

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 P0903022.

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. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 235 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: P0903022

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.

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
 Project: 16512

Folder: P0903022

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1 (Hg)	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0903022-001.01	103600	6.0 L-Summa Canister Ambient	-5.5	-2.7	3.6				AC00843	14338		
P0903022-002.01	103601	6.0 L-Summa Canister Ambient	-2.2	-1.1	3.5				AC01303	14338		
P0903022-003.01	103602	6.0 L-Summa Canister Ambient	-2.7	-1.3	3.5				AC01334	14338		
P0903022-004.01	106303	6.0 L-Summa Canister Ambient	-3.6	-1.8	3.5				AC01167	14338		
P0903022-005.01	103604	6.0 L-Summa Canister Ambient	-29.5	-14.5	3.5				AC01319	14338		

Miscellaneous Items - received

- FC00222
- AVG01094
- AVG00972
- FC00693
- FC00405
- AVG00922
- FC00289
- AVG00857
- AVG01061
- FC00548

CHAIN OF CUSTODY FORM

DATE: 8/27/09

PO903022

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

TO: CAS

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 # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA

Table with columns: SAMPLE ID, SAMPLE TYPE, ANALYTICAL METHOD/NUMBER, OTHER:Time/Date/Vol. Row 1: 103600, Summa, EPA TO-15, 2 HRS 12:00. Row 2: 103601. Row 3: 103602. Row 4: 103603. Row 5: 103604. Includes handwritten arrow pointing to 'OHR'.

Special instructions: [X] Standard turn around time [] Fax results 781-247-4305 [] RETURN SAMPLES [X] Additional report recipient MFRAGALA @ EHE INC. COM [] Rush by date/time [] Other [X] Electronic transfer - datacoordinator@eheinc.com

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

Relinquished by: M. Carlson of Environmental Health & Engineering, Inc. Date: 8/27/09 Received by: [Signature] of (company name) CAS Date: 8/28/09 0940

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Environmental Health & Engineering, Inc.

Work order: P0903022

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.

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Container(s) supplied by CAS? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Was a chain-of-custody provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Was the chain-of-custody properly completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Was sample volume 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 temperature (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 trip blank received? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Trip blank supplied by CAS: <u>CAN</u> | | | |
| 11 Were custody seals 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 preservation , 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 pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials 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 Tubes: 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 Badges: 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
P0903022-001.01	6.0 L Ambient Can					
P0903022-002.01	6.0 L Ambient Can					
P0903022-003.01	6.0 L Ambient Can					
P0903022-004.01	6.0 L Ambient Can					
P0903022-005.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers): _____

*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 - MBEP, 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: 103600
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: AC00843

CAS Project ID: P0903022
CAS Sample ID: P0903022-001

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.7 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	1.4	0.77	0.84	0.44	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.6	0.77	0.53	0.15	
74-87-3	Chloromethane	0.74	0.15	0.36	0.074	
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	0.069	
74-83-9	Bromomethane	ND	0.15	ND	0.039	
75-00-3	Chloroethane	ND	0.15	ND	0.058	
64-17-5	Ethanol	48	7.7	25	4.1	
75-05-8	Acetonitrile	ND	0.77	ND	0.46	
107-02-8	Acrolein	6.2	0.77	2.7	0.33	
67-64-1	Acetone	69	7.7	29	3.2	
75-69-4	Trichlorofluoromethane	1.3	0.15	0.23	0.027	
67-63-0	2-Propanol (Isopropyl Alcohol)	3.6	0.77	1.5	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	0.57	0.15	0.074	0.020	
75-15-0	Carbon Disulfide	ND	0.77	ND	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	0.042	
108-05-4	Vinyl Acetate	ND	7.7	ND	2.2	
78-93-3	2-Butanone (MEK)	3.3	0.77	1.1	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.

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: 103600
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: AC00843

CAS Project ID: P0903022
CAS Sample ID: P0903022-001
Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.7 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.53

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.15	ND	0.039	
141-78-6	Ethyl Acetate	7.9	0.77	2.2	0.21	
110-54-3	n-Hexane	0.83	0.77	0.24	0.22	
67-66-3	Chloroform	0.21	0.15	0.044	0.031	
109-99-9	Tetrahydrofuran (THF)	ND	0.77	ND	0.26	
107-06-2	1,2-Dichloroethane	0.69	0.15	0.17	0.038	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.028	
71-43-2	Benzene	0.90	0.15	0.28	0.048	
56-23-5	Carbon Tetrachloride	0.55	0.15	0.087	0.024	
110-82-7	Cyclohexane	0.95	0.77	0.28	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.033	
75-27-4	Bromodichloromethane	ND	0.15	ND	0.023	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
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	ND	0.77	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	0.91	0.77	0.22	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	4.7	0.77	1.2	0.20	
591-78-6	2-Hexanone	ND	0.77	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.15	ND	0.018	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.020	
123-86-4	n-Butyl Acetate	1.3	0.77	0.27	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: 103600
Client Project ID: 16512

Test Code: EPA TO-15
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Date Collected: 8/27/09
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 Date Analyzed: 9/4/09
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.7 Final Pressure (psig): 3.6

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	0.91	0.77	0.20	0.16	
127-18-4	Tetrachloroethene	0.22	0.15	0.032	0.023	
108-90-7	Chlorobenzene	ND	0.15	ND	0.033	
100-41-4	Ethylbenzene	ND	0.77	ND	0.18	
179601-23-1	m,p-Xylenes	1.7	0.77	0.39	0.18	
75-25-2	Bromoform	ND	0.77	ND	0.074	
100-42-5	Styrene	5.8	0.77	1.4	0.18	
95-47-6	o-Xylene	0.77	0.77	0.18	0.18	
111-84-2	n-Nonane	1.2	0.77	0.22	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	87	0.77	16	0.14	
103-65-1	n-Propylbenzene	ND	0.77	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.77	ND	0.16	
108-67-8	1,3,5-Trimethylbenzene	ND	0.77	ND	0.16	
95-63-6	1,2,4-Trimethylbenzene	0.90	0.77	0.18	0.16	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.030	
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	17	0.77	3.1	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.77	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.77	ND	0.10	
91-20-3	Naphthalene	9.7	0.77	1.8	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.

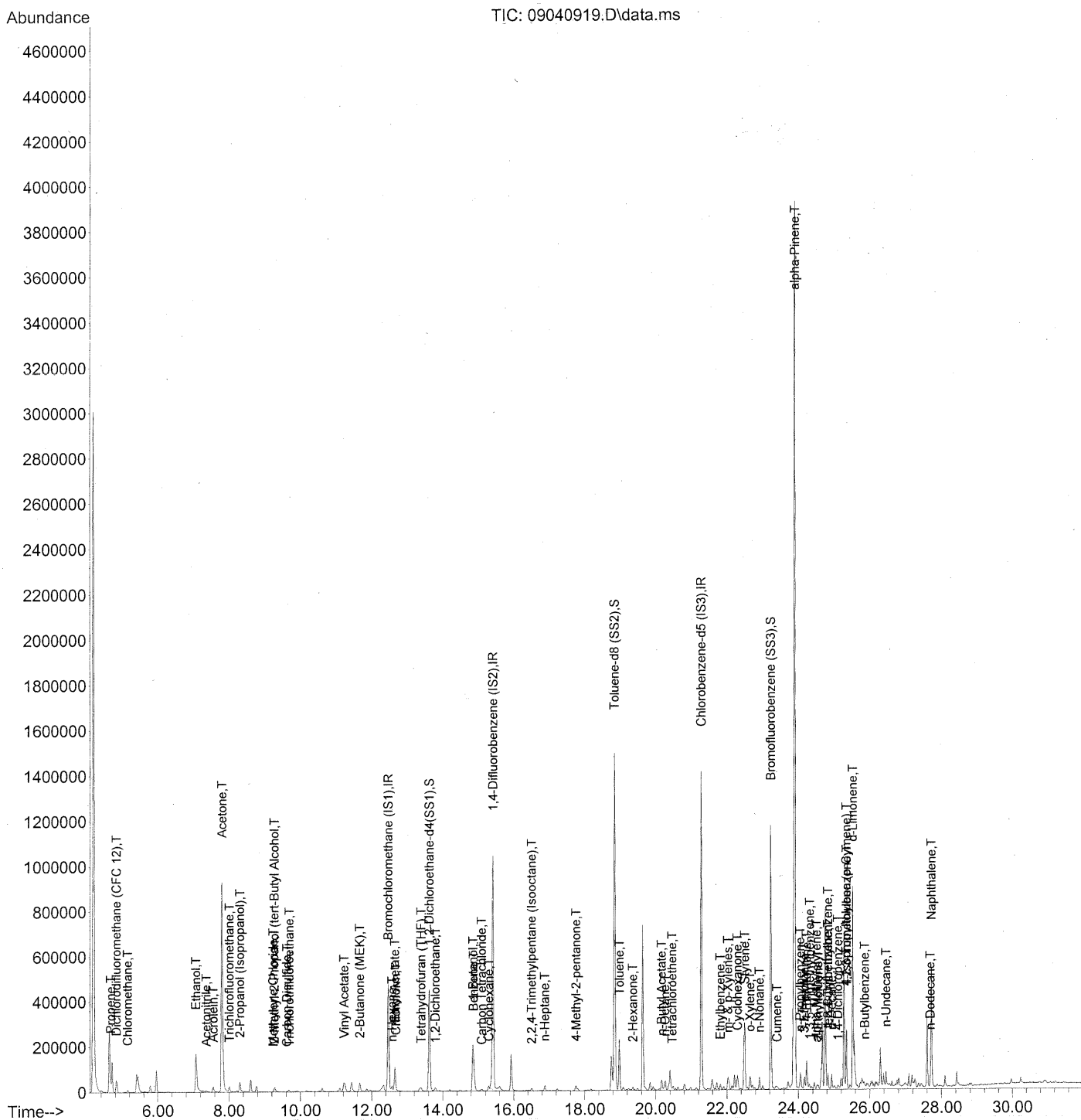
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____

Date: 9/4/09

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 11:04 pm
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 16:39:08 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 11:04 pm
 Operator : LM/CC
 Sample : P0903022-001 (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

179/9/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	239215	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1192996	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	577748	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	461156	24.327	ng	-0.03
Spiked Amount	25.000		Recovery	=	97.32%	
57) Toluene-d8 (SS2)	18.84	98	1295774	25.096	ng	-0.02
Spiked Amount	25.000		Recovery	=	100.40%	
73) Bromofluorobenzene (SS3)	23.23	174	372916	25.095	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.36%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.66	42	16262	0.940	ng	97
3) Dichlorodifluoromethan...	4.82	85	51908	1.713	ng	99
4) Chloromethane	5.15	50	9792	0.481	ng	96
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	601	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.78	54	189	N.D.		
8) Bromomethane	6.35	94	86	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.07	45	336552	31.366	ng	99
11) Acetonitrile	7.36	41	7438	0.250	ng	91
12) Acrolein	7.55	56	33076	4.037	ng	95
13) Acetone	7.79	58	503712	45.394	ng	94
14) Trichlorofluoromethane	8.01	101	22856	0.856	ng	99
15) 2-Propanol (Isopropanol)	8.30	45	87961	2.384	ng	96
16) Acrylonitrile	8.55	53	443	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.26	59	10196	0.276	ng	# 1
19) Methylene Chloride	9.23	84	2051	0.146	ng	92
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.	d	
21) Trichlorotrifluoroethane	9.69	151	3923	0.371	ng	99
22) Carbon Disulfide	9.62	76	5905	0.118	ng	# 74
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.	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	7444	2.677	ng	# 82
27) 2-Butanone (MEK)	11.66	72	19342	2.158	ng	93
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	12.67	87	414	N.D.		
30) Ethyl Acetate	12.66	61	24790	5.147	ng	95
31) n-Hexane	12.58	57	13000	0.542	ng	98

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 11:04 pm
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 16:39:08 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	3314	0.140 ng		100
34) Tetrahydrofuran (THF)	13.39	72	4171	0.429 ng	#	70
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	8923	0.450 ng		97
38) 1,1,1-Trichloroethane	14.19	97	763	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.85	56	190101	12.802 ng	#	40
41) Benzene	14.87	78	32851	0.586 ng		98
42) Carbon Tetrachloride	15.09	117	6722	0.357 ng		98
43) Cyclohexane	15.29	84	12862	0.622 ng		99
44) tert-Amyl Methyl Ether	16.03	73	90	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	16.51	88	363	N.D.		
49) 2,2,4-Trimethylpentane...	16.51	57	5202	0.082 ng	#	55
50) Methyl Methacrylate	0.00	100	0	N.D. d		
51) n-Heptane	16.88	71	7117	0.490 ng		97
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.76	58	7621	0.595 ng		91
54) trans-1,3-Dichloropropene	18.35	75	459	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D. d		
58) Toluene	18.98	91	170493	3.066 ng		99
59) 2-Hexanone	19.36	43	15766	0.464 ng		93
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.16	43	32382	0.830 ng		87
63) n-Octane	20.26	57	7640	0.597 ng		91
64) Tetrachloroethene	20.46	166	2006	0.142 ng		89
65) Chlorobenzene	21.34	112	191	N.D.		
66) Ethylbenzene	21.81	91	22969	0.361 ng		97
67) m- & p-Xylenes	22.03	91	56488	1.116 ng		99
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	140416	3.766 ng		98
70) o-Xylene	22.65	91	25686	0.505 ng		99
71) n-Nonane	22.91	43	23032	0.754 ng		89
72) 1,1,2,2-Tetrachloroethane	22.64	83	432	N.D.		
74) Cumene	23.40	105	4209	0.065 ng		91
75) alpha-Pinene	23.90	93	1894489	56.655 ng		81
76) n-Propylbenzene	24.05	91	9765	0.119 ng	#	1
77) 3-Ethyltoluene	24.17	105	19951	0.324 ng		96
78) 4-Ethyltoluene	24.22	105	11622	0.191 ng		90
79) 1,3,5-Trimethylbenzene	24.31	105	9698	0.191 ng		95

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 11:04 pm
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 16:39:08 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration

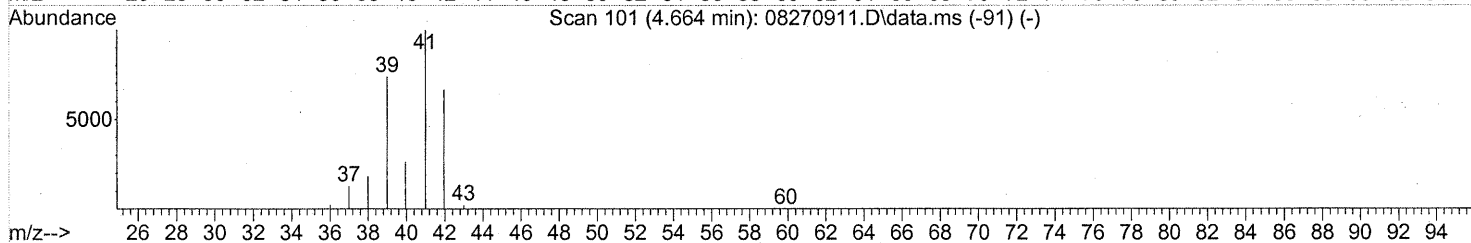
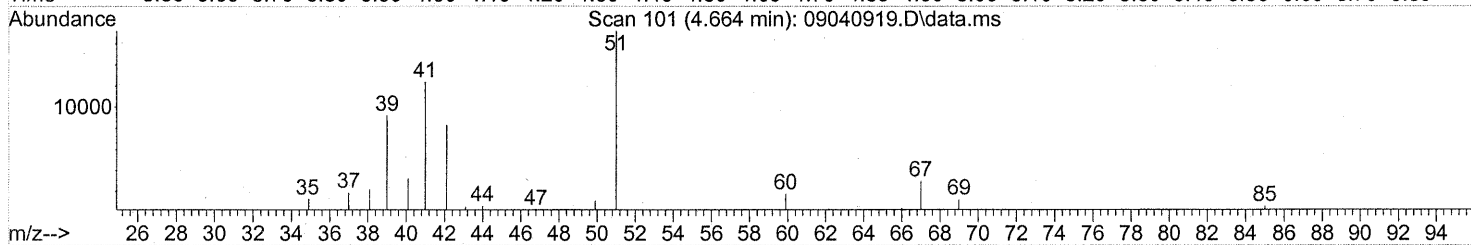
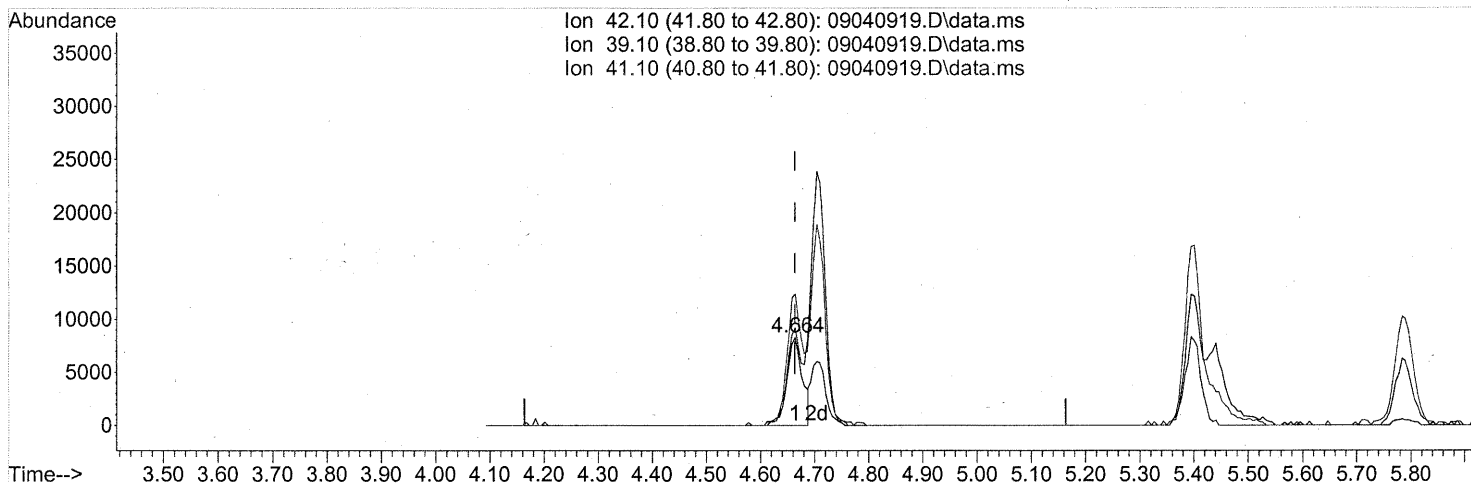
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.50	118	1524	0.057	ng	# 21
81) 2-Ethyltoluene	24.55	105	10750	0.170	ng	96
82) 1,2,4-Trimethylbenzene	24.82	105	30538	0.591	ng	88
83) n-Decane	24.93	57	24774	0.802	ng	97
84) Benzyl Chloride	24.99	91	946	N.D.		
85) 1,3-Dichlorobenzene	25.02	146	92	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	2520	0.087	ng	94
87) sec-Butylbenzene	25.15	105	1790	N.D.		
88) 4-Isopropyltoluene (p-...	25.34	119	133398	2.095	ng	96
89) 1,2,3-Trimethylbenzene	25.35	105	22336	0.412	ng	# 44
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	d	
91) d-Limonene	25.52	68	232244	11.250	ng	93
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.45	57	22628	0.706	ng	75
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.72	128	451274	6.314	ng	100
96) n-Dodecane	27.69	57	14821	0.406	ng	88
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	34914	1.628	ng	97
99) tert-Butylbenzene	24.82	119	3720	0.074	ng	# 56
100) n-Butylbenzene	25.85	91	9049	0.157	ng	# 48

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(2) Propene (T)

4.664min (+0.000) 0.94ng

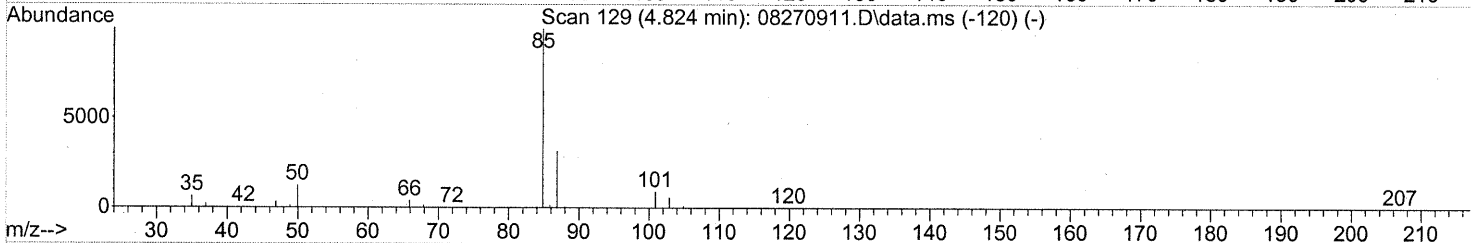
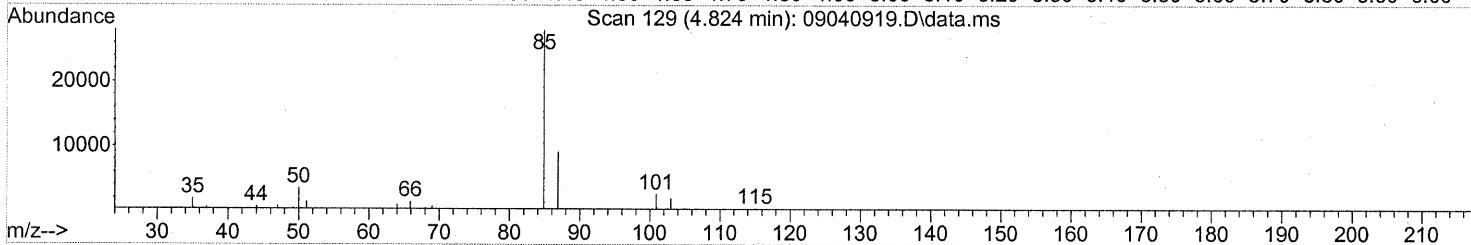
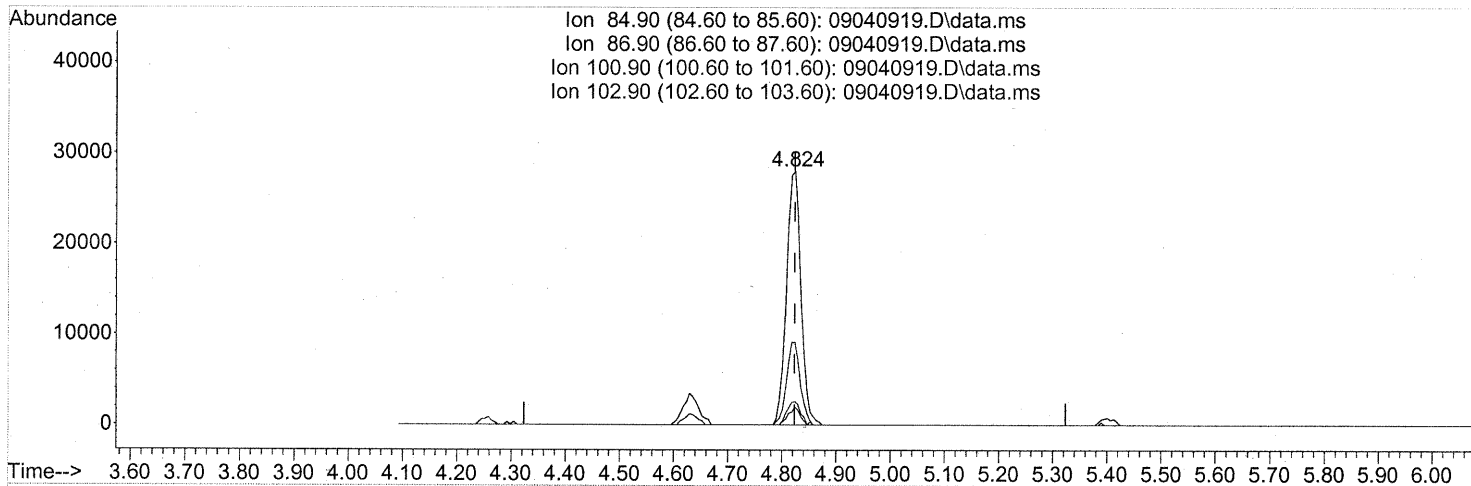
response 16262

