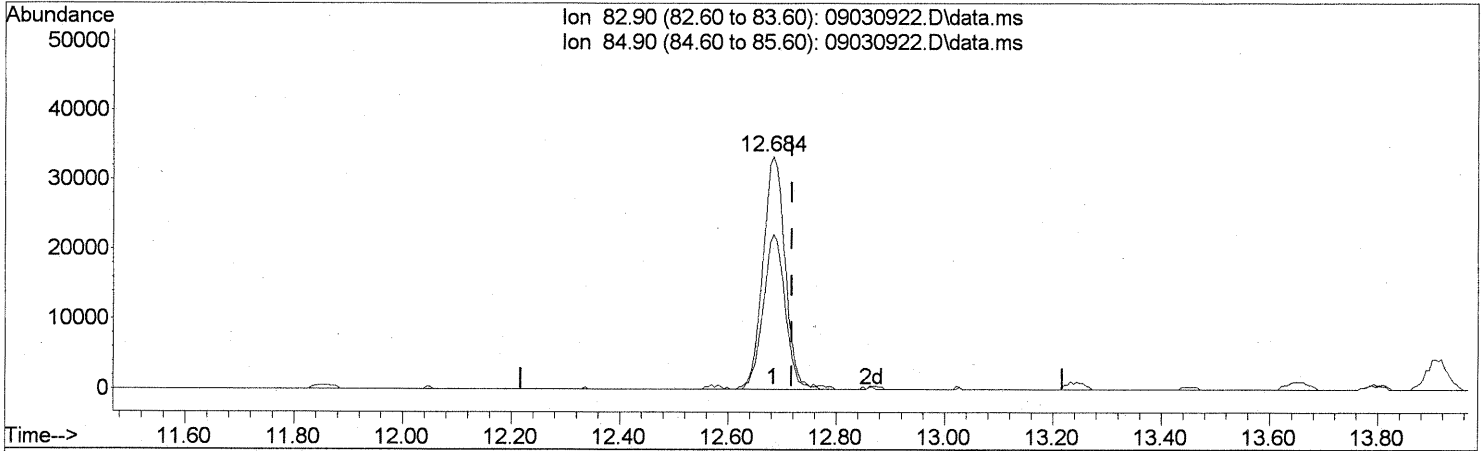
(31) n-Hexane (T)  
 12.575min (-0.011) 8.11ng  
 response 213195

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	16.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

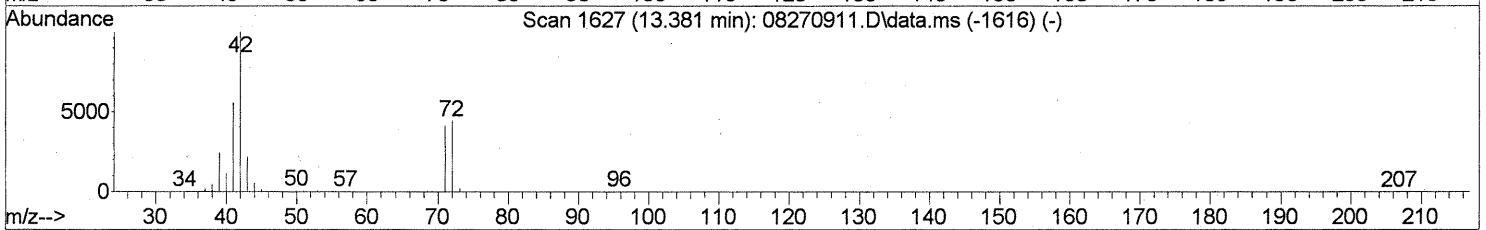
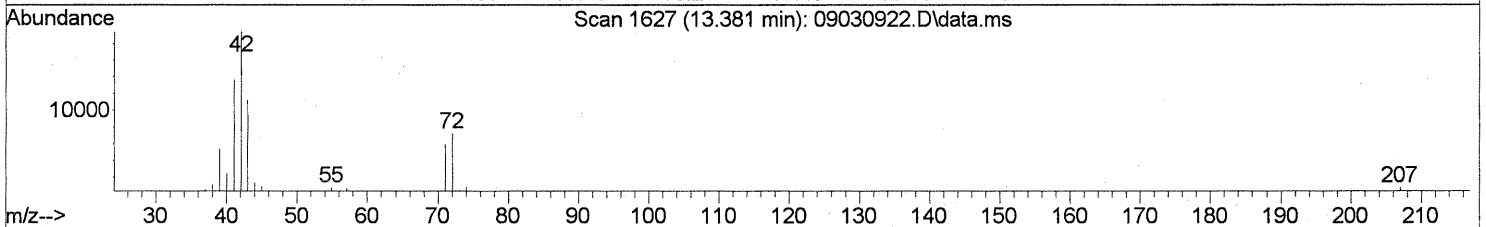
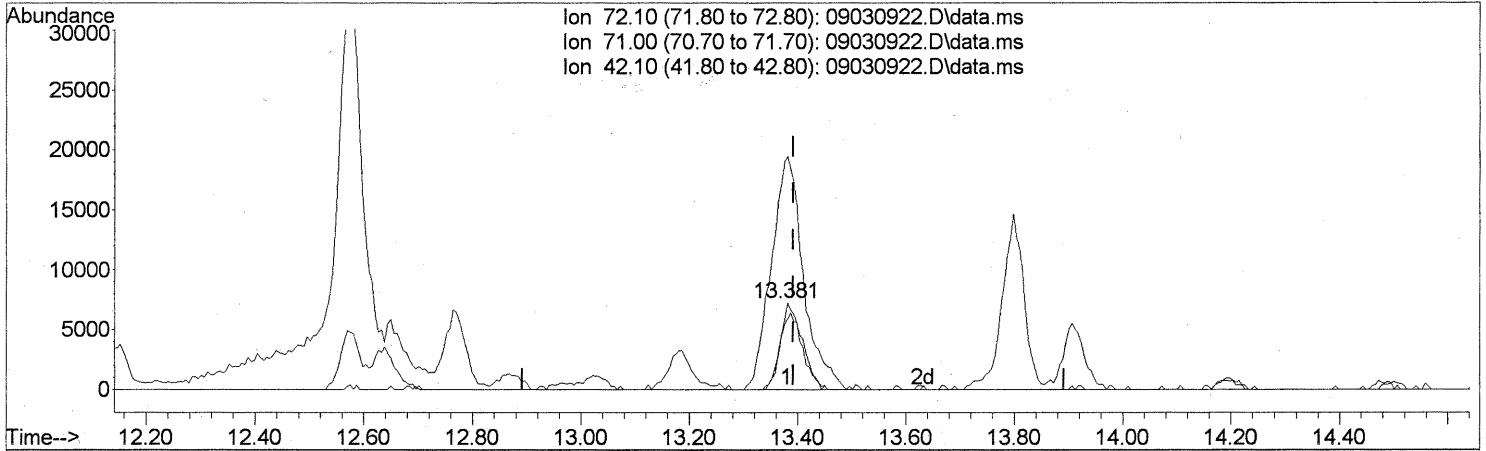
(32) Chloroform (T)  
 12.684min (-0.034) 3.62ng  
 response 93705

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	67.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(34) Tetrahydrofuran (THF) (T)

13.381min (-0.011) 1.91ng

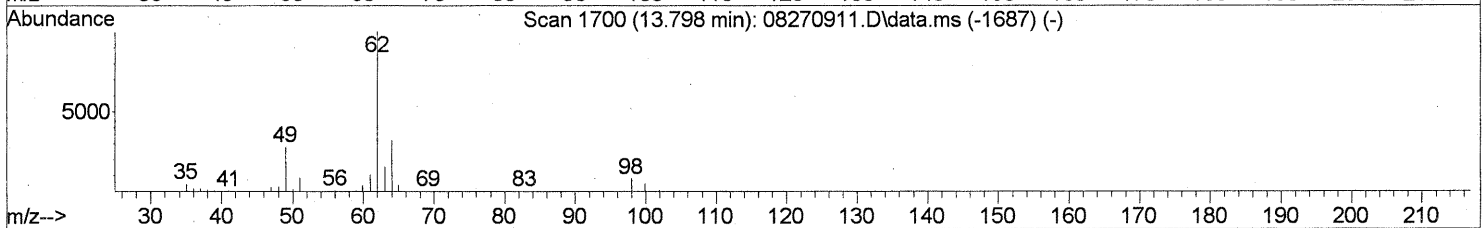
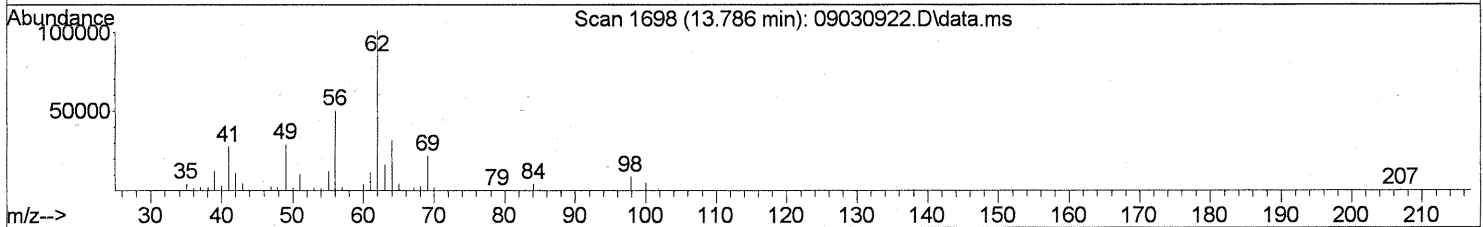
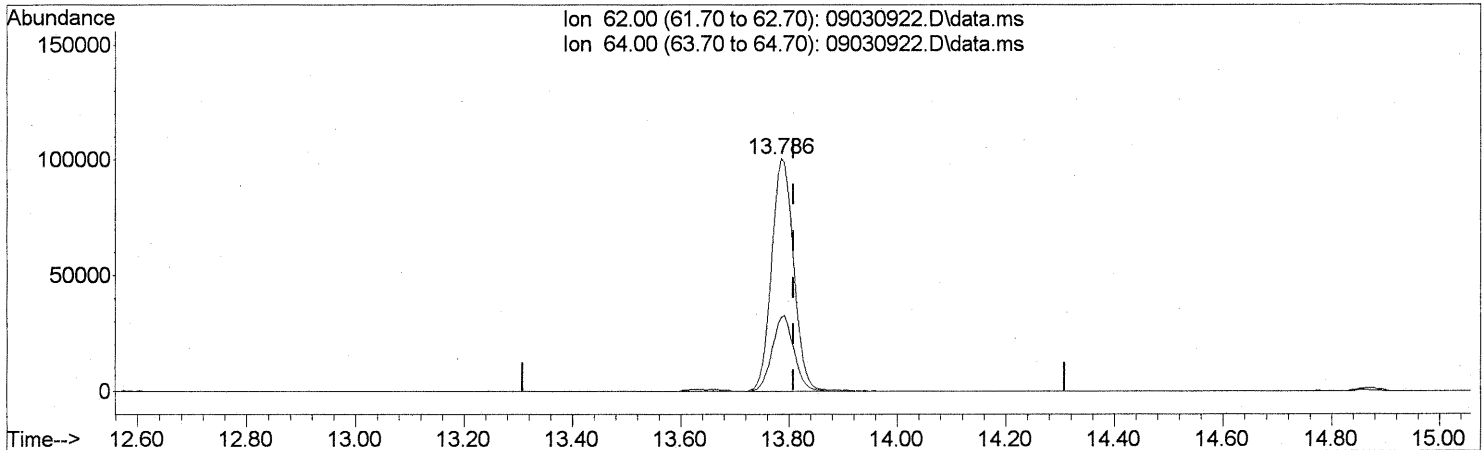
response 20302

Ion	Exp%	Act%
72.10	100	100
71.00	92.50	92.05
42.10	254.10	394.15#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

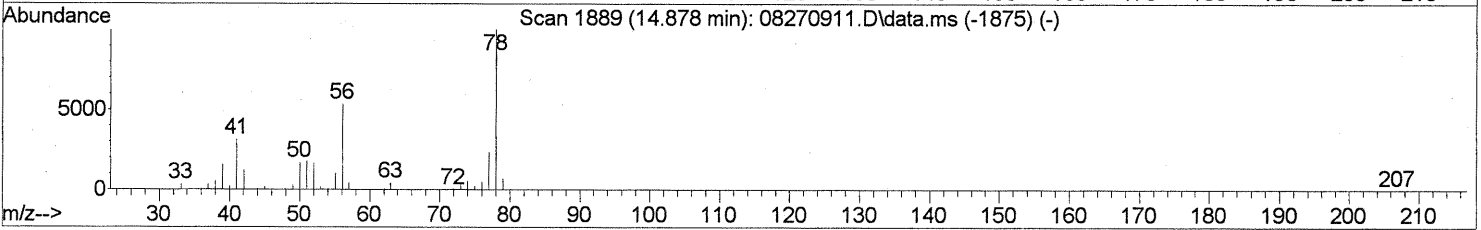
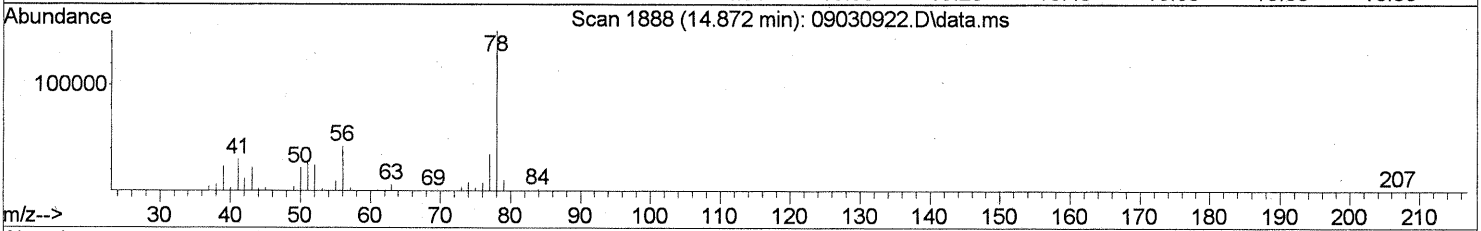
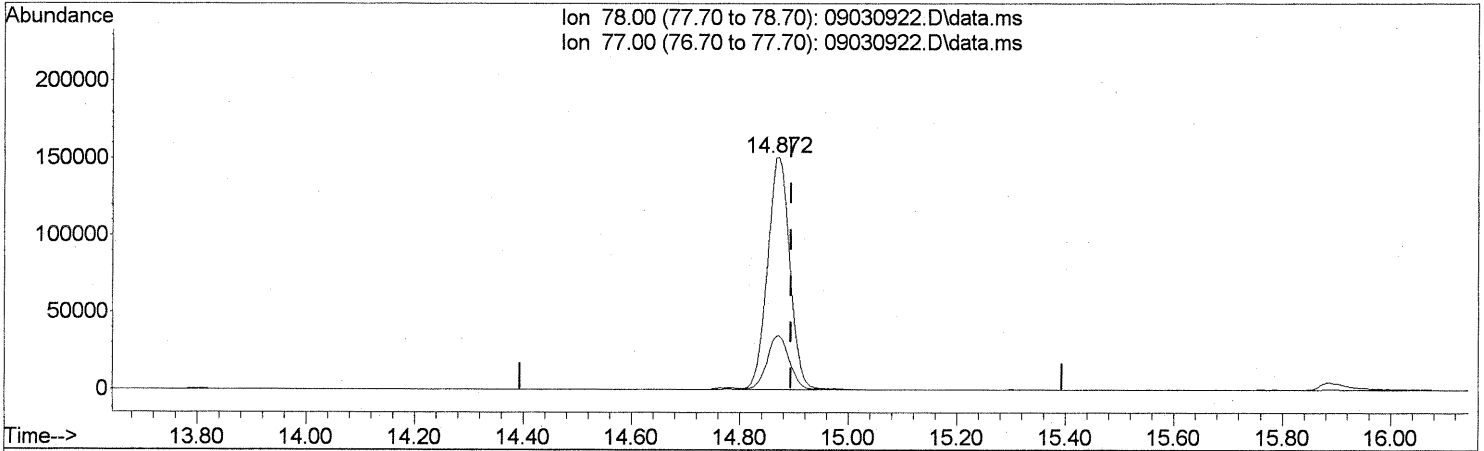
(36) 1,2-Dichloroethane (T)  
 13.786min (-0.023) 13.10ng  
 response 284691

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	31.87
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

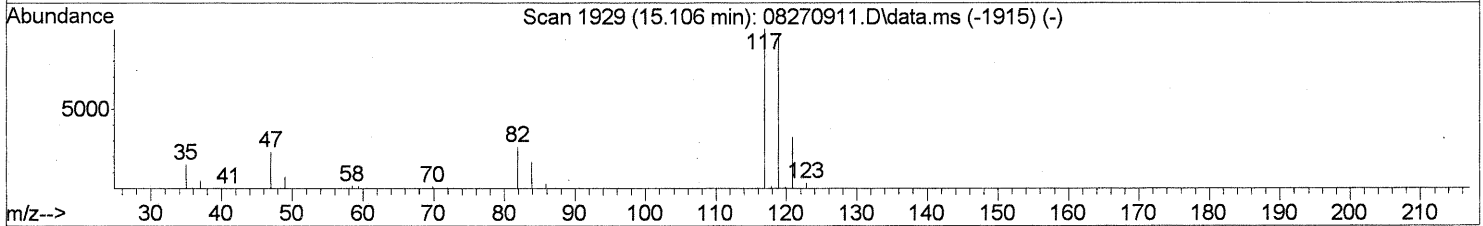
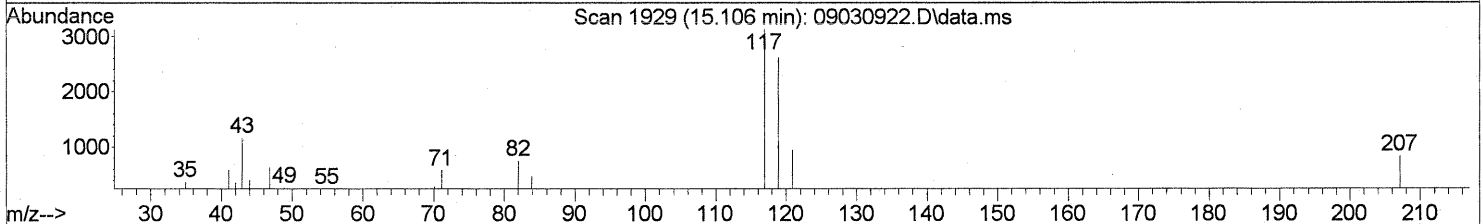
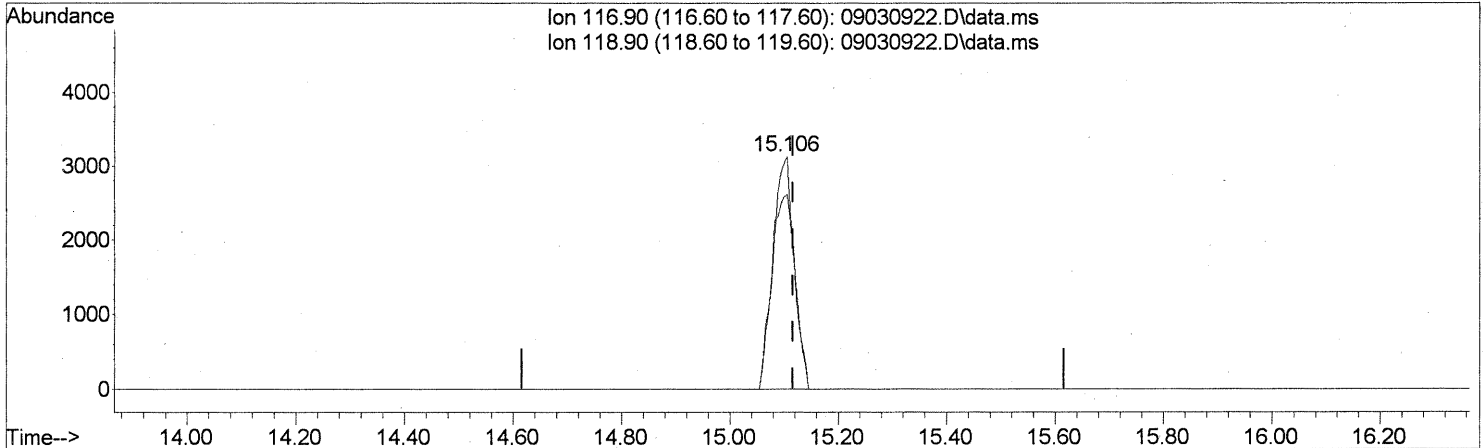
(41) Benzene (T)  
 14.872min (-0.023) 6.93ng  
 response 428519

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

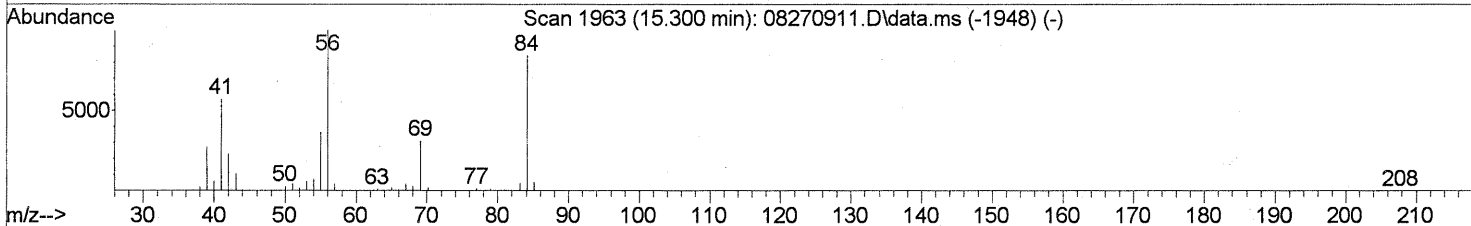
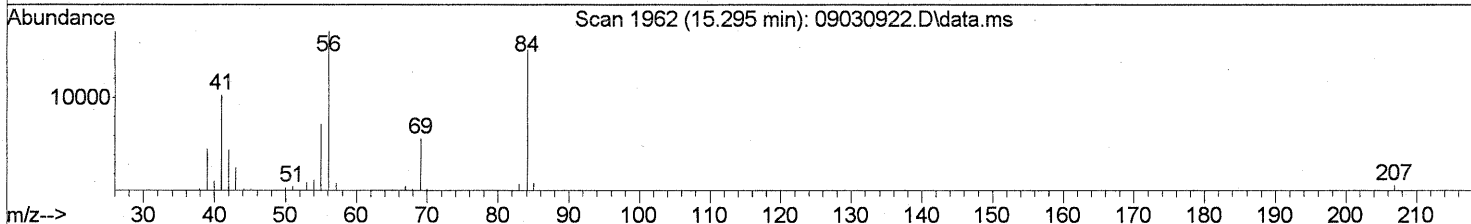
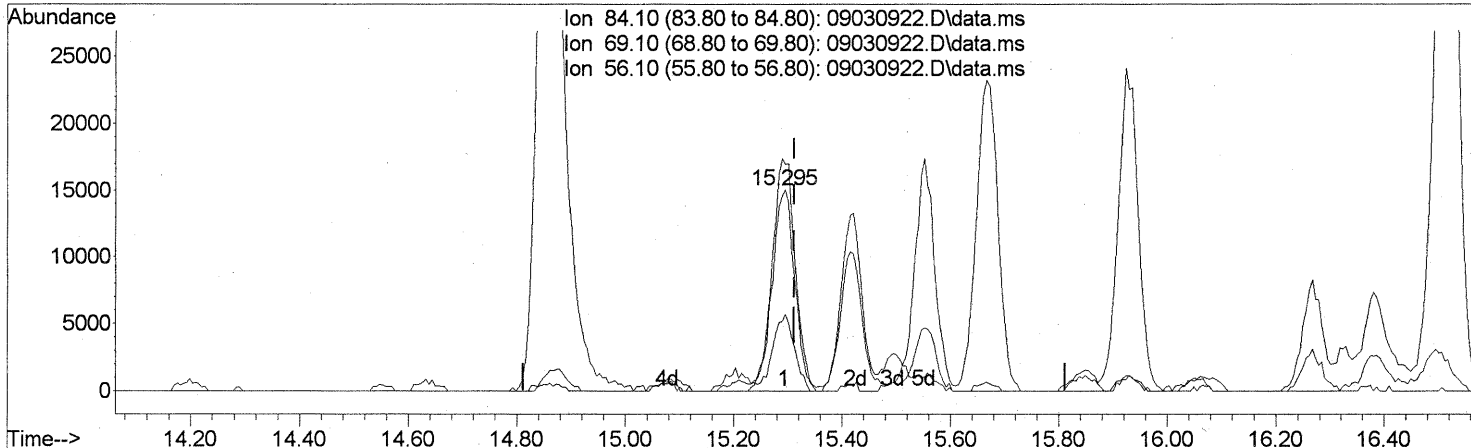
(42) Carbon Tetrachloride (T)  
 15.106min (-0.011) 0.41ng  
 response 8445

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	93.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(43) Cyclohexane (T)  
 15.295min (-0.017) 1.91ng  
 response 43419

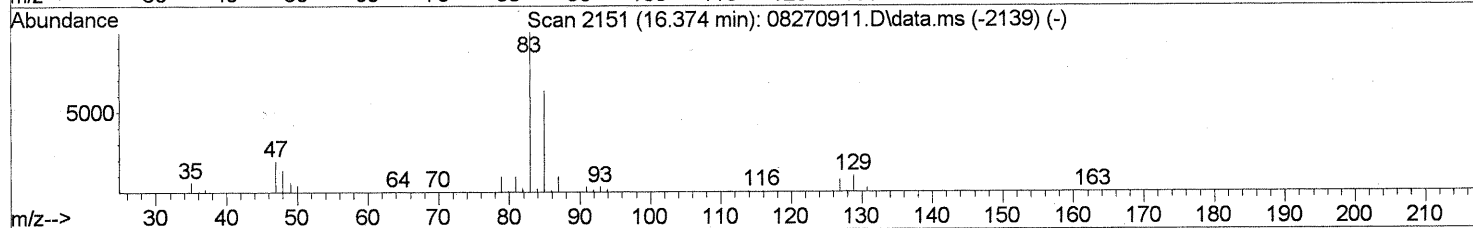
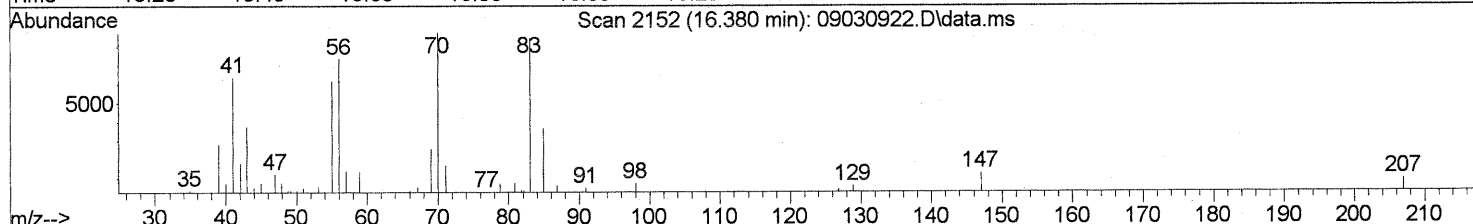
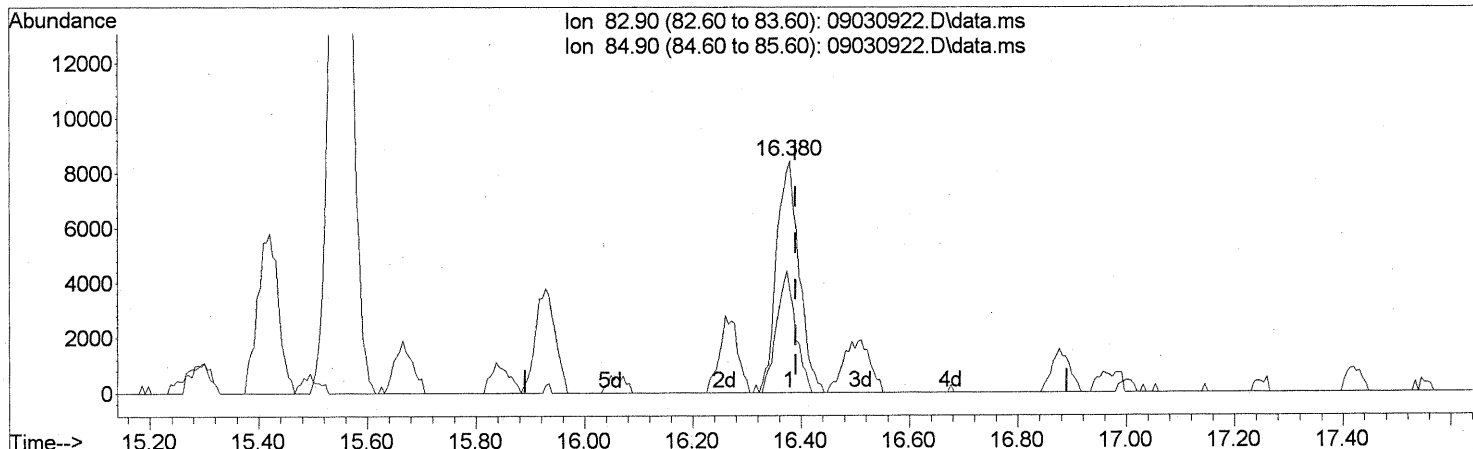
Ion	Exp%	Act%
84.10	100	100
69.10	38.90	36.15
56.10	124.50	118.63
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

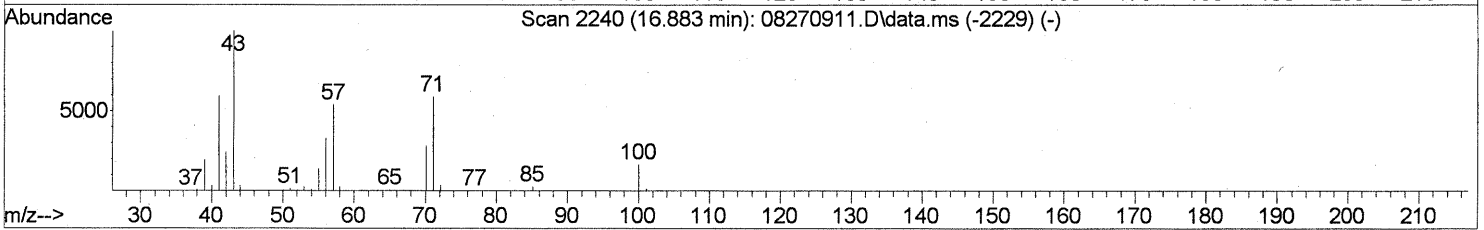
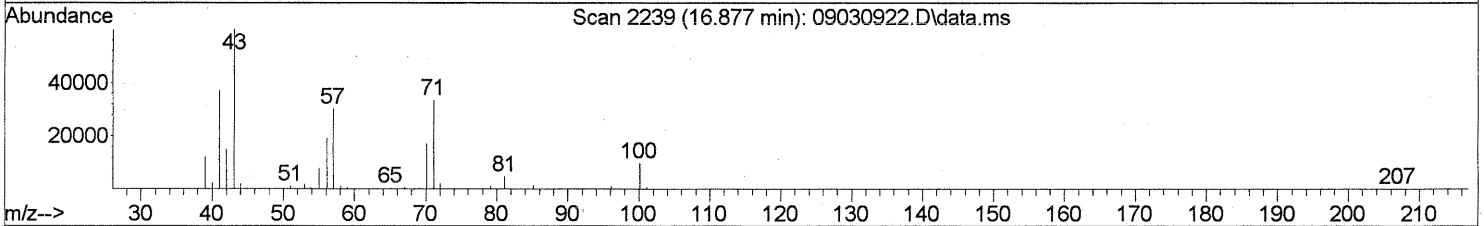
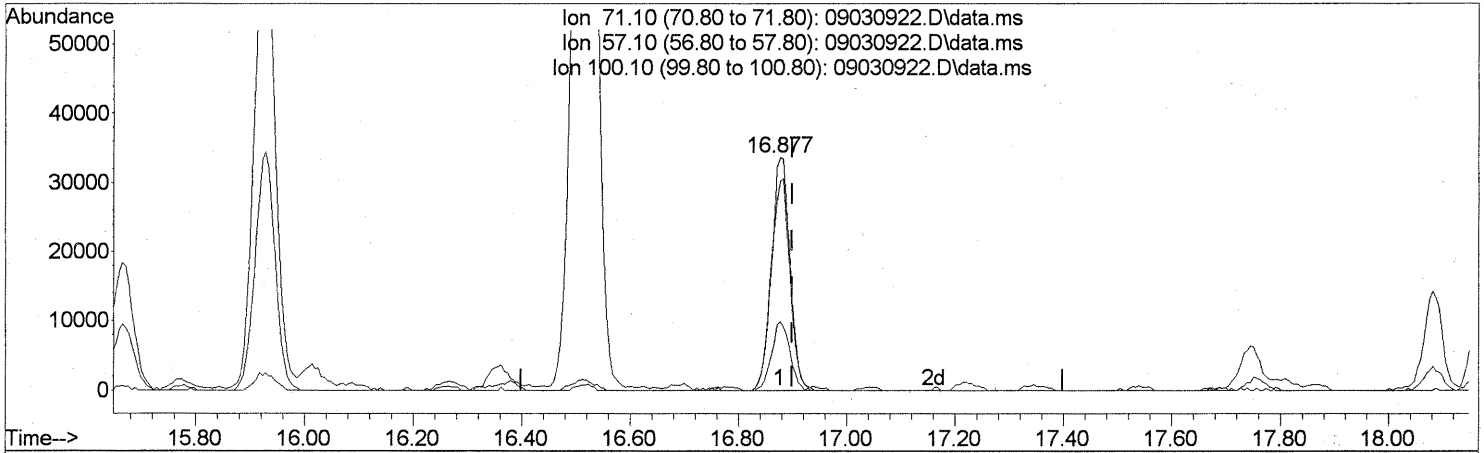
(46) Bromodichloromethane (T)  
 16.380min (-0.011) 1.21ng  
 response 24579

Ion	Exp%	Act%
82.90	100	100
84.90	64.50	44.16#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

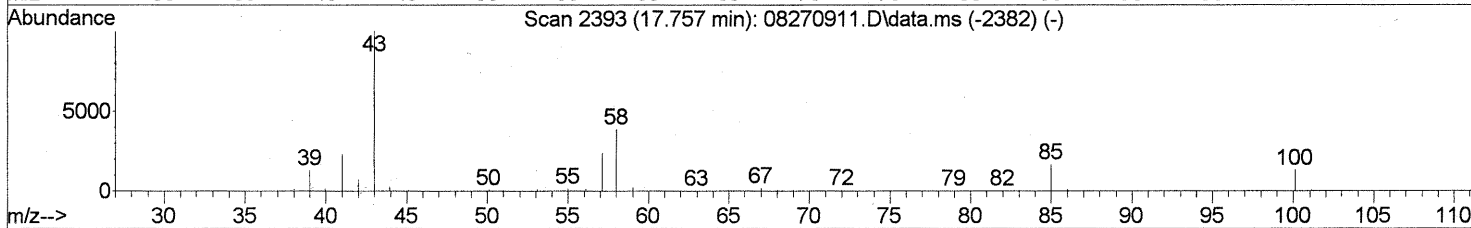
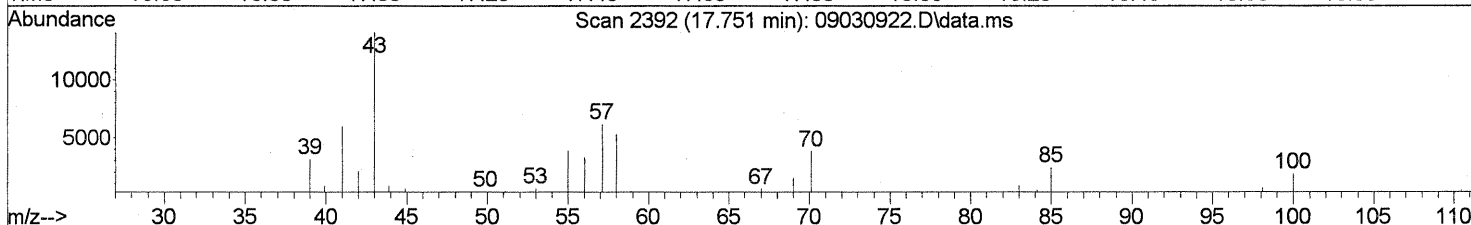
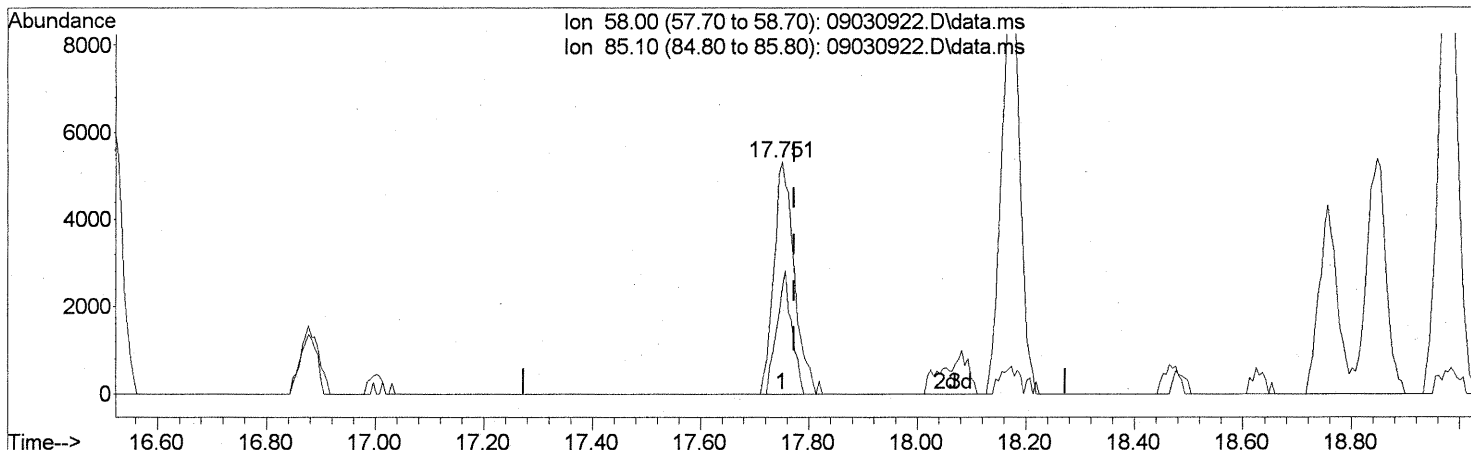
(51) n-Heptane (T)  
 16.877min (-0.023) 4.99ng  
 response 79844

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	91.61
100.10	22.00	28.68
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

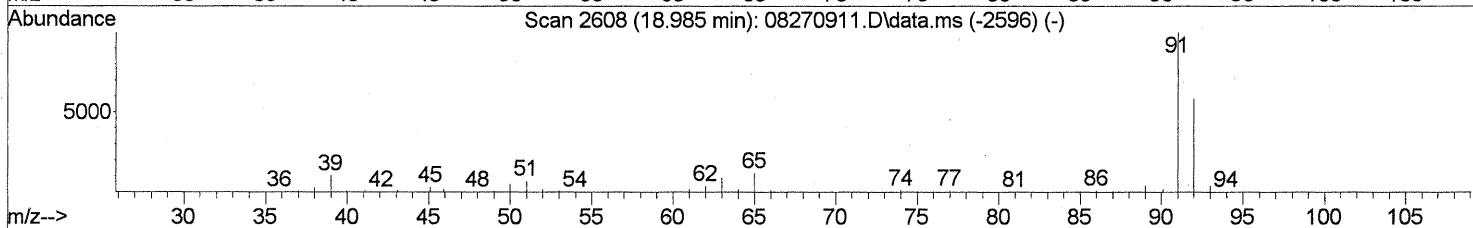
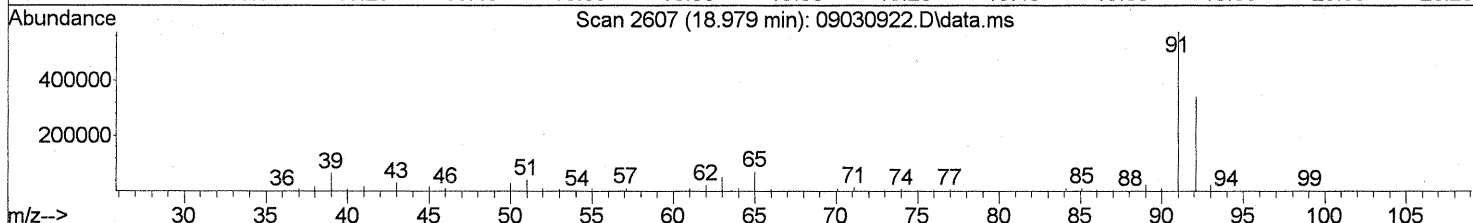
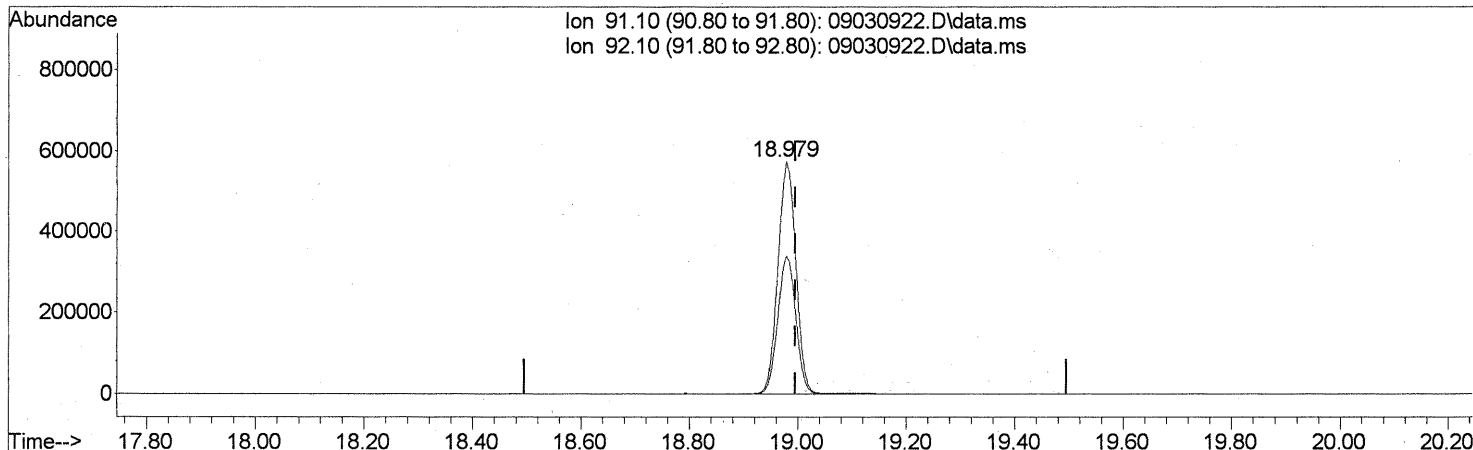
(53) 4-Methyl-2-pentanone (T)  
 17.751min (-0.023) 0.98ng  
 response 13816

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	39.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

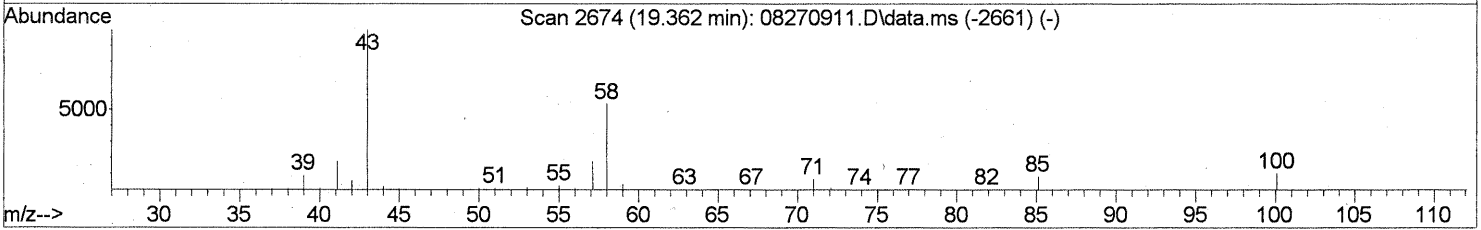
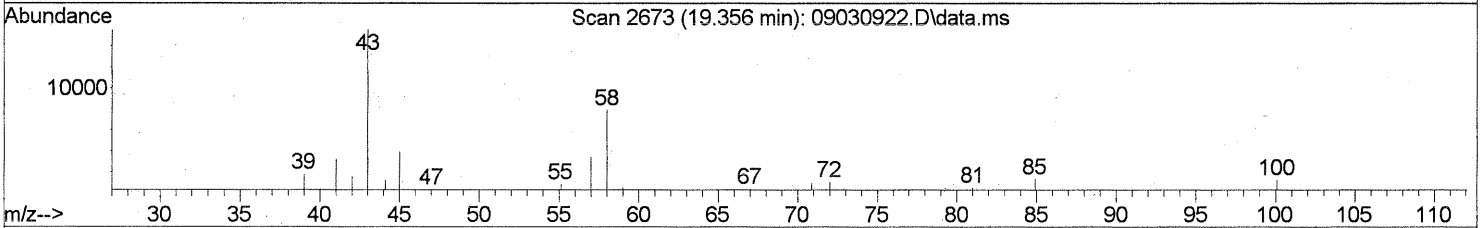
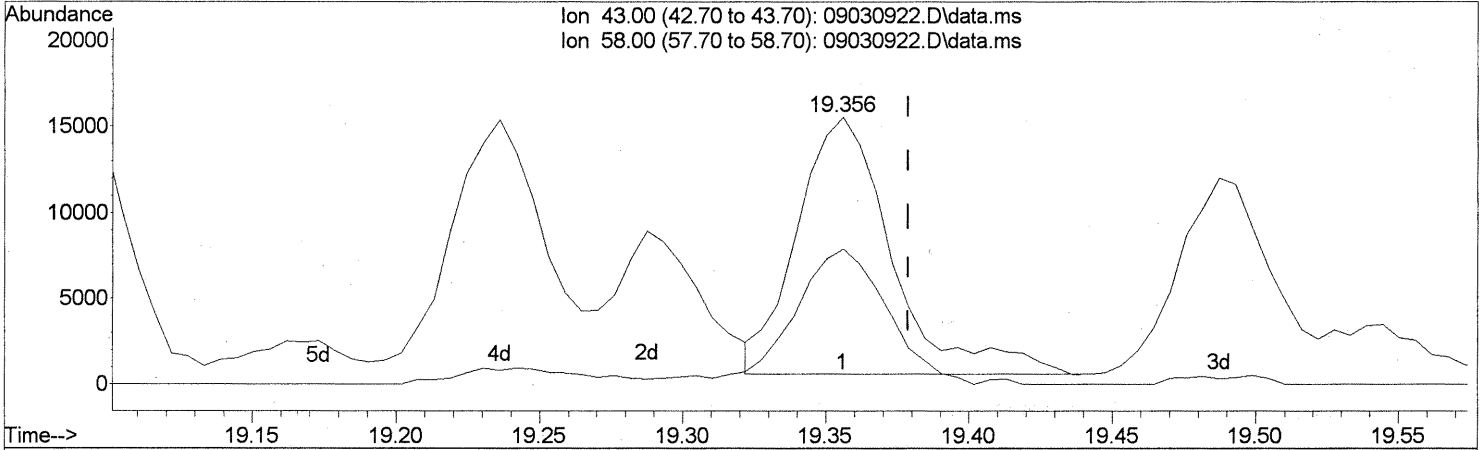
(58) Toluene (T)  
 18.979min (-0.017) 21.32ng  
 response 1317971

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 0.92ng  
 response 34584  

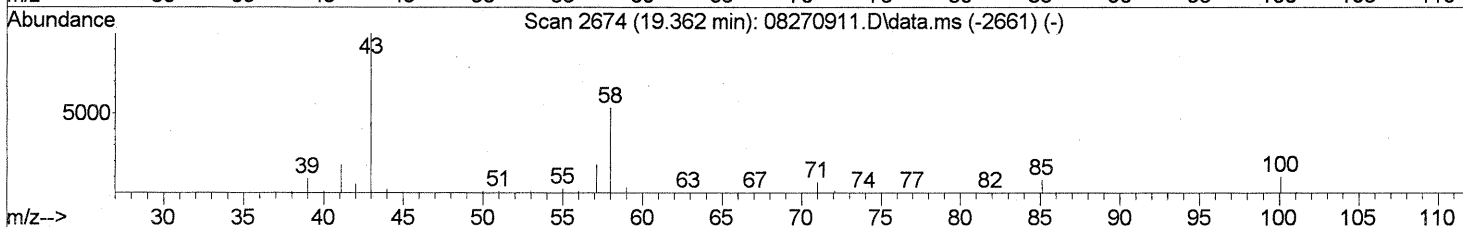
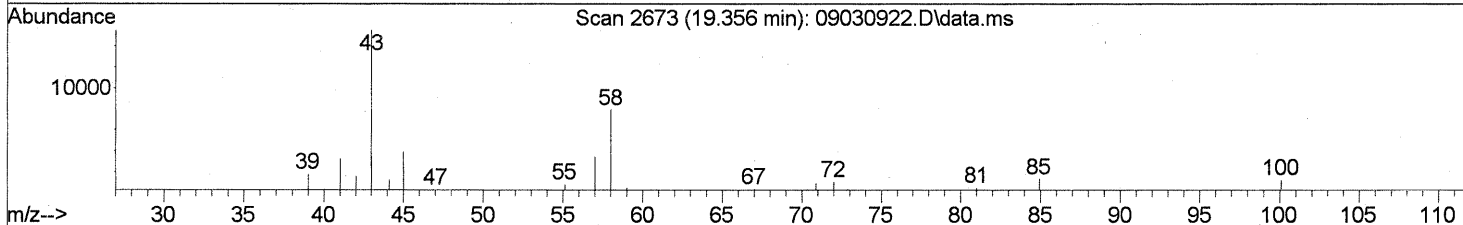
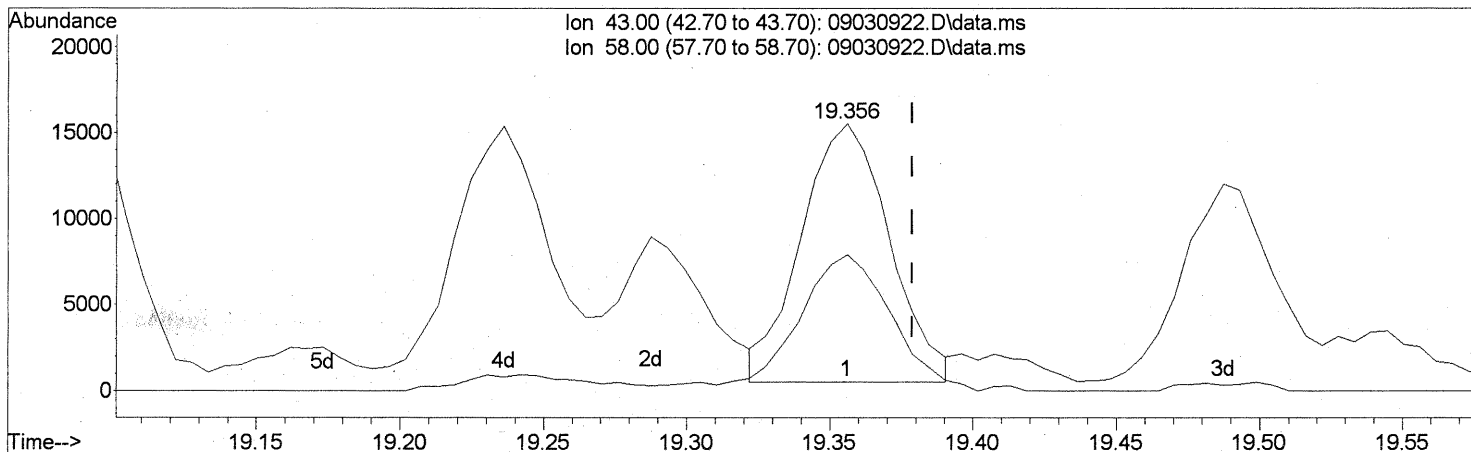
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	52.89
0.00	0.00	0.00
0.00	0.00	0.00

P1

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 0.85ng m  
 response 32083

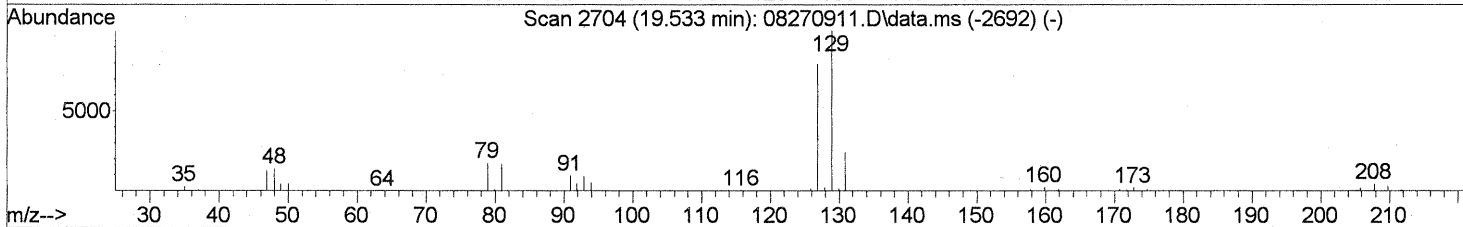
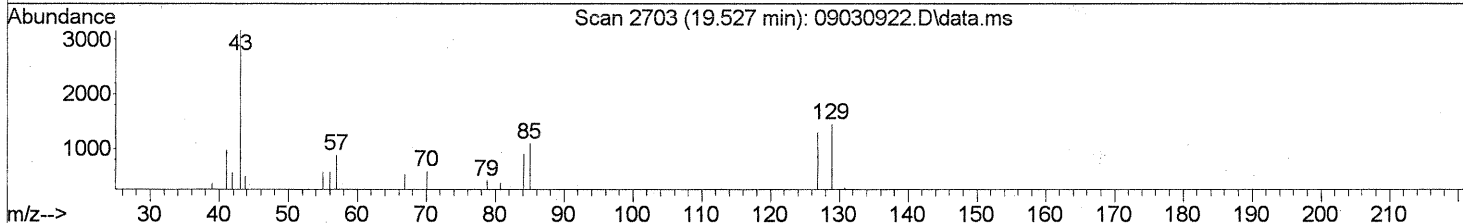
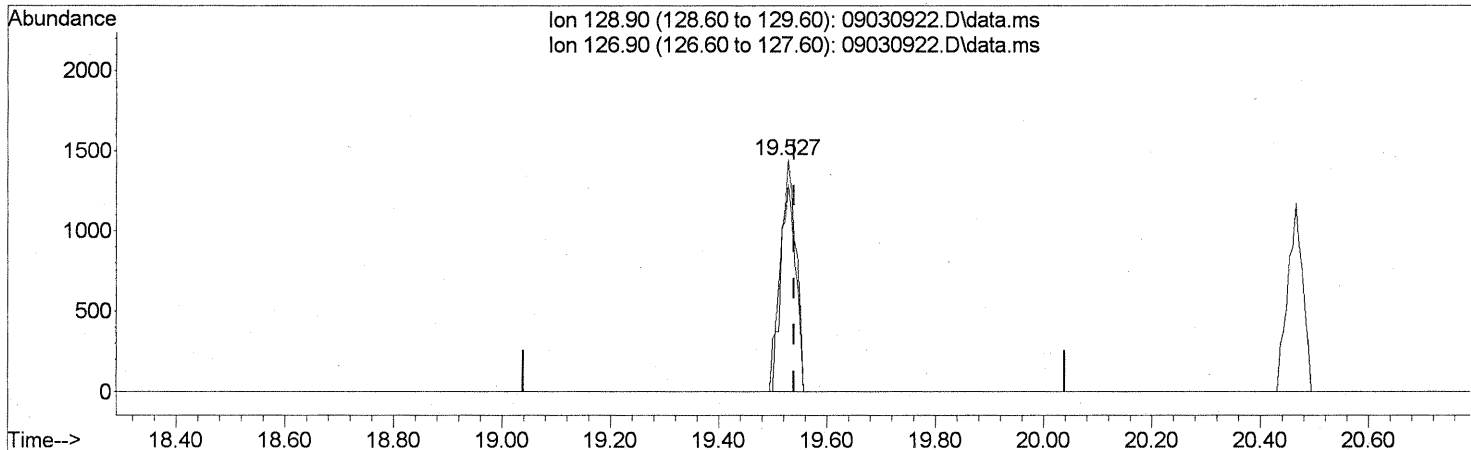
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	57.01
0.00	0.00	0.00
0.00	0.00	0.00

*PT - TIC*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(60) Dibromochloromethane (T)

19.527min (-0.011) 0.18ng

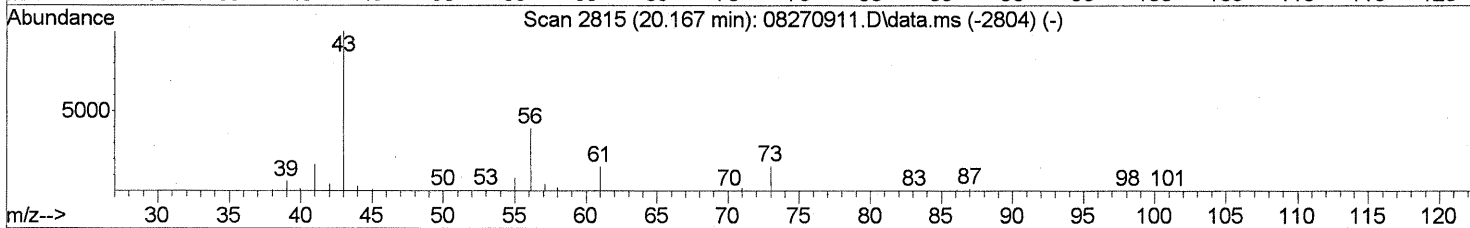
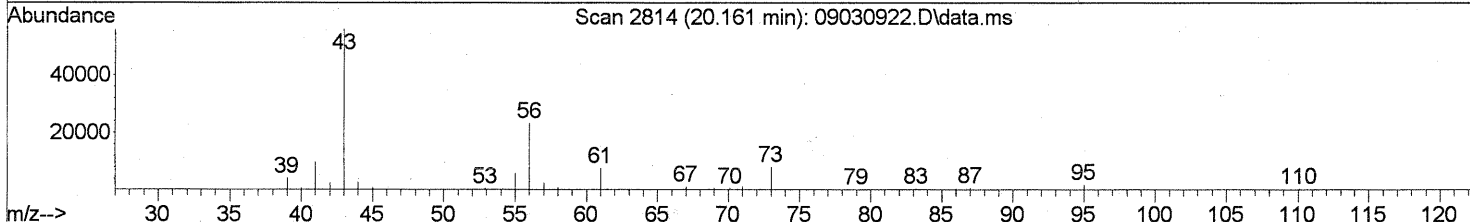
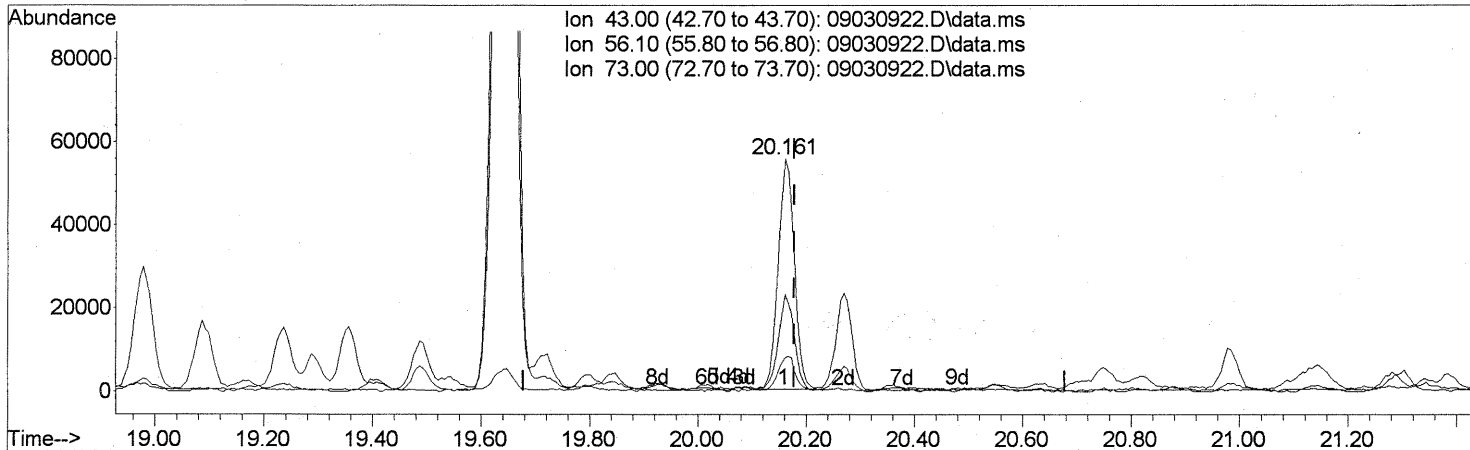
response 2814

Ion	Exp%	Act%
128.90	100	100
126.90	77.50	90.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(62) n-Butyl Acetate (T)  
 20.161min (-0.017) 2.64ng  
 response 114472

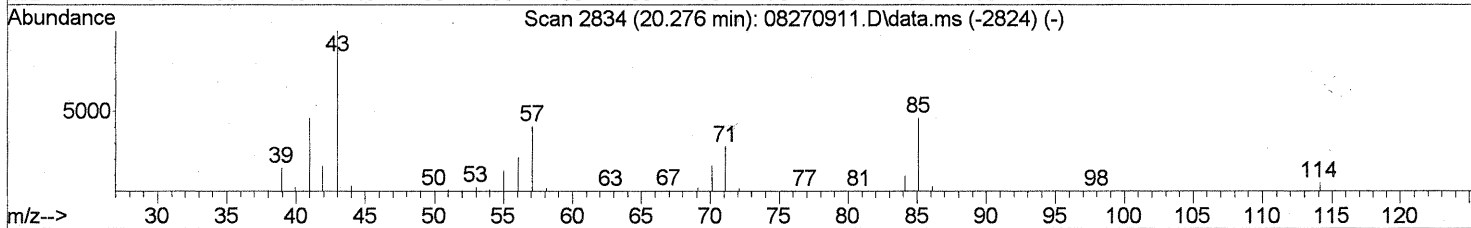
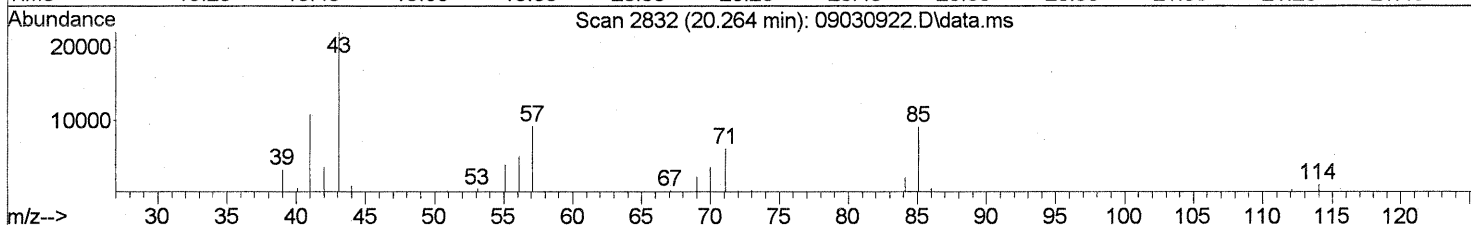
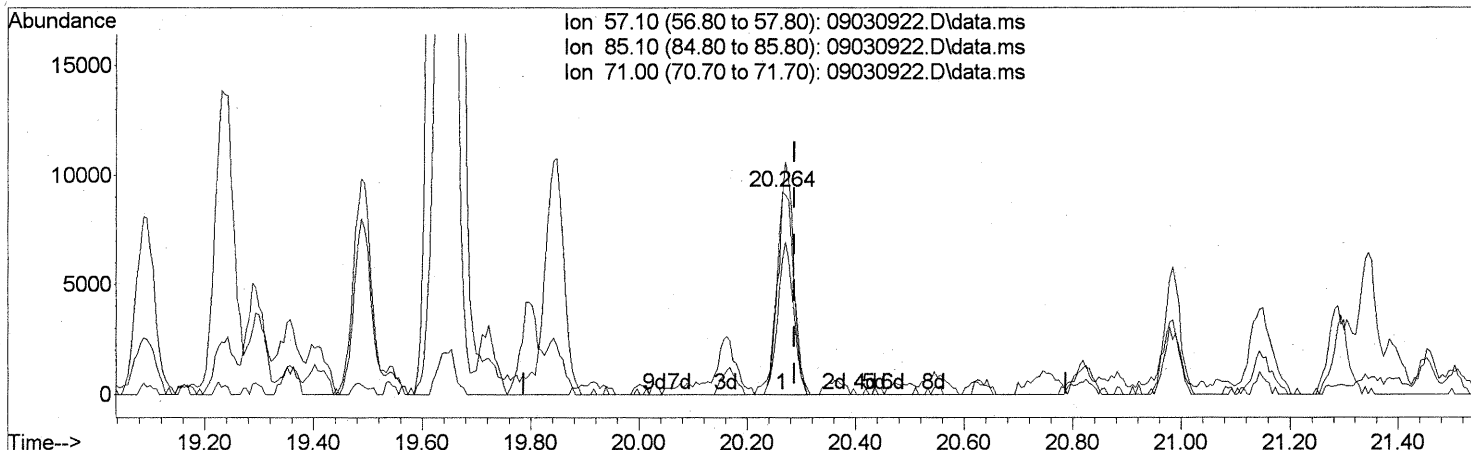
Ion	Exp%	Act%
43.00	100	100
56.10	39.50	41.26
73.00	14.30	15.39
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

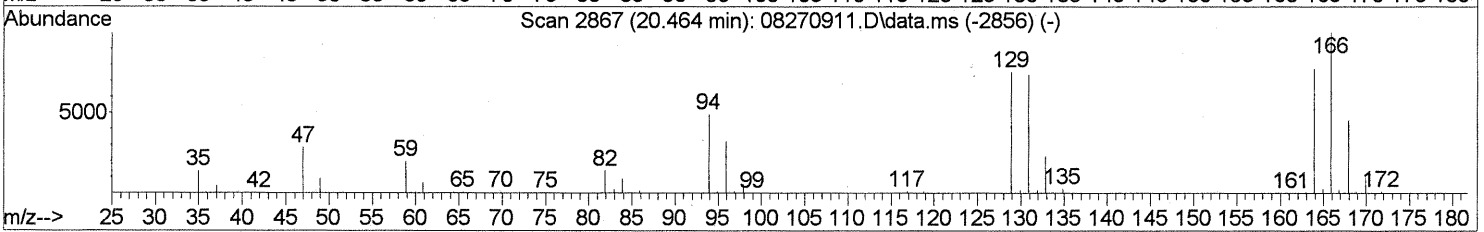
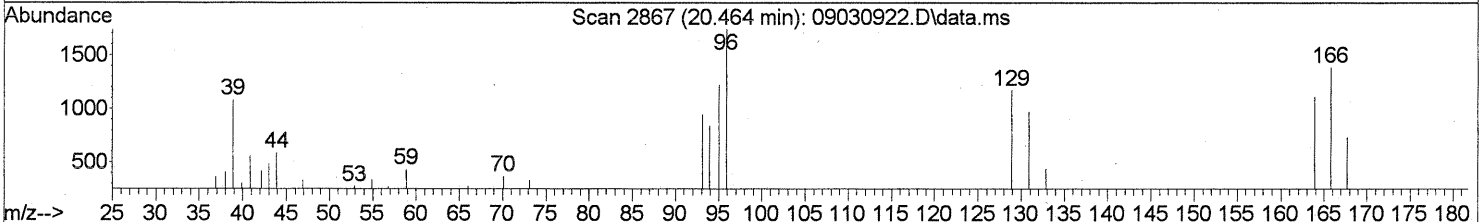
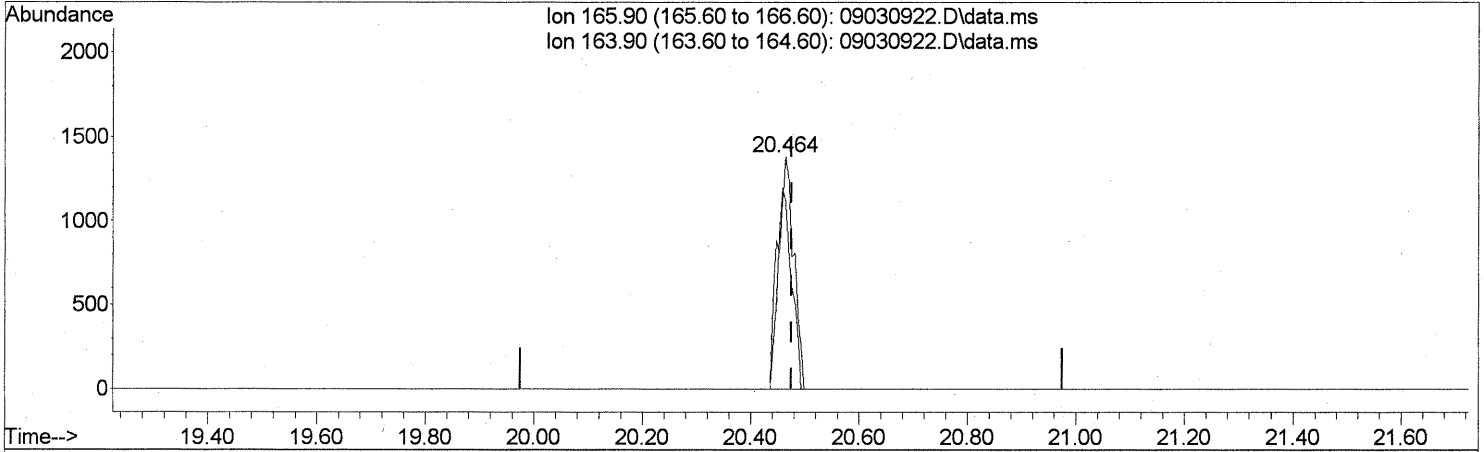
(63) n-Octane (T)  
 20.264min (-0.023) 1.41ng  
 response 20126

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	106.39
71.00	69.10	68.91
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(64) Tetrachloroethene (T)

20.464min (-0.011) 0.18ng

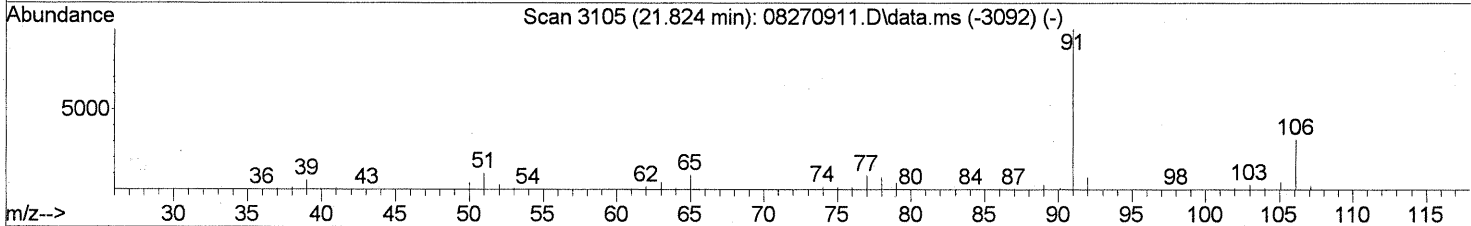
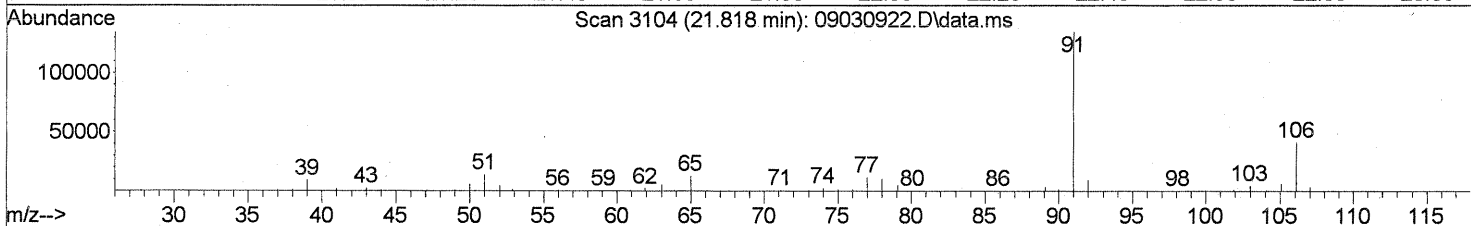
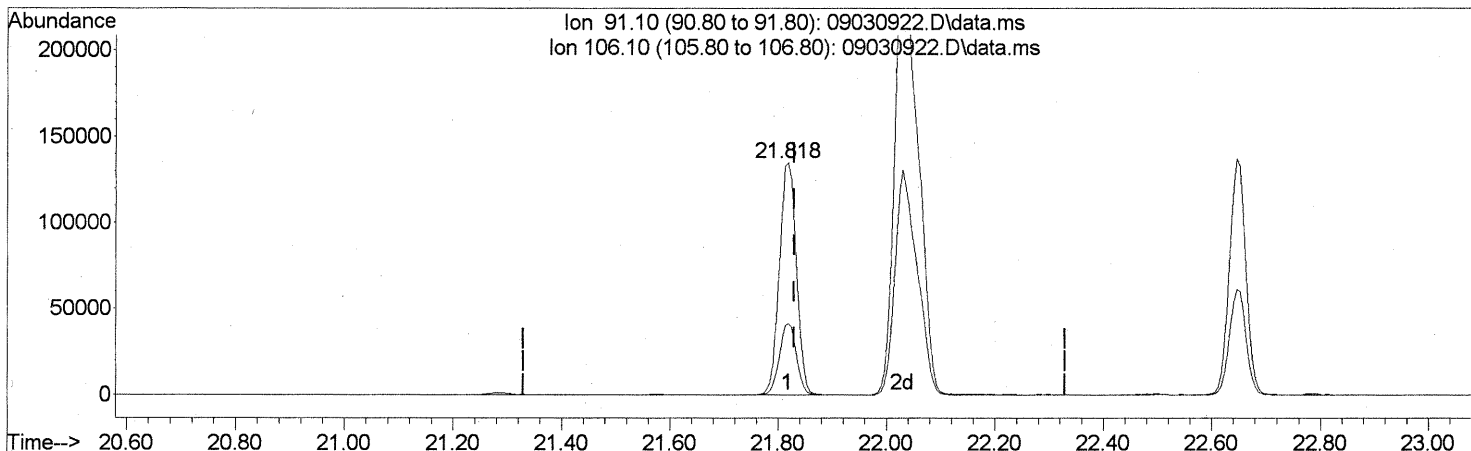
response 2827

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	75.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

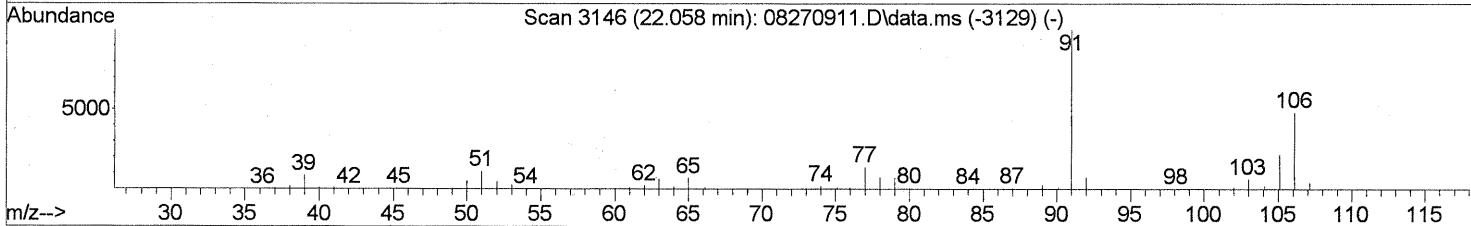
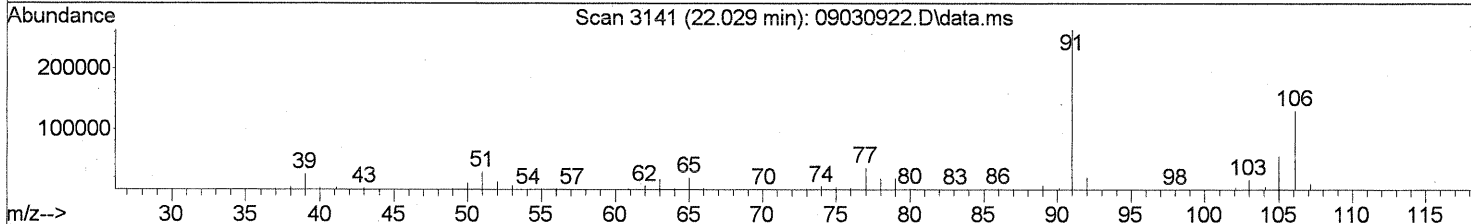
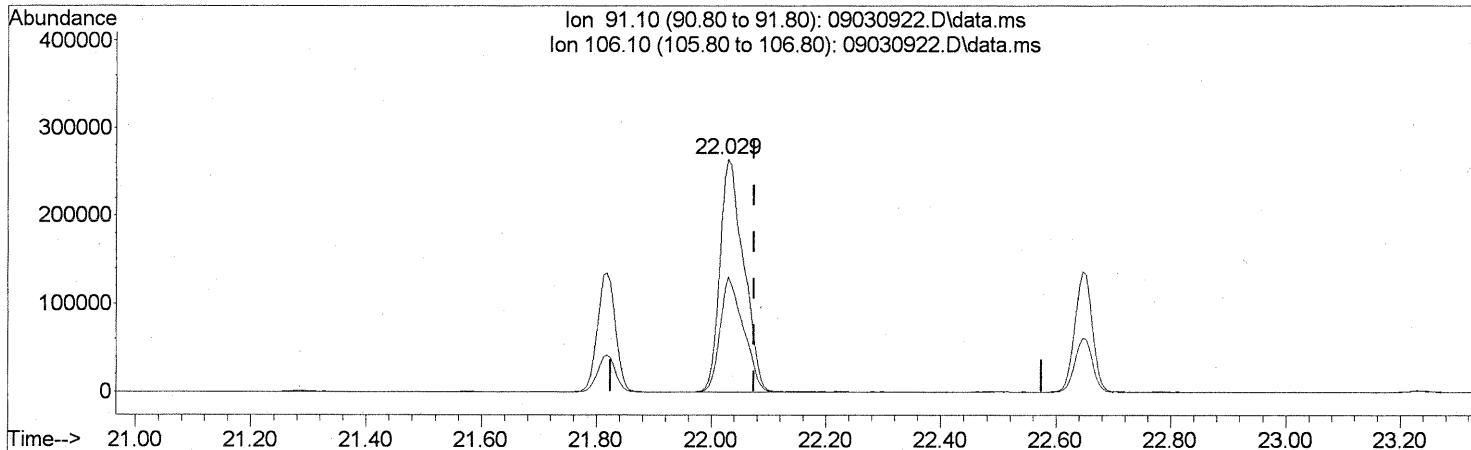
(66) Ethylbenzene (T)  
 21.818min (-0.011) 4.14ng  
 response 292323

Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

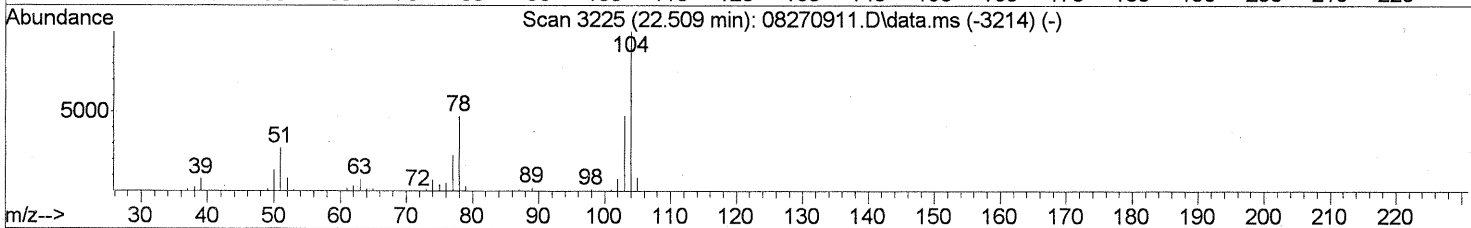
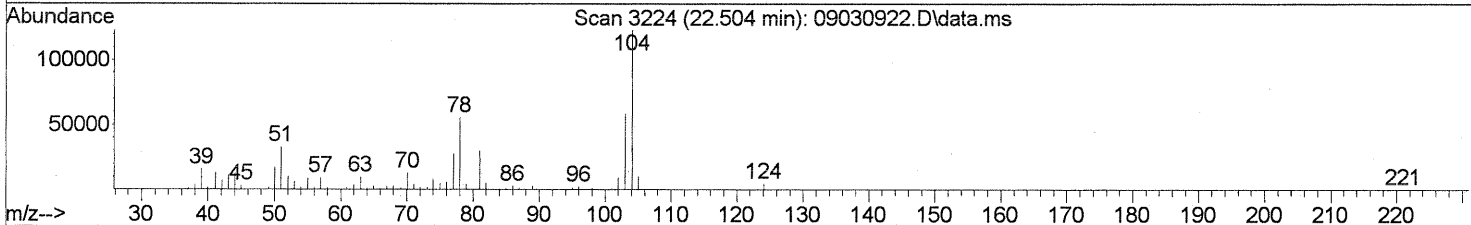
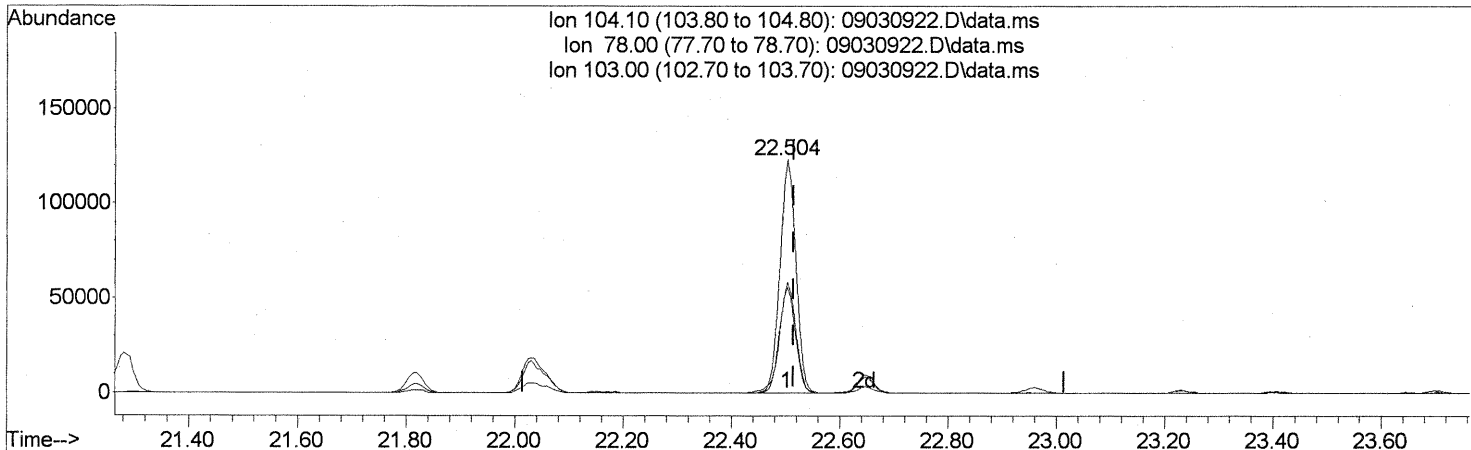
(67) m- & p-Xylenes (T)  
 22.029min (-0.046) 13.58ng  
 response 764517