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	108.85
41.10	149.80	144.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.824min (+0.000) 1.71ng

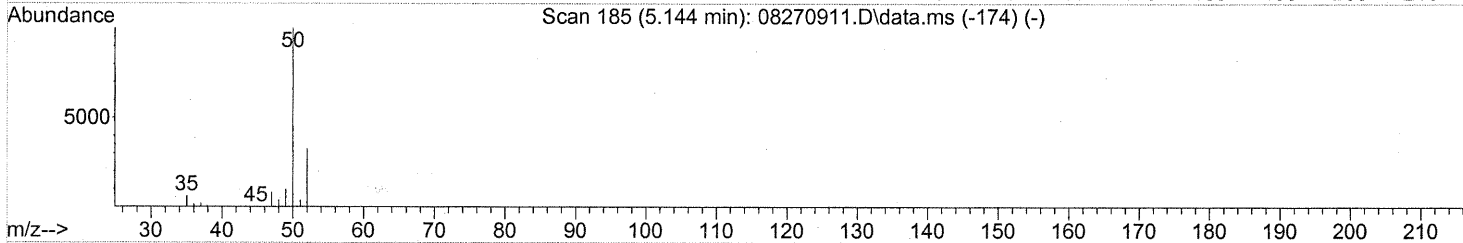
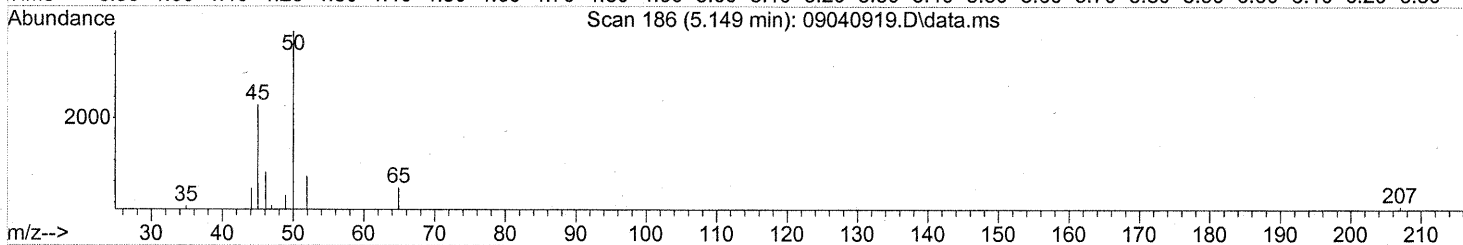
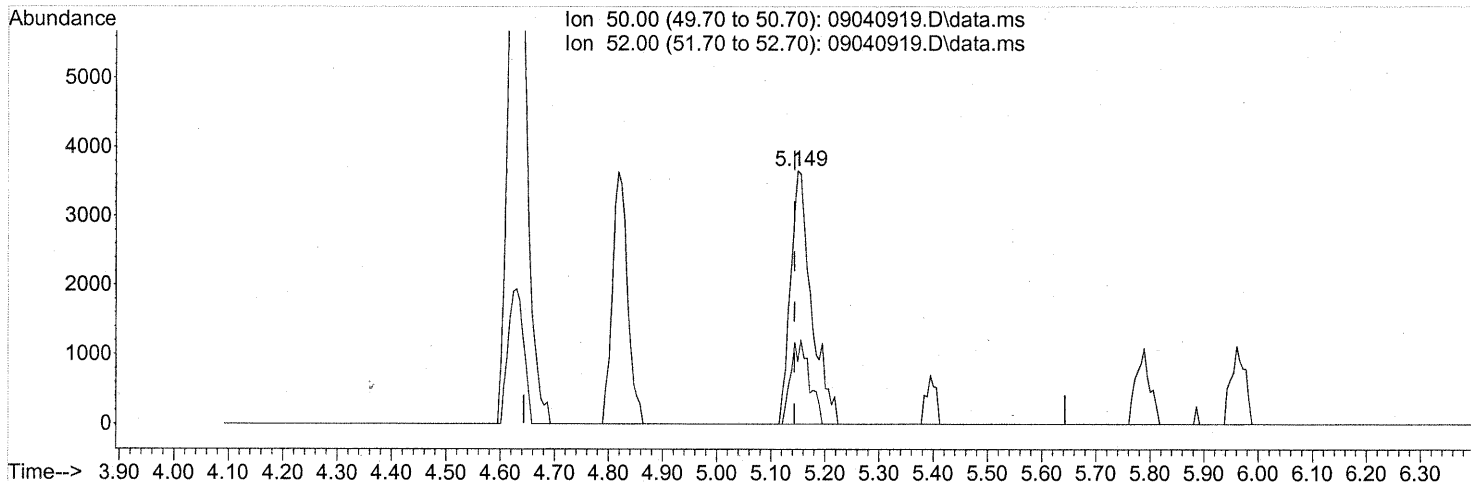
response 51908

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	30.94
100.90	8.80	8.64
102.90	5.60	5.57

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(4) Chloromethane (T)

5.149min (+0.006) 0.48ng

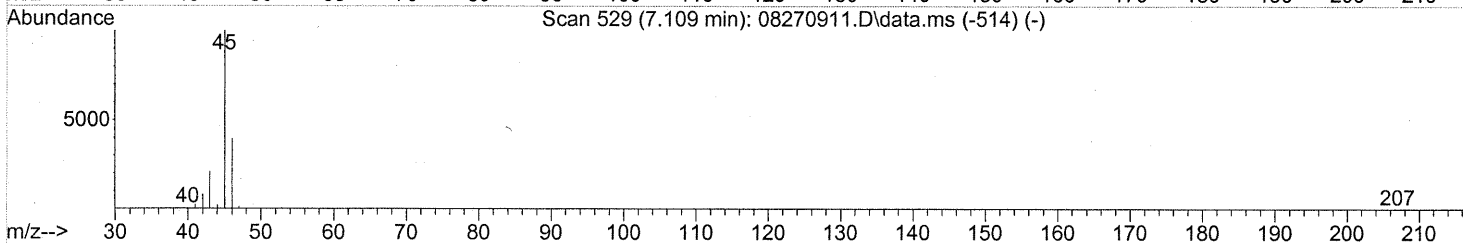
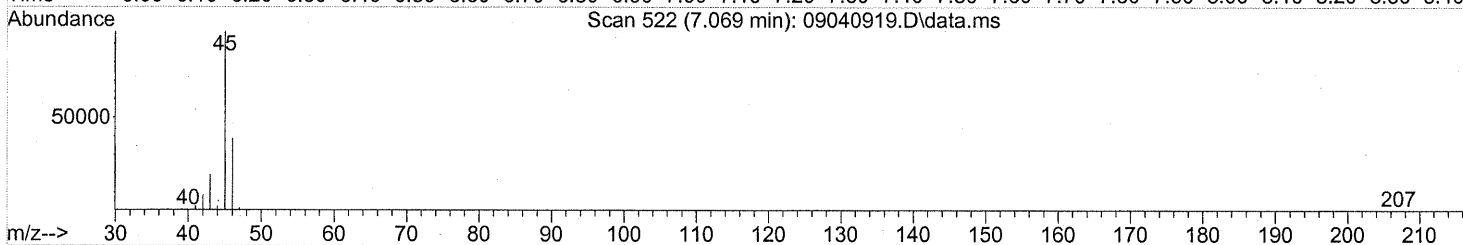
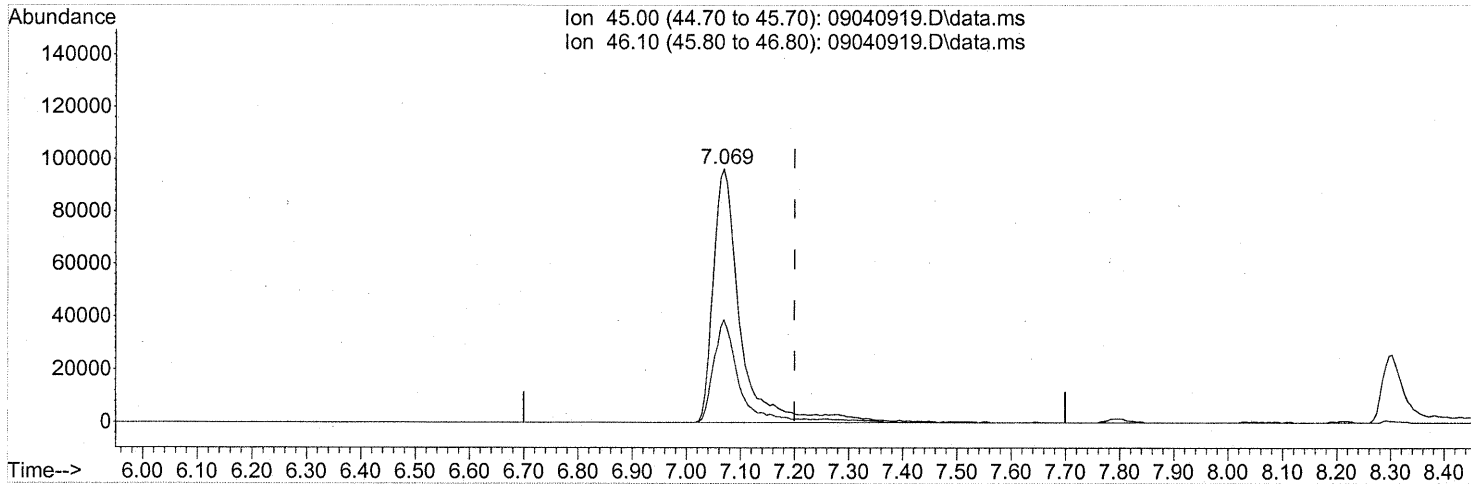
response 9792

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	29.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040919.D
Acq On : 4 Sep 2009 23:04
Operator : LM/CC
Sample : P0903022-001 (1000ml)
Misc : EH&E 103600
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09040919.D\data.ms

(10) Ethanol (T)

7.069min (-0.131) 31.37ng

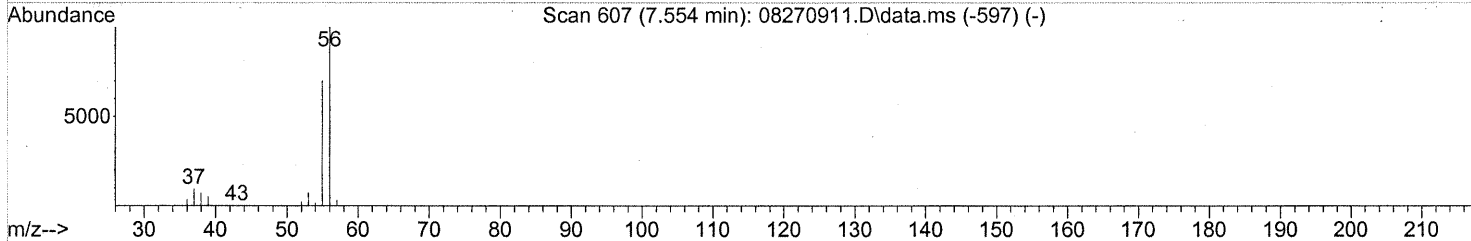
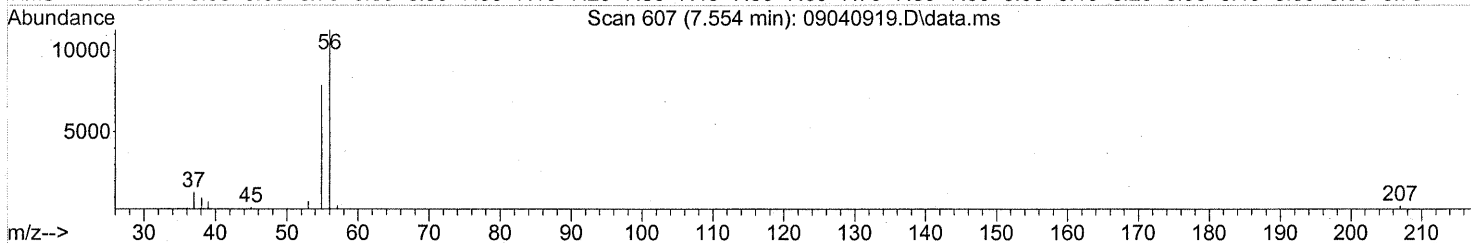
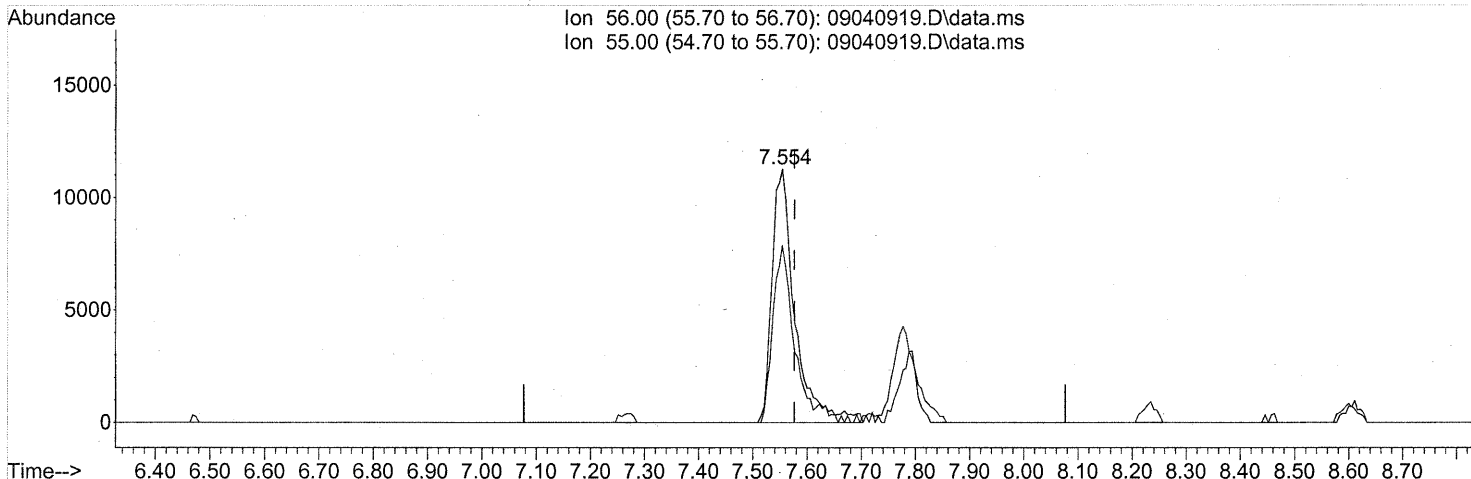
response 336552

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040919.D
Acq On : 4 Sep 2009 23:04
Operator : LM/CC
Sample : P0903022-001 (1000ml)
Misc : EH&E 103600
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09040919.D\data.ms

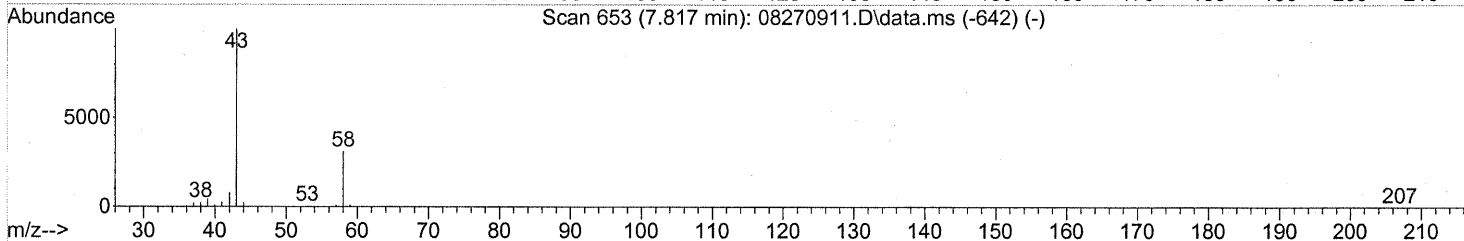
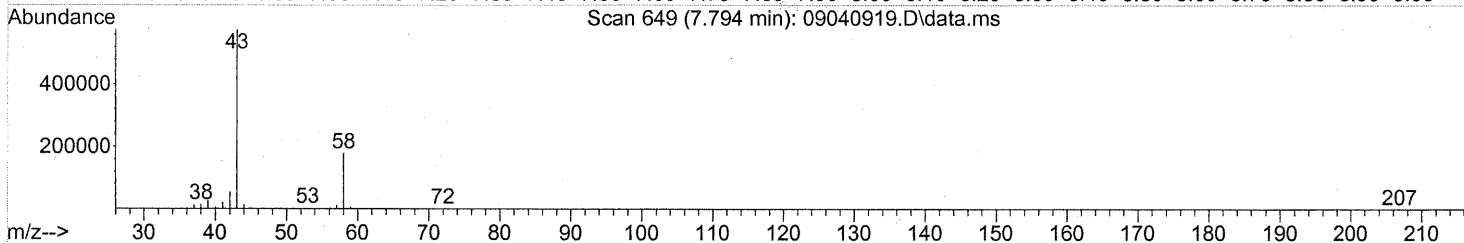
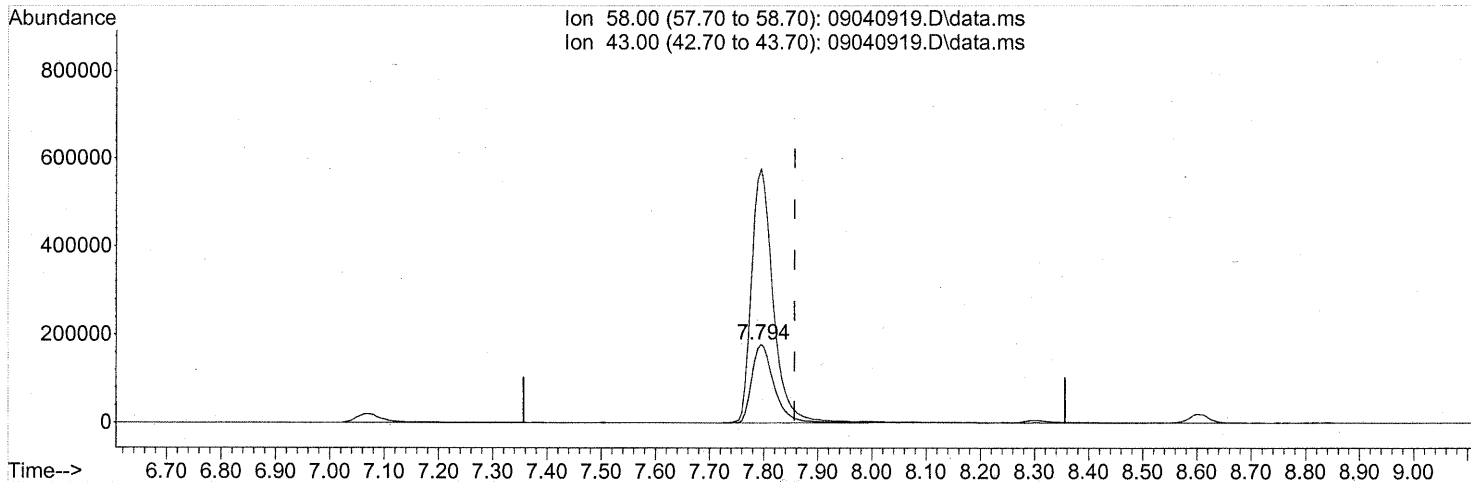
(12) Acrolein (T)
7.554min (-0.023) 4.04ng
response 33076

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	66.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(13) Acetone (T)

7.794min (-0.063) 45.39ng

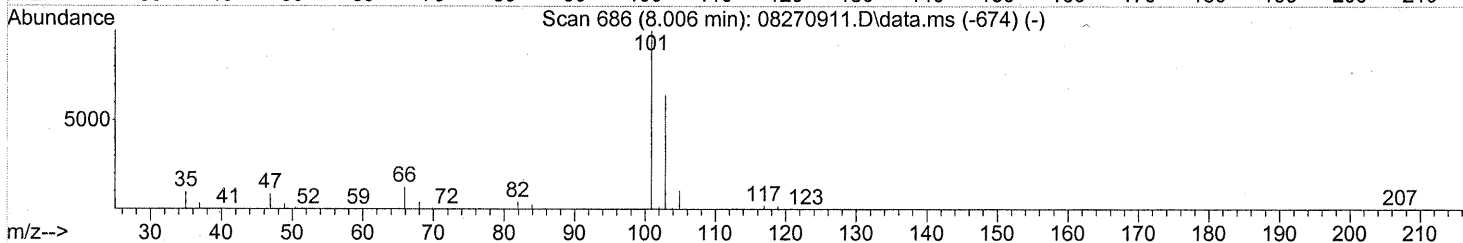
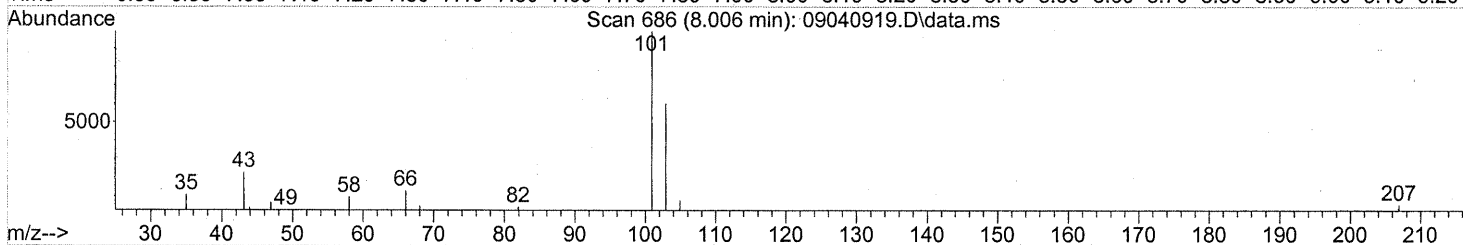
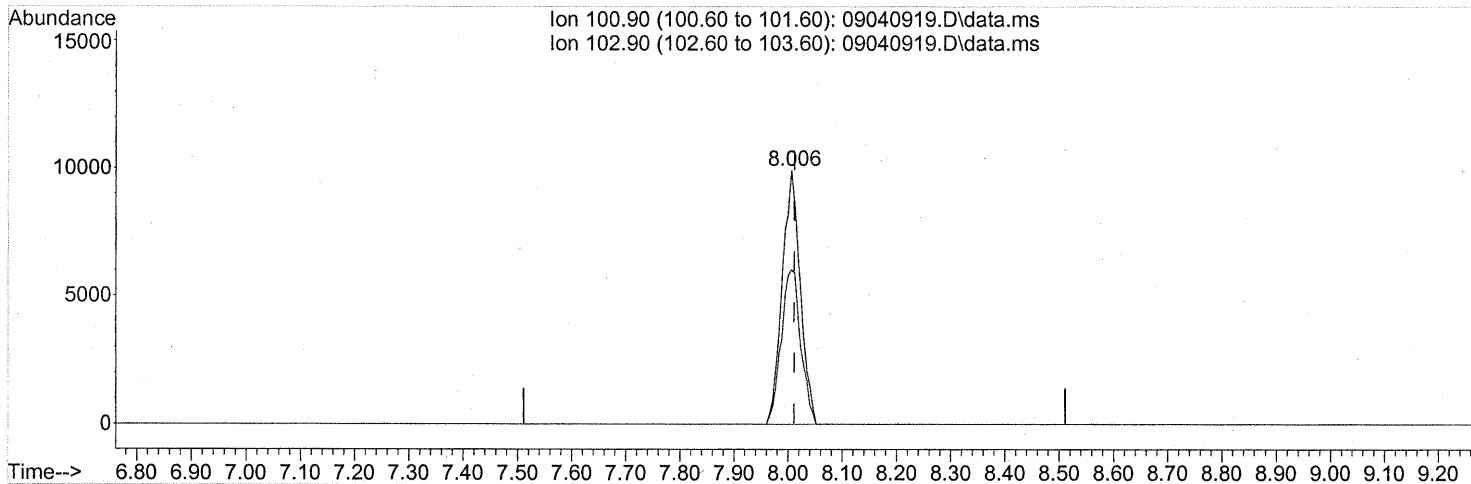
response 503712

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	319.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(14) Trichlorofluoromethane (T)

8.006min (-0.006) 0.86ng

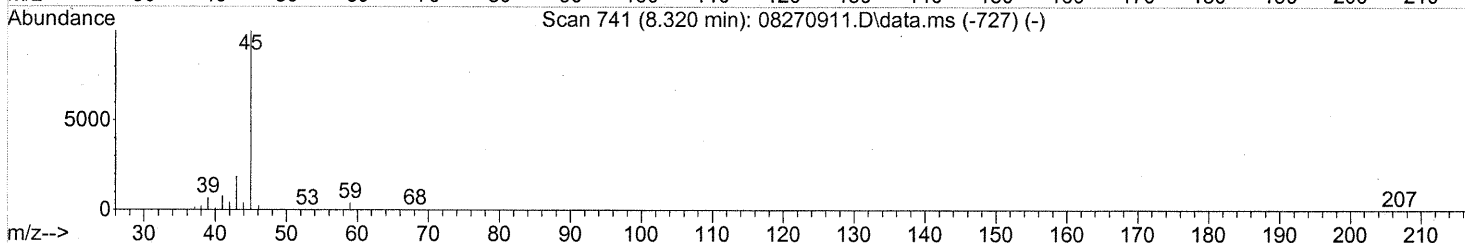
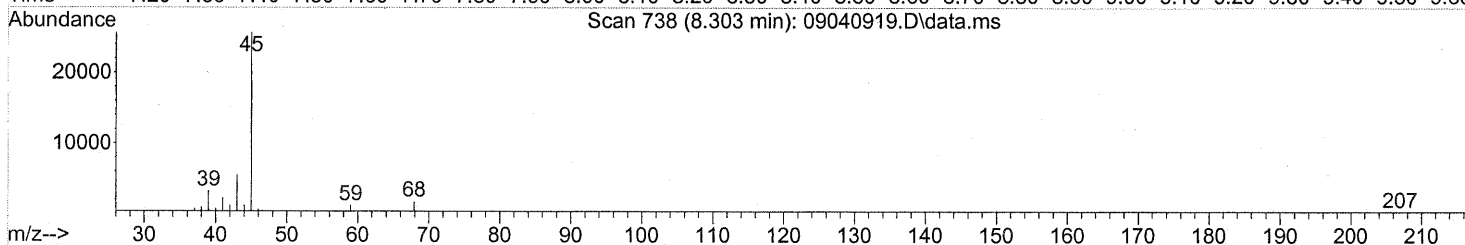
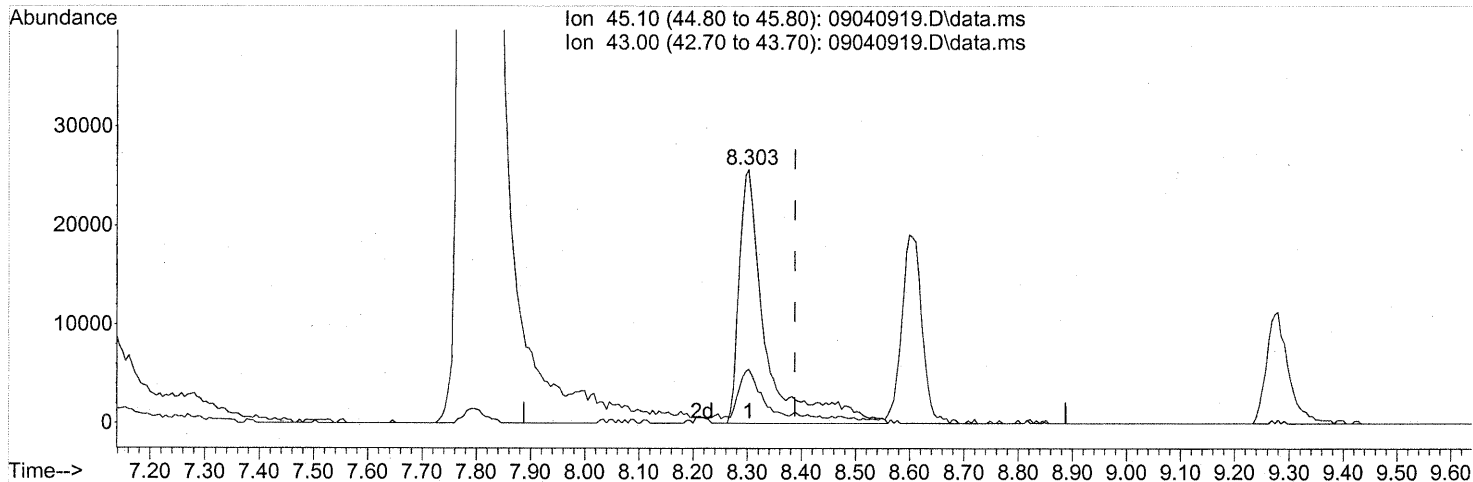
response 22856

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	65.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

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

8.303min (-0.085) 2.38ng

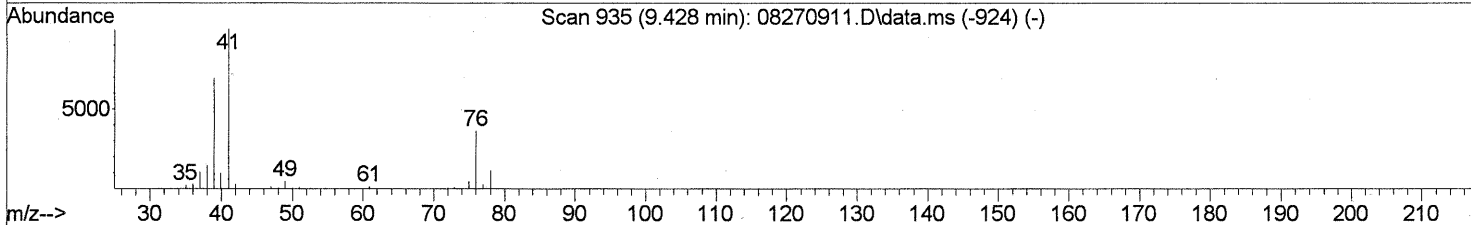
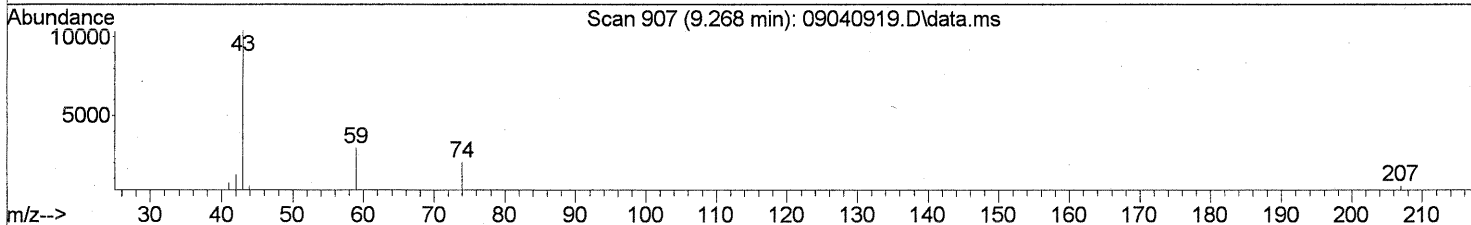
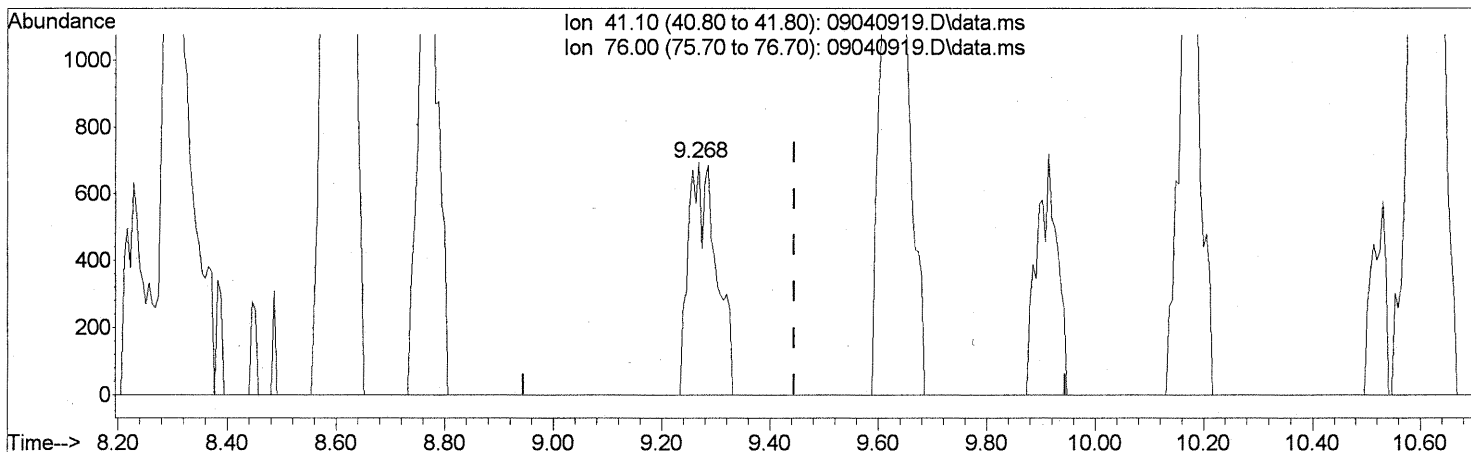
response 87961

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	17.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 09 15:11:12 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040919.D\data.ms

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

9.268min (-0.177) 0.11ng

response 2461

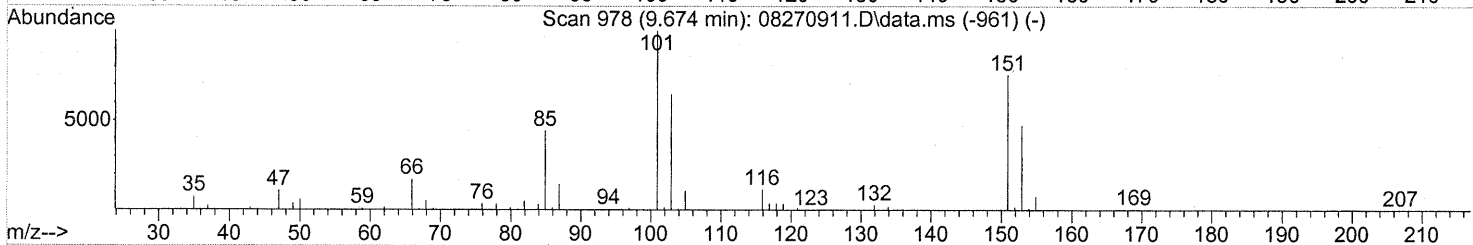
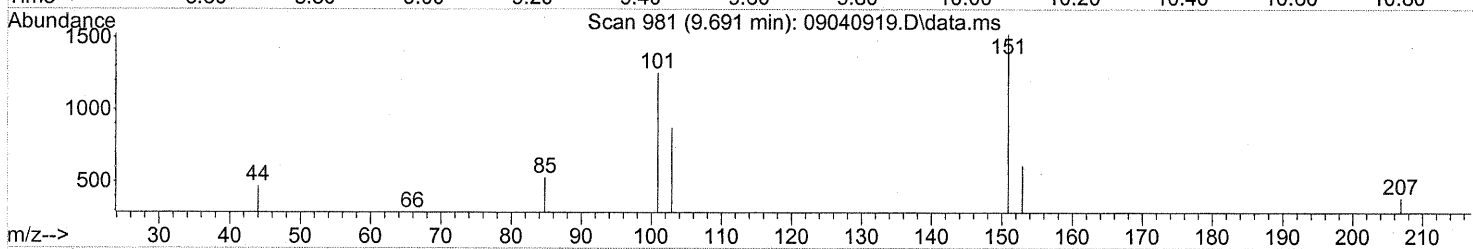
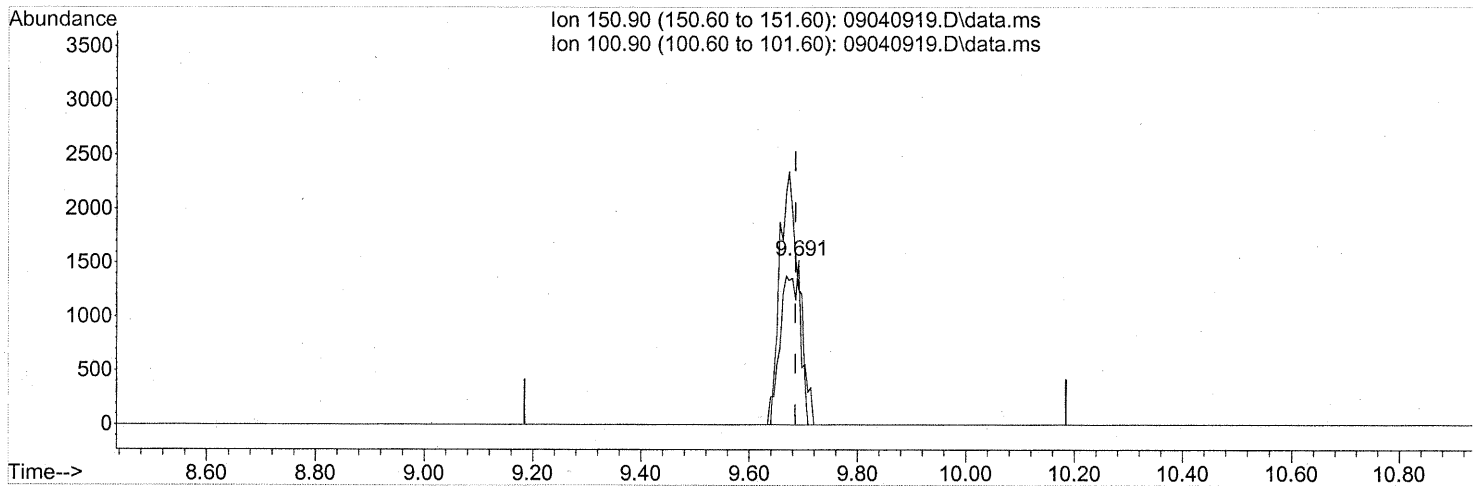
Ion	Exp%	Act%
41.10	100	100
76.00	33.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP
09/19/09
LM/CC

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.691min (+0.006) 0.37ng

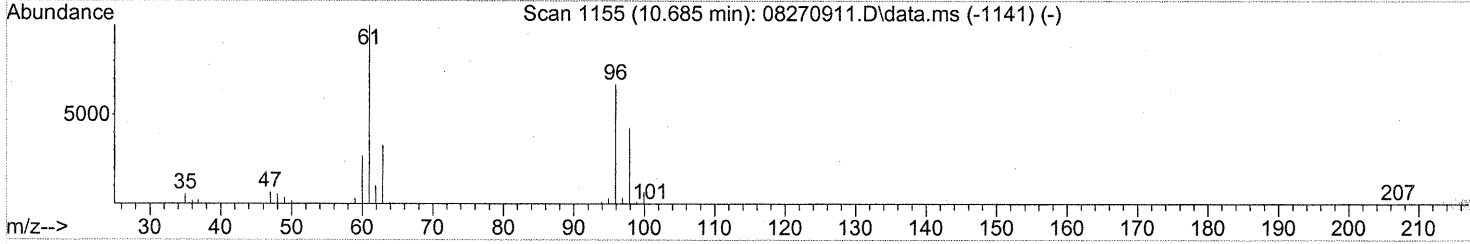
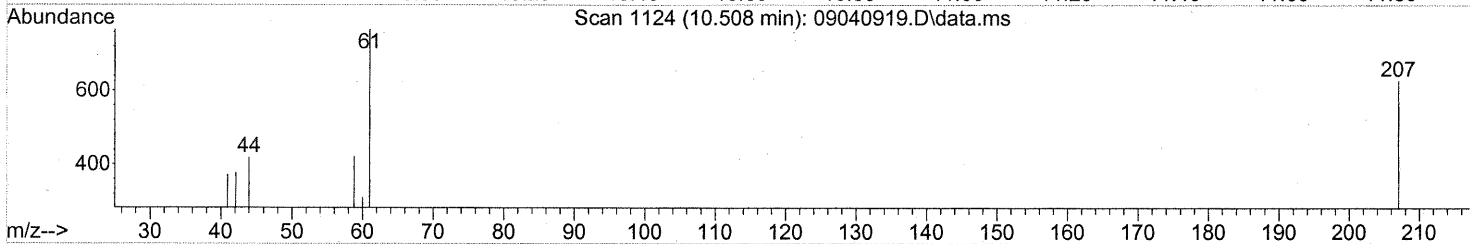
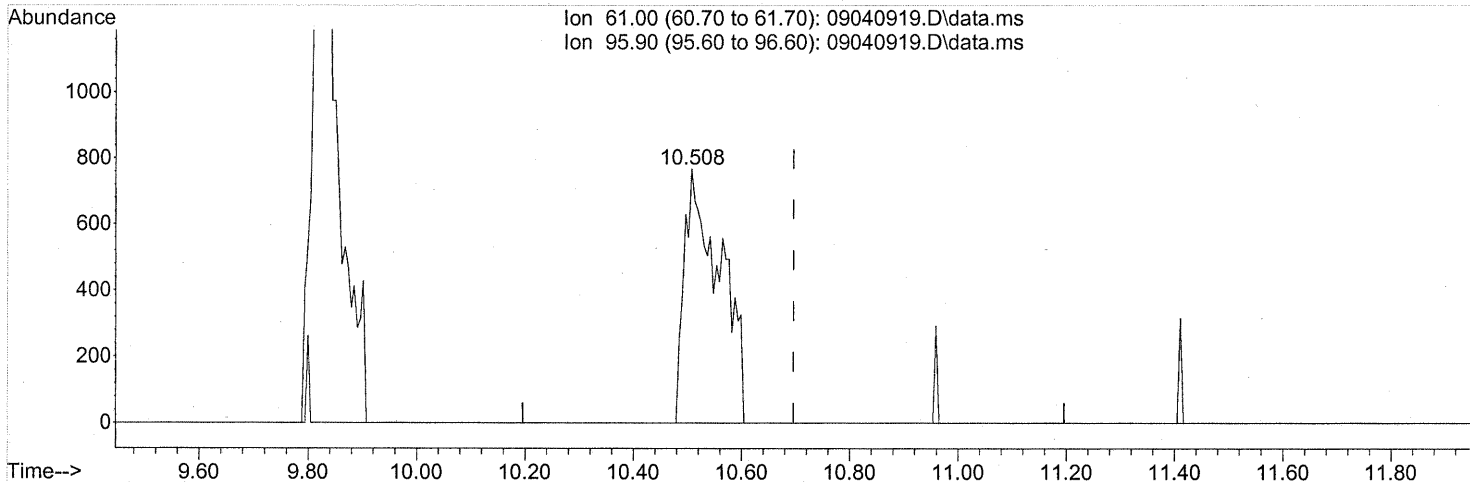
response 3923

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	137.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(23) trans-1,2-Dichloroethene (T)

10.508min (-0.188) 0.17ng

response 3507

Ion	Exp%	Act%
61.00	100	100
95.90	62.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