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	48.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

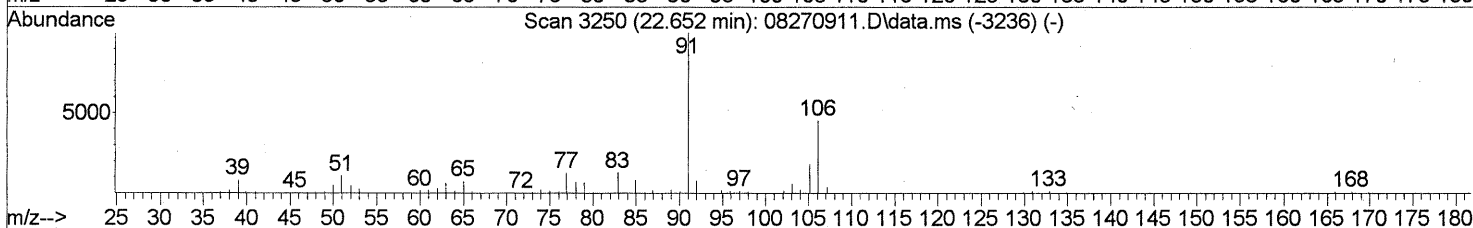
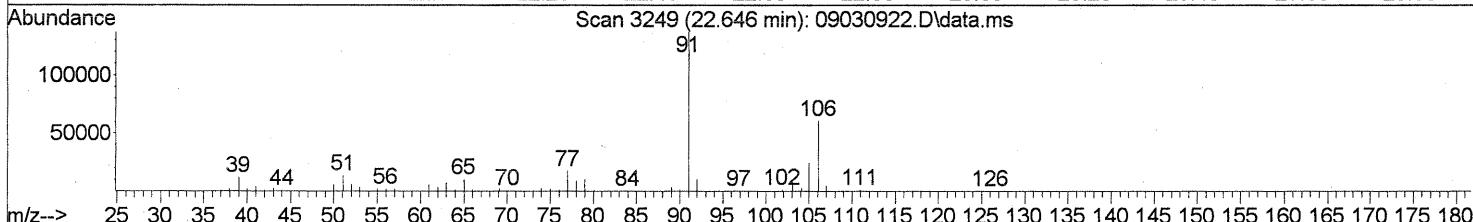
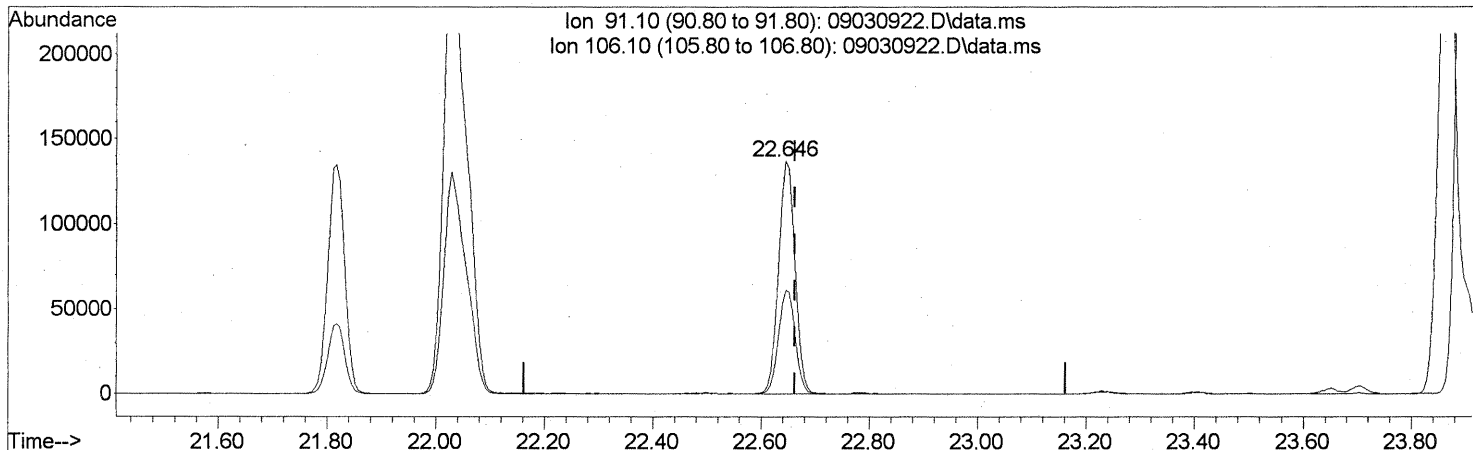
(69) Styrene (T)  
 22.504min (-0.011) 6.03ng  
 response 249745

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.74
103.00	47.00	48.82
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

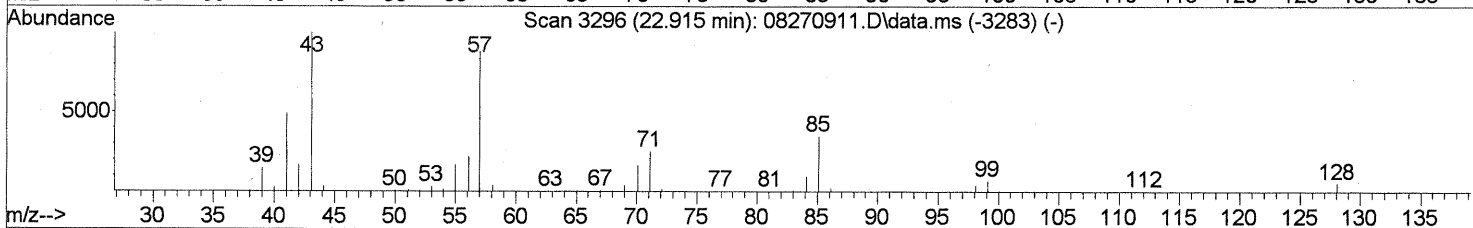
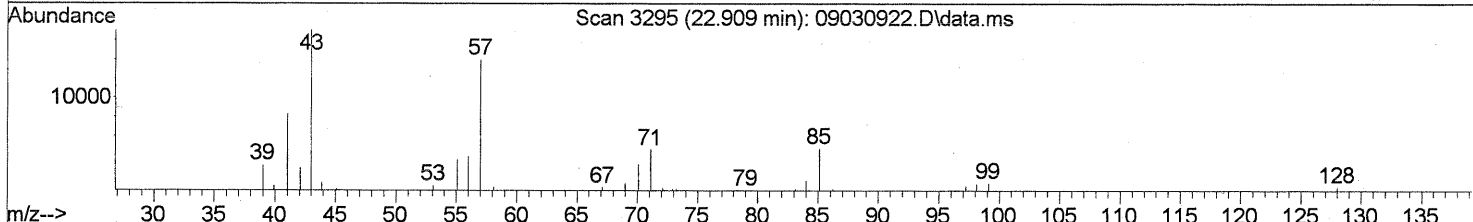
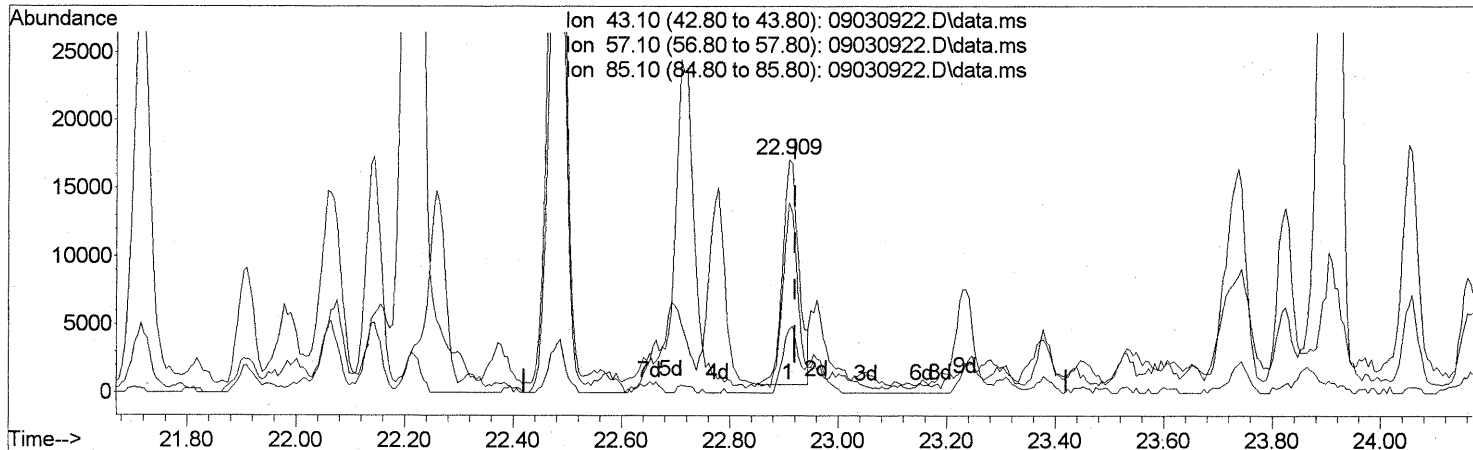
(70) o-Xylene (T)  
 22.646min (-0.017) 5.10ng  
 response 288223

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	44.87
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

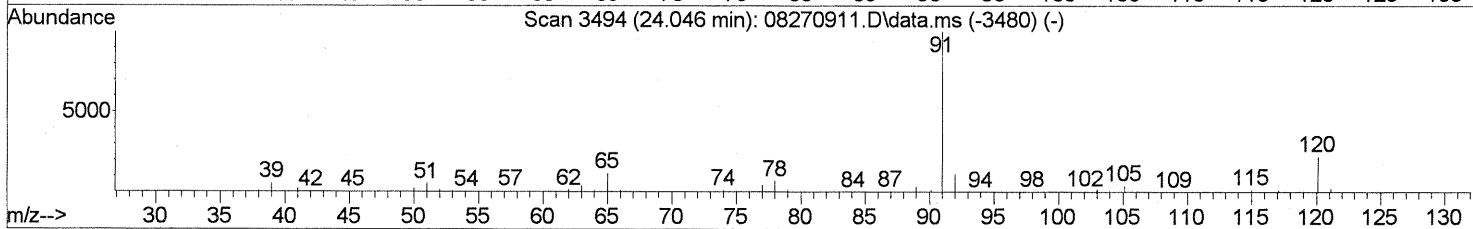
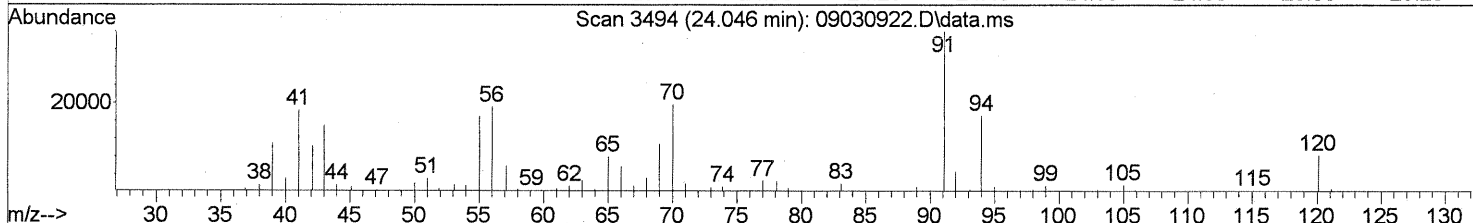
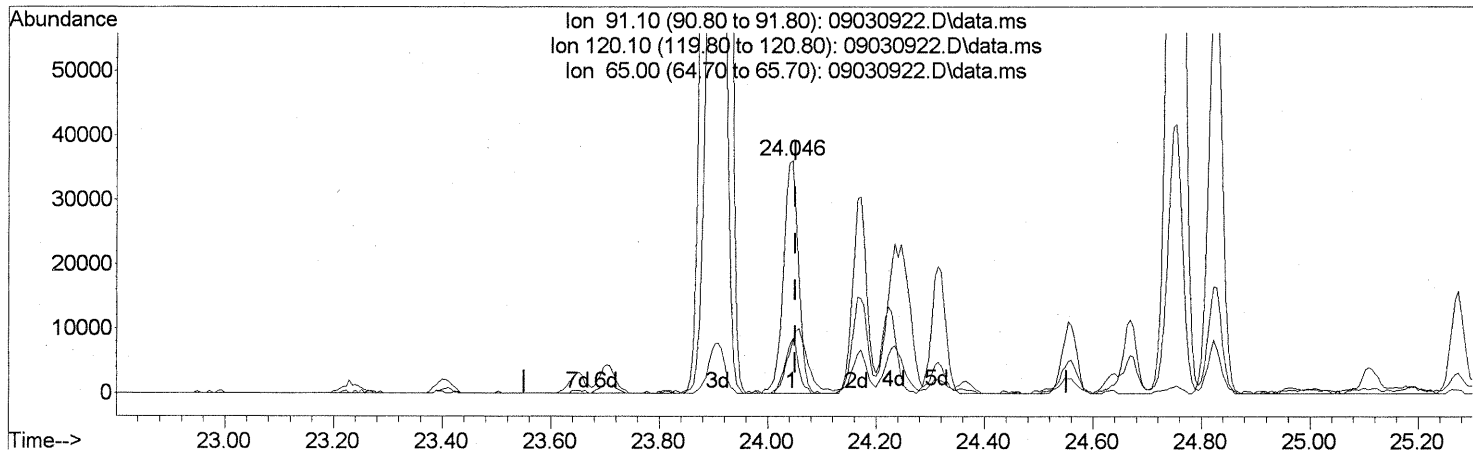
(71) n-Nonane (T)  
 22.909min (-0.011) 1.01ng  
 response 34412

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	92.37
85.10	32.20	30.84
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(76) n-Propylbenzene (T)  
 24.046min (-0.006) 0.76ng  
 response 69394

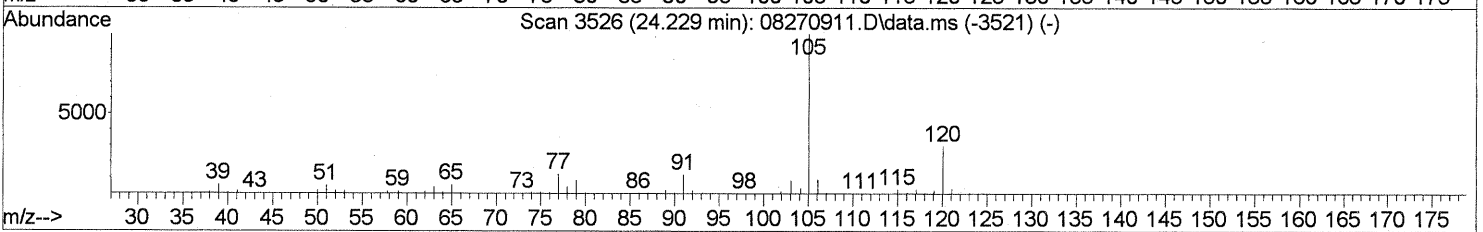
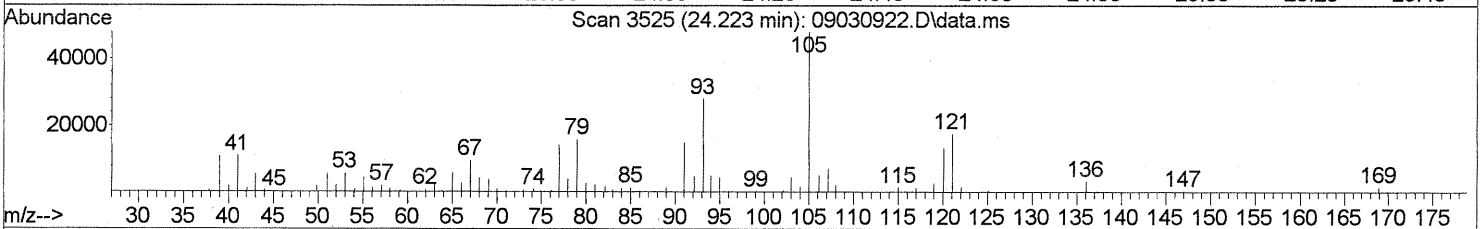
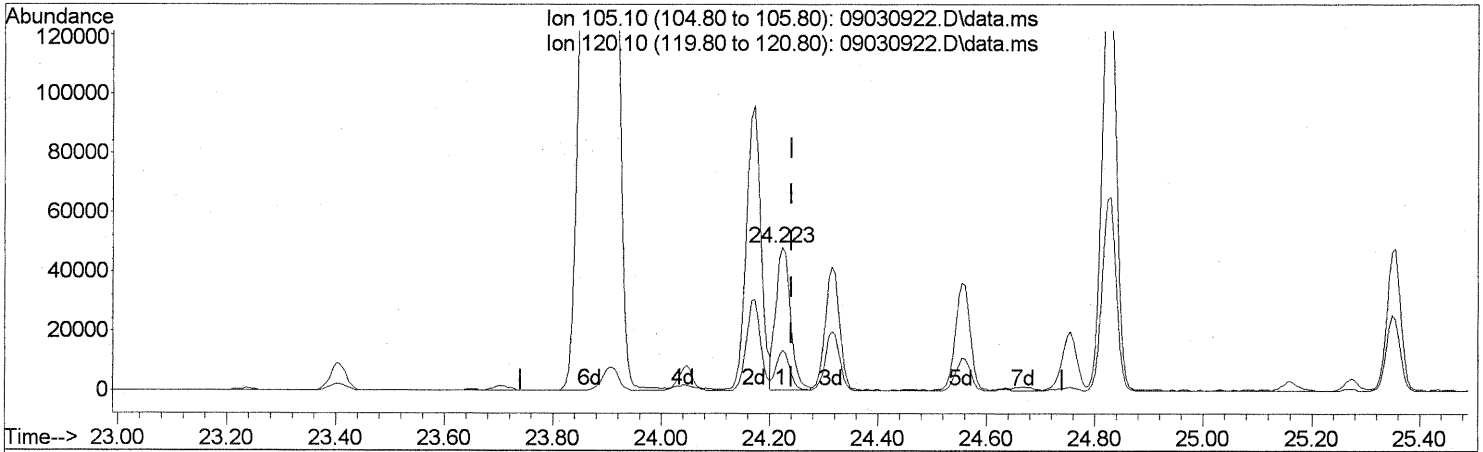
Ion	Exp%	Act%
91.10	100	100
120.10	21.80	20.87
65.00	11.80	35.68#
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

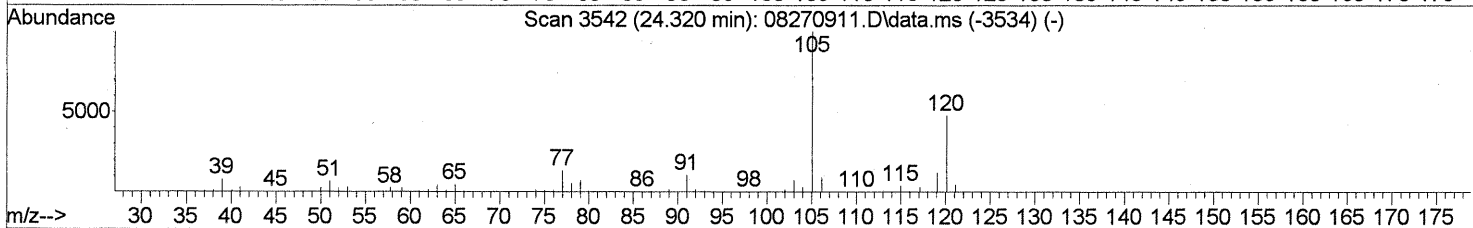
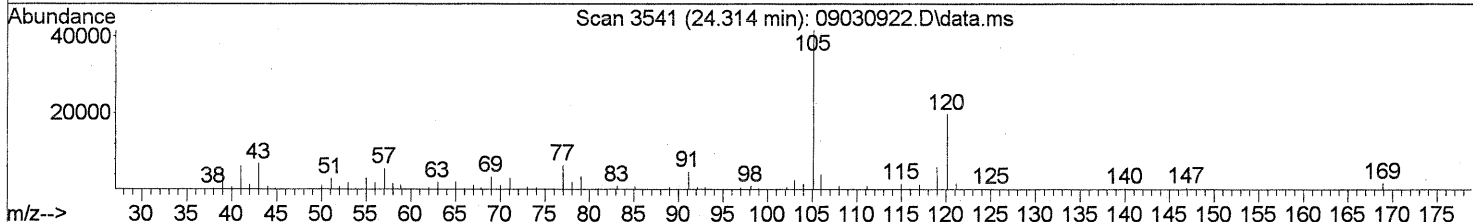
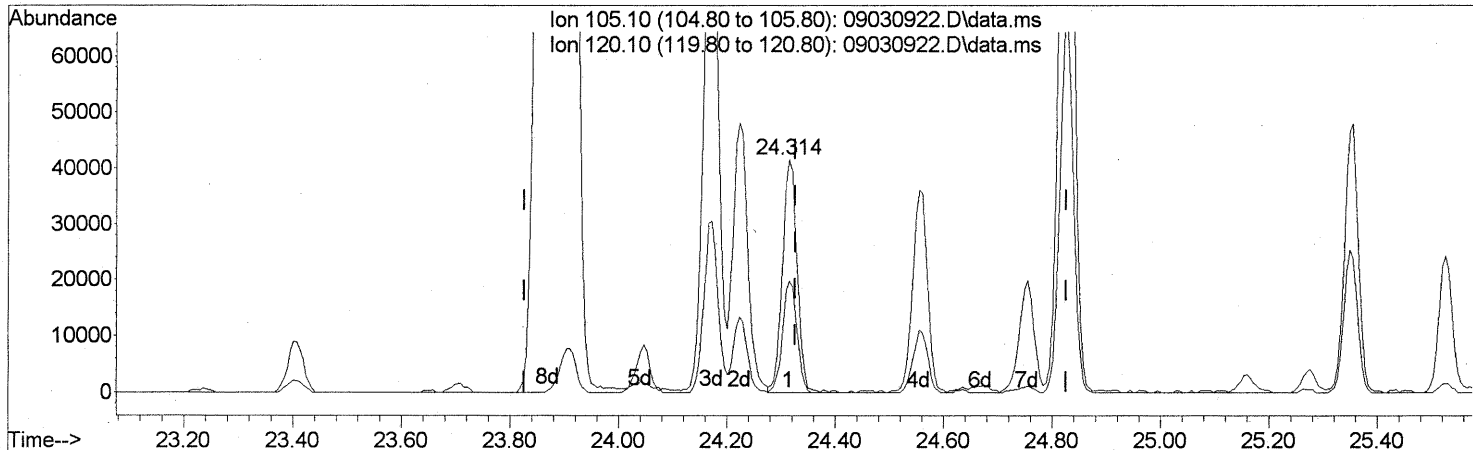
(78) 4-Ethyltoluene (T)  
 24.223min (-0.017) 1.33ng  
 response 89819

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	26.58
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(79) 1,3,5-Trimethylbenzene (T)

24.314min (-0.011) 1.36ng

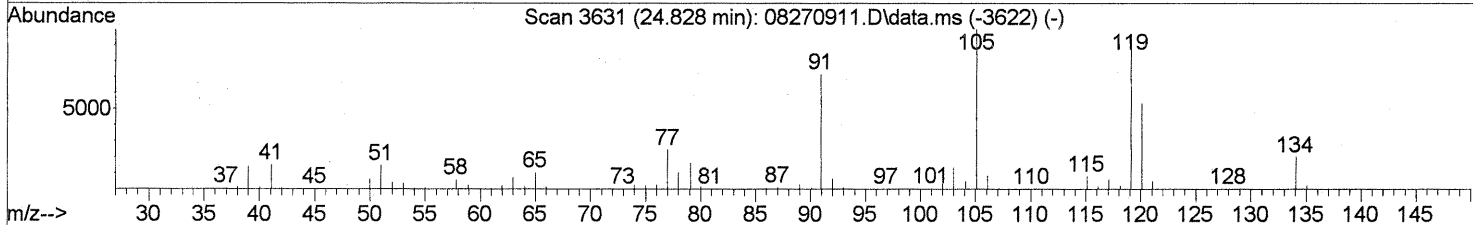
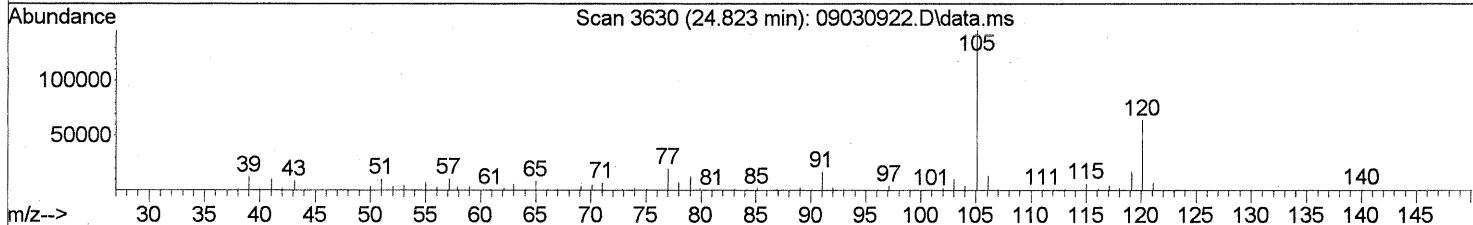
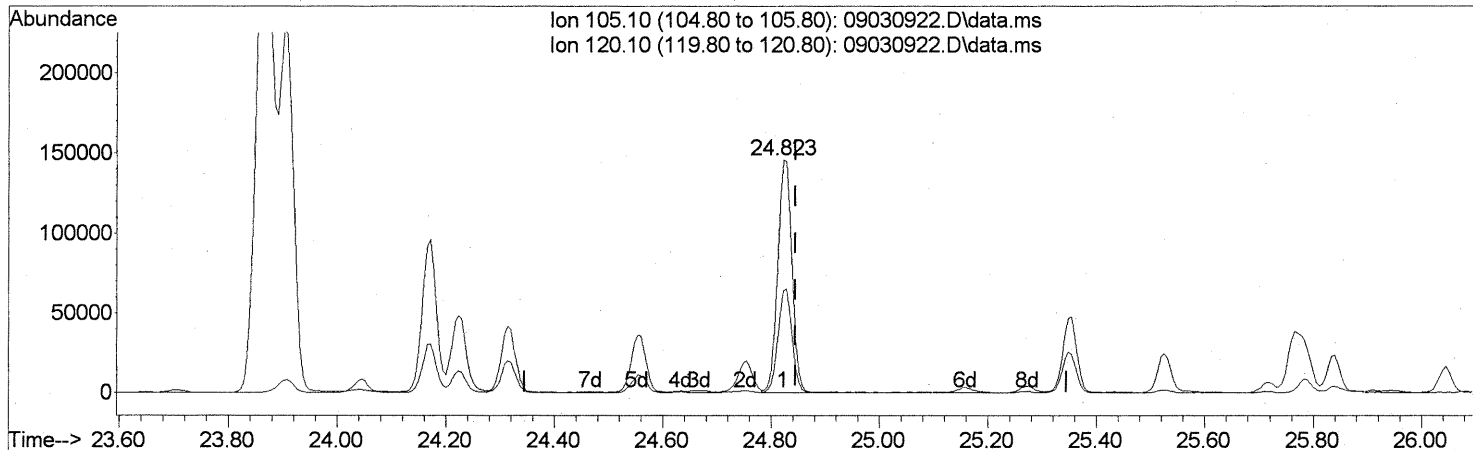
response 76362

Ion	Exp%	Act%
105.10	100	100
120.10	47.70	47.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)

24.823min (-0.023) 4.60ng

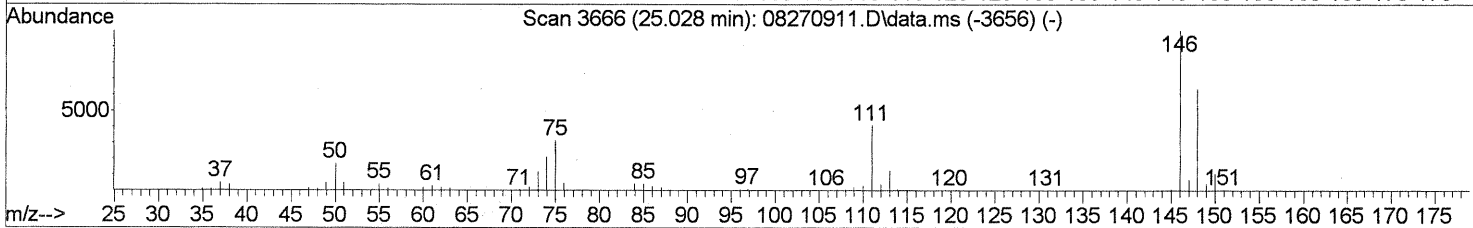
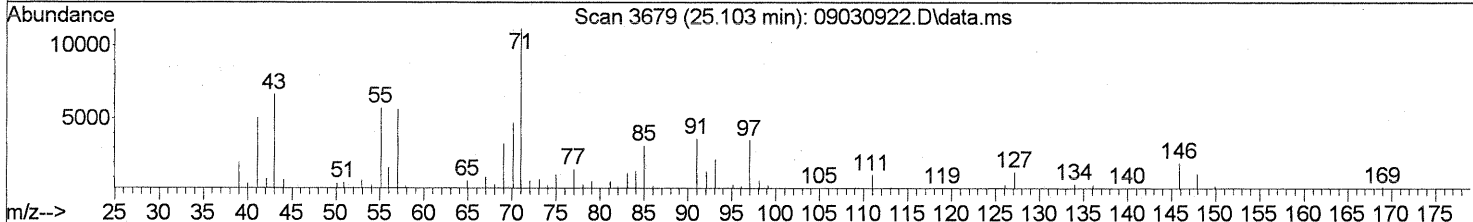
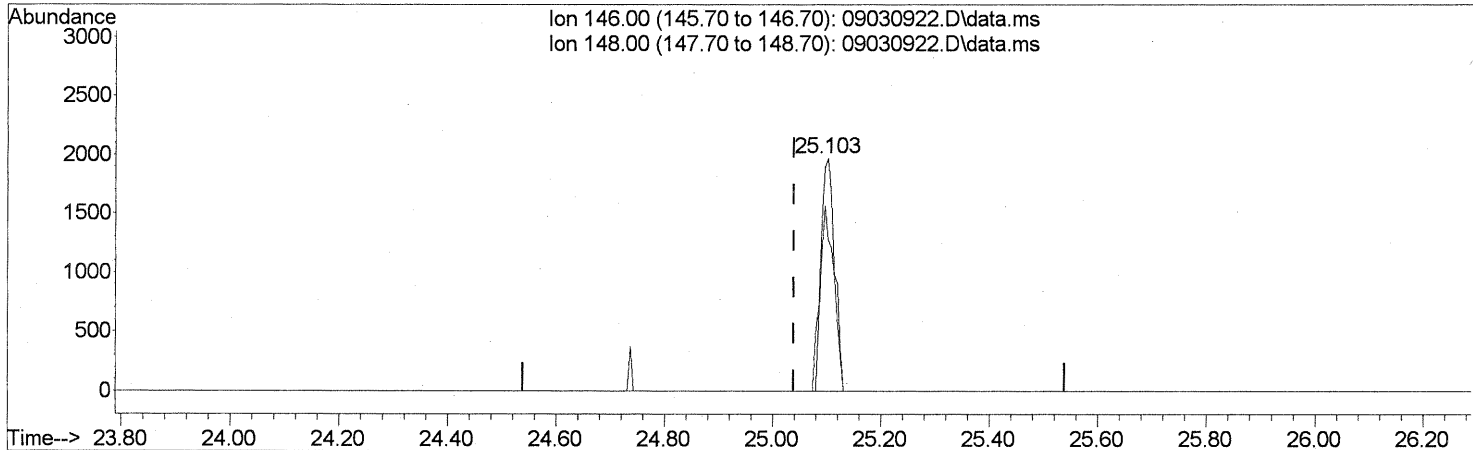
response 264621

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	43.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(85) 1,3-Dichlorobenzene (T)  
 25.103min (+0.063) 0.11ng  
 response 3563

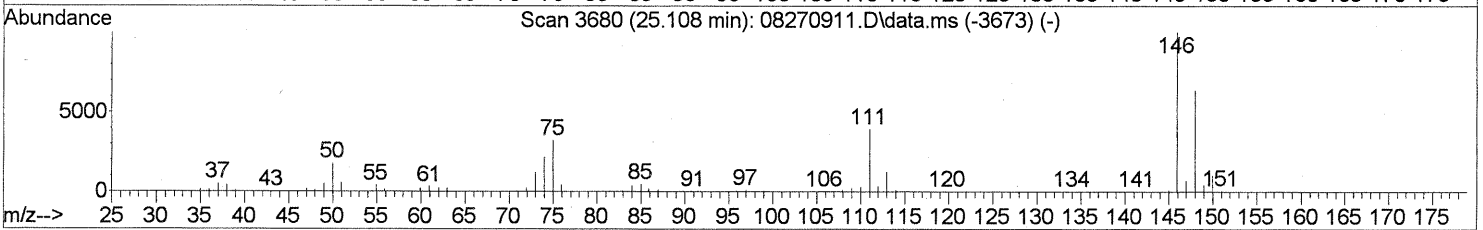
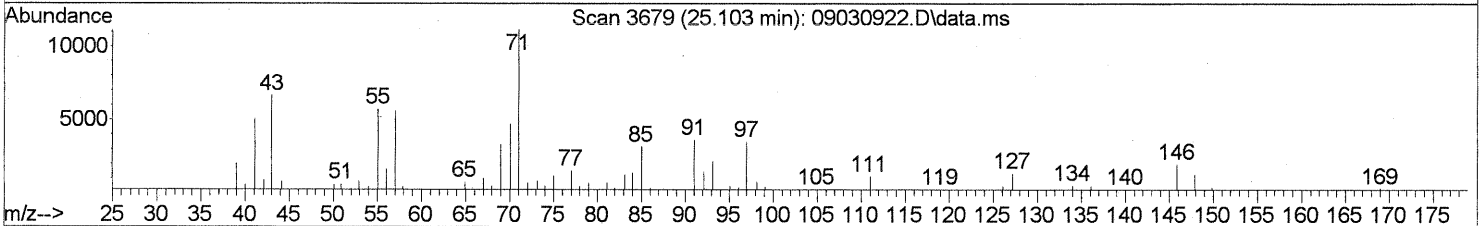
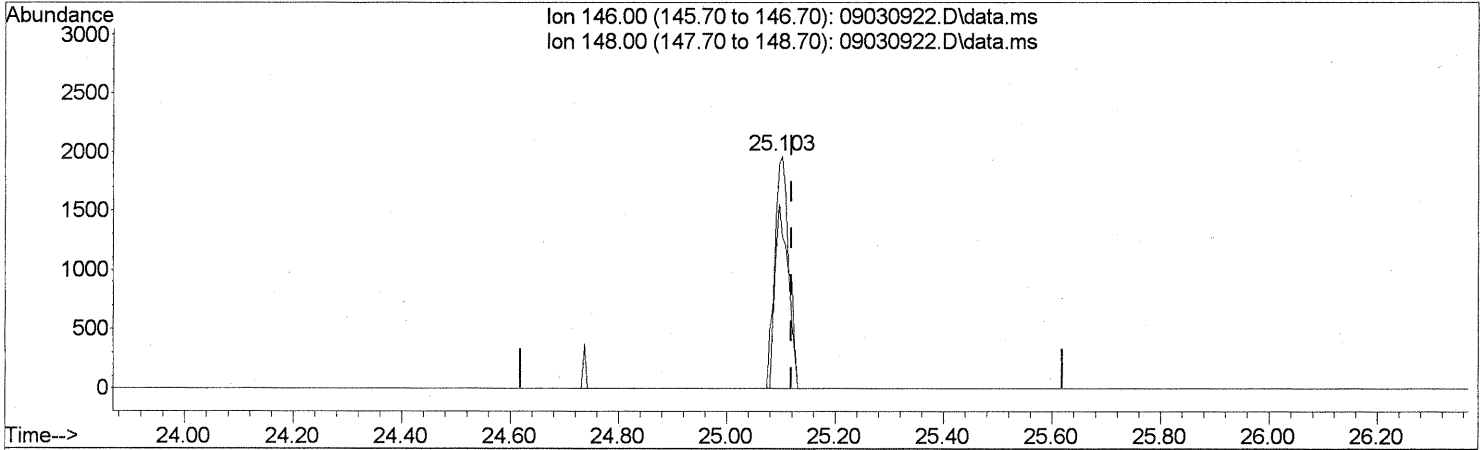
Ion	Exp%	Act%
146.00	100	100
148.00	64.00	73.67
0.00	0.00	0.00
0.00	0.00	0.00

*FP*  
*LM 9/10/09*  
*LM 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.11ng

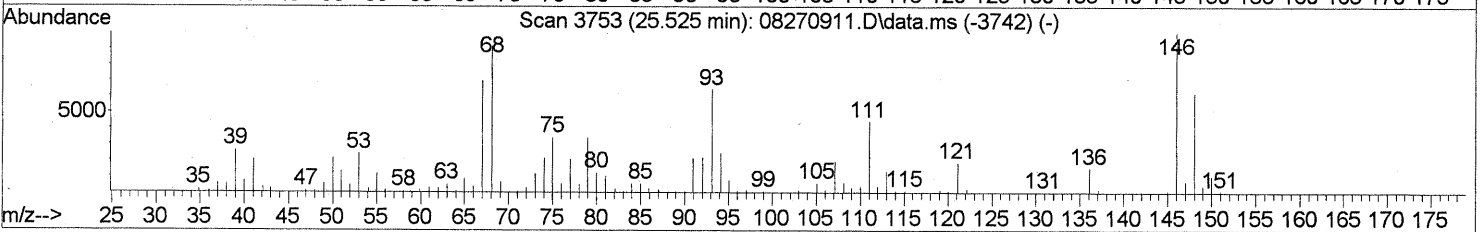
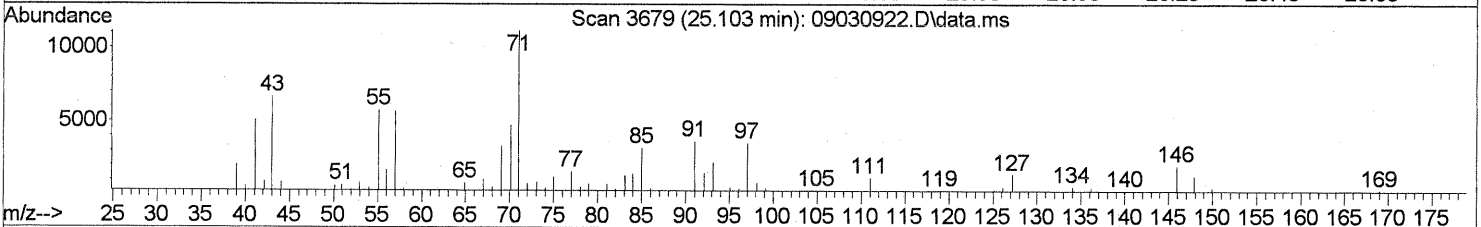
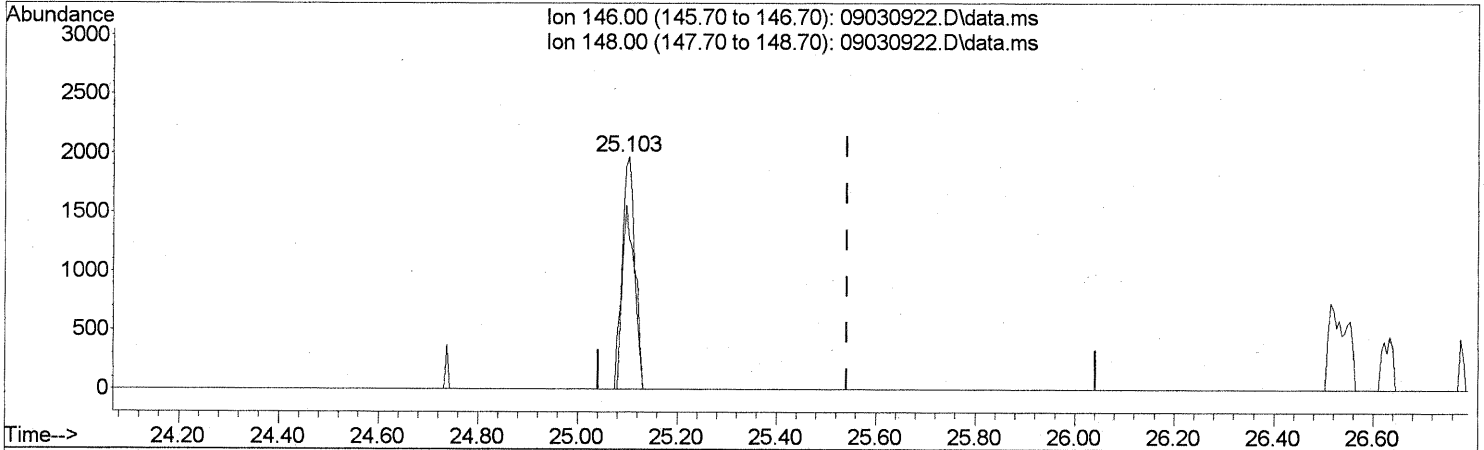
response 3563

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	73.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

(90) 1,2-Dichlorobenzene (T)

25.103min (-0.440) 0.12ng

response 3563

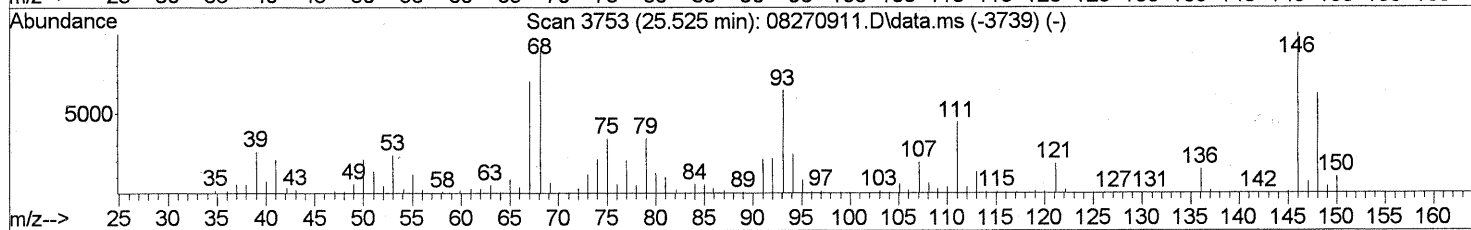
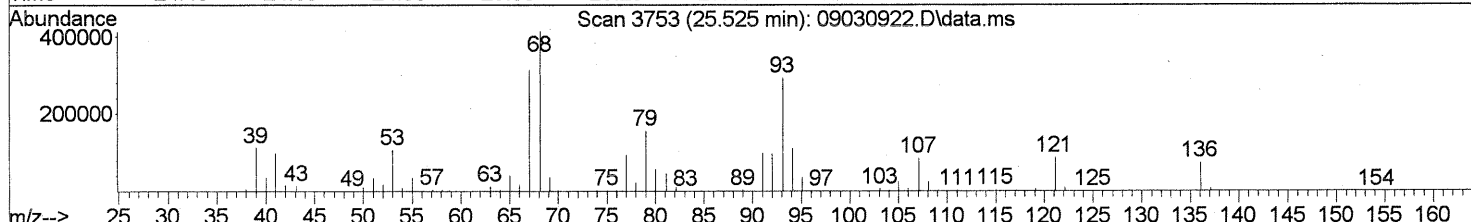
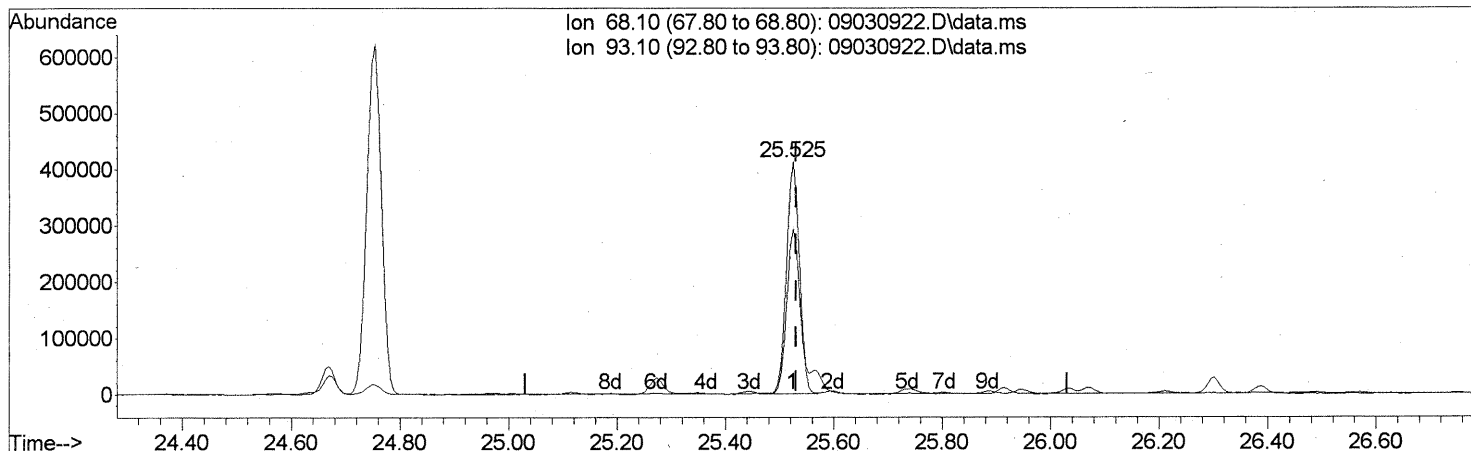
Ion	Exp%	Act%
146.00	100	100
148.00	62.80	73.67
0.00	0.00	0.00
0.00	0.00	0.00

FP  
 W 9/10/09  
 W 9/10/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

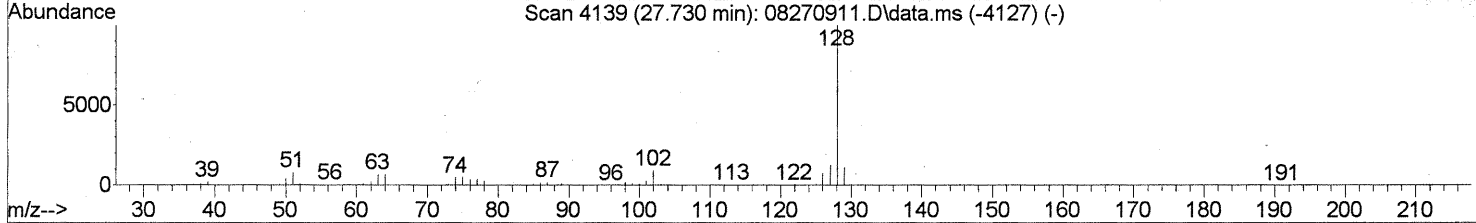
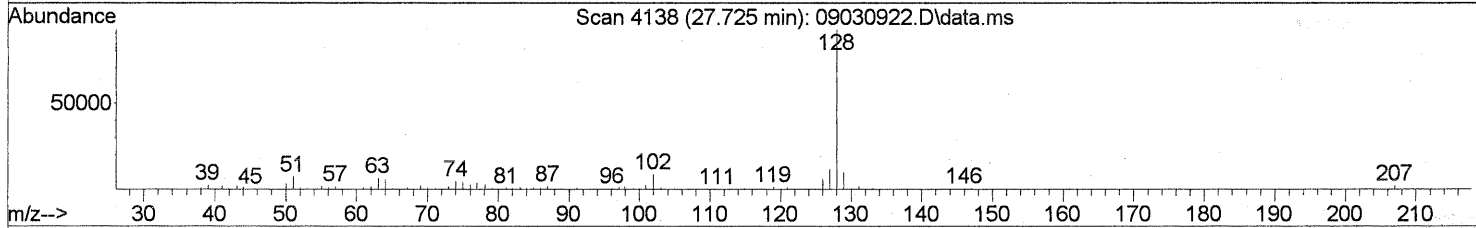
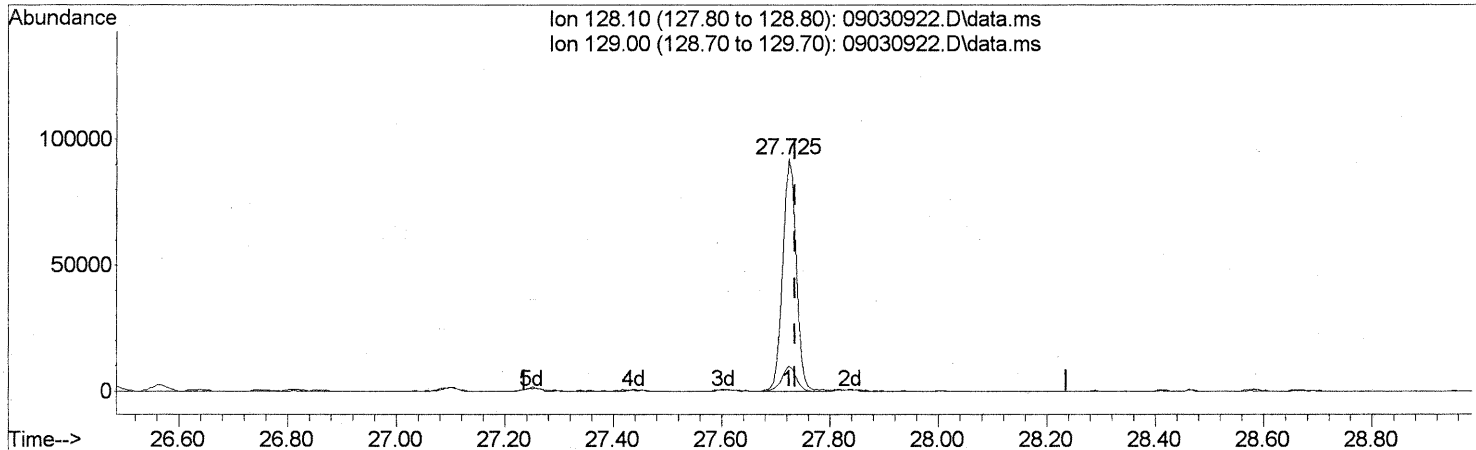
(91) d-Limonene (T)  
 25.525min (-0.006) 29.79ng  
 response 683413

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	83.11
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030922.D  
 Acq On : 4 Sep 2009 1:10  
 Operator : LM/CC  
 Sample : P0903021-004 (1000ml)  
 Misc : EH&E 104273  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 04 08:53:21 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030922.D\data.ms

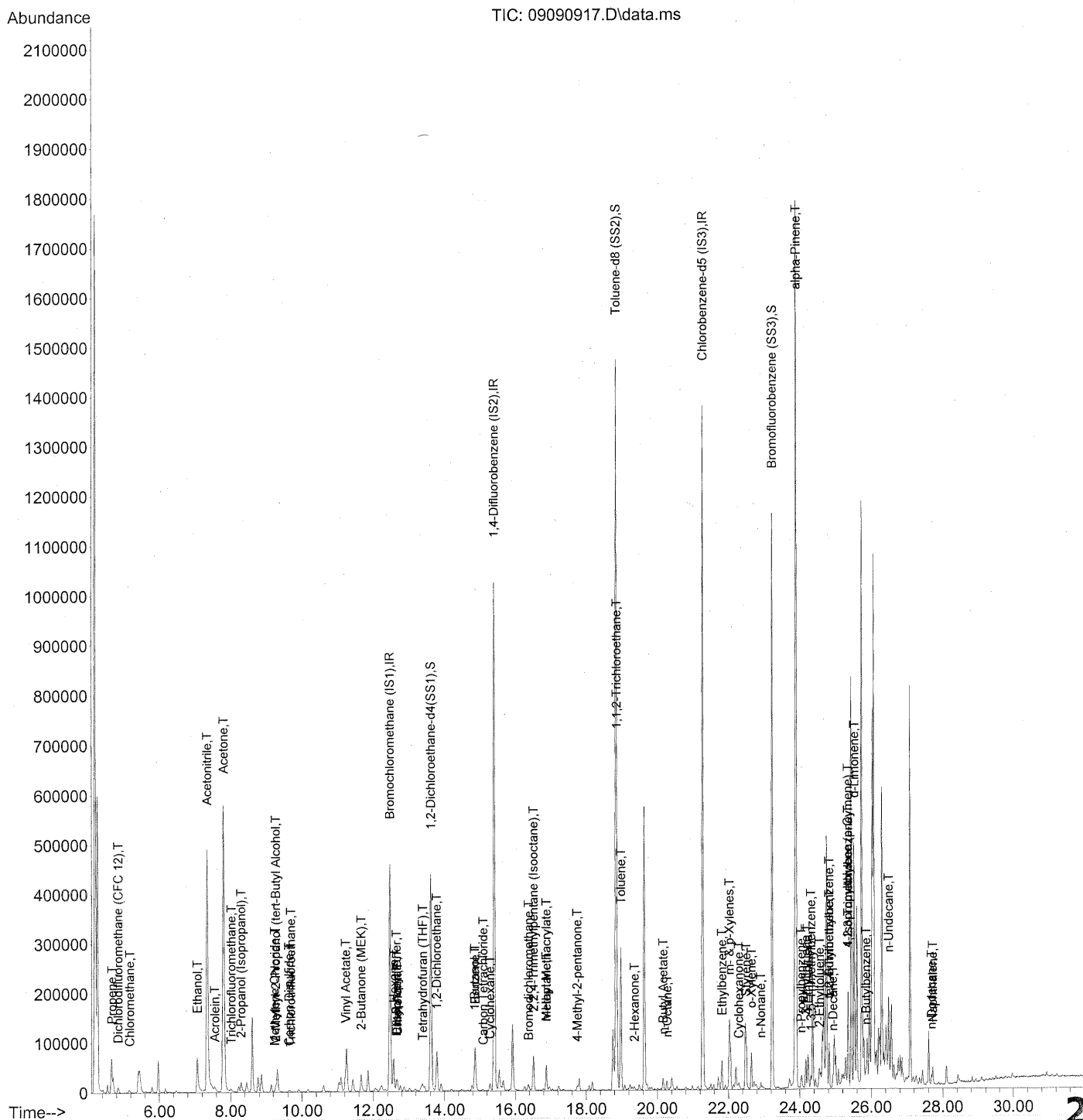
(95) Naphthalene (T)  
 27.725min (-0.011) 2.03ng  
 response 161537

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	11.32
0.00	0.00	0.00
0.00	0.00	0.00



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 8:46 pm  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 8:46 pm  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*in 9/10/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	235281	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1169371	25.000	ng	-0.03
56) Chlorobenzene-d5 (IS3)	21.28	82	570256	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	447584	24.006	ng	-0.03
Spiked Amount	25.000		Recovery	=	96.04%	✓
57) Toluene-d8 (SS2)	18.84	98	1267202	24.865	ng	-0.02
Spiked Amount	25.000		Recovery	=	99.44%	✓
73) Bromofluorobenzene (SS3)	23.23	174	377803	25.758	ng	-0.01
Spiked Amount	25.000		Recovery	=	103.04%	✓

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	11107	0.653	ng	# 80
3) Dichlorodifluoromethan...	4.84	85	10896	0.366	ng	98
4) Chloromethane	5.17	50	5150	0.257	ng	89
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.06	45	148992	14.118	ng	97
11) Acetonitrile	7.34	41	850756	29.023	ng	99
12) Acrolein	7.55	56	10369	1.287	ng	95
13) Acetone	7.79	58	250363	22.940	ng	87
14) Trichlorofluoromethane	8.01	101	5050	0.192	ng	96
15) 2-Propanol (Isopropanol)	8.29	45	40486	1.116	ng	99
16) Acrylonitrile	8.55	53	86	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.26	59	9886	0.272	ng	# 78
19) Methylene Chloride	9.24	84	1183	0.085	ng	87
20) 3-Chloro-1-propene (Al...	9.40	41	99	N.D.		
21) Trichlorotrifluoroethane	9.68	151	843	0.081	ng	95
22) Carbon Disulfide	9.63	76	7935	0.161	ng	81
23) trans-1,2-Dichloroethene	10.56	61	92	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.23	86	9081	3.320	ng	# 1
27) 2-Butanone (MEK)	11.66	72	16285	1.847	ng	95
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	12.66	87	719	0.056	ng	# 1
30) Ethyl Acetate	12.66	61	1909	0.403	ng	99
31) n-Hexane	12.58	57	40319	1.709	ng	99

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 8:46 pm  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	17397	0.748	ng	96
34) Tetrahydrofuran (THF)	13.39	72	4895	0.512	ng #	52
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.78	62	53678	2.750	ng	98
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	14.84	61	86	N.D.		
40) 1-Butanol	14.85	56	31801	2.185	ng #	35
41) Benzene	14.87	78	80540	1.465	ng	99
42) Carbon Tetrachloride	15.09	117	1569	0.085	ng	99
43) Cyclohexane	15.29	84	7801	0.385	ng	97
44) tert-Amyl Methyl Ether	15.83	73	1156	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	16.37	83	4457	0.246	ng #	71
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.51	57	79213	1.266	ng	93
50) Methyl Methacrylate	16.87	100	4262	0.836	ng #	1
51) n-Heptane	16.87	71	15069	1.058	ng	97
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	2360	0.188	ng	70
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.86	97	107679	8.406	ng #	6
58) Toluene	18.98	91	249327	4.542	ng	99
59) 2-Hexanone	19.36	43	6798	0.203	ng	95
60) Dibromochloromethane	19.53	129	227	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.17	43	21859	0.568	ng	95
63) n-Octane	20.28	57	3650	0.289	ng	99
64) Tetrachloroethene	20.45	166	322	N.D.		
65) Chlorobenzene	21.36	112	184	N.D.		
66) Ethylbenzene	21.82	91	53469	0.852	ng	100
67) m- & p-Xylenes	22.03	91	141754	2.836	ng	99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	45818	1.245	ng	97
70) o-Xylene	22.65	91	52522	1.046	ng	97
71) n-Nonane	22.91	43	8184	0.271	ng	83
72) 1,1,2,2-Tetrachloroethane	22.71	83	208	N.D.		
74) Cumene	23.41	105	3177	N.D.		
75) alpha-Pinene	23.90	93	847232	25.670	ng	98
76) n-Propylbenzene	24.04	91	13312	0.165	ng #	89
77) 3-Ethyltoluene	24.17	105	34031	0.559	ng	98
78) 4-Ethyltoluene	24.22	105	16703	0.278	ng	97
79) 1,3,5-Trimethylbenzene	24.31	105	13914	0.278	ng	99

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 8:46 pm  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

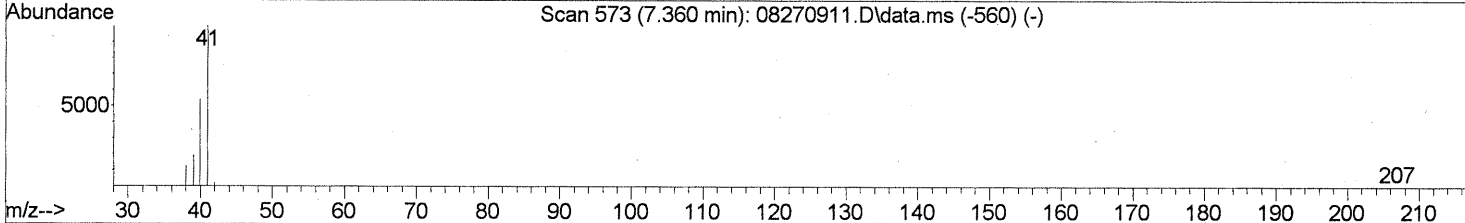
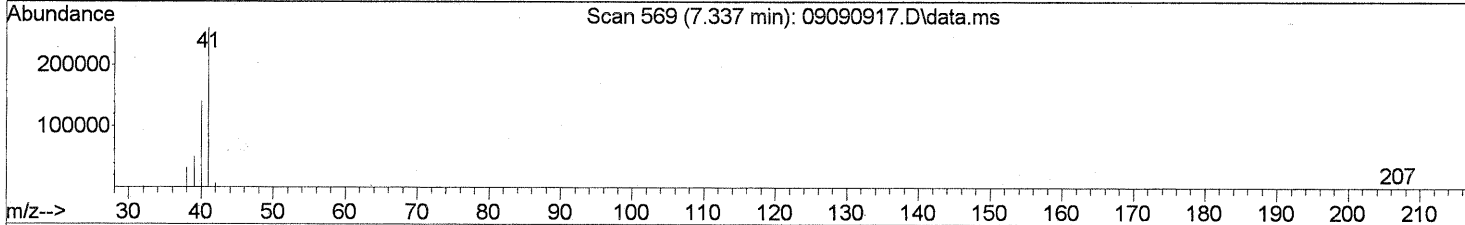
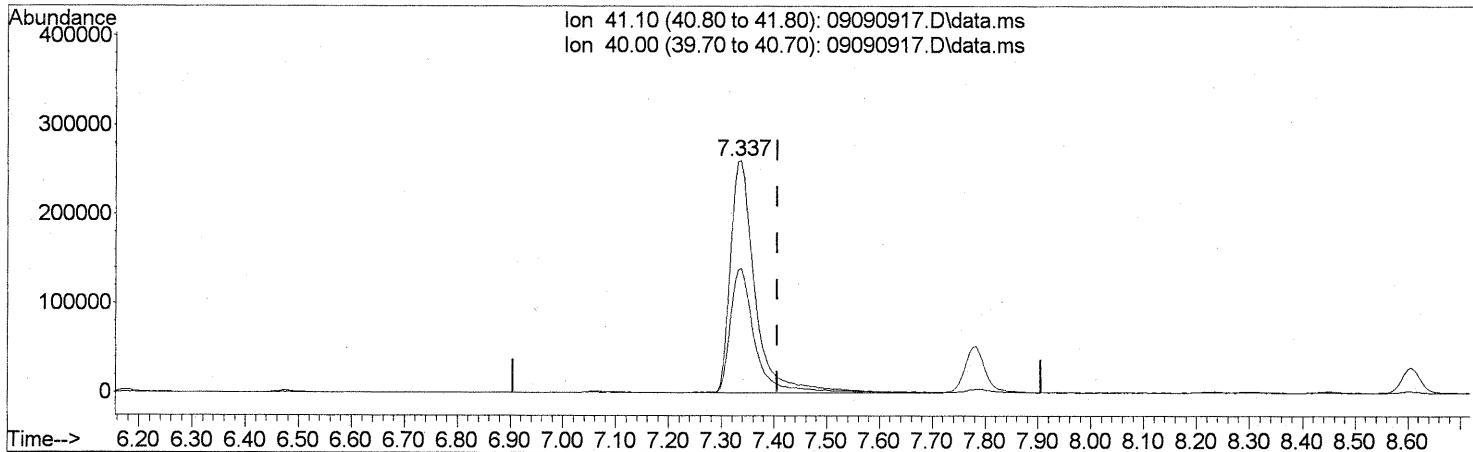
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.50	118	186	N.D.		
81) 2-Ethyltoluene	24.55	105	12946	0.207	ng	97
82) 1,2,4-Trimethylbenzene	24.82	105	48973	0.959	ng	87
83) n-Decane	24.93	57	7725	0.253	ng #	42
84) Benzyl Chloride	24.98	91	180	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	689	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	689	N.D.		
87) sec-Butylbenzene	25.15	105	1099	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	24311	0.387	ng	98
89) 1,2,3-Trimethylbenzene	25.35	105	17270	0.323	ng	97
90) 1,2-Dichlorobenzene	25.10	146	689	N.D.		
91) d-Limonene	25.53	68	125347	6.152	ng	87
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	27422	0.867	ng #	1
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.72	128	29451	0.417	ng	97
96) n-Dodecane	27.69	57	7065	0.196	ng	90
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	7313	0.346	ng #	89
99) tert-Butylbenzene	24.82	119	5678	0.115	ng #	56
100) n-Butylbenzene	25.85	91	7654	0.135	ng #	45

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 20:46  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090917.D\data.ms

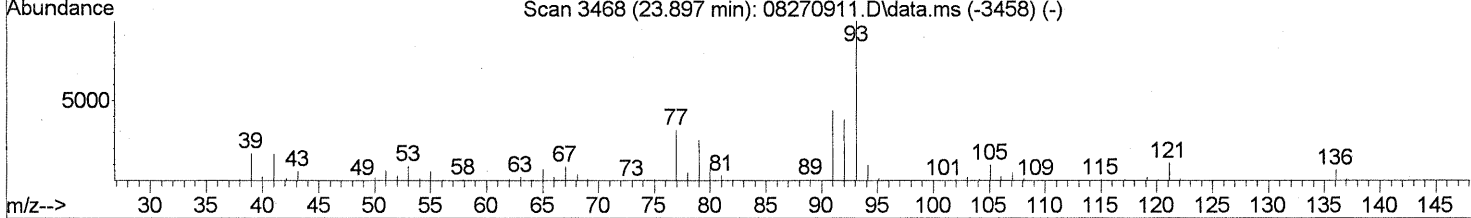
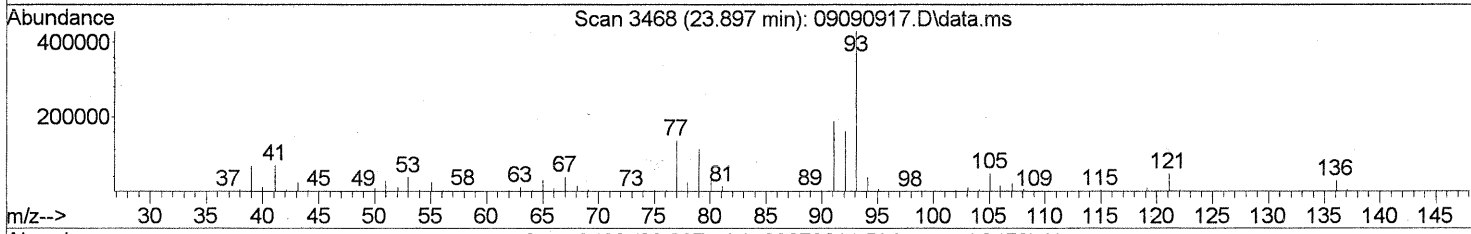
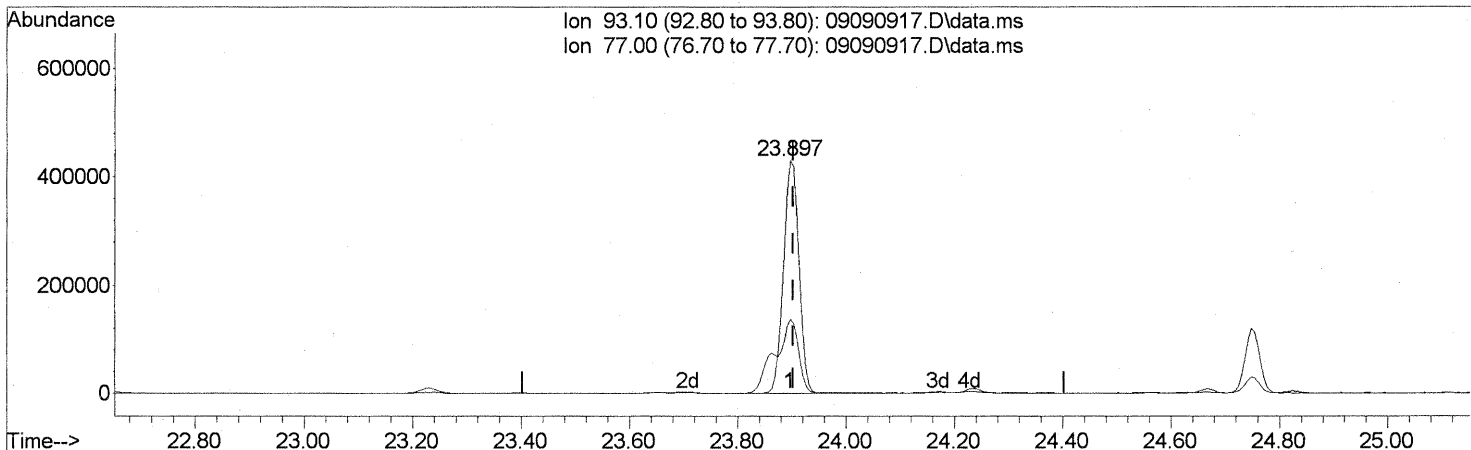
(11) Acetonitrile (T)  
 7.337min (-0.069) 29.02ng  
 response 850756

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090917.D  
 Acq On : 9 Sep 2009 20:46  
 Operator : LM/CC  
 Sample : P0903021-004dil (200ml)  
 Misc : EH&E 104273  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 10 08:30:10 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09090917.D\data.ms

(75) alpha-Pinene (T)  
 23.897min (-0.006) 25.67ng  
 response 847232

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	31.92
0.00	0.00	0.00
0.00	0.00	0.00

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104274  
**Client Project ID:** 16512  
**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC00666

**CAS Project ID:** P0903021  
**CAS Sample ID:** P0903021-005  
**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Initial Pressure (psig): -2.9      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.54

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	2.5	0.77	1.4	0.45	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.1	0.77	0.42	0.16	
74-87-3	Chloromethane	0.77	0.15	0.37	0.075	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.77	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.060	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.070	
74-83-9	Bromomethane	ND	0.15	ND	0.040	
75-00-3	Chloroethane	ND	0.15	ND	0.058	
64-17-5	Ethanol	92	7.7	49	4.1	
75-05-8	Acetonitrile	180	0.77	110	0.46	E
107-02-8	Acrolein	6.9	0.77	3.0	0.34	
67-64-1	Acetone	150	7.7	63	3.2	
75-69-4	Trichlorofluoromethane	1.2	0.15	0.22	0.027	
67-63-0	2-Propanol (Isopropyl Alcohol)	8.5	0.77	3.5	0.31	
107-13-1	Acrylonitrile	ND	0.77	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.039	
75-09-2	Methylene Chloride	ND	0.77	ND	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.049	
76-13-1	Trichlorotrifluoroethane	0.48	0.15	0.063	0.020	
75-15-0	Carbon Disulfide	1.0	0.77	0.34	0.25	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.039	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.038	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.043	
108-05-4	Vinyl Acetate	ND	7.7	ND	2.2	
78-93-3	2-Butanone (MEK)	9.7	0.77	3.3	0.26	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

E = Estimated; concentration exceeded calibration range.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/4/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104274  
**Client Project ID:** 16512

Test Code: EPA TO-15  
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
Analyst: Liliana Marghitoiu  
Sampling Media: 6.0 L Summa Canister  
Test Notes:  
Container ID: AC00666

CAS Project ID: P0903021  
CAS Sample ID: P0903021-005

Date Collected: 8/26/09  
Date Received: 8/28/09  
Date Analyzed: 9/4/09  
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.9      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.54

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.15	ND	0.039	
141-78-6	Ethyl Acetate	3.0	0.77	0.82	0.21	
110-54-3	n-Hexane	9.9	0.77	2.8	0.22	
67-66-3	Chloroform	4.5	0.15	0.92	0.032	
109-99-9	Tetrahydrofuran (THF)	2.4	0.77	0.82	0.26	
107-06-2	1,2-Dichloroethane	16	0.15	4.0	0.038	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.028	
71-43-2	Benzene	8.7	0.15	2.7	0.048	
56-23-5	Carbon Tetrachloride	0.50	0.15	0.079	0.024	
110-82-7	Cyclohexane	2.4	0.77	0.69	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.033	
75-27-4	Bromodichloromethane	1.5	0.15	0.22	0.023	
79-01-6	Trichloroethene	ND	0.15	ND	0.029	
123-91-1	1,4-Dioxane	ND	0.77	ND	0.21	
80-62-6	Methyl Methacrylate	ND	0.77	ND	0.19	
142-82-5	n-Heptane	6.5	0.77	1.6	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	1.2	0.77	0.29	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.77	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.028	
108-88-3	Toluene	28	0.77	7.4	0.20	
591-78-6	2-Hexanone	1.2	0.77	0.30	0.19	
124-48-1	Dibromochloromethane	0.28	0.15	0.033	0.018	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.020	
123-86-4	n-Butyl Acetate	3.9	0.77	0.82	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

*9/11/09*

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**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** 104274  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P0903021-005

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**  
**Container ID:** AC00666

**Date Collected:** 8/26/09  
**Date Received:** 8/28/09  
**Date Analyzed:** 9/4/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Initial Pressure (psig): -2.9      Final Pressure (psig): 3.5

Canister Dilution Factor: 1.54

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	2.3	0.77	0.50	0.16	
127-18-4	Tetrachloroethene	0.25	0.15	0.037	0.023	
108-90-7	Chlorobenzene	ND	0.15	ND	0.033	
100-41-4	Ethylbenzene	5.3	0.77	1.2	0.18	
179601-23-1	m,p-Xylenes	17	0.77	4.0	0.18	
75-25-2	Bromoform	ND	0.77	ND	0.075	
100-42-5	Styrene	7.5	0.77	1.8	0.18	
95-47-6	o-Xylene	6.4	0.77	1.5	0.18	
111-84-2	n-Nonane	1.3	0.77	0.25	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.77	ND	0.16	
80-56-8	alpha-Pinene	140	0.77	25	0.14	
103-65-1	n-Propylbenzene	0.99	0.77	0.20	0.16	
622-96-8	4-Ethyltoluene	1.6	0.77	0.34	0.16	
108-67-8	1,3,5-Trimethylbenzene	1.7	0.77	0.35	0.16	
95-63-6	1,2,4-Trimethylbenzene	5.8	0.77	1.2	0.16	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.030	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.026	
106-46-7	1,4-Dichlorobenzene	0.22	0.15	0.036	0.026	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.026	
5989-27-5	d-Limonene	39	0.77	7.1	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.77	ND	0.080	
120-82-1	1,2,4-Trichlorobenzene	ND	0.77	ND	0.10	
91-20-3	Naphthalene	2.4	0.77	0.46	0.15	
87-68-3	Hexachlorobutadiene	ND	0.77	ND	0.072	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

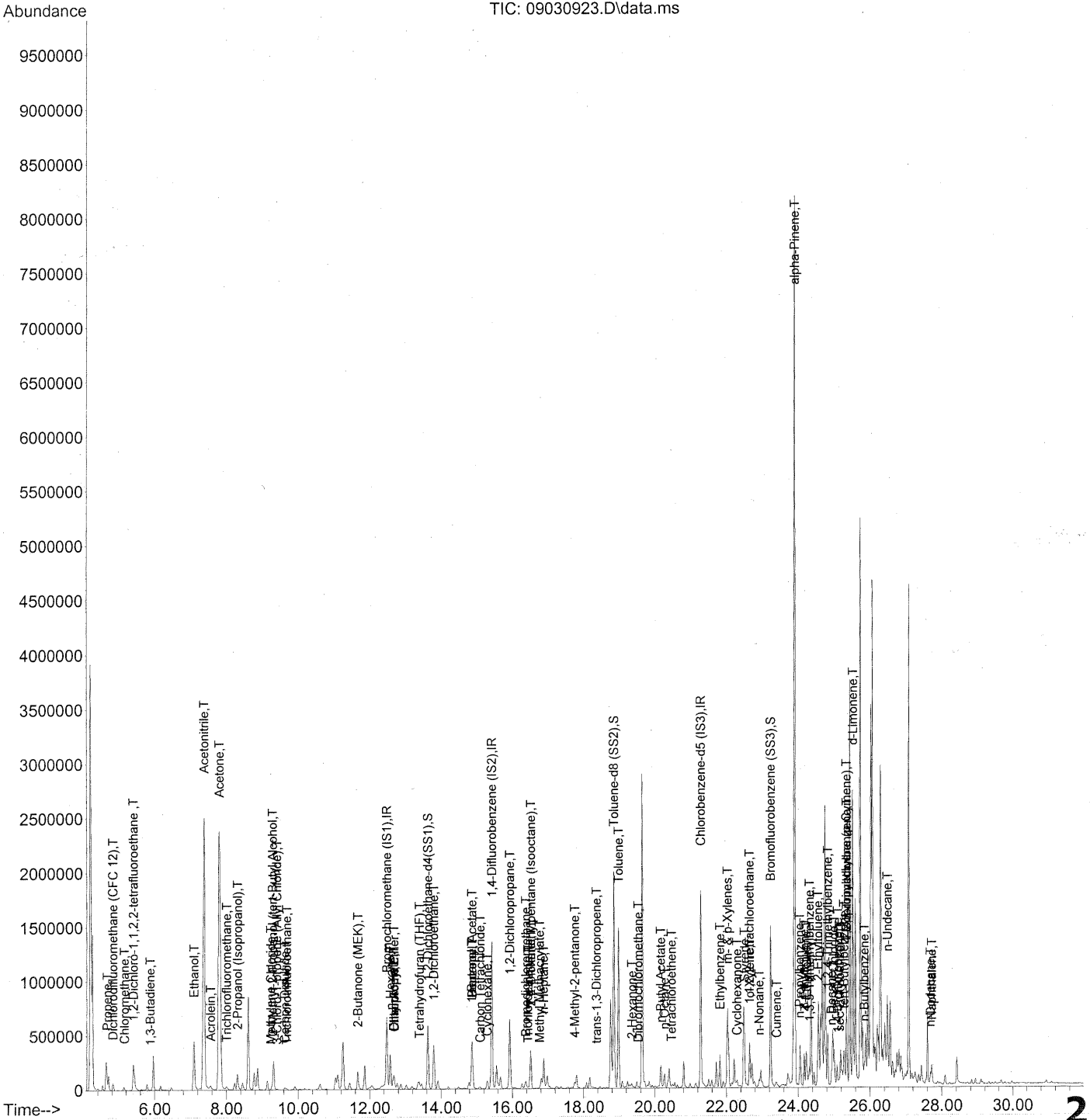
Date: \_\_\_\_\_

*9/16/09*

**213**

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030923.D  
Acq On : 4 Sep 2009 1:52 am  
Operator : LM/CC  
Sample : P0903021-005 (1000ml)  
Misc : EH&E 104274  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 10:39:06 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52 am  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 10:39:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*11/9/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	311331	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1539532	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	744750	25.000	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) 1,2-Dichloroethane-d4(...)	13.63	65	584560	23.694	ng	-0.02
Spiked Amount	25.000		Recovery	=	94.76%	
57) Toluene-d8 (SS2)	18.85	98	1679746	25.237	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.96%	
73) Bromofluorobenzene (SS3)	23.23	174	490339	25.598	ng	0.00
Spiked Amount	25.000		Recovery	=	102.40%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)	Qvalue
2) Propene	4.66	42	36208m	1.608	ng		
3) Dichlorodifluoromethan...	4.82	85	53077	1.346	ng		99
4) Chloromethane	5.16	50	13286	0.501	ng		92
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	815	0.050	ng	#	43
6) Vinyl Chloride	5.60	62	637	N.D.			
7) 1,3-Butadiene	5.87	54	1541	0.083	ng	#	49
8) Bromomethane	6.34	94	414	N.D.			
9) Chloroethane	6.68	64	364	N.D.			
10) Ethanol	7.10	45	831671	59.557	ng		100
11) Acetonitrile	7.38	41	4477239	115.430	ng		100
12) Acrolein	7.56	56	47770	4.480	ng		98
13) Acetone	7.81	58	1408640	97.541	ng	#	85
14) Trichlorofluoromethane	8.01	101	27586	0.794	ng		98
15) 2-Propanol (Isopropanol)	8.31	45	265475	5.530	ng		97
16) Acrylonitrile	0.00	53	0	N.D.	d		
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	9.29	59	15005	0.312	ng	#	1
19) Methylene Chloride	9.24	84	5528	0.302	ng		93
20) 3-Chloro-1-propene (Al...	9.41	41	2425	0.085	ng	#	41
21) Trichlorotrifluoroethane	9.68	151	4308	0.313	ng		96
22) Carbon Disulfide	9.63	76	44360	0.681	ng		98
23) trans-1,2-Dichloroethene	10.68	61	87	N.D.			
24) 1,1-Dichloroethane	11.04	63	593	N.D.			
25) Methyl tert-Butyl Ether	11.19	73	915	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.	d		
27) 2-Butanone (MEK)	11.66	72	73517	6.302	ng	#	89
28) cis-1,2-Dichloroethene	12.24	61	1166	N.D.			
29) Diisopropyl Ether	12.68	87	9282	0.545	ng	#	1
30) Ethyl Acetate	12.67	61	12027	1.919	ng		87
31) n-Hexane	12.58	57	201696	6.459	ng		97

*11/10/09*

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 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 10:39:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	89812	2.918 ng		95
34) Tetrahydrofuran (THF)	13.39	72	19811	1.566 ng	#	37
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	268594	10.400 ng		98
38) 1,1,1-Trichloroethane	14.19	97	536	N.D.		
39) Isopropyl Acetate	14.87	61	4235	0.362 ng	#	1
40) 1-Butanol	14.85	56	153827	8.027 ng	#	39
41) Benzene	14.87	78	407314	5.628 ng		100
42) Carbon Tetrachloride	15.09	117	7851	0.323 ng		98
43) Cyclohexane	15.29	84	40980	1.536 ng		97
44) tert-Amyl Methyl Ether	15.85	73	97	N.D.		
45) 1,2-Dichloropropane	15.93	63	1072	0.060 ng	#	28
46) Bromodichloromethane	16.37	83	22921	0.961 ng		77
47) Trichloroethene	16.44	130	1481	0.084 ng		100
48) 1,4-Dioxane	16.52	88	781	0.056 ng	#	1
49) 2,2,4-Trimethylpentane...	16.52	57	399669	4.853 ng		94
50) Methyl Methacrylate	16.76	100	518	0.077 ng	#	1
51) n-Heptane	16.88	71	79254	4.225 ng		95
52) cis-1,3-Dichloropropene	17.65	75	497	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	12606	0.763 ng		100
54) trans-1,3-Dichloropropene	18.36	75	2018	0.073 ng		95
55) 1,1,2-Trichloroethane	18.46	97	553	N.D.		
58) Toluene	18.98	91	1289821	17.993 ng		100
59) 2-Hexanone	19.36	43	34382m	0.785 ng		
60) Dibromochloromethane	19.53	129	3246	0.180 ng		97
61) 1,2-Dibromoethane	19.86	107	480	N.D.		
62) n-Butyl Acetate	20.16	43	126937	2.526 ng		90
63) n-Octane	20.27	57	25159	1.525 ng		97
64) Tetrachloroethene	20.46	166	2944	0.162 ng		96
65) Chlorobenzene	0.00	112	0	N.D.	d	
66) Ethylbenzene	21.82	91	280233	3.418 ng		100
67) m- & p-Xylenes	22.03	91	732544	11.222 ng		100
68) Bromoform	22.13	173	89	N.D.		
69) Styrene	22.50	104	235321	4.896 ng		98
70) o-Xylene	22.65	91	271901	4.147 ng		100
71) n-Nonane	22.91	43	34177	0.867 ng		92
72) 1,1,2,2-Tetrachloroethane	22.64	83	2489	0.083 ng		19
74) Cumene	23.40	105	17113	0.206 ng		99
75) alpha-Pinene	23.90	93	3971429	92.135 ng		92
76) n-Propylbenzene	24.04	91	67602	0.640 ng	#	60
77) 3-Ethyltoluene	24.17	105	167902	2.112 ng		98
78) 4-Ethyltoluene	24.22	105	84045	1.071 ng		96
79) 1,3,5-Trimethylbenzene	24.31	105	72231	1.106 ng		99

MP# 2/1/09

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 ALS Vial : 1 Sample Multiplier: 1

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 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

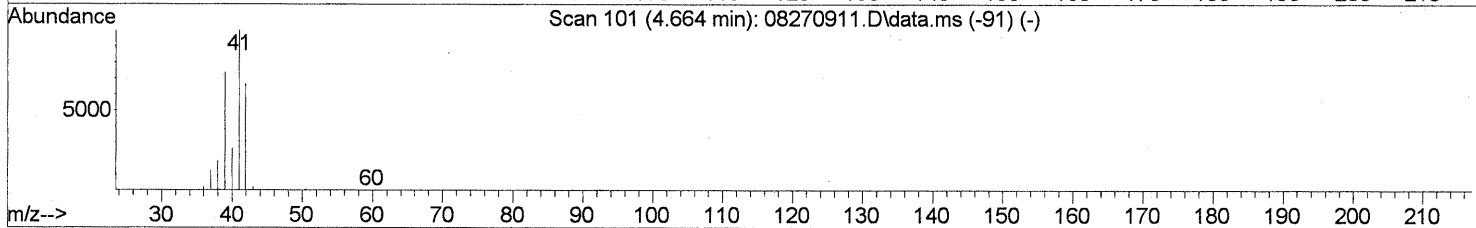
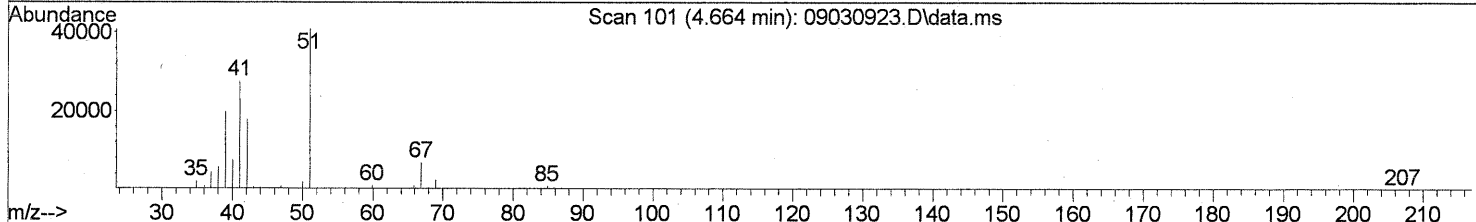
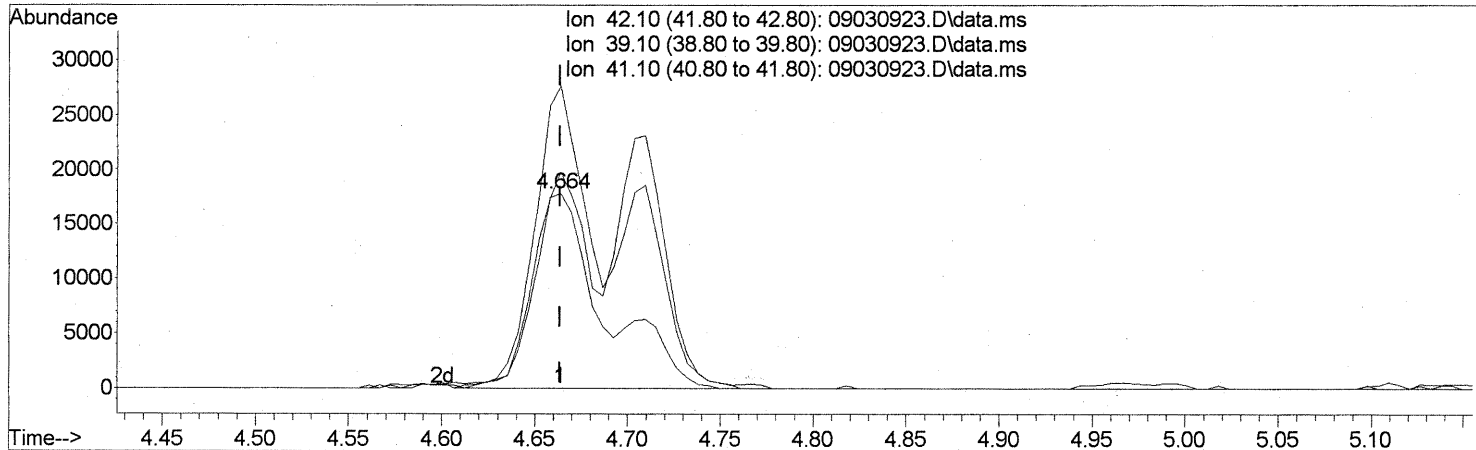
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	1496	N.D.		
81) 2-Ethyltoluene	24.55	105	66747	0.818 ng		98
82) 1,2,4-Trimethylbenzene	24.82	105	249088	3.737 ng		90
83) n-Decane	24.93	57	49948	1.255 ng	#	42
84) Benzyl Chloride	24.99	91	3431	0.052 ng	#	57
85) 1,3-Dichlorobenzene	25.02	146	832	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	5255	0.140 ng		92
87) sec-Butylbenzene	25.16	105	5689	0.062 ng	#	78
88) 4-Isopropyltoluene (p-...	25.35	119	120402	1.467 ng		99
89) 1,2,3-Trimethylbenzene	25.35	105	81520	1.167 ng	NR	97
90) 1,2-Dichlorobenzene	25.52	146	511	N.D.		
91) d-Limonene	25.53	68	681522	25.611 ng		87
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.49	57	139381	3.373 ng	#	1
94) 1,2,4-Trichlorobenzene	27.58	180	1063	N.D.		
95) Naphthalene	27.72	128	145297	1.577 ng		98
96) n-Dodecane	27.69	57	34045	0.723 ng		97
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	33758	1.221 ng	#	86
99) tert-Butylbenzene	25.27	119	9527	0.148 ng		92
100) n-Butylbenzene	25.85	91	36337	0.489 ng	#	44

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

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 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(2) Propene (T)

4.664min (+0.000) 2.08ng

response 46947

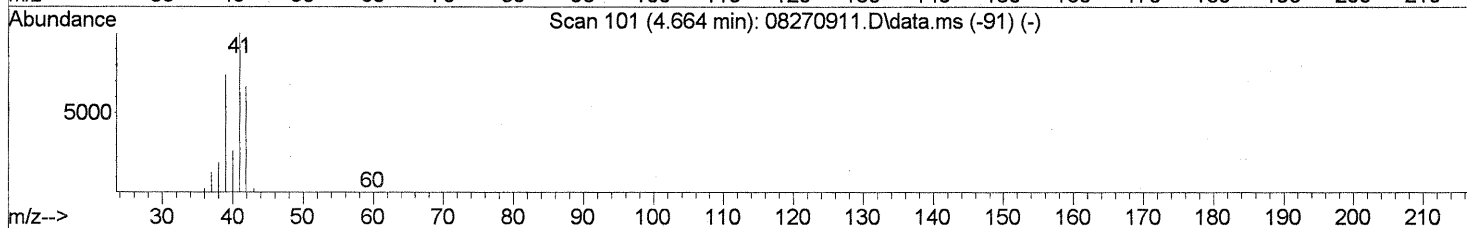
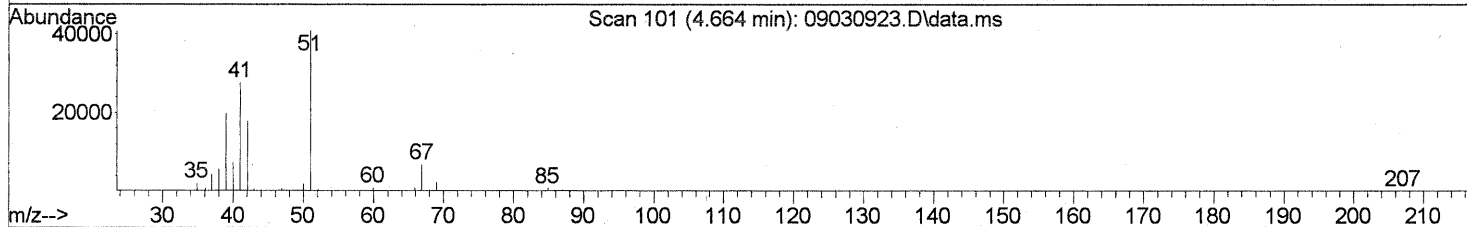
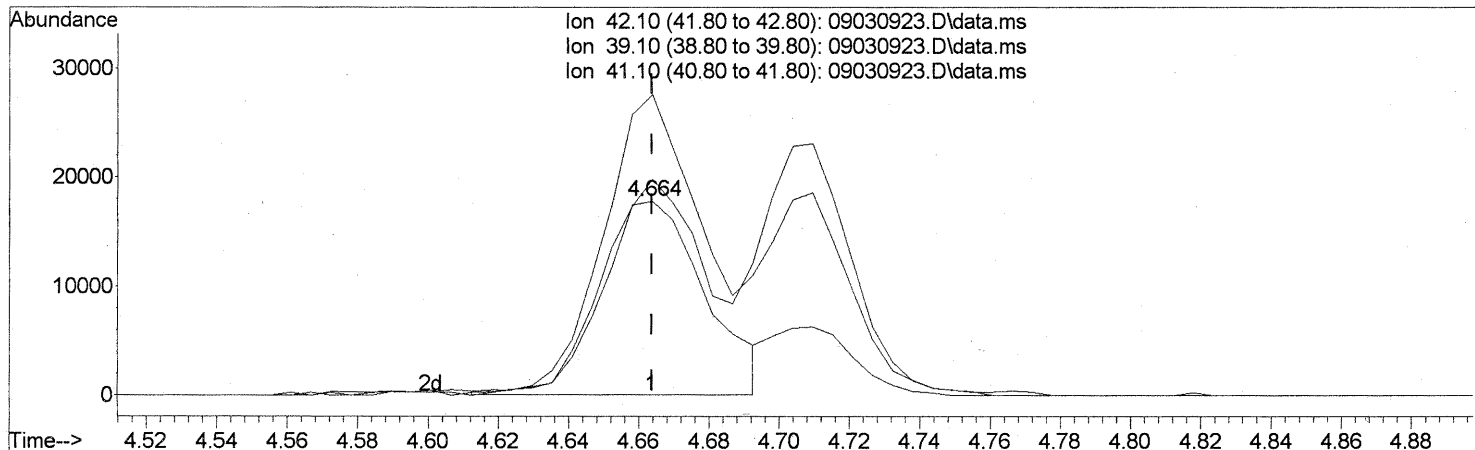
SP

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	84.49#
41.10	149.80	114.87#
0.00	0.00	0.00

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TIC: 09030923.D\data.ms

(2) Propene (T)  
 4.664min (+0.000) 1.61ng m  
 response 36208

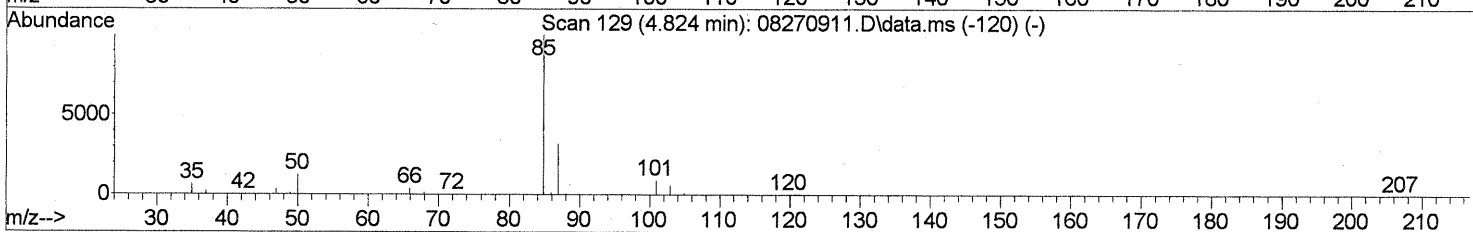
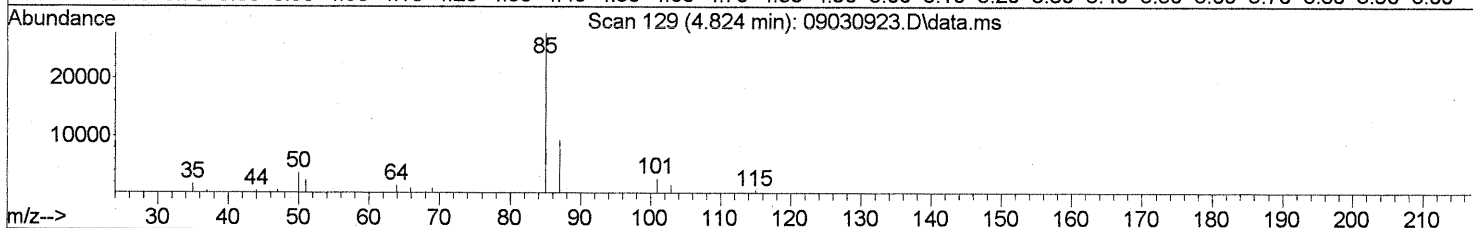
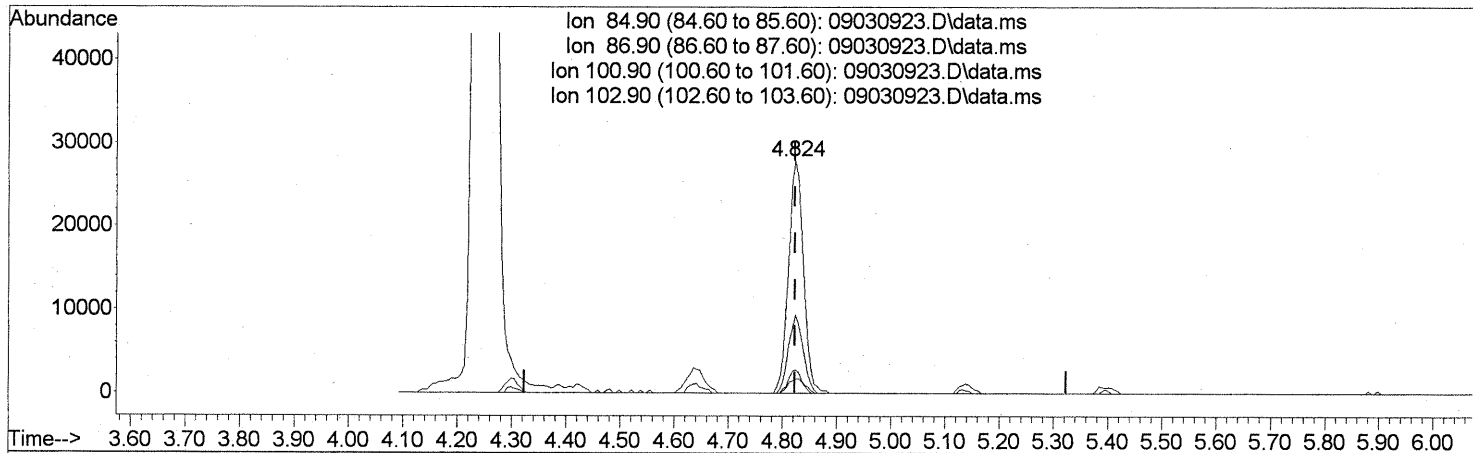
Ion	Exp%	Act%
42.10	100	100
39.10	109.70	109.55
41.10	149.80	148.94
0.00	0.00	0.00

*SP -> IC*  
*LM 9/10/09*  
*LM 9/10/09*

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TIC: 09030923.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.824min (+0.000) 1.35ng

response 53077

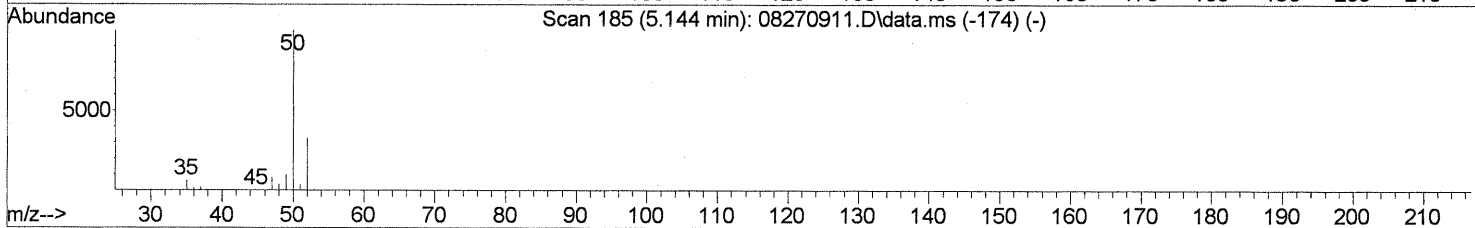
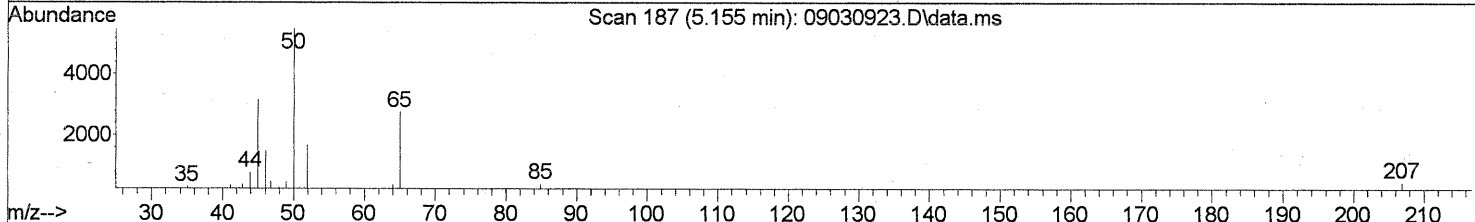
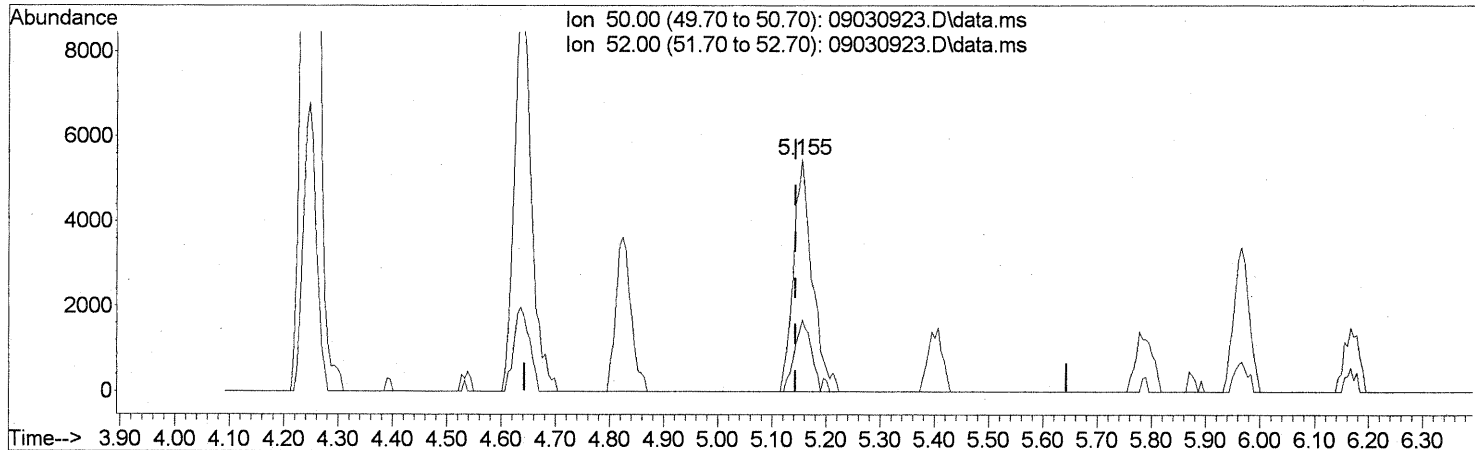
Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.65
100.90	8.80	9.15
102.90	5.60	6.06



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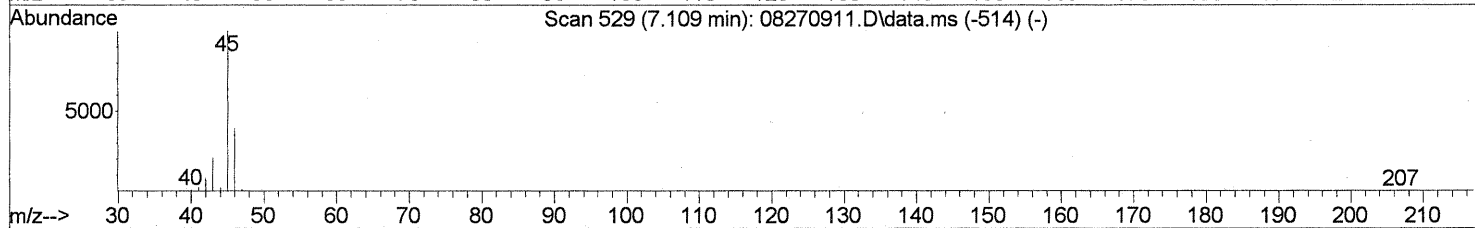
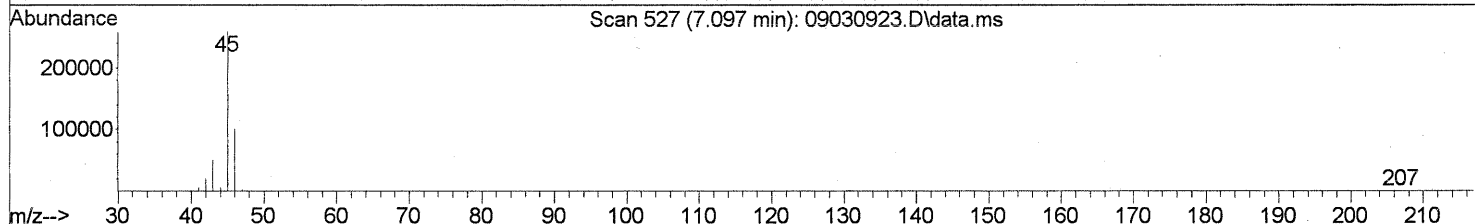
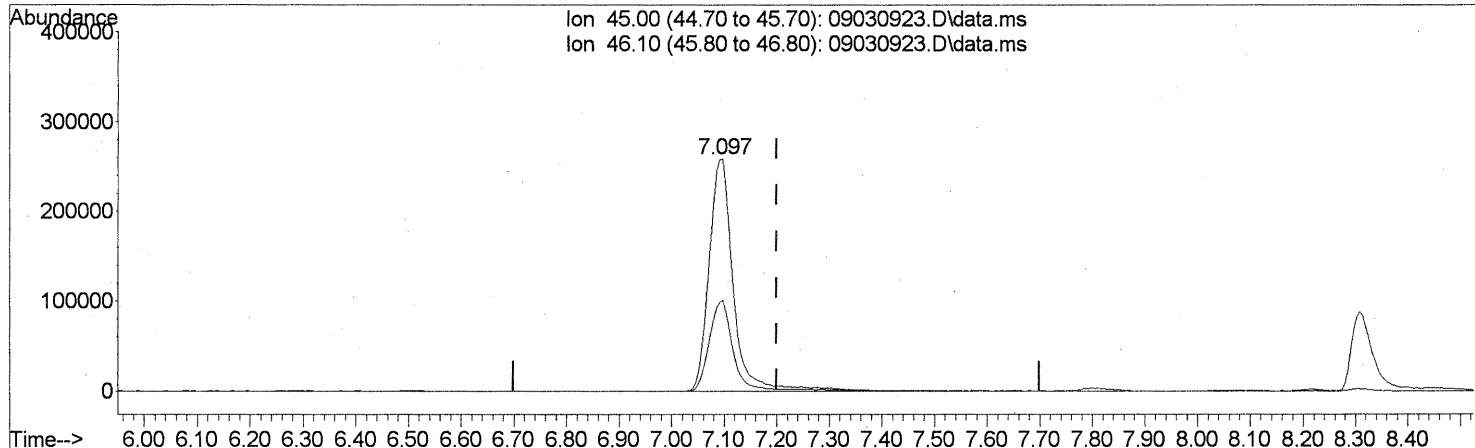
(4) Chloromethane (T)  
 5.155min (+0.011) 0.50ng  
 response 13286

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	27.11
0.00	0.00	0.00
0.00	0.00	0.00

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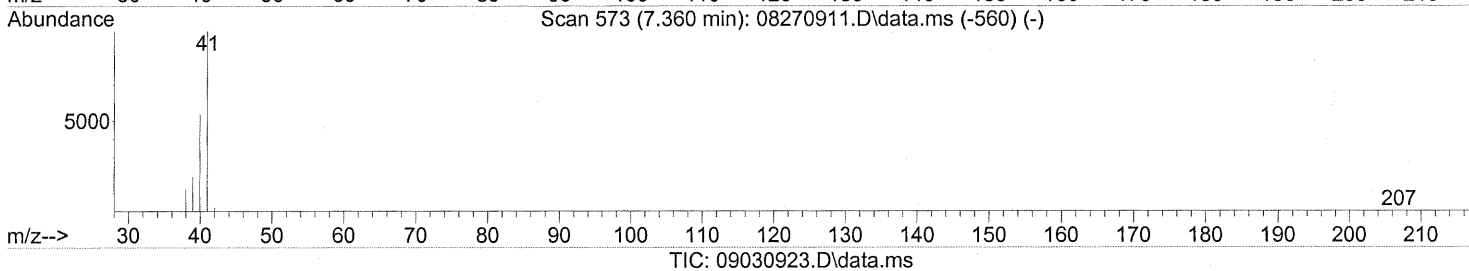
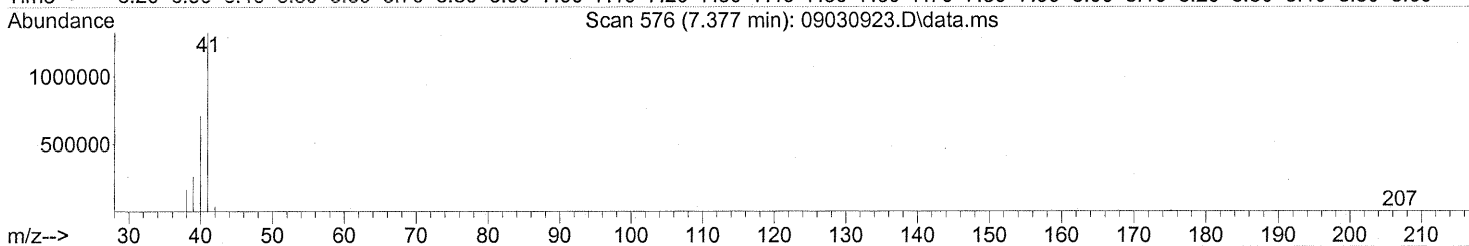
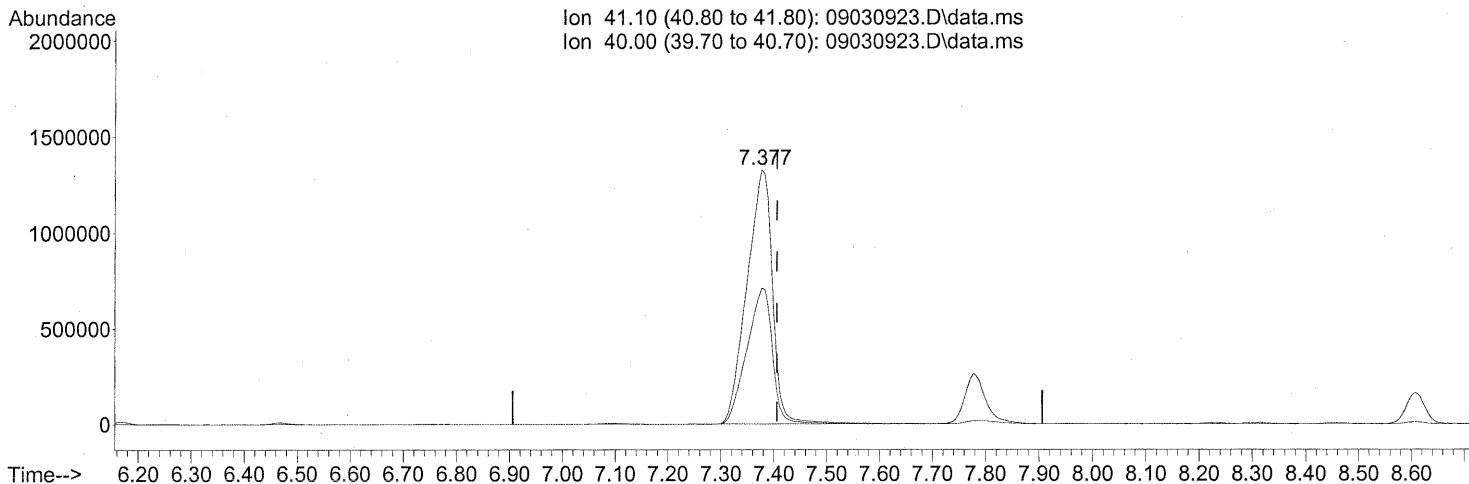
(10) Ethanol (T)  
 7.097min (-0.103) 59.56ng  
 response 831671

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.48
0.00	0.00	0.00
0.00	0.00	0.00

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(11) Acetonitrile (T)

7.377min (-0.029) 115.43ng *E*

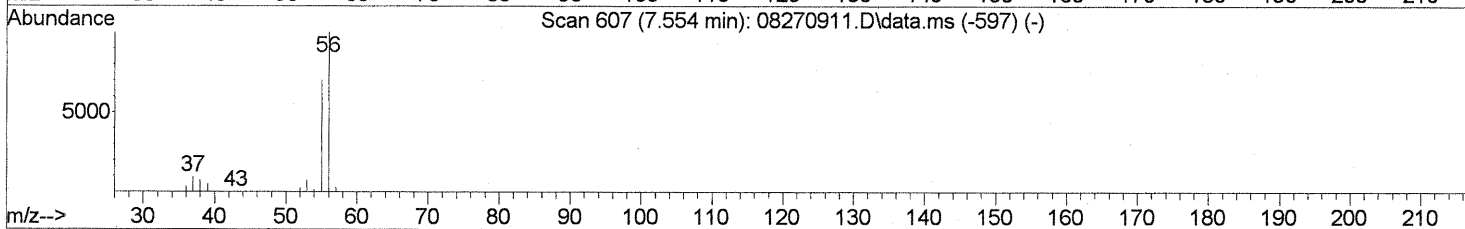
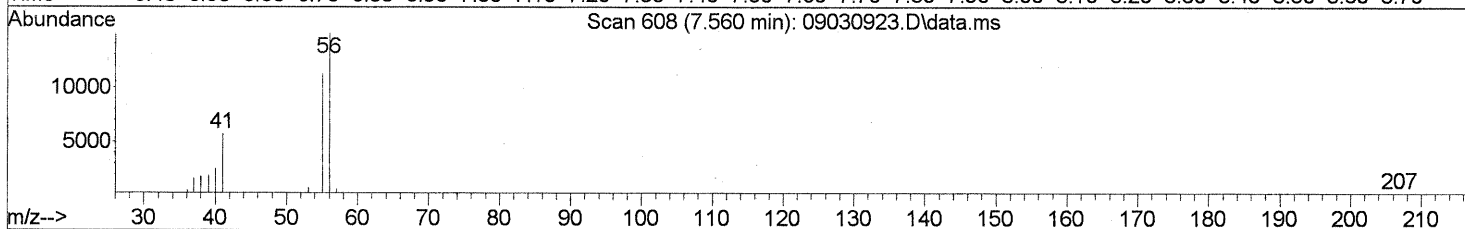
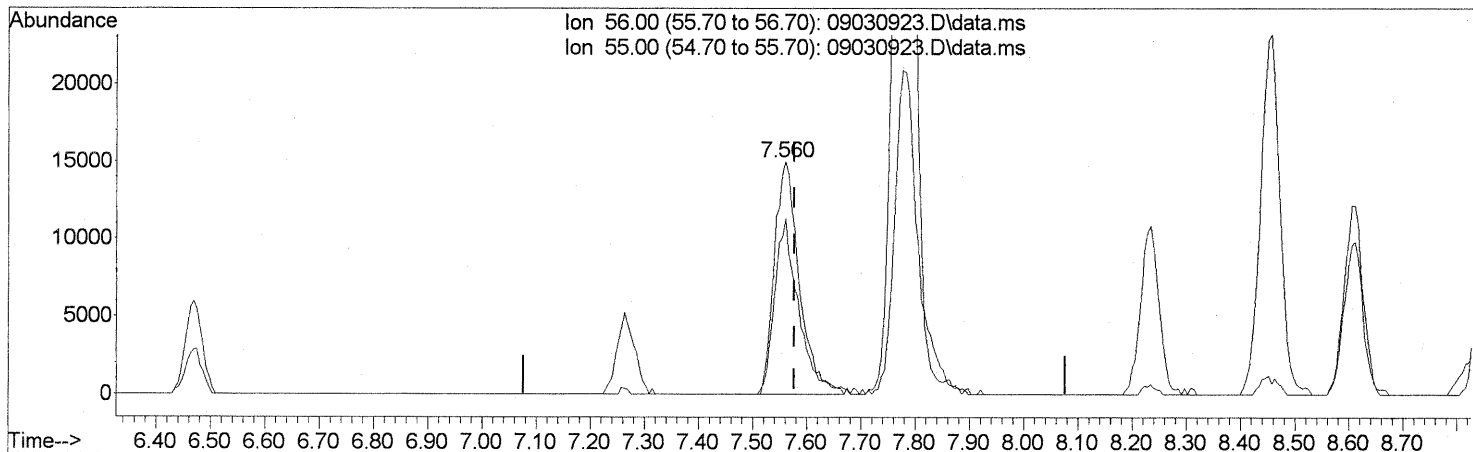
response 4477239

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.76
0.00	0.00	0.00
0.00	0.00	0.00

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TIC: 09030923.D\data.ms

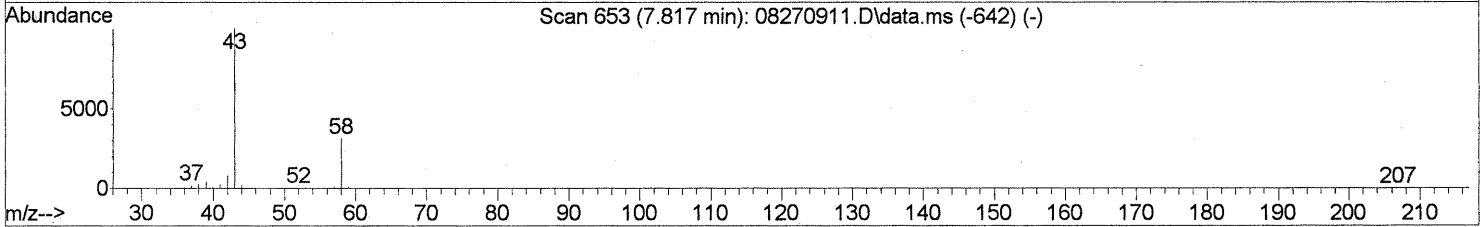
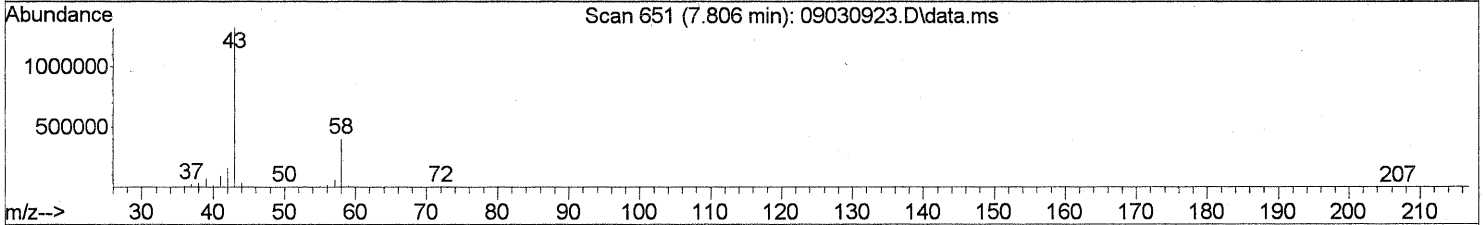
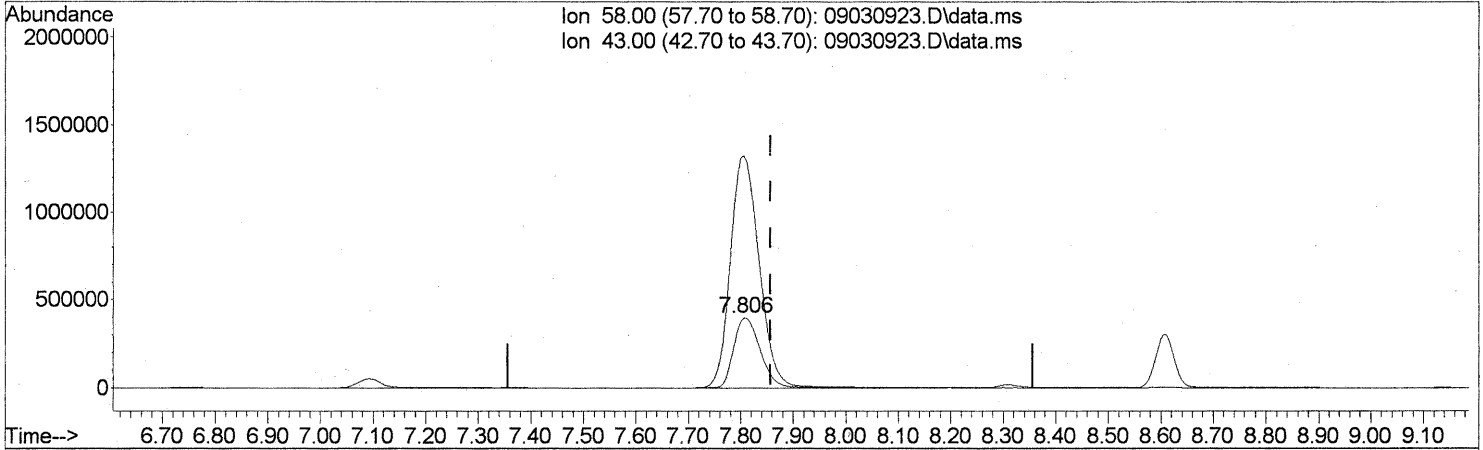
(12) Acrolein (T)  
 7.560min (-0.017) 4.48ng  
 response 47770

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	72.91
0.00	0.00	0.00
0.00	0.00	0.00

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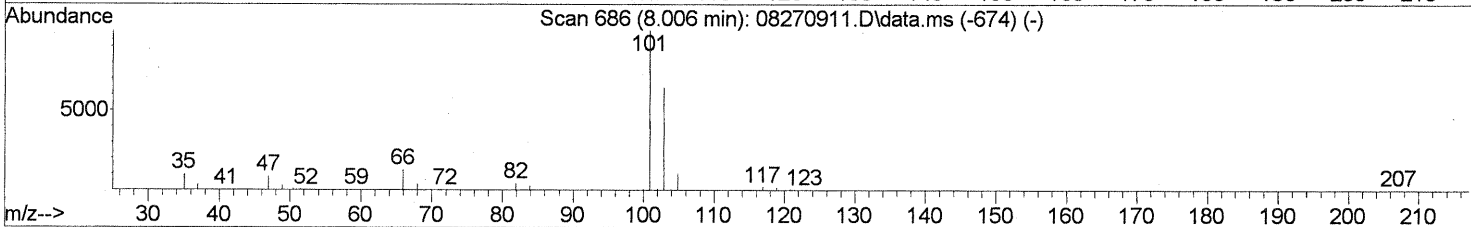
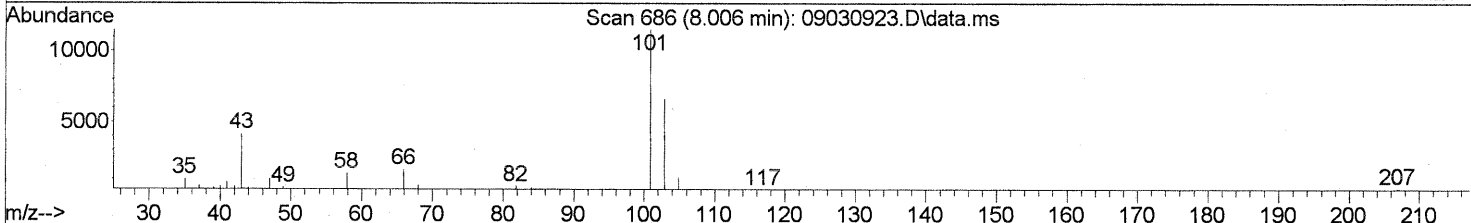
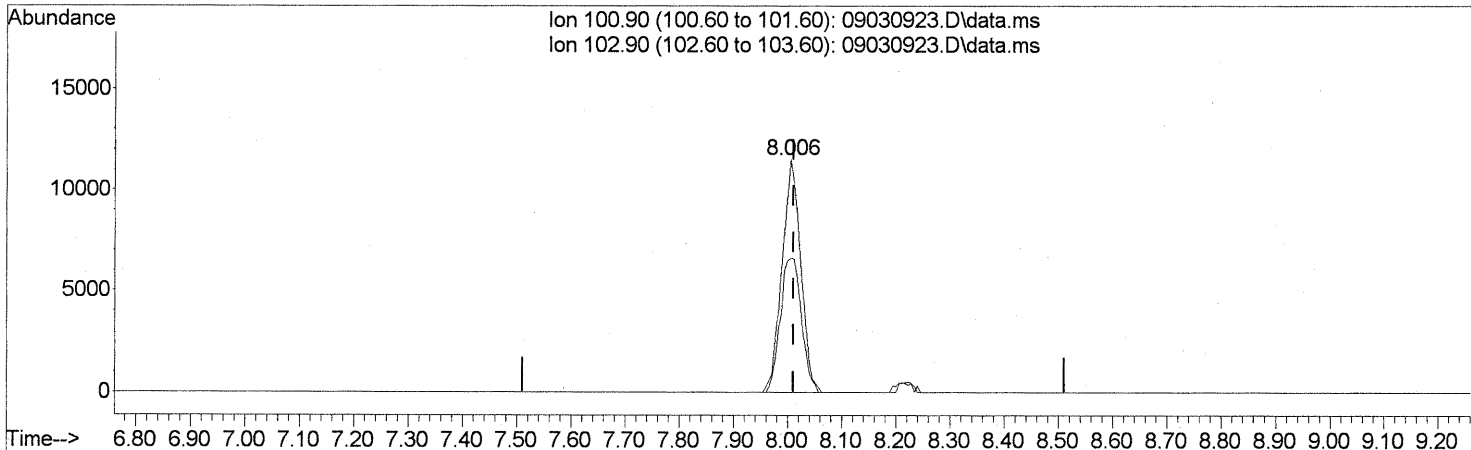
(13) Acetone (T)  
 7.806min (-0.051) 97.54ng  
 response 1408640

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	361.81#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

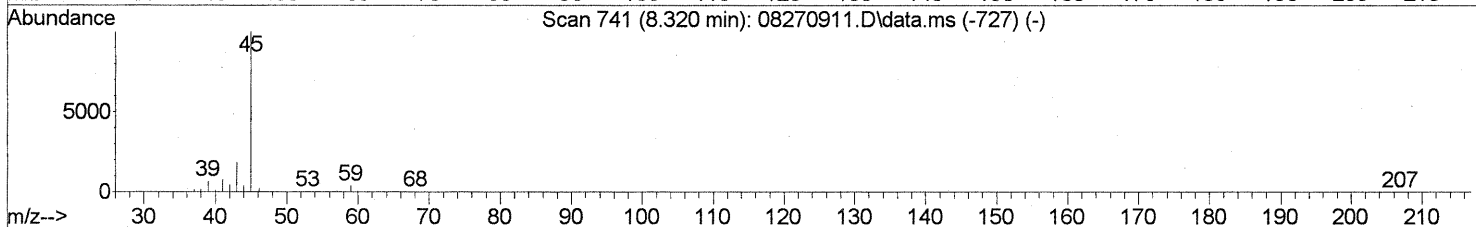
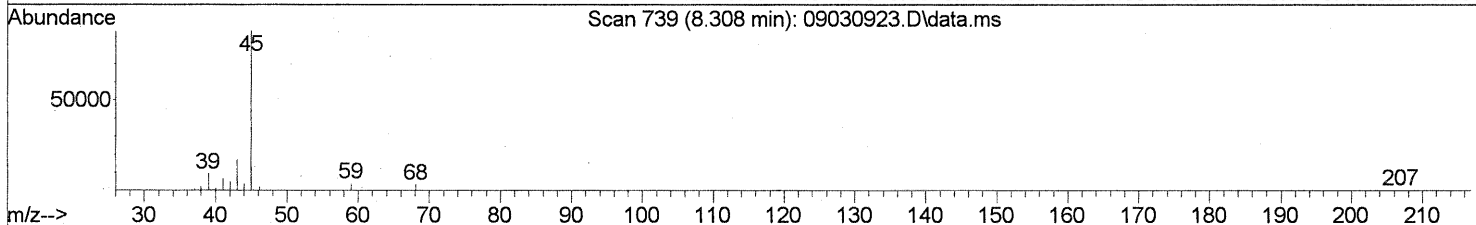
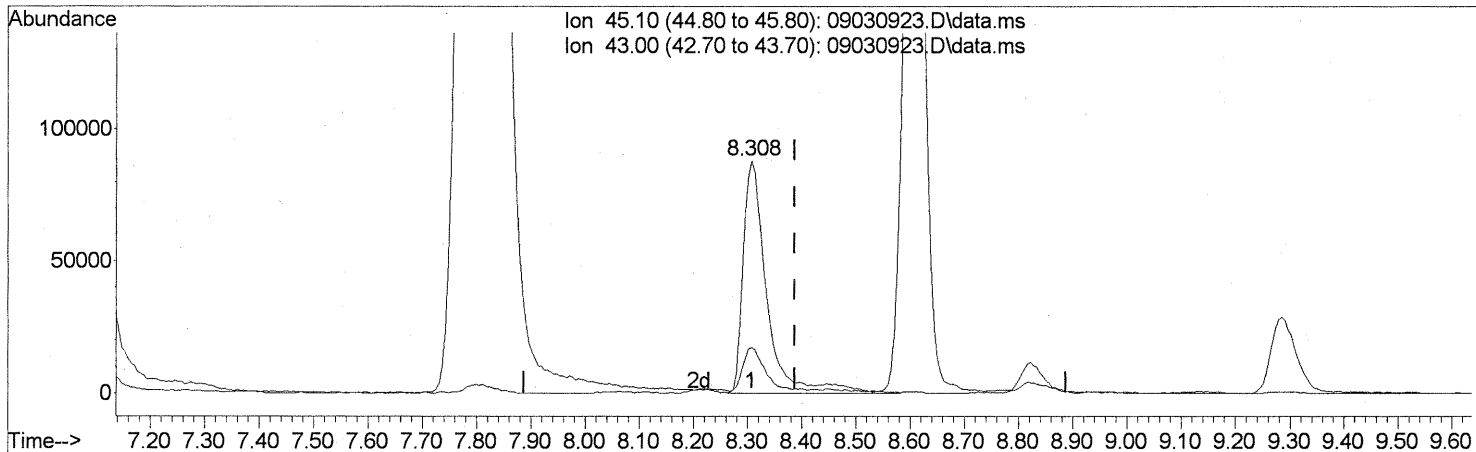
(14) Trichlorofluoromethane (T)  
 8.006min (-0.006) 0.79ng  
 response 27586

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	64.59
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.308min (-0.080) 5.53ng

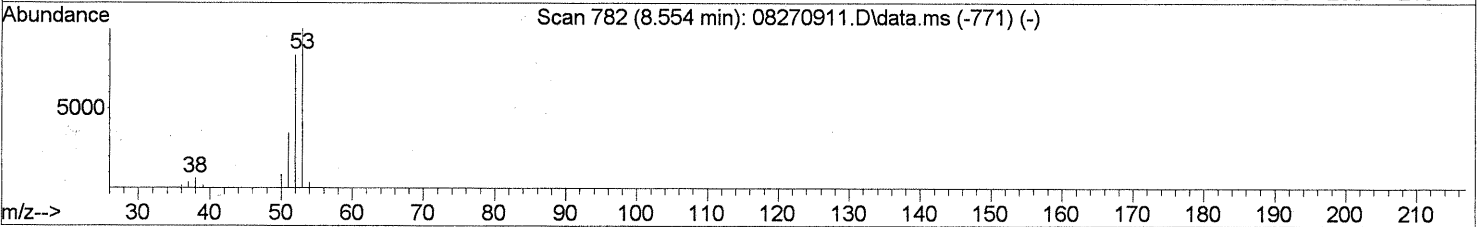
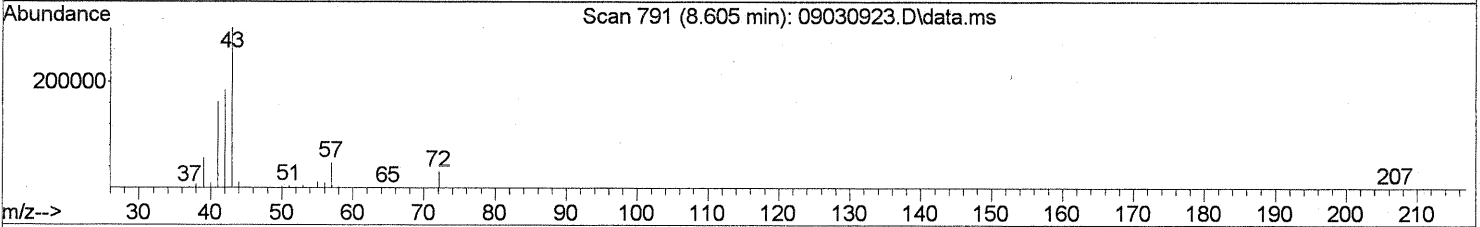
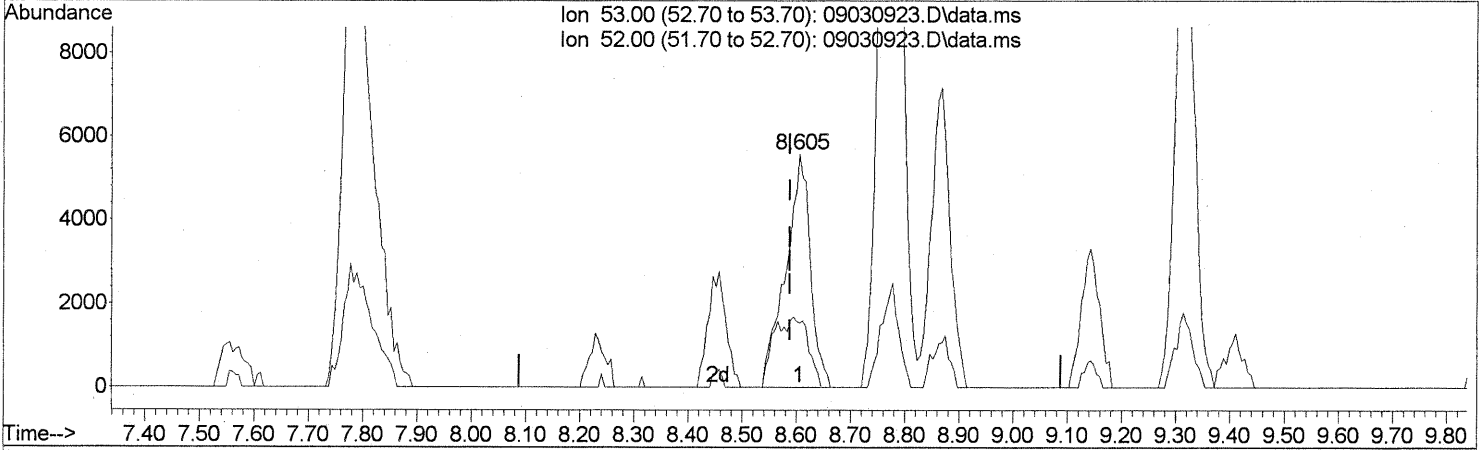
response 265475

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	17.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(16) Acrylonitrile (T)  
 8.605min (+0.017) 0.74ng  
 response 17690

Ion	Exp%	Act%
53.00	100	100
52.00	80.50	41.36#
0.00	0.00	0.00
0.00	0.00	0.00

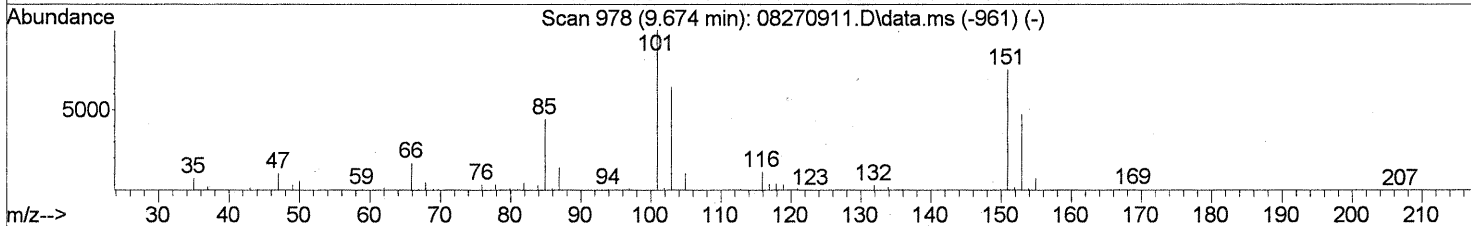
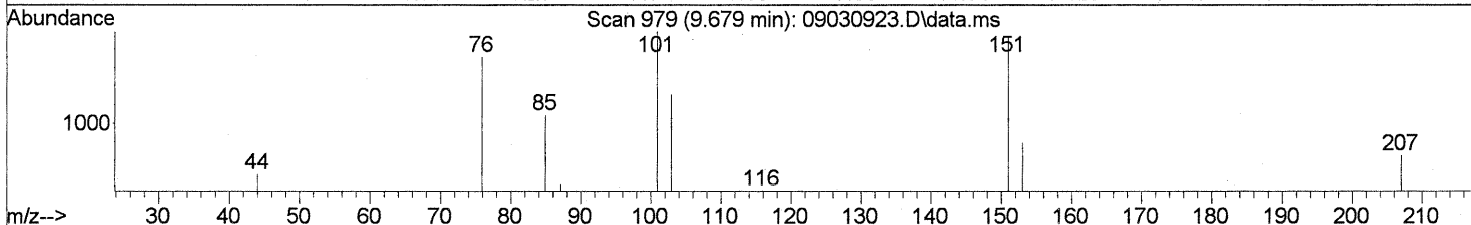
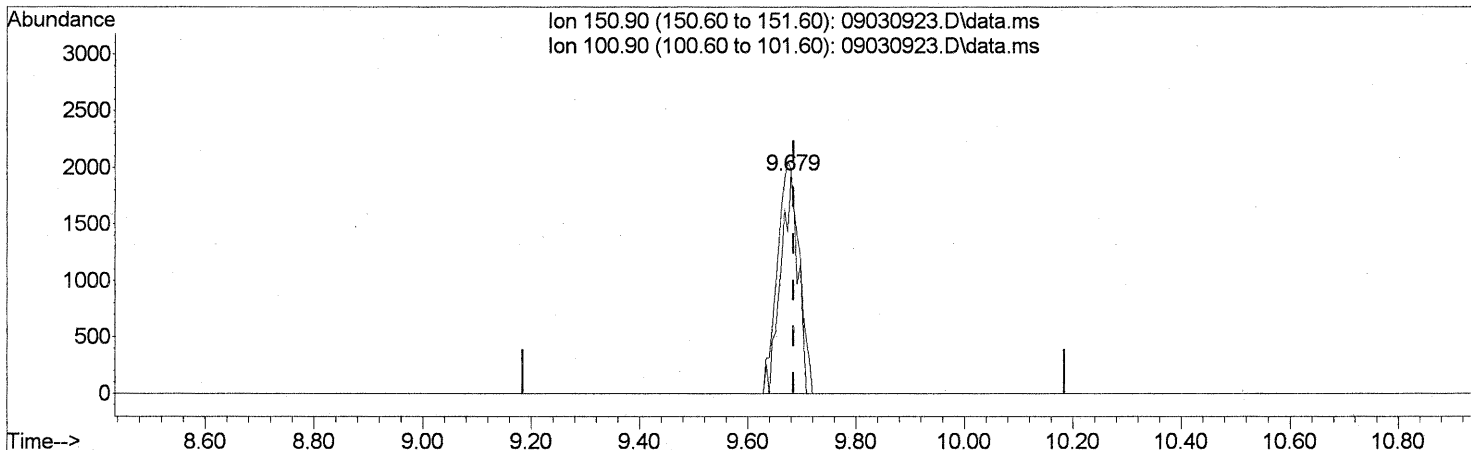
*FP*  
*LM 9/10/09*  
*LM 9/10/09*



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.31ng

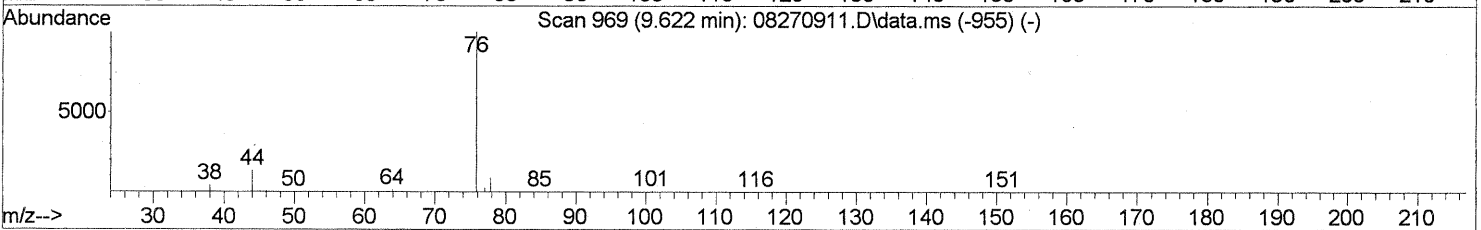
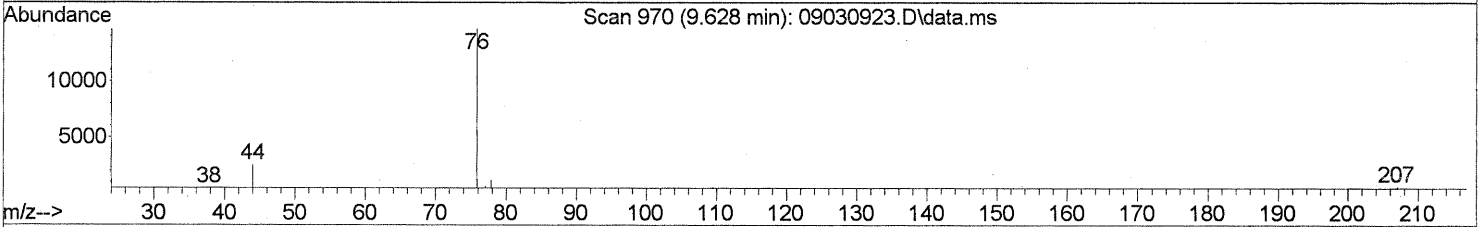
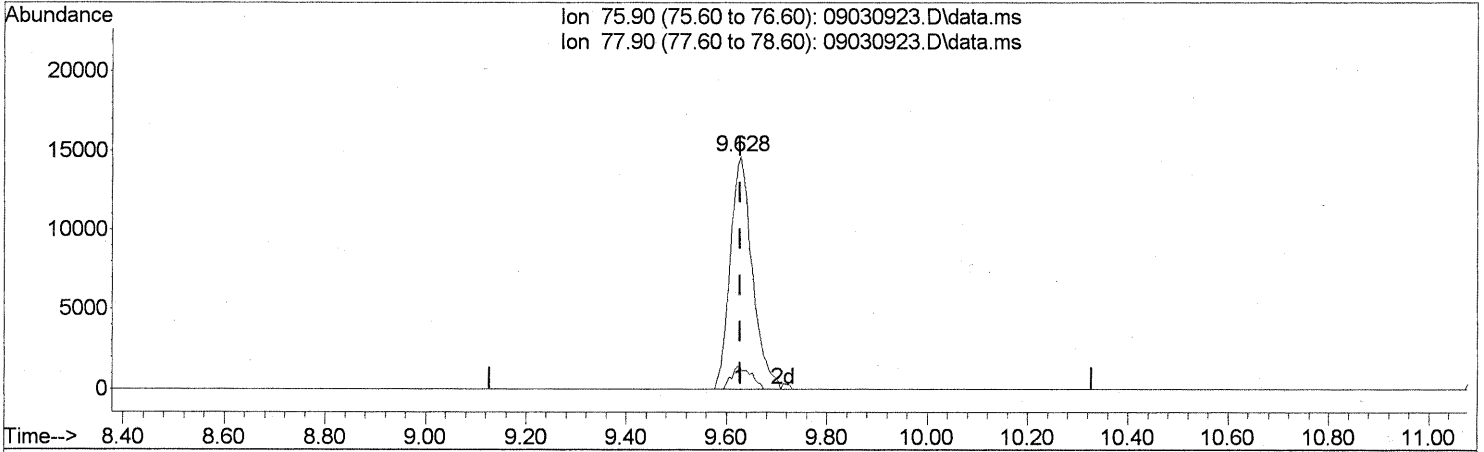
response 4308

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	133.52
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



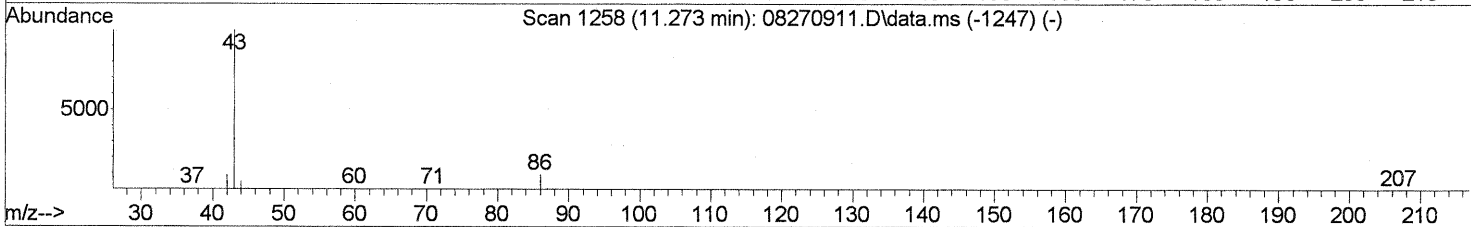
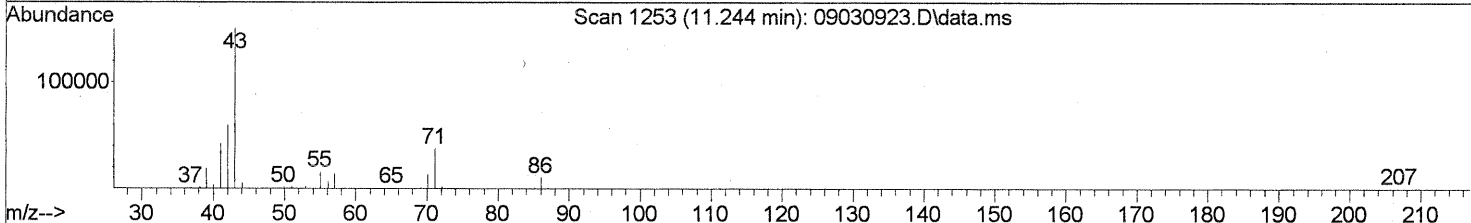
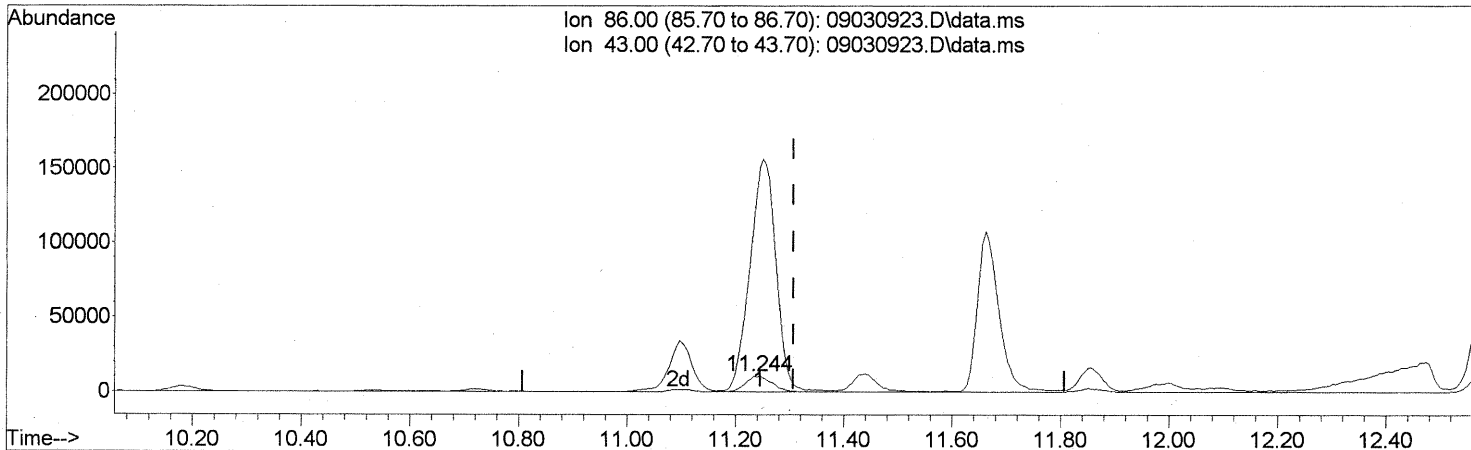
TIC: 09030923.D\data.ms

(22) Carbon Disulfide (T)		
9.628min (+0.000) 0.68ng		
response 44360		
Ion	Exp%	Act%
75.90	100	100
77.90	9.40	8.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(26) Vinyl Acetate (T)  
 11.244min (-0.063) 9.44ng  
 response 34158

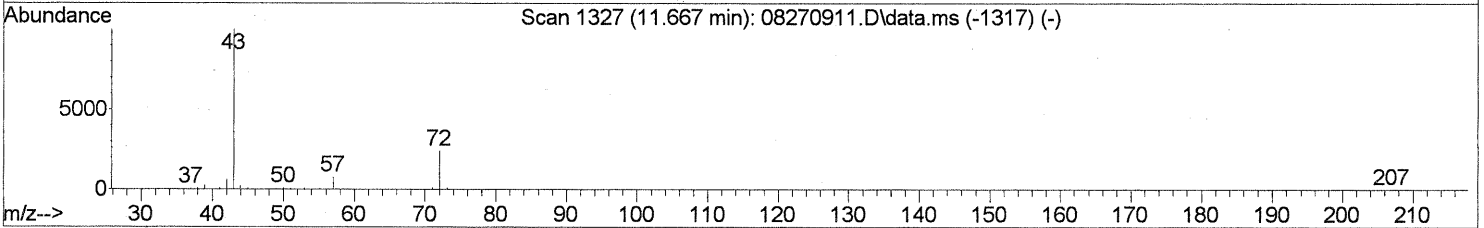
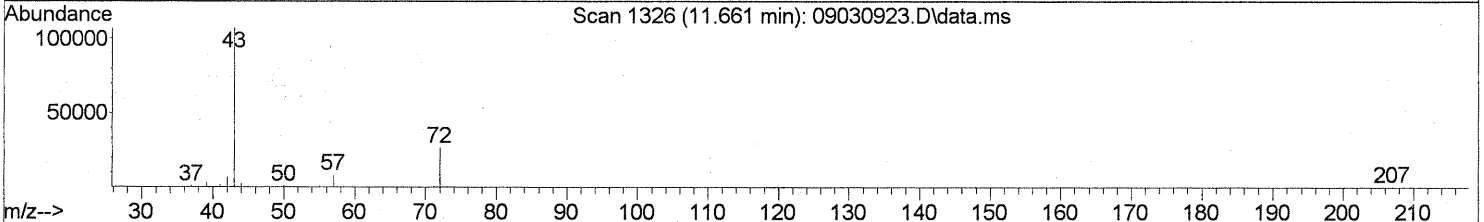
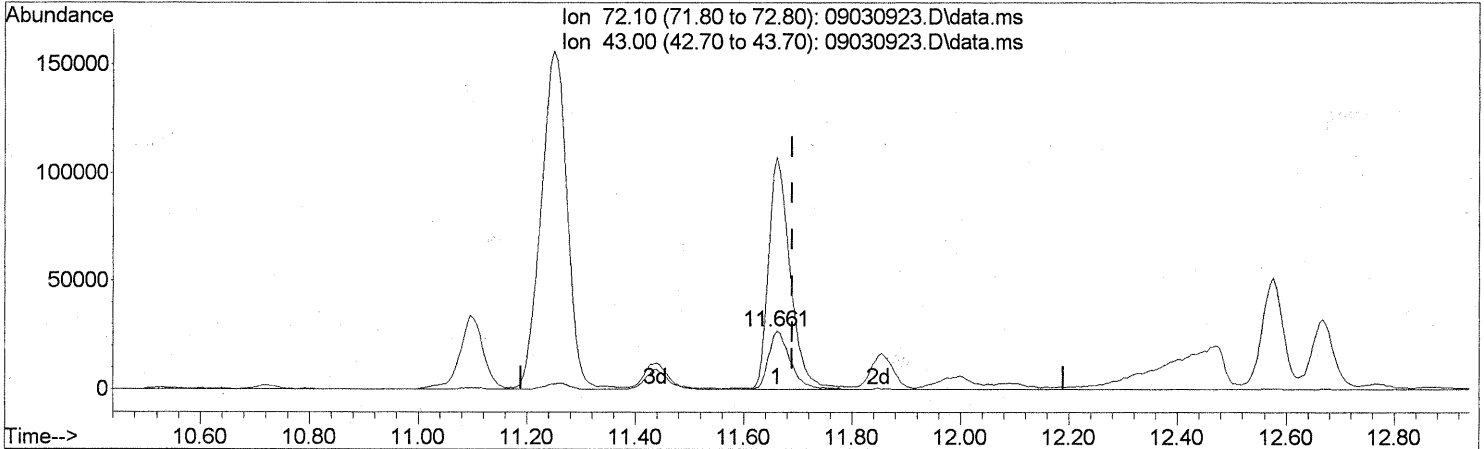
Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1513.86#
0.00	0.00	0.00
0.00	0.00	0.00

*EP*  
*UH 9/10/09*  
*UH 9/10/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

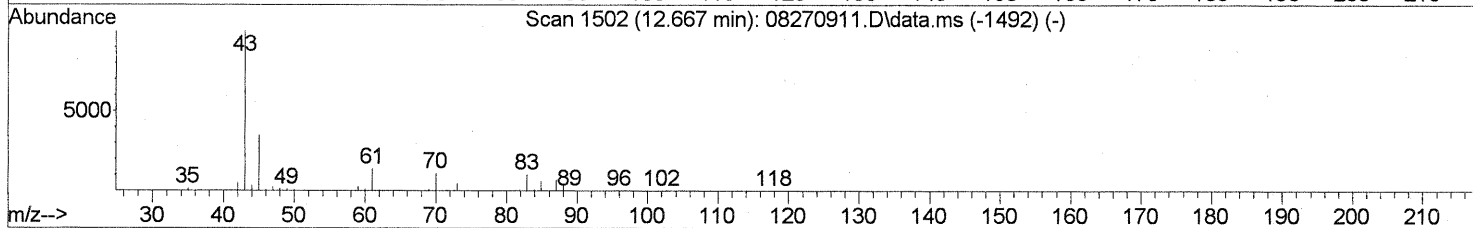
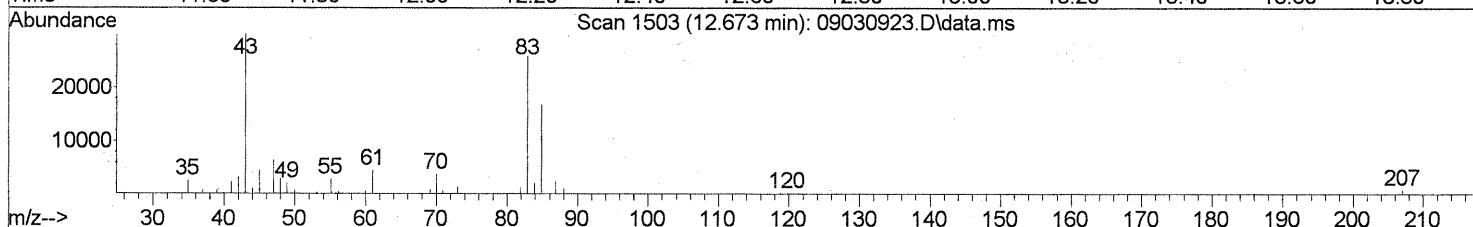
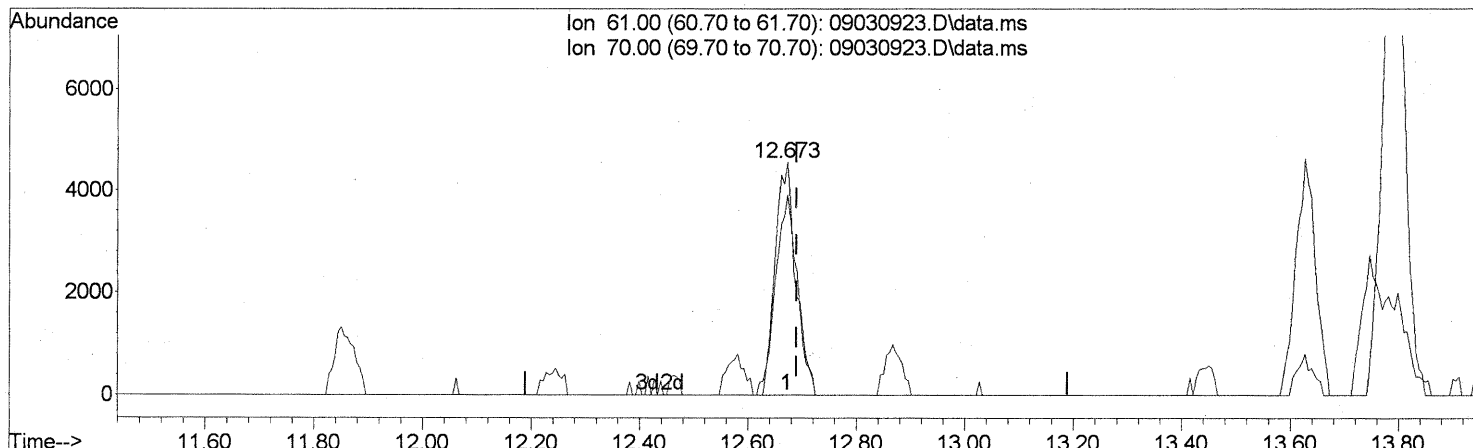
(27) 2-Butanone (MEK) (T)  
 11.661min (-0.029) 6.30ng  
 response 73517

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	397.80#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

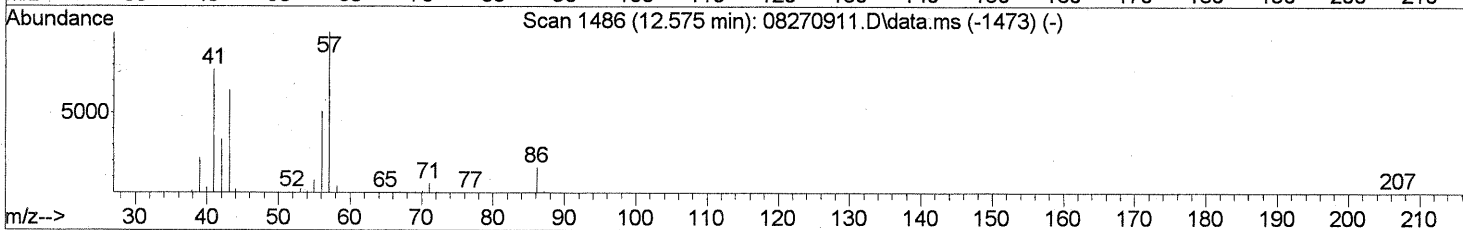
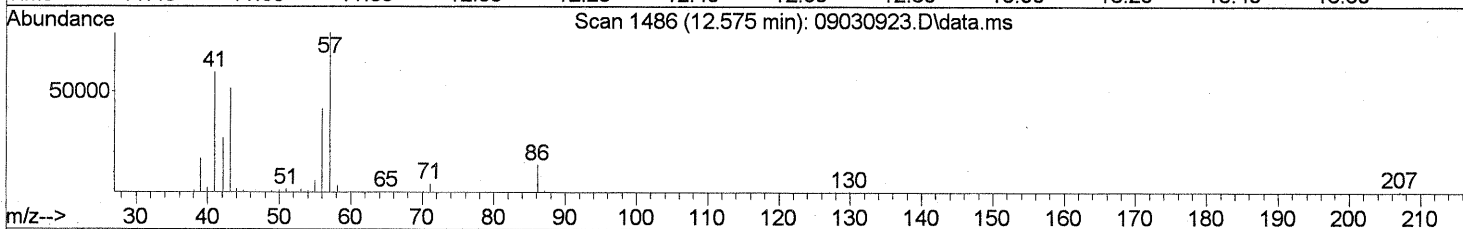
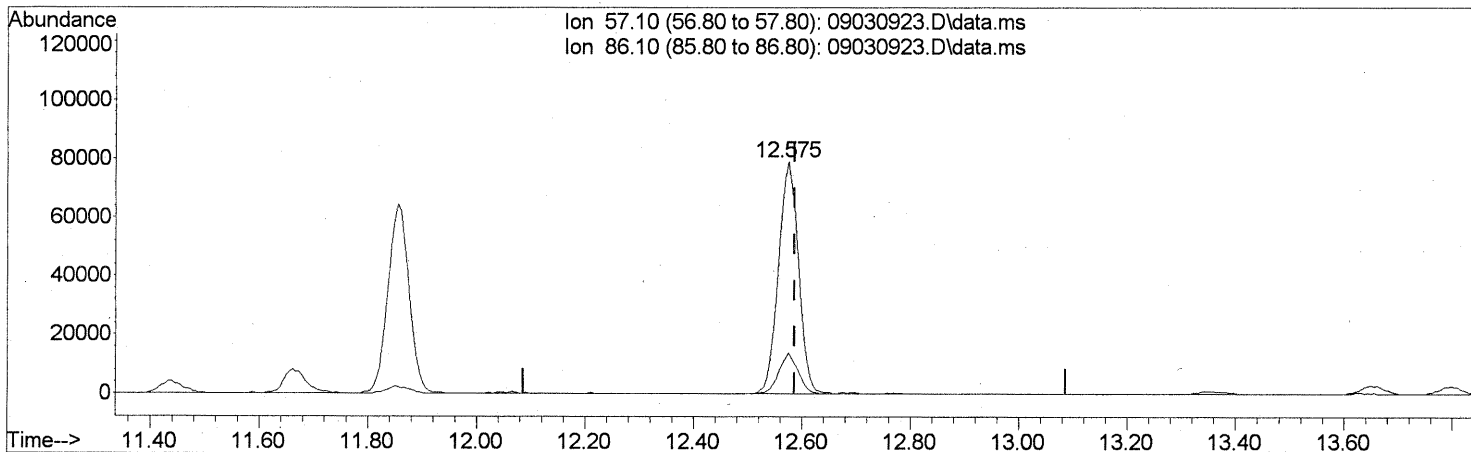
(30) Ethyl Acetate (T)  
 12.673min (-0.017) 1.92ng  
 response 12027