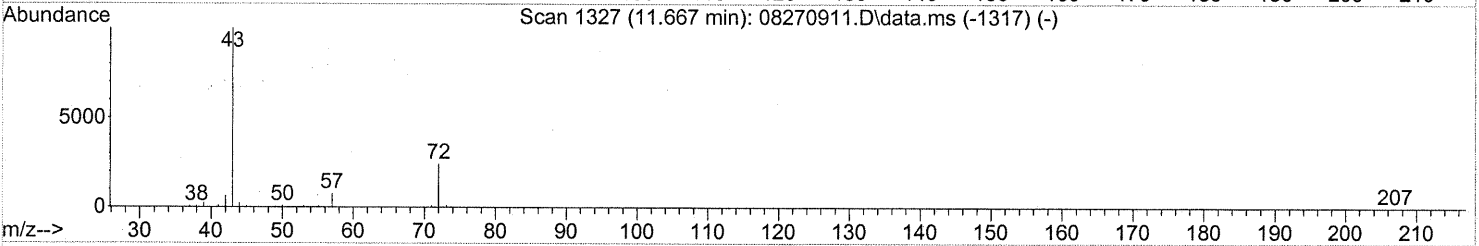
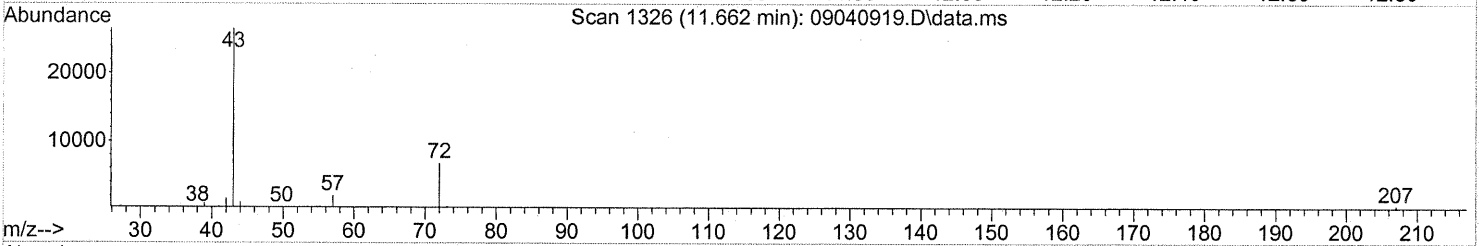
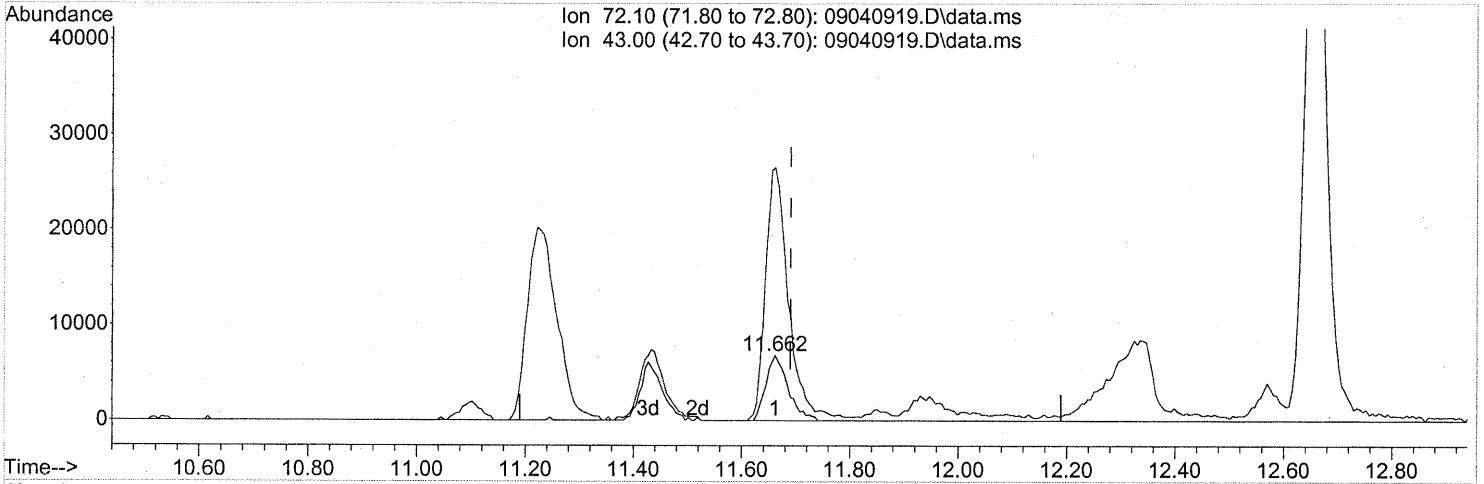
FP
11/9/09

R 9/11/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

11.662min (-0.028) 2.16ng

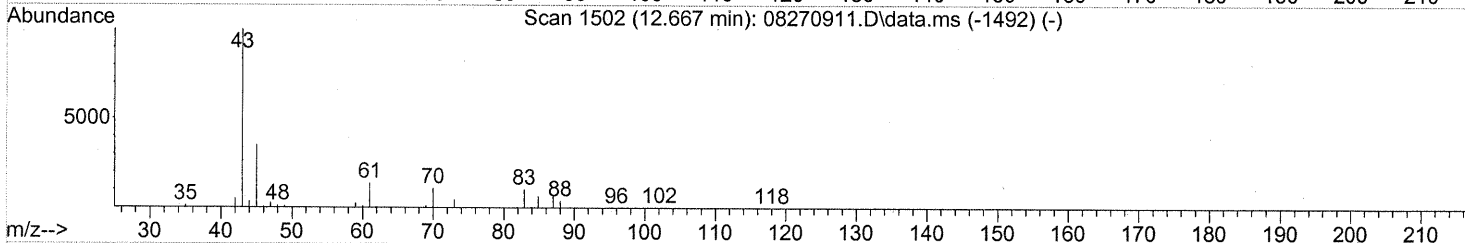
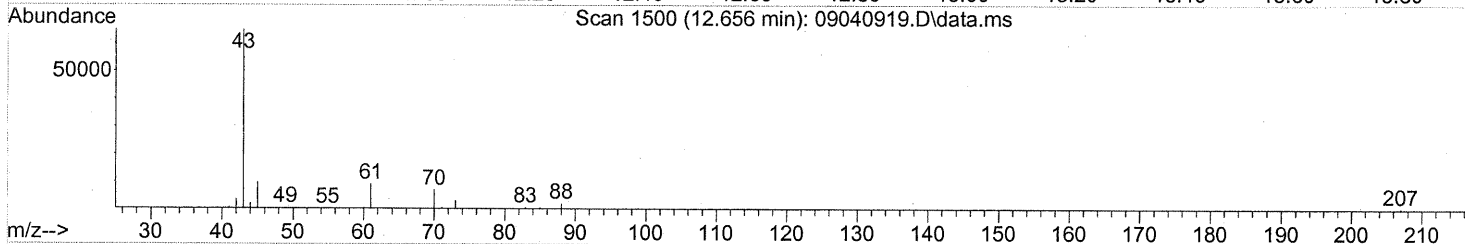
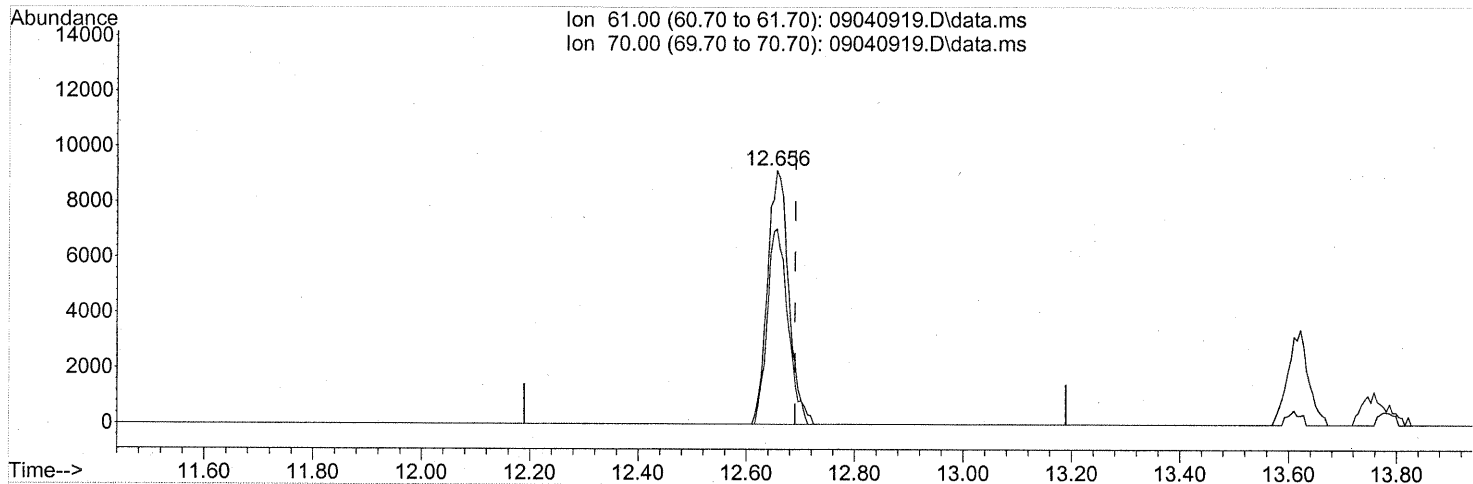
response 19342

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	407.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(30) Ethyl Acetate (T)

12.656min (-0.034) 5.15ng

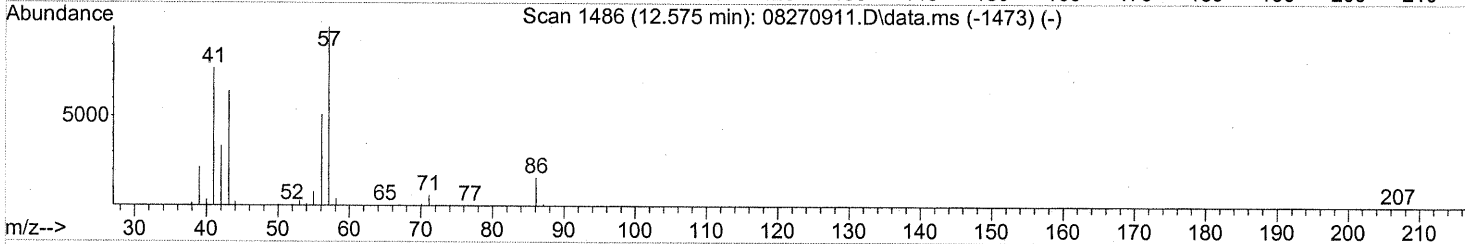
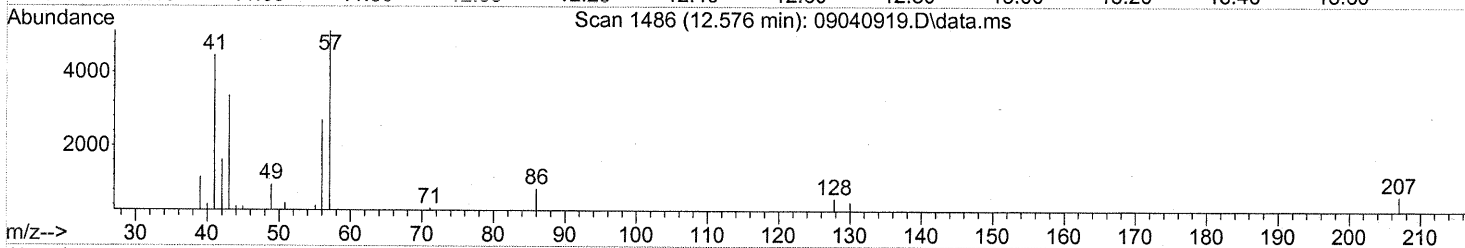
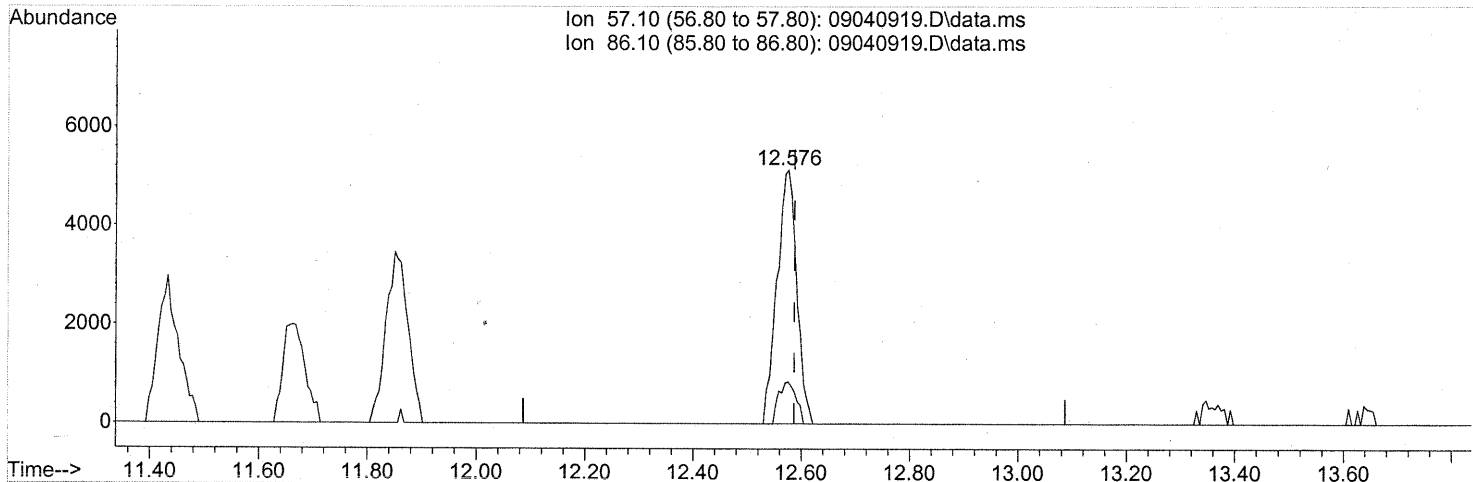
response 24790

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	74.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(31) n-Hexane (T)

12.576min (-0.011) 0.54ng

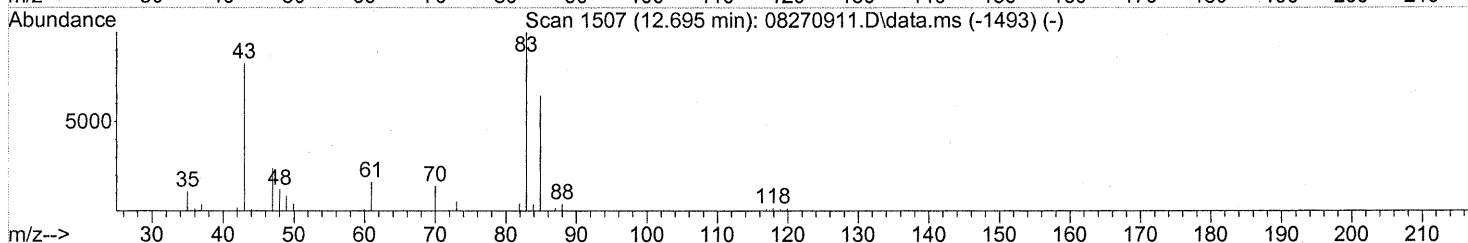
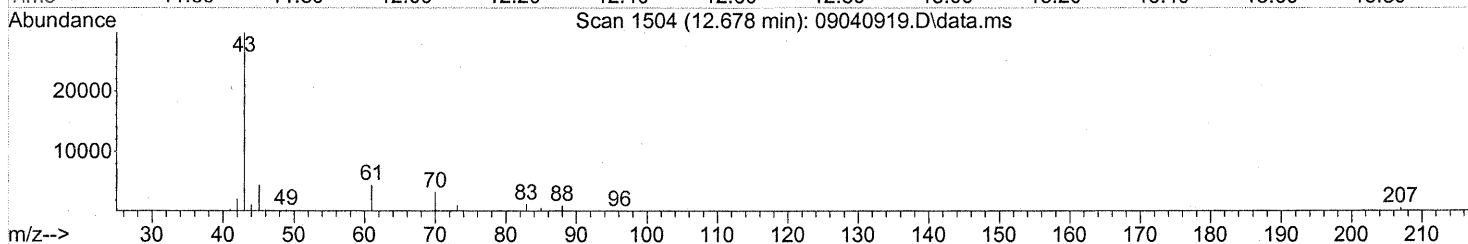
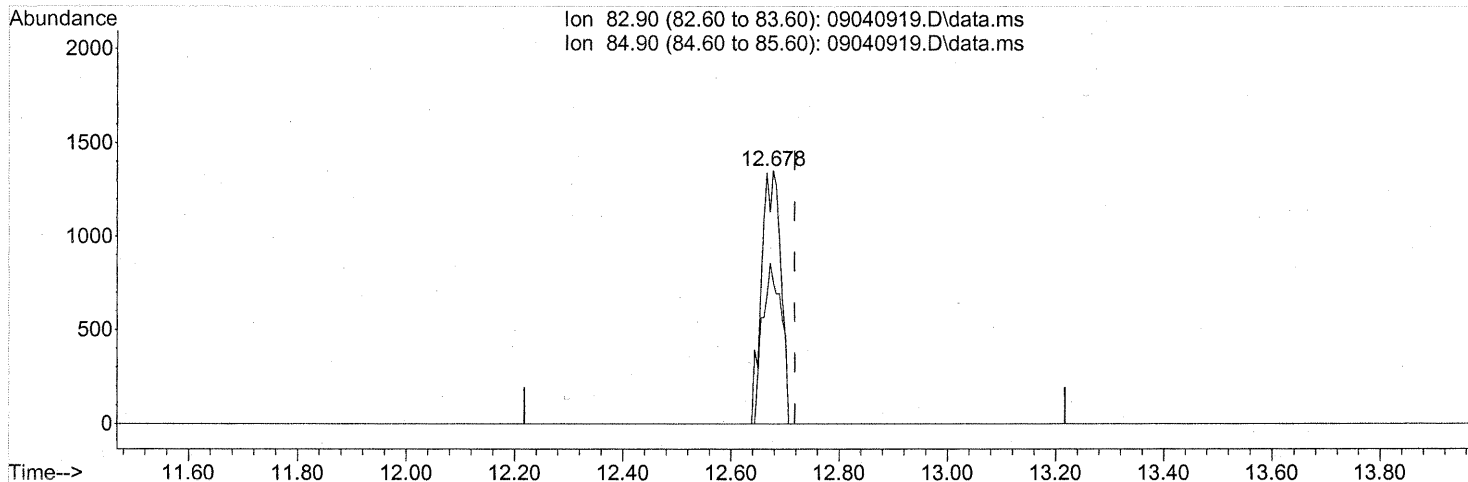
response 13000

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	14.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

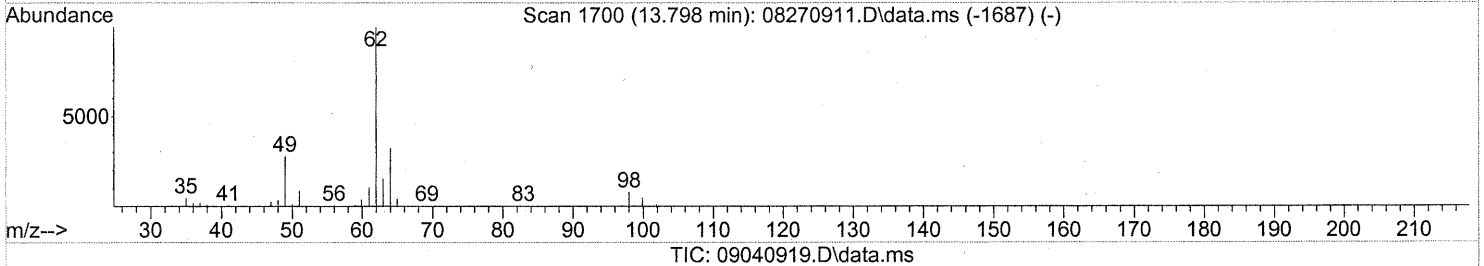
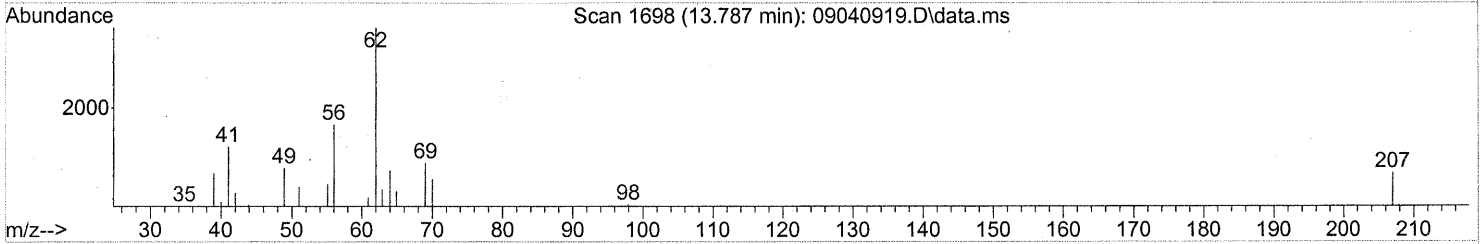
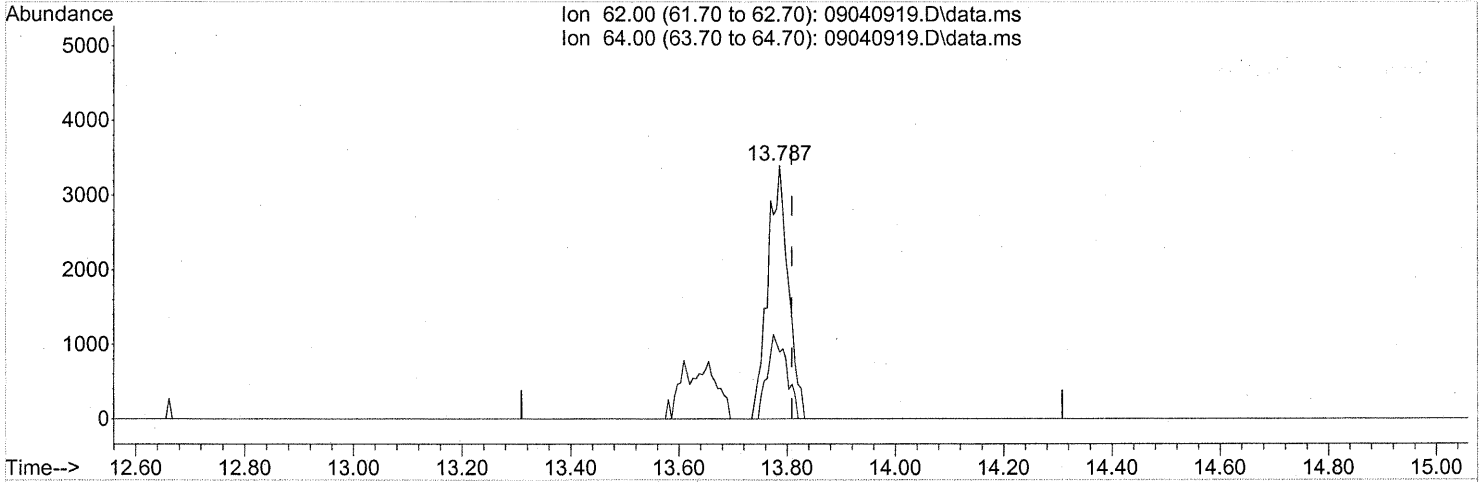
(32) Chloroform (T)
 12.678min (-0.040) 0.14ng
 response 3314

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	62.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(36) 1,2-Dichloroethane (T)