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	90.41
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

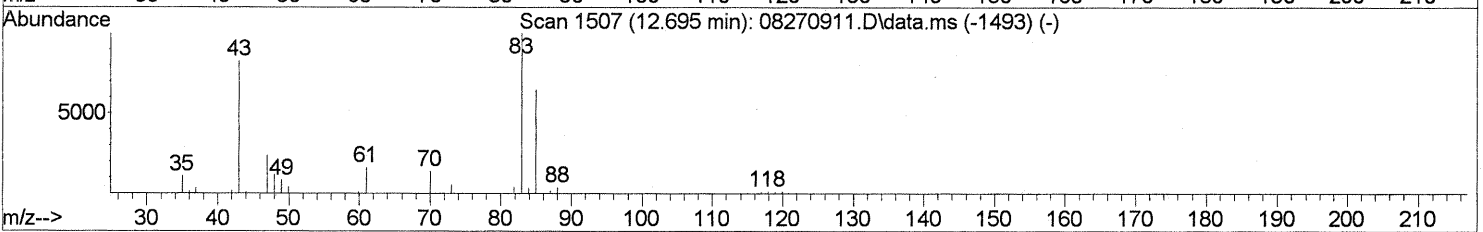
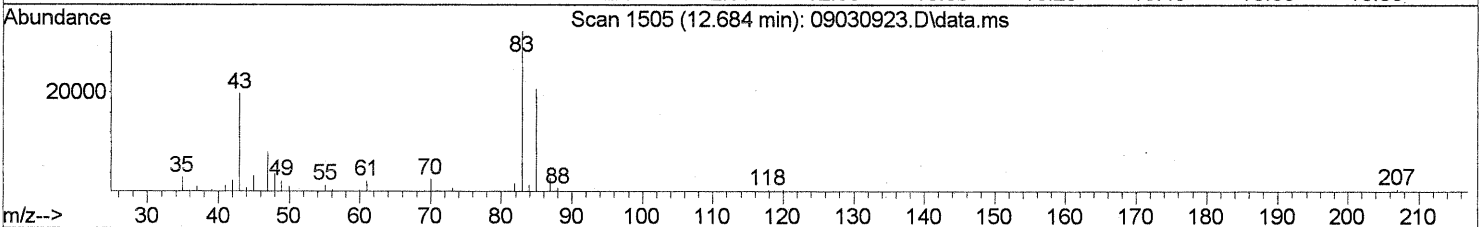
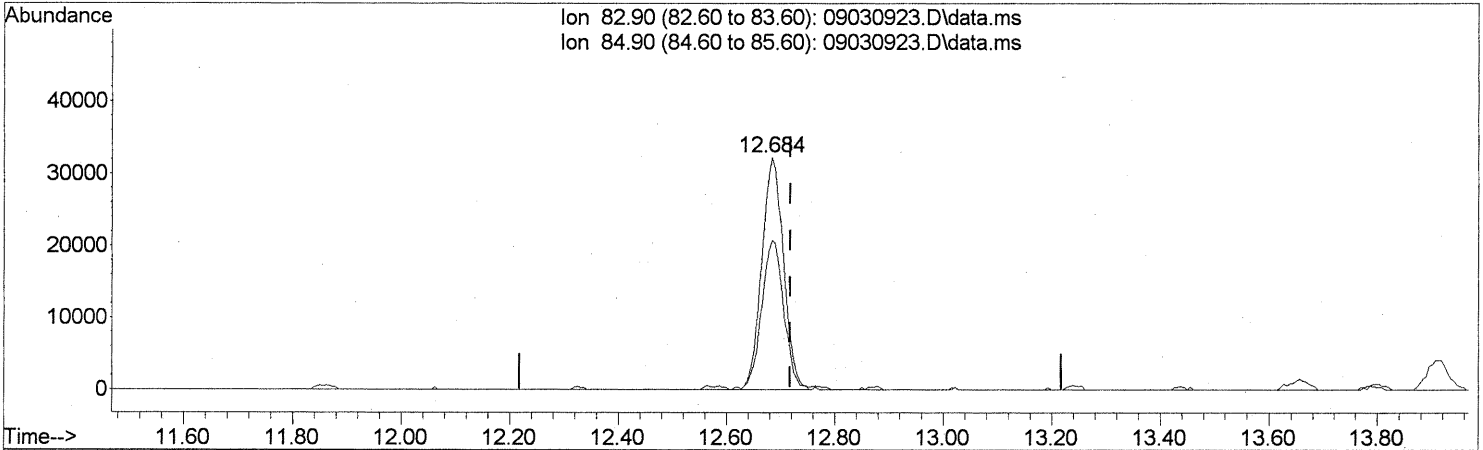
(31) n-Hexane (T)  
 12.575min (-0.011) 6.46ng  
 response 201696

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	16.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

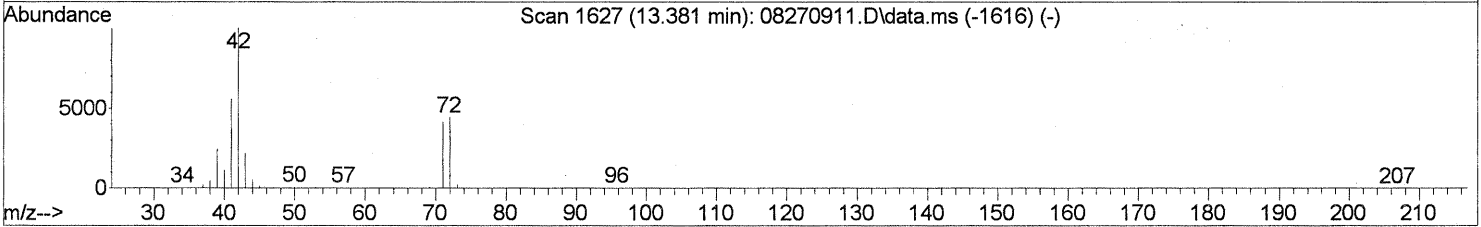
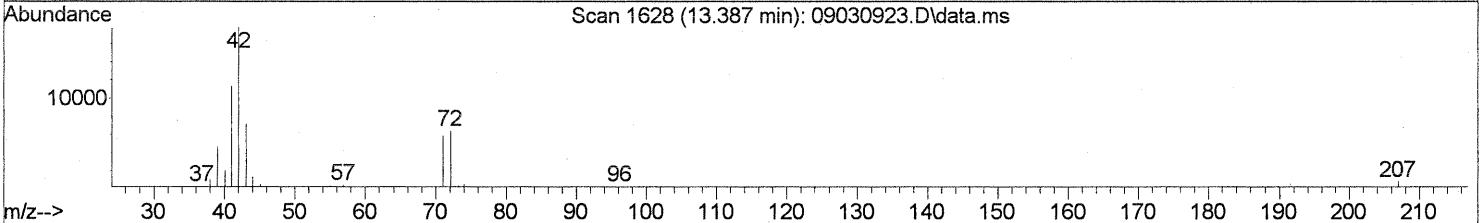
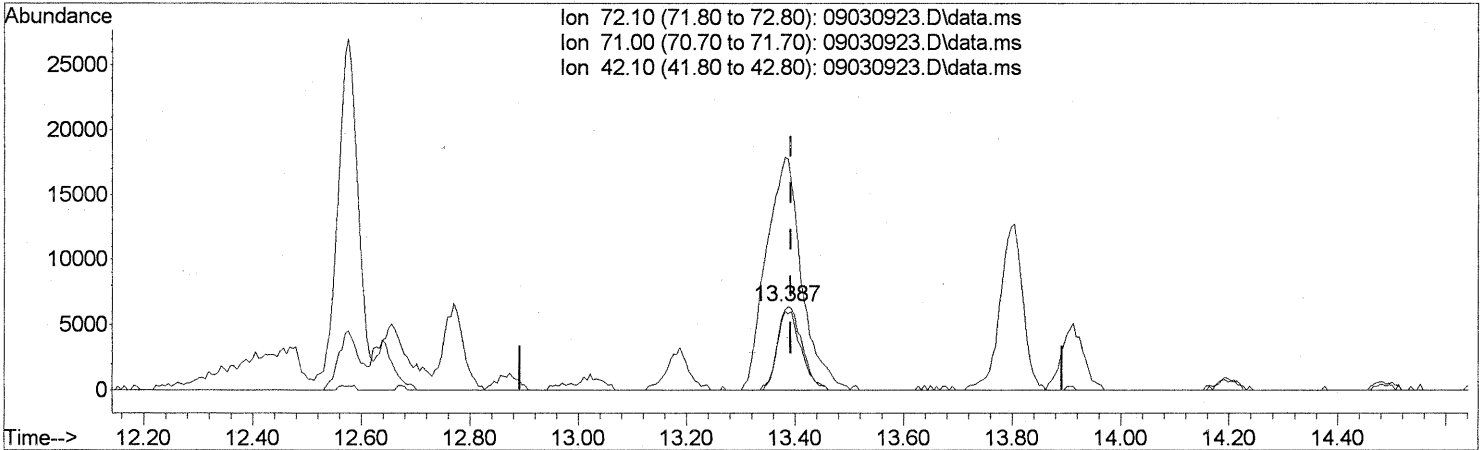
(32) Chloroform (T)  
 12.684min (-0.034) 2.92ng  
 response 89812

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	66.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(34) Tetrahydrofuran (THF) (T)  
 13.387min (-0.005) 1.57ng  
 response 19811

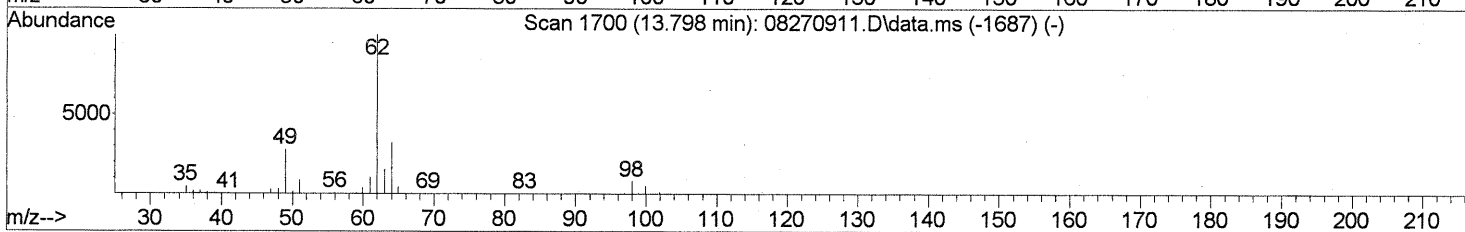
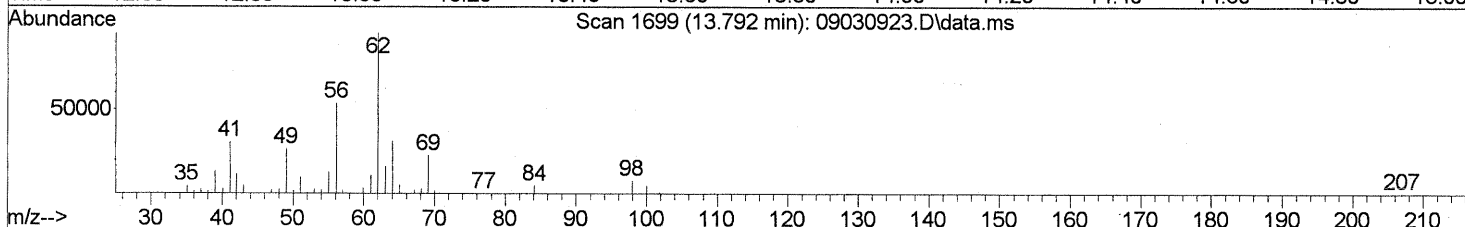
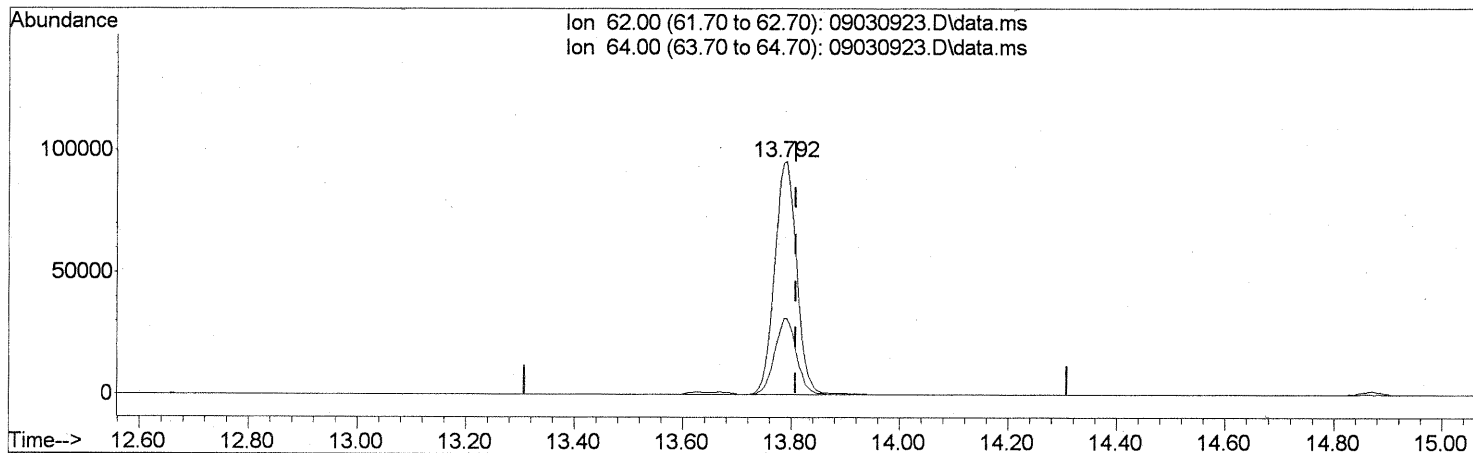
Ion	Exp%	Act%
72.10	100	100
71.00	92.50	92.13
42.10	254.10	405.32#
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

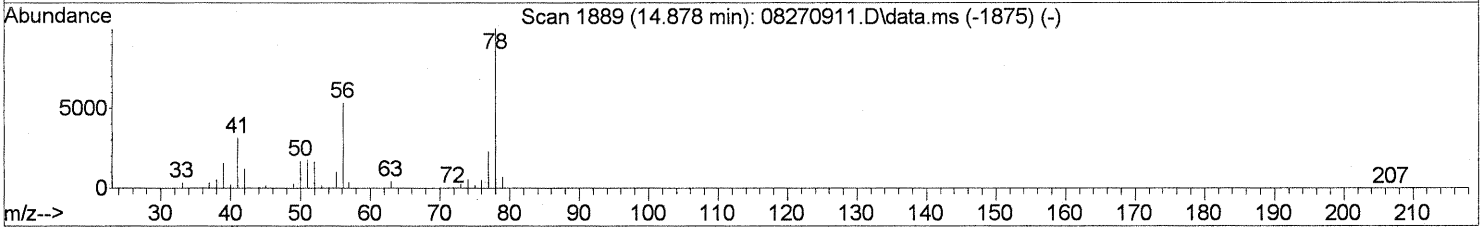
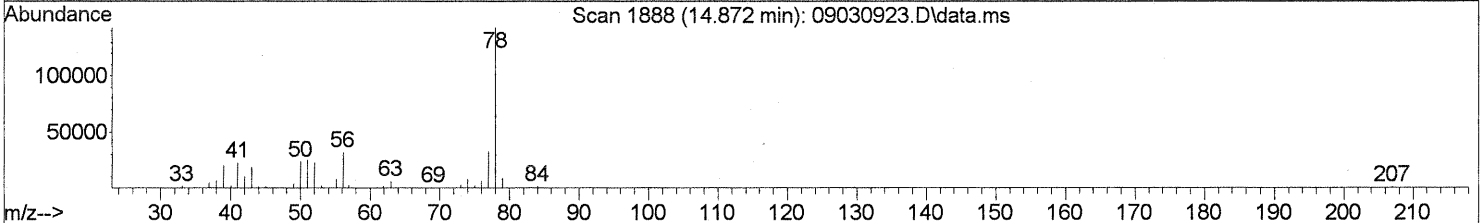
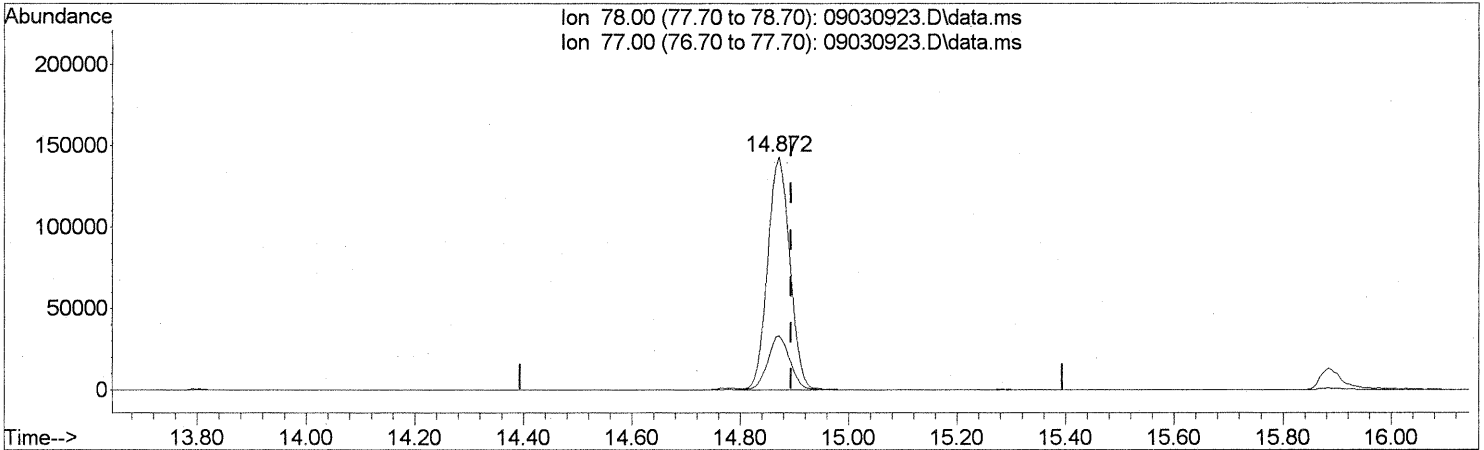
(36) 1,2-Dichloroethane (T)  
 13.792min (-0.017) 10.40ng  
 response 268594

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	32.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

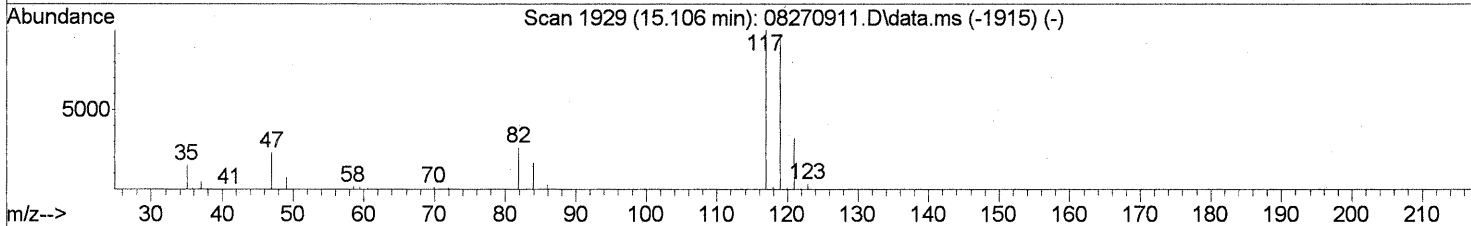
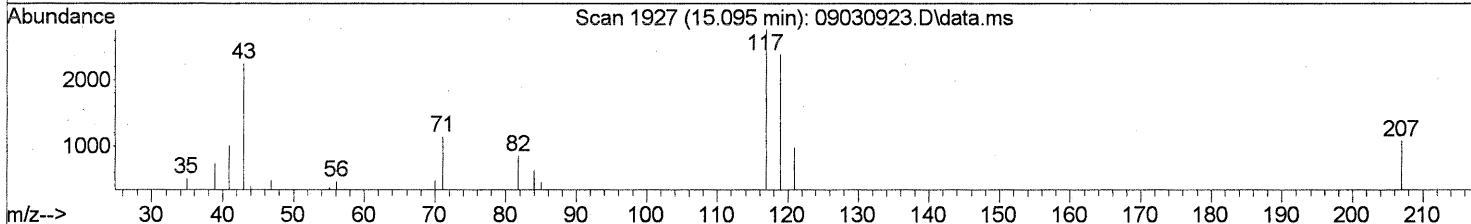
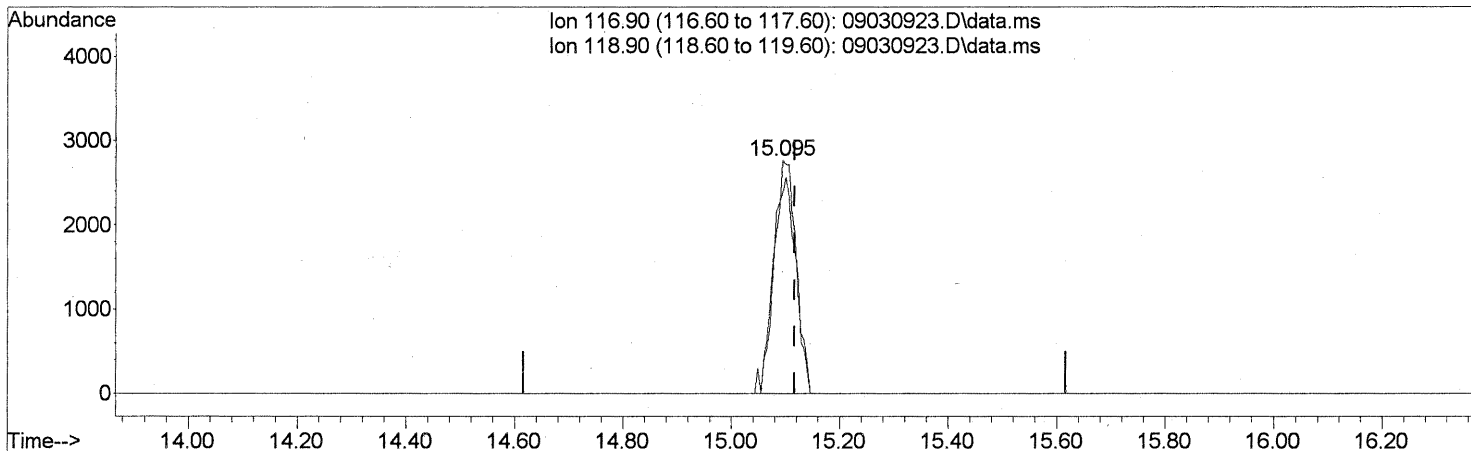
(41) Benzene (T)  
 14.872min (-0.023) 5.63ng  
 response 407314

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(42) Carbon Tetrachloride (T)

15.095min (-0.023) 0.32ng

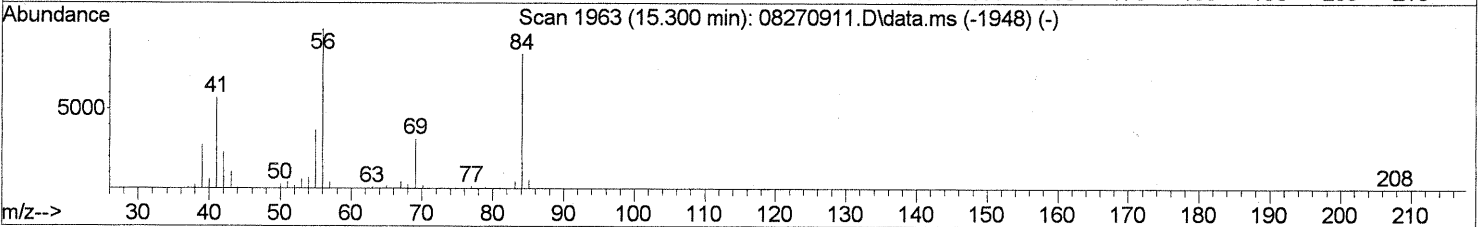
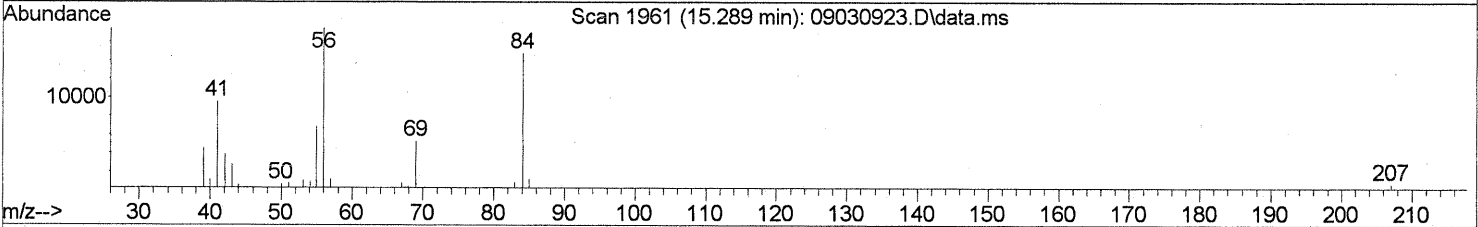
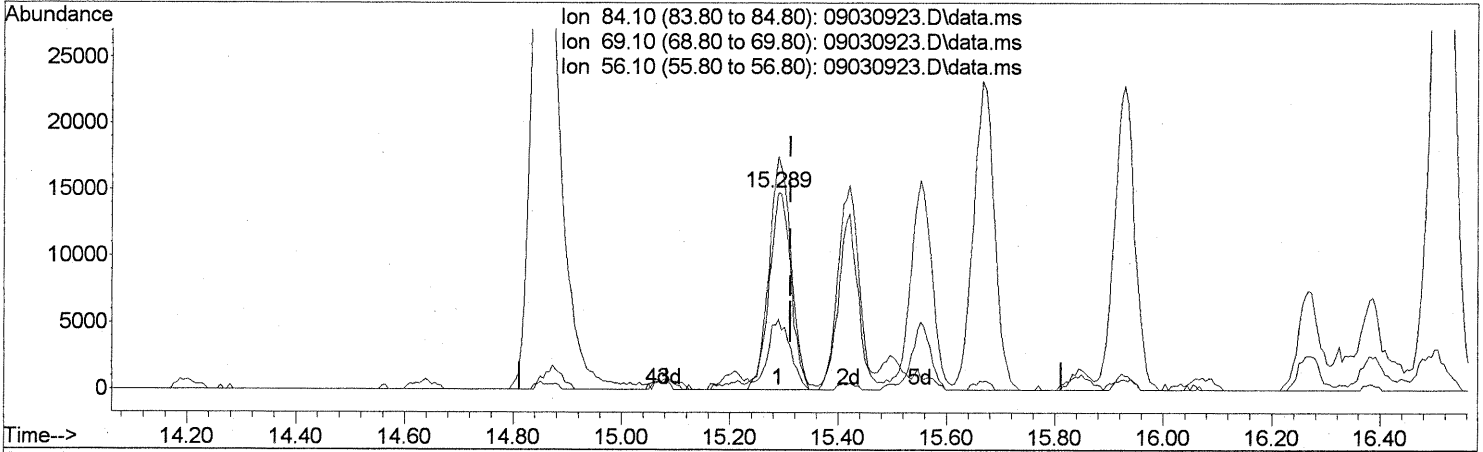
response 7851

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	93.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

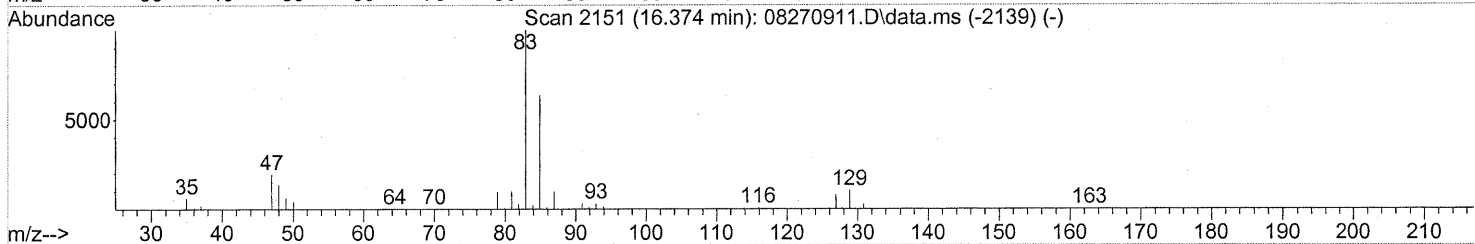
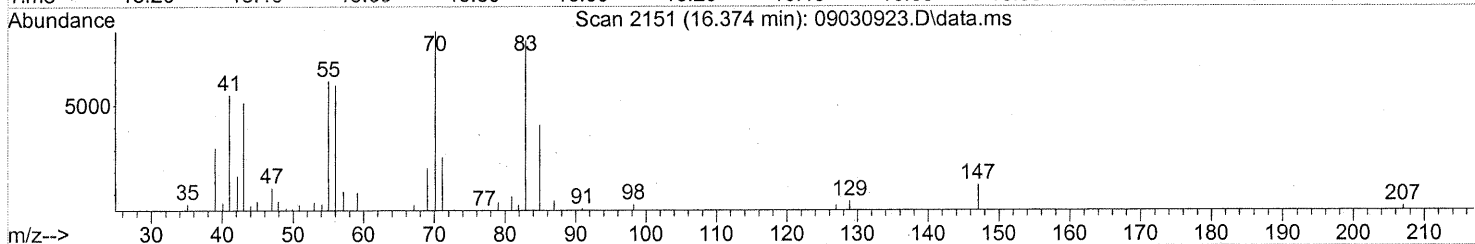
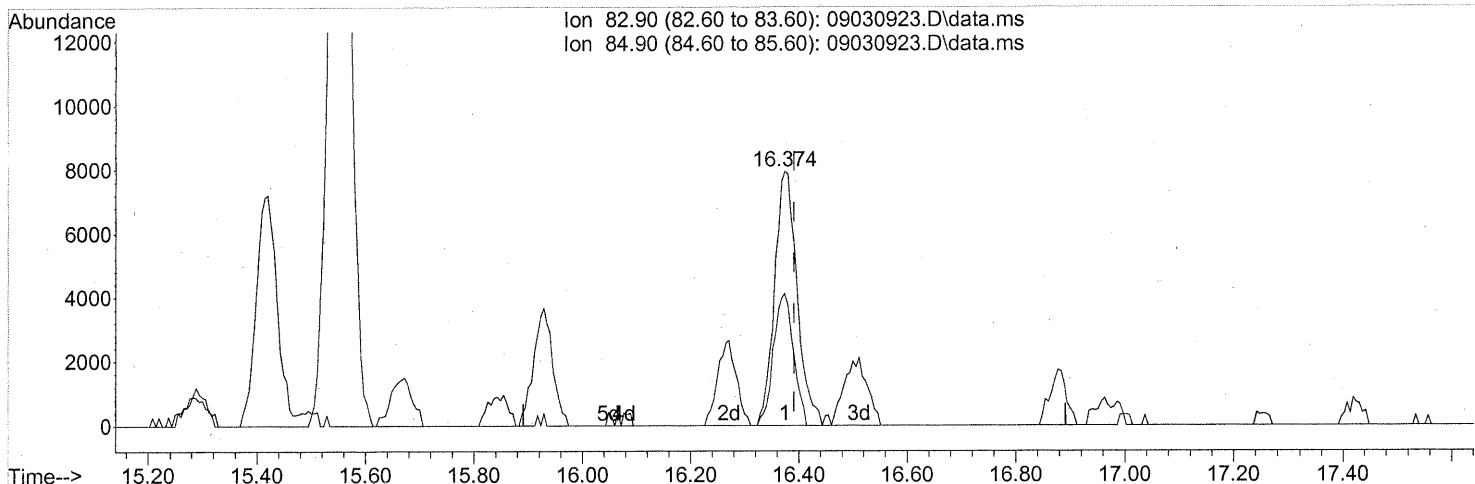
(43) Cyclohexane (T)  
 15.289min (-0.023) 1.54ng  
 response 40980

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	36.85
56.10	124.50	121.43
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 10:39:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



(46) Bromodichloromethane (T)

16.374min (-0.017) 0.96ng

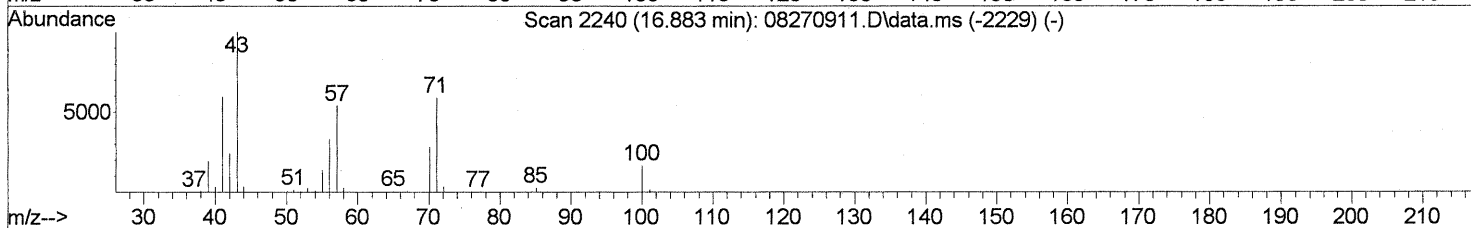
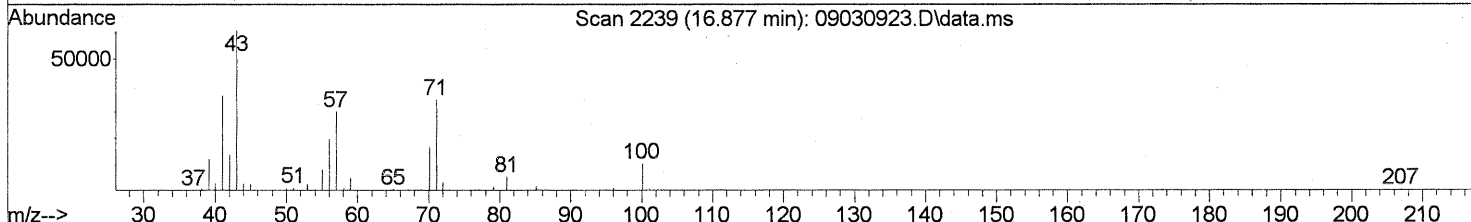
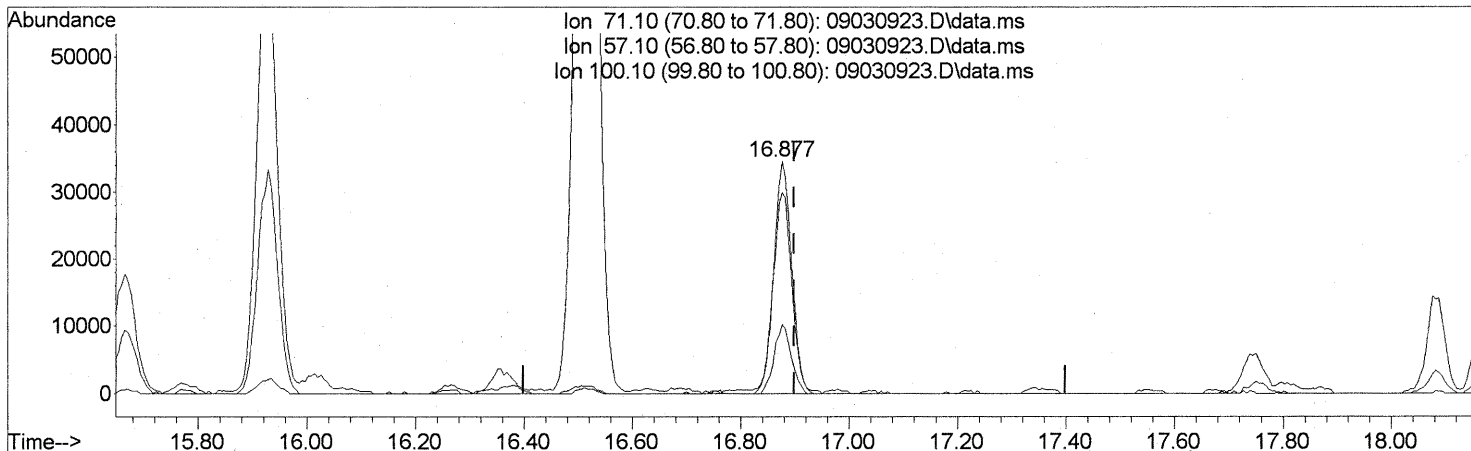
response 22921

Ion	Exp%	Act%
82.90	100	100
84.90	64.50	46.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

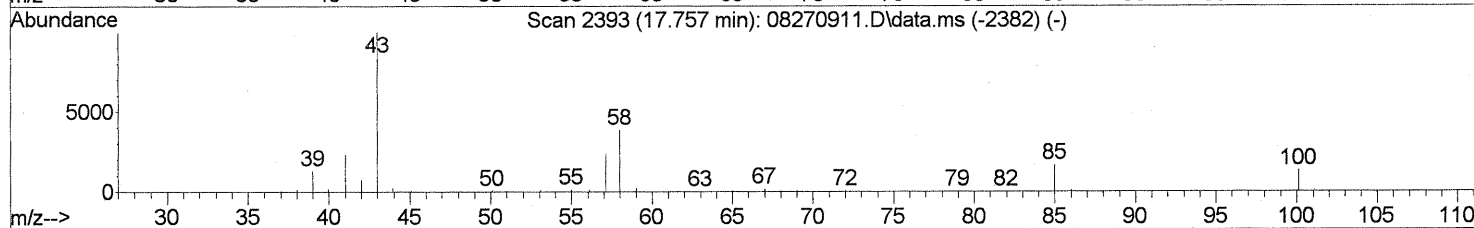
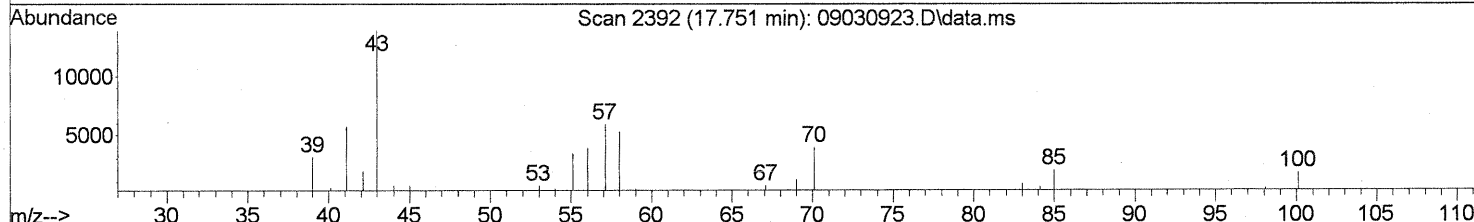
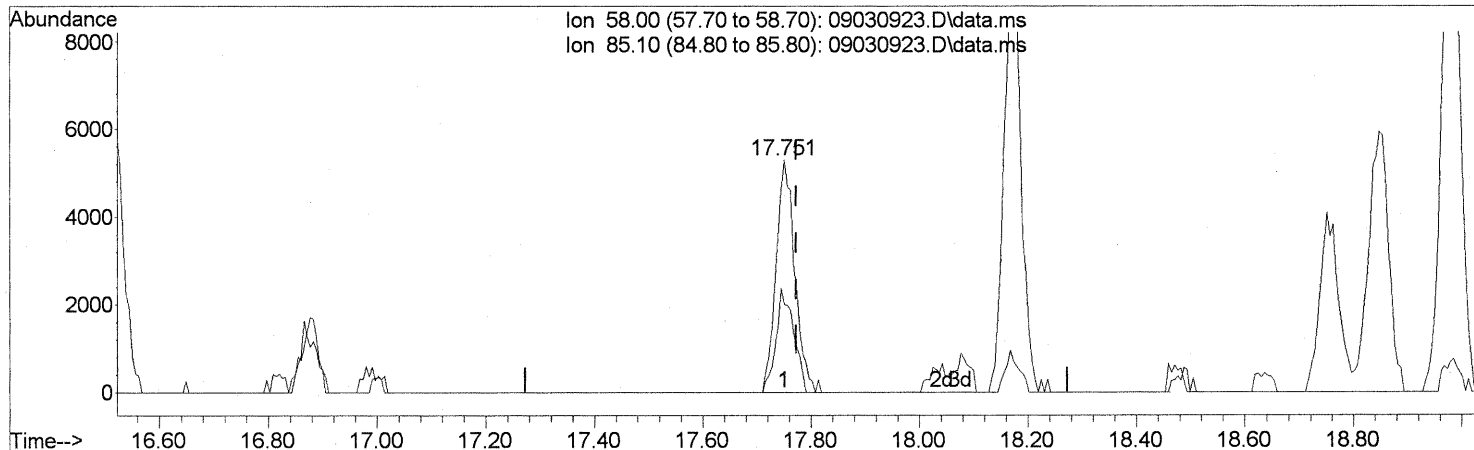
(51) n-Heptane (T)  
 16.877min (-0.023) 4.23ng  
 response 79254

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	93.16
100.10	22.00	28.29
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

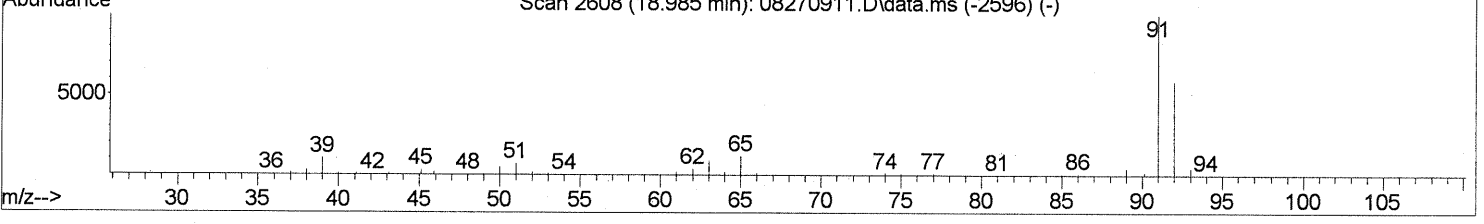
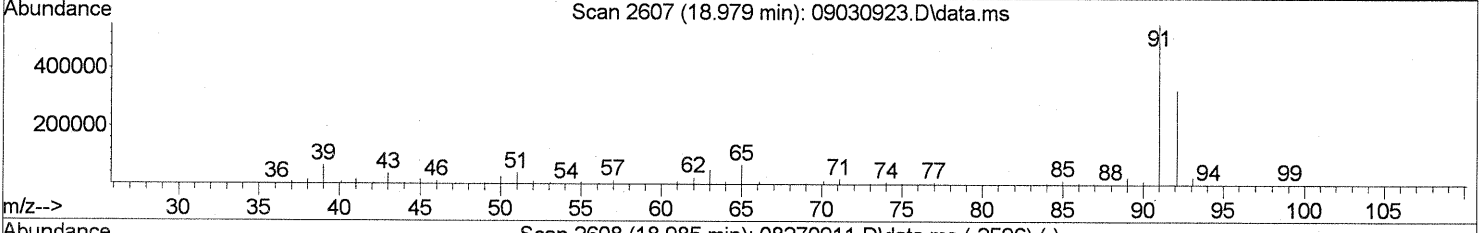
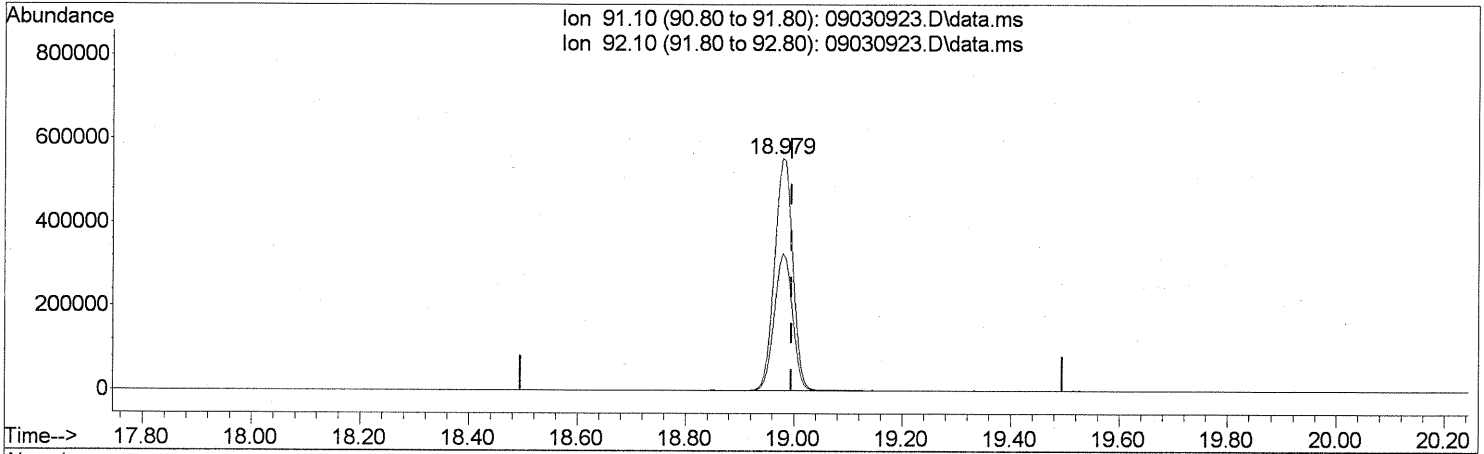
(53) 4-Methyl-2-pentanone (T)  
 17.751min (-0.023) 0.76ng  
 response 12606

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	42.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(58) Toluene (T)  
 18.979min (-0.017) 17.99ng  
 response 1289821

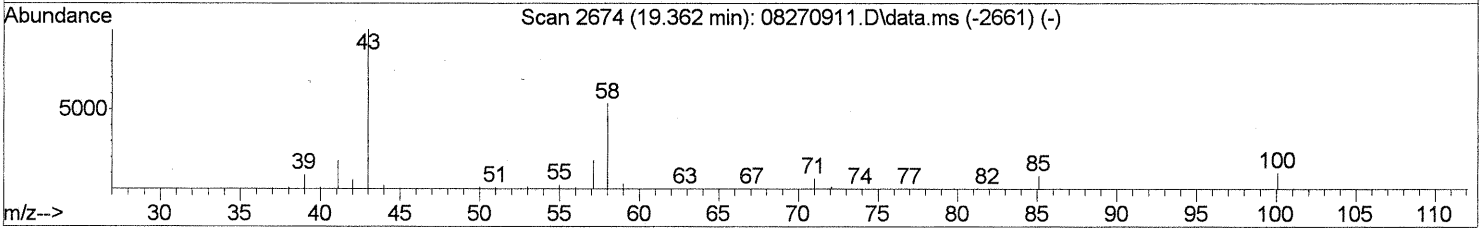
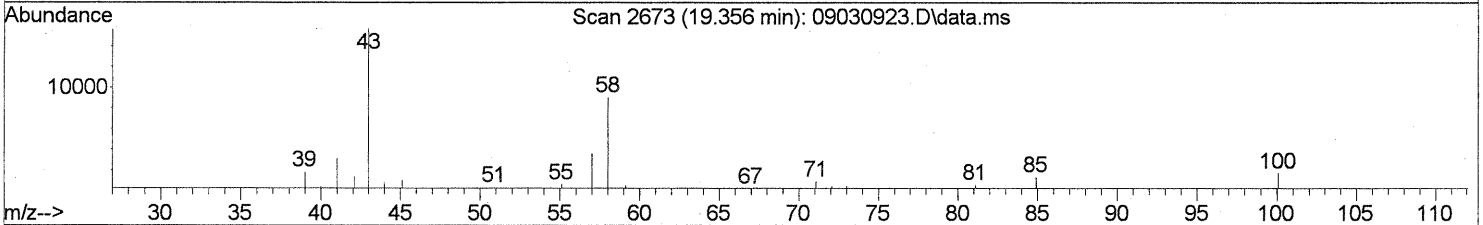
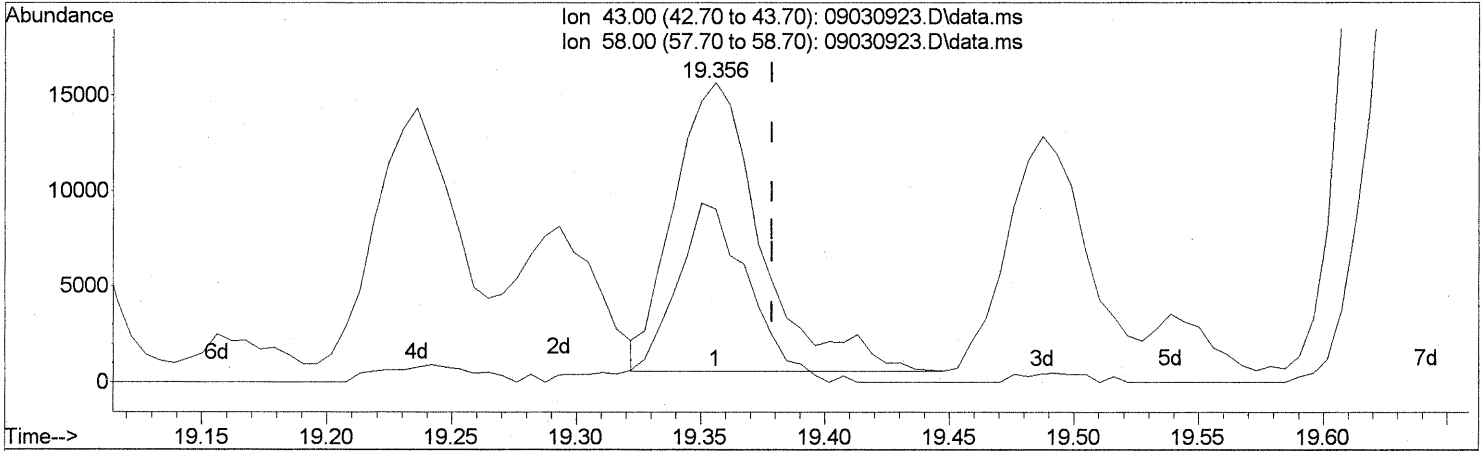
Ion	Exp%	Act%
91.10	100	100
92.10	58.80	58.92
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 0.83ng  
 response 36489

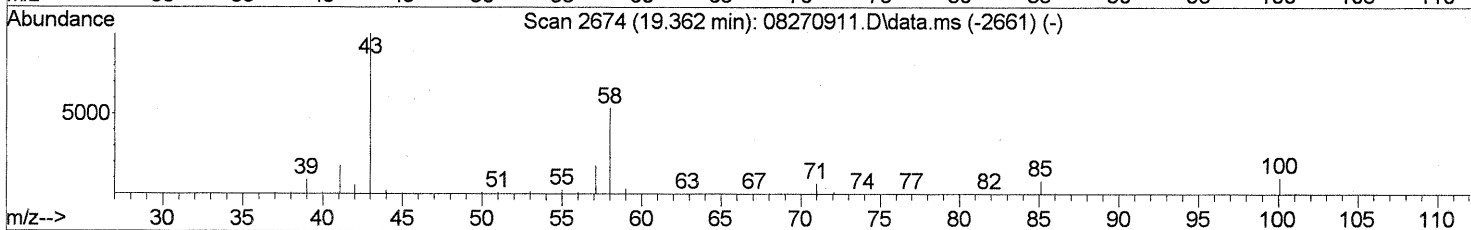
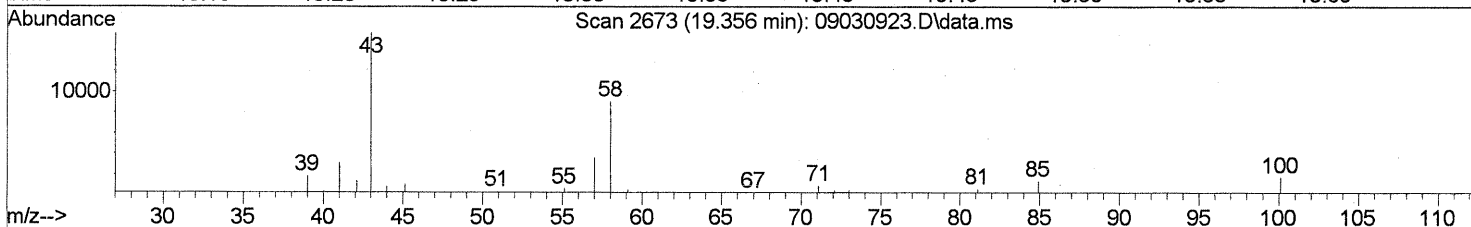
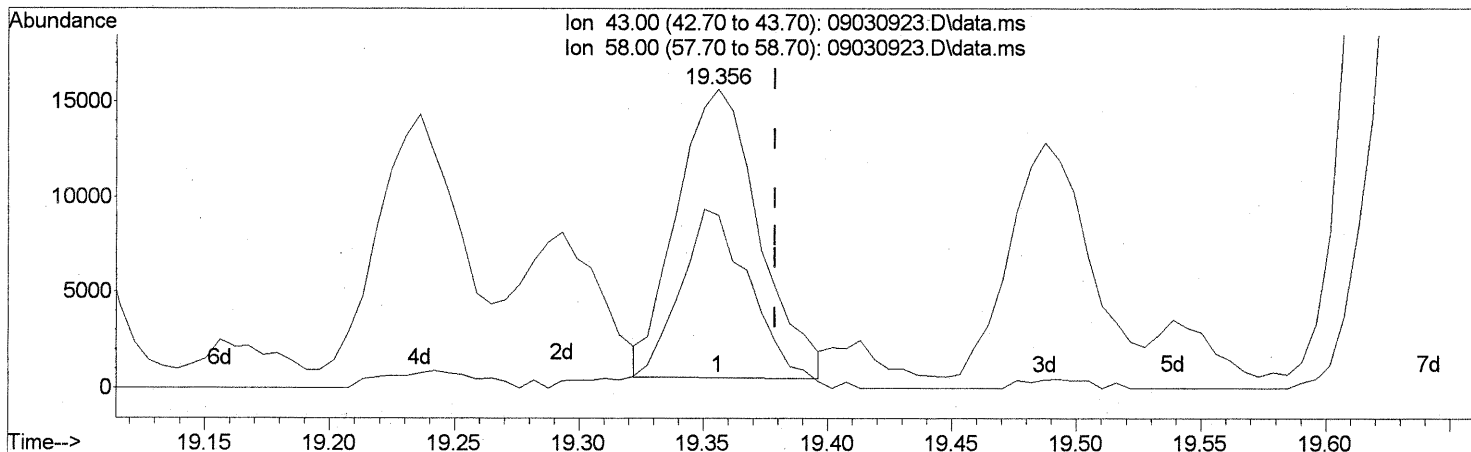
PT

Ion	Exp%	Act%
43.00	100	100
58.00	51.70	54.98
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(59) 2-Hexanone (T)  
 19.356min (-0.023) 0.78ng m  
 response 34382

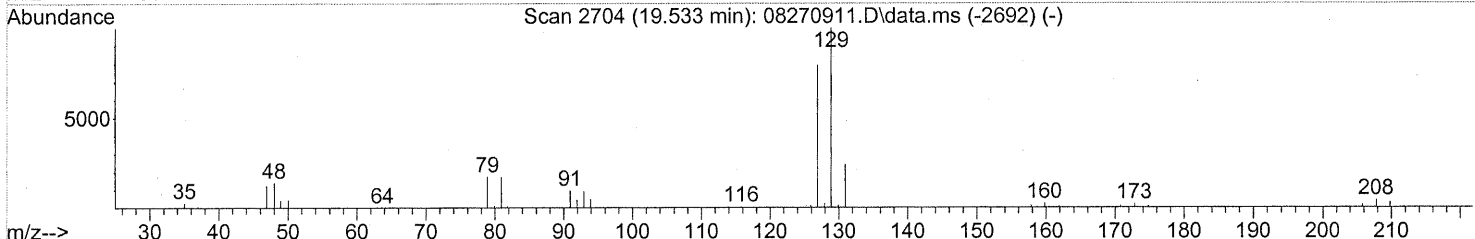
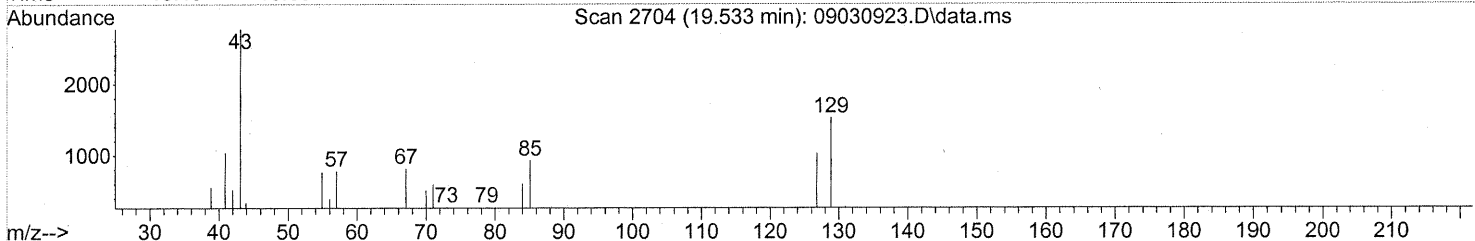
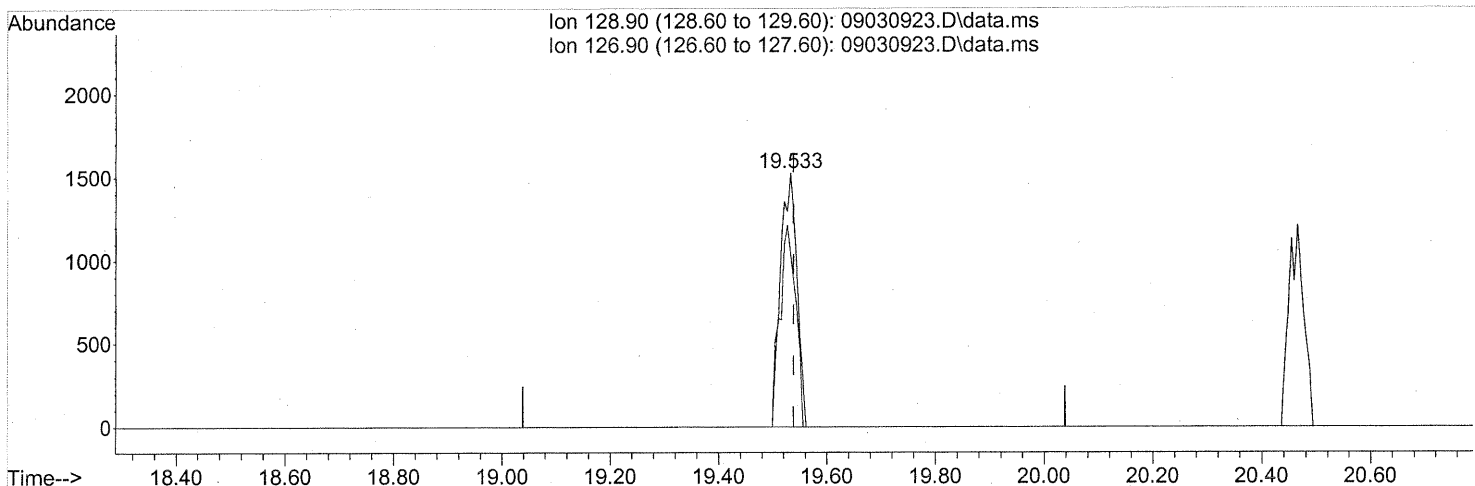
Ion	Exp%	Act%
43.00	100	100
58.00	51.70	58.34
0.00	0.00	0.00
0.00	0.00	0.00

*PT -> IC*  
*11/9/09*  
*11/9/09*

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 10 10:39:06 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(60) Dibromochloromethane (T)

19.533min (-0.006) 0.18ng

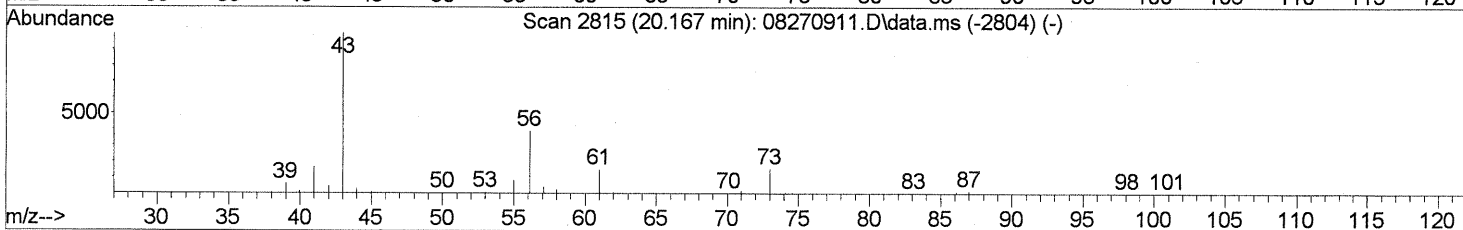
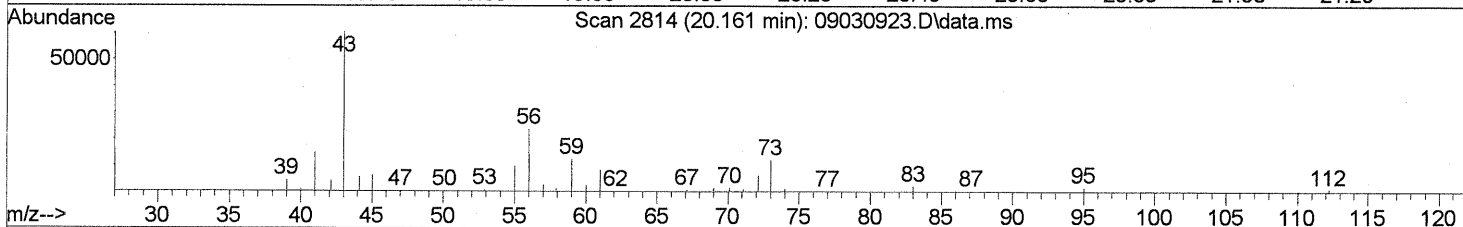
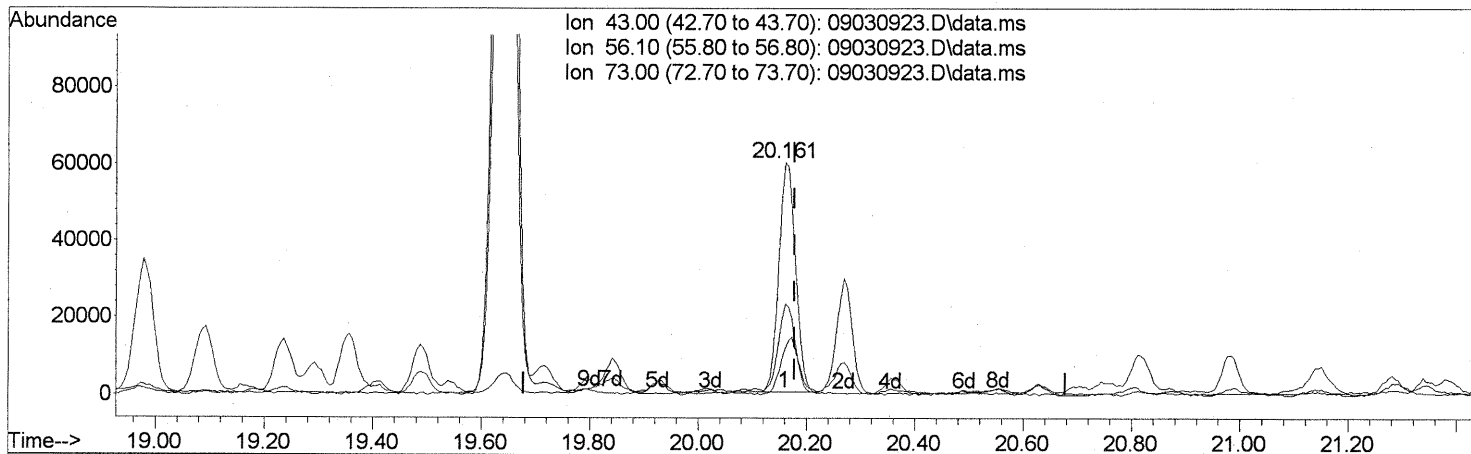
response 3246

Ion	Exp%	Act%
128.90	100	100
126.90	77.50	74.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

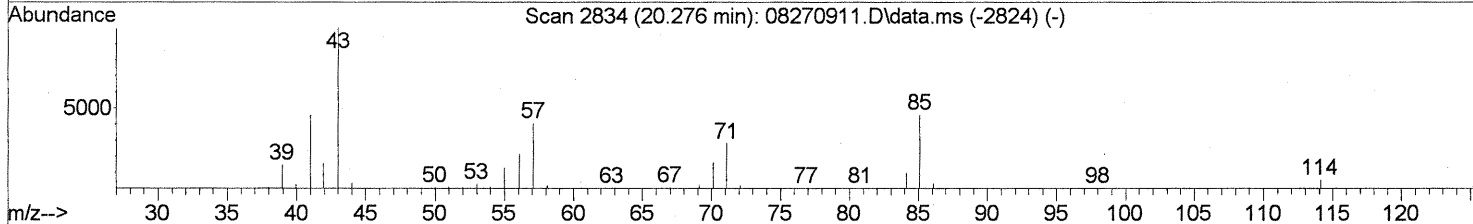
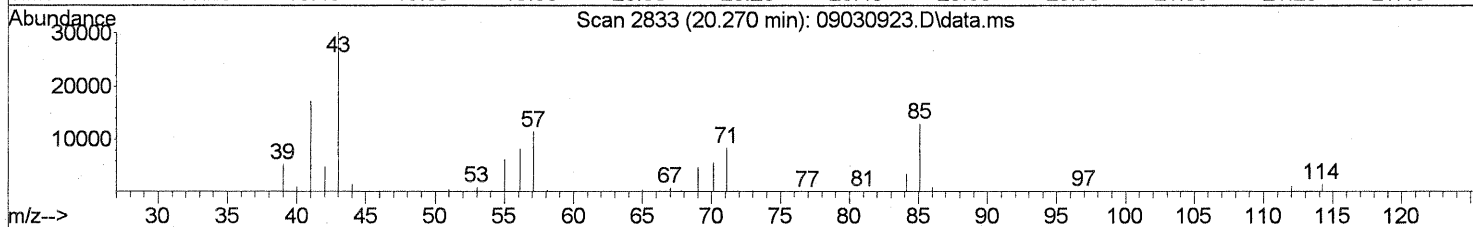
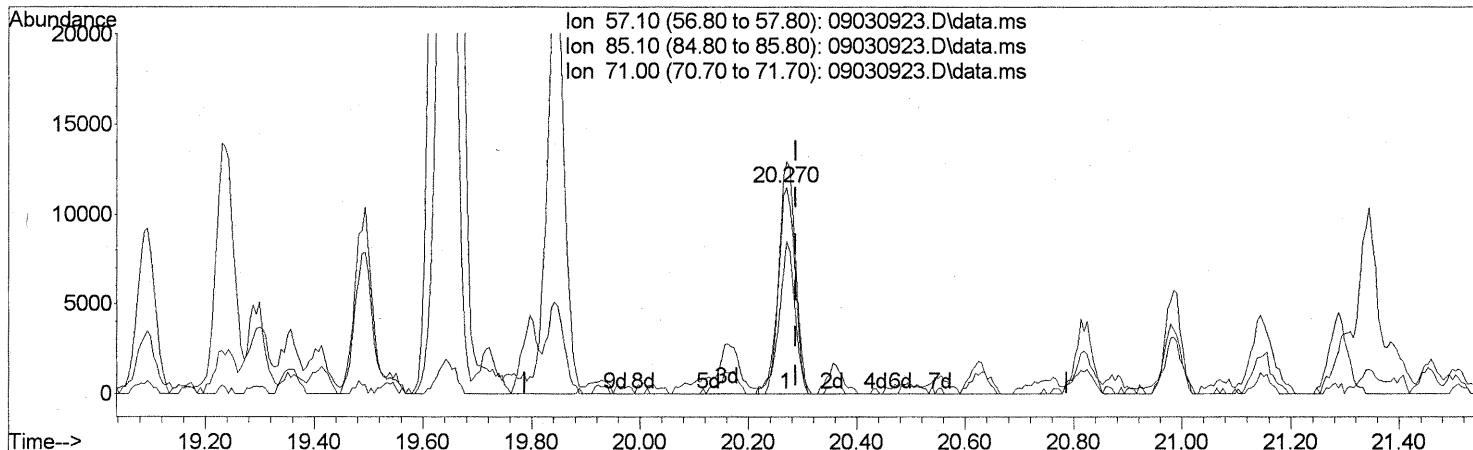
(62) n-Butyl Acetate (T)  
 20.161min (-0.017) 2.53ng  
 response 126937

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	39.27
73.00	14.30	29.43
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

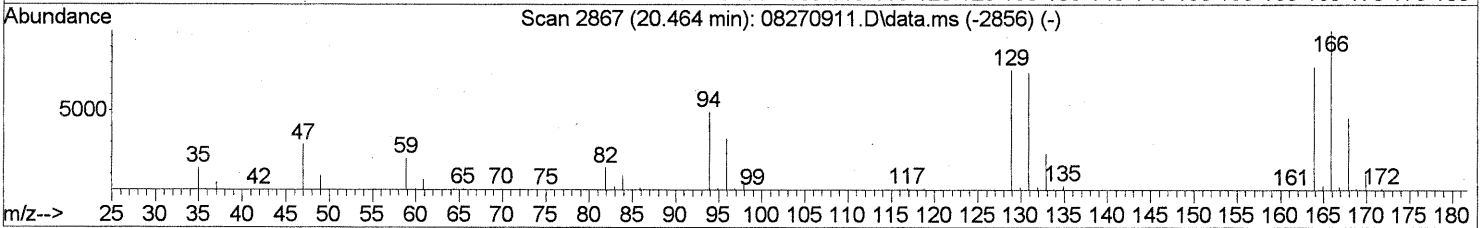
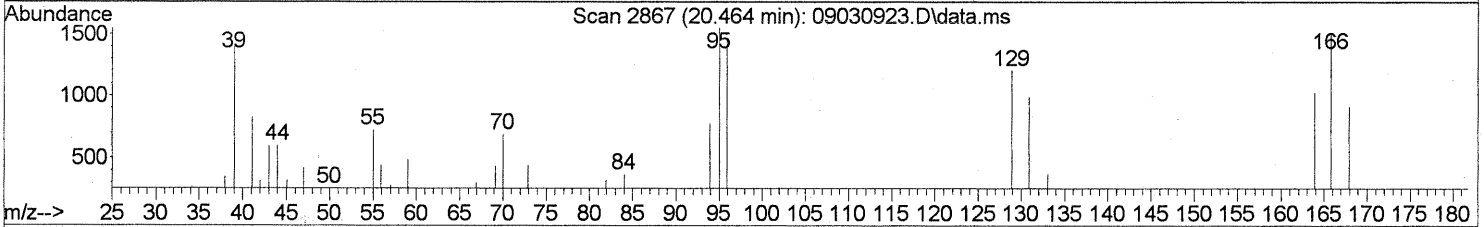
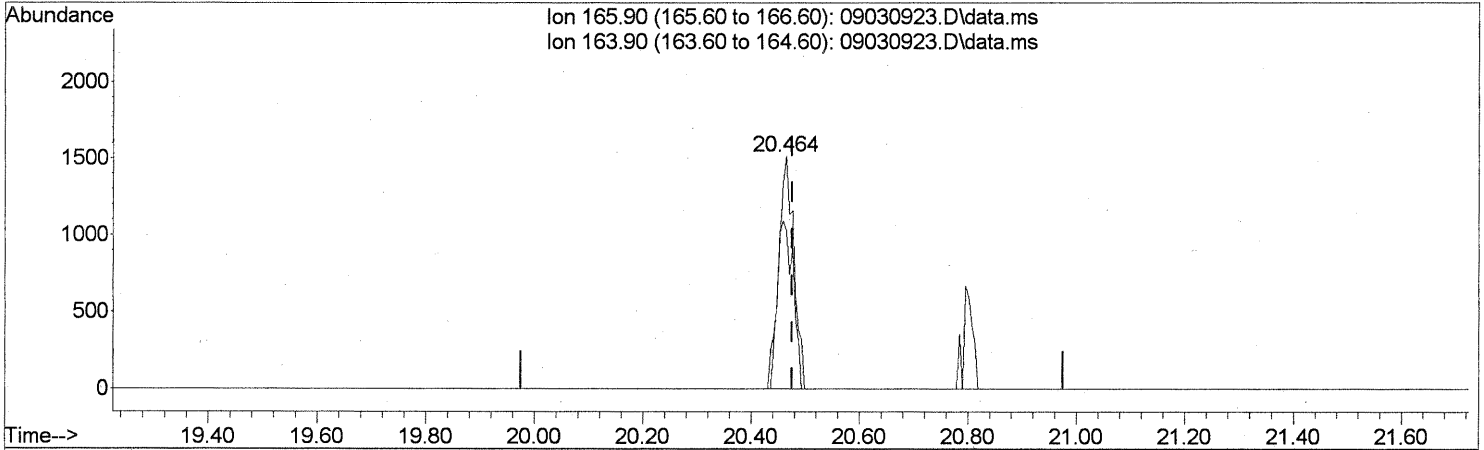
(63) n-Octane (T)  
 20.270min (-0.017) 1.53ng  
 response 25159

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	108.56
71.00	69.10	68.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(64) Tetrachloroethene (T)

20.464min (-0.011) 0.16ng

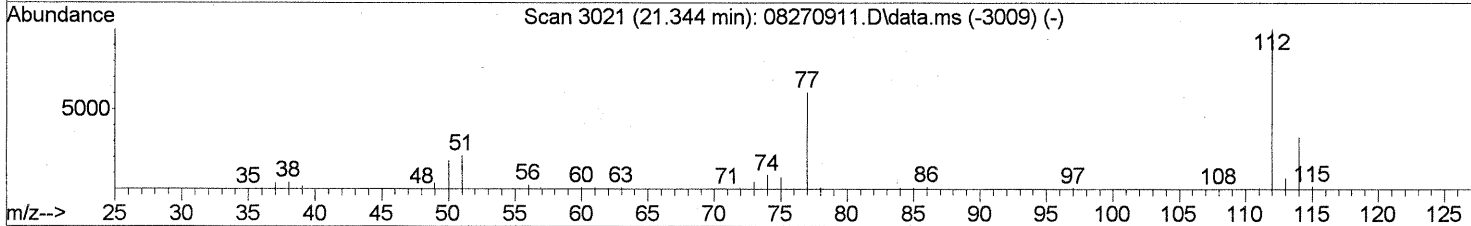
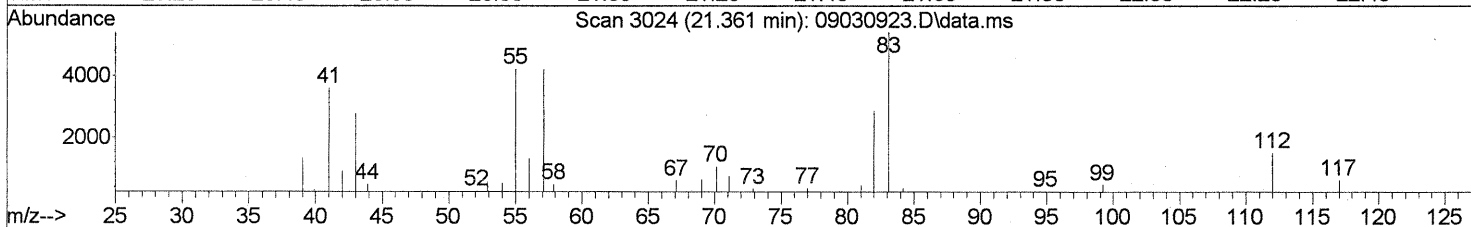
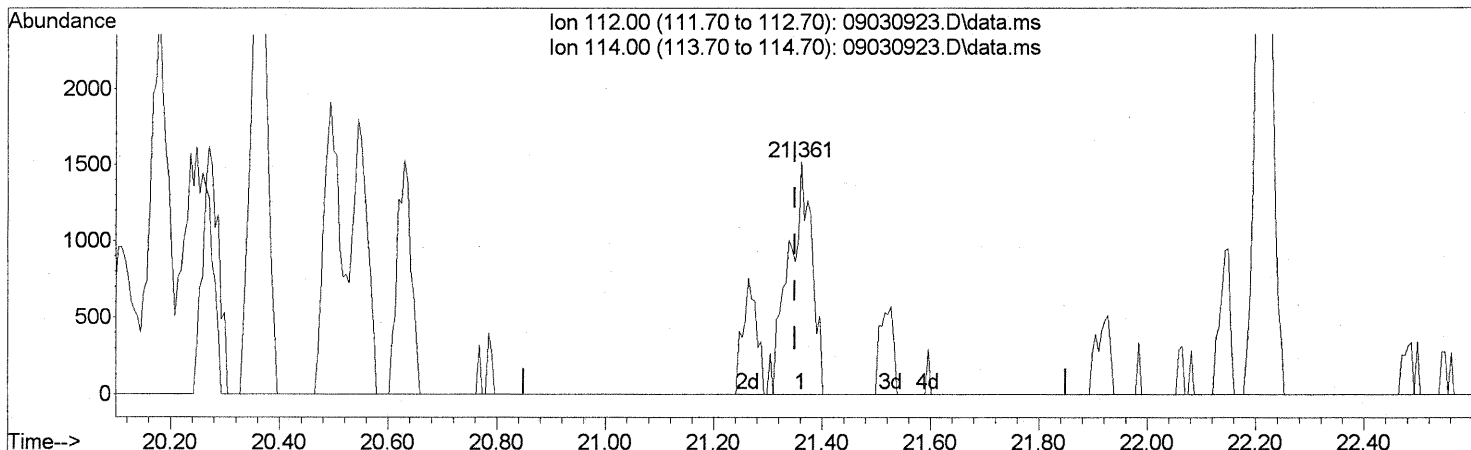
response 2944

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	75.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(65) Chlorobenzene (T)  
 21.361min (+0.011) 0.10ng  
 response 4534

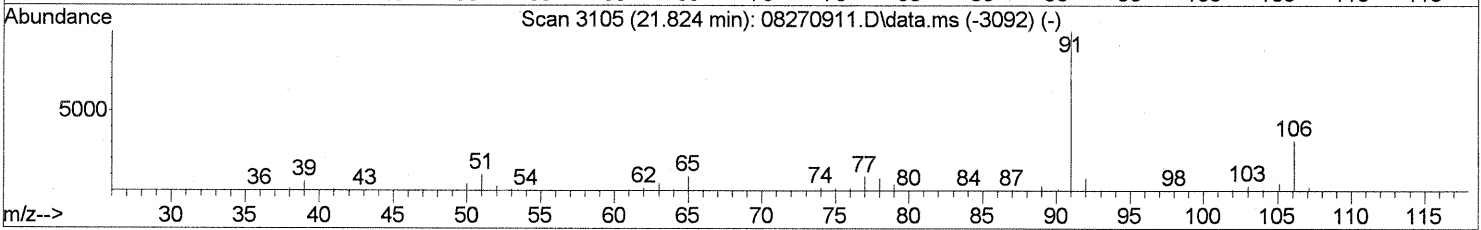
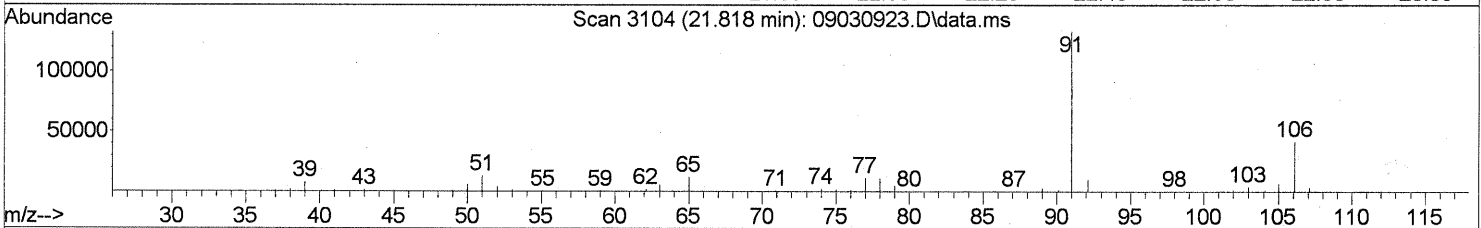
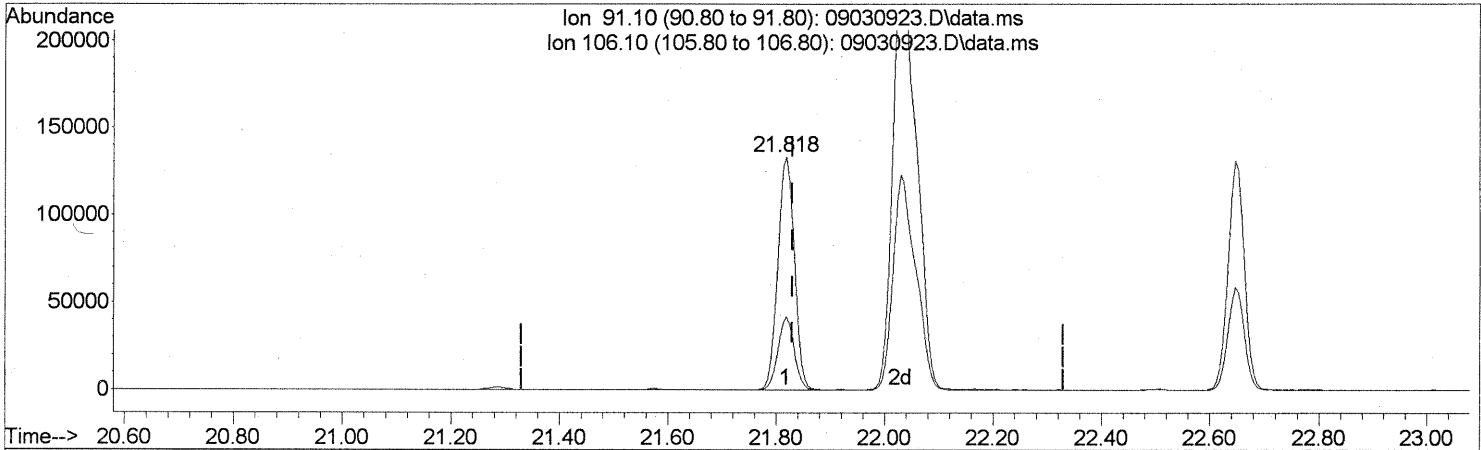
Ion	Exp%	Act%
112.00	100	100
114.00	32.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP  
 11/9/09  
 11/9/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(66) Ethylbenzene (T)  
 21.818min (-0.011) 3.42ng  
 response 280233

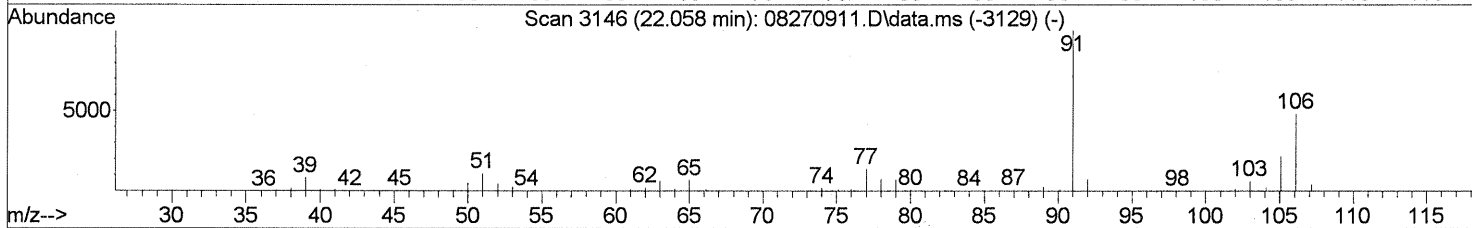
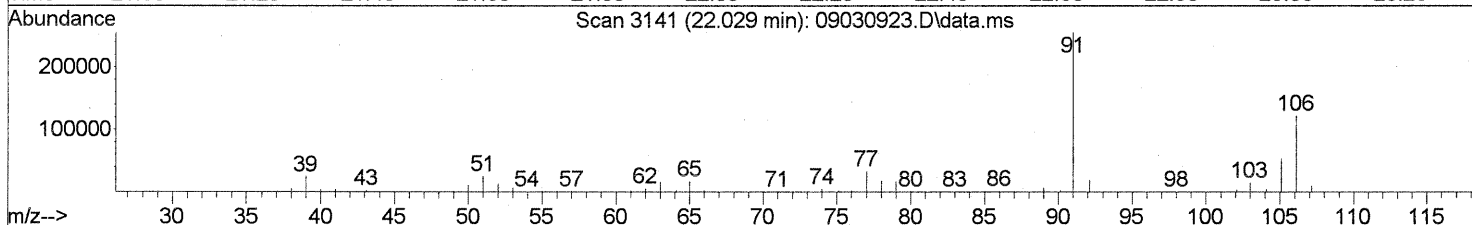
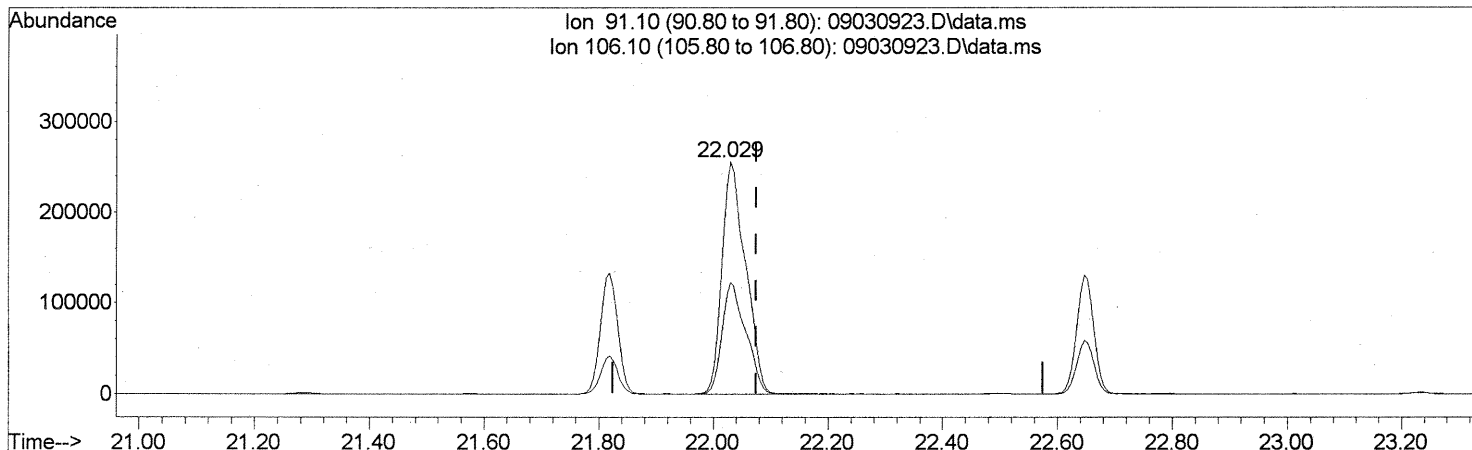
Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.78
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

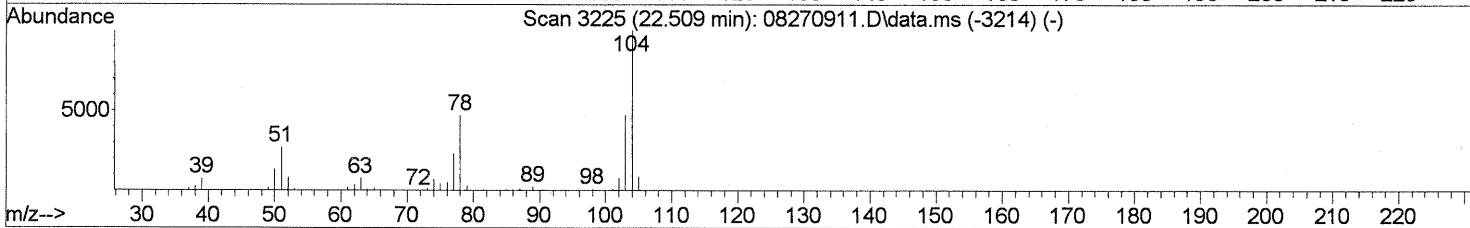
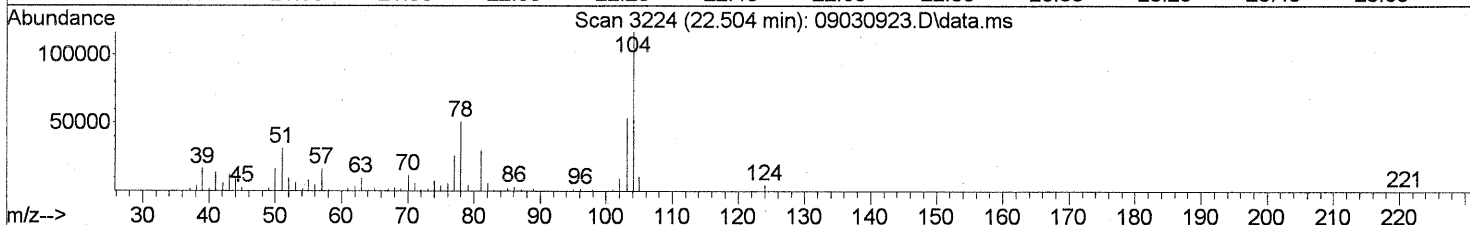
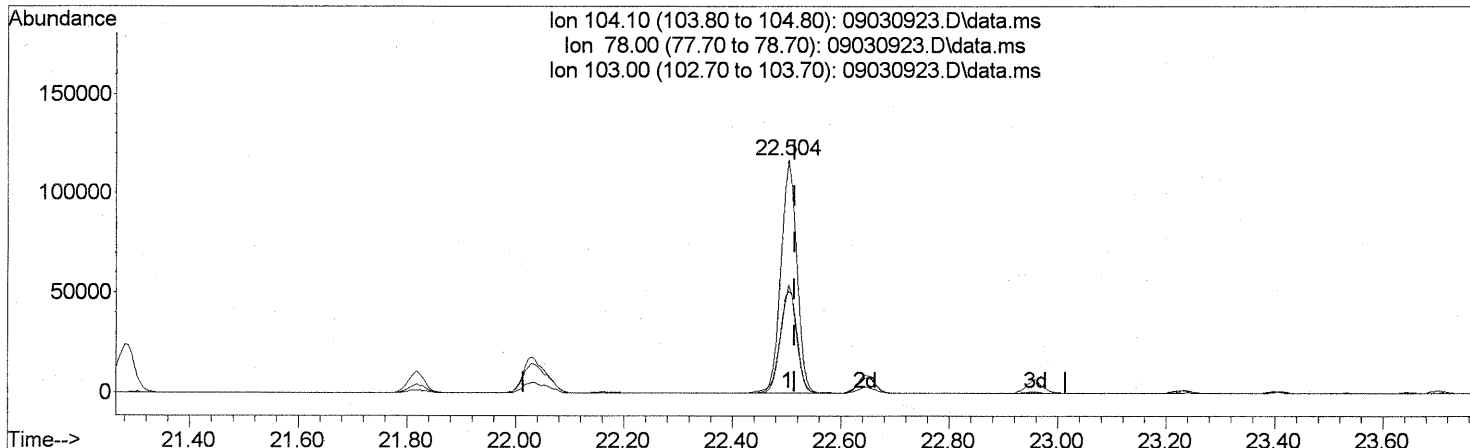
(67) m- & p-Xylenes (T)  
 22.029min (-0.046) 11.22ng  
 response 732544

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	48.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

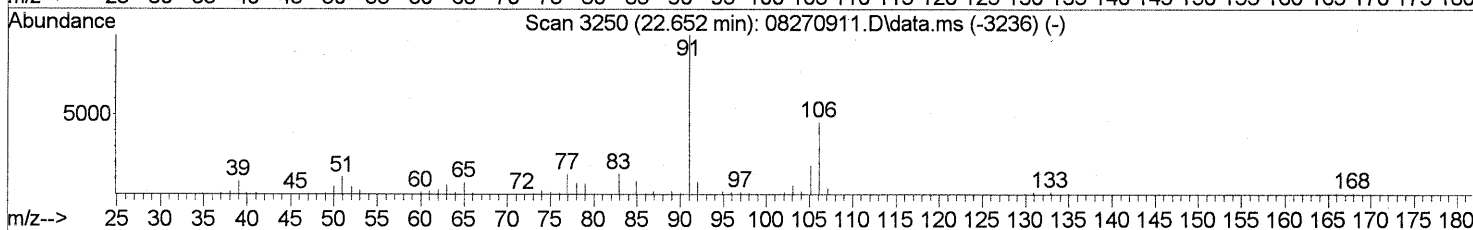
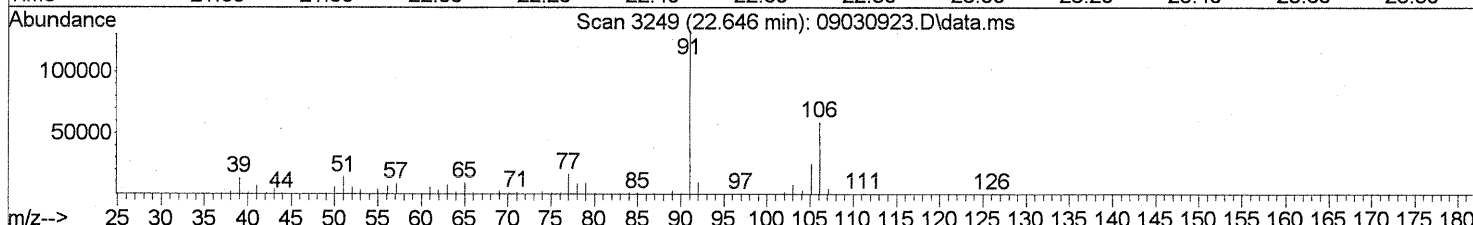
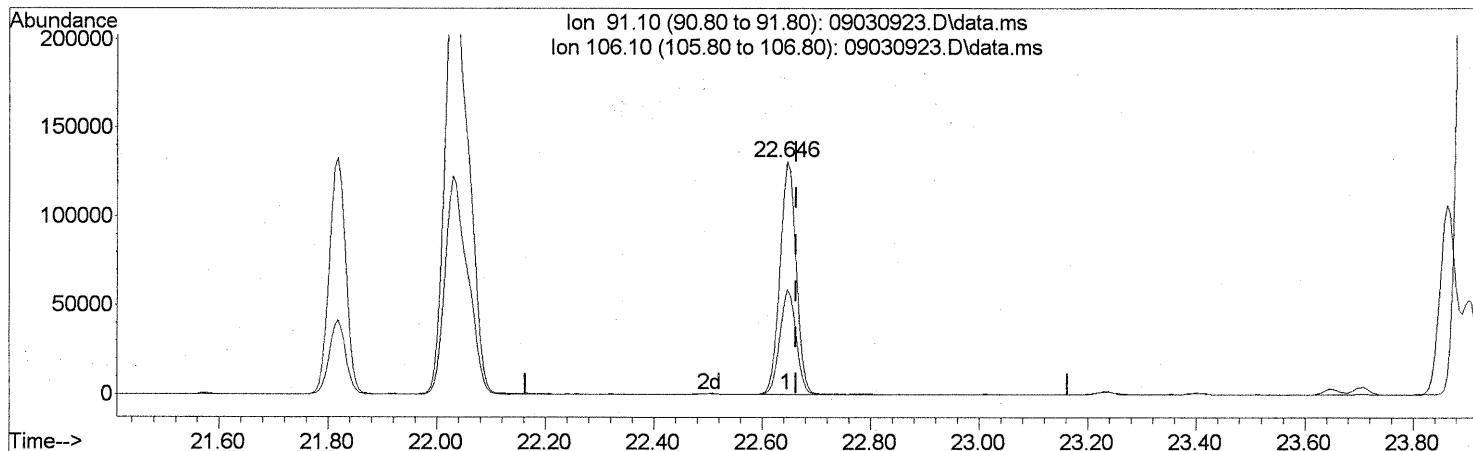
(69) Styrene (T)  
 22.504min (-0.011) 4.90ng  
 response 235321

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.15
103.00	47.00	47.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

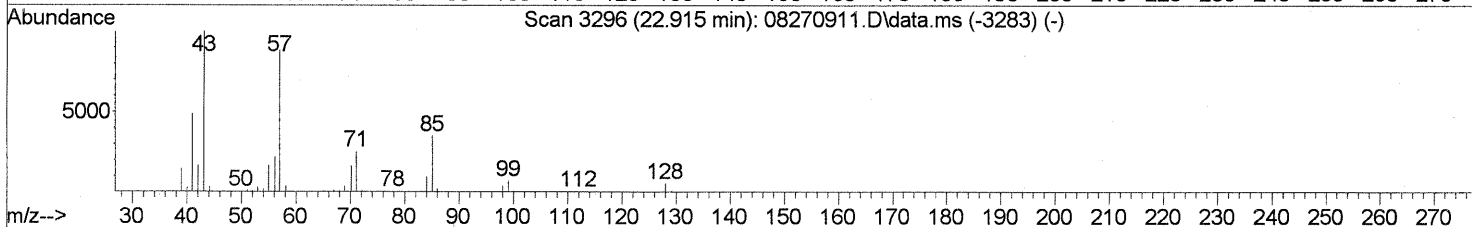
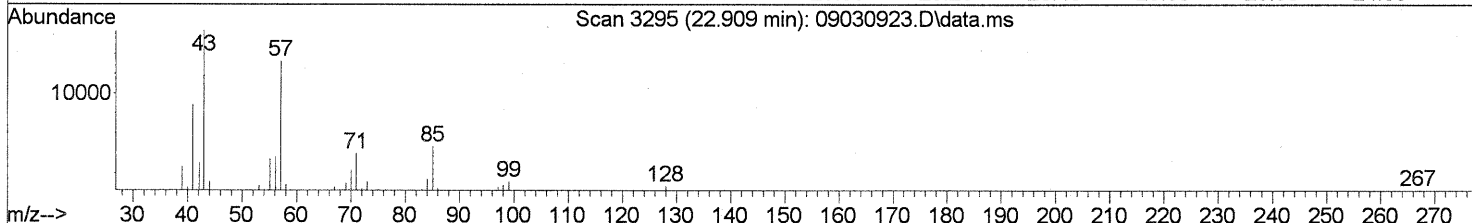
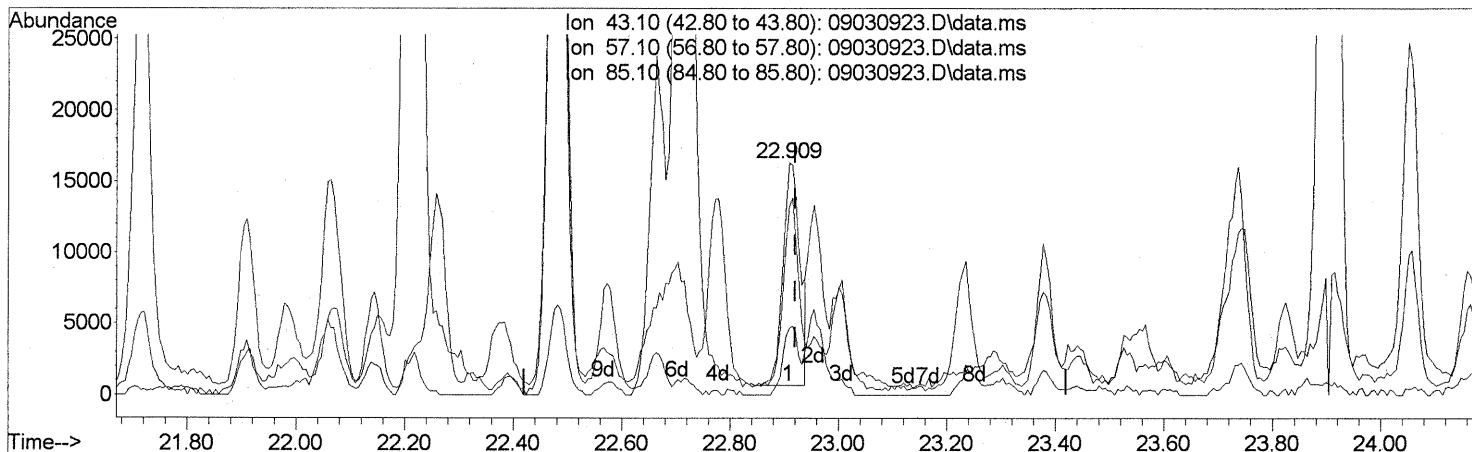
(70) o-Xylene (T)  
 22.646min (-0.017) 4.15ng  
 response 271901

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

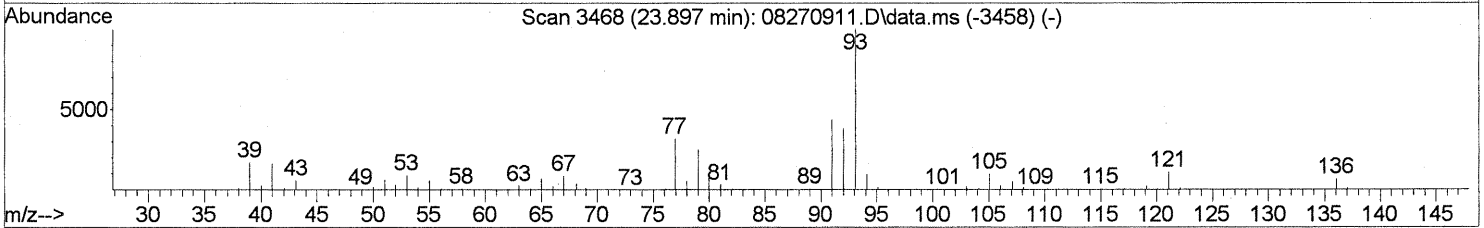
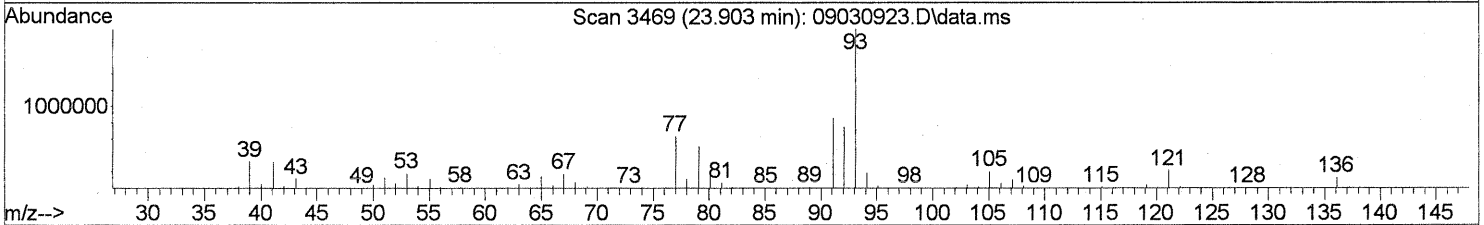
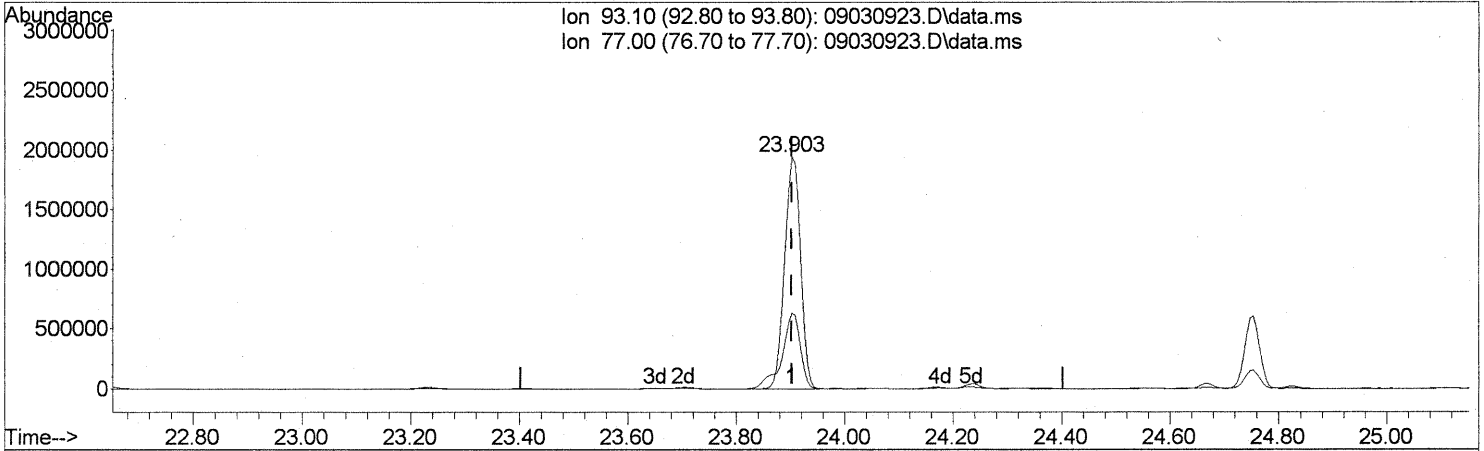
(71) n-Nonane (T)  
 22.909min (-0.011) 0.87ng  
 response 34177

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	93.19
85.10	32.20	27.93
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

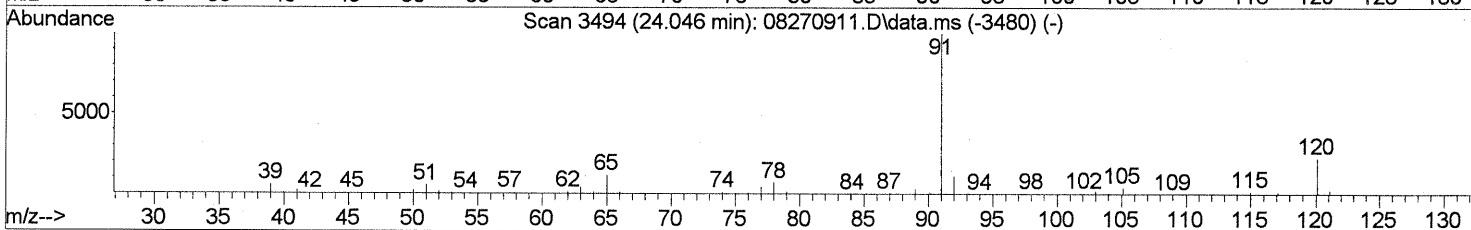
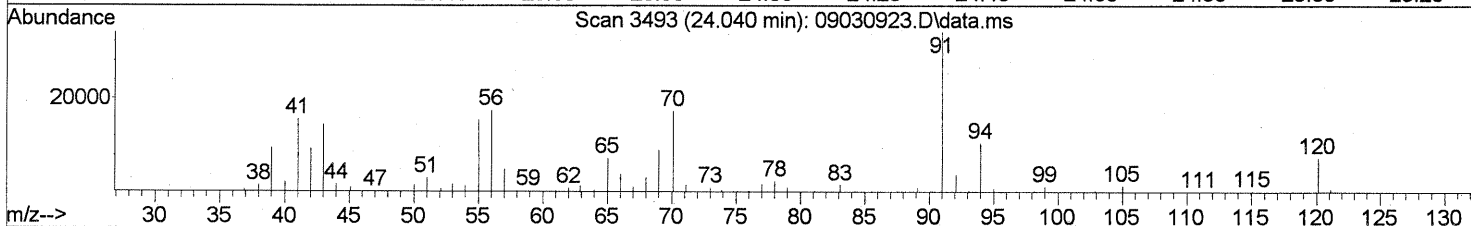
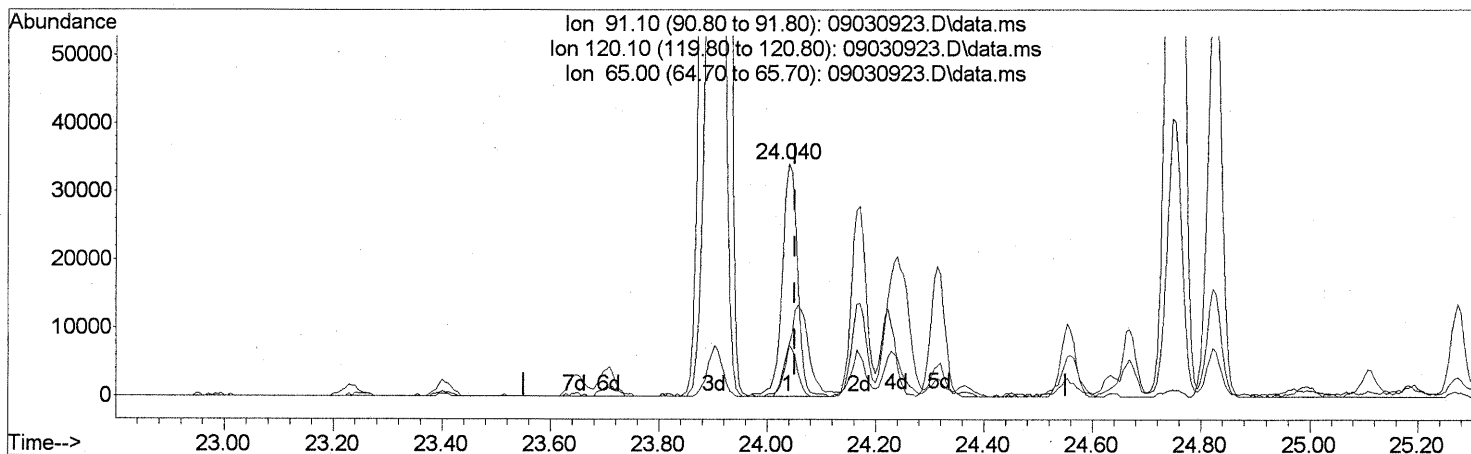
(75) alpha-Pinene (T)  
 23.903min (+0.000) 92.13ng  
 response 3971429

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	37.51
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

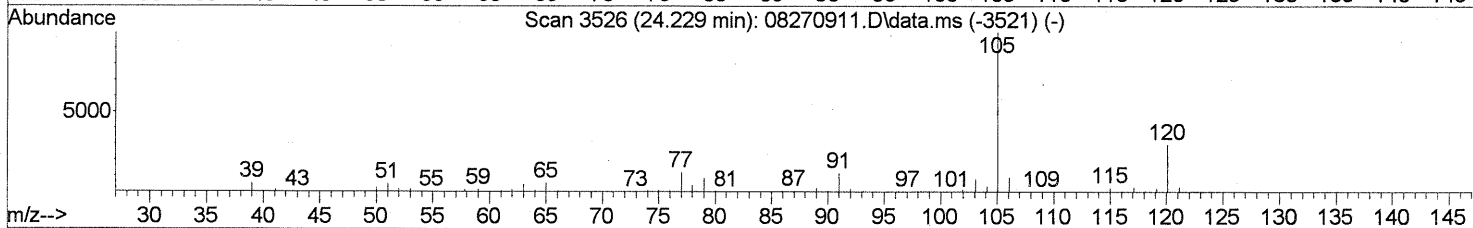
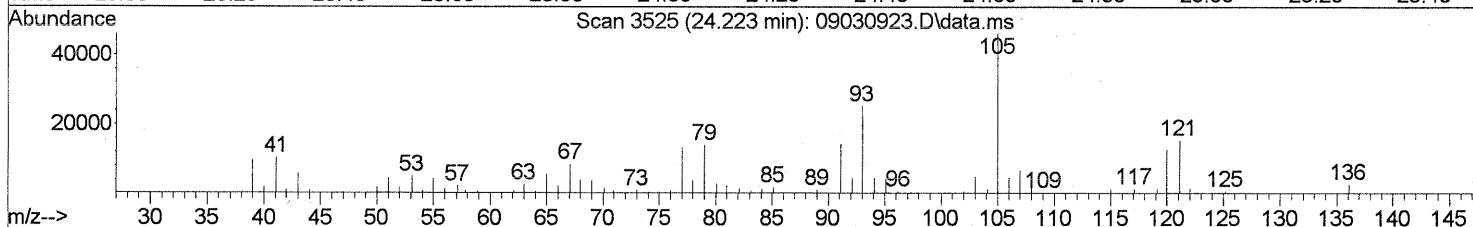
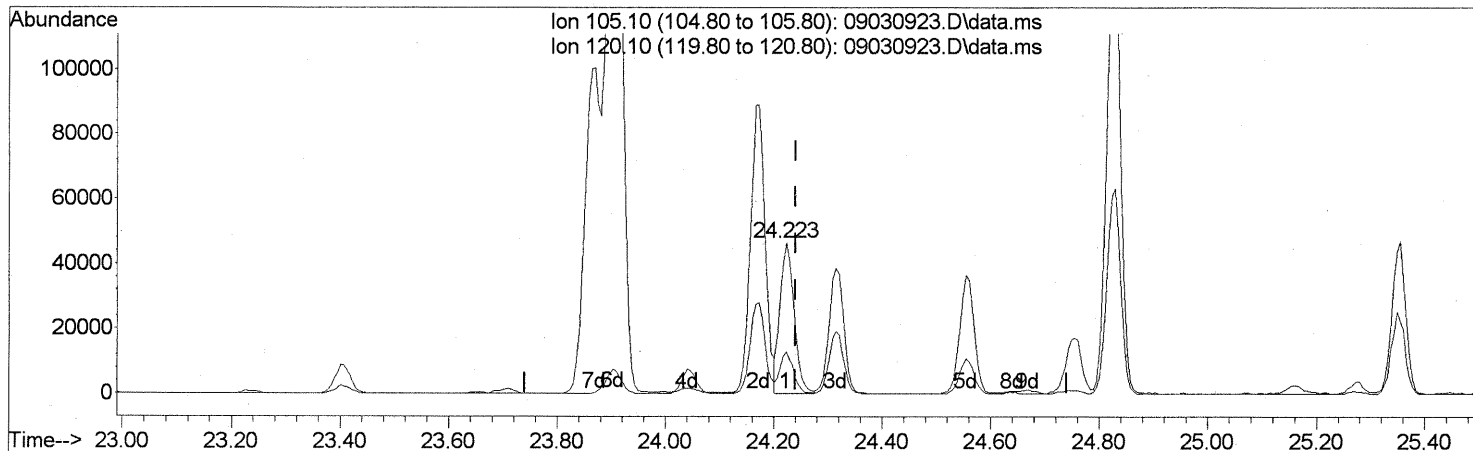
(76) n-Propylbenzene (T)  
 24.040min (-0.011) 0.64ng  
 response 67602

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	19.54
65.00	11.80	52.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

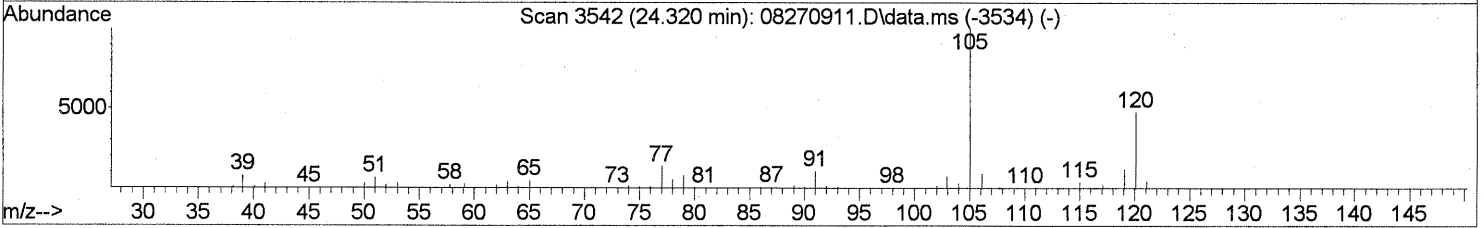
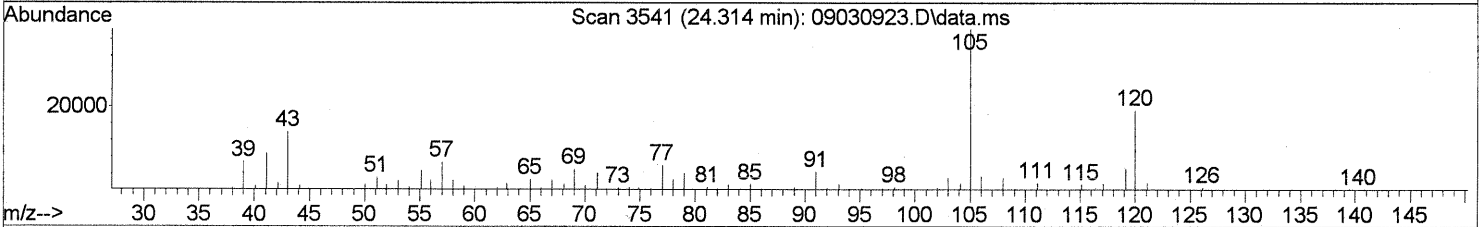
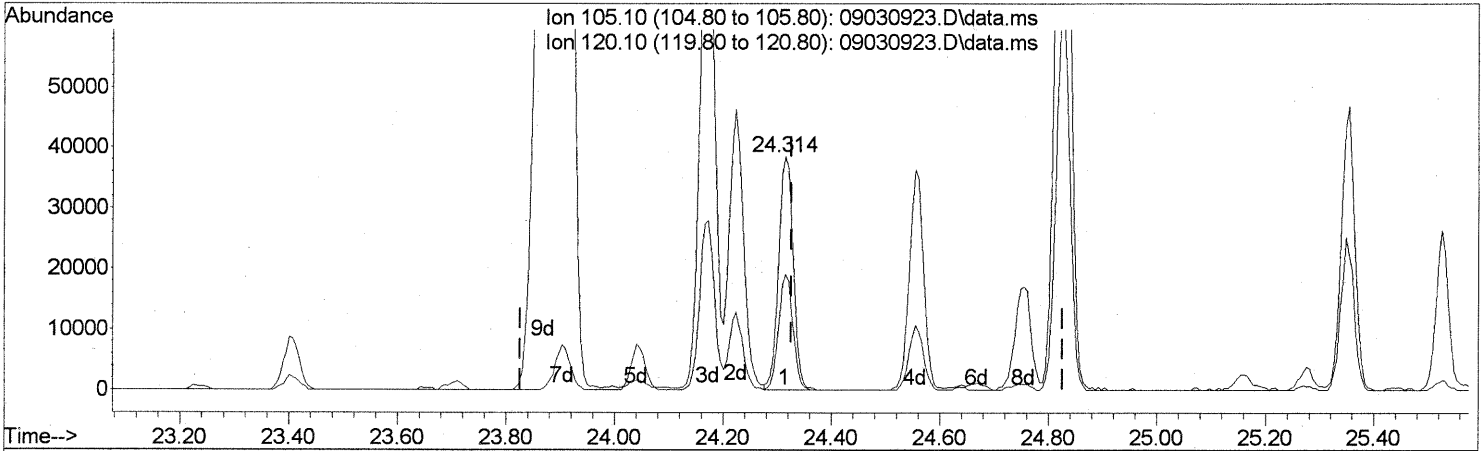
(78) 4-Ethyltoluene (T)  
 24.223min (-0.017) 1.07ng  
 response 84045

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	26.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(79) 1,3,5-Trimethylbenzene (T)

24.314min (-0.011) 1.11ng

response 72231

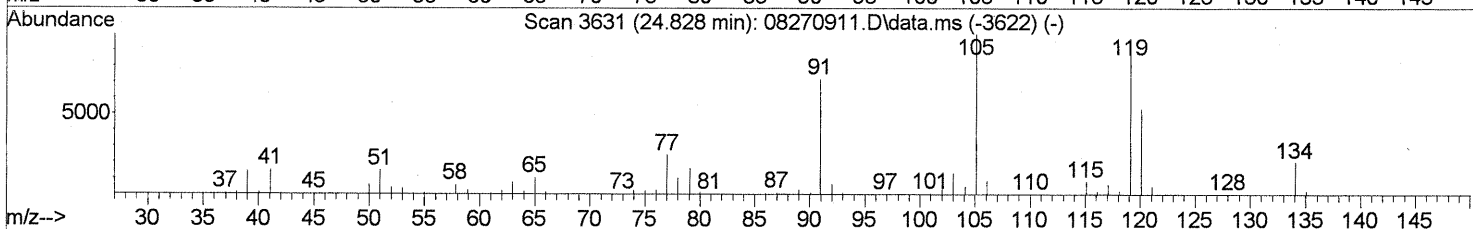
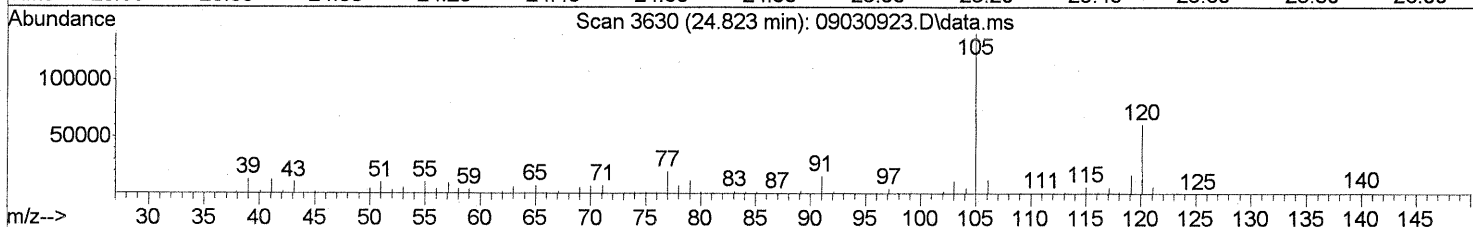
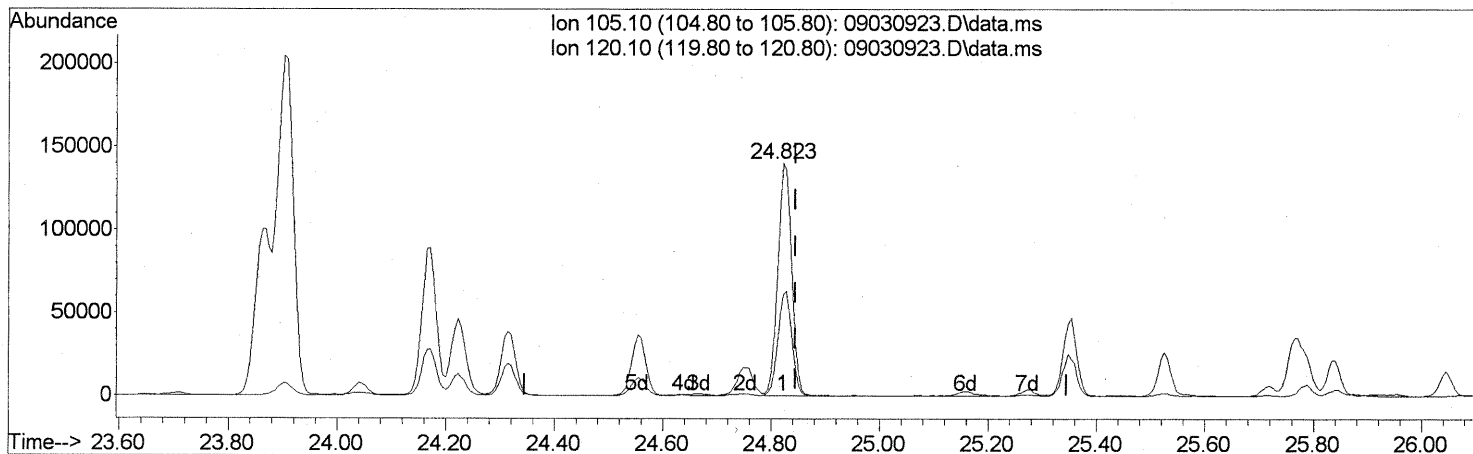
Ion	Exp%	Act%
105.10	100	100
120.10	47.70	48.34
0.00	0.00	0.00
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

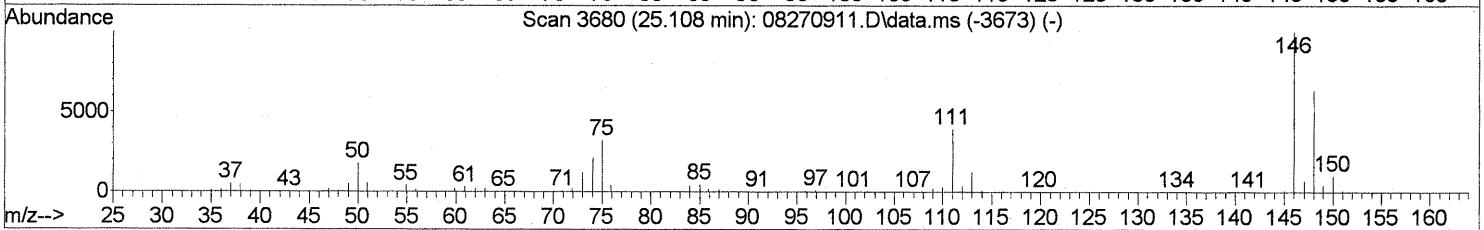
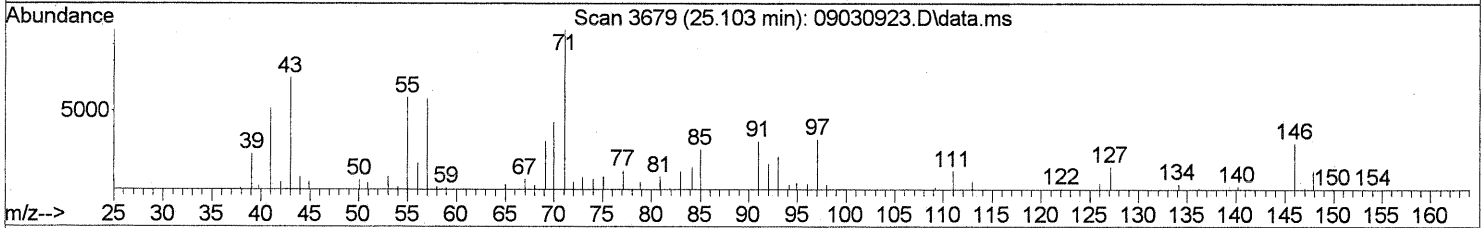
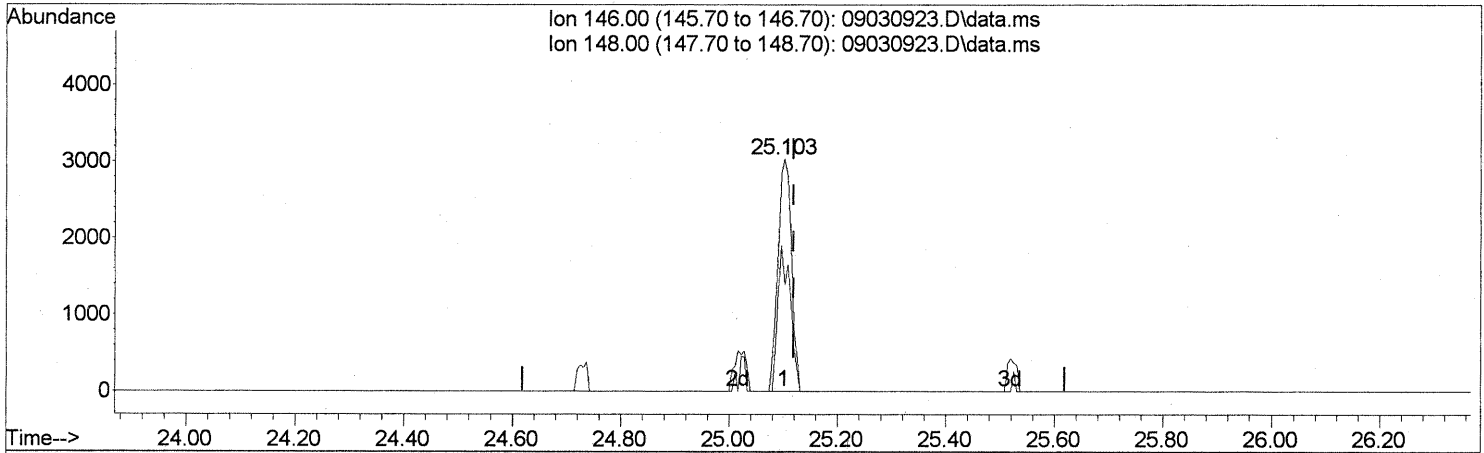
(82) 1,2,4-Trimethylbenzene (T)  
 24.823min (-0.023) 3.74ng  
 response 249088

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	44.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.14ng

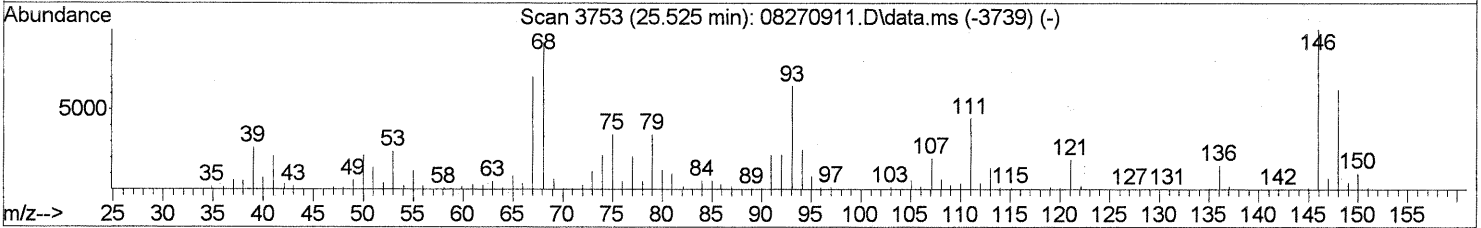
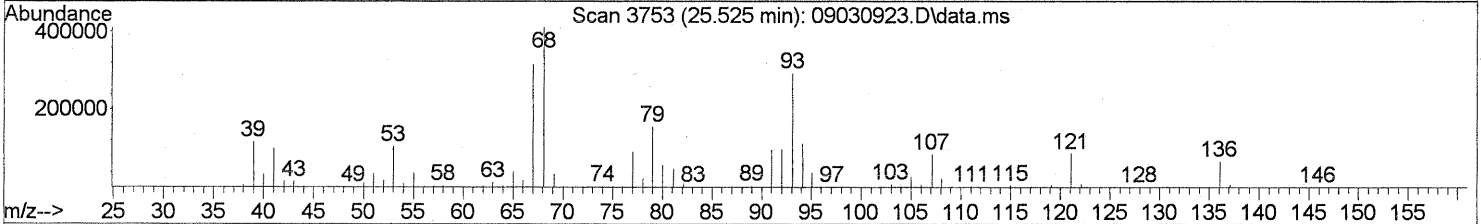
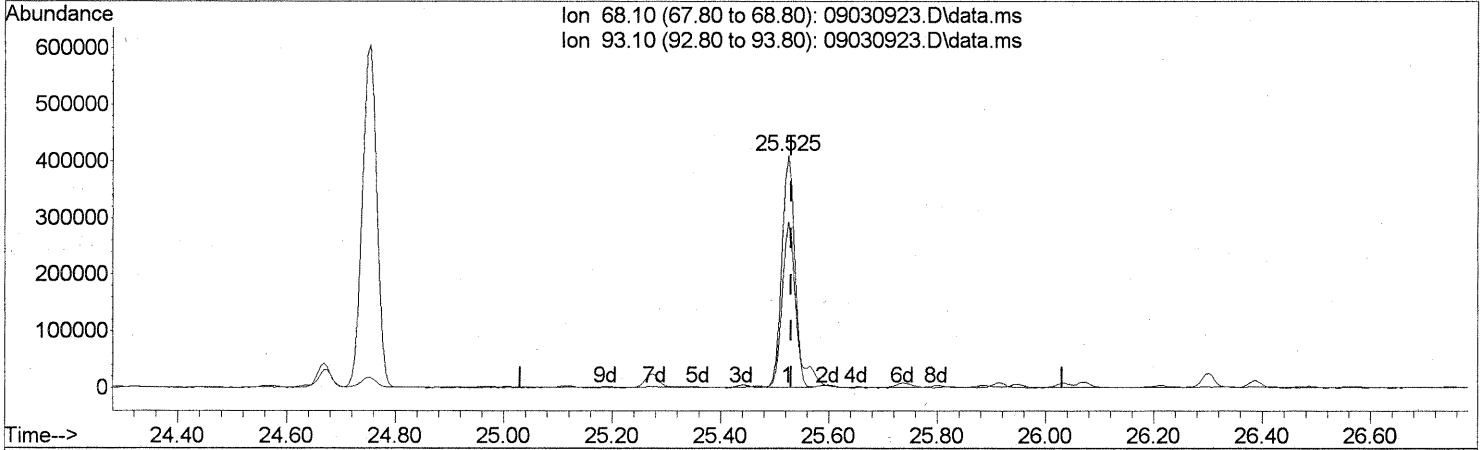
response 5255

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	57.72
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

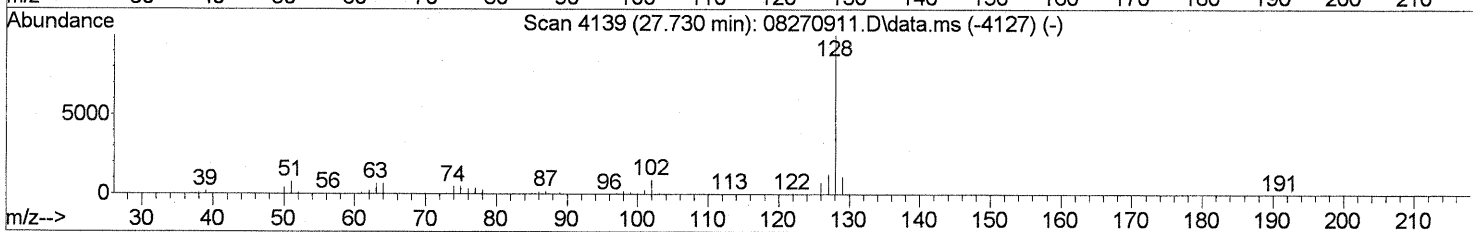
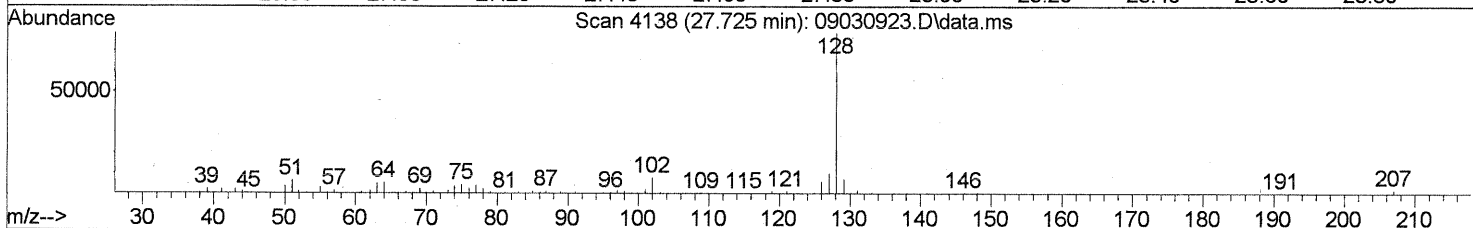
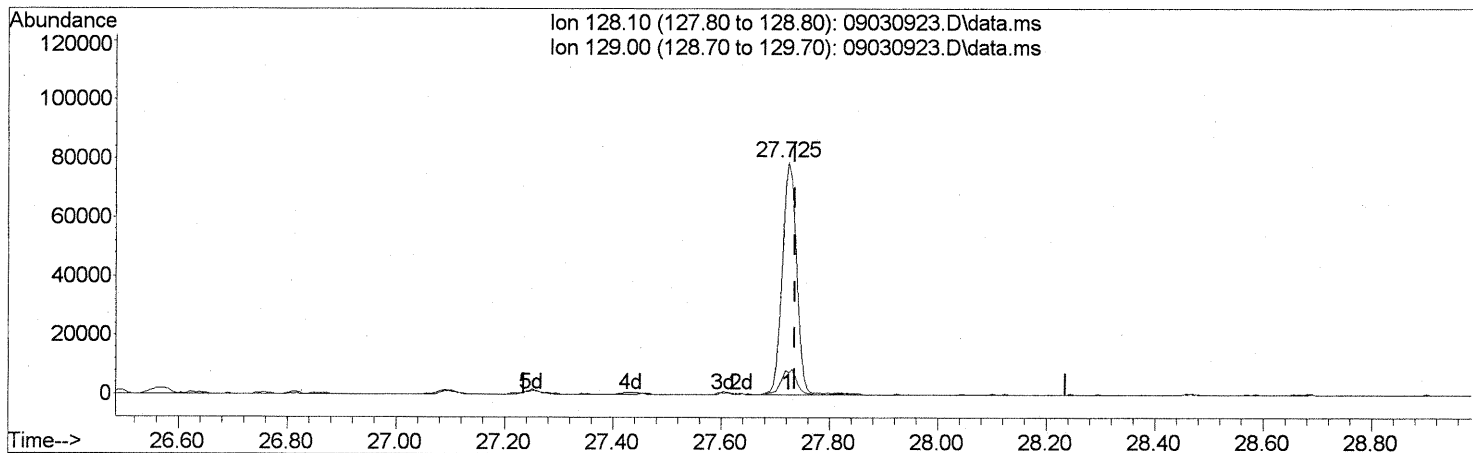
(91) d-Limonene (T)  
 25.525min (-0.006) 25.61ng  
 response 681522

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	80.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030923.D  
 Acq On : 4 Sep 2009 1:52  
 Operator : LM/CC  
 Sample : P0903021-005 (1000ml)  
 Misc : EH&E 104274  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 04 08:53:34 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



TIC: 09030923.D\data.ms

(95) Naphthalene (T)  
 27.725min (-0.011) 1.58ng  
 response 145297

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	11.59
0.00	0.00	0.00
0.00	0.00	0.00

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** 16512

Test Code: EPA TO-15  
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
Analyst: Liliana Marghitoiu  
Sampling Media: 6.0 L Summa Canister  
Test Notes:

CAS Project ID: P0903021  
CAS Sample ID: P090903-MB

Date Collected: NA  
Date Received: NA  
Date Analyzed: 9/3/09  
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.10	ND	0.048	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.10	ND	0.045	
74-83-9	Bromomethane	ND	0.10	ND	0.026	
75-00-3	Chloroethane	ND	0.10	ND	0.038	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.10	ND	0.018	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.10	ND	0.025	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.10	ND	0.032	
76-13-1	Trichlorotrifluoroethane	ND	0.10	ND	0.013	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	ND	0.025	
75-34-3	1,1-Dichloroethane	ND	0.10	ND	0.025	
1634-04-4	Methyl tert-Butyl Ether	ND	0.10	ND	0.028	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: 9/11/09 **265**

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

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**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090903-MB

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/3/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.10	ND	0.020	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.10	ND	0.025	
71-55-6	1,1,1-Trichloroethane	ND	0.10	ND	0.018	
71-43-2	Benzene	ND	0.10	ND	0.031	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.10	ND	0.022	
75-27-4	Bromodichloromethane	ND	0.10	ND	0.015	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.10	ND	0.018	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.10	ND	0.012	
106-93-4	1,2-Dibromoethane	ND	0.10	ND	0.013	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090903-MB

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/3/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.10	ND	0.015	
108-90-7	Chlorobenzene	ND	0.10	ND	0.022	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.015	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.10	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.10	ND	0.017	
106-46-7	1,4-Dichlorobenzene	ND	0.10	ND	0.017	
95-50-1	1,2-Dichlorobenzene	ND	0.10	ND	0.017	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

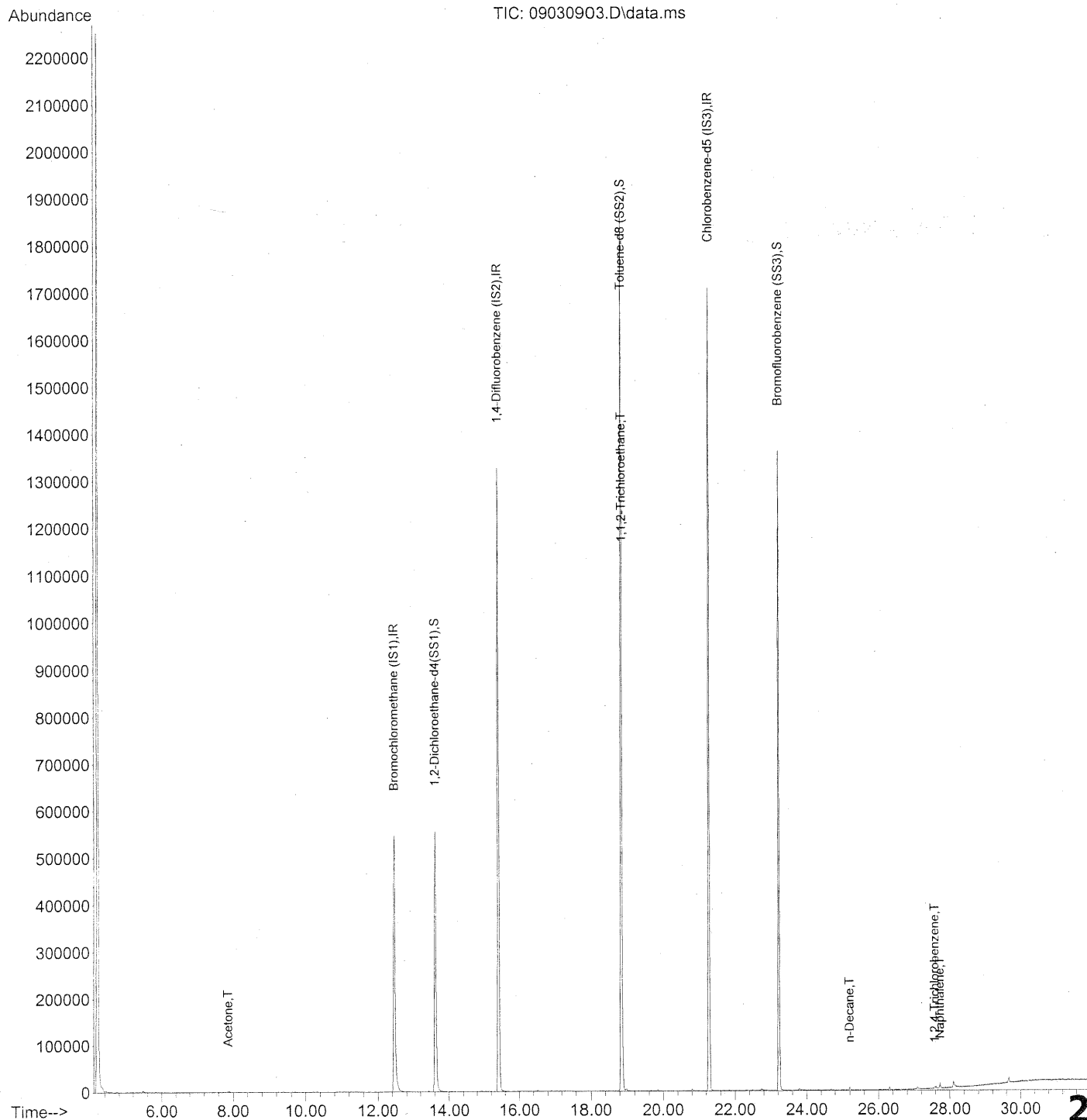
Verified By: \_\_\_\_\_

Date: 9/11/09

**267**

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030903.D  
 Acq On : 3 Sep 2009 9:57 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906 QC tank lot#14-103489922-1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration





Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030903.D  
 Acq On : 3 Sep 2009 9:57 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906 QC tank lot#14-103489922-1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*9-4-09*  
*LM 9/4/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	303079	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1522519	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.29	82	710340	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.62	65	596922	24.853	ng	-0.03
Spiked Amount	25.000		Recovery	=	99.40%	
57) Toluene-d8 (SS2)	18.85	98	1626080	25.615	ng	-0.01
Spiked Amount	25.000		Recovery	=	102.44%	
73) Bromofluorobenzene (SS3)	23.23	174	437896	23.967	ng	0.00
Spiked Amount	25.000		Recovery	=	95.88%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.73	42	374		N.D.	
3) Dichlorodifluoromethan...	0.00	85	0		N.D.	
4) Chloromethane	0.00	50	0		N.D.	
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0		N.D.	
6) Vinyl Chloride	0.00	62	0		N.D.	
7) 1,3-Butadiene	0.00	54	0		N.D.	
8) Bromomethane	0.00	94	0		N.D.	
9) Chloroethane	0.00	64	0		N.D.	
10) Ethanol	7.15	45	113		N.D.	
11) Acetonitrile	0.00	41	0		N.D.	
12) Acrolein	0.00	56	0		N.D.	
13) Acetone	7.87	58	2337	0.166	ng	# 78
14) Trichlorofluoromethane	0.00	101	0		N.D.	
15) 2-Propanol (Isopropanol)	8.37	45	91		N.D.	
16) Acrylonitrile	0.00	53	0		N.D.	
17) 1,1-Dichloroethene	0.00	96	0		N.D.	
18) 2-Methyl-2-Propanol (t...	0.00	59	0		N.D.	
19) Methylene Chloride	9.24	84	144		N.D.	
20) 3-Chloro-1-propene (Al...	0.00	41	0		N.D.	
21) Trichlorotrifluoroethane	0.00	151	0		N.D.	
22) Carbon Disulfide	0.00	76	0		N.D.	
23) trans-1,2-Dichloroethene	0.00	61	0		N.D.	
24) 1,1-Dichloroethane	0.00	63	0		N.D.	
25) Methyl tert-Butyl Ether	0.00	73	0		N.D.	
26) Vinyl Acetate	0.00	86	0		N.D.	
27) 2-Butanone (MEK)	0.00	72	0		N.D.	
28) cis-1,2-Dichloroethene	0.00	61	0		N.D.	
29) Diisopropyl Ether	0.00	87	0		N.D.	
30) Ethyl Acetate	0.00	61	0		N.D.	
31) n-Hexane	0.00	57	0		N.D.	

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030903.D  
 Acq On : 3 Sep 2009 9:57 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906 QC tank lot#14-103489922-1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	0.00	83	0		N.D.	
34) Tetrahydrofuran (THF)	13.42	72	96		N.D.	
35) Ethyl tert-Butyl Ether	0.00	87	0		N.D.	
36) 1,2-Dichloroethane	13.61	62	87		N.D.	
38) 1,1,1-Trichloroethane	0.00	97	0		N.D.	
39) Isopropyl Acetate	0.00	61	0		N.D.	
40) 1-Butanol	14.91	56	714		N.D.	
41) Benzene	14.88	78	459		N.D.	
42) Carbon Tetrachloride	0.00	117	0		N.D.	
43) Cyclohexane	15.41	84	1020		N.D.	
44) tert-Amyl Methyl Ether	0.00	73	0		N.D.	
45) 1,2-Dichloropropane	0.00	63	0		N.D.	
46) Bromodichloromethane	0.00	83	0		N.D.	
47) Trichloroethene	0.00	130	0		N.D.	
48) 1,4-Dioxane	0.00	88	0		N.D.	
49) 2,2,4-Trimethylpentane...	16.52	57	3004		N.D.	
50) Methyl Methacrylate	0.00	100	0		N.D.	
51) n-Heptane	0.00	71	0		N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0		N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0		N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0		N.D.	
55) 1,1,2-Trichloroethane	18.86	97	141891	8.508 ng	FP #	7
58) Toluene	18.97	91	535		N.D.	
59) 2-Hexanone	19.38	43	206		N.D.	
60) Dibromochloromethane	0.00	129	0		N.D.	
61) 1,2-Dibromoethane	0.00	107	0		N.D.	
62) n-Butyl Acetate	19.85	43	333		N.D.	
63) n-Octane	0.00	57	0		N.D.	
64) Tetrachloroethene	0.00	166	0		N.D.	
65) Chlorobenzene	0.00	112	0		N.D.	
66) Ethylbenzene	21.83	91	197		N.D.	
67) m- & p-Xylenes	22.07	91	206		N.D.	
68) Bromoform	0.00	173	0		N.D.	
69) Styrene	0.00	104	0		N.D.	
70) o-Xylene	22.83	91	98		N.D.	
71) n-Nonane	22.91	43	90		N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0		N.D.	
74) Cumene	23.44	105	1468		N.D.	
75) alpha-Pinene	0.00	93	0		N.D.	
76) n-Propylbenzene	24.05	91	226		N.D.	
77) 3-Ethyltoluene	24.18	105	490		N.D.	
78) 4-Ethyltoluene	24.26	105	108		N.D.	
79) 1,3,5-Trimethylbenzene	24.31	105	291		N.D.	

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030903.D  
 Acq On : 3 Sep 2009 9:57 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906 QC tank lot#14-103489922-1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	0.00	118	0		N.D.	
81) 2-Ethyltoluene	24.55	105	411		N.D.	
82) 1,2,4-Trimethylbenzene	24.83	105	86		N.D.	
83) n-Decane	25.20	57	4359	0.115	ng #	42
84) Benzyl Chloride	25.00	91	1986		N.D.	
85) 1,3-Dichlorobenzene	25.03	146	305		N.D.	
86) 1,4-Dichlorobenzene	25.10	146	604		N.D.	
87) sec-Butylbenzene	24.83	105	86		N.D.	
88) 4-Isopropyltoluene (p-...	25.35	119	116		N.D.	
89) 1,2,3-Trimethylbenzene	0.00	105	0		N.D.	
90) 1,2-Dichlorobenzene	25.54	146	88		N.D.	
91) d-Limonene	0.00	68	0		N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0		N.D.	
93) n-Undecane	26.31	57	1359		N.D.	
94) 1,2,4-Trichlorobenzene	27.58	180	1132	0.050	ng #	86
95) Naphthalene	27.73	128	11565	0.132	ng	88
96) n-Dodecane	27.70	57	304		N.D.	
97) Hexachlorobutadiene	28.14	225	99		N.D.	
98) Cyclohexanone	22.31	55	417		N.D.	
99) tert-Butylbenzene	24.62	119	88		N.D.	
100) n-Butylbenzene	25.87	91	365		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** Method Blank

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P090909-MB

**Test Code:** EPA TO-15

**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

**Analyst:** Liliana Marghitoiu

**Sampling Media:** 6.0 L Summa Canister

**Test Notes:**

Date Collected: NA

Date Received: NA

Date Analyzed: 9/9/09

Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.10	ND	0.048	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.10	ND	0.045	
74-83-9	Bromomethane	ND	0.10	ND	0.026	
75-00-3	Chloroethane	ND	0.10	ND	0.038	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.10	ND	0.018	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.10	ND	0.025	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.10	ND	0.032	
76-13-1	Trichlorotrifluoroethane	ND	0.10	ND	0.013	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	ND	0.025	
75-34-3	1,1-Dichloroethane	ND	0.10	ND	0.025	
1634-04-4	Methyl tert-Butyl Ether	ND	0.10	ND	0.028	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090909-MB

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.10	ND	0.020	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.10	ND	0.025	
71-55-6	1,1,1-Trichloroethane	ND	0.10	ND	0.018	
71-43-2	Benzene	ND	0.10	ND	0.031	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.10	ND	0.022	
75-27-4	Bromodichloromethane	ND	0.10	ND	0.015	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	0.50	ND	0.12	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.10	ND	0.018	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.10	ND	0.012	
106-93-4	1,2-Dibromoethane	ND	0.10	ND	0.013	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:  Date: 9/11/09 **273**

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090909-MB

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/9/09  
**Volume(s) Analyzed:** 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.10	ND	0.015	
108-90-7	Chlorobenzene	ND	0.10	ND	0.022	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.015	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.10	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.10	ND	0.017	
106-46-7	1,4-Dichlorobenzene	ND	0.10	ND	0.017	
95-50-1	1,2-Dichlorobenzene	ND	0.10	ND	0.017	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_

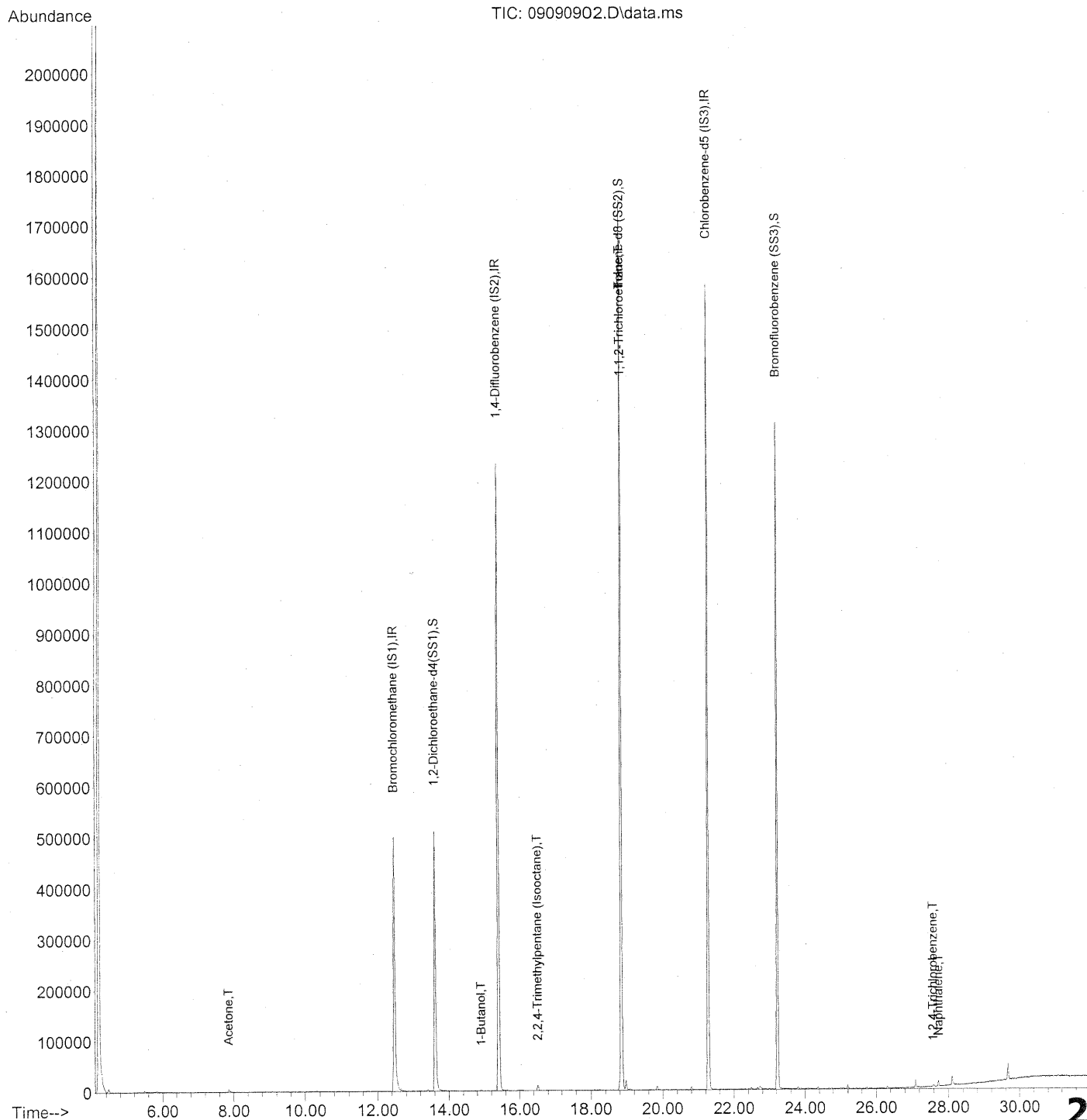
Date: \_\_\_\_\_

9/11/09

**274**

Data Path : J:\MS13\DATA\2009\_09\09\  
Data File : 09090902.D  
Acq On : 9 Sep 2009 10:02 am  
Operator : LM/CC  
Sample : TO-15 Method Blank (1000ml)  
Misc : S20-08140906  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 10:33:19 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090902.D  
 Acq On : 9 Sep 2009 10:02 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 10:33:19 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*  
*CC*  
*9-10-09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	282656	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1425495	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	680464	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	546160	24.383	ng	-0.03
Spiked Amount	25.000		Recovery	=	97.52%	✓
57) Toluene-d8 (SS2)	18.85	98	1530696	25.171	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.68%	✓
73) Bromofluorobenzene (SS3)	23.23	174	443300	25.328	ng	0.00
Spiked Amount	25.000		Recovery	=	101.32%	✓

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.73	42	507		N.D.	
3) Dichlorodifluoromethan...	0.00	85	0		N.D.	
4) Chloromethane	0.00	50	0		N.D.	
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0		N.D.	
6) Vinyl Chloride	0.00	62	0		N.D.	
7) 1,3-Butadiene	0.00	54	0		N.D.	
8) Bromomethane	0.00	94	0		N.D.	
9) Chloroethane	0.00	64	0		N.D.	
10) Ethanol	7.11	45	599		N.D.	
11) Acetonitrile	0.00	41	0		N.D.	
12) Acrolein	0.00	56	0		N.D.	
13) Acetone	7.86	58	3299	0.252	ng	93
14) Trichlorofluoromethane	0.00	101	0		N.D.	
15) 2-Propanol (Isopropanol)	8.36	45	343		N.D.	
16) Acrylonitrile	0.00	53	0		N.D.	
17) 1,1-Dichloroethene	0.00	96	0		N.D.	
18) 2-Methyl-2-Propanol (t...	0.00	59	0		N.D.	
19) Methylene Chloride	9.25	84	184		N.D.	
20) 3-Chloro-1-propene (Al...	0.00	41	0		N.D.	
21) Trichlorotrifluoroethane	0.00	151	0		N.D.	
22) Carbon Disulfide	0.00	76	0		N.D.	
23) trans-1,2-Dichloroethene	0.00	61	0		N.D.	
24) 1,1-Dichloroethane	0.00	63	0		N.D.	
25) Methyl tert-Butyl Ether	0.00	73	0		N.D.	
26) Vinyl Acetate	0.00	86	0		N.D.	
27) 2-Butanone (MEK)	0.00	72	0		N.D.	
28) cis-1,2-Dichloroethene	0.00	61	0		N.D.	
29) Diisopropyl Ether	0.00	87	0		N.D.	
30) Ethyl Acetate	0.00	61	0		N.D.	
31) n-Hexane	0.00	57	0		N.D.	



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090902.D  
 Acq On : 9 Sep 2009 10:02 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 10:33:19 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	0.00	83	0	N.D.		
34) Tetrahydrofuran (THF)	13.42	72	412	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	0.00	62	0	N.D.		
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.91	56	1179	0.066 ng	#	60
41) Benzene	14.87	78	852	N.D.		
42) Carbon Tetrachloride	0.00	117	0	N.D.		
43) Cyclohexane	15.40	84	810	N.D.		
44) tert-Amyl Methyl Ether	15.90	73	87	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	13900	0.182 ng		95
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	0.00	71	0	N.D.		
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.86	97	133611	<del>8.557 ng</del>	#	6
58) Toluene	18.97	91	1119	N.D.		
59) 2-Hexanone	19.38	43	109	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.23	43	88	N.D.		
63) n-Octane	0.00	57	0	N.D.		
64) Tetrachloroethene	0.00	166	0	N.D.		
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.82	91	105	N.D.		
67) m- & p-Xylenes	22.09	91	209	N.D.		
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.51	104	90	N.D.		
70) o-Xylene	22.66	91	432	N.D.		
71) n-Nonane	23.01	43	258	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.43	105	629	N.D.		
75) alpha-Pinene	0.00	93	0	N.D.		
76) n-Propylbenzene	24.04	91	676	N.D.		
77) 3-Ethyltoluene	24.18	105	1206	N.D.		
78) 4-Ethyltoluene	24.23	105	1228	N.D.		
79) 1,3,5-Trimethylbenzene	24.33	105	1464	N.D.		