13.787min (-0.023) 0.45ng

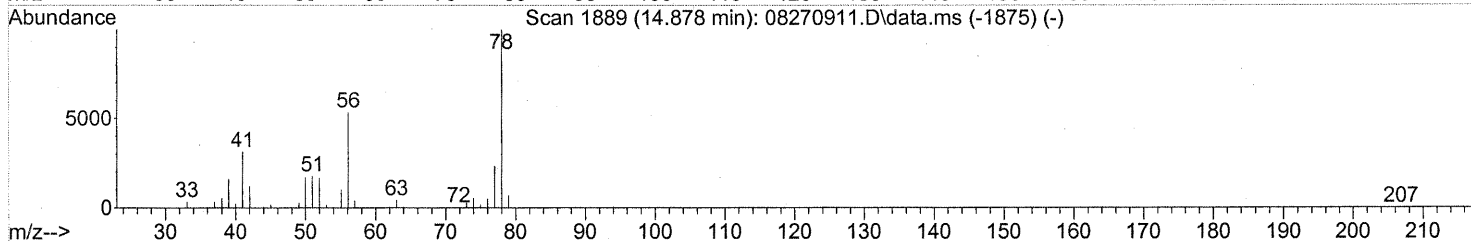
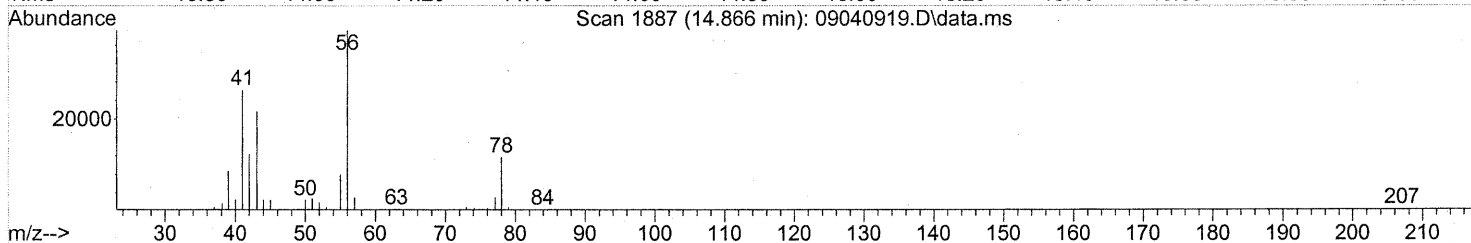
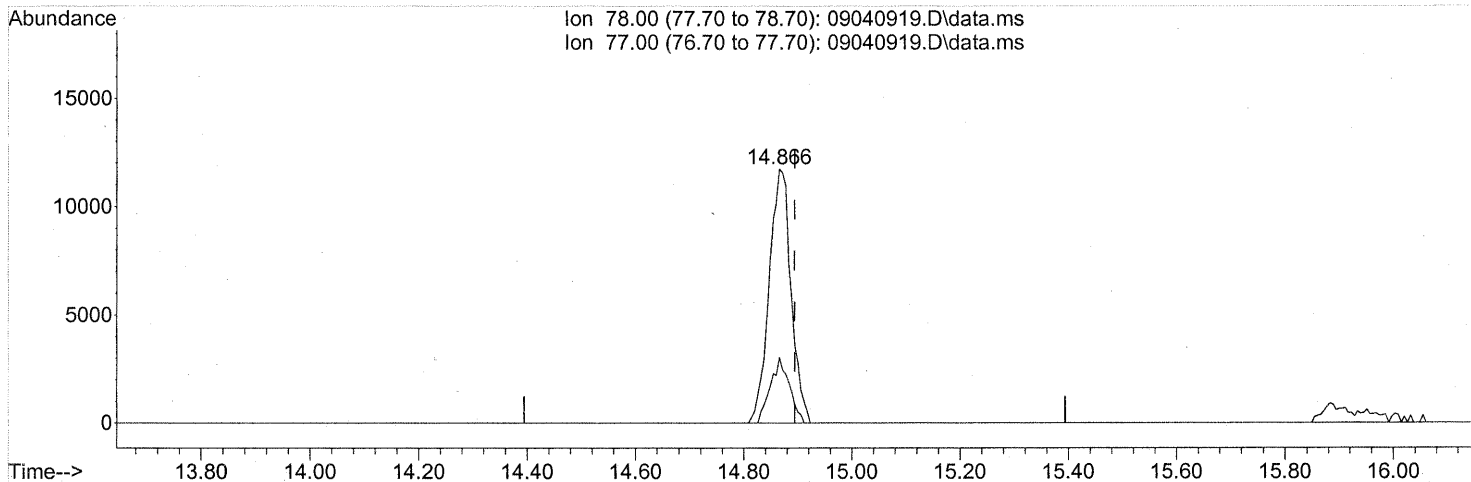
response 8923

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	31.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(41) Benzene (T)

14.866min (-0.028) 0.59ng

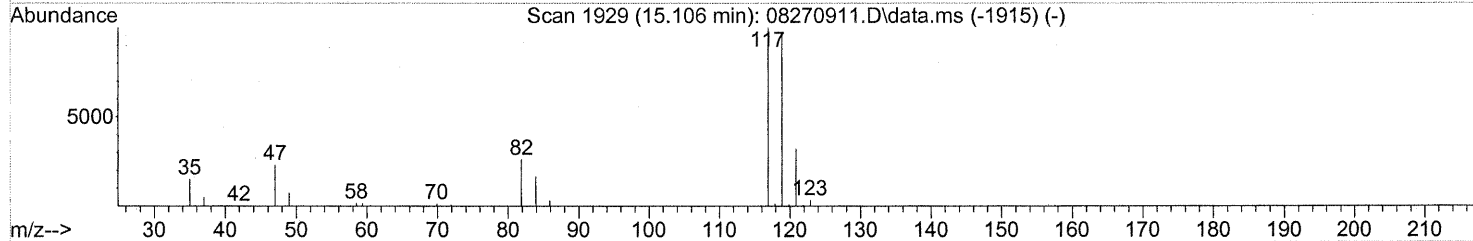
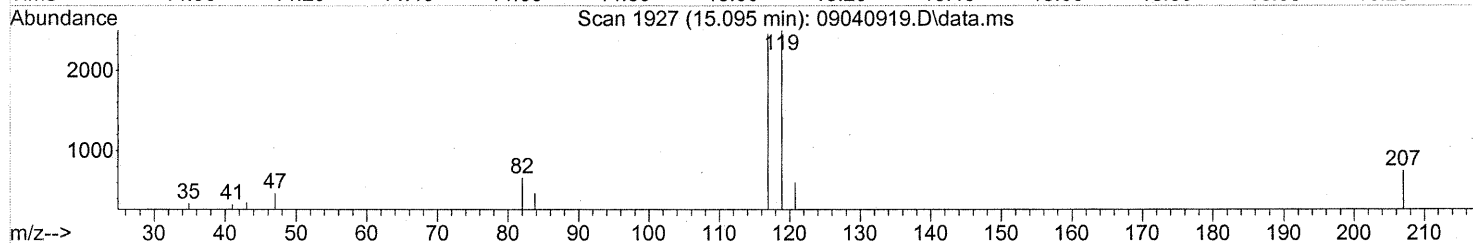
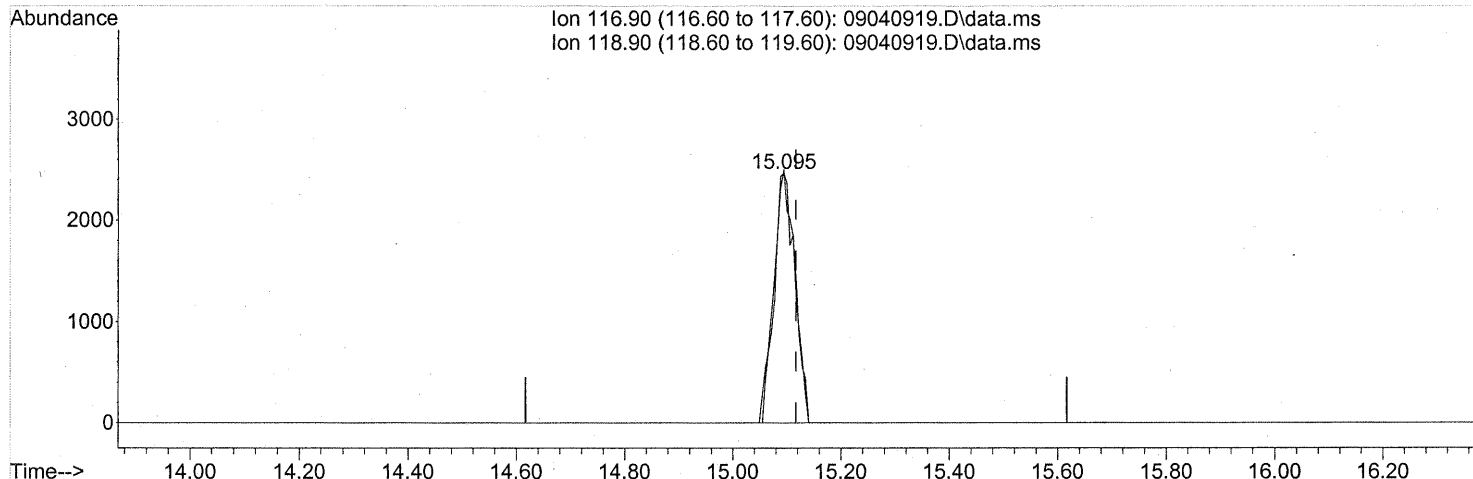
response 32851

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(42) Carbon Tetrachloride (T)

15.095min (-0.023) 0.36ng

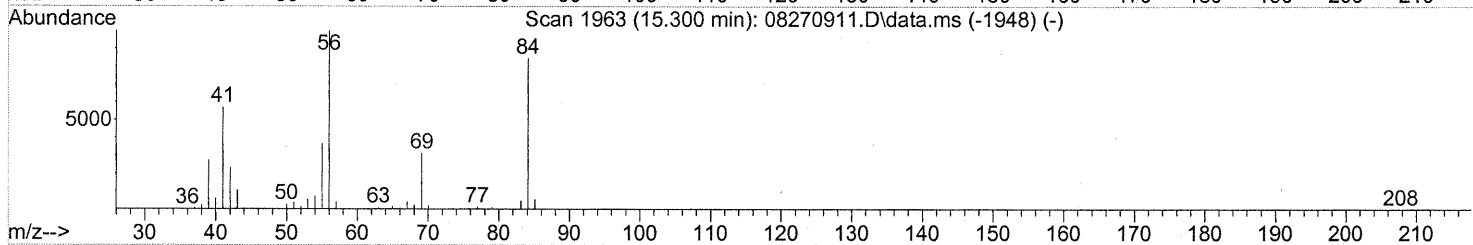
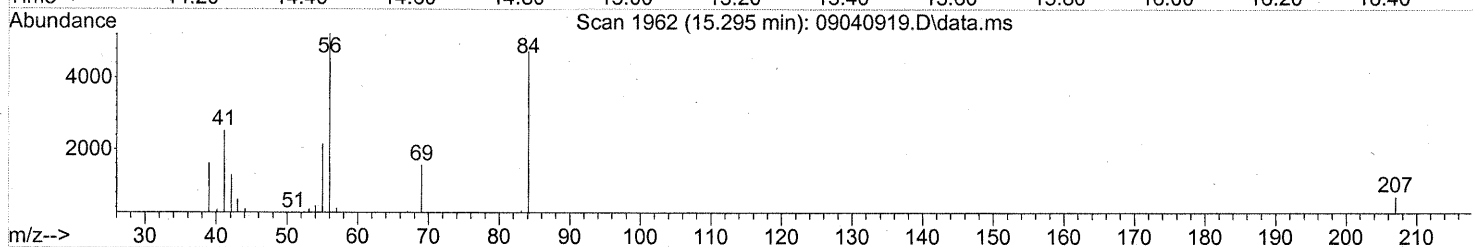
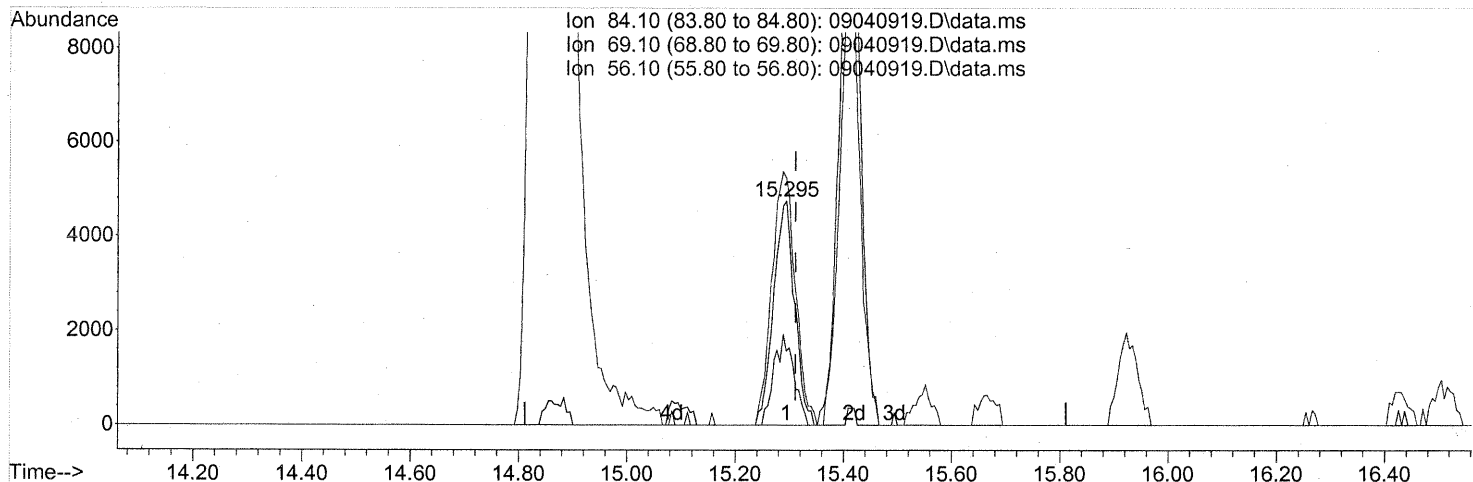
response 6722

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	98.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(43) Cyclohexane (T)

15.295min (-0.017) 0.62ng

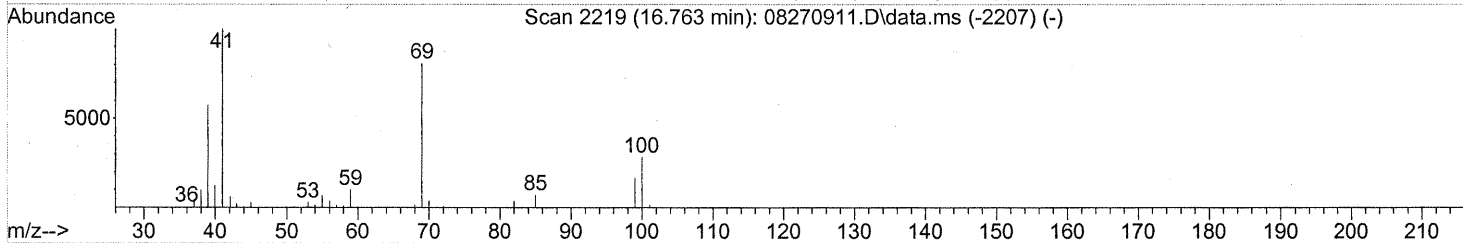
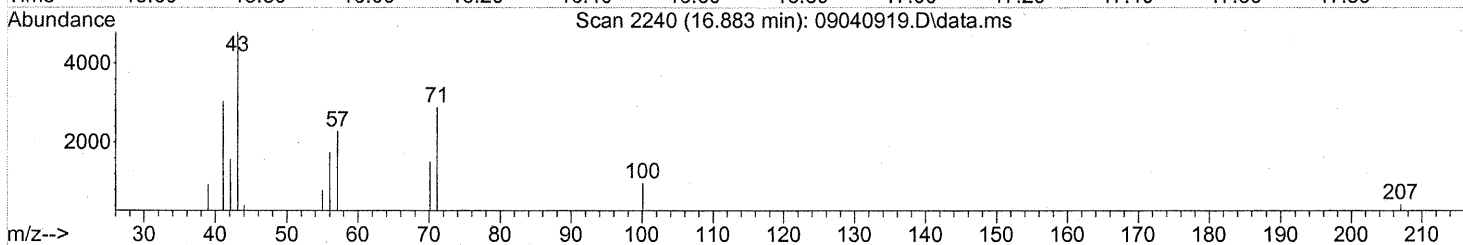
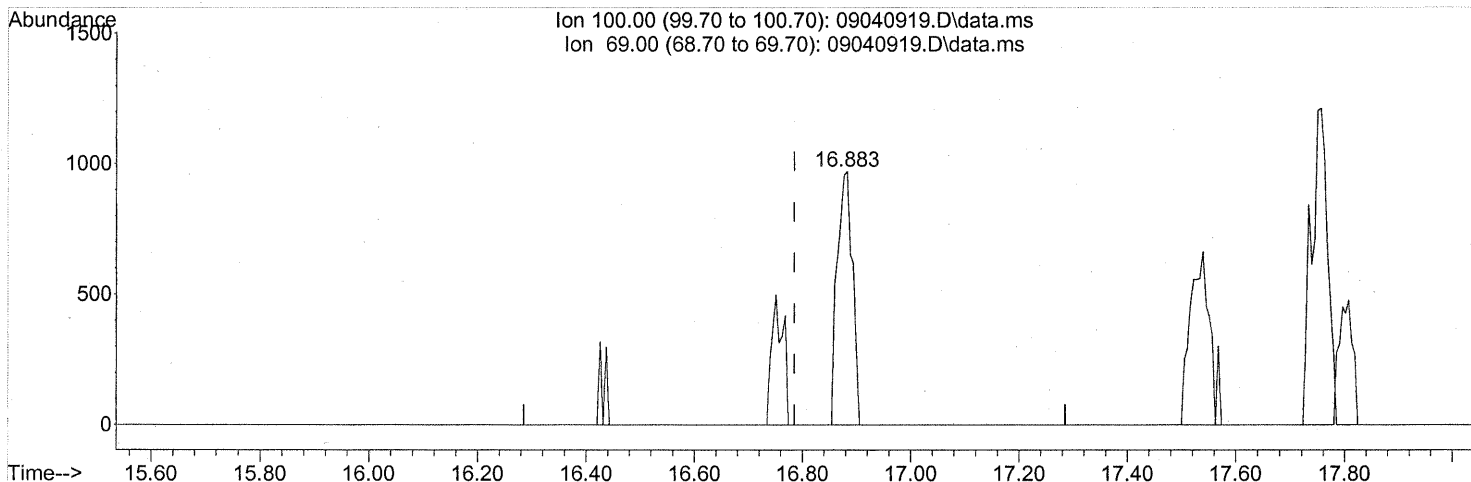
response 12862

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	38.28
56.10	124.50	126.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(50) Methyl Methacrylate (T)

16.883min (+0.097) 0.36ng

response 1876

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

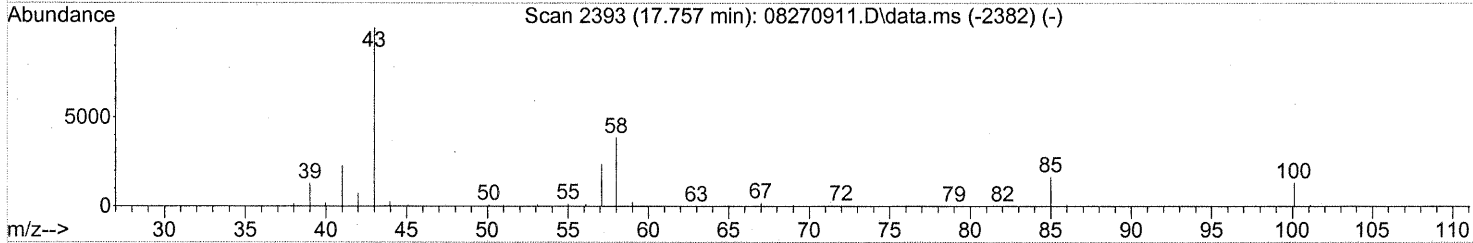
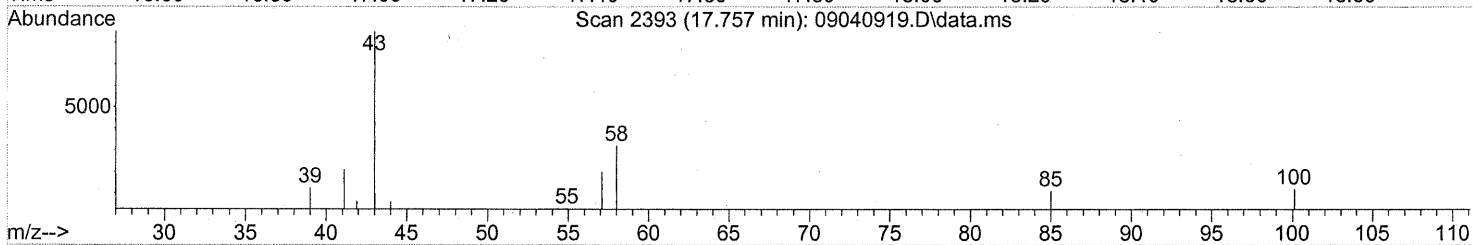
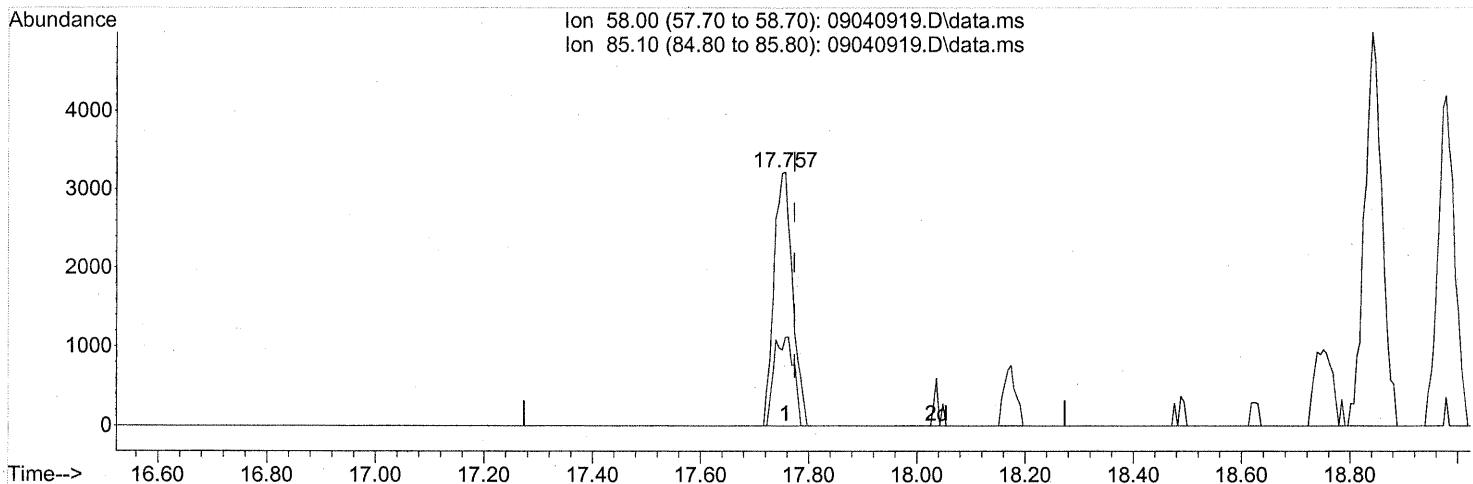
FP
 m 9/19/09

R alulo9

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040919.D
Acq On : 4 Sep 2009 23:04
Operator : LM/CC
Sample : P0903022-001 (1000ml)
Misc : EH&E 103600
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09040919.D\data.ms

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

17.757min (-0.017) 0.59ng

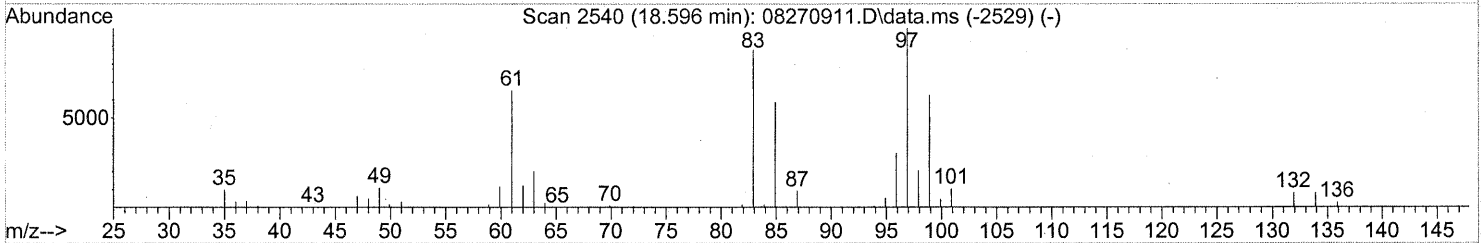
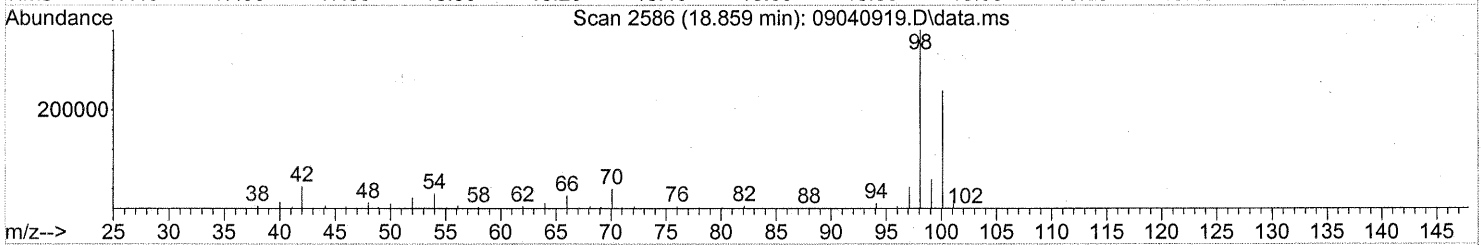
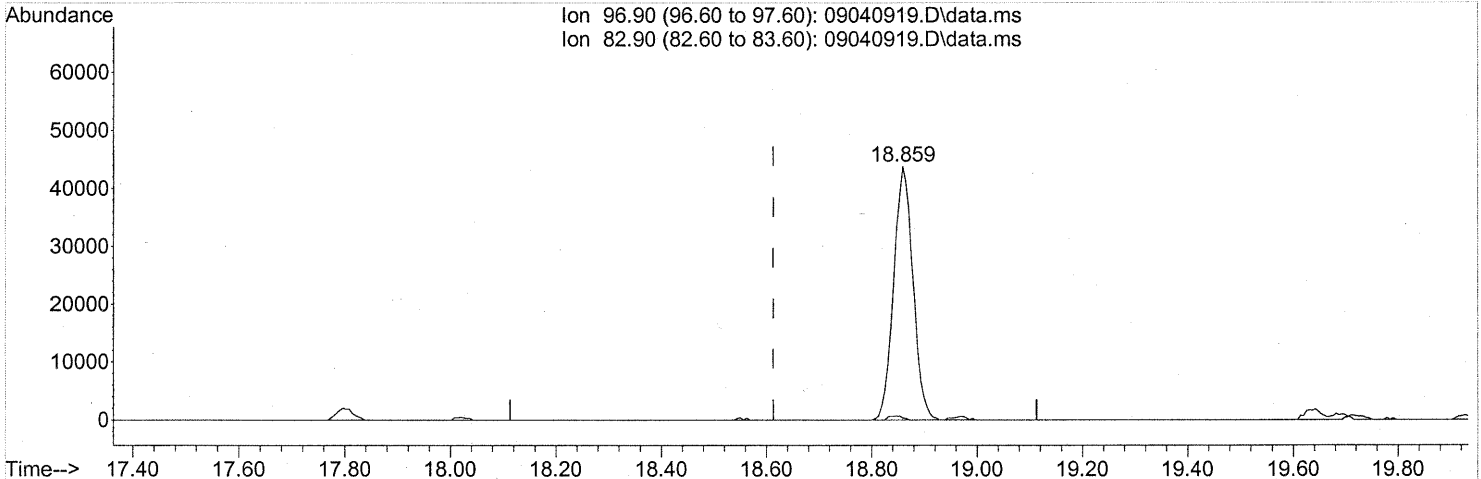
response 7621

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	36.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040919.D
Acq On : 4 Sep 2009 23:04
Operator : LM/CC
Sample : P0903022-001 (1000ml)
Misc : EH&E 103600
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09040919.D\data.ms

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

18.859min (+0.246) 8.55ng

response 111789

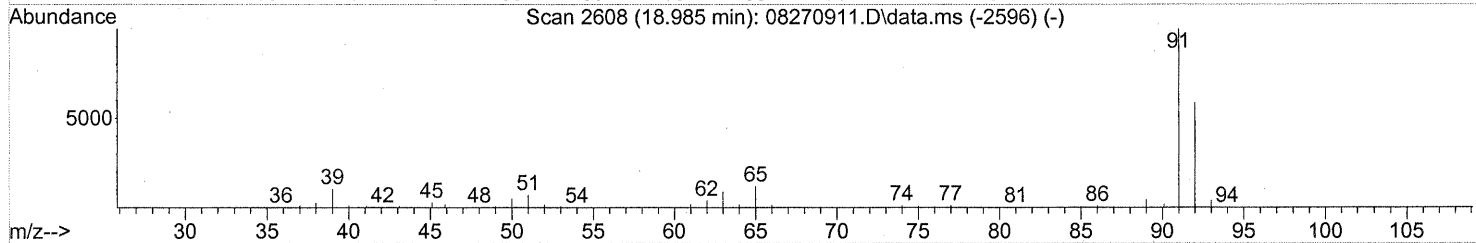
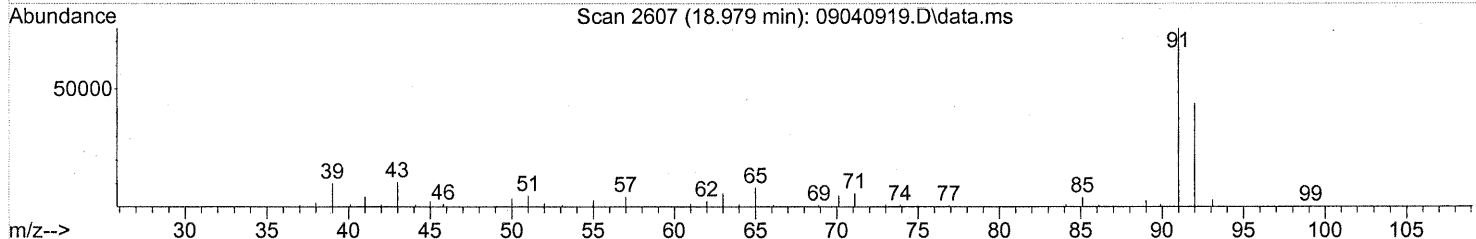
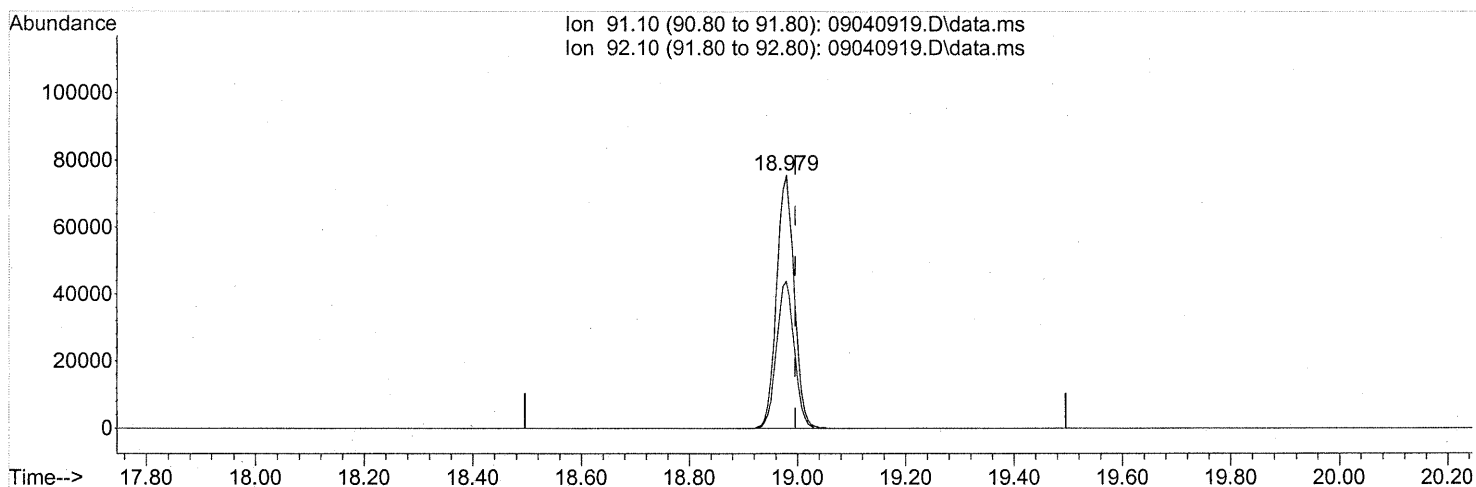
Ion	Exp%	Act%
96.90	100	100
82.90	87.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

EP
11/9/09
[Signature]

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(58) Toluene (T)

18.979min (-0.017) 3.07ng

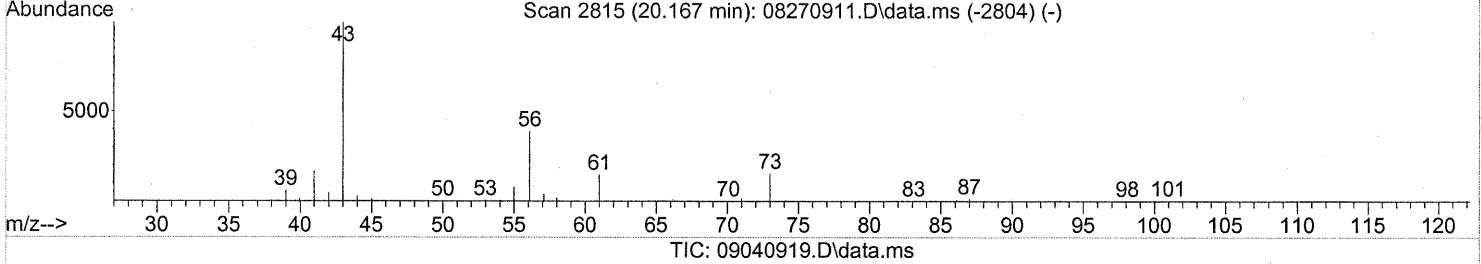
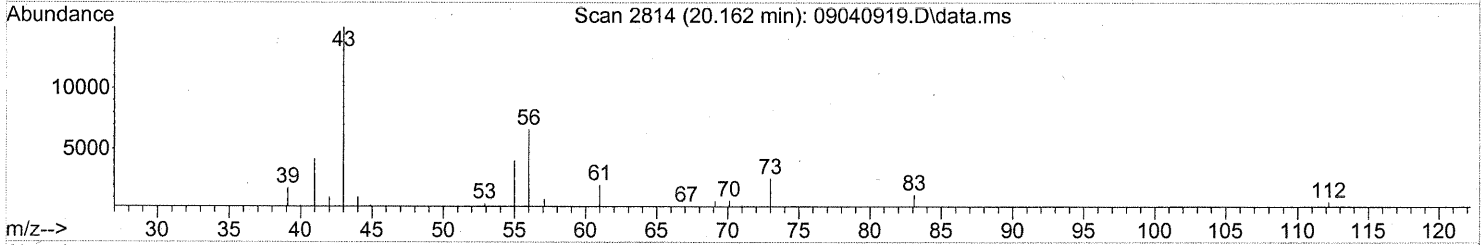
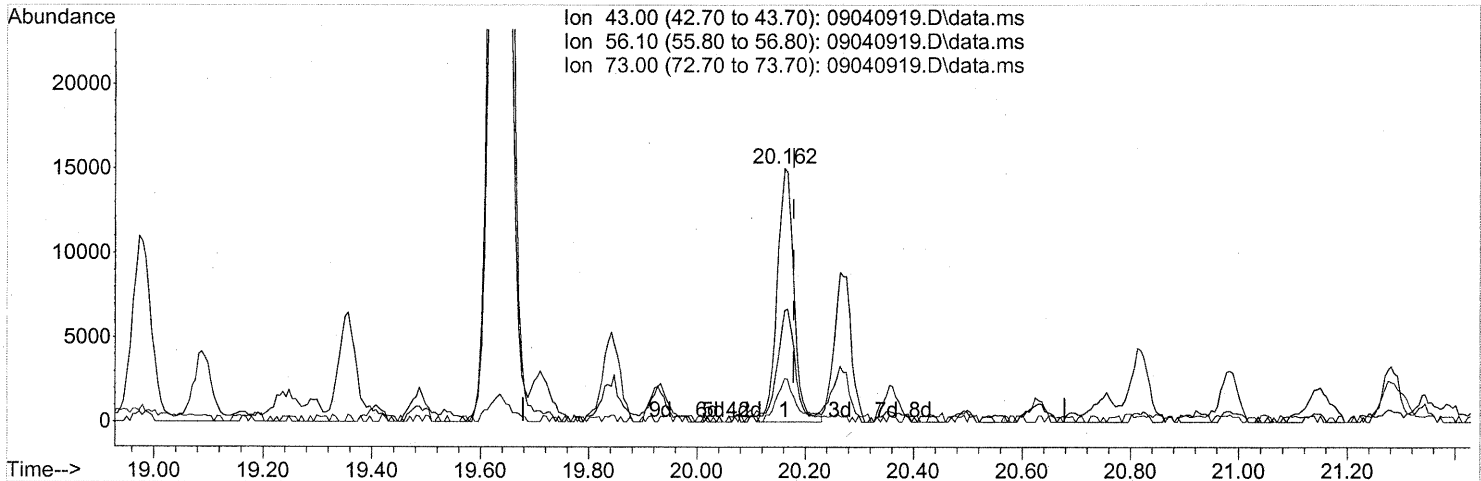
response 170493

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	58.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



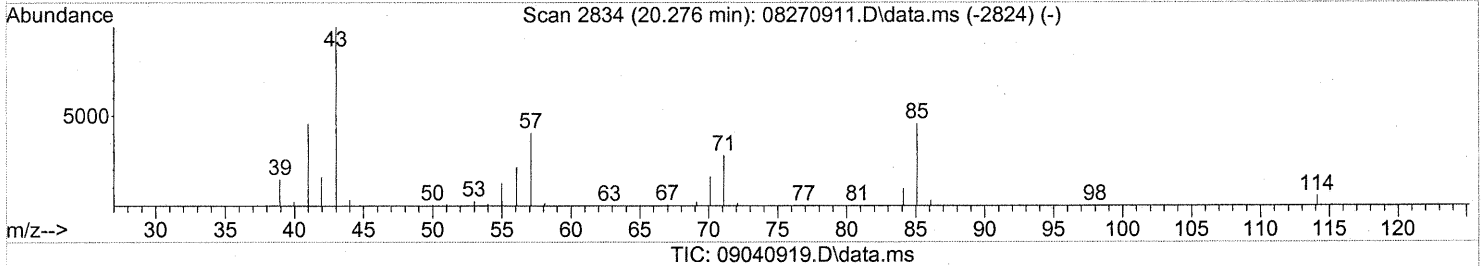
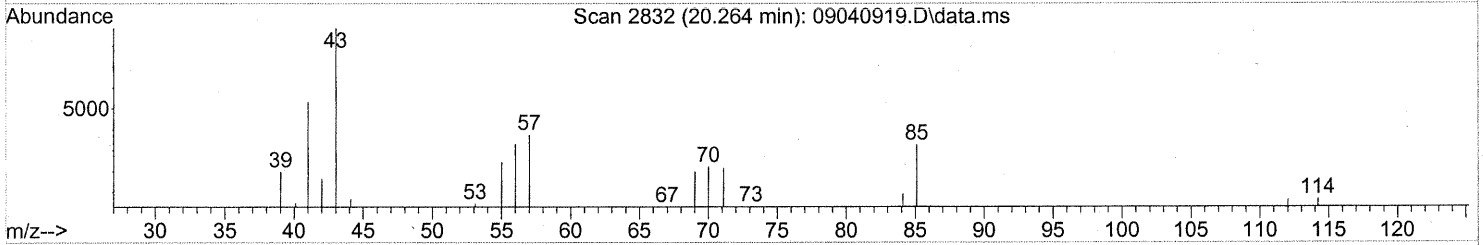
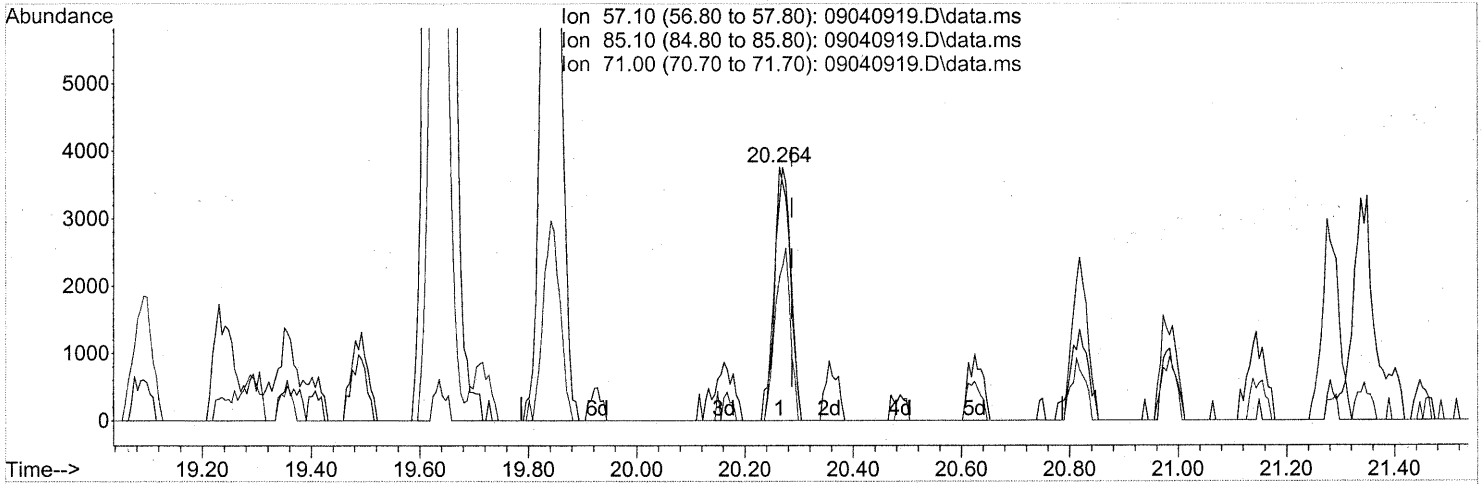
(62) n-Butyl Acetate (T)
 20.162min (-0.017) 0.83ng
 response 32382

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	46.72
73.00	14.30	21.18
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



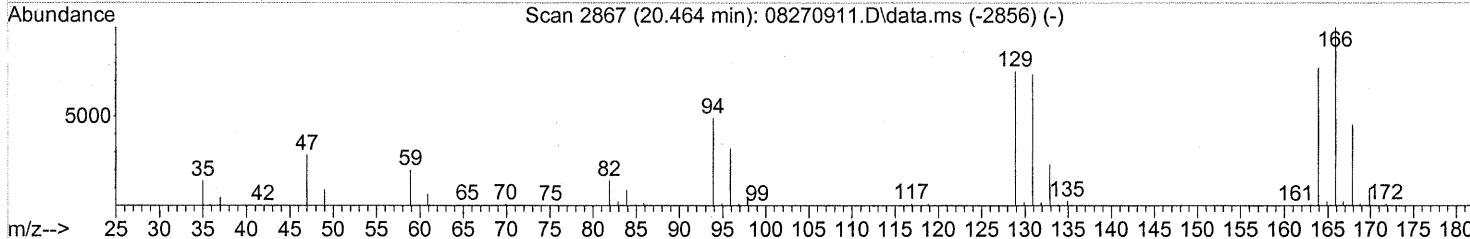
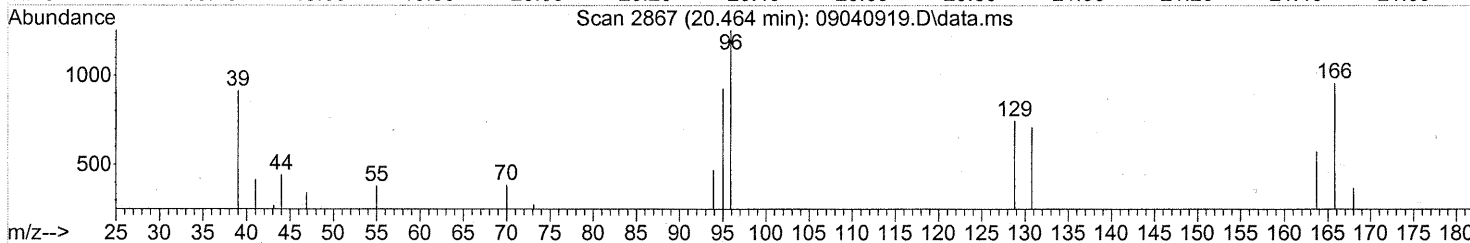
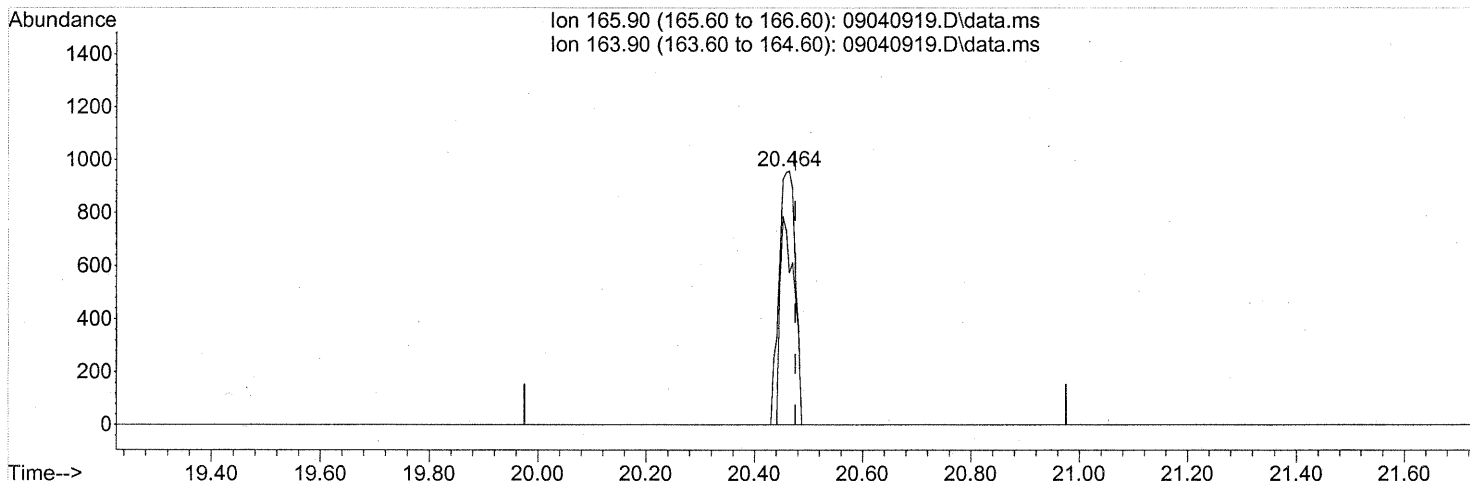
(63) n-Octane (T)
 20.264min (-0.023) 0.60ng
 response 7640