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090902.D  
 Acq On : 9 Sep 2009 10:02 am  
 Operator : LM/CC  
 Sample : TO-15 Method Blank (1000ml)  
 Misc : S20-08140906  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 10:33:19 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	0.00	118	0		N.D.	
81) 2-Ethyltoluene	24.55	105	657		N.D.	
82) 1,2,4-Trimethylbenzene	24.83	105	723		N.D.	
83) n-Decane	24.97	57	134		N.D.	
84) Benzyl Chloride	25.01	91	2634		N.D.	
85) 1,3-Dichlorobenzene	25.03	146	222		N.D.	
86) 1,4-Dichlorobenzene	25.10	146	617		N.D.	
87) sec-Butylbenzene	25.35	105	226		N.D.	
88) 4-Isopropyltoluene (p-...	0.00	119	0		N.D.	
89) 1,2,3-Trimethylbenzene	25.35	105	226		N.D.	
90) 1,2-Dichlorobenzene	25.53	146	91		N.D.	
91) d-Limonene	0.00	68	0		N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0		N.D.	
93) n-Undecane	26.30	57	1443		N.D.	
94) 1,2,4-Trichlorobenzene	27.58	180	1218	0.056	ng #	68
95) Naphthalene	27.73	128	12740	0.151	ng	95
96) n-Dodecane	27.62	57	915		N.D.	
97) Hexachlorobutadiene	28.15	225	414		N.D.	
98) Cyclohexanone	22.31	55	578		N.D.	
99) tert-Butylbenzene	24.51	119	93		N.D.	
100) n-Butylbenzene	25.86	91	470		N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

## QC SUMMARY FORMS

**COLUMBIA ANALYTICAL SERVICES, INC.**

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

**Client:** Environmental Health & Engineering, Inc.  
**Client Project ID:** 16512

CAS Project ID: P0903021

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister(s)  
**Test Notes:**

**Date(s) Collected:** 8/26/09  
**Date(s) Received:** 8/28/09  
**Date(s) Analyzed:** 9/3 - 9/9/09

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P090903-MB	99	70-130	102	70-130	96	70-130	
Method Blank	P090909-MB	98	70-130	101	70-130	101	70-130	
Lab Control Sample	P090903-LCS	98	70-130	102	70-130	98	70-130	
Lab Control Sample	P090909-LCS	98	70-130	101	70-130	101	70-130	
104276	P0903021-001	96	70-130	100	70-130	102	70-130	
104282	P0903021-002	96	70-130	100	70-130	101	70-130	
104275	P0903021-003	96	70-130	100	70-130	102	70-130	
104273	P0903021-004	97	70-130	100	70-130	101	70-130	
104274	P0903021-005	95	70-130	101	70-130	102	70-130	

Verified By: \_\_\_\_\_

*[Handwritten Signature]*

Date: \_\_\_\_\_

*9/11/09*

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**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** Lab Control Sample

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P090903-LCS

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Analyst: Liliana Marghitoiu

Sampling Media: 6.0 L Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 9/03/09

Volume(s) Analyzed: NA Liter(s)

CAS #	Compound	Spike Amount	Result	% Recovery	CAS Acceptance	Data
		ng	ng		Limits	Qualifier
115-07-1	Propene	26.3	18.9	72	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	17.7	68	61-118	
74-87-3	Chloromethane	25.0	20.3	81	46-132	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	26.0	19.6	75	65-122	
75-01-4	Vinyl Chloride	25.3	19.1	75	57-132	
106-99-0	1,3-Butadiene	26.8	20.4	76	66-161	
74-83-9	Bromomethane	25.8	23.5	91	67-130	
75-00-3	Chloroethane	25.5	20.3	80	68-123	
64-17-5	Ethanol	130	107	82	50-155	
75-05-8	Acetonitrile	26.0	19.5	75	48-148	
107-02-8	Acrolein	26.3	22.4	85	67-138	
67-64-1	Acetone	132	98.7	75	59-121	
75-69-4	Trichlorofluoromethane	26.3	20.3	77	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	39.0	81	54-126	
107-13-1	Acrylonitrile	25.8	22.7	88	65-134	
75-35-4	1,1-Dichloroethene	27.5	22.2	81	70-123	
75-09-2	Methylene Chloride	26.8	20.4	76	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	22.2	82	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	22.5	82	69-126	
75-15-0	Carbon Disulfide	26.0	21.0	81	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	21.9	86	69-125	
75-34-3	1,1-Dichloroethane	26.5	21.7	82	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	21.1	80	72-132	
108-05-4	Vinyl Acetate	126	121	96	73-158	
78-93-3	2-Butanone (MEK)	26.8	23.6	88	68-126	

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/6/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Lab Control Sample  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090903-LCS

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/03/09  
**Volume(s) Analyzed:** NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
156-59-2	cis-1,2-Dichloroethene	27.0	22.6	84	69-124	
141-78-6	Ethyl Acetate	52.0	45.5	88	65-126	
110-54-3	n-Hexane	26.0	20.3	78	63-125	
67-66-3	Chloroform	27.5	21.8	79	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	20.8	78	65-124	
107-06-2	1,2-Dichloroethane	26.3	21.4	81	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	21.3	82	69-127	
71-43-2	Benzene	25.8	20.6	80	68-122	
56-23-5	Carbon Tetrachloride	26.3	22.4	85	68-137	
110-82-7	Cyclohexane	51.8	42.3	82	68-121	
78-87-5	1,2-Dichloropropane	26.0	21.9	84	69-128	
75-27-4	Bromodichloromethane	26.3	22.3	85	71-131	
79-01-6	Trichloroethene	25.8	22.3	86	72-122	
123-91-1	1,4-Dioxane	26.0	22.7	87	73-127	
80-62-6	Methyl Methacrylate	52.8	48.2	91	80-133	
142-82-5	n-Heptane	25.8	21.3	83	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	21.2	87	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	23.0	86	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	23.6	87	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	21.4	82	76-125	
108-88-3	Toluene	26.8	22.5	84	74-119	
591-78-6	2-Hexanone	27.0	22.5	83	64-118	
124-48-1	Dibromochloromethane	28.3	24.5	87	79-129	
106-93-4	1,2-Dibromoethane	26.3	22.9	87	79-125	
123-86-4	n-Butyl Acetate	27.5	22.7	83	70-136	

Verified By: \_\_\_\_\_

Date: 9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Lab Control Sample  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090903-LCS

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/03/09  
**Volume(s) Analyzed:** NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
111-65-9	n-Octane	26.3	22.0	84	75-126	
127-18-4	Tetrachloroethene	25.3	21.8	86	72-125	
108-90-7	Chlorobenzene	26.5	22.7	86	74-121	
100-41-4	Ethylbenzene	26.3	22.5	86	76-120	
179601-23-1	m,p-Xylenes	51.5	44.1	86	75-120	
75-25-2	Bromoform	26.5	22.6	85	76-143	
100-42-5	Styrene	26.3	23.6	90	78-124	
95-47-6	o-Xylene	26.0	22.8	88	76-121	
111-84-2	n-Nonane	25.8	21.5	83	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	23.1	86	77-126	
98-82-8	Cumene	25.3	21.9	87	78-125	
80-56-8	alpha-Pinene	24.8	21.2	85	78-125	
103-65-1	n-Propylbenzene	25.3	21.7	86	80-127	
622-96-8	4-Ethyltoluene	26.3	22.7	86	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	23.5	89	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	23.0	90	76-123	
100-44-7	Benzyl Chloride	26.8	22.9	85	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	23.2	89	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	22.8	87	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	23.2	90	75-124	
5989-27-5	d-Limonene	26.5	24.4	92	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	25.9	96	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	25.2	92	70-139	
91-20-3	Naphthalene	25.0	23.4	94	69-141	
87-68-3	Hexachlorobutadiene	26.8	23.5	88	68-138	

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

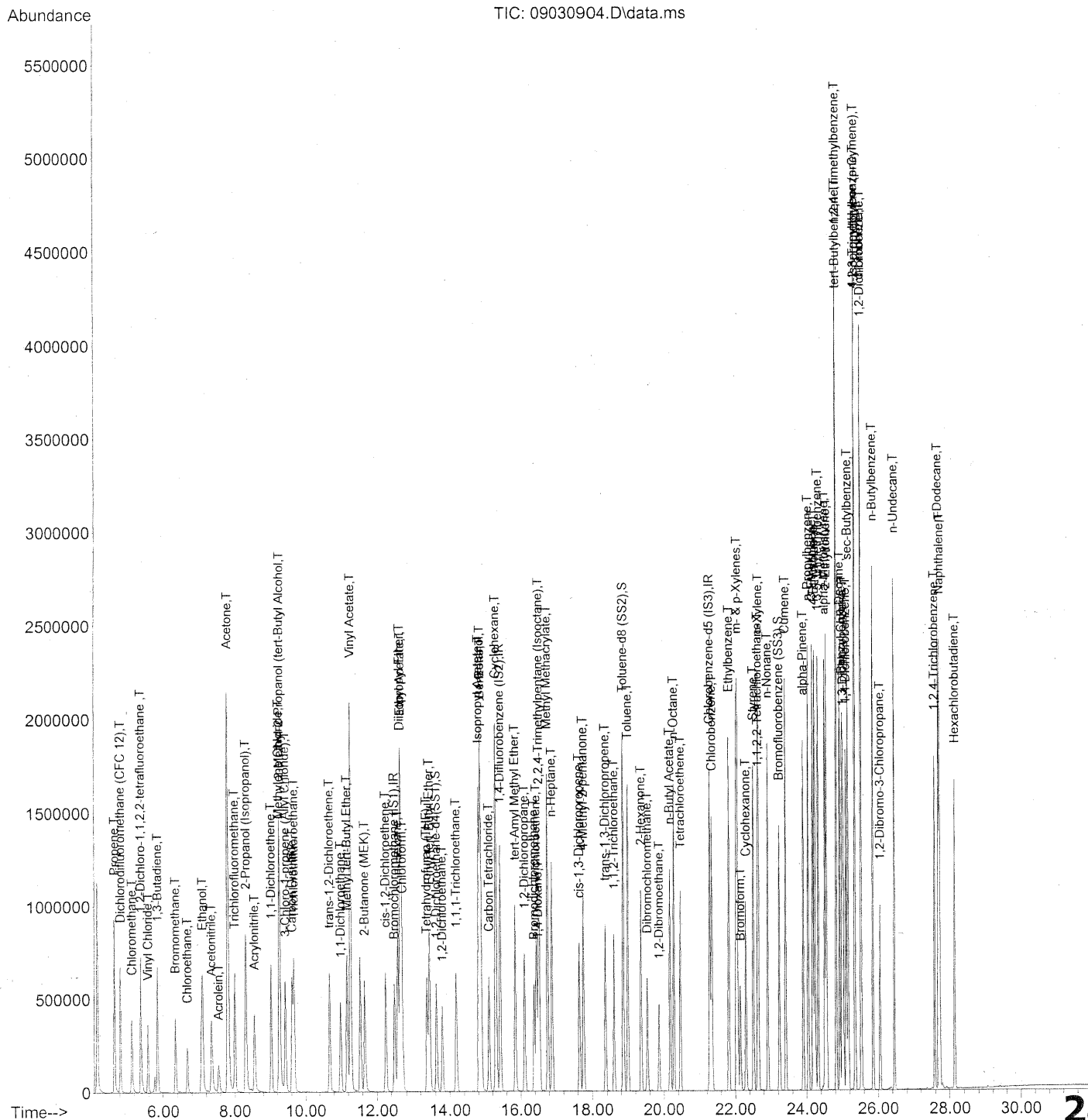
9/11/09

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_09\03\  
Data File : 09030904.D  
Acq On : 3 Sep 2009 10:56 am  
Operator : LM/CC  
Sample : 25ng TO-15 LCS STD  
Misc : S20-08140906/S20-08240912  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration





Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030904.D  
 Acq On : 3 Sep 2009 10:56 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*CC-409*  
*09/04/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	302984	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1518112	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	716447	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.63	65	590469	24.593	ng	-0.02
Spiked Amount	25.000		Recovery	=	98.36%	✓
57) Toluene-d8 (SS2)	18.85	98	1637220	25.570	ng	0.00
Spiked Amount	25.000		Recovery	=	102.28%	✓
73) Bromofluorobenzene (SS3)	23.23	174	450748	24.460	ng	0.00
Spiked Amount	25.000		Recovery	=	97.84%	✓

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	413749	18.879	ng	100
3) Dichlorodifluoromethan...	4.82	85	680900	17.745	ng	99
4) Chloromethane	5.14	50	524873	20.349	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.38	135	309809	19.550	ng	99
6) Vinyl Chloride	5.58	62	461184	19.061	ng	99
7) 1,3-Butadiene	5.86	54	367522	20.369	ng	98
8) Bromomethane	6.34	94	351992	23.537	ng	98
9) Chloroethane	6.68	64	269142	20.320	ng	99
10) Ethanol	7.10	45	1447974	106.547	ng	100
11) Acetonitrile	7.35	41	736038	19.499	ng	99
12) Acrolein	7.55	56	232240	22.381	ng	97
13) Acetone	7.81	58	1387026	98.690	ng	98
14) Trichlorofluoromethane	8.00	101	687987	20.343	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	1824287	39.045	ng	99
16) Acrylonitrile	8.55	53	525525	22.652	ng	98
17) 1,1-Dichloroethene	9.02	96	364043	22.190	ng	93
18) 2-Methyl-2-Propanol (t...	9.26	59	1954604	41.777	ng	99
19) Methylene Chloride	9.24	84	363007	20.364	ng	96
20) 3-Chloro-1-propene (Al...	9.42	41	616323	22.216	ng	97
21) Trichlorotrifluoroethane	9.67	151	301949	22.547	ng	96
22) Carbon Disulfide	9.62	76	1332948	21.017	ng	98
23) trans-1,2-Dichloroethene	10.68	61	559194	21.929	ng	93
24) 1,1-Dichloroethane	10.99	63	691944	21.695	ng	100
25) Methyl tert-Butyl Ether	11.17	73	1063192	21.104	ng	98
26) Vinyl Acetate	11.27	86	426030	120.961	ng	98
27) 2-Butanone (MEK)	11.66	72	267492	23.563	ng	98
28) cis-1,2-Dichloroethene	12.24	61	549193	22.644	ng	92
29) Diisopropyl Ether	12.64	87	375678	22.663	ng	# 41
30) Ethyl Acetate	12.66	61	277329	45.460	ng	98
31) n-Hexane	12.58	57	617517	20.320	ng	98

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030904.D  
 Acq On : 3 Sep 2009 10:56 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Chloroform	12.70	83	654190	21.838	ng	98
34) Tetrahydrofuran (THF)	13.37	72	256184	20.808	ng	96
35) Ethyl tert-Butyl Ether	13.44	87	421840	20.743	ng	95
36) 1,2-Dichloroethane	13.79	62	538572	21.429	ng	98
38) 1,1,1-Trichloroethane	14.18	97	596559	21.257	ng	99
39) Isopropyl Acetate	14.81	61	500488	43.341	ng #	71
40) 1-Butanol	14.87	56	819914	43.391	ng #	1
41) Benzene	14.88	78	1467608	20.565	ng	100
42) Carbon Tetrachloride	15.11	117	536480	22.393	ng	100
43) Cyclohexane	15.30	84	1113154	42.322	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1087135	20.567	ng	98
45) 1,2-Dichloropropane	16.11	63	386159	21.899	ng	99
46) Bromodichloromethane	16.37	83	524892	22.319	ng	99
47) Trichloroethene	16.44	130	387816	22.275	ng	99
48) 1,4-Dioxane	16.49	88	311513	22.712	ng	92
49) 2,2,4-Trimethylpentane...	16.52	57	1687340	20.776	ng	98
50) Methyl Methacrylate	16.76	100	318495	48.150	ng	93
51) n-Heptane	16.88	71	394790	21.343	ng	97
52) cis-1,3-Dichloropropene	17.65	75	613220	21.167	ng	100
53) 4-Methyl-2-pentanone	17.75	58	374492	22.976	ng	100
54) trans-1,3-Dichloropropene	18.36	75	647224	23.586	ng	100
55) 1,1,2-Trichloroethane	18.60	97	356398	21.432	ng	99
58) Toluene	18.98	91	1554901	22.547	ng	99
59) 2-Hexanone	19.36	43	949211	22.522	ng	97
60) Dibromochloromethane	19.53	129	425196	24.525	ng	99
61) 1,2-Dibromoethane	19.86	107	415094	22.919	ng	99
62) n-Butyl Acetate	20.17	43	1096609	22.680	ng	99
63) n-Octane	20.28	57	349304	22.010	ng	97
64) Tetrachloroethene	20.47	166	380551	21.794	ng	99
65) Chlorobenzene	21.34	112	1004106	22.698	ng	100
66) Ethylbenzene	21.82	91	1775629	22.512	ng	100
67) m- & p-Xylenes	22.06	91	2769754	44.109	ng	99
68) Bromoform	22.15	173	339032	22.585	ng	99
69) Styrene	22.51	104	1089810	23.571	ng	98
70) o-Xylene	22.65	91	1437291	22.788	ng	99
71) n-Nonane	22.91	43	816323	21.537	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	667151	23.071	ng	97
74) Cumene	23.41	105	1747237	21.856	ng	98
75) alpha-Pinene	23.90	93	880204	21.227	ng	98
76) n-Propylbenzene	24.05	91	2207978	21.743	ng	99
77) 3-Ethyltoluene	24.17	105	1756946	22.974	ng	99
78) 4-Ethyltoluene	24.23	105	1715739	22.732	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1474604	23.472	ng	100

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030904.D  
 Acq On : 3 Sep 2009 10:56 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QI on	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	809782	24.544	ng	99
81) 2-Ethyltoluene	24.56	105	1739197	22.162	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1471822	22.951	ng	98
83) n-Decane	24.94	57	856931	22.382	ng	97
84) Benzyl Chloride	25.00	91	1454707	22.912	ng	98
85) 1,3-Dichlorobenzene	25.03	146	803868	23.193	ng	99
86) 1,4-Dichlorobenzene	25.11	146	821967	22.772	ng	99
87) sec-Butylbenzene	25.16	105	1993377	22.757	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1763804	22.340	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1507873	22.434	ng	99
90) 1,2-Dichlorobenzene	25.53	146	751582	23.235	ng	99
91) d-Limonene	25.53	68	624969	24.413	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	292958	25.886	ng	93
93) n-Undecane	26.46	57	934887	23.521	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	574732	25.227	ng	99
95) Naphthalene	27.73	128	2070677	23.364	ng	100
96) n-Dodecane	27.69	57	950846	20.987	ng	98
97) Hexachlorobutadiene	28.15	225	322008	23.508	ng	99
98) Cyclohexanone	22.30	55	553436	20.815	ng	96
99) tert-Butylbenzene	24.83	119	1414600	22.778	ng	99
100) n-Butylbenzene	25.86	91	1697018	23.763	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** Lab Control Sample

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P090909-LCS

**Test Code:** EPA TO-15

Date Collected: NA

**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

**Analyst:** Liliana Marghitoiu

Date Analyzed: 9/09/09

**Sampling Media:** 6.0 L Summa Canister

Volume(s) Analyzed: NA Liter(s)

**Test Notes:**

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
115-07-1	Propene	26.3	23.0	87	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	21.6	83	61-118	
74-87-3	Chloromethane	25.0	22.5	90	46-132	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	26.0	23.3	90	65-122	
75-01-4	Vinyl Chloride	25.3	22.5	89	57-132	
106-99-0	1,3-Butadiene	26.8	24.2	90	66-161	
74-83-9	Bromomethane	25.8	26.2	102	67-130	
75-00-3	Chloroethane	25.5	23.7	93	68-123	
64-17-5	Ethanol	130	115	88	50-155	
75-05-8	Acetonitrile	26.0	21.8	84	48-148	
107-02-8	Acrolein	26.3	24.8	94	67-138	
67-64-1	Acetone	132	110	83	59-121	
75-69-4	Trichlorofluoromethane	26.3	22.8	87	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	40.1	84	54-126	
107-13-1	Acrylonitrile	25.8	25.3	98	65-134	
75-35-4	1,1-Dichloroethene	27.5	25.1	91	70-123	
75-09-2	Methylene Chloride	26.8	22.6	84	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	24.3	90	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	26.1	95	69-126	
75-15-0	Carbon Disulfide	26.0	23.7	91	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	24.4	96	69-125	
75-34-3	1,1-Dichloroethane	26.5	24.1	91	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	24.3	92	72-132	
108-05-4	Vinyl Acetate	126	132	105	73-158	
78-93-3	2-Butanone (MEK)	26.8	26.4	99	68-126	

Verified By: \_\_\_\_\_

Date: 9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 2 of 3

**Client:** Environmental Health & Engineering, Inc.  
**Client Sample ID:** Lab Control Sample  
**Client Project ID:** 16512

CAS Project ID: P0903021  
 CAS Sample ID: P090909-LCS

**Test Code:** EPA TO-15  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13  
**Analyst:** Liliana Marghitoiu  
**Sampling Media:** 6.0 L Summa Canister  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/09/09  
**Volume(s) Analyzed:** NA Liter(s)

CAS #	Compound	Spike Amount	Result	% Recovery	CAS Acceptance	Data
		ng	ng		Limits	Qualifier
156-59-2	cis-1,2-Dichloroethene	27.0	25.1	93	69-124	
141-78-6	Ethyl Acetate	52.0	50.5	97	65-126	
110-54-3	n-Hexane	26.0	23.5	90	63-125	
67-66-3	Chloroform	27.5	24.0	87	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	23.4	88	65-124	
107-06-2	1,2-Dichloroethane	26.3	23.3	89	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	23.3	90	69-127	
71-43-2	Benzene	25.8	22.8	88	68-122	
56-23-5	Carbon Tetrachloride	26.3	24.6	94	68-137	
110-82-7	Cyclohexane	51.8	47.7	92	68-121	
78-87-5	1,2-Dichloropropane	26.0	24.2	93	69-128	
75-27-4	Bromodichloromethane	26.3	23.9	91	71-131	
79-01-6	Trichloroethene	25.8	24.7	96	72-122	
123-91-1	1,4-Dioxane	26.0	25.0	96	73-127	
80-62-6	Methyl Methacrylate	52.8	53.3	101	80-133	
142-82-5	n-Heptane	25.8	24.0	93	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	23.2	95	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	24.8	93	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	25.6	95	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	23.6	91	76-125	
108-88-3	Toluene	26.8	24.6	92	74-119	
591-78-6	2-Hexanone	27.0	23.7	88	64-118	
124-48-1	Dibromochloromethane	28.3	26.4	93	79-129	
106-93-4	1,2-Dibromoethane	26.3	24.5	93	79-125	
123-86-4	n-Butyl Acetate	27.5	23.4	85	70-136	

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

9/11/09

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**COLUMBIA ANALYTICAL SERVICES, INC.**

LABORATORY CONTROL SAMPLE SUMMARY

Page 3 of 3

**Client:** Environmental Health & Engineering, Inc.

**Client Sample ID:** Lab Control Sample

**Client Project ID:** 16512

CAS Project ID: P0903021

CAS Sample ID: P090909-LCS

**Test Code:** EPA TO-15

Date Collected: NA

**Instrument ID:** Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13

Date Received: NA

**Analyst:** Liliana Marghitoiu

Date Analyzed: 9/09/09

**Sampling Media:** 6.0 L Summa Canister

Volume(s) Analyzed: NA Liter(s)

**Test Notes:**

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
111-65-9	n-Octane	26.3	23.8	90	75-126	
127-18-4	Tetrachloroethene	25.3	24.0	95	72-125	
108-90-7	Chlorobenzene	26.5	24.7	93	74-121	
100-41-4	Ethylbenzene	26.3	24.2	92	76-120	
179601-23-1	m,p-Xylenes	51.5	47.5	92	75-120	
75-25-2	Bromoform	26.5	24.4	92	76-143	
100-42-5	Styrene	26.3	25.8	98	78-124	
95-47-6	o-Xylene	26.0	24.2	93	76-121	
111-84-2	n-Nonane	25.8	23.2	90	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	24.1	89	77-126	
98-82-8	Cumene	25.3	23.7	94	78-125	
80-56-8	alpha-Pinene	24.8	23.1	93	78-125	
103-65-1	n-Propylbenzene	25.3	23.4	92	80-127	
622-96-8	4-Ethyltoluene	26.3	24.4	93	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	25.4	96	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	24.9	98	76-123	
100-44-7	Benzyl Chloride	26.8	24.2	90	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	25.0	96	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	24.8	94	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	25.0	97	75-124	
5989-27-5	d-Limonene	26.5	26.3	99	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	27.6	102	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	27.6	101	70-139	
91-20-3	Naphthalene	25.0	25.1	100	69-141	
87-68-3	Hexachlorobutadiene	26.8	26.3	98	68-138	

Verified By: \_\_\_\_\_

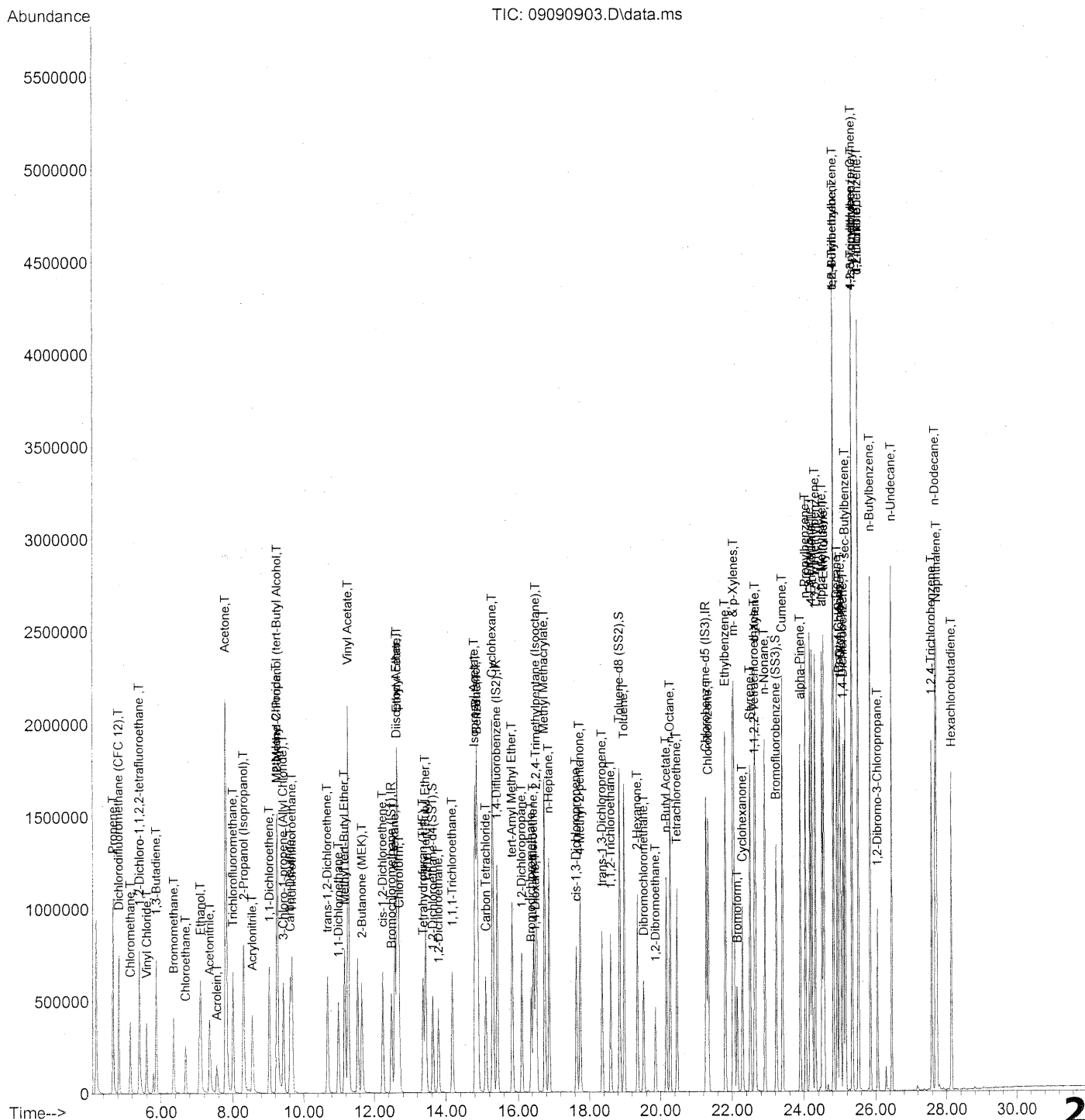
Date: \_\_\_\_\_

*9/11/09*

**290**

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090903.D  
 Acq On : 9 Sep 2009 10:44 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 09 11:15:44 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



291

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090903.D  
 Acq On : 9 Sep 2009 10:44 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 09 11:15:44 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*

CC

*9-10-09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	278505	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1413648	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.29	82	678781	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.63	65	541003	24.513	ng	-0.02
Spiked Amount	25.000		Recovery	=	98.04%	
57) Toluene-d8 (SS2)	18.85	98	1526279	25.160	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.64%	
73) Bromofluorobenzene (SS3)	23.23	174	442593	25.351	ng	0.00
Spiked Amount	25.000		Recovery	=	101.40%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	463120	22.989	ng	100
3) Dichlorodifluoromethan...	4.83	85	761420	21.588	ng	99
4) Chloromethane	5.15	50	532675	22.467	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	339687	23.319	ng	100
6) Vinyl Chloride	5.59	62	499721	22.470	ng	100
7) 1,3-Butadiene	5.86	54	401618	24.215	ng	98
8) Bromomethane	6.35	94	360577	26.230	ng	98
9) Chloroethane	6.69	64	288935	23.732	ng	99
10) Ethanol	7.10	45	1438520	115.155	ng	99
11) Acetonitrile	7.35	41	756781	21.811	ng	98
12) Acrolein	7.55	56	236237	24.767	ng	99
13) Acetone	7.81	58	1418207	109.778	ng	95
14) Trichlorofluoromethane	8.01	101	709920	22.837	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	1720522	40.060	ng	99
16) Acrylonitrile	8.55	53	538543	25.253	ng	98
17) 1,1-Dichloroethene	9.03	96	378826	25.121	ng	90
18) 2-Methyl-2-Propanol (t...	9.26	59	1939645	45.101	ng	99
19) Methylene Chloride	9.25	84	370886	22.635	ng	97
20) 3-Chloro-1-propene (Al...	9.42	41	620573	24.335	ng	96
21) Trichlorotrifluoroethane	9.67	151	321342	26.104	ng	94
22) Carbon Disulfide	9.62	76	1379388	23.661	ng	99
23) trans-1,2-Dichloroethene	10.68	61	572775	24.436	ng	93
24) 1,1-Dichloroethane	10.99	63	706537	24.100	ng	100
25) Methyl tert-Butyl Ether	11.16	73	1126310	24.322	ng	98
26) Vinyl Acetate	11.27	86	426467	131.728	ng	# 94
27) 2-Butanone (MEK)	11.66	72	275331	26.385	ng	92
28) cis-1,2-Dichloroethene	12.24	61	559706	25.105	ng	91
29) Diisopropyl Ether	12.64	87	393634	25.834	ng	# 43
30) Ethyl Acetate	12.66	61	283322	50.524	ng	97
31) n-Hexane	12.58	57	657367	23.533	ng	99



Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090903.D  
 Acq On : 9 Sep 2009 10:44 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 09 11:15:44 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.70	83	660356	23.982	ng	97
34) Tetrahydrofuran (THF)	13.37	72	264259	23.351	ng	94
35) Ethyl tert-Butyl Ether	13.44	87	449302	24.035	ng	91
36) 1,2-Dichloroethane	13.79	62	539162	23.338	ng	99
38) 1,1,1-Trichloroethane	14.18	97	610174	23.349	ng	98
39) Isopropyl Acetate	14.81	61	516765	48.058	ng	# 75
40) 1-Butanol	14.86	56	830833	47.218	ng	# 1
41) Benzene	14.88	78	1513166	22.770	ng	99
42) Carbon Tetrachloride	15.11	117	548022	24.565	ng	100
43) Cyclohexane	15.30	84	1168874	47.724	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1130867	22.975	ng	97
45) 1,2-Dichloropropane	16.11	63	396733	24.161	ng	97
46) Bromodichloromethane	16.37	83	524230	23.938	ng	99
47) Trichloroethene	16.44	130	400001	24.672	ng	99
48) 1,4-Dioxane	16.49	88	319557	25.020	ng	93
49) 2,2,4-Trimethylpentane...	16.52	57	1736316	22.959	ng	97
50) Methyl Methacrylate	16.76	100	328215	53.287	ng	91
51) n-Heptane	16.88	71	413350	23.998	ng	96
52) cis-1,3-Dichloropropene	17.65	75	626800	23.235	ng	100
53) 4-Methyl-2-pentanone	17.75	58	376019	24.775	ng	99
54) trans-1,3-Dichloropropene	18.36	75	654226	25.603	ng	100
55) 1,1,2-Trichloroethane	18.60	97	365970	23.634	ng	98
58) Toluene	18.98	91	1604228	24.553	ng	99
59) 2-Hexanone	19.35	43	946757	23.710	ng	97
60) Dibromochloromethane	19.53	129	434308	26.441	ng	100
61) 1,2-Dibromoethane	19.86	107	420339	24.497	ng	98
62) n-Butyl Acetate	20.16	43	1070149	23.361	ng	98
63) n-Octane	20.28	57	357350	23.767	ng	96
64) Tetrachloroethene	20.46	166	397654	24.037	ng	100
65) Chlorobenzene	21.34	112	1036639	24.734	ng	100
66) Ethylbenzene	21.82	91	1811391	24.239	ng	100
67) m- & p-Xylenes	22.06	91	2822962	47.450	ng	98
68) Bromoform	22.15	173	347430	24.429	ng	100
69) Styrene	22.51	104	1128305	25.757	ng	98
70) o-Xylene	22.65	91	1448156	24.234	ng	97
71) n-Nonane	22.91	43	833863	23.221	ng	96
72) 1,1,2,2-Tetrachloroethane	22.63	83	661038	24.128	ng	98
74) Cumene	23.41	105	1795902	23.712	ng	99
75) alpha-Pinene	23.90	93	907063	23.088	ng	97
76) n-Propylbenzene	24.05	91	2250894	23.396	ng	98
77) 3-Ethyltoluene	24.17	105	1816036	25.064	ng	99
78) 4-Ethyltoluene	24.23	105	1742555	24.369	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1514728	25.449	ng	99

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090903.D  
 Acq On : 9 Sep 2009 10:44 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 LCS STD  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 09 11:15:44 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	835090	26.716	ng	96
81) 2-Ethyltoluene	24.56	105	1791496	24.095	ng	100
82) 1,2,4-Trimethylbenzene	24.83	105	1512313	24.891	ng	99
83) n-Decane	24.93	57	875307	24.130	ng	97
84) Benzyl Chloride	25.00	91	1458623	24.249	ng	98
85) 1,3-Dichlorobenzene	25.02	146	821114	25.006	ng	100
86) 1,4-Dichlorobenzene	25.10	146	847498	24.782	ng	98
87) sec-Butylbenzene	25.16	105	2024604	24.396	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1807964	24.170	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	1537169	24.138	ng	99
90) 1,2-Dichlorobenzene	25.53	146	766603	25.015	ng	99
91) d-Limonene	25.53	68	638627	26.331	ng	98
92) 1,2-Dibromo-3-Chloropr...	26.06	157	295640	27.572	ng	92
93) n-Undecane	26.46	57	950479	25.240	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	595249	27.577	ng	98
95) Naphthalene	27.73	128	2105748	25.078	ng	100
96) n-Dodecane	27.69	57	982058	22.878	ng	98
97) Hexachlorobutadiene	28.15	225	341058	26.280	ng	100
98) Cyclohexanone	22.29	55	545399	21.651	ng	95
99) tert-Butylbenzene	24.83	119	1446735	24.588	ng	99
100) n-Butylbenzene	25.86	91	1725240	25.498	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

## INITIAL CALIBRATION STANDARDS

Response Factor Report GCMS13

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Calibration Files

0.1 =08270906.D 0.2 =08270907.D 0.5 =08270908.D 1.0 =08270909.D 5.0 =08270910.D  
 25 =08270911.D 50 =08270912.D 100 =08270913.D

Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	AVG	%RSD
1) IR Bromochloromethan										
2) T Propene	2.228	1.768	1.709	1.601	1.972	1.929	1.517	1.744	1.808	12.55
3) T Dichlorodifluorom	3.863	3.277	3.356	3.114	3.233	3.191	2.448	2.845	3.166	12.86
4) T Chloromethane	2.259	2.110	2.206	2.148	2.122	2.355	1.885	1.942	2.128	7.31
5) T 1,2-Dichloro-1,1,	1.431	1.358	1.272	1.297	1.345	1.383	1.097	1.277	1.308	7.73
6) T Vinyl Chloride	2.051	1.971	1.941	1.934	2.071	2.173	1.758	2.071	1.996	6.27
7) T 1,3-Butadiene	1.682	1.372	1.440	1.385	1.522	1.671	1.310	1.529	1.489	9.22
8) T Bromomethane	1.136	1.099	1.319	1.185	1.374	1.461	1.050	1.247	1.234	11.56
9) T Chloroethane	1.107	1.073	1.099	1.012	1.155	1.210	0.956	1.132	1.093	7.33
10) T Ethanol	1.132	1.170	1.171	1.069	1.162	1.228	0.959	1.079	1.121	7.46
11) T Acetonitrile	3.731	3.312	3.106	2.811	3.118	3.268	2.579	2.992	3.115	11.10
12) T Acrolein			0.782	0.792	0.892	0.983	0.784	0.904	0.856	9.69
13) T Acetone	1.540	1.354	1.207	1.077	1.126	1.152	0.876	0.945	1.160	18.42
14) T Trichlorofluorome	2.816	2.659	2.984	2.708	2.943	3.075	2.401	2.738	2.791	7.67
15) T 2-Propanol (Isopr		4.562	4.691	4.193	3.525	4.031	2.841	3.143	3.855	18.31
16) T Acrylonitrile	1.679	1.661	1.830	1.855	2.096	2.283	1.820	2.090	1.914	11.50
17) T 1,1-Dichloroethen	1.421	1.308	1.395	1.299	1.374	1.477	1.183	1.372	1.354	6.64
18) T 2-Methyl-2-Propan	4.111	3.917	3.922	3.742	4.000	4.357	2.975		3.860	11.26
19) T Methylene Chlorid	1.613	1.543	1.556	1.402	1.474	1.542	1.220	1.418	1.471	8.46
20) T 3-Chloro-1-propen	2.522	2.248	2.221	2.068	2.365	2.545	2.033	2.310	2.289	8.19
21) T Trichlorotrifluor	1.027	1.089	1.228	1.078	1.116	1.231	0.985	1.088	1.105	7.87
22) T Carbon Disulfide	5.517	5.028	5.376	5.032	5.437	5.803	4.554	5.118	5.233	7.31
23) T trans-1,2-Dichlor	1.970	1.770	2.149	2.072	2.273	2.449	1.946	2.204	2.104	10.07
24) T 1,1-Dichloroethan	2.902	2.459	2.655	2.507	2.698	2.900	2.319	2.614	2.632	7.77
25) T Methyl tert-Butyl	4.565	3.987	4.180	3.793	4.176	4.615	3.722	4.216	4.157	7.77
26) T Vinyl Acetate	0.281	0.271	0.307	0.277	0.301	0.350	0.265	0.273	0.291	9.72
27) T 2-Butanone (MEK)	1.034	0.821	0.921	0.891	1.025	1.124	0.885	0.793	0.937	12.17
28) T cis-1,2-Dichloroe	1.967	1.808	2.117	1.898	2.118	2.271	1.796	2.034	2.001	8.27
29) T Diisopropyl Ether	1.277	1.282	1.446	1.333	1.450	1.568	1.225	1.362	1.368	8.30

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(#) Out of Range ### Number of calibration levels exceeded format ###  
 R13082709.M Fri Aug 28 11:16:18 2009

MM 8/28/09  
 CC 8/28/09

Response Factor Report GCMS13

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Calibration Files

0.1 =08270906.D 0.2 =08270907.D 0.5 =08270908.D 1.0 =08270909.D 5.0 =08270910.D  
 25 =08270911.D 50 =08270912.D 100 =08270913.D

Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
30) T Ethyl Acetate	0.448	0.403	0.525	0.494	0.567	0.608	0.467	0.515	0.503	13.03
31) T n-Hexane	2.821	2.572	2.527	2.400	2.518	2.688	2.123	2.411	2.508	8.31
32) T Chloroform	2.621	2.291	2.596	2.424	2.599	2.746	2.131	2.366	2.472	8.25
33) S 1,2-Dichloroethan	2.001	2.011	1.998	2.007	1.974	2.005	1.950	1.903	1.981	1.91
34) T Tetrahydrofuran (			1.244	1.004	0.993	1.078	0.838	0.938	1.016	13.53
35) T Ethyl tert-Butyl	1.586	1.658	1.745	1.622	1.714	1.875	1.503	1.720	1.678	6.72
36) T 1,2-Dichloroethan	2.363	1.999	2.075	1.989	2.111	2.276	1.787	1.991	2.074	8.71
37) IR 1,4-Difluorobenze	-----ISTD-----									
38) T 1,1,1-Trichloroet	0.480	0.446	0.490	0.442	0.477	0.509	0.407	0.446	0.462	7.09
39) T Isopropyl Acetate	0.195	0.173	0.194	0.181	0.203	0.217	0.170	0.188	0.190	8.12
40) T 1-Butanol	0.346	0.331	0.296	0.270	0.311	0.349	0.278	0.309	0.311	9.41
41) T Benzene	1.365	1.233	1.256	1.121	1.199	1.222	0.957	1.049	1.175	10.90
42) T Carbon Tetrachlor	0.393	0.351	0.407	0.375	0.414	0.447	0.361	0.408	0.395	7.94
43) T Cyclohexane	0.460	0.428	0.451	0.413	0.447	0.477	0.376	0.412	0.433	7.42
44) T tert-Amyl Methyl	1.007	0.839	0.936	0.847	0.884	0.919	0.722	0.809	0.870	9.98
45) T 1,2-Dichloropropa	0.281	0.276	0.295	0.284	0.309	0.323	0.260	0.295	0.290	6.85
46) T Bromodichlorometh	0.398	0.337	0.396	0.363	0.412	0.443	0.354	0.396	0.387	8.87
47) T Trichloroethene	0.275	0.288	0.284	0.265	0.297	0.323	0.262	0.299	0.287	6.94
48) T 1,4-Dioxane	0.184	0.214	0.247	0.219	0.248	0.264	0.211	0.221	0.226	11.32
49) T 2,2,4-Trimethylpe	1.457	1.313	1.417	1.291	1.396	1.451	1.138	1.236	1.337	8.46
50) T Methyl Methacryla	0.100	0.092	0.106	0.103	0.120	0.130	0.105	0.116	0.109	11.14
51) T n-Heptane	0.288	0.283	0.326	0.302	0.326	0.340	0.271	0.301	0.305	7.92
52) T cis-1,3-Dichlorop	0.447	0.427	0.497	0.448	0.507	0.549	0.443	0.499	0.477	8.79
53) T 4-Methyl-2-pentan	0.263	0.241	0.264	0.255	0.286	0.311	0.248	0.279	0.268	8.46
54) T trans-1,3-Dichlor	0.410	0.423	0.459	0.422	0.486	0.522	0.419	0.473	0.452	8.83
55) T 1,1,2-Trichloroet	0.291	0.264	0.282	0.250	0.286	0.299	0.243	0.274	0.274	7.27
56) IR Chlorobenzene-d5	-----ISTD-----									
57) S Toluene-d8 (SS2)	2.226	2.230	2.222	2.230	2.212	2.233	2.240	2.281	2.234	0.92

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(#) Out of Range ### Number of calibration levels exceeded format ###  
 R13082709.M Fri Aug 28 11:16:18 2009

Response Factor Report GCMS13

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Calibration Files

0.1 =08270906.D 0.2 =08270907.D 0.5 =08270908.D 1.0 =08270909.D 5.0 =08270910.D  
 25 =08270911.D 50 =08270912.D 100 =08270913.D

Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
58) T Toluene	2.610	2.363	2.446	2.293	2.488	2.606	2.090	2.354	2.406	7.15
59) T 2-Hexanone	1.630	1.345	1.430	1.385	1.501	1.658	1.320	1.497	1.471	8.51
60) T Dibromochlorometh	0.553	0.552	0.627	0.552	0.620	0.700	0.571	0.666	0.605	9.44
61) T 1,2-Dibromoethane	0.592	0.587	0.644	0.603	0.656	0.720	0.582	0.671	0.632	7.80
62) T n-Butyl Acetate	1.687	1.542	1.665	1.576	1.732	1.914	1.554	1.826	1.687	7.90
63) T n-Octane	0.626	0.513	0.579	0.531	0.562	0.598	0.478	0.542	0.554	8.61
64) T Tetrachloroethene	0.592	0.582	0.624	0.569	0.632	0.675	0.553	0.648	0.609	6.89
65) T Chlorobenzene	1.621	1.513	1.607	1.436	1.576	1.689	1.360	1.548	1.544	6.87
66) T Ethylbenzene	2.899	2.579	2.862	2.627	2.891	3.056	2.418	2.686	2.752	7.61
67) T m- & p-Xylenes	2.271	2.106	2.268	2.112	2.295	2.438	1.915	2.123	2.191	7.29
68) T Bromoform	0.492	0.457	0.478	0.478	0.541	0.620	0.515	0.610	0.524	11.78
69) T Styrene	1.632	1.460	1.546	1.485	1.715	1.865	1.499	1.706	1.613	8.77
70) T o-Xylene	2.198	2.015	2.279	2.160	2.341	2.481	1.953	2.181	2.201	7.71
71) T n-Nonane	1.410	1.318	1.387	1.274	1.384	1.428	1.123	1.258	1.323	7.72
72) T 1,1,2,2-Tetrachlo	1.015	0.938	1.067	0.934	1.062	1.136	0.904	1.017	1.009	7.87
73) S Bromofluorobenzene	0.637	0.641	0.642	0.642	0.643	0.647	0.642	0.650	0.643	0.59
74) T Cumene	2.874	2.641	2.834	2.706	2.929	3.119	2.483	2.729	2.790	6.96
75) T alpha-Pinene	1.526	1.380	1.459	1.356	1.496	1.609	1.296	1.454	1.447	6.95
76) T n-Propylbenzene	3.766	3.311	3.648	3.441	3.793	3.970	3.101	3.318	3.543	8.37
77) T 3-Ethyltoluene	2.849	2.433	2.664	2.535	2.797	2.980	2.418	2.673	2.669	7.52
78) T 4-Ethyltoluene	2.815	2.470	2.714	2.522	2.799	2.947	2.302	2.499	2.634	8.26
79) T 1,3,5-Trimethylbe	2.236	2.054	2.162	2.148	2.315	2.470	1.966	2.186	2.192	7.05
80) T alpha-Methylstyrene	0.955	0.981	1.127	1.071	1.260	1.400	1.133	1.282	1.151	13.37
81) T 2-Ethyltoluene	2.851	2.561	2.758	2.688	2.892	3.058	2.430	2.668	2.738	7.21
82) T 1,2,4-Trimethylbe	2.268	2.059	2.284	2.180	2.409	2.549	1.998	2.154	2.238	8.09
83) T n-Decane	1.368	1.216	1.412	1.358	1.437	1.477	1.154	1.267	1.336	8.47
84) T Benzyl Chloride	2.330	2.000	2.201	2.076	2.360	2.541	2.008	2.208	2.215	8.52
85) T 1,3-Dichlorobenze	1.322	1.095	1.217	1.161	1.231	1.342	1.086	1.220	1.209	7.75
86) T 1,4-Dichlorobenze	1.282	1.153	1.287	1.189	1.295	1.421	1.147	1.303	1.260	7.30
87) T sec-Butylbenzene	3.081	2.880	3.153	3.010	3.269	3.448	2.715	2.896	3.057	7.66

298

(#) Out of Range ### Number of calibration levels exceeded format ###  
 R13082709.M Fri Aug 28 11:16:19 2009

Response Factor Report GCMS13

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Calibration Files

0.1 =08270906.D 0.2 =08270907.D 0.5 =08270908.D 1.0 =08270909.D 5.0 =08270910.D  
 25 =08270911.D 50 =08270912.D 100 =08270913.D

Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
88) T 4-Isopropyltoluen	2.670	2.592	2.879	2.705	3.020	3.160	2.464	2.549	2.755	8.82
89) T 1,2,3-Trimethylbe	2.424	2.299	2.431	2.277	2.495	2.594	2.045	2.198	2.345	7.51
90) T 1,2-Dichlorobenze	1.100	1.053	1.174	1.102	1.220	1.287	1.010	1.085	1.129	8.10
91) T d-Limonene	0.748	0.829	0.885	0.865	0.986	1.066	0.844	0.923	0.893	11.02
92) T 1,2-Dibromo-3-Chl	0.324	0.298	0.364	0.362	0.437	0.499	0.407	0.469	0.395	17.81
93) T n-Undecane	1.330	1.231	1.458	1.398	1.548	1.573	1.230	1.327	1.387	9.50
94) T 1,2,4-Trichlorobe	0.701	0.595	0.804	0.760	0.877	0.957	0.772	0.892	0.795	14.51
95) T Naphthalene	2.936	2.620	3.084	2.996	3.377	3.682	2.924	3.122	3.093	10.34
96) T n-Dodecane	1.462	1.440	1.731	1.633	1.792	1.746	1.375	1.469	1.581	10.31
97) T Hexachlorobutadie	0.458	0.435	0.473	0.453	0.508	0.534	0.445	0.518	0.478	7.80
98) T Cyclohexanone	1.009	0.855	0.876	0.835	0.946	1.067	0.855	0.979	0.928	9.17
99) T tert-Butylbenzene	2.140	2.013	2.273	2.146	2.325	2.453	1.922	2.065	2.167	8.06
100) T n-Butylbenzene	2.355	2.233	2.625	2.46	2.744	2.867	2.244	2.407	2.492	9.31

**Primary Source Standards Concentrations  
(Working & Initial Calibration)**

4ng/L Std. ID: **S20-08240906**

20ng/L Std. ID: **S20-07310904**

200ng/L Std. ID: **S20-08240903**

Dilution Factors:

5      50      250

Compounds	Source Std. mg/m <sup>3</sup>	Primary Working Standards			Working STD Conc.(ng/L): Injection (L): ICAL Points:	ICAL Concentrations (Primary Source)							
		200ng/L	20ng/L	4ng/L		4	4	20	20	20	200	200	200
		0.025	0.05	0.025		0.050	0.025	0.05	0.25	0.125	0.25	0.50	
Propene	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Dichlorodifluoromethane	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Chloromethane	1.00	200	20.0	4.00	0.100	0.200	0.500	1.00	5.00	25.0	50.0	100	
Freon-114	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
Vinyl Chloride	1.01	202	20.2	4.04	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101	
1,3-Butadiene	1.20	240	24.0	4.80	0.120	0.240	0.600	1.20	6.00	30.0	60.0	120	
Bromomethane	1.02	204	20.4	4.08	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102	
Chloroethane	1.01	202	20.2	4.04	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101	
Ethanol	5.20	1040	104	20.8	0.520	1.040	2.60	5.20	26.0	130	260	520	
Acetonitrile	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Acrolein	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Acetone	5.50	1100	110	22.0	0.550	1.100	2.75	5.50	27.5	138	275	550	
Trichlorofluoromethane	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Isopropanol	1.89	378	37.8	7.56	0.189	0.378	0.945	1.89	9.45	47.3	94.5	189	
Acrylonitrile	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
1,1-Dichloroethene	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
tert-Butanol	2.02	404	40.4	8.08	0.202	0.404	1.01	2.02	10.1	50.5	101	202	
Methylene Chloride	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Allyl Chloride	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Trichlorotrifluoroethane	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
Carbon Disulfide	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
trans-1,2-Dichloroethene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
1,1-Dichloroethane	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
Methyl tert-Butyl Ether	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
Vinyl Acetate	5.02	1004	100	20.1	0.502	1.004	2.51	5.02	25.1	126	251	502	
2-Butanone	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
cis-1,2-Dichloroethene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
Diisopropyl Ether	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Ethyl Acetate	2.13	426	42.6	8.52	0.213	0.426	1.07	2.13	10.7	53.3	107	213	
n-Hexane	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
Chloroform	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Tetrahydrofuran	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
Ethyl tert-Butyl Ether	1.03	206	20.6	4.12	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103	
1,2-Dichloroethane	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
1,1,1-Trichloroethane	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Isopropyl Acetate	2.09	418	41.8	8.36	0.209	0.418	1.05	2.09	10.5	52.3	105	209	
1-Butanol	2.07	414	41.4	8.28	0.207	0.414	1.04	2.07	10.4	51.8	104	207	
Benzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
Carbon Tetrachloride	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Cyclohexane	2.15	430	43.0	8.60	0.215	0.430	1.08	2.15	10.8	53.8	108	215	
tert-Amyl Methyl Ether	1.04	208	20.8	4.16	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104	
1,2-Dichloropropane	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Bromodichloromethane	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Trichloroethene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
1,4-Dioxane	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Isooctane	1.04	208	20.8	4.16	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104	
Methyl Methacrylate	2.13	426	42.6	8.52	0.213	0.426	1.07	2.13	10.7	53.3	107	213	
n-Heptane	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
cis-1,3-Dichloropropene	0.99	198	19.8	3.96	0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0	
4-Methyl-2-pentanone	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
trans-1,3-Dichloropropene	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
1,1,2-Trichloroethane	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
Toluene	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
2-Hexanone	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
Dibromochloromethane	1.15	230	23.0	4.60	0.115	0.230	0.575	1.15	5.75	28.8	57.5	115	
1,2-Dibromoethane	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
n-Butyl Acetate	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
n-Octane	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Tetrachloroethene	1.02	204	20.4	4.08	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102	
Chlorobenzene	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Ethylbenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
m-&p-Xylene	2.08	416	41.6	8.32	0.208	0.416	1.04	2.08	10.4	52.0	104	208	

*MM 8/28/09*

*CC 8/28/09*



**Primary Source Standards Concentrations  
(Working & Initial Calibration)**

4ng/L Std. ID: S20-08240906

20ng/L Std. ID:

200ng/L Std. ID:

Dilution Factors:

5      50      250

Compounds	Source Std. mg/m <sup>3</sup>	Primary Working Standards			Working STD Conc.(ng/L):  ICAL Points:	ICAL Concentrations (Primary Source)							
		200ng/L	20ng/L	4ng/L		4	4	20	20	20	200	200	200
		5	50	250		0.025	0.050	0.025	0.05	0.25	0.125	0.25	0.50
Bromoform	1.03	206	20.6	4.12	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103	
Styrene	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
o-Xylene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
n-Nonane	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
1,1,2,2-Tetrachloroethane	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
Cumene	1.03	206	20.6	4.12	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103	
alpha-Pinene	1.01	202	20.2	4.04	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101	
n-Propylbenzene	1.03	206	20.6	4.12	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103	
3-Ethyltoluene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
4-Ethyltoluene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
1,3,5-Trimethylbenzene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
alpha-Methylstyrene	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
2-Ethyltoluene	1.05	210	21.0	4.20	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105	
1,2,4-Trimethylbenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
n-Decane	1.08	216	21.6	4.32	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108	
Benzyl Chloride	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
1,3-Dichlorobenzene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
1,4-Dichlorobenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
sec-Butylbenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
p-Isopropyltoluene	1.03	206	20.6	4.12	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103	
1,2,3-Trimethylbenzene	1.07	214	21.4	4.28	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107	
1,2-Dichlorobenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
d-Limonene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
chloropropane	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
n-Undecane	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	
1,2,4-Trichlorobenzene	1.12	224	22.4	4.48	0.112	0.224	0.560	1.12	5.60	28.0	56.0	112	
Naphthalene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
n-Dodecane	0.99	198	19.8	3.96	0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0	
Hexachloro-1,3-butadiene	1.10	220	22.0	4.40	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110	
Methacrylonitrile	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
Cyclohexanone	0.98	196	19.6	3.92	0.098	0.196	0.490	0.980	4.90	24.5	49.0	98.0	
tert-Butylbenzene	1.06	212	21.2	4.24	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106	
n-Butylbenzene	1.09	218	21.8	4.36	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109	

\*Enter information in the Solid Shaded Areas ONLY.

*UM 8/3/09*

*CC  
8-31-09*

Calibration Status Report GCMS13

Method Path : J:\MS13\METHODS\  
 Method File : R13082709.M  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009  
 Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	25	J:\MS13\DATA\2009_08\27\08270906.D
2	0.2	0	25	J:\MS13\DATA\2009_08\27\08270907.D
3	0.5	1	25	J:\MS13\DATA\2009_08\27\08270908.D
4	1.0	1	25	J:\MS13\DATA\2009_08\27\08270909.D
5	5.0	5	25	J:\MS13\DATA\2009_08\27\08270910.D
6	25	27	25	J:\MS13\DATA\2009_08\27\08270911.D
7	50	54	25	J:\MS13\DATA\2009_08\27\08270912.D
8	100	107	25	J:\MS13\DATA\2009_08\27\08270913.D

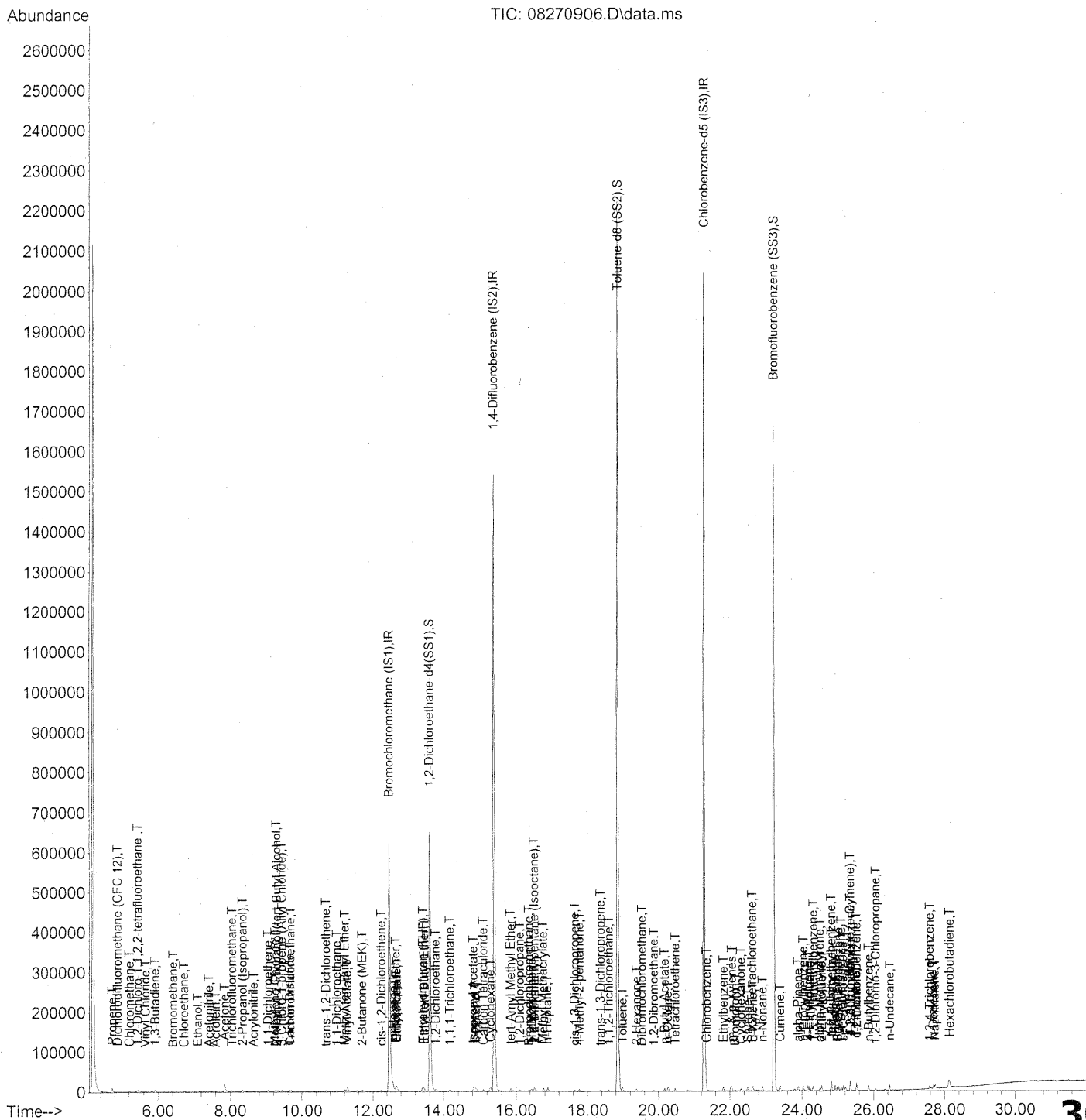
#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Aug 28 05:59 2009	Aug 27 20:42 2009	27 Aug 2009 15:31
2	0.2	Aug 28 06:00 2009	Aug 27 20:45 2009	27 Aug 2009 16:11
3	0.5	Aug 28 06:00 2009	Aug 28 05:44 2009	27 Aug 2009 16:52
4	1.0	Aug 28 06:00 2009	Aug 28 05:46 2009	27 Aug 2009 17:32
5	5.0	Aug 28 06:01 2009	Aug 28 05:49 2009	27 Aug 2009 18:13
6	25	Aug 28 06:01 2009	Aug 28 05:51 2009	27 Aug 2009 18:53
7	50	Aug 28 06:01 2009	Aug 28 05:54 2009	27 Aug 2009 19:34
8	100	Aug 28 06:02 2009	Aug 28 05:57 2009	27 Aug 2009 20:14

R13082709.M Fri Aug 28 06:14:23 2009

*LM 8/28/09*  
*CC 8/28/09*

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270906.D  
 Acq On : 27 Aug 2009 15:31  
 Operator : WA/CC  
 Sample : 0.1ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270906.D  
 Acq On : 27 Aug 2009 15:31  
 Operator : WA/CC  
 Sample : 0.1ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

*WA 8/28/09*  
*cc 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	345606	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1747755	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	850515	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	691489	23.020	ng	-0.01
Spiked Amount	25.000		Recovery	=	92.08%	✓
57) Toluene-d8 (SS2)	18.85	98	1893630	25.481	ng	0.00
Spiked Amount	25.000		Recovery	=	101.92%	✓
73) Bromofluorobenzene (SS3)	23.23	174	541883	27.650	ng	0.00
Spiked Amount	25.000		Recovery	=	110.60%	✓

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.72	42	3295	0.139	ng	98
3) Dichlorodifluoromethan...	4.88	85	5608	0.145	ng	# 88
4) Chloromethane	5.21	50	3123	0.120	ng	74
5) 1,2-Dichloro-1,1,2,2-t...	5.43	135	2097	0.133	ng	73
6) Vinyl Chloride	5.65	62	2864	0.114	ng	# 49
7) 1,3-Butadiene	5.92	54	2790	0.156	ng	90
8) Bromomethane	6.42	94	1602	0.105	ng	# 59
9) Chloroethane	6.72	64	1545	0.106	ng	76
10) Ethanol	7.10	45	8140	0.541	ng	# 66
11) Acetonitrile	7.42	41	5415	0.123	ng	# 25
12) Acrolein	7.59	56	602	0.053	ng	# 54
13) Acetone	7.85	58	11708	0.825	ng	95
14) Trichlorofluoromethane	8.05	101	4087	0.117	ng	98
15) 2-Propanol (Isopropanol)	8.34	45	14347	0.257	ng	80
16) Acrylonitrile	8.65	53	2460	0.096	ng	# 9
17) 1,1-Dichloroethene	9.05	96	2161	0.133	ng	# 84
18) 2-Methyl-2-Propanol (t...	9.29	59	11481m	0.232	ng	
19) Methylene Chloride	9.25	84	2386	0.125	ng	97
20) 3-Chloro-1-propene (Al...	9.43	41	3765	0.103	ng	84
21) Trichlorotrifluoroethane	9.68	151	1561	0.123	ng	# 1
22) Carbon Disulfide	9.66	76	8161	0.122	ng	84
23) trans-1,2-Dichloroethene	10.68	61	2887	0.100	ng	78
24) 1,1-Dichloroethane	10.98	63	4252	0.122	ng	89
25) Methyl tert-Butyl Ether	11.20	73	6878	0.128	ng	93
26) Vinyl Acetate	11.27	86	1953	0.677	ng	# 30
27) 2-Butanone (MEK)	11.70	72	1572	0.123	ng	# 87
28) cis-1,2-Dichloroethene	12.24	61	2964	0.111	ng	80
29) Diisopropyl Ether	12.66	87	1889	0.110	ng	# 6
30) Ethyl Acetate	12.69	61	1319	0.198	ng	97
31) n-Hexane	12.58	57	4251	0.125	ng	7

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270906.D  
 Acq On : 27 Aug 2009 15:31  
 Operator : WA/CC  
 Sample : 0.1ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	3877	0.129	ng	93
34) Tetrahydrofuran (THF)	13.42	72	4140	0.303	ng	# 86
35) Ethyl tert-Butyl Ether	13.46	87	2258	0.102	ng	# 76
36) 1,2-Dichloroethane	13.78	62	3463	0.126	ng	87
38) 1,1,1-Trichloroethane	14.17	97	3520	0.119	ng	82
39) Isopropyl Acetate	14.83	61	2853	0.220	ng	# 58
40) 1-Butanol	14.91	56	5004	0.221	ng	# 39
41) Benzene	14.87	78	10112	0.132	ng	94
42) Carbon Tetrachloride	15.10	117	2971	0.121	ng	85
43) Cyclohexane	15.30	84	6910	0.246	ng	95
44) tert-Amyl Methyl Ether	15.86	73	7323	0.127	ng	94
45) 1,2-Dichloropropane	16.11	63	2060	0.107	ng	93
46) Bromodichloromethane	16.37	83	3004	0.119	ng	93
47) Trichloroethene	16.44	130	2040	0.118	ng	97
48) 1,4-Dioxane	16.52	88	1375	0.094	ng	79
49) 2,2,4-Trimethylpentane...	16.52	57	10591	0.117	ng	96
50) Methyl Methacrylate	16.76	100	1493	0.211	ng	93
51) n-Heptane	16.87	71	2136	0.104	ng	83
52) cis-1,3-Dichloropropene	17.65	75	3093	0.097	ng	99
53) 4-Methyl-2-pentanone	17.77	58	2022	0.109	ng	87
54) trans-1,3-Dichloropropene	18.36	75	3156	0.104	ng	91
55) 1,1,2-Trichloroethane	18.59	97	2137	0.127	ng	86
58) Toluene	18.98	91	9590	0.131	ng	98
59) 2-Hexanone	19.38	43	6099	0.126	ng	87
60) Dibromochloromethane	19.52	129	2164	0.125	ng	98
61) 1,2-Dibromoethane	19.86	107	2135	0.117	ng	97
62) n-Butyl Acetate	20.17	43	6315	0.110	ng	# 82
63) n-Octane	20.26	57	2279	0.129	ng	94
64) Tetrachloroethene	20.47	166	2055	0.122	ng	96
65) Chlorobenzene	21.35	112	5957	0.132	ng	97
66) Ethylbenzene	21.82	91	10455	0.125	ng	100
67) m- & p-Xylenes	22.05	91	16072	0.238	ng	99
68) Bromoform	22.14	173	1723	0.120	ng	71
69) Styrene	22.51	104	5939	0.122	ng	95
70) o-Xylene	22.65	91	7925	0.117	ng	93
71) n-Nonane	22.91	43	5083	0.113	ng	# 77
72) 1,1,2,2-Tetrachloroethane	22.62	83	3696	0.123	ng	98
74) Cumene	23.40	105	10070	0.118	ng	99
75) alpha-Pinene	23.90	93	5243	0.120	ng	80
76) n-Propylbenzene	24.05	91	13198	0.123	ng	94
77) 3-Ethyltoluene	24.17	105	10566	0.129	ng	98
78) 4-Ethyltoluene	24.22	105	10439	0.132	ng	99
79) 1,3,5-Trimethylbenzene	24.32	105	8293	0.124	ng	99

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270906.D  
 Acq On : 27 Aug 2009 15:31  
 Operator : WA/CC  
 Sample : 0.1ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

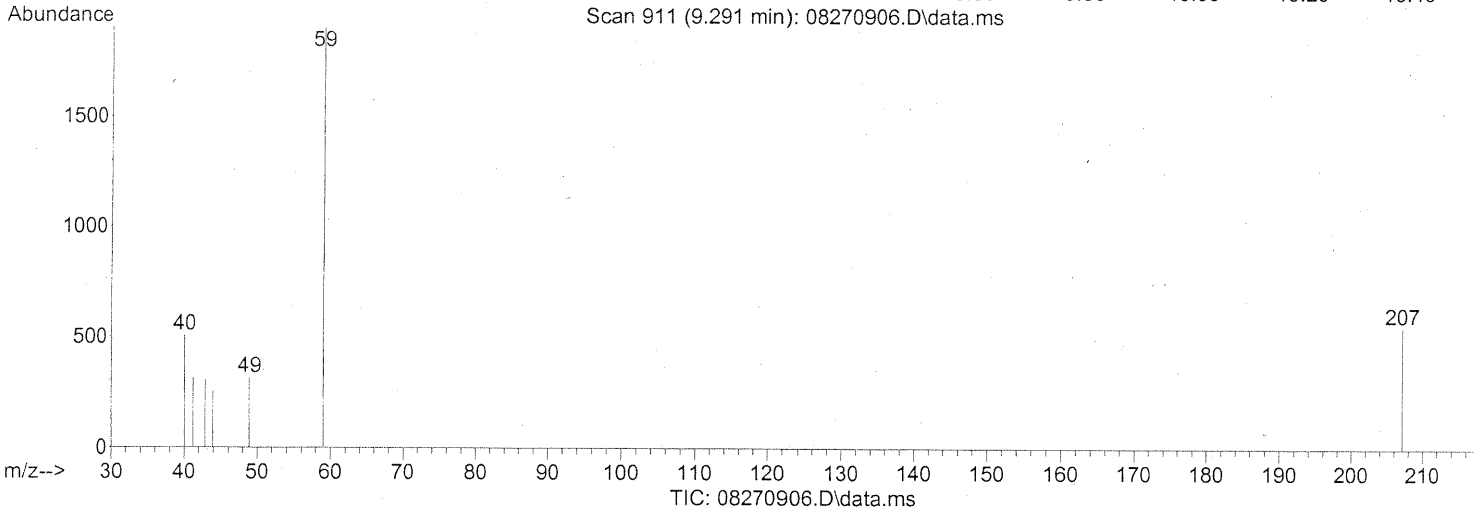
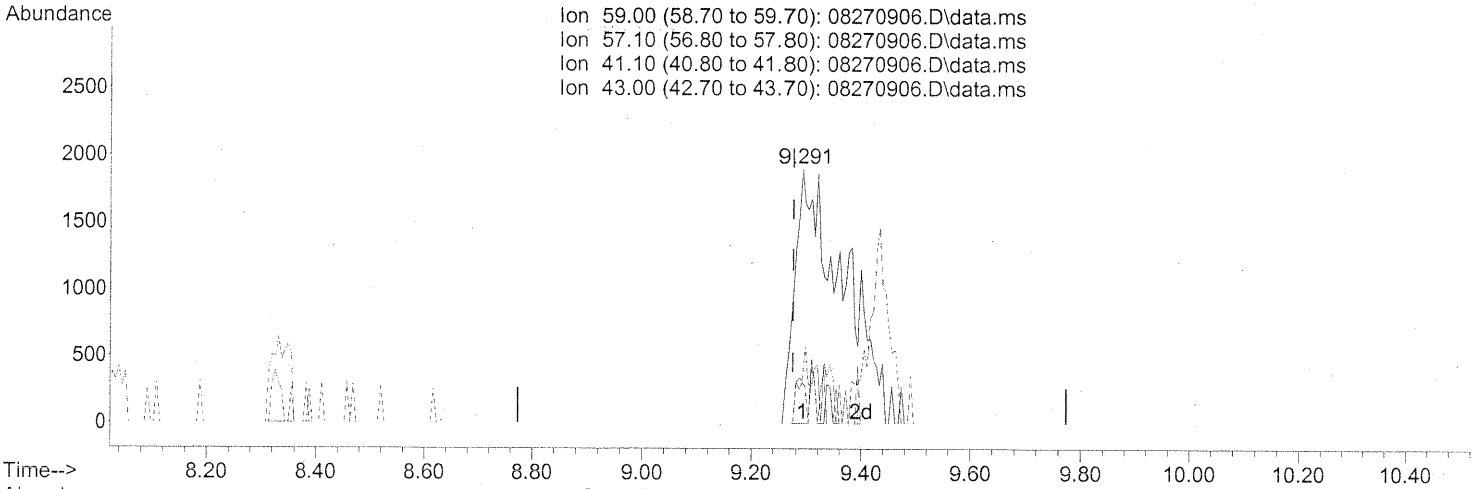
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.50	118	3476	0.097	ng	94
81) 2-Ethyltoluene	24.56	105	10184	0.124	ng	94
82) 1,2,4-Trimethylbenzene	24.82	105	8179	0.120	ng	97
83) n-Decane	24.93	57	5026	0.113	ng	95
84) Benzyl Chloride	25.00	91	8718	0.137	ng	96
85) 1,3-Dichlorobenzene	25.03	146	4903	0.142	ng	95
86) 1,4-Dichlorobenzene	25.10	146	4624	0.126	ng	96
87) sec-Butylbenzene	25.15	105	11109	0.121	ng	97
88) 4-Isopropyltoluene (p-...	25.35	119	9355	0.114	ng	96
89) 1,2,3-Trimethylbenzene	25.35	105	8824	0.127	ng	99
90) 1,2-Dichlorobenzene	25.53	146	3966	0.121	ng	94
91) d-Limonene	25.52	68	2775	0.096	ng	82
92) 1,2-Dibromo-3-Chloropr...	26.06	157	1212	0.108	ng	# 70
93) n-Undecane	26.46	57	4933	0.105	ng	95
94) 1,2,4-Trichlorobenzene	27.58	180	2671	0.119	ng	95
95) Naphthalene	27.73	128	10587	0.114	ng	98
96) n-Dodecane	27.69	57	4925	0.090	ng	94
97) Hexachlorobutadiene	28.14	225	1714	0.120	ng	88
98) Cyclohexanone	22.32	55	3365	0.111	ng	96
99) tert-Butylbenzene	24.83	119	7717	0.117	ng	96
100) n-Butylbenzene	25.86	91	8734	0.115	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270906.D  
Acq On : 27 Aug 2009 15:31  
Operator : WA/CC  
Sample : 0.1ng TO-15 ICAL  
Misc : S20-08140906/S20-08240906  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:40:49 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration



(18) 2-Methyl-2-Propanol (tert-Butyl Alcohol (T))

9.291min (+0.017) 0.20ng

response 9815

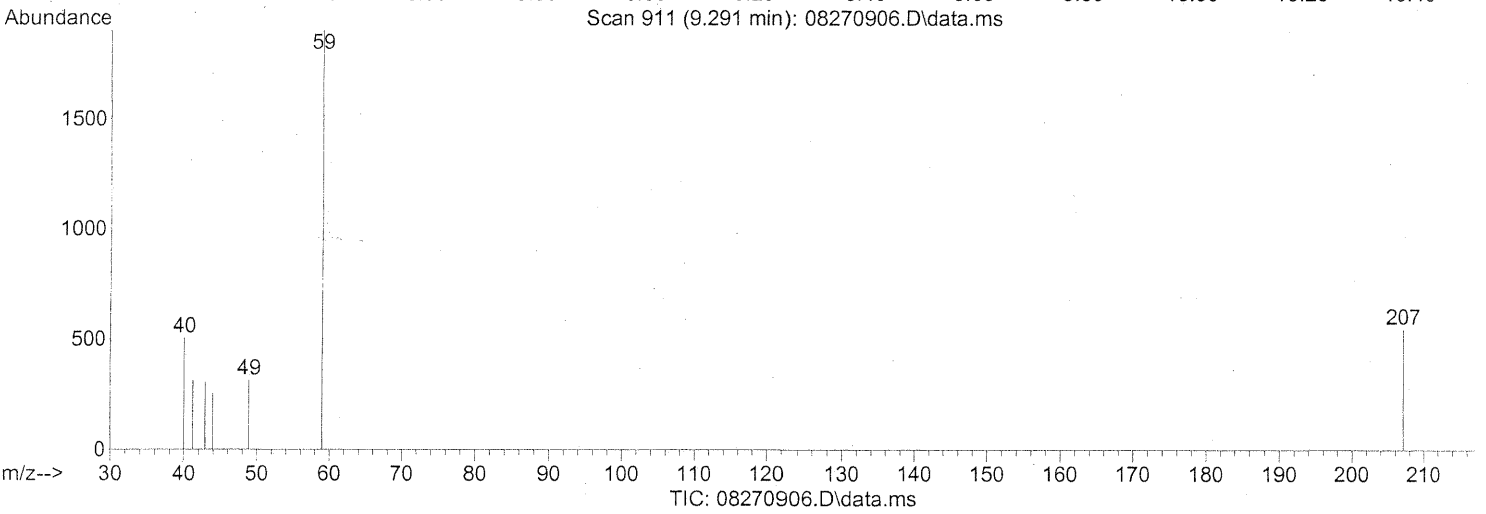
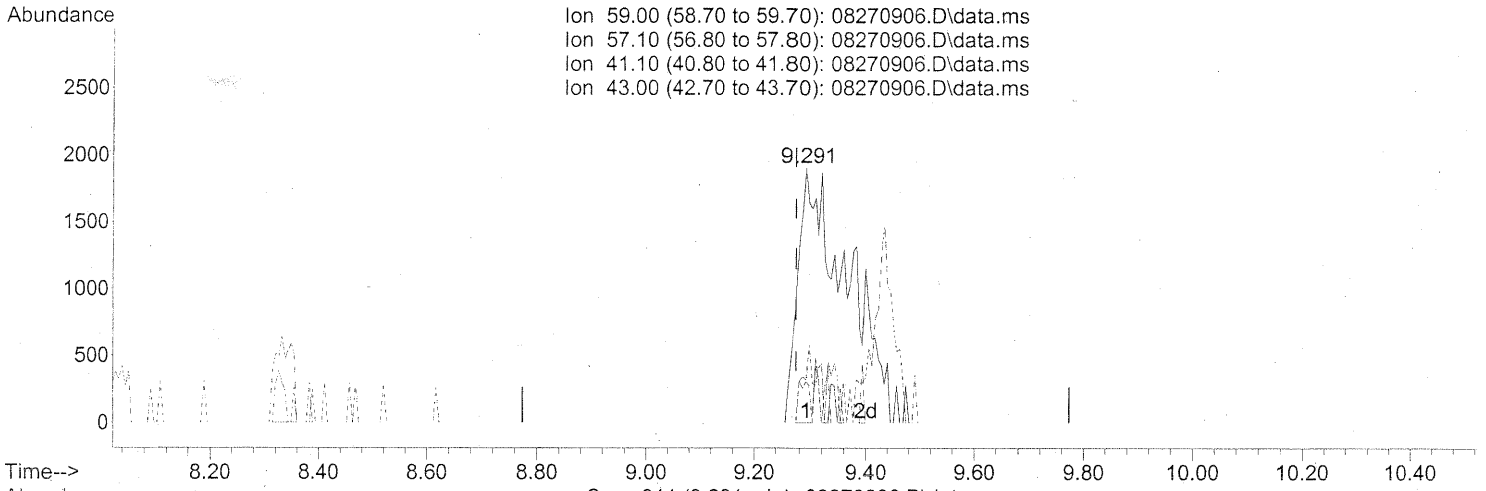
Ion	Exp%	Act%
59.00	100	100
57.10	10.20	2.84
41.10	20.40	10.37
43.00	14.90	2.64

SP

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270906.D  
Acq On : 27 Aug 2009 15:31  
Operator : WA/CC  
Sample : 0.1ng TO-15 ICAL  
Misc : S20-08140906/S20-08240906  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:40:49 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration



(18) 2-Methyl-2-Propanol (tert-Butyl Alcohol (T))

9.291min (+0.017) 0.23ng m

response 11481

Ion	Exp%	Act%
59.00	100	100
57.10	10.20	2.43
41.10	20.40	8.87
43.00	14.90	2.26

*SP -> IC*

*LM 8/28/09*

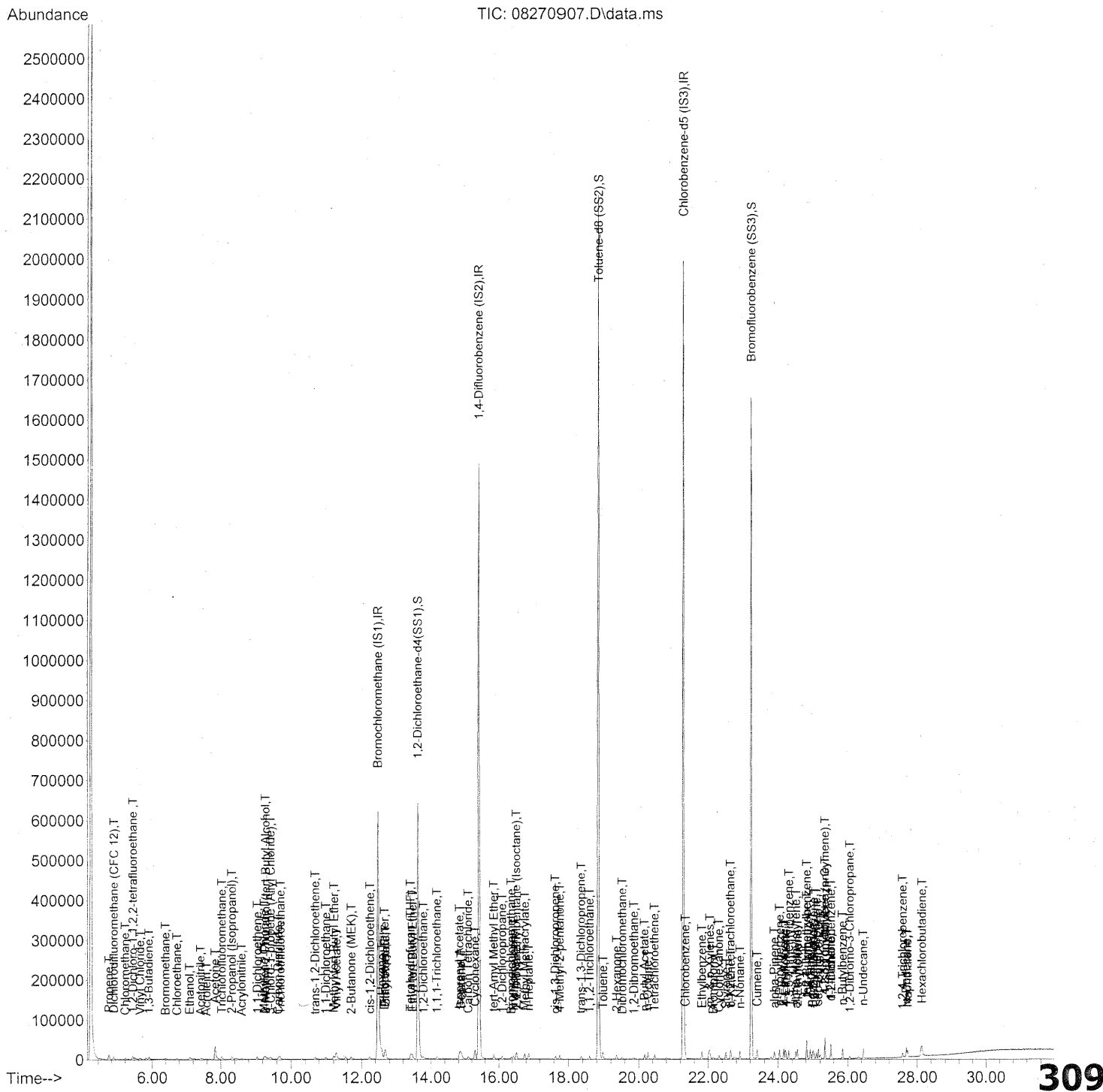
*CC  
8/28/09*

*R 8/31/09*



Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270907.D  
Acq On : 27 Aug 2009 16:11  
Operator : WA/CC  
Sample : 0.2ng TO-15 ICAL  
Misc : S20-08140906/S20-08240906  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270907.D  
 Acq On : 27 Aug 2009 16:11  
 Operator : WA/CC  
 Sample : 0.2ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

*WA 8/28/09*  
*CC*  
*8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	340975	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1701721	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	833637	25.000	ng	0.00

## System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	685827	23.141	ng	-0.01
Spiked Amount	25.000		Recovery	=	92.56%	✓
57) Toluene-d8 (SS2)	18.85	98	1859118	25.523	ng	0.00
Spiked Amount	25.000		Recovery	=	102.08%	✓
73) Bromofluorobenzene (SS3)	23.23	174	534463	27.823	ng	0.00
Spiked Amount	25.000		Recovery	=	111.28%	✓

## Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.72	42	5160	0.221	ng	95
3) Dichlorodifluoromethan...	4.87	85	9386	0.245	ng	94
4) Chloromethane	5.20	50	5755	0.224	ng	93
5) 1,2-Dichloro-1,1,2,2-t...	5.43	135	3928	0.253	ng	90
6) Vinyl Chloride	5.64	62	5431	0.220	ng	91
7) 1,3-Butadiene	5.90	54	4492	0.254	ng	93
8) Bromomethane	6.39	94	3059	0.204	ng	82
9) Chloroethane	6.73	64	2955	0.206	ng	81
10) Ethanol	7.10	45	16601	1.119	ng	91
11) Acetonitrile	7.42	41	9487	0.218	ng	# 27
12) Acrolein	7.59	56	1475	0.131	ng	92
13) Acetone	7.84	58	20320	1.452	ng	88
14) Trichlorofluoromethane	8.03	101	7617	0.220	ng	100
15) 2-Propanol (Isopropanol)	8.32	45	23522	0.428	ng	83
16) Acrylonitrile	8.60	53	4804	0.190	ng	98
17) 1,1-Dichloroethene	9.05	96	3926	0.245	ng	# 84
18) 2-Methyl-2-Propanol (t...	9.29	59	21583	0.442	ng	89
19) Methylene Chloride	9.25	84	4504	0.240	ng	99
20) 3-Chloro-1-propene (Al...	9.43	41	6623	0.183	ng	87
21) Trichlorotrifluoroethane	9.70	151	3267	0.260	ng	94
22) Carbon Disulfide	9.64	76	14675	0.221	ng	89
23) trans-1,2-Dichloroethene	10.68	61	5119	0.180	ng	# 69
24) 1,1-Dichloroethane	10.98	63	7110	0.206	ng	96
25) Methyl tert-Butyl Ether	11.21	73	11856	0.224	ng	99
26) Vinyl Acetate	11.28	86	3710	1.303	ng	# 58
27) 2-Butanone (MEK)	11.71	72	2463	0.195	ng	# 47
28) cis-1,2-Dichloroethene	12.24	61	5377	0.203	ng	# 75
29) Diisopropyl Ether	12.65	87	3742	0.221	ng	# 19
30) Ethyl Acetate	12.68	61	2340	0.355	ng	87
31) n-Hexane	12.58	57	7647	0.227	ng	87

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270907.D  
 Acq On : 27 Aug 2009 16:11  
 Operator : WA/CC  
 Sample : 0.2ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	6687	0.226	ng	98
34) Tetrahydrofuran (THF)	13.40	72	5125	0.381	ng	98
35) Ethyl tert-Butyl Ether	13.46	87	4658	0.213	ng	95
36) 1,2-Dichloroethane	13.78	62	5779	0.213	ng	91
38) 1,1,1-Trichloroethane	14.17	97	6372	0.221	ng	98
39) Isopropyl Acetate	14.83	61	4936	0.391	ng	# 55
40) 1-Butanol	14.89	56	9325	0.422	ng	# 45
41) Benzene	14.87	78	17799	0.238	ng	98
42) Carbon Tetrachloride	15.09	117	5161	0.216	ng	96
43) Cyclohexane	15.29	84	12537	0.457	ng	95
44) tert-Amyl Methyl Ether	15.85	73	11885	0.212	ng	96
45) 1,2-Dichloropropane	16.10	63	3944	0.210	ng	91
46) Bromodichloromethane	16.37	83	4951	0.201	ng	100
47) Trichloroethene	16.44	130	4154	0.246	ng	97
48) 1,4-Dioxane	16.53	88	3119	0.218	ng	94
49) 2,2,4-Trimethylpentane...	16.52	57	18593	0.211	ng	99
50) Methyl Methacrylate	16.77	100	2677	0.389	ng	90
51) n-Heptane	16.88	71	4079	0.203	ng	96
52) cis-1,3-Dichloropropene	17.64	75	5760	0.185	ng	98
53) 4-Methyl-2-pentanone	17.76	58	3609	0.201	ng	99
54) trans-1,3-Dichloropropene	18.35	75	6333	0.214	ng	96
55) 1,1,2-Trichloroethane	18.59	97	3778	0.230	ng	92
58) Toluene	18.98	91	17023	0.238	ng	98
59) 2-Hexanone	19.37	43	9868	0.207	ng	99
60) Dibromochloromethane	19.53	129	4235	0.250	ng	95
61) 1,2-Dibromoethane	19.86	107	4153	0.231	ng	100
62) n-Butyl Acetate	20.17	43	11310	0.202	ng	89
63) n-Octane	20.26	57	3664	0.212	ng	97
64) Tetrachloroethene	20.46	166	3957	0.239	ng	96
65) Chlorobenzene	21.34	112	10897	0.246	ng	98
66) Ethylbenzene	21.82	91	18233	0.223	ng	97
67) m- & p-Xylenes	22.05	91	29210	0.441	ng	97
68) Bromoform	22.15	173	3138	0.223	ng	95
69) Styrene	22.51	104	10416	0.218	ng	98
70) o-Xylene	22.65	91	14247	0.215	ng	99
71) n-Nonane	22.91	43	9314	0.211	ng	93
72) 1,1,2,2-Tetrachloroethane	22.63	83	6695	0.227	ng	94
74) Cumene	23.40	105	18142	0.216	ng	99
75) alpha-Pinene	23.90	93	9293	0.216	ng	89
76) n-Propylbenzene	24.05	91	22743	0.216	ng	97
77) 3-Ethyltoluene	24.17	105	17686	0.221	ng	98
78) 4-Ethyltoluene	24.22	105	17956	0.231	ng	93
79) 1,3,5-Trimethylbenzene	24.31	105	14932	0.228	ng	96

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270907.D  
 Acq On : 27 Aug 2009 16:11  
 Operator : WA/CC  
 Sample : 0.2ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240906  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	7003	0.200	ng	99
81) 2-Ethyltoluene	24.56	105	17935	0.222	ng	97
82) 1,2,4-Trimethylbenzene	24.82	105	14553	0.218	ng	100
83) n-Decane	24.93	57	8758	0.202	ng	94
84) Benzyl Chloride	25.00	91	14670	0.234	ng	96
85) 1,3-Dichlorobenzene	25.02	146	7963	0.236	ng	96
86) 1,4-Dichlorobenzene	25.10	146	8150	0.226	ng	93
87) sec-Butylbenzene	25.15	105	20362	0.226	ng	96
88) 4-Isopropyltoluene (p-...	25.35	119	17804	0.221	ng	95
89) 1,2,3-Trimethylbenzene	25.35	105	16408	0.241	ng	94
90) 1,2-Dichlorobenzene	25.53	146	7447	0.232	ng	99
91) d-Limonene	25.53	68	6028	0.212	ng	92
92) 1,2-Dibromo-3-Chloropr...	26.06	157	2189	0.199	ng	# 82
93) n-Undecane	26.45	57	8949	0.194	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	4448	0.202	ng	91
95) Naphthalene	27.73	128	18518	0.204	ng	98
96) n-Dodecane	27.69	57	9509	0.177	ng	97
97) Hexachlorobutadiene	28.14	225	3188	0.228	ng	99
98) Cyclohexanone	22.31	55	5589	0.188	ng	94
99) tert-Butylbenzene	24.82	119	14229	0.220	ng	97
100) n-Butylbenzene	25.86	91	16229	0.218	ng	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270908.D  
 Acq On : 27 Aug 2009 16:52  
 Operator : WA/CC  
 Sample : 0.5ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

*LM 8/28/09*  
*CC 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	345051	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.41	114	1706332	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	833135	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.61	65	689482	22.990	ng	-0.02
Spiked Amount	25.000		Recovery	=	91.96%	✓
57) Toluene-d8 (SS2)	18.85	98	1851026	25.427	ng	0.00
Spiked Amount	25.000		Recovery	=	101.72%	✓
73) Bromofluorobenzene (SS3)	23.23	174	534967	27.866	ng	0.00
Spiked Amount	25.000		Recovery	=	111.48%	✓

Target Compounds

						Qvalue
2) Propene	4.70	42	12619	0.533	ng	97
3) Dichlorodifluoromethan...	4.86	85	24316	0.628	ng	99
4) Chloromethane	5.18	50	15225	0.586	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.42	135	9302	0.592	ng	97
6) Vinyl Chloride	5.62	62	13528	0.542	ng	96
7) 1,3-Butadiene	5.90	54	11921	0.666	ng	94
8) Bromomethane	6.38	94	9283	0.610	ng	97
9) Chloroethane	6.71	64	7657	0.527	ng	98
10) Ethanol	7.06	45	42023m	2.800	ng	
11) Acetonitrile	7.39	41	22509	0.512	ng	98
12) Acrolein	7.58	56	5829	0.510	ng	89
13) Acetone	7.82	58	45815	3.235	ng	96
14) Trichlorofluoromethane	8.02	101	21625	0.618	ng	92
15) 2-Propanol (Isopropanol)	8.29	45	61189	1.100	ng	90
16) Acrylonitrile	8.57	53	13383	0.523	ng	91
17) 1,1-Dichloroethene	9.04	96	10592	0.652	ng	88
18) 2-Methyl-2-Propanol (t...	9.24	59	54672	1.107	ng	92
19) Methylene Chloride	9.24	84	11486	0.604	ng	94
20) 3-Chloro-1-propene (Al...	9.43	41	16557	0.452	ng	93
21) Trichlorotrifluoroethane	9.68	151	9319	0.733	ng	# 83
22) Carbon Disulfide	9.63	76	39699	0.592	ng	98
23) trans-1,2-Dichloroethene	10.68	61	15719	0.547	ng	90
24) 1,1-Dichloroethane	10.98	63	19419	0.557	ng	99
25) Methyl tert-Butyl Ether	11.19	73	31441	0.587	ng	99
26) Vinyl Acetate	11.27	86	10642	3.693	ng	# 86
27) 2-Butanone (MEK)	11.68	72	6992	0.547	ng	# 81
28) cis-1,2-Dichloroethene	12.23	61	15924	0.595	ng	93
29) Diisopropyl Ether	12.65	87	10676	0.624	ng	# 23
30) Ethyl Acetate	12.67	61	7755	1.164	ng	93
31) n-Hexane	12.58	57	19007	0.558	ng	93

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270908.D  
 Acq On : 27 Aug 2009 16:52  
 Operator : WA/CC  
 Sample : 0.5ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	19170	0.639	ng	99
34) Tetrahydrofuran (THF)	13.40	72	9447	0.693	ng	94
35) Ethyl tert-Butyl Ether	13.45	87	12406	0.560	ng	98
36) 1,2-Dichloroethane	13.78	62	15180	0.554	ng	100
38) 1,1,1-Trichloroethane	14.17	97	17572	0.607	ng	98
39) Isopropyl Acetate	14.83	61	13901	1.098	ng #	68
40) 1-Butanol	14.88	56	21001	0.948	ng #	1
41) Benzene	14.87	78	45429	0.606	ng	98
42) Carbon Tetrachloride	15.09	117	15004	0.628	ng	99
43) Cyclohexane	15.29	84	33280	1.211	ng	94
44) tert-Amyl Methyl Ether	15.85	73	33208	0.589	ng	97
45) 1,2-Dichloropropane	16.09	63	10583	0.562	ng	98
46) Bromodichloromethane	16.37	83	14579	0.590	ng	95
47) Trichloroethene	16.44	130	10279	0.607	ng	99
48) 1,4-Dioxane	16.51	88	9005	0.628	ng	98
49) 2,2,4-Trimethylpentane...	16.51	57	50304	0.569	ng	99
50) Methyl Methacrylate	16.76	100	7723	1.118	ng	98
51) n-Heptane	16.88	71	11807	0.586	ng	96
52) cis-1,3-Dichloropropene	17.65	75	16791	0.538	ng	99
53) 4-Methyl-2-pentanone	17.76	58	9904	0.549	ng	93
54) trans-1,3-Dichloropropene	18.36	75	17249	0.581	ng	98
55) 1,1,2-Trichloroethane	18.59	97	10107	0.614	ng	97
58) Toluene	18.98	91	44023	0.615	ng	97
59) 2-Hexanone	19.36	43	26209	0.551	ng	100
60) Dibromochloromethane	19.53	129	12008	0.709	ng	97
61) 1,2-Dibromoethane	19.86	107	11379	0.634	ng	96
62) n-Butyl Acetate	20.17	43	30526	0.544	ng	94
63) n-Octane	20.28	57	10325	0.597	ng	99
64) Tetrachloroethene	20.46	166	10600	0.640	ng	99
65) Chlorobenzene	21.34	112	28918	0.653	ng	100
66) Ethylbenzene	21.82	91	50554	0.618	ng	99
67) m- & p-Xylenes	22.04	91	78614	1.188	ng	99
68) Bromoform	22.14	173	8209	0.584	ng	99
69) Styrene	22.50	104	27564	0.576	ng	98
70) o-Xylene	22.65	91	40245	0.607	ng	99
71) n-Nonane	22.91	43	24499	0.556	ng	99
72) 1,1,2,2-Tetrachloroethane	22.63	83	19021	0.646	ng	96
74) Cumene	23.41	105	48639	0.580	ng	99
75) alpha-Pinene	23.90	93	24559	0.572	ng	99
76) n-Propylbenzene	24.05	91	62613	0.594	ng	98
77) 3-Ethyltoluene	24.17	105	48379	0.604	ng	100
78) 4-Ethyltoluene	24.23	105	49300	0.635	ng	98
79) 1,3,5-Trimethylbenzene	24.31	105	39271	0.600	ng	98

**315**

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270908.D  
 Acq On : 27 Aug 2009 16:52  
 Operator : WA/CC  
 Sample : 0.5ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	20092	0.573	ng	95
81) 2-Ethyltoluene	24.55	105	48257	0.598	ng	98
82) 1,2,4-Trimethylbenzene	24.82	105	40343	0.605	ng	95
83) n-Decane	24.93	57	25406	0.586	ng	99
84) Benzyl Chloride	25.00	91	40338	0.645	ng	96
85) 1,3-Dichlorobenzene	25.02	146	22095	0.654	ng	98
86) 1,4-Dichlorobenzene	25.10	146	22724	0.631	ng	94
87) sec-Butylbenzene	25.16	105	55697	0.618	ng	98
88) 4-Isopropyltoluene (p-...	25.35	119	49417	0.615	ng	97
89) 1,2,3-Trimethylbenzene	25.35	105	43348	0.638	ng	99
90) 1,2-Dichlorobenzene	25.52	146	20727	0.647	ng	100
91) d-Limonene	25.53	68	16073	0.566	ng	94
92) 1,2-Dibromo-3-Chloropr...	26.06	157	6665	0.605	ng	83
93) n-Undecane	26.45	57	26484	0.574	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	15009	0.682	ng	98
95) Naphthalene	27.73	128	54474	0.601	ng	98
96) n-Dodecane	27.69	57	28561	0.533	ng	99
97) Hexachlorobutadiene	28.14	225	8673	0.619	ng	98
98) Cyclohexanone	22.30	55	14301	0.482	ng	97
99) tert-Butylbenzene	24.82	119	40141	0.621	ng	100
100) n-Butylbenzene	25.86	91	47669	0.641	ng	98

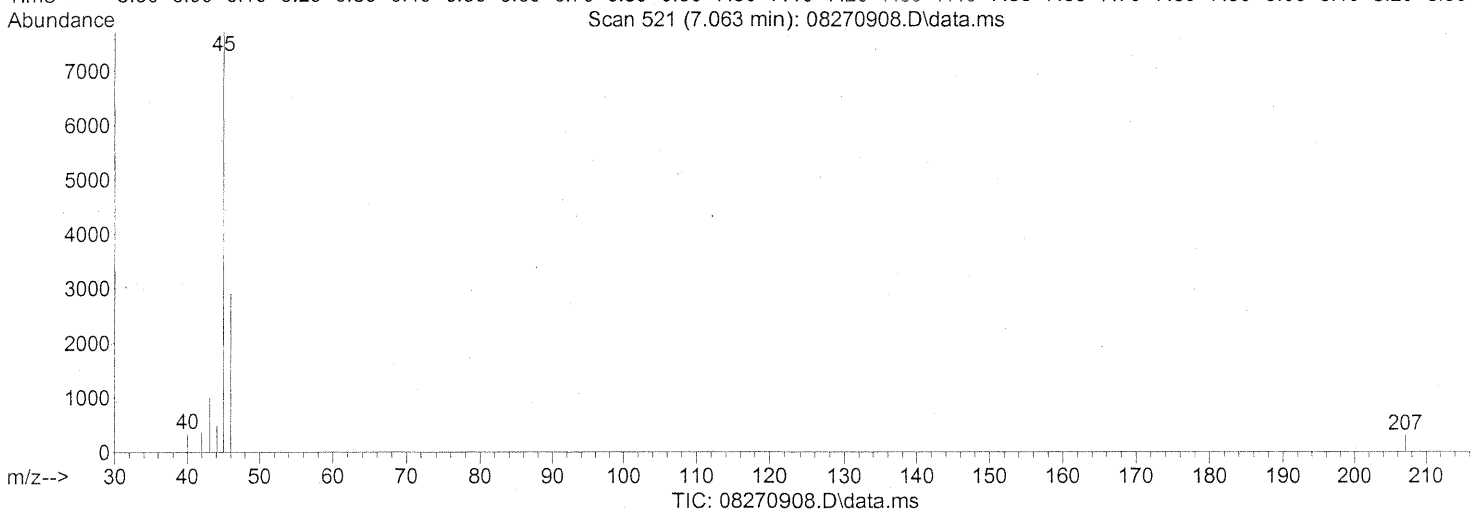
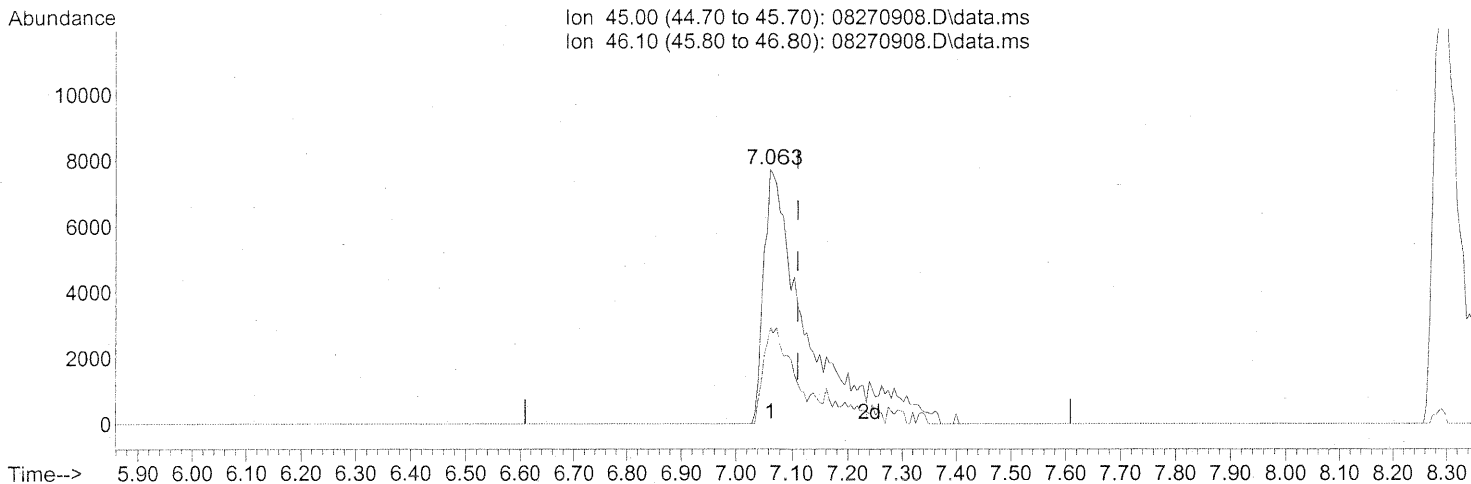
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270908.D  
 Acq On : 27 Aug 2009 16:52  
 Operator : WA/CC  
 Sample : 0.5ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:43:23 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration



(10) Ethanol (T)

7.063min (-0.046) 2.42ng

response 36361

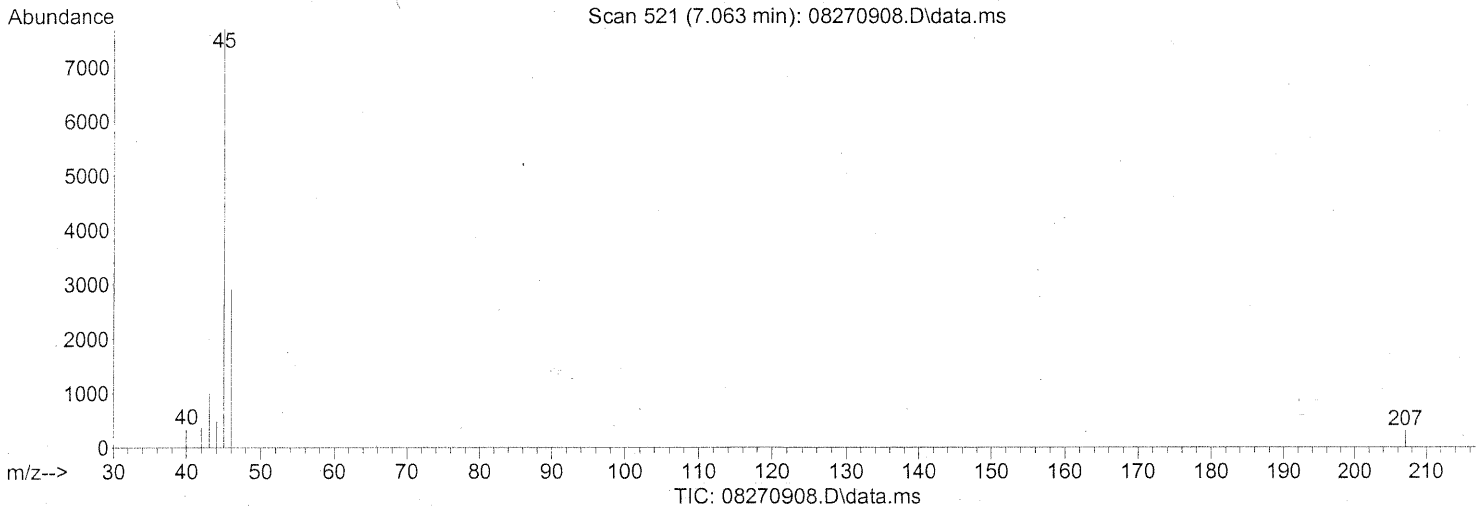
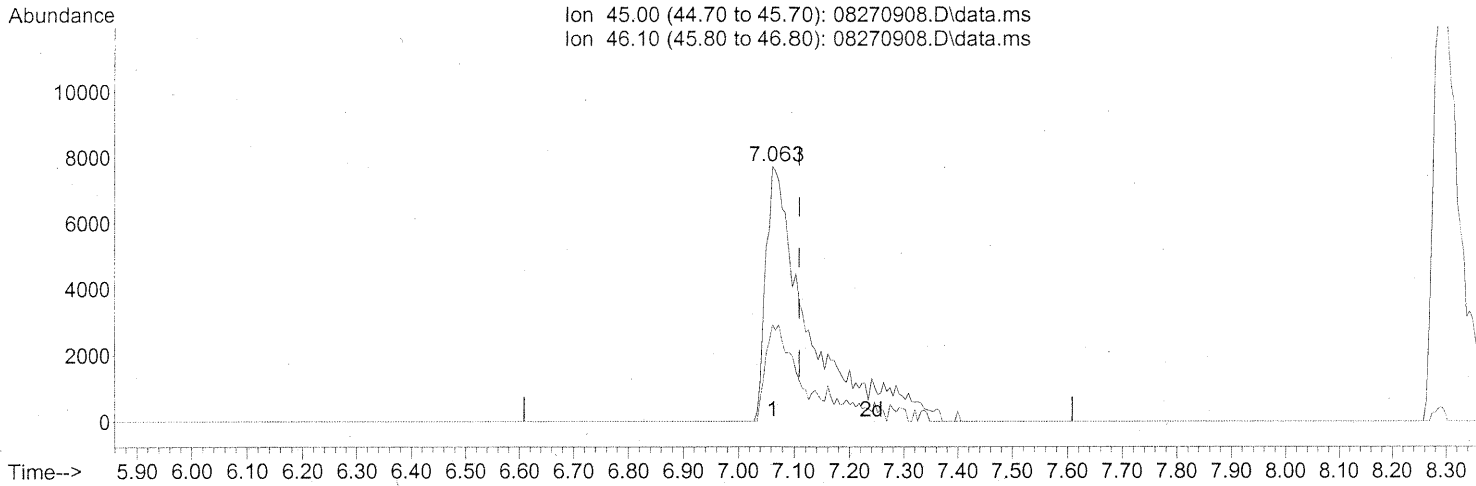
*PT*

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	30.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270908.D  
Acq On : 27 Aug 2009 16:52  
Operator : WA/CC  
Sample : 0.5ng TO-15 ICAL  
Misc : S20-08140906/S20-07310904  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:43:23 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration



(10) Ethanol (T)  
7.063min (-0.046) 2.80ng m  
response 42023

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	26.62
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC  
WA/CC 8/28/09  
CC 8/28/09  
— C 8/31/09



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270909.D  
 Acq On : 27 Aug 2009 17:32  
 Operator : WA/CC  
 Sample : 1.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

*WA 8/28/09  
 CE  
 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	338113	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.41	114	1695008	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	819143	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.62	65	678685	23.094	ng	-0.02
Spiked Amount	25.000		Recovery	=	92.36%	
57) Toluene-d8 (SS2)	18.85	98	1826536	25.519	ng	0.00
Spiked Amount	25.000		Recovery	=	102.08%	
73) Bromofluorobenzene (SS3)	23.23	174	525776	27.855	ng	0.00
Spiked Amount	25.000		Recovery	=	111.44%	

Target Compounds

						Qvalue
2) Propene	4.69	42	23167	0.998	ng	98
3) Dichlorodifluoromethan...	4.85	85	44225	1.166	ng	100
4) Chloromethane	5.17	50	29046	1.140	ng	96
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	18594	1.207	ng	99
6) Vinyl Chloride	5.61	62	26423	1.079	ng	96
7) 1,3-Butadiene	5.89	54	22473	1.281	ng	100
8) Bromomethane	6.37	94	16348	1.097	ng	95
9) Chloroethane	6.70	64	13821	0.971	ng	96
10) Ethanol	7.06	45	75189	5.112	ng	99
11) Acetonitrile	7.38	41	39923	0.927	ng	98
12) Acrolein	7.57	56	11566	1.033	ng	86
13) Acetone	7.81	58	80124	5.774	ng	99
14) Trichlorofluoromethane	8.02	101	38449	1.121	ng	97
15) 2-Propanol (Isopropanol)	8.29	45	107175	1.965	ng	98
16) Acrylonitrile	8.55	53	26590	1.060	ng	96
17) 1,1-Dichloroethene	9.03	96	19322	1.214	ng	89
18) 2-Methyl-2-Propanol (t...	9.24	59	102219	2.112	ng	94
19) Methylene Chloride	9.24	84	20286	1.089	ng	96
20) 3-Chloro-1-propene (Al...	9.42	41	30207	0.841	ng	99
21) Trichlorotrifluoroethane	9.67	151	16030	1.286	ng	93
22) Carbon Disulfide	9.64	76	72815	1.108	ng	100
23) trans-1,2-Dichloroethene	10.67	61	29706	1.055	ng	91
24) 1,1-Dichloroethane	10.98	63	35945	1.052	ng	98
25) Methyl tert-Butyl Ether	11.19	73	55919	1.065	ng	99
26) Vinyl Acetate	11.26	86	18783	6.651	ng	# 68
27) 2-Butanone (MEK)	11.68	72	13258	1.058	ng	# 86
28) cis-1,2-Dichloroethene	12.23	61	27982	1.067	ng	87
29) Diisopropyl Ether	12.64	87	19284	1.150	ng	# 22
30) Ethyl Acetate	12.66	61	14245	2.182	ng	100
31) n-Hexane	12.58	57	35385	1.060	ng	99

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270909.D  
 Acq On : 27 Aug 2009 17:32  
 Operator : WA/CC  
 Sample : 1.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Chloroform	12.67	83	35077	1.193	ng	98
34) Tetrahydrofuran (THF)	13.39	72	14938	1.118	ng	99
35) Ethyl tert-Butyl Ether	13.44	87	22600	1.042	ng	98
36) 1,2-Dichloroethane	13.79	62	28509	1.061	ng	98
38) 1,1,1-Trichloroethane	14.16	97	31494	1.095	ng	98
39) Isopropyl Acetate	14.83	61	25625	2.038	ng	# 68
40) 1-Butanol	14.88	56	37926	1.724	ng	# 1
41) Benzene	14.87	78	80573	1.081	ng	100
42) Carbon Tetrachloride	15.09	117	27461	1.156	ng	99
43) Cyclohexane	15.29	84	60257	2.208	ng	97
44) tert-Amyl Methyl Ether	15.85	73	59739	1.067	ng	97
45) 1,2-Dichloropropane	16.10	63	20251	1.082	ng	94
46) Bromodichloromethane	16.37	83	26601	1.083	ng	97
47) Trichloroethene	16.43	130	19053	1.134	ng	98
48) 1,4-Dioxane	16.51	88	15853	1.113	ng	88
49) 2,2,4-Trimethylpentane...	16.52	57	91059	1.037	ng	100
50) Methyl Methacrylate	16.76	100	14852	2.165	ng	99
51) n-Heptane	16.87	71	21673	1.084	ng	96
52) cis-1,3-Dichloropropene	17.64	75	30063	0.969	ng	97
53) 4-Methyl-2-pentanone	17.76	58	19029	1.062	ng	96
54) trans-1,3-Dichloropropene	18.35	75	31487	1.068	ng	99
55) 1,1,2-Trichloroethane	18.59	97	17826	1.089	ng	99
58) Toluene	18.98	91	81135	1.153	ng	100
59) 2-Hexanone	19.36	43	49906	1.067	ng	99
60) Dibromochloromethane	19.53	129	20786	1.249	ng	99
61) 1,2-Dibromoethane	19.86	107	20935	1.186	ng	99
62) n-Butyl Acetate	20.17	43	56818	1.031	ng	97
63) n-Octane	20.28	57	18601	1.094	ng	97
64) Tetrachloroethene	20.46	166	19016	1.168	ng	98
65) Chlorobenzene	21.34	112	50799	1.167	ng	99
66) Ethylbenzene	21.82	91	91245	1.135	ng	99
67) m- & p-Xylenes	22.05	91	143956	2.213	ng	98
68) Bromoform	22.14	173	16140	1.168	ng	99
69) Styrene	22.50	104	52062	1.107	ng	99
70) o-Xylene	22.65	91	75012	1.150	ng	98
71) n-Nonane	22.91	43	44250	1.021	ng	96
72) 1,1,2,2-Tetrachloroethane	22.63	83	32737	1.131	ng	92
74) Cumene	23.41	105	91337	1.109	ng	100
75) alpha-Pinene	23.90	93	44882	1.063	ng	99
76) n-Propylbenzene	24.04	91	116128	1.121	ng	99
77) 3-Ethyltoluene	24.17	105	90541	1.150	ng	99
78) 4-Ethyltoluene	24.22	105	90088	1.181	ng	96
79) 1,3,5-Trimethylbenzene	24.31	105	76723	1.192	ng	100

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270909.D  
 Acq On : 27 Aug 2009 17:32  
 Operator : WA/CC  
 Sample : 1.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

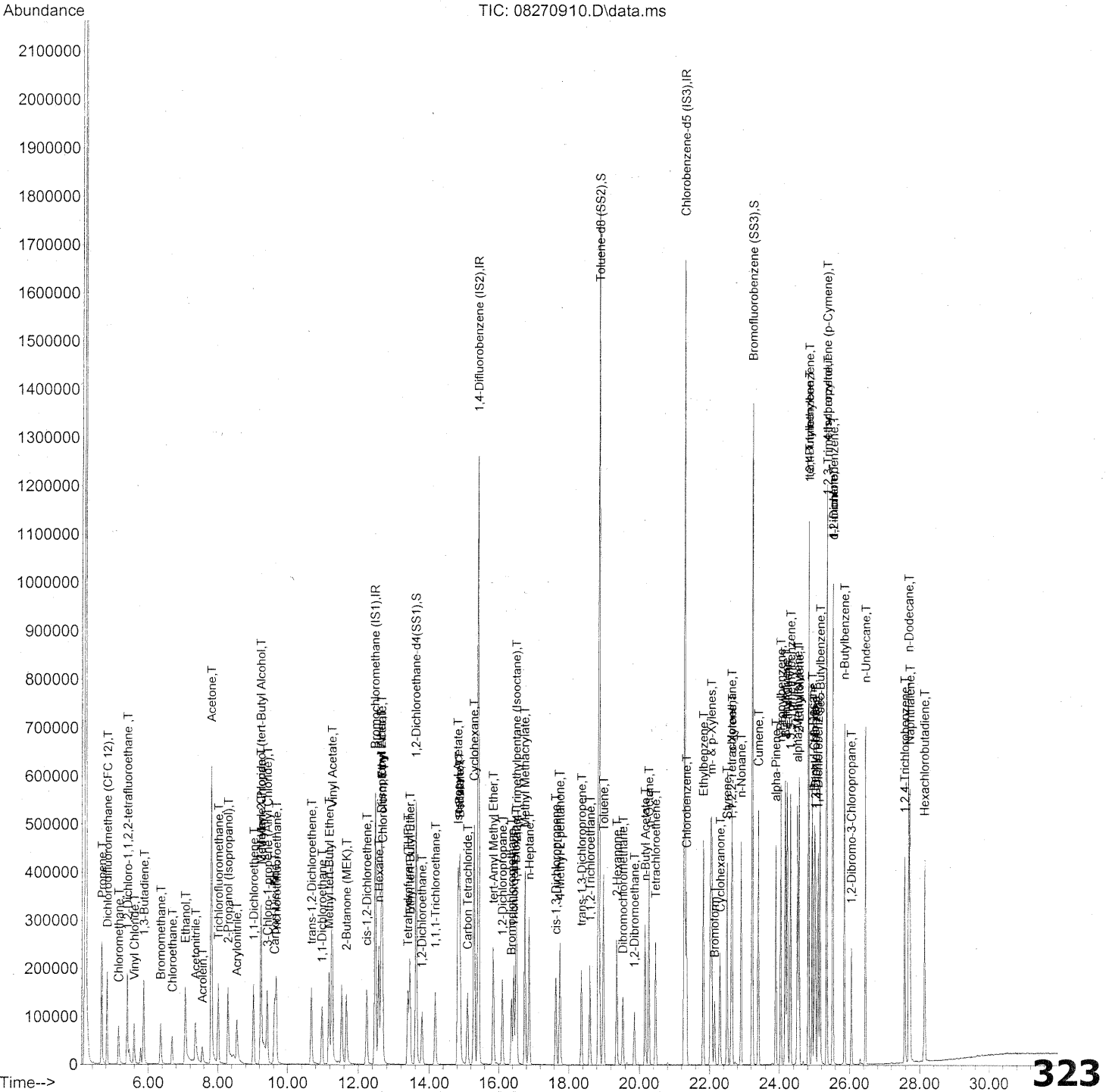
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	37555	1.090	ng	97
81) 2-Ethyltoluene	24.55	105	92466	1.165	ng	100
82) 1,2,4-Trimethylbenzene	24.82	105	75715	1.154	ng	98
83) n-Decane	24.93	57	48044	1.126	ng	99
84) Benzyl Chloride	24.99	91	74822	1.216	ng	99
85) 1,3-Dichlorobenzene	25.02	146	41470	1.249	ng	97
86) 1,4-Dichlorobenzene	25.10	146	41289	1.166	ng	99
87) sec-Butylbenzene	25.15	105	104559	1.180	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	91307	1.155	ng	98
89) 1,2,3-Trimethylbenzene	25.35	105	79842	1.194	ng	99
90) 1,2-Dichlorobenzene	25.53	146	38264	1.215	ng	99
91) d-Limonene	25.53	68	30898	1.107	ng	98
92) 1,2-Dibromo-3-Chloropr...	26.06	157	13048	1.205	ng	95
93) n-Undecane	26.46	57	49930	1.100	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	27886	1.288	ng	99
95) Naphthalene	27.73	128	104048	1.168	ng	99
96) n-Dodecane	27.69	57	52970	1.005	ng	98
97) Hexachlorobutadiene	28.14	225	16329	1.186	ng	97
98) Cyclohexanone	22.30	55	26821	0.920	ng	97
99) tert-Butylbenzene	24.82	119	74545	1.174	ng	98
100) n-Butylbenzene	25.86	91	87925	1.203	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270910.D  
 Acq On : 27 Aug 2009 18:13  
 Operator : WA/CC  
 Sample : 5.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270910.D  
 Acq On : 27 Aug 2009 18:13  
 Operator : WA/CC  
 Sample : 5.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

*WA 8/28/09*  
*CC*  
*8/28/09*

Quant Time: Aug 28 05:49:17 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	285134	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1419665	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	696006	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.62	65	562841	22.711	ng	-0.01
Spiked Amount	25.000		Recovery	=	90.84%	
57) Toluene-d8 (SS2)	18.85	98	1539663	25.317	ng	0.00
Spiked Amount	25.000		Recovery	=	101.28%	
73) Bromofluorobenzene (SS3)	23.23	174	447453	27.900	ng	0.00
Spiked Amount	25.000		Recovery	=	111.60%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	120348	6.151	ng	97
3) Dichlorodifluoromethan...	4.84	85	193597	6.054	ng	100
4) Chloromethane	5.16	50	121026	5.633	ng	100
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	81300	6.257	ng	98
6) Vinyl Chloride	5.59	62	119297	5.779	ng	99
7) 1,3-Butadiene	5.87	54	104125	7.037	ng	98
8) Bromomethane	6.35	94	79946	6.362	ng	97
9) Chloroethane	6.69	64	66514	5.543	ng	100
10) Ethanol	7.06	45	344709	27.793	ng	100
11) Acetonitrile	7.35	41	186705	5.140	ng	98
12) Acrolein	7.55	56	54908	5.816	ng	99
13) Acetone	7.81	58	353050	30.169	ng	99
14) Trichlorofluoromethane	8.01	101	176237	6.095	ng	98
15) 2-Propanol (Isopropanol)	8.29	45	379930	8.262	ng	94
16) Acrylonitrile	8.54	53	126729	5.993	ng	97
17) 1,1-Dichloroethene	9.03	96	86179	6.419	ng	93
18) 2-Methyl-2-Propanol (t...	9.24	59	460734	11.287	ng	99
19) Methylene Chloride	9.23	84	89945	5.723	ng	94
20) 3-Chloro-1-propene (Al...	9.42	41	145675	4.808	ng	98
21) Trichlorotrifluoroethane	9.68	151	69998	6.658	ng	99
22) Carbon Disulfide	9.63	76	331741	5.987	ng	99
23) trans-1,2-Dichloroethene	10.67	61	137375	5.783	ng	93
24) 1,1-Dichloroethane	10.98	63	163088	5.661	ng	100
25) Methyl tert-Butyl Ether	11.18	73	259596	5.863	ng	98
26) Vinyl Acetate	11.27	86	86141	36.171	ng	# 92
27) 2-Butanone (MEK)	11.66	72	64271	6.083	ng	98
28) cis-1,2-Dichloroethene	12.23	61	131673	5.955	ng	92
29) Diisopropyl Ether	12.64	87	88485	6.258	ng	# 23
30) Ethyl Acetate	12.66	61	69155	12.564	ng	97
31) n-Hexane	12.58	57	156515	5.559	ng	100

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270910.D  
 Acq On : 27 Aug 2009 18:13  
 Operator : WA/CC  
 Sample : 5.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.68	83	158573	6.397	ng	98
34) Tetrahydrofuran (THF)	13.39	72	62284	5.530	ng	96
35) Ethyl tert-Butyl Ether	13.44	87	100668	5.503	ng	97
36) 1,2-Dichloroethane	13.79	62	127632	5.633	ng	98
38) 1,1,1-Trichloroethane	14.17	97	142224	5.906	ng	98
39) Isopropyl Acetate	14.82	61	120873	11.478	ng #	72
40) 1-Butanol	14.86	56	183717	9.971	ng #	1
41) Benzene	14.87	78	360870	5.782	ng	99
42) Carbon Tetrachloride	15.10	117	126837	6.376	ng	98
43) Cyclohexane	15.29	84	273998	11.985	ng	96
44) tert-Amyl Methyl Ether	15.84	73	261147	5.571	ng	99
45) 1,2-Dichloropropane	16.10	63	92071	5.873	ng	99
46) Bromodichloromethane	16.37	83	126412	6.146	ng	100
47) Trichloroethene	16.44	130	89343	6.346	ng	99
48) 1,4-Dioxane	16.50	88	75297	6.312	ng	92
49) 2,2,4-Trimethylpentane...	16.52	57	412337	5.608	ng	99
50) Methyl Methacrylate	16.76	100	72721	12.656	ng	97
51) n-Heptane	16.88	71	98223	5.864	ng	96
52) cis-1,3-Dichloropropene	17.65	75	142422	5.482	ng	100
53) 4-Methyl-2-pentanone	17.75	58	89269	5.951	ng	99
54) trans-1,3-Dichloropropene	18.36	75	151819	6.146	ng	99
55) 1,1,2-Trichloroethane	18.60	97	85346	6.228	ng	100
58) Toluene	18.98	91	374000	6.257	ng	100
59) 2-Hexanone	19.36	43	229766	5.781	ng	98
60) Dibromochloromethane	19.53	129	99312	7.023	ng	98
61) 1,2-Dibromoethane	19.86	107	96822	6.458	ng	100
62) n-Butyl Acetate	20.17	43	265155	5.660	ng	98
63) n-Octane	20.27	57	83701	5.793	ng	96
64) Tetrachloroethene	20.46	166	89713	6.486	ng	99
65) Chlorobenzene	21.34	112	236912	6.407	ng	99
66) Ethylbenzene	21.82	91	426544	6.243	ng	98
67) m- & p-Xylenes	22.05	91	664427	12.022	ng	100
68) Bromoform	22.14	173	77570	6.606	ng	99
69) Styrene	22.50	104	255399	6.393	ng	98
70) o-Xylene	22.65	91	345400	6.233	ng	99
71) n-Nonane	22.91	43	204226	5.547	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	158108	6.429	ng	98
74) Cumene	23.41	105	419995	6.000	ng	99
75) alpha-Pinene	23.90	93	210281	5.861	ng	99
76) n-Propylbenzene	24.04	91	543860	6.181	ng	99
77) 3-Ethyltoluene	24.17	105	424375	6.344	ng	98
78) 4-Ethyltoluene	24.22	105	424689	6.552	ng	100
79) 1,3,5-Trimethylbenzene	24.31	105	351291	6.426	ng	99

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270910.D  
 Acq On : 27 Aug 2009 18:13  
 Operator : WA/CC  
 Sample : 5.0ng TO-15 ICAL  
 Misc : S20-08140906/S20-07310904  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

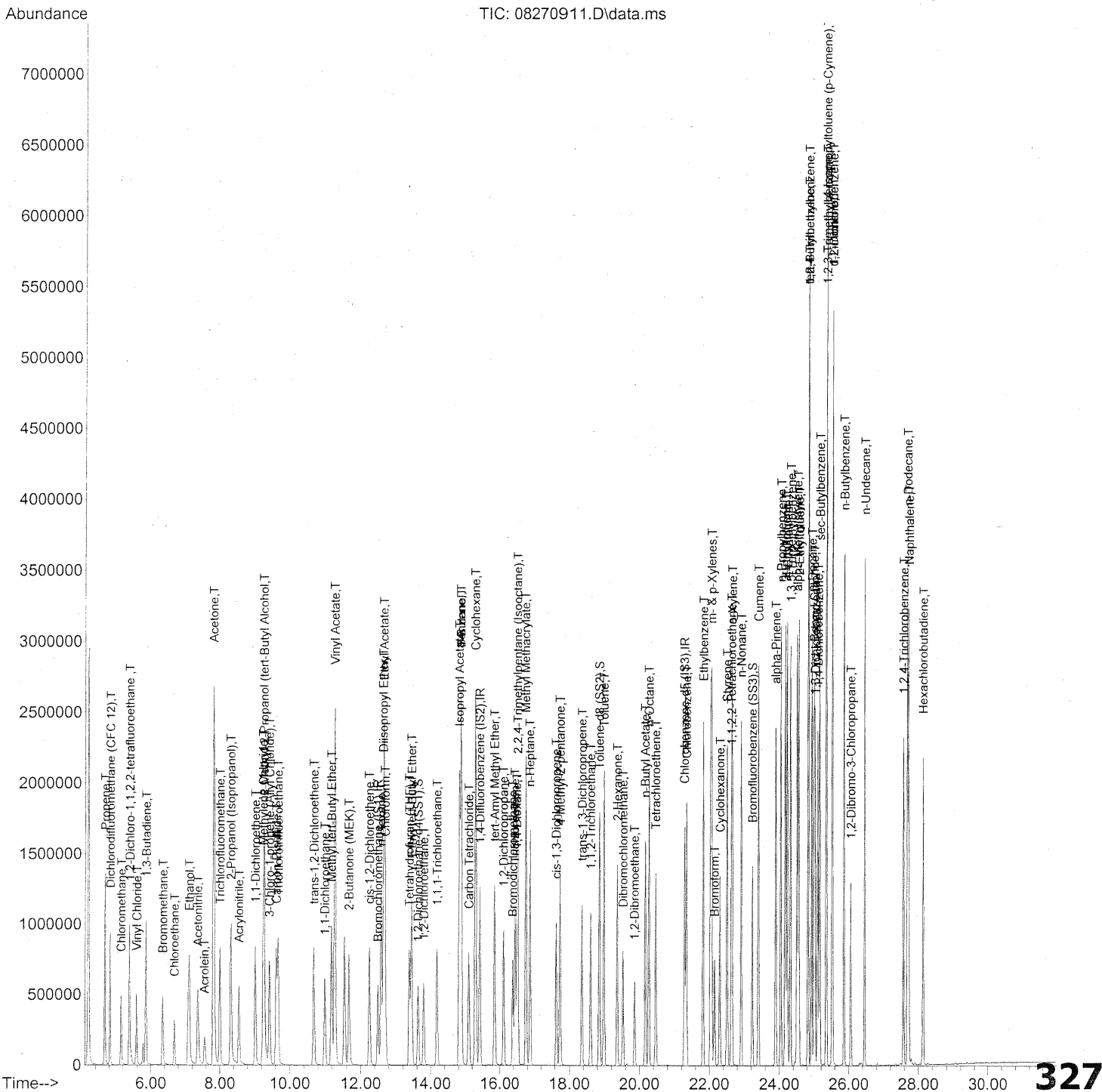
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	187722	6.414	ng	98
81) 2-Ethyltoluene	24.55	105	422733	6.266	ng	100
82) 1,2,4-Trimethylbenzene	24.83	105	355483	6.376	ng	98
83) n-Decane	24.93	57	216013	5.959	ng	97
84) Benzyl Chloride	24.99	91	361430	6.916	ng	100
85) 1,3-Dichlorobenzene	25.02	146	186769	6.619	ng	99
86) 1,4-Dichlorobenzene	25.10	146	191016	6.349	ng	100
87) sec-Butylbenzene	25.16	105	482316	6.404	ng	98
88) 4-Isopropyltoluene (p-...	25.35	119	433059	6.448	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	371622	6.543	ng	100
90) 1,2-Dichlorobenzene	25.53	146	179979	6.728	ng	99
91) d-Limonene	25.53	68	149598	6.310	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	66848	7.265	ng	97
93) n-Undecane	26.46	57	234884	6.091	ng	99
94) 1,2,4-Trichlorobenzene	27.58	180	136765	7.435	ng	99
95) Naphthalene	27.72	128	498226	6.580	ng	99
96) n-Dodecane	27.69	57	246891	5.511	ng	98
97) Hexachlorobutadiene	28.14	225	77742	6.645	ng	99
98) Cyclohexanone	22.30	55	129078	5.213	ng	97
99) tert-Butylbenzene	24.82	119	343094	6.358	ng	99
100) n-Butylbenzene	25.86	91	416303	6.704	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270911.D  
 Acq On : 27 Aug 2009 18:53  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270911.D  
Acq On : 27 Aug 2009 18:53  
Operator : WA/CC  
Sample : 25ng TO-15 ICAL  
Misc : S20-08140906/S20-08240903  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration

*17 8/28/09*  
*CC 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	284501	25.000	ng	0.00
37) 1,4-Difluorobenzene (IS2)	15.43	114	1447280	25.000	ng	0.00
56) Chlorobenzene-d5 (IS3)	21.29	82	702211	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.63	65	570397	23.067	ng	0.00
Spiked Amount				25.000		
				Recovery =		92.28%
57) Toluene-d8 (SS2)	18.85	98	1567824	25.552	ng	0.00
Spiked Amount				25.000		
				Recovery =		102.20%
73) Bromofluorobenzene (SS3)	23.23	174	454480	28.088	ng	0.00
Spiked Amount				25.000		
				Recovery =		112.36%

Target Compounds

						Qvalue
2) Propene	4.66	42	588172	30.127	ng	99
3) Dichlorodifluoromethan...	4.82	85	955071	29.931	ng	99
4) Chloromethane	5.14	50	669890	31.246	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	417184	32.179	ng	99
6) Vinyl Chloride	5.59	62	625558	30.370	ng	98
7) 1,3-Butadiene	5.86	54	570533	38.645	ng	99
8) Bromomethane	6.35	94	424003	33.816	ng	97
9) Chloroethane	6.69	64	348508	29.110	ng	98
10) Ethanol	7.11	45	1816351	146.775	ng	99
11) Acetonitrile	7.36	41	978031	26.986	ng	99
12) Acrolein	7.55	56	301988	32.058	ng	99
13) Acetone	7.82	58	1809667	154.985	ng	97
14) Trichlorofluoromethane	8.01	101	920207	31.898	ng	97
15) 2-Propanol (Isopropanol)	8.32	45	2169597	47.283	ng	100
16) Acrylonitrile	8.55	53	688506	32.634	ng	98
17) 1,1-Dichloroethene	9.02	96	462130	34.499	ng	93
18) 2-Methyl-2-Propanol (t...	9.27	59	2503952	61.479	ng	99
19) Methylene Chloride	9.25	84	470180	29.985	ng	96
20) 3-Chloro-1-propene (Al...	9.43	41	781914	25.867	ng	98
21) Trichlorotrifluoroethane	9.67	151	385242	36.727	ng	96
22) Carbon Disulfide	9.62	76	1769730	32.011	ng	99
23) trans-1,2-Dichloroethene	10.68	61	738419	31.154	ng	94
24) 1,1-Dichloroethane	10.99	63	874410	30.422	ng	99
25) Methyl tert-Butyl Ether	11.18	73	1433827	32.454	ng	98
26) Vinyl Acetate	11.27	86	502228	211.357	ng	99
27) 2-Butanone (MEK)	11.67	72	351618	33.352	ng	96
28) cis-1,2-Dichloroethene	12.24	61	705526	31.978	ng	91
29) Diisopropyl Ether	12.64	87	478190	33.893	ng	# 21
30) Ethyl Acetate	12.67	61	368666	67.126	ng	98
31) n-Hexane	12.58	57	835198	29.727	ng	98

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270911.D  
 Acq On : 27 Aug 2009 18:53  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.70	83	837403	33.855	ng	97
34) Tetrahydrofuran (THF)	13.38	72	337216	30.007	ng	95
35) Ethyl tert-Butyl Ether	13.45	87	550620	30.168	ng	95
36) 1,2-Dichloroethane	13.80	62	686367	30.362	ng	99
38) 1,1,1-Trichloroethane	14.18	97	775212	31.576	ng	99
39) Isopropyl Acetate	14.83	61	655653	61.070	ng	# 74
40) 1-Butanol	14.88	56	1045668	55.670	ng	# 63
41) Benzene	14.88	78	1874167	29.454	ng	100
42) Carbon Tetrachloride	15.11	117	698778	34.456	ng	100
43) Cyclohexane	15.30	84	1485423	63.735	ng	95
44) tert-Amyl Methyl Ether	15.85	73	1383659	28.956	ng	98
45) 1,2-Dichloropropane	16.11	63	492324	30.807	ng	99
46) Bromodichloromethane	16.37	83	692441	33.022	ng	99
47) Trichloroethene	16.44	130	495591	34.531	ng	99
48) 1,4-Dioxane	16.50	88	409598	33.682	ng	93
49) 2,2,4-Trimethylpentane...	16.52	57	2183614	29.134	ng	99
50) Methyl Methacrylate	16.76	100	401830	68.598	ng	95
51) n-Heptane	16.88	71	521007	30.509	ng	97
52) cis-1,3-Dichloropropene	17.65	75	788158	29.758	ng	100
53) 4-Methyl-2-pentanone	17.76	58	495183	32.380	ng	99
54) trans-1,3-Dichloropropene	18.36	75	830905	32.995	ng	100
55) 1,1,2-Trichloroethane	18.60	97	455804	32.625	ng	99
58) Toluene	18.98	91	1976690	32.780	ng	100
59) 2-Hexanone	19.36	43	1280900	31.943	ng	97
60) Dibromochloromethane	19.53	129	565906	39.665	ng	100
61) 1,2-Dibromoethane	19.86	107	536115	35.443	ng	99
62) n-Butyl Acetate	20.17	43	1478795	31.288	ng	99
63) n-Octane	20.28	57	450511	30.902	ng	98
64) Tetrachloroethene	20.46	166	483543	34.652	ng	100
65) Chlorobenzene	21.34	112	1280692	34.328	ng	100
66) Ethylbenzene	21.82	91	2274865	33.001	ng	100
67) m- & p-Xylenes	22.06	91	3561506	63.869	ng	100
68) Bromoform	22.15	173	449129	37.913	ng	99
69) Styrene	22.51	104	1403684	34.827	ng	99
70) o-Xylene	22.65	91	1846441	33.026	ng	98
71) n-Nonane	22.91	43	1062700	28.607	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	855281	34.471	ng	99
74) Cumene	23.41	105	2260423	32.007	ng	98
75) alpha-Pinene	23.90	93	1143364	31.584	ng	99
76) n-Propylbenzene	24.05	91	2876713	32.403	ng	99
77) 3-Ethyltoluene	24.17	105	2284898	33.854	ng	99
78) 4-Ethyltoluene	24.23	105	2259500	34.550	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1894001	34.339	ng	98

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270911.D  
 Acq On : 27 Aug 2009 18:53  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

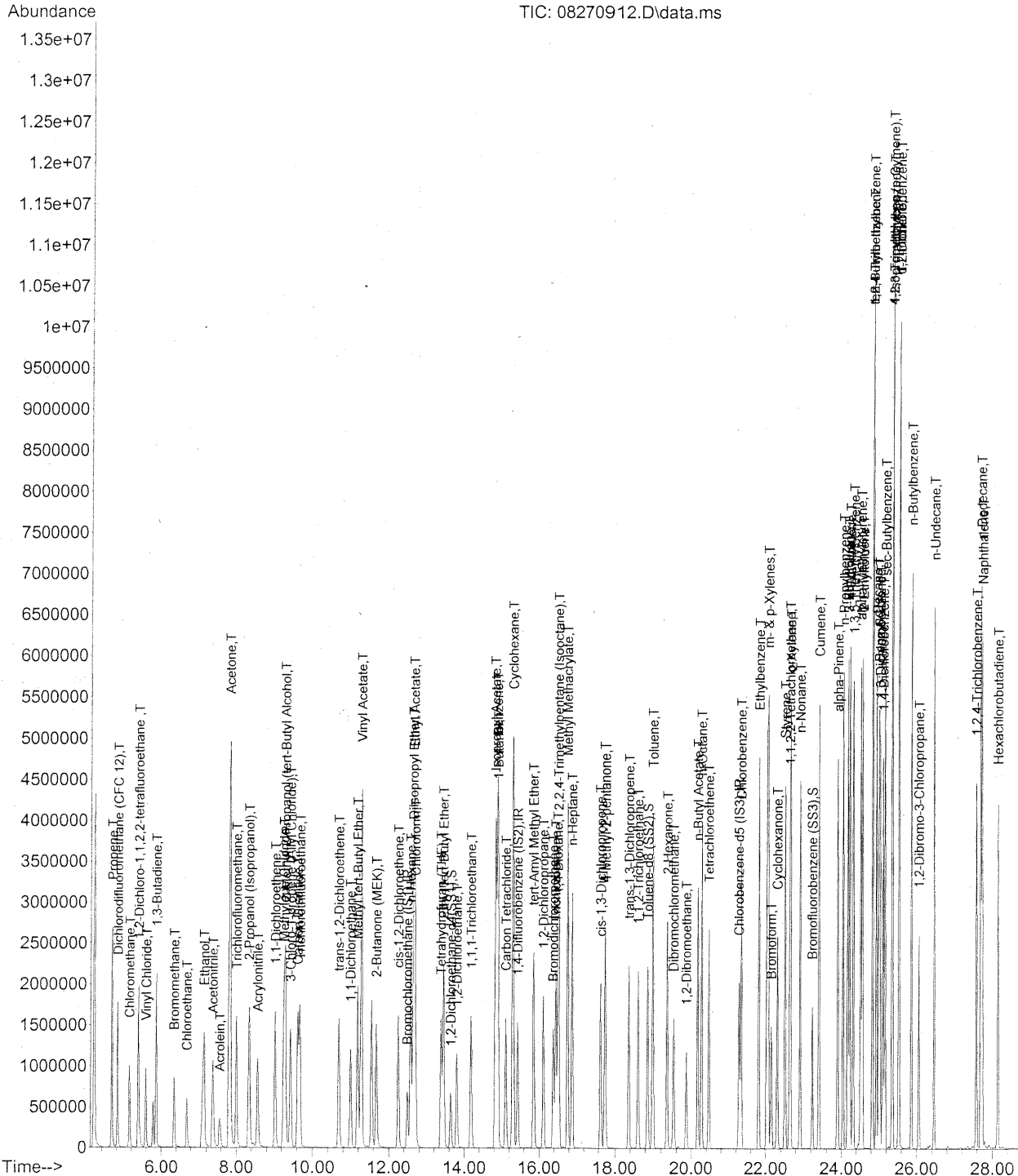
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1054165	35.698	ng	99
81) 2-Ethyltoluene	24.56	105	2259196	33.194	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1897450	33.733	ng	98
83) n-Decane	24.93	57	1120197	30.630	ng	97
84) Benzyl Chloride	25.00	91	1962770	37.225	ng	99
85) 1,3-Dichlorobenzene	25.03	146	1029308	36.157	ng	99
86) 1,4-Dichlorobenzene	25.11	146	1057372	34.835	ng	99
87) sec-Butylbenzene	25.16	105	2566383	33.774	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2290126	33.799	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1952841	34.080	ng	99
90) 1,2-Dichlorobenzene	25.53	146	957838	35.488	ng	99
91) d-Limonene	25.53	68	817753	34.188	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	385331	41.509	ng	93
93) n-Undecane	26.46	57	1206152	31.000	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	752993	40.576	ng	99
95) Naphthalene	27.73	128	2740834	35.879	ng	100
96) n-Dodecane	27.69	57	1216284	26.908	ng	98
97) Hexachlorobutadiene	28.14	225	412785	34.972	ng	99
98) Cyclohexanone	22.30	55	734000	29.379	ng	97
99) tert-Butylbenzene	24.83	119	1825773	33.538	ng	99
100) n-Butylbenzene	25.86	91	2198104	35.084	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270912.D  
 Acq On : 27 Aug 2009 19:34  
 Operator : WA/CC  
 Sample : 50ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270912.D  
 Acq On : 27 Aug 2009 19:34  
 Operator : WA/CC  
 Sample : 50ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

*WA 8/28/09*  
*CC 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.50	130	355771	25.000	ng	0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1781908	25.000	ng	0.00
56) Chlorobenzene-d5 (IS3)	21.29	82	859804	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.64	65	693583	22.430	ng	0.01
Spiked Amount	25.000		Recovery	=	89.72%	
57) Toluene-d8 (SS2)	18.85	98	1926052	25.637	ng	0.00
Spiked Amount	25.000		Recovery	=	102.56%	
73) Bromofluorobenzene (SS3)	23.23	174	552218	27.873	ng	0.00
Spiked Amount	25.000		Recovery	=	111.48%	

Target Compounds

						Qvalue
2) Propene	4.66	42	1154843	47.303	ng	98
3) Dichlorodifluoromethan...	4.82	85	1829151	45.840	ng	99
4) Chloromethane	5.14	50	1341013	50.020	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	827543	51.045	ng	100
6) Vinyl Chloride	5.59	62	1263606	49.058	ng	99
7) 1,3-Butadiene	5.86	54	1118893	60.607	ng	98
8) Bromomethane	6.35	94	762302	48.617	ng	97
9) Chloroethane	6.69	64	687395	45.915	ng	99
10) Ethanol	7.14	45	3546941	229.202	ng	99
11) Acetonitrile	7.38	41	1926551	42.509	ng	99
12) Acrolein	7.57	56	602852	51.177	ng	98
13) Acetone	7.83	58	3428848	234.829	ng	95
14) Trichlorofluoromethane	8.01	101	1794190	49.734	ng	98
15) 2-Propanol (Isopropanol)	8.34	45	3820480	66.582	ng	100
16) Acrylonitrile	8.57	53	1373006	52.042	ng	98
17) 1,1-Dichloroethene	9.03	96	925646	55.259	ng	91
18) 2-Methyl-2-Propanol (t...	9.30	59	4275643	83.949	ng	99
19) Methylene Chloride	9.26	84	928469	47.349	ng	96
20) 3-Chloro-1-propene (Al...	9.43	41	1562507	41.336	ng	97
21) Trichlorotrifluoroethane	9.68	151	770821	58.765	ng	96
22) Carbon Disulfide	9.62	76	3467083	50.150	ng	99
23) trans-1,2-Dichloroethene	10.69	61	1467929	49.525	ng	93
24) 1,1-Dichloroethane	11.00	63	1749311	48.669	ng	99
25) Methyl tert-Butyl Ether	11.18	73	2886625	52.249	ng	98
26) Vinyl Acetate	11.29	86	946195	318.427	ng	# 92
27) 2-Butanone (MEK)	11.68	72	693027	52.566	ng	94
28) cis-1,2-Dichloroethene	12.26	61	1393226	50.498	ng	91
29) Diisopropyl Ether	12.65	87	932693	52.864	ng	# 21
30) Ethyl Acetate	12.68	61	711553	103.604	ng	98
31) n-Hexane	12.58	57	1646711	46.870	ng	98

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270912.D  
 Acq On : 27 Aug 2009 19:34  
 Operator : WA/CC  
 Sample : 50ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.70	83	1622626	52.459	ng	97
34) Tetrahydrofuran (THF)	13.38	72	655734	46.661	ng	95
35) Ethyl tert-Butyl Ether	13.46	87	1101754	48.271	ng	94
36) 1,2-Dichloroethane	13.80	62	1347810	47.678	ng	99
38) 1,1,1-Trichloroethane	14.19	97	1521512	50.336	ng	98
39) Isopropyl Acetate	14.83	61	1272599	96.274	ng	# 74
40) 1-Butanol	14.90	56	2061538	89.143	ng	67
41) Benzene	14.88	78	3615292	46.147	ng	100
42) Carbon Tetrachloride	15.11	117	1389295	55.640	ng	99
43) Cyclohexane	15.31	84	2895546	100.908	ng	95
44) tert-Amyl Methyl Ether	15.85	73	2676182	45.487	ng	98
45) 1,2-Dichloropropane	16.12	63	971117	49.355	ng	99
46) Bromodichloromethane	16.38	83	1360838	52.710	ng	100
47) Trichloroethene	16.45	130	991208	56.095	ng	98
48) 1,4-Dioxane	16.51	88	803541	53.668	ng	94
49) 2,2,4-Trimethylpentane...	16.53	57	4218183	45.711	ng	99
50) Methyl Methacrylate	16.77	100	798155	110.668	ng	93
51) n-Heptane	16.89	71	1023757	48.691	ng	97
52) cis-1,3-Dichloropropene	17.65	75	1562664	47.920	ng	100
53) 4-Methyl-2-pentanone	17.76	58	973944	51.726	ng	100
54) trans-1,3-Dichloropropene	18.36	75	1641324	52.936	ng	100
55) 1,1,2-Trichloroethane	18.60	97	908507	52.817	ng	100
58) Toluene	18.99	91	3881275	52.567	ng	99
59) 2-Hexanone	19.37	43	2497284	50.862	ng	97
60) Dibromochloromethane	19.53	129	1128262	64.586	ng	100
61) 1,2-Dibromoethane	19.86	107	1060533	57.262	ng	99
62) n-Butyl Acetate	20.17	43	2940183	50.805	ng	99
63) n-Octane	20.28	57	880352	49.319	ng	98
64) Tetrachloroethene	20.47	166	970560	56.805	ng	100
65) Chlorobenzene	21.34	112	2525081	55.277	ng	100
66) Ethylbenzene	21.82	91	4407676	52.222	ng	100
67) m- & p-Xylenes	22.06	91	6851193	100.345	ng	98
68) Bromoform	22.15	173	911971	62.873	ng	99
69) Styrene	22.51	104	2758753	55.902	ng	99
70) o-Xylene	22.66	91	3559961	52.004	ng	98
71) n-Nonane	22.91	43	2047046	45.004	ng	97
72) 1,1,2,2-Tetrachloroethane	22.64	83	1662923	54.738	ng	98
74) Cumene	23.41	105	4397891	50.859	ng	98
75) alpha-Pinene	23.90	93	2250302	50.768	ng	98
76) n-Propylbenzene	24.05	91	5492507	50.528	ng	99
77) 3-Ethyltoluene	24.18	105	4532255	54.843	ng	99
78) 4-Ethyltoluene	24.23	105	4315743	53.896	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	3684738	54.561	ng	99

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270912.D  
 Acq On : 27 Aug 2009 19:34  
 Operator : WA/CC  
 Sample : 50ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

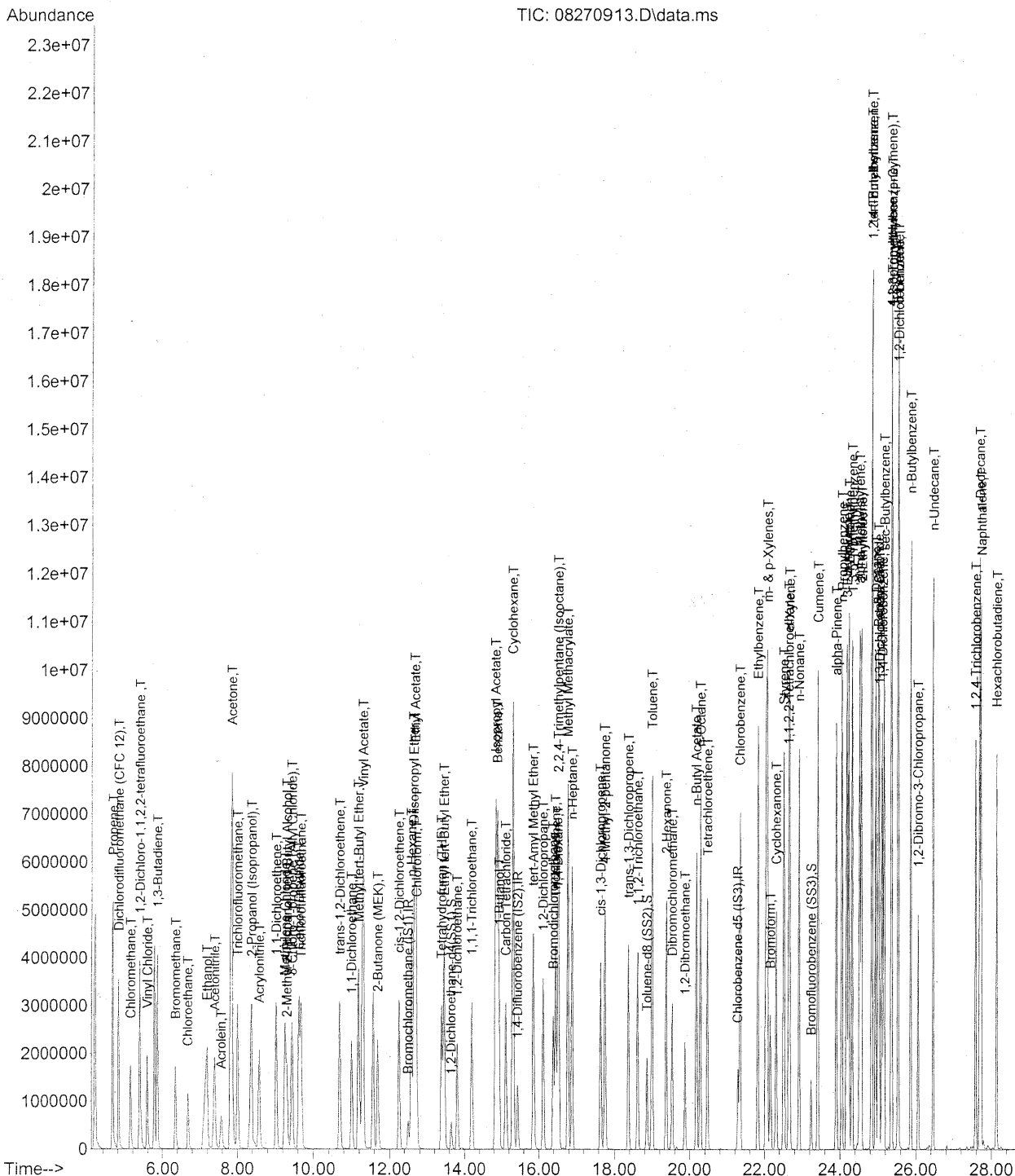
Quant Time: Aug 28 05:54:59 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	2084287	57.646	ng	97
81) 2-Ethyltoluene	24.57	105	4387733	52.651	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	3642429	52.887	ng	98
83) n-Decane	24.94	57	2143395	47.866	ng	97
84) Benzyl Chloride	25.01	91	3798215	58.832	ng	98
85) 1,3-Dichlorobenzene	25.03	146	2036482	58.425	ng	99
86) 1,4-Dichlorobenzene	25.11	146	2091516	56.275	ng	99
87) sec-Butylbenzene	25.17	105	4948380	53.186	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	4364256	52.604	ng	99
89) 1,2,3-Trimethylbenzene	25.36	105	3761867	53.617	ng	99
90) 1,2-Dichlorobenzene	25.53	146	1840676	55.698	ng	99
91) d-Limonene	25.53	68	1581281	53.991	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	769261	67.679	ng	92
93) n-Undecane	26.46	57	2305390	48.392	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	1487407	65.460	ng	99
95) Naphthalene	27.73	128	5330264	56.987	ng	99
96) n-Dodecane	27.70	57	2340297	42.285	ng	98
97) Hexachlorobutadiene	28.15	225	841080	58.197	ng	98
98) Cyclohexanone	22.30	55	1440848	47.101	ng	97
99) tert-Butylbenzene	24.83	119	3502642	52.547	ng	99
100) n-Butylbenzene	25.86	91	4206554	54.834	ng	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270913.D  
Acq On : 27 Aug 2009 20:14  
Operator : WA/CC  
Sample : 100ng TO-15 ICAL  
Misc : S20-08140906/S20-08240903  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:57:18 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Thu Aug 27 20:40:00 2009  
Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270913.D  
 Acq On : 27 Aug 2009 20:14  
 Operator : WA/CC  
 Sample : 100ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

*11/8/28/09*  
*CC*  
*8/28/09*

Quant Time: Aug 28 05:57:18 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.50	130	311663	25.000	ng	0.02
37) 1,4-Difluorobenzene (IS2)	15.44	114	1553790	25.000	ng	0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	732694	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.65	65	593115	21.895	ng	0.02
Spiked Amount	25.000		Recovery	=	87.60%	
57) Toluene-d8 (SS2)	18.86	98	1671107	26.102	ng	0.01
Spiked Amount	25.000		Recovery	=	104.40%	
73) Bromofluorobenzene (SS3)	23.24	174	475967	28.192	ng	0.00
Spiked Amount	25.000		Recovery	=	112.76%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	2326189	108.766	ng	97
3) Dichlorodifluoromethan...	4.82	85	3724697	106.555	ng	99
4) Chloromethane	5.14	50	2420894	103.079	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	1687479	118.819	ng	100
6) Vinyl Chloride	5.59	62	2607530	115.561	ng	99
7) 1,3-Butadiene	5.86	54	2287066	141.415	ng	96
8) Bromomethane	6.35	94	1585108	115.400	ng	98
9) Chloroethane	6.69	64	1424960	108.651	ng	99
10) Ethanol	7.20	45	6995067	515.990	ng	99
11) Acetonitrile	7.41	41	3916806	98.656	ng	99
12) Acrolein	7.58	56	1217708	118.004	ng	99
13) Acetone	7.86	58	6477329	506.390	ng	90
14) Trichlorofluoromethane	8.01	101	3583787	113.401	ng	98
15) 2-Propanol (Isopropanol)	8.39	45	7406478	147.344	ng	99
16) Acrylonitrile	8.59	53	2762119	119.510	ng	98
17) 1,1-Dichloroethene	9.03	96	1882094	128.259	ng	90
18) 2-Methyl-2-Propanol (t...	9.31	59	2734607	61.291	ng	96
19) Methylene Chloride	9.27	84	1891533	110.115	ng	95
20) 3-Chloro-1-propene (Al...	9.45	41	3110625	93.937	ng	96
21) Trichlorotrifluoroethane	9.68	151	1491940	129.838	ng	96
22) Carbon Disulfide	9.63	76	6827544	112.735	ng	98
23) trans-1,2-Dichloroethene	10.70	61	2912051	112.152	ng	93
24) 1,1-Dichloroethane	11.00	63	3453731	109.687	ng	99
25) Methyl tert-Butyl Ether	11.19	73	5728923	118.372	ng	100
26) Vinyl Acetate	11.31	86	1706291	655.492	ng	# 83
27) 2-Butanone (MEK)	11.69	72	1087900	94.196	ng	95
28) cis-1,2-Dichloroethene	12.26	61	2763573	114.342	ng	92
29) Diisopropyl Ether	12.66	87	1816274	117.515	ng	# 20
30) Ethyl Acetate	12.69	61	1367245	227.249	ng	98
31) n-Hexane	12.59	57	3275520	106.426	ng	98

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270913.D  
 Acq On : 27 Aug 2009 20:14  
 Operator : WA/CC  
 Sample : 100ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:57:18 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Chloroform	12.72	83	3156196	116.480	ng	97
34) Tetrahydrofuran (THF)	13.39	72	1286760	104.522	ng	95
35) Ethyl tert-Butyl Ether	13.46	87	2208988	110.480	ng	93
36) 1,2-Dichloroethane	13.81	62	2630401	106.218	ng	99
38) 1,1,1-Trichloroethane	14.19	97	2912642	110.506	ng	98
39) Isopropyl Acetate	14.84	61	2447890	212.375	ng	# 77
40) 1-Butanol	14.93	56	3972016	196.969	ng	# 1
41) Benzene	14.89	78	6912771	101.192	ng	99
42) Carbon Tetrachloride	15.12	117	2738691	125.785	ng	100
43) Cyclohexane	15.31	84	5510317	220.224	ng	96
44) tert-Amyl Methyl Ether	15.86	73	5226701	101.881	ng	98
45) 1,2-Dichloropropane	16.12	63	1925723	112.240	ng	99
46) Bromodichloromethane	16.39	83	2658280	118.081	ng	100
47) Trichloroethene	16.45	130	1969977	127.853	hg	99
48) 1,4-Dioxane	16.51	88	1471701	112.724	ng	92
49) 2,2,4-Trimethylpentane...	16.53	57	7987495	99.265	ng	99
50) Methyl Methacrylate	16.79	100	1531447	243.517	ng	92
51) n-Heptane	16.90	71	1983249	108.174	ng	97
52) cis-1,3-Dichloropropene	17.66	75	3069992	107.965	ng	99
53) 4-Methyl-2-pentanone	17.77	58	1907807	116.200	ng	99
54) trans-1,3-Dichloropropene	18.37	75	3237084	119.731	ng	100
55) 1,1,2-Trichloroethane	18.61	97	1791350	119.431	ng	100
58) Toluene	19.00	91	7452062	118.439	ng	98
59) 2-Hexanone	19.38	43	4826121	115.346	ng	97
60) Dibromochloromethane	19.54	129	2243667	150.717	ng	100
61) 1,2-Dibromoethane	19.88	107	2084762	132.093	ng	99
62) n-Butyl Acetate	20.18	43	5887161	119.376	ng	99
63) n-Octane	20.29	57	1700212	111.773	ng	98
64) Tetrachloroethene	20.48	166	1936105	132.976	ng	100
65) Chlorobenzene	21.35	112	4900652	125.893	ng	99
66) Ethylbenzene	21.83	91	8343663	116.005	ng	98
67) m- & p-Xylenes	22.08	91	12943022	222.454	ng	98
68) Bromoform	22.16	173	1840619	148.910	ng	100
69) Styrene	22.51	104	5350057	127.219	ng	99
70) o-Xylene	22.66	91	6776973	116.172	ng	98
71) n-Nonane	22.92	43	3907701	100.814	ng	97
72) 1,1,2,2-Tetrachloroethane	22.64	83	3188416	123.160	ng	98
74) Cumene	23.42	105	8239238	111.812	ng	97
75) alpha-Pinene	23.90	93	4304829	113.968	ng	99
76) n-Propylbenzene	24.05	91	10014810	108.114	ng	97
77) 3-Ethyltoluene	24.18	105	8539072	121.254	ng	97
78) 4-Ethyltoluene	24.24	105	7983793	116.999	ng	96
79) 1,3,5-Trimethylbenzene	24.33	105	6981938	121.318	ng	96

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270913.D  
 Acq On : 27 Aug 2009 20:14  
 Operator : WA/CC  
 Sample : 100ng TO-15 ICAL  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:57:18 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Thu Aug 27 20:40:00 2009  
 Response via : Initial Calibration

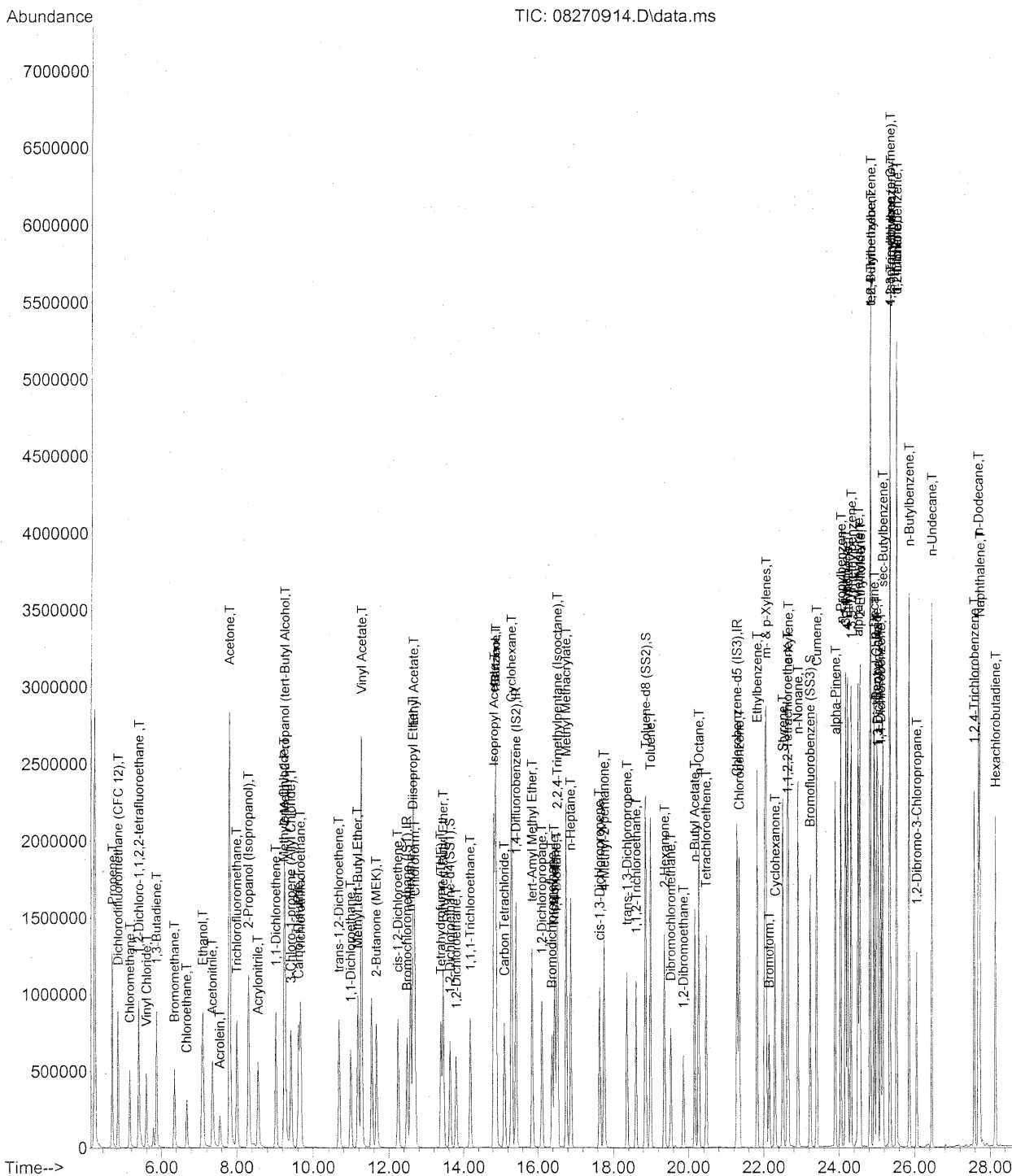
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.52	118	4021141	130.507	ng	96
81) 2-Ethyltoluene	24.57	105	8211566	115.630	ng	97
82) 1,2,4-Trimethylbenzene	24.85	105	6692639	114.032	ng	99
83) n-Decane	24.94	57	4009152	105.064	ng	97
84) Benzyl Chloride	25.01	91	7118793	129.396	ng	97
85) 1,3-Dichlorobenzene	25.04	146	3898330	131.243	ng	100
86) 1,4-Dichlorobenzene	25.12	146	4048576	127.830	ng	100
87) sec-Butylbenzene	25.17	105	8997095	113.478	ng	96
88) 4-Isopropyltoluene (p-...	25.36	119	7694114	108.829	ng	97
89) 1,2,3-Trimethylbenzene	25.37	105	6891760	115.267	ng	100
90) 1,2-Dichlorobenzene	25.54	146	3370540	119.685	ng	99
91) d-Limonene	25.53	68	2947196	118.087	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.07	157	1512954	156.201	ng	91
93) n-Undecane	26.46	57	4239249	104.422	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	2929211	151.276	ng	99
95) Naphthalene	27.74	128	9699377	121.689	ng	97
96) n-Dodecane	27.70	57	4261114	90.347	ng	97
97) Hexachlorobutadiene	28.15	225	1670676	135.654	ng	100
98) Cyclohexanone	22.32	55	2812159	107.877	ng	96
99) tert-Butylbenzene	24.84	119	6415247	112.939	ng	100
100) n-Butylbenzene	25.87	91	7689787	117.629	ng	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
Data File : 08270914.D  
Acq On : 27 Aug 2009 20:55  
Operator : WA/CC  
Sample : 25ng TO-15 ICV  
Misc : S20-08140906/S20-08240912  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009  
Quant Method : J:\MS13\METHODS\R13082709.M  
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
QLast Update : Fri Aug 28 06:02:46 2009  
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270914.D  
 Acq On : 27 Aug 2009 20:55  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICV  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*WA 8/28/09*  
*CC 8/28/09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	364302	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1834071	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	881559	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.63	65	703826	24.380	ng	-0.02
Spiked Amount	25.000		Recovery	=	97.52%	
57) Toluene-d8 (SS2)	18.85	98	1980062	25.133	ng	0.00
Spiked Amount	25.000		Recovery	=	100.52%	
73) Bromofluorobenzene (SS3)	23.23	174	574418	25.333	ng	0.00
Spiked Amount	25.000		Recovery	=	101.32%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	558232	21.184	ng	99
3) Dichlorodifluoromethan...	4.83	85	906131	19.640	ng	99
4) Chloromethane	5.14	50	696859	22.470	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	416752	21.872	ng	100
6) Vinyl Chloride	5.59	62	636166	21.868	ng	99
7) 1,3-Butadiene	5.86	54	508308	23.430	ng	98
8) Bromomethane	6.35	94	454619	25.282	ng	98
9) Chloroethane	6.68	64	354543	22.263	ng	98
10) Ethanol	7.10	45	1896077	116.037	ng	100
11) Acetonitrile	7.36	41	972767	21.433	ng	98
12) Acrolein	7.55	56	304856	24.434	ng	98
13) Acetone	7.81	58	1814954	107.402	ng	96
14) Trichlorofluoromethane	8.01	101	892864	21.957	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	2279239	40.571	ng	100
16) Acrylonitrile	8.55	53	688583	24.684	ng	98
17) 1,1-Dichloroethene	9.03	96	481988	24.435	ng	90
18) 2-Methyl-2-Propanol (t...	9.27	59	2577274	45.814	ng	99
19) Methylene Chloride	9.25	84	478398	22.320	ng	95
20) 3-Chloro-1-propene (Al...	9.42	41	801415	24.025	ng	97
21) Trichlorotrifluoroethane	9.67	151	407404	25.301	ng	94
22) Carbon Disulfide	9.62	76	1736171	22.767	ng	98
23) trans-1,2-Dichloroethene	10.68	61	727009	23.711	ng	92
24) 1,1-Dichloroethane	10.99	63	891842	23.256	ng	100
25) Methyl tert-Butyl Ether	11.18	73	1422449	23.483	ng	100
26) Vinyl Acetate	11.28	86	529835	125.114	ng	98
27) 2-Butanone (MEK)	11.67	72	350226	25.658	ng	96
28) cis-1,2-Dichloroethene	12.24	61	711709	24.405	ng	91
29) Diisopropyl Ether	12.64	87	487987	24.483	ng	# 20
30) Ethyl Acetate	12.67	61	362042	49.357	ng	95
31) n-Hexane	12.58	57	817863	22.383	ng	98

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270914.D  
 Acq On : 27 Aug 2009 20:55  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICV  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Chloroform	12.70	83	845298	23.468	ng	97
34) Tetrahydrofuran (THF)	13.38	72	337115	22.773	ng	95
35) Ethyl tert-Butyl Ether	13.45	87	554493	22.676	ng	94
36) 1,2-Dichloroethane	13.80	62	691810	22.893	ng	99
38) 1,1,1-Trichloroethane	14.18	97	775866	22.884	ng	97
39) Isopropyl Acetate	14.83	61	661174	47.393	ng	# 71
40) 1-Butanol	14.87	56	1067569	46.764	ng	# 1
41) Benzene	14.88	78	1924768	22.324	ng	100
42) Carbon Tetrachloride	15.11	117	700366	24.197	ng	100
43) Cyclohexane	15.30	84	1466800	46.160	ng	95
44) tert-Amyl Methyl Ether	15.85	73	1394562	21.838	ng	98
45) 1,2-Dichloropropane	16.11	63	499496	23.446	ng	98
46) Bromodichloromethane	16.37	83	675550	23.777	ng	100
47) Trichloroethene	16.44	130	510996	24.294	ng	98
48) 1,4-Dioxane	16.50	88	408888	24.676	ng	94
49) 2,2,4-Trimethylpentane...	16.52	57	2191198	22.332	ng	99
50) Methyl Methacrylate	16.76	100	416978	52.179	ng	92
51) n-Heptane	16.88	71	517122	23.141	ng	97
52) cis-1,3-Dichloropropene	17.65	75	796707	22.763	ng	100
53) 4-Methyl-2-pentanone	17.76	58	485301	24.646	ng	99
54) trans-1,3-Dichloropropene	18.36	75	837725	25.269	ng	99
55) 1,1,2-Trichloroethane	18.60	97	460889	22.941	ng	99
58) Toluene	18.98	91	2023334	23.845	ng	99
59) 2-Hexanone	19.36	43	1243953	23.987	ng	97
60) Dibromochloromethane	19.53	129	554007	25.970	ng	99
61) 1,2-Dibromoethane	19.86	107	543305	24.380	ng	99
62) n-Butyl Acetate	20.17	43	1455122	24.458	ng	99
63) n-Octane	20.28	57	451615	23.127	ng	96
64) Tetrachloroethene	20.46	166	499063	23.228	ng	100
65) Chlorobenzene	21.34	112	1303802	23.953	ng	100
66) Ethylbenzene	21.82	91	2304825	23.748	ng	99
67) m- & p-Xylenes	22.06	91	3591413	46.481	ng	99
68) Bromoform	22.15	173	444206	24.049	ng	100
69) Styrene	22.51	104	1413368	24.843	ng	99
70) o-Xylene	22.65	91	1856316	23.919	ng	98
71) n-Nonane	22.91	43	1056471	22.652	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	854190	24.007	ng	97
74) Cumene	23.41	105	2272739	23.105	ng	99
75) alpha-Pinene	23.90	93	1136434	22.273	ng	99
76) n-Propylbenzene	24.05	91	2856293	22.859	ng	99
77) 3-Ethyltoluene	24.17	105	2281470	24.245	ng	99
78) 4-Ethyltoluene	24.23	105	2214131	23.841	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1909328	24.700	ng	98

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Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270914.D  
 Acq On : 27 Aug 2009 20:55  
 Operator : WA/CC  
 Sample : 25ng TO-15 ICV  
 Misc : S20-08140906/S20-08240912  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1053314	25.946	ng	96
81) 2-Ethyltoluene	24.56	105	2253391	23.336	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1903607	24.125	ng	98
83) n-Decane	24.93	57	1110988	23.583	ng	97
84) Benzyl Chloride	25.00	91	1882684	24.099	ng	98
85) 1,3-Dichlorobenzene	25.03	146	1042475	24.444	ng	99
86) 1,4-Dichlorobenzene	25.11	146	1061279	23.895	ng	99
87) sec-Butylbenzene	25.16	105	2551013	23.669	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2281213	23.482	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	1936617	23.416	ng	99
90) 1,2-Dichlorobenzene	25.53	146	967026	24.296	ng	99
91) d-Limonene	25.53	68	801027	25.430	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	379682	27.265	ng	92
93) n-Undecane	26.46	57	1199529	24.527	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	753771	26.888	ng	99
95) Naphthalene	27.73	128	2723374	24.973	ng	100
96) n-Dodecane	27.69	57	1252730	22.471	ng	97
97) Hexachlorobutadiene	28.15	225	422597	25.073	ng	100
98) Cyclohexanone	22.30	55	730222	22.320	ng	97
99) tert-Butylbenzene	24.83	119	1819030	23.804	ng	99
100) n-Butylbenzene	25.86	91	2158740	24.566	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08270914.D

Acq. Method File: TO15.M

Data File Path: J:\MS13\DATA\2009\_08\27\

Name: 25ng TO-15 ICV

Operator: WA/CC

Misc Info: S20-08140906/S20-08240912

Date Acquired: 8/27/2009 20:55

Instrument Name: GCMS13

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.66	21.2	26.3	80.6	70	130	*
3)	Dichlorodifluoromethane (CFC	4.83	19.6	26.0	75.4	70	130	*
4)	Chloromethane	5.14	22.5	25.0	90.0	70	130	*
5)	1,2-Dichloro-1,1,2,2-tetrafluoro	5.39	21.9	26.0	84.2	70	130	*
6)	Vinyl Chloride	5.59	21.9	25.3	86.6	70	130	*
7)	1,3-Butadiene	5.86	23.4	26.8	87.3	70	130	*
8)	Bromomethane	6.35	25.3	25.8	98.1	70	130	*
9)	Chloroethane	6.68	22.3	25.5	87.5	70	130	*
10)	Ethanol	7.10	116.0	130.0	89.2	70	130	*
11)	Acetonitrile	7.36	21.4	26.0	82.3	70	130	*
12)	Acrolein	7.55	24.4	26.3	92.8	70	130	*
13)	Acetone	7.81	107.4	132.0	81.4	70	130	*
14)	Trichlorofluoromethane	8.01	22.0	26.3	83.7	70	130	*
15)	2-Propanol (Isopropanol)	8.31	40.6	48.0	84.6	70	130	*
16)	Acrylonitrile	8.55	24.7	25.8	95.7	70	130	*
17)	1,1-Dichloroethene	9.03	24.4	27.5	88.7	70	130	*
18)	2-Methyl-2-Propanol (tert-Butyl Al	9.27	45.8	50.0	91.6	70	130	*
19)	Methylene Chloride	9.25	22.3	26.8	83.2	70	130	*
20)	3-Chloro-1-propene (Allyl Chlor	9.42	24.0	27.0	88.9	70	130	*
21)	Trichlorotrifluoroethane	9.67	25.3	27.5	92.0	70	130	*
22)	Carbon Disulfide	9.62	22.8	26.0	87.7	70	130	*
23)	trans-1,2-Dichloroethene	10.68	23.7	25.5	92.9	70	130	*
24)	1,1-Dichloroethane	10.99	23.3	26.5	87.9	70	130	*
25)	Methyl tert-Butyl Ether	11.18	23.5	26.3	89.4	70	130	*
26)	Vinyl Acetate	11.28	125.1	126.0	99.3	70	130	*
27)	2-Butanone (MEK)	11.67	25.7	26.8	95.9	70	130	*
28)	cis-1,2-Dichloroethene	12.24	24.4	27.0	90.4	70	130	*
29)	Diisopropyl Ether	12.64	24.5	26.5	92.5	70	130	*
30)	Ethyl Acetate	12.67	49.4	52.0	95.0	70	130	*
31)	n-Hexane	12.58	22.4	26.0	86.2	70	130	*
32)	Chloroform	12.70	23.5	27.5	85.5	70	130	*
34)	Tetrahydrofuran (THF)	13.38	22.8	26.5	86.0	70	130	*
35)	Ethyl tert-Butyl Ether	13.45	22.7	25.5	89.0	70	130	*
36)	1,2-Dichloroethane	13.80	22.9	26.3	87.1	70	130	*
38)	1,1,1-Trichloroethane	14.18	22.9	26.0	88.1	70	130	*
39)	Isopropyl Acetate	14.83	47.4	52.3	90.6	70	130	*
40)	1-Butanol	14.87	46.8	52.8	88.6	70	130	*
41)	Benzene	14.88	22.3	25.8	86.4	70	130	*
42)	Carbon Tetrachloride	15.11	24.2	26.3	92.0	70	130	*
43)	Cyclohexane	15.30	46.2	51.8	89.2	70	130	*
44)	tert-Amyl Methyl Ether	15.85	21.8	25.5	85.5	70	130	*
45)	1,2-Dichloropropane	16.11	23.4	26.0	90.0	70	130	*
46)	Bromodichloromethane	16.37	23.8	26.3	90.5	70	130	*
47)	Trichloroethene	16.44	24.3	25.8	94.2	70	130	*
48)	1,4-Dioxane	16.50	24.7	26.0	95.0	70	130	*
49)	2,2,4-Trimethylpentane (Isooctan	16.52	22.3	25.8	86.4	70	130	*
50)	Methyl Methacrylate	16.76	52.2	52.8	98.9	70	130	*

M 8/28/09

CC  
8/28/09

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INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08270914.D

Acq. Method File: TO15.M

Data File Path: J:\MS13\DATA\2009\_08\27\

Name: 25ng TO-15 ICV

Operator: WA/CC

Misc Info: S20-08140906/S20-08240912

Date Acquired: 8/27/2009 20:55

Instrument Name: GCMS13

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
51)	n-Heptane	16.88	23.1	25.8	89.5	70	130	*
52)	cis-1,3-Dichloropropene	17.65	22.8	24.5	93.1	70	130	*
53)	4-Methyl-2-pentanone	17.76	24.6	26.8	91.8	70	130	*
54)	trans-1,3-Dichloropropene	18.36	25.3	27.0	93.7	70	130	*
55)	1,1,2-Trichloroethane	18.60	22.9	26.0	88.1	70	130	*
58)	Toluene	18.98	23.8	26.8	88.8	70	130	*
59)	2-Hexanone	19.36	24.0	27.0	88.9	70	130	*
60)	Dibromochloromethane	19.53	26.0	28.3	91.9	70	130	*
61)	1,2-Dibromoethane	19.86	24.4	26.3	92.8	70	130	*
62)	n-Butyl Acetate	20.17	24.5	27.5	89.1	70	130	*
63)	n-Octane	20.28	23.1	26.3	87.8	70	130	*
64)	Tetrachloroethene	20.46	23.2	25.3	91.7	70	130	*
65)	Chlorobenzene	21.34	24.0	26.5	90.6	70	130	*
66)	Ethylbenzene	21.82	23.7	26.3	90.1	70	130	*
67)	m- & p-Xylenes	22.06	46.5	51.5	90.3	70	130	*
68)	Bromoform	22.15	24.0	26.5	90.6	70	130	*
69)	Styrene	22.51	24.8	26.3	94.3	70	130	*
70)	o-Xylene	22.65	23.9	26.0	91.9	70	130	*
71)	n-Nonane	22.91	22.7	25.8	88.0	70	130	*
72)	1,1,2,2-Tetrachloroethane	22.63	24.0	27.0	88.9	70	130	*
74)	Cumene	23.41	23.1	25.3	91.3	70	130	*
75)	alpha-Pinene	23.90	22.3	24.8	89.9	70	130	*
76)	n-Propylbenzene	24.05	22.9	25.3	90.5	70	130	*
77)	3-Ethyltoluene	24.17	24.2	26.3	92.0	70	130	*
78)	4-Ethyltoluene	24.23	23.8	26.3	90.5	70	130	*
79)	1,3,5-Trimethylbenzene	24.32	24.7	26.5	93.2	70	130	*
80)	alpha-Methylstyrene	24.51	25.9	26.0	99.6	70	130	*
81)	2-Ethyltoluene	24.56	23.3	26.0	89.6	70	130	*
82)	1,2,4-Trimethylbenzene	24.83	24.1	25.5	94.5	70	130	*
83)	n-Decane	24.93	23.6	26.3	89.7	70	130	*
84)	Benzyl Chloride	25.00	24.1	26.8	89.9	70	130	*
85)	1,3-Dichlorobenzene	25.03	24.4	26.0	93.8	70	130	*
86)	1,4-Dichlorobenzene	25.11	23.9	26.3	90.9	70	130	*
87)	sec-Butylbenzene	25.16	23.7	25.8	91.9	70	130	*
88)	4-Isopropyltoluene (p-Cymene)	25.35	23.5	25.0	94.0	70	130	*
89)	1,2,3-Trimethylbenzene	25.35	23.4	26.0	90.0	70	130	*
90)	1,2-Dichlorobenzene	25.53	24.3	25.8	94.2	70	130	*
91)	d-Limonene	25.53	25.4	26.5	95.8	70	130	*
92)	1,2-Dibromo-3-Chloropropane	26.06	27.3	27.0	101.1	70	130	*
93)	n-Undecane	26.46	24.5	26.3	93.2	70	130	*
94)	1,2,4-Trichlorobenzene	27.58	26.9	27.3	98.5	70	130	*
95)	Naphthalene	27.73	25.0	25.0	100.0	70	130	*
96)	n-Dodecane	27.69	22.5	24.3	92.6	70	130	*
97)	Hexachlorobutadiene	28.15	25.1	26.8	93.7	70	130	*
98)	Cyclohexanone	22.30	22.3	24.8	89.9	70	130	*
99)	tert-Butylbenzene	24.83	23.8	26.5	89.8	70	130	*
100)	n-Butylbenzene	25.86	24.6	26.5	92.8	70	130	*

\* Denotes Passing Criterion

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CONTINUING CALIBRATION STANDARDS

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

CC  
9-4-09

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR Bromochloromethane (IS1)	1.000	1.000	0.0	86	-0.01
2	T Propene	1.808	1.761	2.6	79	0.00
3	T Dichlorodifluoromethane (CF	3.166	2.922	7.7	79	0.00
4	T Chloromethane	2.128	2.226	-4.6	82	0.00
5	T 1,2-Dichloro-1,1,2,2-tetra	1.308	1.274	2.6	79	0.00
6	T Vinyl Chloride	1.996	1.988	0.4	79	0.00
7	T 1,3-Butadiene	1.489	1.527	-2.6	79	0.00
8	T Bromomethane	1.234	1.419	-15.0	84	0.00
9	T Chloroethane	1.093	1.131	-3.5	81	0.00
10	T Ethanol	1.121	1.178	-5.1	83	-0.10
11	T Acetonitrile	3.115	3.090	0.8	82	-0.05
12	T Acrolein	0.856	0.920	-7.5	81	-0.02
13	T Acetone	1.160	1.112	4.1	83	-0.05
14	T Trichlorofluoromethane	2.791	2.915	-4.4	82	0.00
15	T 2-Propanol (Isopropanol)	3.855	3.839	0.4	82	-0.07
16	T Acrylonitrile	1.914	2.189	-14.4	83	-0.03
17	T 1,1-Dichloroethene	1.354	1.401	-3.5	82	0.00
18	T 2-Methyl-2-Propanol (tert-B	3.860	4.192	-8.6	83	-0.05
19	T Methylene Chloride	1.471	1.450	1.4	81	-0.02
20	T 3-Chloro-1-propene (Allyl C	2.289	2.448	-6.9	83	-0.02
21	T Trichlorotrifluoroethane	1.105	1.197	-8.3	84	-0.01
22	T Carbon Disulfide	5.233	5.457	-4.3	81	0.00
23	T trans-1,2-Dichloroethene	2.104	2.329	-10.7	82	-0.01
24	T 1,1-Dichloroethane	2.632	2.817	-7.0	84	-0.02
25	T Methyl tert-Butyl Ether	4.157	4.383	-5.4	82	-0.02
26	T Vinyl Acetate	0.291	0.360	-23.7	89	-0.03
27	T 2-Butanone (MEK)	0.937	1.076	-14.8	83	-0.03
28	T cis-1,2-Dichloroethene	2.001	2.185	-9.2	83	-0.02
29	T Diisopropyl Ether	1.368	1.534	-12.1	84	-0.01
30	T Ethyl Acetate	0.503	0.581	-15.5	83	-0.03
31	T n-Hexane	2.508	2.531	-0.9	81	-0.01
32	T Chloroform	2.472	2.648	-7.1	83	-0.02
33	S 1,2-Dichloroethane-d4 (SS1)	1.981	1.975	0.3	85	-0.02
34	T Tetrahydrofuran (THF)	1.016	1.033	-1.7	83	-0.02
35	T Ethyl tert-Butyl Ether	1.678	1.795	-7.0	83	-0.02
36	T 1,2-Dichloroethane	2.074	2.188	-5.5	83	-0.01
37	IR 1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	86	-0.01
38	T 1,1,1-Trichloroethane	0.462	0.487	-5.4	82	-0.01

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LM 914109

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
39 T	Isopropyl Acetate	0.190	0.205	-7.9	82	-0.02
40 T	1-Butanol	0.311	0.335	-7.7	83	-0.07
41 T	Benzene	1.175	1.185	-0.9	84	-0.02
42 T	Carbon Tetrachloride	0.395	0.426	-7.8	82	-0.01
43 T	Cyclohexane	0.433	0.457	-5.5	83	-0.01
44 T	tert-Amyl Methyl Ether	0.870	0.878	-0.9	82	-0.02
45 T	1,2-Dichloropropane	0.290	0.312	-7.6	83	-0.02
46 T	Bromodichloromethane	0.387	0.424	-9.6	82	-0.02
47 T	Trichloroethene	0.287	0.310	-8.0	83	-0.01
48 T	1,4-Dioxane	0.226	0.255	-12.8	83	-0.02
49 T	2,2,4-Trimethylpentane (Iso	1.337	1.400	-4.7	83	-0.01
50 T	Methyl Methacrylate	0.109	0.126	-15.6	84	-0.02
51 T	n-Heptane	0.305	0.327	-7.2	83	-0.02
52 T	cis-1,3-Dichloropropene	0.477	0.526	-10.3	83	-0.01
53 T	4-Methyl-2-pentanone	0.268	0.297	-10.8	82	-0.02
54 T	trans-1,3-Dichloropropene	0.452	0.496	-9.7	82	-0.01
55 T	1,1,2-Trichloroethane	0.274	0.288	-5.1	83	-0.01
56 IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	82	0.00
57 S	Toluene-d8 (SS2)	2.234	2.291	-2.6	84	0.00
58 T	Toluene	2.406	2.653	-10.3	83	-0.01
59 T	2-Hexanone	1.471	1.648	-12.0	82	-0.02
60 T	Dibromochloromethane	0.605	0.705	-16.5	83	0.00
61 T	1,2-Dibromoethane	0.632	0.720	-13.9	82	-0.01
62 T	n-Butyl Acetate	1.687	1.917	-13.6	82	-0.01
63 T	n-Octane	0.554	0.607	-9.6	83	-0.01
64 T	Tetrachloroethene	0.609	0.687	-12.8	83	0.00
65 T	Chlorobenzene	1.544	1.715	-11.1	83	0.00
66 T	Ethylbenzene	2.752	3.065	-11.4	82	0.00
67 T	m- & p-Xylenes	2.191	2.459	-12.2	83	-0.02
68 T	Bromoform	0.524	0.637	-21.6	84	-0.01
69 T	Styrene	1.613	1.883	-16.7	83	0.00
70 T	o-Xylene	2.201	2.495	-13.4	83	-0.01
71 T	n-Nonane	1.323	1.437	-8.6	83	0.00
72 T	1,1,2,2-Tetrachloroethane	1.009	1.145	-13.5	83	-0.01
73 S	Bromofluorobenzene (SS3)	0.643	0.626	2.6	79	0.00
74 T	Cumene	2.790	3.175	-13.8	84	-0.01
75 T	alpha-Pinene	1.447	1.623	-12.2	83	0.00
76 T	n-Propylbenzene	3.543	4.012	-13.2	83	0.00

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Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77 T	3-Ethyltoluene	2.669	3.028	-13.5	83	-0.01
78 T	4-Ethyltoluene	2.634	3.012	-14.4	84	-0.01
79 T	1,3,5-Trimethylbenzene	2.192	2.488	-13.5	83	0.00
80 T	alpha-Methylstyrene	1.151	1.419	-23.3	83	-0.01
81 T	2-Ethyltoluene	2.738	3.102	-13.3	83	-0.01
82 T	1,2,4-Trimethylbenzene	2.238	2.585	-15.5	83	-0.02
83 T	n-Decane	1.336	1.479	-10.7	82	0.00
84 T	Benzyl Chloride	2.215	2.545	-14.9	82	-0.01
85 T	1,3-Dichlorobenzene	1.209	1.376	-13.8	84	-0.01
86 T	1,4-Dichlorobenzene	1.260	1.437	-14.0	83	-0.01
87 T	sec-Butylbenzene	3.057	3.505	-14.7	83	-0.01
88 T	4-Isopropyltoluene (p-Cymen	2.755	3.211	-16.6	83	0.00
89 T	1,2,3-Trimethylbenzene	2.345	2.623	-11.9	83	-0.01
90 T	1,2-Dichlorobenzene	1.129	1.312	-16.2	84	-0.01
91 T	d-Limonene	0.893	1.076	-20.5	83	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.395	0.502	-27.1	83	0.00
93 T	n-Undecane	1.387	1.575	-13.6	82	0.00
94 T	1,2,4-Trichlorobenzene	0.795	0.963	-21.1	83	-0.01
95 T	Naphthalene	3.093	3.722	-20.3	83	0.00
96 T	n-Dodecane	1.581	1.726	-9.2	81	0.00
97 T	Hexachlorobutadiene	0.478	0.541	-13.2	83	0.00
98 T	Cyclohexanone	0.928	1.075	-15.8	83	-0.02
99 T	tert-Butylbenzene	2.167	2.499	-15.3	84	-0.01
100 T	n-Butylbenzene	2.492	2.918	-17.1	83	0.00

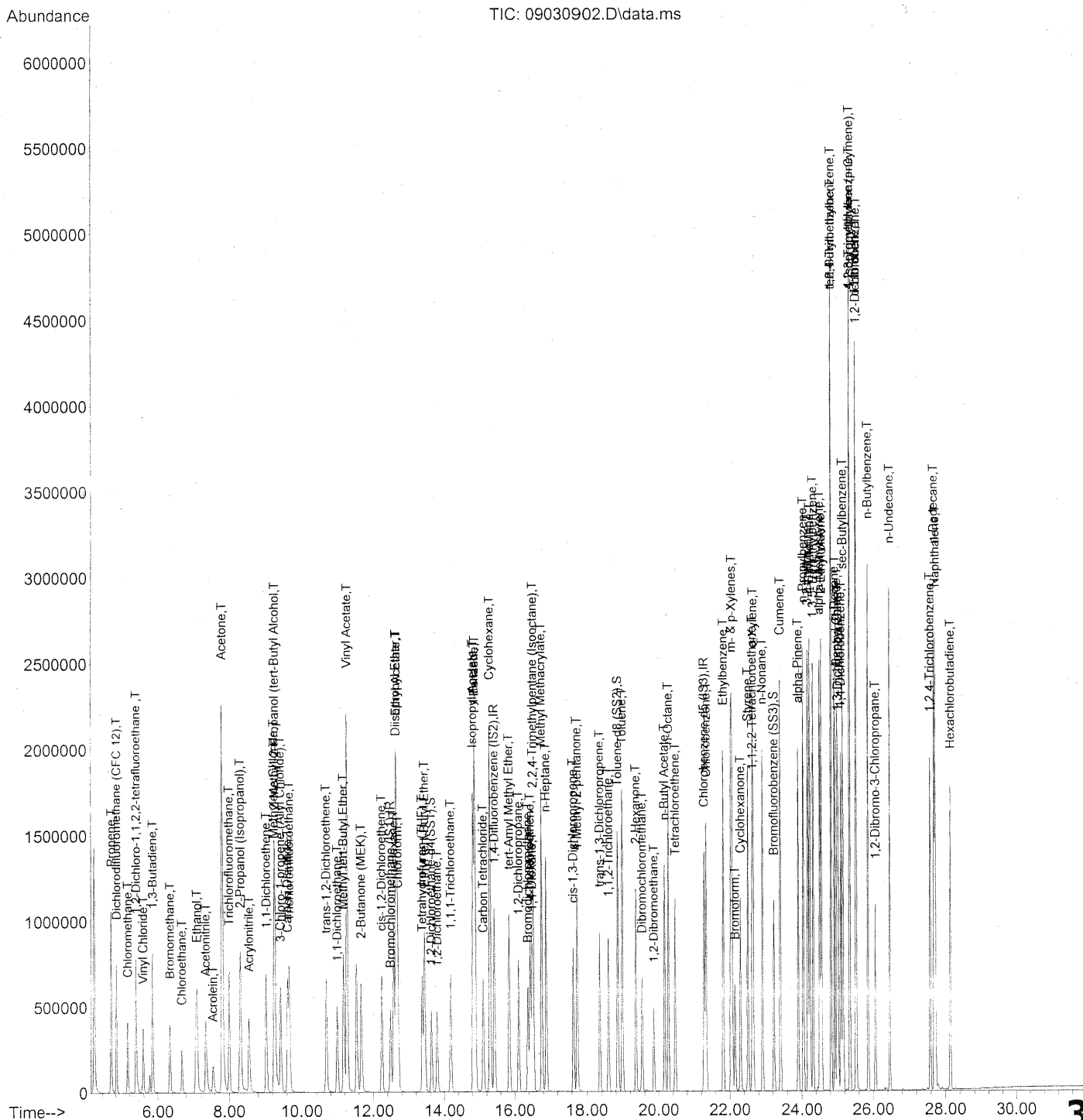
(#) = Out of Range

SPCC's out = 0 CCC's out = 0



Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*07/14/09 cc 9.409*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.49	130	245573	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1248008	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	575998	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.63	65	485020	24.923	ng	-0.02
Spiked Amount	25.000		Recovery	=	99.68%	
57) Toluene-d8 (SS2)	18.85	98	1319850	25.640	ng	0.00
Spiked Amount	25.000		Recovery	=	102.56%	
73) Bromofluorobenzene (SS3)	23.23	174	360462	24.331	ng	0.00
Spiked Amount	25.000		Recovery	=	97.32%	

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	463655	26.102	ng	98
3) Dichlorodifluoromethan...	4.82	85	754948	24.275	ng	100
4) Chloromethane	5.14	50	546732	26.152	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	331638	25.820	ng	100
6) Vinyl Chloride	5.58	62	493975	25.190	ng	99
7) 1,3-Butadiene	5.86	54	450075	30.776	ng	99
8) Bromomethane	6.35	94	355368	29.318	ng	97
9) Chloroethane	6.69	64	281034	26.179	ng	98
10) Ethanol	7.10	45	1504875	136.622	ng	99
11) Acetonitrile	7.35	41	798184	26.089	ng	98
12) Acrolein	7.55	56	244019	29.014	ng	99
13) Acetone	7.81	58	1507037	132.298	ng	97
14) Trichlorofluoromethane	8.01	101	753086	27.474	ng	98
15) 2-Propanol (Isopropanol)	8.32	45	1783755	47.102	ng	99
16) Acrylonitrile	8.55	53	569835	30.303	ng	99
17) 1,1-Dichloroethene	9.03	96	378564	28.470	ng	92
18) 2-Methyl-2-Propanol (t...	9.27	59	2079404	54.835	ng	99
19) Methylene Chloride	9.25	84	381726	26.421	ng	96
20) 3-Chloro-1-propene (Al...	9.43	41	649143	28.869	ng	98
21) Trichlorotrifluoroethane	9.67	151	323304	29.785	ng	94
22) Carbon Disulfide	9.62	76	1436462	27.944	ng	99
23) trans-1,2-Dichloroethene	10.68	61	606311	29.335	ng	93
24) 1,1-Dichloroethane	10.99	63	733288	28.367	ng	100
25) Methyl tert-Butyl Ether	11.17	73	1175272	28.783	ng	98
26) Vinyl Acetate	11.27	86	445226	155.964	ng	98
27) 2-Butanone (MEK)	11.66	72	290750	31.599	ng	98
28) cis-1,2-Dichloroethene	12.24	61	585976	29.808	ng	92
29) Diisopropyl Ether	12.64	87	403724	30.049	ng	# 19
30) Ethyl Acetate	12.66	61	304154	61.513	ng	98
31) n-Hexane	12.58	57	678698	27.554	ng	98

**350**

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) Chloroform	12.70	83	697085	28.711	ng	97
34) Tetrahydrofuran (THF)	13.38	72	278944	27.954	ng	96
35) Ethyl tert-Butyl Ether	13.44	87	455025	27.605	ng	94
36) 1,2-Dichloroethane	13.80	62	569627	27.963	ng	99
38) 1,1,1-Trichloroethane	14.18	97	639501	27.719	ng	98
39) Isopropyl Acetate	14.82	61	536138	56.477	ng #	72
40) 1-Butanol	14.87	56	866283	55.767	ng #	1
41) Benzene	14.88	78	1567690	26.721	ng	100
42) Carbon Tetrachloride	15.11	117	573789	29.133	ng	99
43) Cyclohexane	15.30	84	1227862	56.786	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1139991	26.234	ng	98
45) 1,2-Dichloropropane	16.11	63	409184	28.226	ng	99
46) Bromodichloromethane	16.37	83	570861	29.527	ng	99
47) Trichloroethene	16.44	130	409768	28.629	ng	100
48) 1,4-Dioxane	16.49	88	341371	30.276	ng	93
49) 2,2,4-Trimethylpentane...	16.52	57	1817507	27.222	ng	98
50) Methyl Methacrylate	16.76	100	335651	61.727	ng	94
51) n-Heptane	16.88	71	432678	28.454	ng	97
52) cis-1,3-Dichloropropene	17.65	75	651453	27.354	ng	100
53) 4-Methyl-2-pentanone	17.75	58	407538	30.415	ng	99
54) trans-1,3-Dichloropropene	18.36	75	680944	30.185	ng	100
55) 1,1,2-Trichloroethane	18.60	97	378608	27.695	ng	100
58) Toluene	18.98	91	1650190	29.764	ng	99
59) 2-Hexanone	19.36	43	1044084	30.813	ng	97
60) Dibromochloromethane	19.53	129	467725	33.556	ng	100
61) 1,2-Dibromoethane	19.86	107	439310	30.171	ng	99
62) n-Butyl Acetate	20.17	43	1214721	31.248	ng	98
63) n-Octane	20.28	57	374610	29.360	ng	98
64) Tetrachloroethene	20.47	166	403757	28.761	ng	100
65) Chlorobenzene	21.34	112	1066700	29.993	ng	100
66) Ethylbenzene	21.82	91	1871637	29.515	ng	99
67) m- & p-Xylenes	22.05	91	2945630	58.348	ng	99
68) Bromoform	22.15	173	378561	31.368	ng	100
69) Styrene	22.51	104	1162428	31.272	ng	99
70) o-Xylene	22.65	91	1523490	30.044	ng	98
71) n-Nonane	22.91	43	877414	28.793	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	706906	30.407	ng	98
74) Cumene	23.41	105	1887481	29.368	ng	98
75) alpha-Pinene	23.90	93	946291	28.385	ng	98
76) n-Propylbenzene	24.05	91	2384631	29.208	ng	99
77) 3-Ethyltoluene	24.17	105	1904290	30.972	ng	99
78) 4-Ethyltoluene	24.23	105	1894303	31.218	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1564727	30.980	ng	99

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	876364	33.039	ng	100
81) 2-Ethyltoluene	24.56	105	1879444	29.789	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1578559	30.618	ng	98
83) n-Decane	24.94	57	920293	29.898	ng	97
84) Benzyl Chloride	25.00	91	1612478	31.590	ng	98
85) 1,3-Dichlorobenzene	25.03	146	865430	31.058	ng	99
86) 1,4-Dichlorobenzene	25.11	146	877116	30.225	ng	99
87) sec-Butylbenzene	25.16	105	2139795	30.385	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1908579	30.068	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1619694	29.973	ng	98
90) 1,2-Dichlorobenzene	25.53	146	801334	30.814	ng	100
91) d-Limonene	25.53	68	676927	32.891	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	318327	34.986	ng	93
93) n-Undecane	26.46	57	990610	31.000	ng	99
94) 1,2,4-Trichlorobenzene	27.58	180	621382	33.925	ng	99
95) Naphthalene	27.73	128	2272409	31.892	ng	100
96) n-Dodecane	27.69	57	986420	27.081	ng	98
97) Hexachlorobutadiene	28.15	225	342580	31.108	ng	100
98) Cyclohexanone	22.30	55	606991	28.395	ng	97
99) tert-Butylbenzene	24.83	119	1525498	30.554	ng	99
100) n-Butylbenzene	25.86	91	1835291	31.965	ng	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*lm 9/10/09*  
*CC 9-10-09*

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR Bromochloromethane (IS1)	1.000	1.000	0.0	101	-0.01
2	T Propene	1.808	1.613	10.8	85	0.00
3	T Dichlorodifluoromethane (CF	3.166	2.774	12.4	88	0.00
4	T Chloromethane	2.128	2.067	2.9	89	0.00
5	T 1,2-Dichloro-1,1,2,2-tetra	1.308	1.254	4.1	92	0.00
6	T Vinyl Chloride	1.996	1.909	4.4	89	0.00
7	T 1,3-Butadiene	1.489	1.461	1.9	89	0.00
8	T Bromomethane	1.234	1.320	-7.0	92	0.00
9	T Chloroethane	1.093	1.104	-1.0	92	0.00
10	T Ethanol	1.121	1.078	3.8	89	-0.09
11	T Acetonitrile	3.115	2.865	8.0	89	-0.05
12	T Acrolein	0.856	0.854	0.2	88	-0.02
13	T Acetone	1.160	1.024	11.7	90	-0.05
14	T Trichlorofluoromethane	2.791	2.740	1.8	90	0.00
15	T 2-Propanol (Isopropanol)	3.855	3.726	3.3	94	-0.07
16	T Acrylonitrile	1.914	2.020	-5.5	90	-0.03
17	T 1,1-Dichloroethene	1.354	1.343	0.8	92	0.00
18	T 2-Methyl-2-Propanol (tert-B	3.860	3.824	0.9	89	-0.05
19	T Methylene Chloride	1.471	1.360	7.5	89	-0.02
20	T 3-Chloro-1-propene (Allyl C	2.289	2.277	0.5	91	-0.02
21	T Trichlorotrifluoroethane	1.105	1.127	-2.0	93	-0.01
22	T Carbon Disulfide	5.233	5.124	2.1	89	0.00
23	T trans-1,2-Dichloroethene	2.104	2.182	-3.7	90	-0.01
24	T 1,1-Dichloroethane	2.632	2.573	2.2	90	-0.01
25	T Methyl tert-Butyl Ether	4.157	4.157	0.0	91	-0.02
26	T Vinyl Acetate	0.291	0.347	-19.2	100	-0.03
27	T 2-Butanone (MEK)	0.937	1.002	-6.9	90	-0.03
28	T cis-1,2-Dichloroethene	2.001	1.993	0.4	89	-0.02
29	T Diisopropyl Ether	1.368	1.425	-4.2	92	-0.02
30	T Ethyl Acetate	0.503	0.535	-6.4	89	-0.03
31	T n-Hexane	2.508	2.427	3.2	91	0.00
32	T Chloroform	2.472	2.377	3.8	88	-0.02
33	S 1,2-Dichloroethane-d4 (SS1)	1.981	1.919	3.1	97	-0.01
34	T Tetrahydrofuran (THF)	1.016	0.953	6.2	90	-0.02
35	T Ethyl tert-Butyl Ether	1.678	1.698	-1.2	92	-0.02
36	T 1,2-Dichloroethane	2.074	1.991	4.0	89	-0.01
37	IR 1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	99	-0.01
38	T 1,1,1-Trichloroethane	0.462	0.449	2.8	88	-0.01

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
39 T	Isopropyl Acetate	0.190	0.191	-0.5	88	-0.03
40 T	1-Butanol	0.311	0.315	-1.3	90	-0.07
41 T	Benzene	1.175	1.100	6.4	90	-0.02
42 T	Carbon Tetrachloride	0.395	0.396	-0.3	88	-0.01
43 T	Cyclohexane	0.433	0.435	-0.5	91	-0.01
44 T	tert-Amyl Methyl Ether	0.870	0.858	1.4	93	-0.02
45 T	1,2-Dichloropropane	0.290	0.291	-0.3	89	-0.01
46 T	Bromodichloromethane	0.387	0.385	0.5	86	-0.01
47 T	Trichloroethene	0.287	0.293	-2.1	90	-0.01
48 T	1,4-Dioxane	0.226	0.238	-5.3	90	-0.02
49 T	2,2,4-Trimethylpentane (Iso)	1.337	1.308	2.2	90	-0.01
50 T	Methyl Methacrylate	0.109	0.122	-11.9	93	-0.03
51 T	n-Heptane	0.305	0.309	-1.3	91	-0.01
52 T	cis-1,3-Dichloropropene	0.477	0.490	-2.7	89	-0.01
53 T	4-Methyl-2-pentanone	0.268	0.275	-2.6	88	-0.02
54 T	trans-1,3-Dichloropropene	0.452	0.463	-2.4	88	-0.01
55 T	1,1,2-Trichloroethane	0.274	0.267	2.6	89	-0.02
56 IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	98	0.00
57 S	Toluene-d8 (SS2)	2.234	2.236	-0.1	99	0.00
58 T	Toluene	2.406	2.381	1.0	90	-0.01
59 T	2-Hexanone	1.471	1.454	1.2	86	-0.03
60 T	Dibromochloromethane	0.605	0.628	-3.8	88	0.00
61 T	1,2-Dibromoethane	0.632	0.640	-1.3	87	-0.01
62 T	n-Butyl Acetate	1.687	1.683	0.2	87	-0.01
63 T	n-Octane	0.554	0.545	1.6	90	-0.01
64 T	Tetrachloroethene	0.609	0.629	-3.3	92	0.00
65 T	Chlorobenzene	1.544	1.547	-0.2	90	0.00
66 T	Ethylbenzene	2.752	2.756	-0.1	89	0.00
67 T	m- & p-Xylenes	2.191	2.201	-0.5	89	-0.01
68 T	Bromoform	0.524	0.563	-7.4	89	-0.01
69 T	Styrene	1.613	1.703	-5.6	90	0.00
70 T	o-Xylene	2.201	2.217	-0.7	88	-0.01
71 T	n-Nonane	1.323	1.274	3.7	88	0.00
72 T	1,1,2,2-Tetrachloroethane	1.009	1.001	0.8	87	-0.01
73 S	Bromofluorobenzene (SS3)	0.643	0.653	-1.6	99	0.00
74 T	Cumene	2.790	2.852	-2.2	90	-0.01
75 T	alpha-Pinene	1.447	1.463	-1.1	89	0.00
76 T	n-Propylbenzene	3.543	3.576	-0.9	89	0.00

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

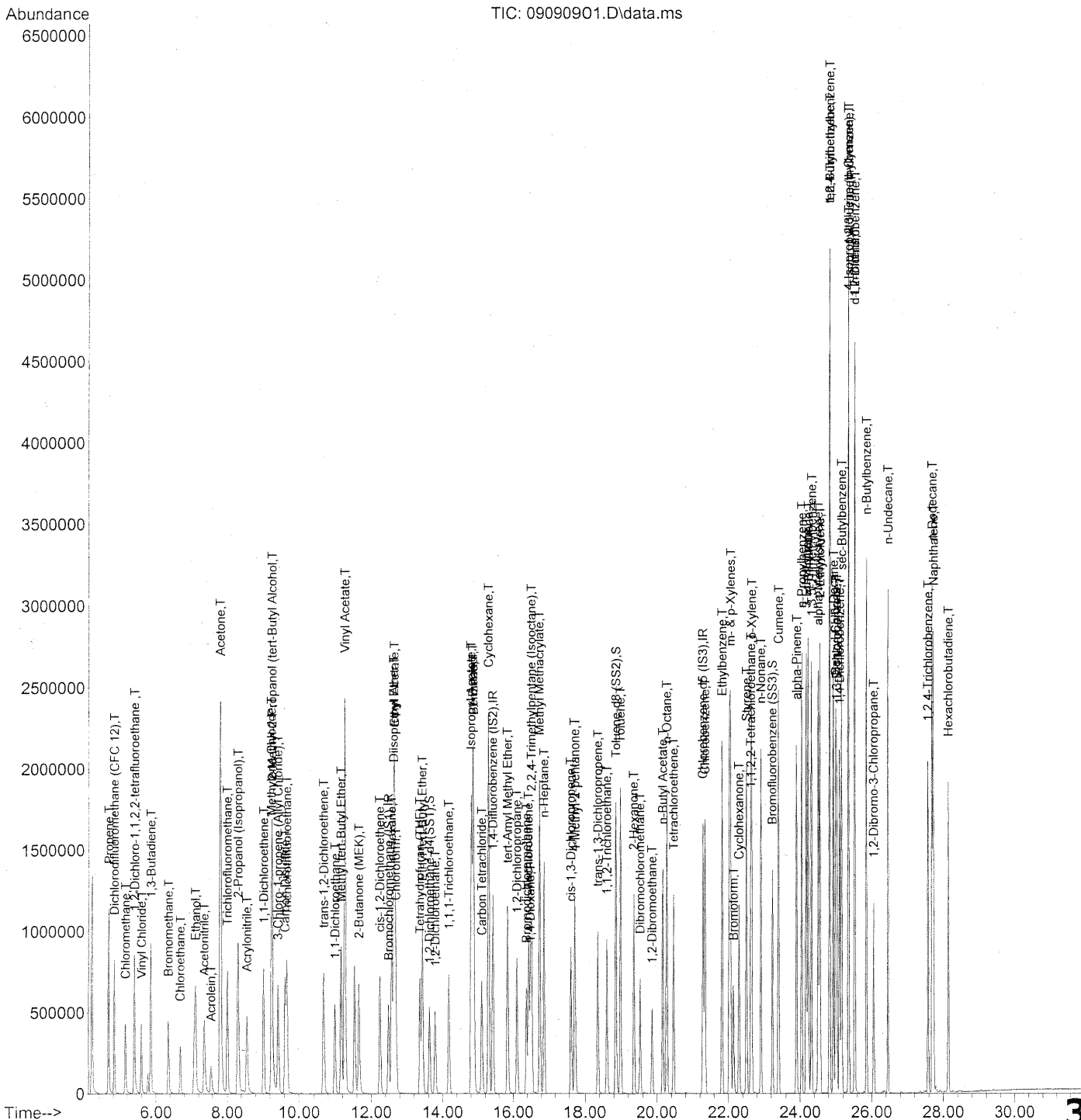
	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)
77 T	3-Ethyltoluene	2.669	2.689	-0.7	89	0.00
78 T	4-Ethyltoluene	2.634	2.709	-2.8	90	-0.01
79 T	1,3,5-Trimethylbenzene	2.192	2.250	-2.6	90	0.00
80 T	alpha-Methylstyrene	1.151	1.268	-10.2	89	0.00
81 T	2-Ethyltoluene	2.738	2.785	-1.7	90	-0.01
82 T	1,2,4-Trimethylbenzene	2.238	2.308	-3.1	89	-0.01
83 T	n-Decane	1.336	1.320	1.2	88	0.00
84 T	Benzyl Chloride	2.215	2.239	-1.1	87	-0.01
85 T	1,3-Dichlorobenzene	1.209	1.232	-1.9	90	-0.01
86 T	1,4-Dichlorobenzene	1.260	1.302	-3.3	90	-0.01
87 T	sec-Butylbenzene	3.057	3.124	-2.2	89	0.00
88 T	4-Isopropyltoluene (p-Cymen)	2.755	2.873	-4.3	89	0.00
89 T	1,2,3-Trimethylbenzene	2.345	2.344	0.0	89	0.00
90 T	1,2-Dichlorobenzene	1.129	1.174	-4.0	90	-0.01
91 T	d-Limonene	0.893	0.956	-7.1	88	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.395	0.450	-13.9	89	0.00
93 T	n-Undecane	1.387	1.399	-0.9	88	0.00
94 T	1,2,4-Trichlorobenzene	0.795	0.872	-9.7	90	0.00
95 T	Naphthalene	3.093	3.310	-7.0	88	0.00
96 T	n-Dodecane	1.581	1.513	4.3	85	0.00
97 T	Hexachlorobutadiene	0.478	0.501	-4.8	92	0.00
98 T	Cyclohexanone	0.928	0.940	-1.3	87	-0.02
99 T	tert-Butylbenzene	2.167	2.242	-3.5	90	0.00
100 T	n-Butylbenzene	2.492	2.567	-3.0	88	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration





Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

*LM 9/10/09*  
*CC*  
*9-10-09*

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.49	130	288197	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1439254	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	691140	25.000	ng	0.00

## System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.64	65	553022	24.215	ng	-0.01
Spiked Amount	25.000		Recovery	=	96.84%	✓
57) Toluene-d8 (SS2)	18.85	98	1545582	25.023	ng	0.00
Spiked Amount	25.000		Recovery	=	100.08%	✓
73) Bromofluorobenzene (SS3)	23.23	174	451195	25.381	ng	0.00
Spiked Amount	25.000		Recovery	=	101.52%	✓

## Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	498379	23.907	ng	99
3) Dichlorodifluoromethan...	4.83	85	840955	23.041	ng	99
4) Chloromethane	5.15	50	595588	24.276	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	383139	25.418	ng	100
6) Vinyl Chloride	5.59	62	556887	24.198	ng	99
7) 1,3-Butadiene	5.86	54	505209	29.437	ng	98
8) Bromomethane	6.35	94	388084	27.282	ng	97
9) Chloroethane	6.69	64	321878	25.549	ng	97
10) Ethanol	7.11	45	1616108	125.021	ng	99
11) Acetonitrile	7.36	41	868509	24.189	ng	99
12) Acrolein	7.55	56	265799	26.929	ng	98
13) Acetone	7.81	58	1628270	121.800	ng	97
14) Trichlorofluoromethane	8.01	101	830572	25.819	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	2031940	45.720	ng	100
16) Acrylonitrile	8.55	53	617051	27.961	ng	98
17) 1,1-Dichloroethene	9.03	96	425825	27.288	ng	90
18) 2-Methyl-2-Propanol (t...	9.26	59	2226382	50.028	ng	99
19) Methylene Chloride	9.24	84	420118	24.777	ng	96
20) 3-Chloro-1-propene (Al...	9.43	41	708795	26.860	ng	96
21) Trichlorotrifluoroethane	9.67	151	357307	28.050	ng	94
22) Carbon Disulfide	9.62	76	1583007	26.241	ng	98
23) trans-1,2-Dichloroethene	10.68	61	666512	27.479	ng	95
24) 1,1-Dichloroethane	10.99	63	785969	25.908	ng	100
25) Methyl tert-Butyl Ether	11.16	73	1308286	27.302	ng	98
26) Vinyl Acetate	11.27	86	503817	150.386	ng	# 95
27) 2-Butanone (MEK)	11.66	72	317726	29.424	ng	# 92
28) cis-1,2-Dichloroethene	12.24	61	627124	27.183	ng	92
29) Diisopropyl Ether	12.64	87	440112	27.913	ng	# 18
30) Ethyl Acetate	12.66	61	328920	56.683	ng	98
31) n-Hexane	12.58	57	763893	26.426	ng	98

357

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
32) Chloroform	12.70	83	734491	25.777	ng	98
34) Tetrahydrofuran (THF)	13.37	72	302133	25.800	ng	95
35) Ethyl tert-Butyl Ether	13.44	87	505026	26.107	ng	92
36) 1,2-Dichloroethane	13.80	62	608239	25.442	ng	98
38) 1,1,1-Trichloroethane	14.18	97	679956	25.556	ng	98
39) Isopropyl Acetate	14.81	61	575609	52.578	ng	# 74
40) 1-Butanol	14.87	56	939751	52.458	ng	# 1
41) Benzene	14.88	78	1678127	24.803	ng	100
42) Carbon Tetrachloride	15.11	117	615890	27.116	ng	100
43) Cyclohexane	15.30	84	1347051	54.021	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1283710	25.616	ng	97
45) 1,2-Dichloropropane	16.11	63	440119	26.326	ng	98
46) Bromodichloromethane	16.38	83	598392	26.839	ng	100
47) Trichloroethene	16.44	130	447020	27.082	ng	99
48) 1,4-Dioxane	16.49	88	366826	28.210	ng	93
49) 2,2,4-Trimethylpentane...	16.52	57	1958435	25.435	ng	98
50) Methyl Methacrylate	16.76	100	373486	59.558	ng	# 88
51) n-Heptane	16.89	71	472031	26.917	ng	96
52) cis-1,3-Dichloropropene	17.65	75	699051	25.452	ng	100
53) 4-Methyl-2-pentanone	17.75	58	435965	28.214	ng	98
54) trans-1,3-Dichloropropene	18.36	75	733429	28.192	ng	100
55) 1,1,2-Trichloroethane	18.60	97	404619	25.665	ng	100
58) Toluene	18.98	91	1777508	26.719	ng	99
59) 2-Hexanone	19.35	43	1105393	27.188	ng	96
60) Dibromochloromethane	19.53	129	499972	29.894	ng	99
61) 1,2-Dibromoethane	19.86	107	468692	26.826	ng	99
62) n-Butyl Acetate	20.17	43	1279782	27.437	ng	98
63) n-Octane	20.28	57	403648	26.366	ng	97
64) Tetrachloroethene	20.47	166	443489	26.328	ng	100
65) Chlorobenzene	21.34	112	1154581	27.055	ng	100
66) Ethylbenzene	21.82	91	2018774	26.532	ng	99
67) m- & p-Xylenes	22.06	91	3163525	52.224	ng	98
68) Bromoform	22.15	173	401771	27.745	ng	100
69) Styrene	22.51	104	1261600	28.285	ng	98
70) o-Xylene	22.65	91	1623956	26.690	ng	97
71) n-Nonane	22.91	43	933630	25.534	ng	96
72) 1,1,2,2-Tetrachloroethane	22.63	83	741462	26.580	ng	98
74) Cumene	23.41	105	2034109	26.377	ng	98
75) alpha-Pinene	23.90	93	1023198	25.579	ng	98
76) n-Propylbenzene	24.05	91	2550317	26.034	ng	99
77) 3-Ethyltoluene	24.18	105	2029286	27.506	ng	99
78) 4-Ethyltoluene	24.23	105	2044228	28.076	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1697911	28.016	ng	98

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 09 09:14:37 2009  
 Quant Method : J:\MS13\METHODS\R13082709.M  
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 QLast Update : Fri Aug 28 06:02:46 2009  
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	939827	29.529	ng	96
81) 2-Ethyltoluene	24.56	105	2024796	26.746	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1690781	27.331	ng	98
83) n-Decane	24.94	57	985234	26.675	ng	96
84) Benzyl Chloride	25.00	91	1702500	27.797	ng	98
85) 1,3-Dichlorobenzene	25.03	146	929670	27.805	ng	99
86) 1,4-Dichlorobenzene	25.11	146	953869	27.394	ng	100
87) sec-Butylbenzene	25.17	105	2288791	27.086	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2049512	26.909	ng	100
89) 1,2,3-Trimethylbenzene	25.36	105	1736600	26.782	ng	99
90) 1,2-Dichlorobenzene	25.53	146	859726	27.552	ng	99
91) d-Limonene	25.53	68	721687	29.224	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	342421	31.364	ng	91
93) n-Undecane	26.46	57	1055913	27.539	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	675108	30.717	ng	99
95) Naphthalene	27.73	128	2425116	28.365	ng	100
96) n-Dodecane	27.70	57	1037373	23.735	ng	97
97) Hexachlorobutadiene	28.15	225	380640	28.806	ng	99
98) Cyclohexanone	22.30	55	636890	24.830	ng	96
99) tert-Butylbenzene	24.83	119	1642873	27.423	ng	100
100) n-Butylbenzene	25.86	91	1937392	28.122	ng	99

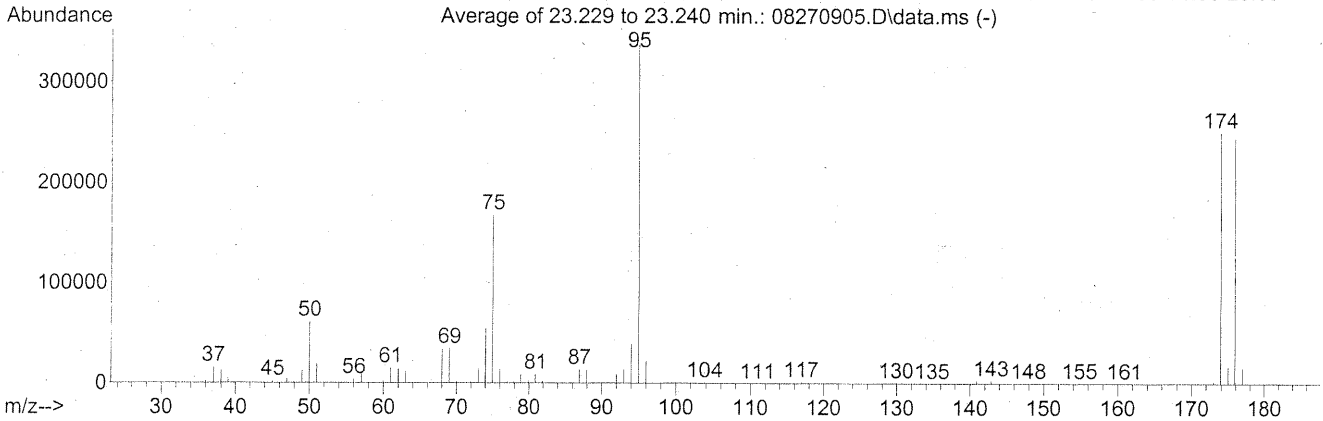
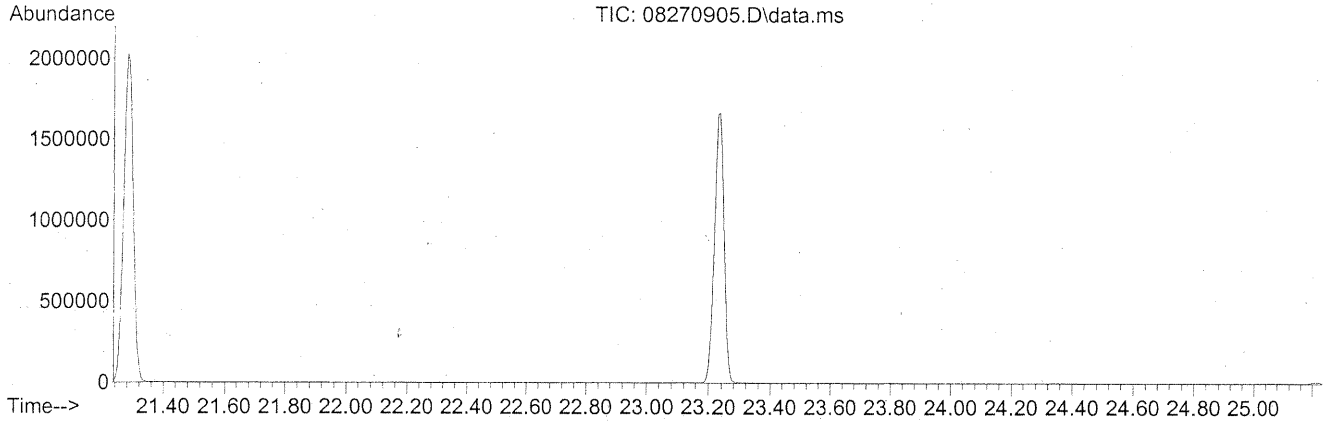
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## BFB TUNING & MASS CALIBRATIONS

Data Path : J:\MS13\DATA\2009\_08\27\  
 Data File : 08270905.D  
 Acq On : 27 Aug 2009 14:50  
 Operator : WA/CC  
 Sample : 25ng BFB  
 Misc : S20-08140906  
 ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13082709.M  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Thu Aug 27 20:40:00 2009



AutoFind: Scans 3351, 3352, 3353; Background Corrected with Scan 3340

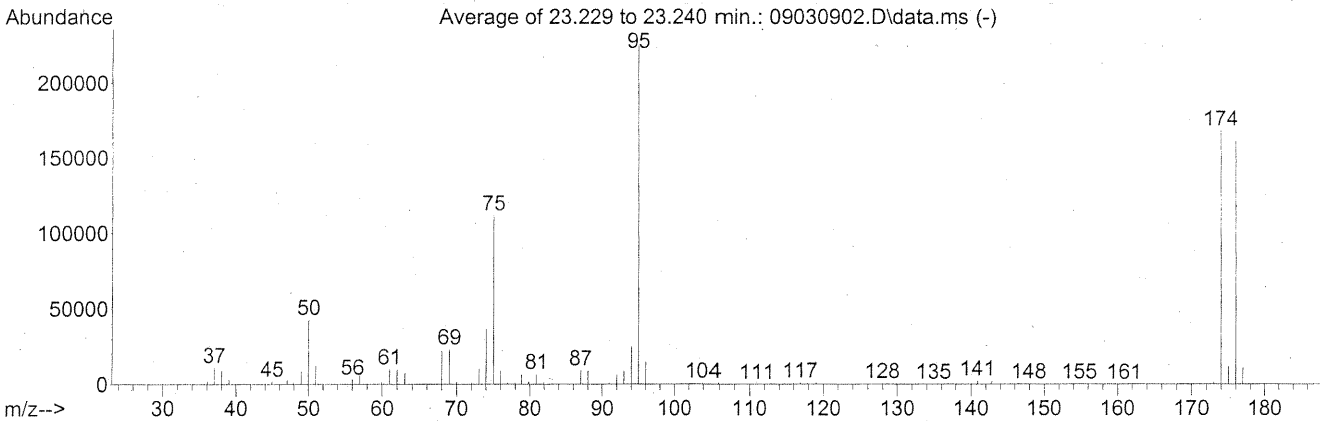
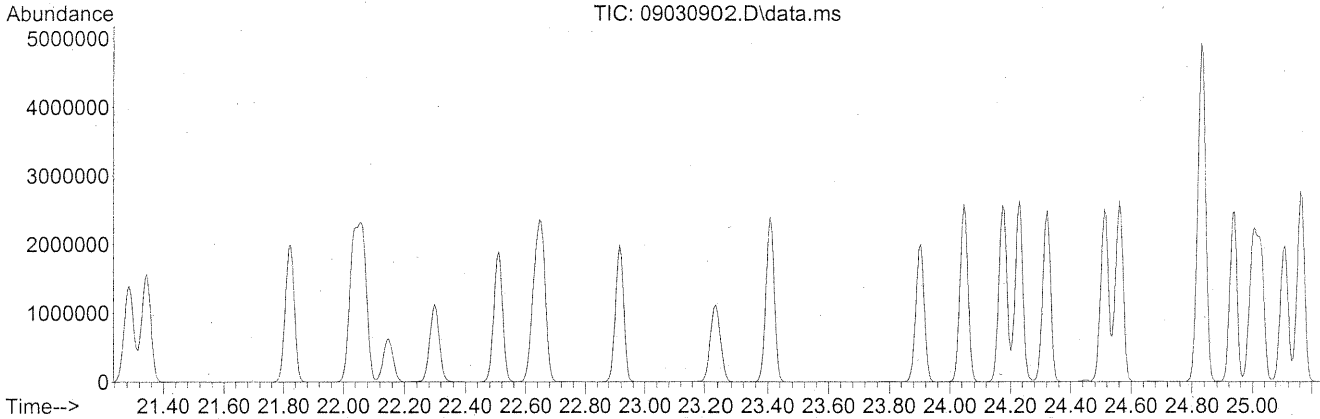
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.3	61821	PASS
75	95	30	66	49.9	168149	PASS
95	95	100	100	100.0	336960	PASS
96	95	5	9	6.5	21936	PASS
173	174	0.00	2	1.0	2440	PASS
174	95	50	120	74.4	250560	PASS
175	174	4	9	6.9	17332	PASS
176	174	93	101	97.7	244779	PASS
177	176	5	9	6.5	15927	PASS

*WA 8/28/09*  
*CC 8/28/09*

Data Path : J:\MS13\DATA\2009\_09\03\  
 Data File : 09030902.D  
 Acq On : 3 Sep 2009 8:03 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13082709.M  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009



AutoFind: Scans 3351, 3352, 3353; Background Corrected with Scan 3341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.0	42768	PASS
75	95	30	66	49.8	112013	PASS
95	95	100	100	100.0	224768	PASS
96	95	5	9	6.7	15047	PASS
173	174	0.00	2	0.9	1516	PASS
174	95	50	120	74.9	168341	PASS
175	174	4	9	7.2	12177	PASS
176	174	93	101	96.0	161621	PASS
177	176	5	9	6.9	11076	PASS

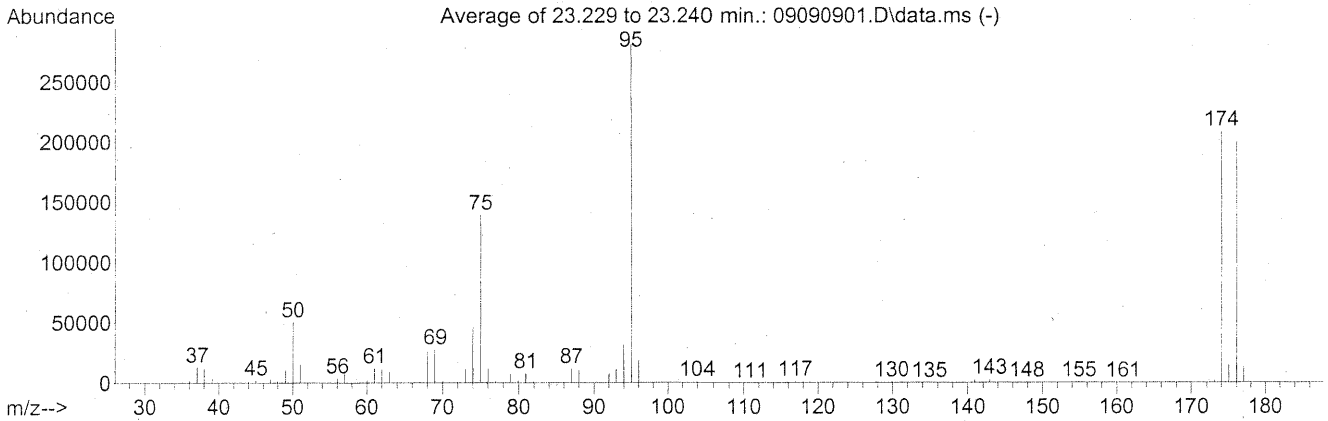
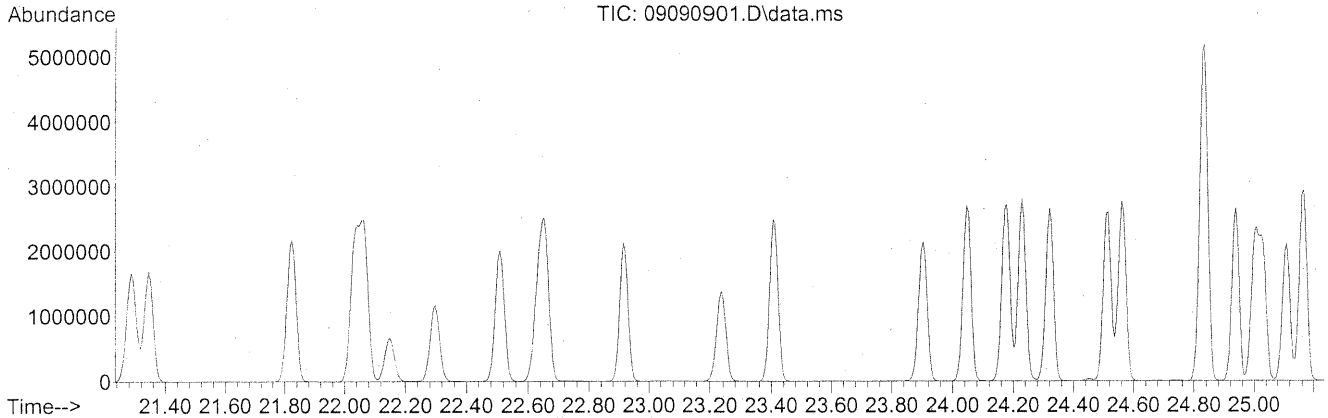
W 9/14/09 362

Data Path : J:\MS13\DATA\2009\_09\09\  
 Data File : 09090901.D  
 Acq On : 9 Sep 2009 8:45 am  
 Operator : LM/CC  
 Sample : 25ng TO-15 CCV STD  
 Misc : S20-08140906/S20-08240903  
 ALS Vial : 4 Sample Multiplier: 1

*LM 9/10/09*  
*CC*  
*9-10-09*

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13082709.M  
 Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)  
 Last Update : Fri Aug 28 06:02:46 2009



AutoFind: Scans 3351, 3352, 3353; Background Corrected with Scan 3341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.1	50749	PASS
75	95	30	66	49.7	139648	PASS
95	95	100	100	100.0	280896	PASS
96	95	5	9	6.7	18920	PASS
173	174	0.00	2	1.0	2049	PASS
174	95	50	120	74.3	208661	PASS
175	174	4	9	7.1	14876	PASS
176	174	93	101	96.3	200896	PASS
177	176	5	9	6.6	13211	PASS

RUN LOGS



	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/26/09 10:15	08260902.D	5ng TO-15 CCV STD	S20-08140906/S20-07310904	WA/CC	9	Passed (EM=1424)
2	08/26/09 11:30	08260903.D	TO-15 Method Blank (1000ml)	S20-08140906	WA/CC	4	Passed
3	08/26/09 12:23	08260904.D	P0902949-001 dil (25mL)	[REDACTED]	WA/CC	7	
4	08/26/09 13:03	08260905.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	case file
5	08/26/09 13:43	08260906.D	P0902876-001 dil (200mL)	[REDACTED]	WA/CC	8	
6	08/26/09 14:42	08260907.D	P0902949-006 (0.25mL)	[REDACTED]	WA/CC	12	
7	08/26/09 15:22	08260908.D	System		WA/CC	16	
8	08/26/09 16:02	08260909.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	case file
9	08/26/09 16:43	08260910.D	P0902949-005 (20mL)	[REDACTED]	WA/CC	15	
10	08/26/09 17:25	08260911.D	P0902876-007 (1000mL)	[REDACTED]	WA/CC	1	
11	08/26/09 18:05	08260912.D	P0902949-005 dup (20mL)	[REDACTED]	WA/CC	15	Passed
12	08/26/09 18:47	08260913.D	P0902876-008 (1000mL)	[REDACTED]	WA/CC	2	
13	08/26/09 19:28	08260914.D	P0902876-009 (1000mL)	[REDACTED]	WA/CC	3	
14	08/26/09 20:09	08260915.D	P0902876-010 (1000mL)	[REDACTED]	WA/CC	5	
15	08/26/09 20:51	08260916.D	P0902876-011 (1000mL)	[REDACTED]	WA/CC	6	
16	08/26/09 21:32	08260917.D	System		WA/CC	16	
17	08/26/09 22:13	08260918.D	P0902876-004 dil (200mL)	[REDACTED]	WA/CC	12	
18	08/26/09 22:53	08260919.D	P0902876-005 dil (200mL)	[REDACTED]	WA/CC	14	
19	08/26/09 23:34	08260920.D	P0902949-001 (250mL)	[REDACTED]	WA/CC	7	
20	08/27/09 0:16	08260921.D	P0902949-003 (1000mL)	[REDACTED]	WA/CC	10	
21	08/27/09 0:58	08260922.D	P0902949-004 (1000mL)	[REDACTED]	WA/CC	11	
22	08/27/09 1:38	08260923.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	Passed
23	08/27/09 4:32	08260924.D	Blank		WA/CC	4	
24	08/27/09 6:39	08260925.D	P0902876-009 (1000mL)	[REDACTED]	WA/CC	3	
25	08/27/09 7:25	08260926.D	P0902949-002 (200mL)	[REDACTED]	WA/CC	8	WA 8/27

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/27/09 11:46	08270902.D	200ng/L STD Check	S20-08140906/S20-08240903	WA/CC	4	
2	08/27/09 13:01	08270903.D	4ng/L STD Check	S20-08140906/S20-08240906	WA/CC	14	
3	08/27/09 14:10	08270904.D	0.1ng STD Check (EM=1459)	S20-08140906/S20-08240906	WA/CC	14	
4	08/27/09 14:50	08270905.D	25ng BFB	S20-08140906	WA/CC	4	Passed
5	08/27/09 15:31	08270906.D	0.1ng TO-15 ICAL	S20-08140906/S20-08240906	WA/CC	14	ICAL OK all
6	08/27/09 16:11	08270907.D	0.2ng TO-15 ICAL	S20-08140906/S20-08240906	WA/CC	14	compounds
7	08/27/09 16:52	08270908.D	0.5ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	0.1ng->100ng
8	08/27/09 17:32	08270909.D	1.0ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	except: Acrolein,
9	08/27/09 18:13	08270910.D	5.0ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	THF(0.5->100ng);
10	08/27/09 18:53	08270911.D	25ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	IPA (0.2->100ng)
11	08/27/09 19:34	08270912.D	50ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	TBA(0.1->50ng)
12	08/27/09 20:14	08270913.D	100ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	
13	08/27/09 20:55	08270914.D	25ng TO-15 ICV	S20-08140906/S20-08240912	WA/CC	13	Passed all

WA 8/27

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/02/09 7:48	09020902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	
2	09/02/09 8:58	09020903.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
3	09/02/09 10:17	09020904.D	0.5ng MRL Check STD	S20-08140906/S20-09010905	LM/CC	4	not used
4	09/02/09 10:59	09020905.D	CAS CAN QC C3S 3694	AC00622 (1000ml)	LM/CC	4	Passed
5	09/02/09 11:43	09020906.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	Passed
6	09/02/09 12:23	09020907.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	1	Passed
7	09/02/09 13:03	09020908.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	1	Passed
8	09/02/09 14:18	09020909.D	P0902973-001 (0.2ml)	[REDACTED]	LM/CC	4	Case File Ran High
9	09/02/09 15:07	09020910.D	P0902973-001 (0.5ml)	[REDACTED]	LM/CC	4	
10	09/02/09 15:52	09020911.D	P0902973-001dup (0.5ml)	[REDACTED]	LM/CC	4	Passed
11	09/02/09 16:55	09020912.D	P0903078-001 (100ml)	[REDACTED]	LM/CC	2	
12	09/02/09 18:00	09020913.D	P0903078-001 dil (50ml)	[REDACTED]	LM/CC	2	
13	09/02/09 18:40	09020914.D	P0904348-001 (100ml)	[REDACTED]	LM/CC	3	
14	09/02/09 19:21	09020915.D	P0904348-001 dil (25ml)	[REDACTED]	LM/CC	3	
15	09/02/09 20:01	09020916.D	P0904349-001 (100ml)	[REDACTED]	LM/CC	5	
16	09/02/09 20:41	09020917.D	P0904349-001 dil (25ml)	[REDACTED]	LM/CC	5	
17	09/02/09 21:23	09020918.D	P0902993-001 (1000ml)	[REDACTED]	LM/CC	7	
18	09/02/09 22:05	09020919.D	P0902993-002 (1000ml)	[REDACTED]	LM/CC	8	
19	09/02/09 22:47	09020920.D	P0902993-003 (1000ml)	[REDACTED]	LM/CC	9	
20	09/02/09 23:29	09020921.D	P0902993-004 (1000ml)	[REDACTED]	LM/CC	10	
21	09/03/09 0:11	09020922.D	P0902993-005 (1000ml)	[REDACTED]	LM/CC	11	
22	09/03/09 0:53	09020923.D	P0902993-006 (1000ml)	[REDACTED]	LM/CC	12	
23	09/03/09 1:35	09020924.D	P0902993-007 (1000ml)	[REDACTED]	LM/CC	13	

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9-5-09

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/03/09 8:03	09030902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	5	Passed
2	09/03/09 9:57	09030903.D	TO-15 Method Blank (1000ml)	S20-08140906 QC tank lot#14-103489922-1	LM/CC	4	Passed
3	09/03/09 10:56	09030904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	1	Passed
4	09/03/09 11:36	09030905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	1	Passed
5	09/03/09 12:54	09030906.D	P0902876-008 (1000ml)	[REDACTED]	LM/CC	1	ran conf.
6	09/03/09 13:34	09030907.D	P0903110-001 (35ml)	[REDACTED]	LM/CC	15	
7	09/03/09 14:33	09030908.D	P0903110-003 (0.5ml)	[REDACTED]	LM/CC	4	case file
8	09/03/09 15:14	09030909.D	P0903110-003 (2ml)	[REDACTED]	LM/CC	4	
9	09/03/09 15:55	09030910.D	P0903110-003dup (2ml)	[REDACTED]	LM/CC	4	Passed
10	09/03/09 16:53	09030911.D	P0902973-002 (0.8ml)	[REDACTED]	LM/CC	4	
11	09/03/09 18:15	09030912.D	P0903106-005 (100ml)	[REDACTED]	LM/CC	3	
12	09/03/09 18:55	09030913.D	P0903106-006 (100ml)	[REDACTED]	LM/CC	5	
13	09/03/09 19:36	09030914.D	P0903110-002 (50ml)	[REDACTED]	LM/CC	2	
14	09/03/09 20:16	09030915.D	Blank (100ml)		LM/CC	4	
15	09/03/09 20:58	09030916.D	P0902721-007 (1000ml)	[REDACTED]	LM/CC	7	ran conf.
16	09/03/09 21:40	09030917.D	P0902721-009 (1000ml)	[REDACTED]	LM/CC	8	ran conf.
17	09/03/09 22:22	09030918.D	P0902721-010 (1000ml)	[REDACTED]	LM/CC	9	ran conf.

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18	09/03/09 23:04	09030919.D	P0903021-001 (1000ml)	EH&E 104276	LM/CC	13		
19	09/03/09 23:46	09030920.D	P0903021-002 (1000ml)	EH&E 104282	LM/CC	14		
20	09/04/09 0:28	09030921.D	P0903021-003 (1000ml)	EH&E 104275	LM/CC	15		
21	09/04/09 1:10	09030922.D	P0903021-004 (1000ml)	EH&E 104273	LM/CC	16		
22	09/04/09 1:52	09030923.D	P0903021-005 (1000ml)	EH&E 104274	LM/CC	1		
23	09/04/09 2:33	09030924.D	P0902985-001 (600ml)		LM/CC	10		

9-4-09

8	09/08/09 16:33	09080909.D	P0902973-003dup (3.5ml)	[REDACTED]	LM/CC	4	Passed
9	09/08/09 17:15	09080910.D	P0902973-005 (8.0ml)	[REDACTED]	LM/CC	4	
10	09/08/09 17:55	09080911.D	P0902973-006 (1.5ml)	[REDACTED]	LM/CC	4	
11	09/08/09 18:39	09080912.D	P0902973-007 (1.0ml)	[REDACTED]	LM/CC	4	
12	09/08/09 19:20	09080913.D	blank (100ml)	rinse	LM/CC	4	
13	09/08/09 20:02	09080914.D	P0903047-006 (1000ml)	[REDACTED]	LM/CC	8	
14	09/08/09 20:43	09080915.D	P0903047-001 (1000ml)	[REDACTED]	LM/CC	1	
15	09/08/09 21:25	09080916.D	P0903047-002 (1000ml)	[REDACTED]	LM/CC	2	
16	09/08/09 22:07	09080917.D	P0903047-003 (1000ml)	[REDACTED]	LM/CC	3	
17	09/08/09 22:49	09080918.D	P0903047-004 (1000ml)	[REDACTED]	LM/CC	6	
18	09/08/09 23:31	09080919.D	P0903047-005 (1000ml)	[REDACTED]	LM/CC	7	
19	09/09/09 0:13	09080920.D	P0903136-001 (1000ml)	[REDACTED]	LM/CC	9	
20	09/09/09 0:55	09080921.D	P0903136-002 (1000ml)	[REDACTED]	LM/CC	10	
21	09/09/09 1:37	09080922.D	P0903136-003 (1000ml)	[REDACTED]	LM/CC	11	
22	09/09/09 2:19	09080923.D	P0903081-001 (1000ml)	[REDACTED]	LM/CC	12	
23	09/09/09 3:01	09080924.D	P0903081-002 (1000ml)	[REDACTED]	LM/CC	13	

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9-9-09

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/09/09 8:45	09090901.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
2	09/09/09 10:02	09090902.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	Passed
3	09/09/09 10:44	09090903.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	5	Passed
4	09/09/09 11:24	09090904.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	5	Passed
5	09/09/09 12:17	09090905.D	P0902973-008 (4ml)	[REDACTED]	LM/CC	4	
6	09/09/09 12:59	09090906.D	P0902973-010 (1.25ml)	[REDACTED]	LM/CC	4	
7	09/09/09 13:39	09090907.D	P0902973-011 (2ml)	[REDACTED]	LM/CC	4	
8	09/09/09 14:20	09090908.D	P0902973-011dup (2ml)	[REDACTED]	LM/CC	4	Passed
9	09/09/09 15:01	09090909.D	P0902973-012 (0.5ml)	[REDACTED]	LM/CC	4	
10	09/09/09 15:41	09090910.D	P0902973-013 (0.5ml)	[REDACTED]	LM/CC	4	
11	09/09/09 16:22	09090911.D	P0902973-014 (2.5ml)	[REDACTED]	LM/CC	4	
12	09/09/09 17:03	09090912.D	P0902973-015 (1.5ml)	[REDACTED]	LM/CC	4	
13	09/09/09 18:04	09090913.D	P0902973-006 (1.5ml)	[REDACTED]	LM/CC	4	case file
14	09/09/09 18:44	09090914.D	P0902973-009 (25ml)	[REDACTED]	LM/CC	1	
15	09/09/09 19:24	09090915.D	P0903021-001dil (200ml)	EH&E 104276	LM/CC	2	
16	09/09/09 20:05	09090916.D	P0903021-003dil (200ml)	EH&E 104275	LM/CC	3	
17	09/09/09 20:46	09090917.D	P0903021-004dil (200ml)	EH&E 104273	LM/CC	6	
18	09/09/09 21:28	09090918.D	P0903022-005 (1000ml)	[REDACTED]	LM/CC	7	Case file
19	09/09/09 22:10	09090919.D	P0903114-001 (1000ml)	[REDACTED]	LM/CC	9	
20	09/09/09 22:51	09090920.D	P0903114-002 (1000ml)	[REDACTED]	LM/CC	10	
21	09/09/09 23:34	09090921.D	P0903114-003 (1000ml)	[REDACTED]	LM/CC	11	
22	09/10/09 0:16	09090922.D	P0903114-004 (1000ml)	[REDACTED]	LM/CC	12	
23	09/10/09 0:58	09090923.D	P0903114-005 (1000ml)	[REDACTED]	LM/CC	13	
24	09/10/09 1:40	09090924.D	P0903114-006 (1000ml)	[REDACTED]	LM/CC	14	
25	09/10/09 2:21	09090925.D	Blank		LM/CC	4	

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