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	101.64
71.00	69.10	64.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(64) Tetrachloroethene (T)

20.464min (-0.011) 0.14ng

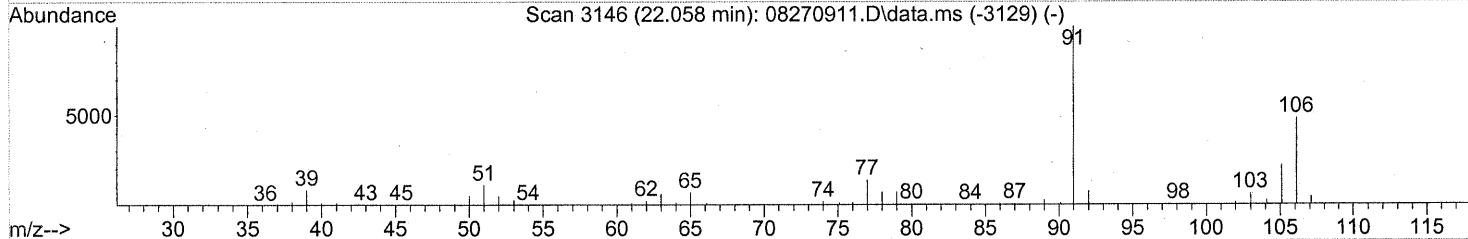
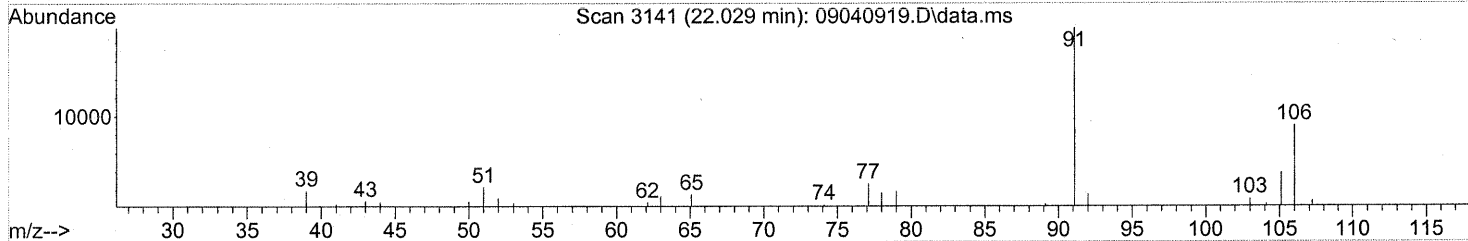
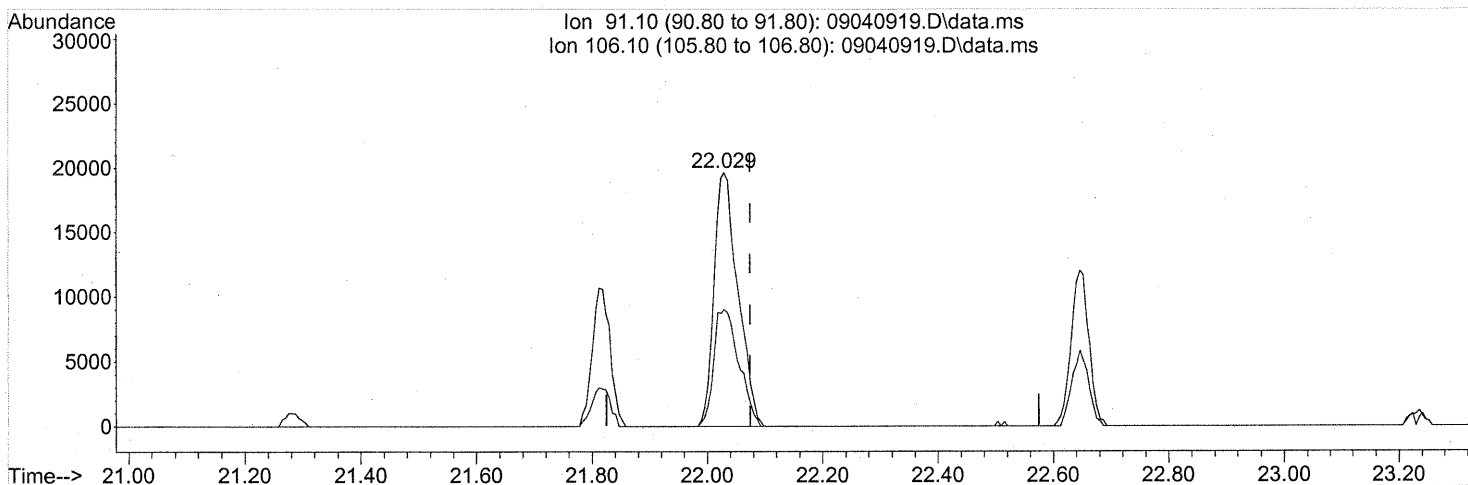
response 2006

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	69.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(67) m- & p-Xylenes (T)

22.029min (-0.046) 1.12ng

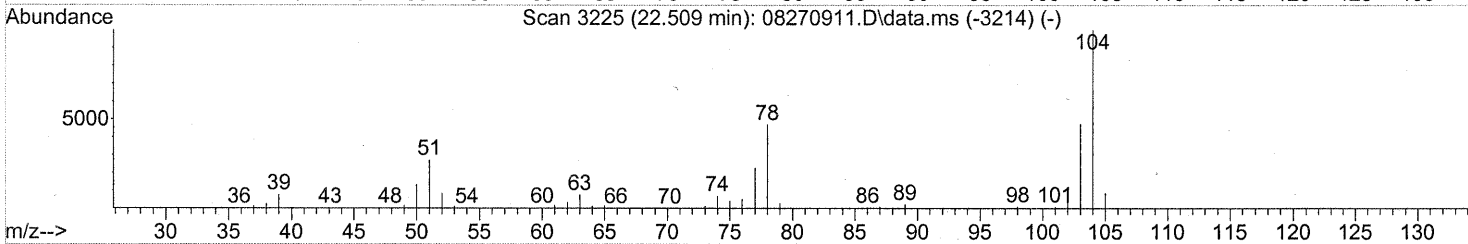
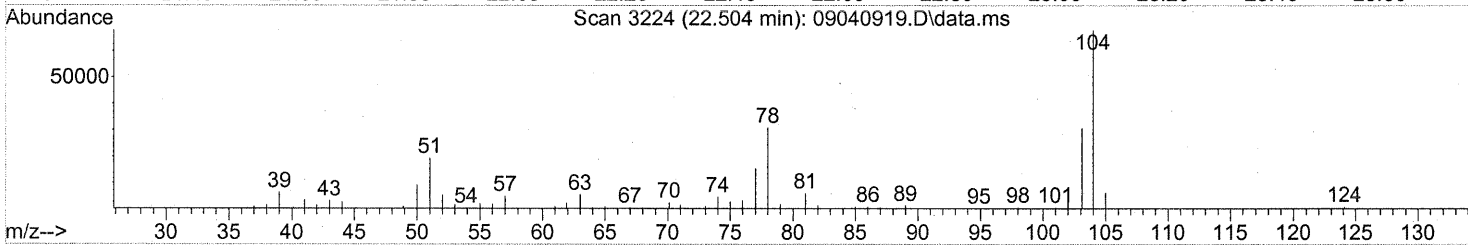
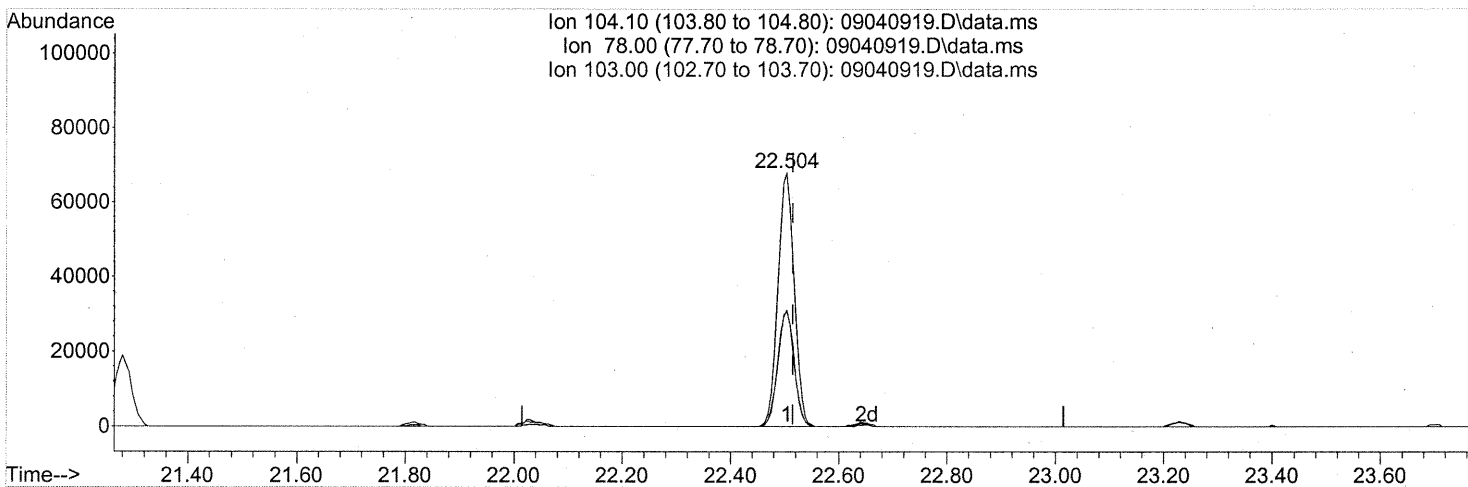
response 56488

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	48.55
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



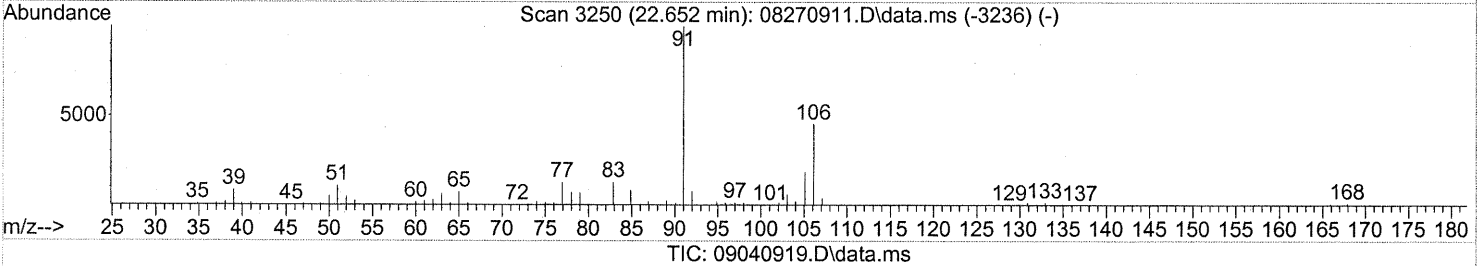
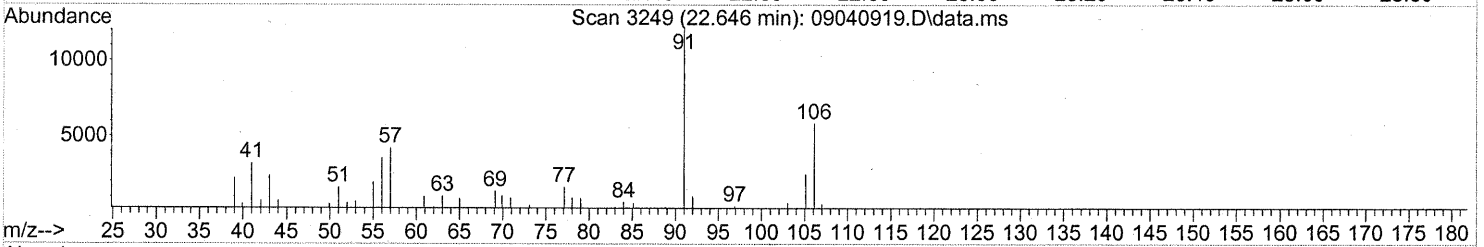
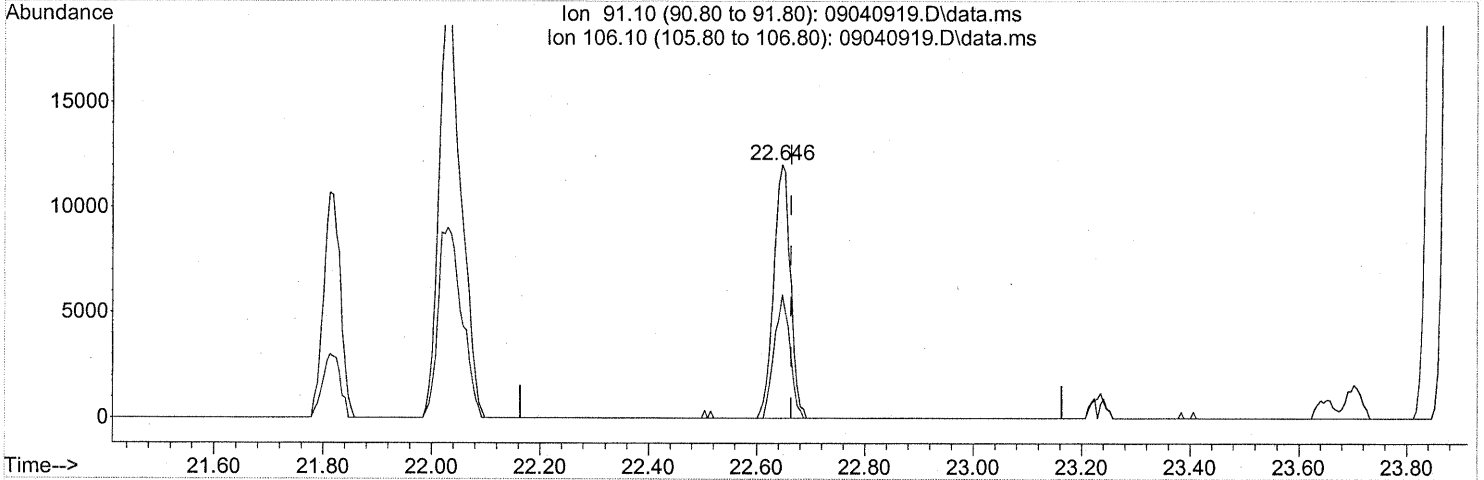
(69) Styrene (T)
 22.504min (-0.011) 3.77ng
 response 140416

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.73
103.00	47.00	45.79
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(70) o-Xylene (T)

22.646min (-0.017) 0.51ng

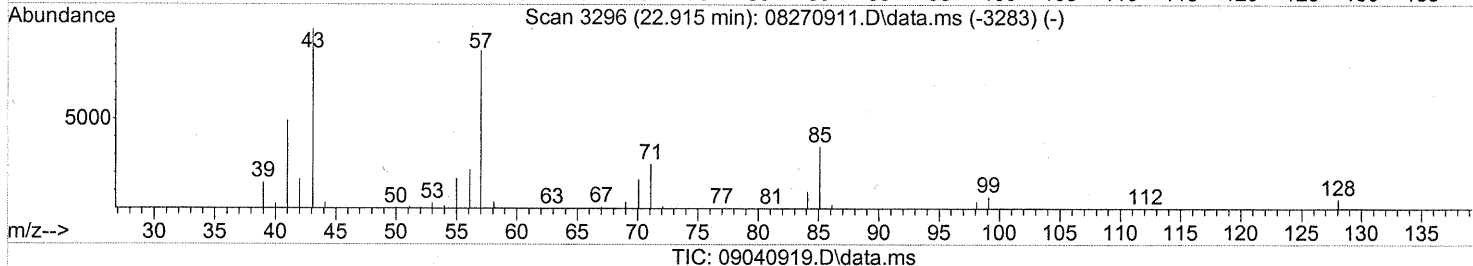
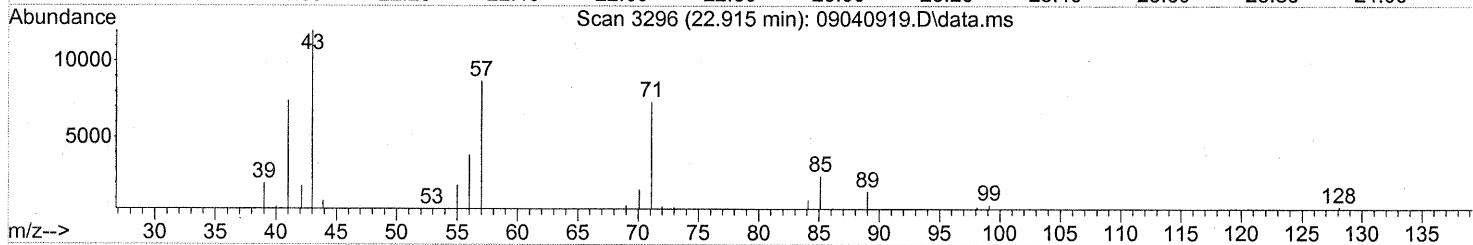
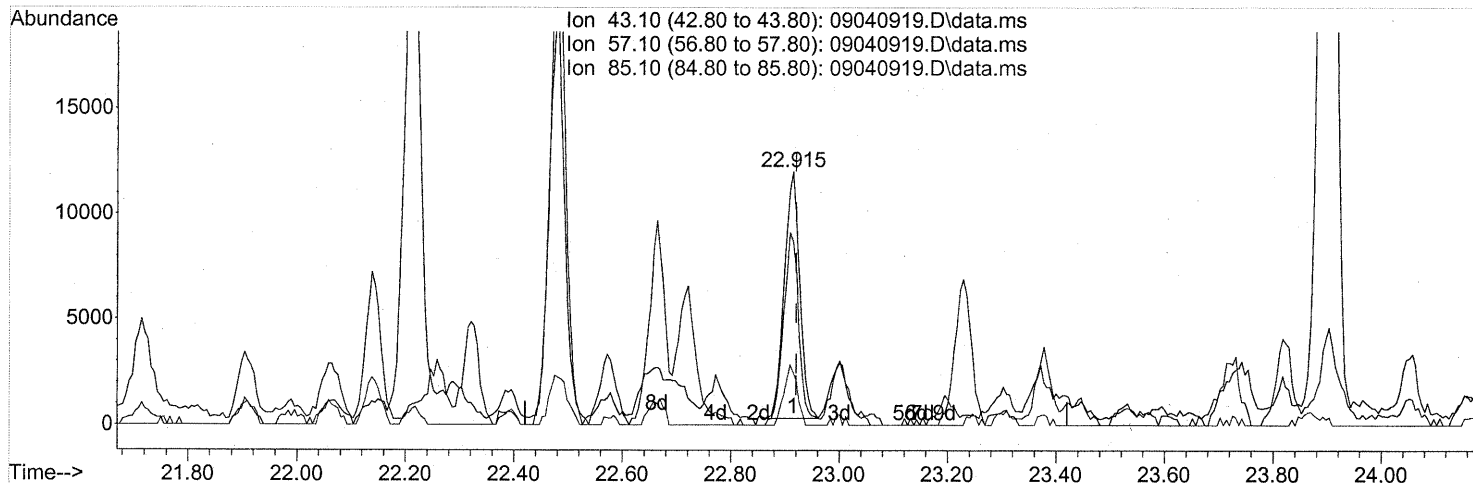
response 25686

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(71) n-Nonane (T)

22.915min (-0.006) 0.75ng

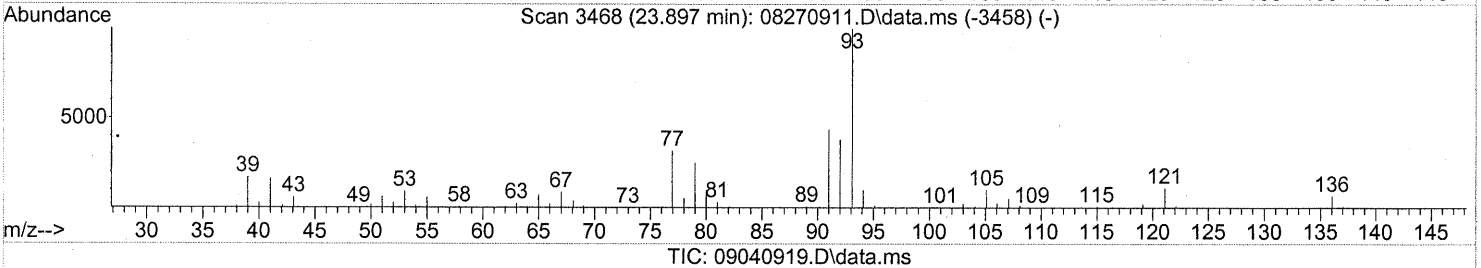
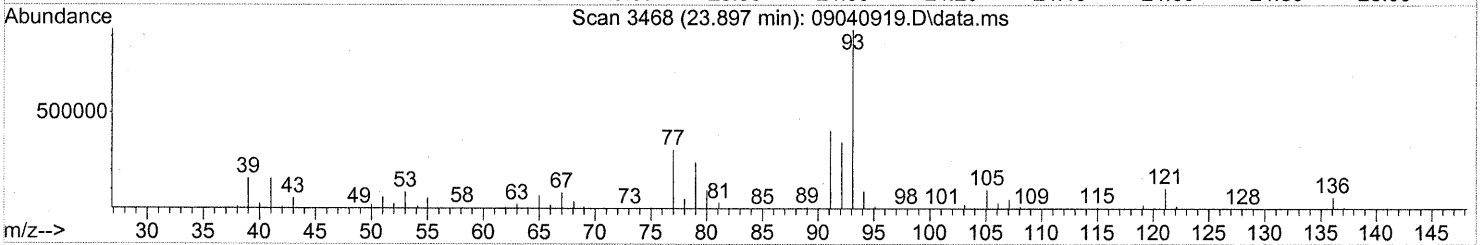
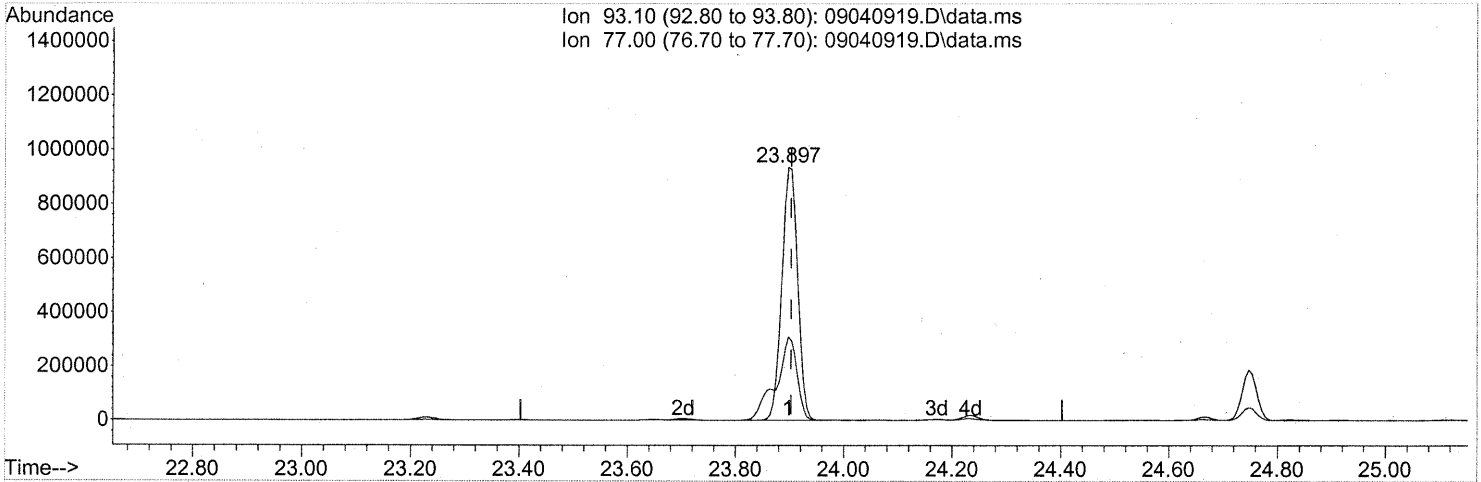
response 23032

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	78.88
85.10	32.20	20.47
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



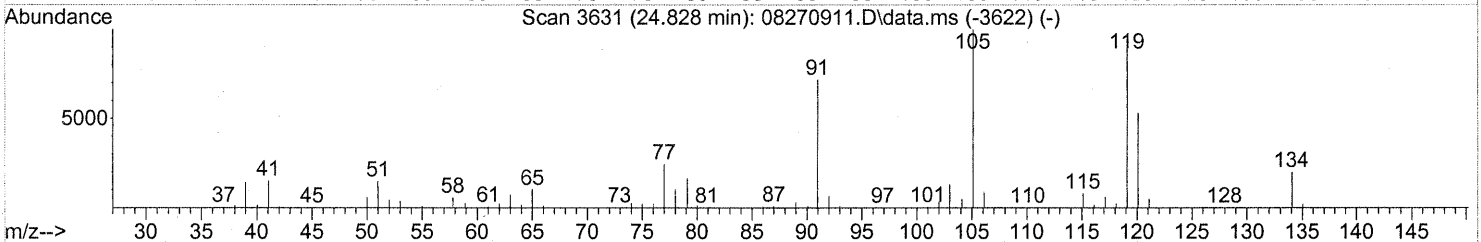
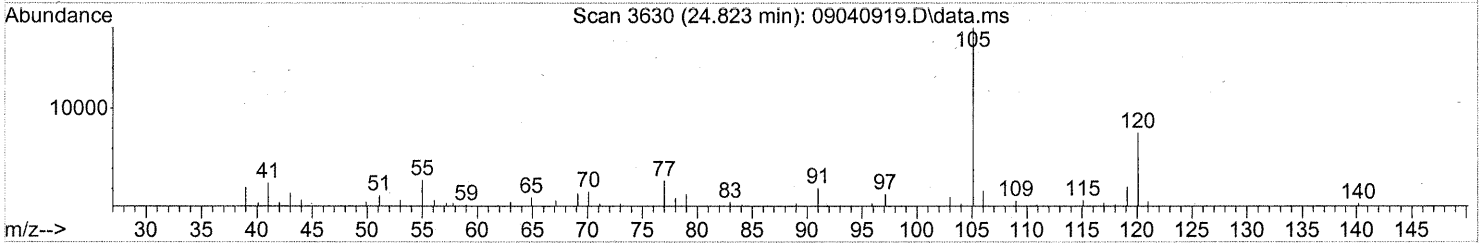
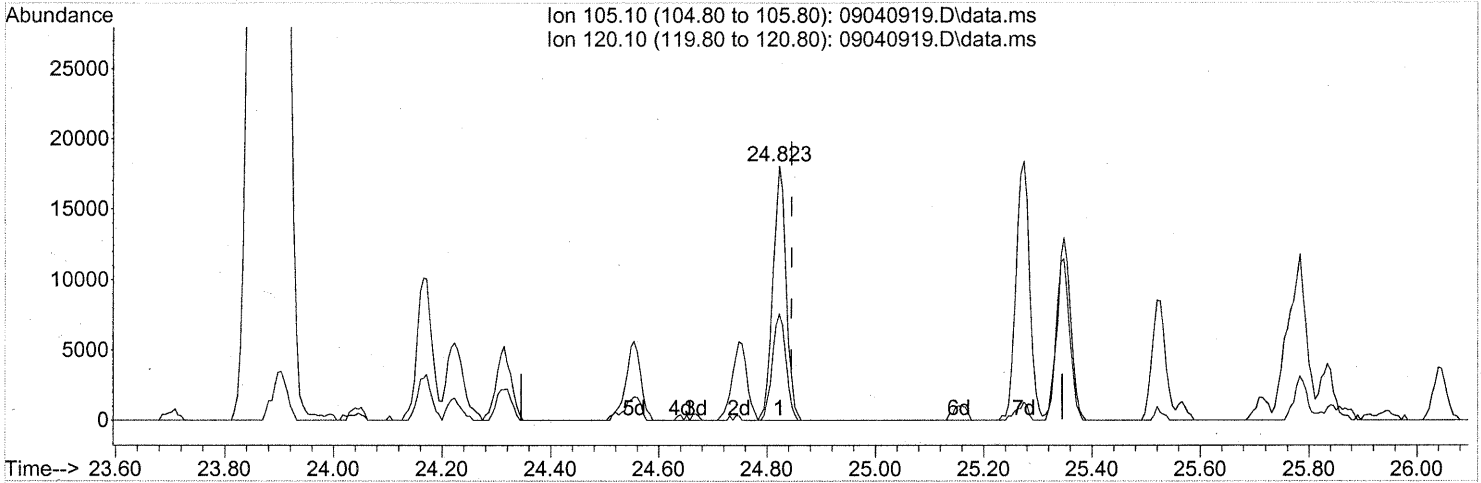
(75) alpha-Pinene (T)
 23.897min (-0.006) 56.66ng
 response 1894489

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	43.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

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

24.823min (-0.023) 0.59ng

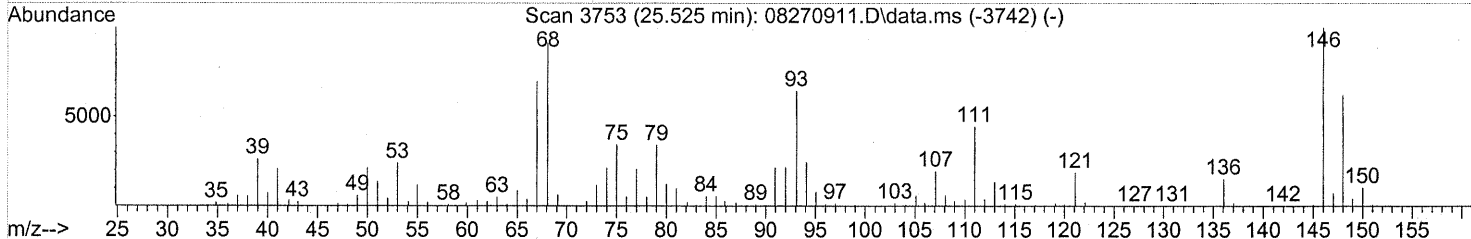
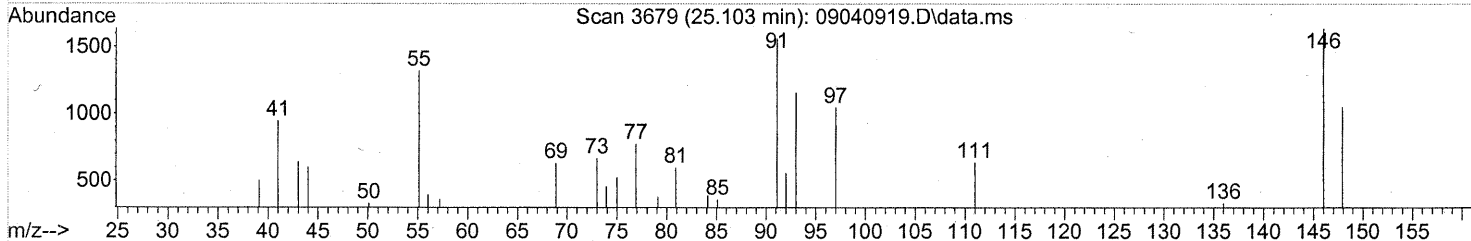
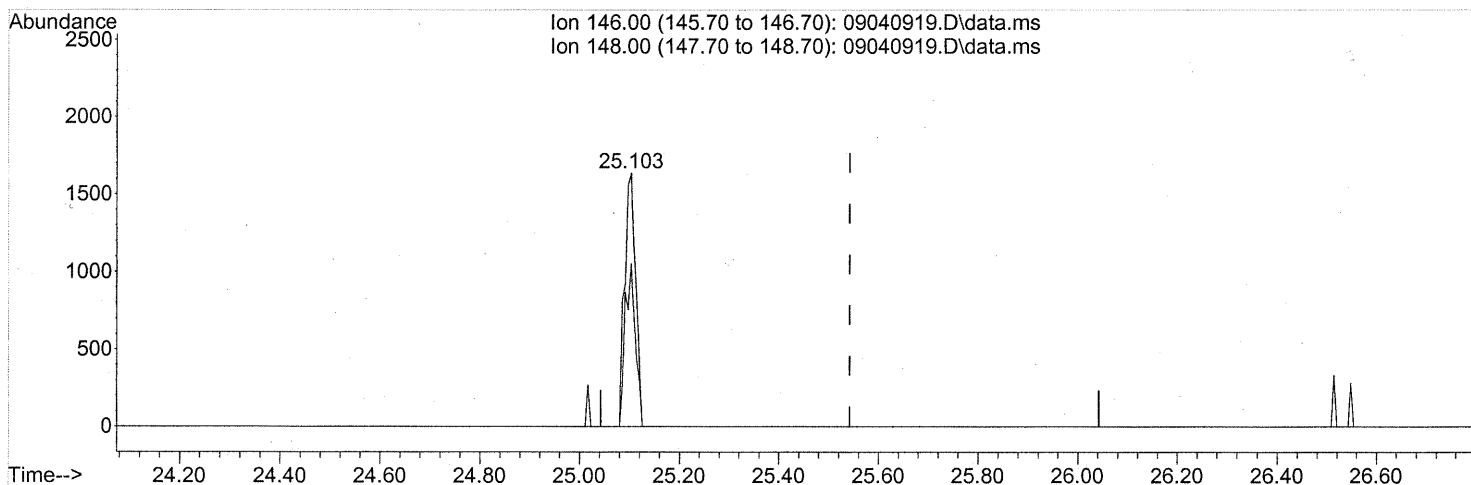
response 30538

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	43.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(90) 1,2-Dichlorobenzene (T)

25.103min (-0.440) 0.10ng

response 2520

Ion	Exp%	Act%
146.00	100	100
148.00	62.80	59.88
0.00	0.00	0.00
0.00	0.00	0.00

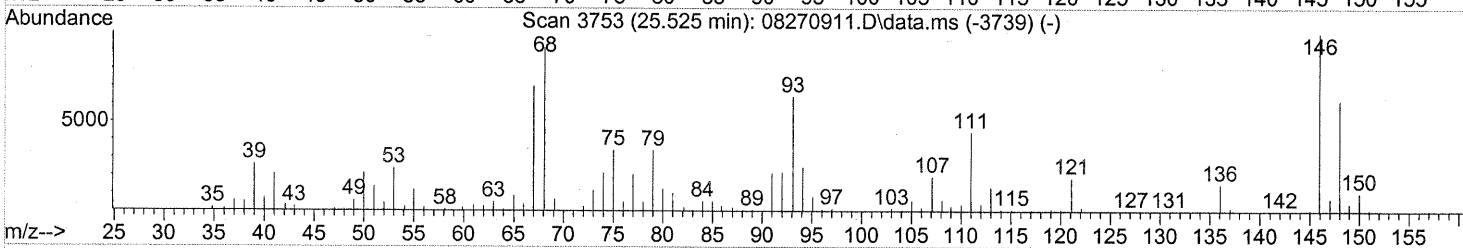
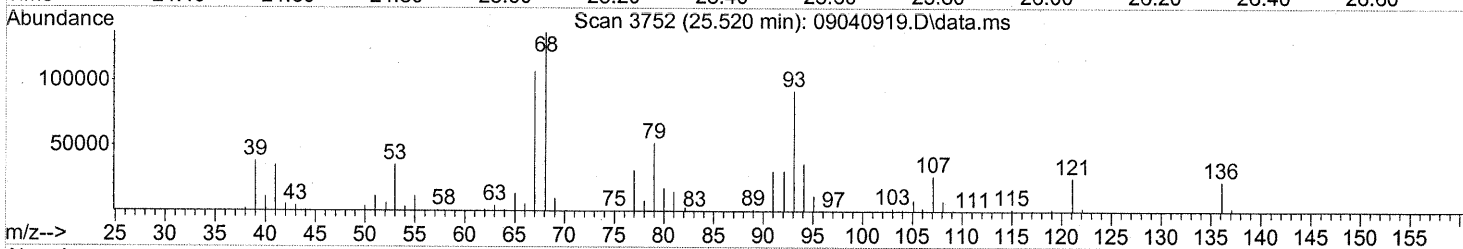
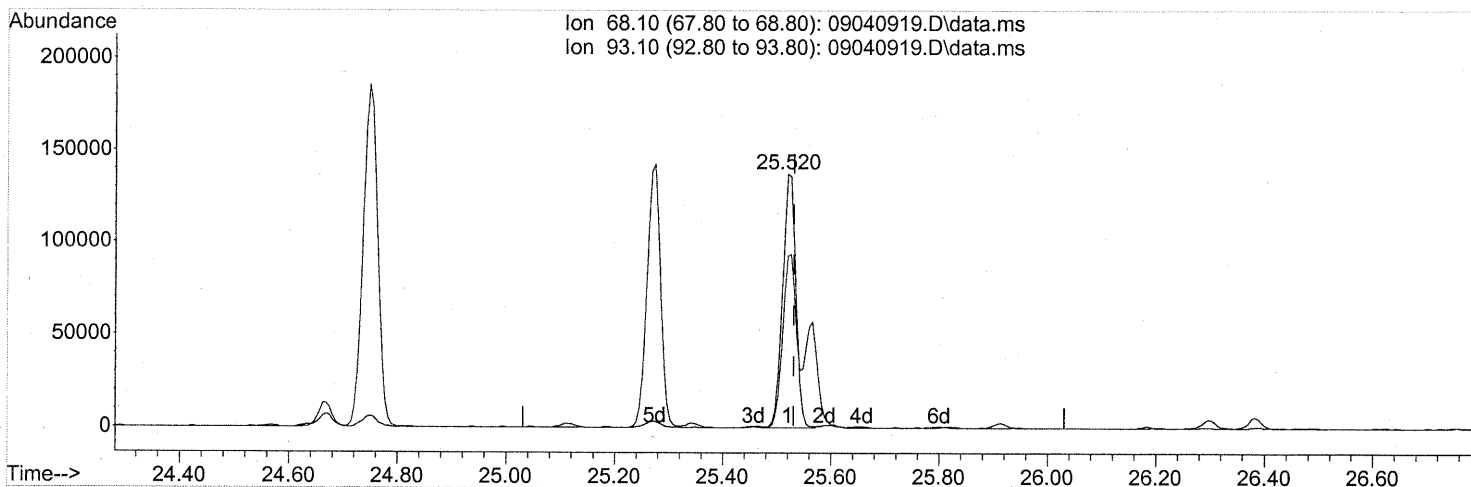
FP
 11/9/09

Signature

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040919.D
Acq On : 4 Sep 2009 23:04
Operator : LM/CC
Sample : P0903022-001 (1000ml)
Misc : EH&E 103600
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



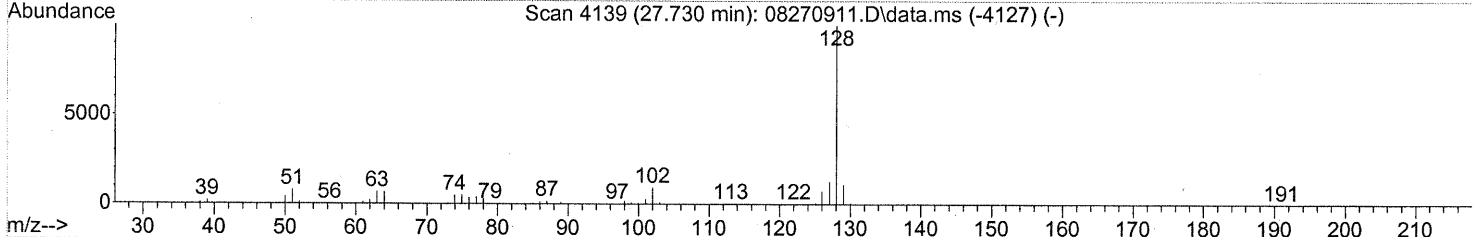
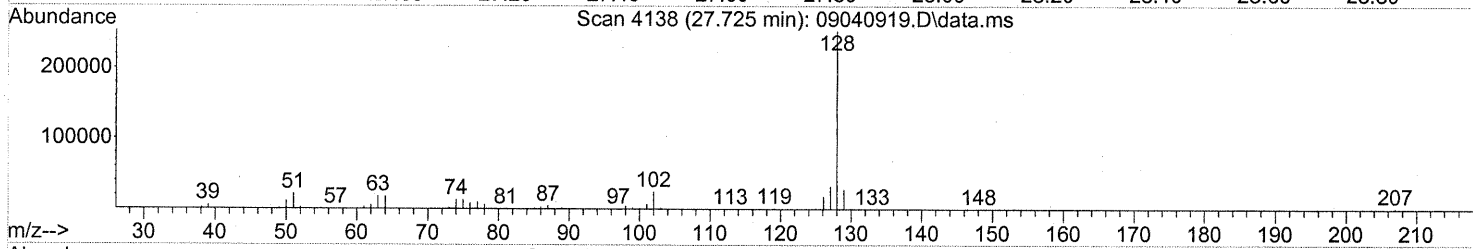
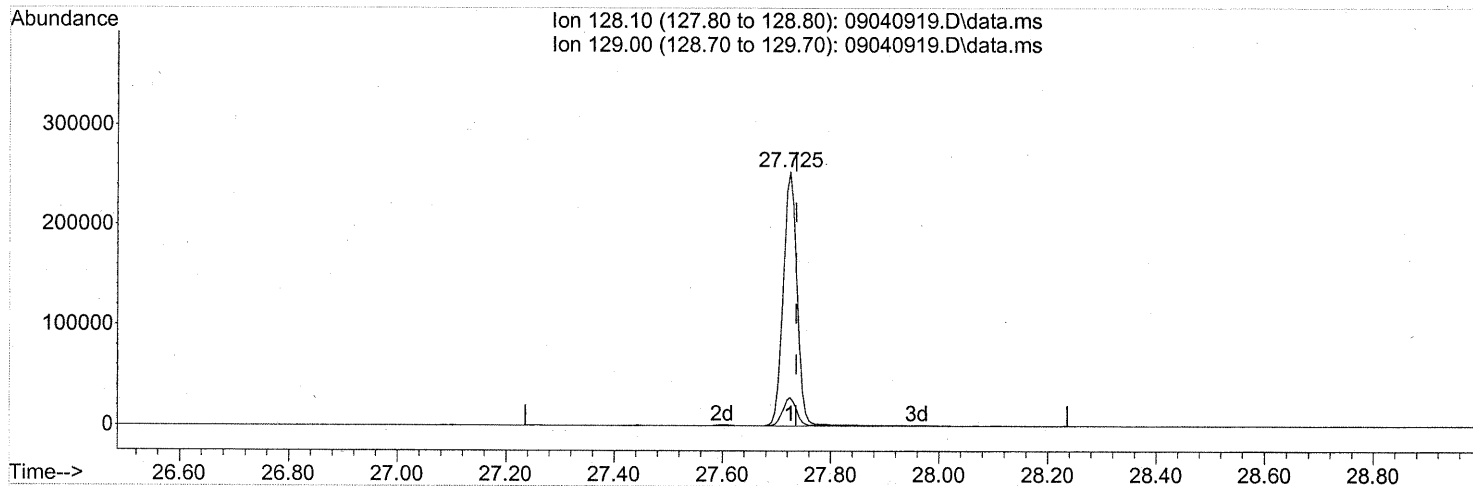
(91) d-Limonene (T)
25.520min (-0.011) 11.25ng
response 232244

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	75.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040919.D
 Acq On : 4 Sep 2009 23:04
 Operator : LM/CC
 Sample : P0903022-001 (1000ml)
 Misc : EH&E 103600
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 09:00:43 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



TIC: 09040919.D\data.ms

(95) Naphthalene (T)

27.725min (-0.011) 6.31ng

response 451274

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	10.85
0.00	0.00	0.00
0.00	0.00	0.00

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103601
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: AC01303

CAS Project ID: P0903022
CAS Sample ID: P0903022-002

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.34

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	ND	0.034	
141-78-6	Ethyl Acetate	6.7	0.67	1.8	0.19	
110-54-3	n-Hexane	0.74	0.67	0.21	0.19	
67-66-3	Chloroform	0.21	0.13	0.043	0.027	
109-99-9	Tetrahydrofuran (THF)	ND	0.67	ND	0.23	
107-06-2	1,2-Dichloroethane	0.62	0.13	0.15	0.033	
71-55-6	1,1,1-Trichloroethane	ND	0.13	ND	0.025	
71-43-2	Benzene	0.78	0.13	0.24	0.042	
56-23-5	Carbon Tetrachloride	0.49	0.13	0.078	0.021	
110-82-7	Cyclohexane	0.82	0.67	0.24	0.19	
78-87-5	1,2-Dichloropropane	ND	0.13	ND	0.029	
75-27-4	Bromodichloromethane	ND	0.13	ND	0.020	
79-01-6	Trichloroethene	ND	0.13	ND	0.025	
123-91-1	1,4-Dioxane	ND	0.67	ND	0.19	
80-62-6	Methyl Methacrylate	ND	0.67	ND	0.16	
142-82-5	n-Heptane	ND	0.67	ND	0.16	
10061-01-5	cis-1,3-Dichloropropene	ND	0.67	ND	0.15	
108-10-1	4-Methyl-2-pentanone	0.81	0.67	0.20	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.67	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.13	ND	0.025	
108-88-3	Toluene	4.3	0.67	1.1	0.18	
591-78-6	2-Hexanone	0.81	0.67	0.20	0.16	
124-48-1	Dibromochloromethane	ND	0.13	ND	0.016	
106-93-4	1,2-Dibromoethane	ND	0.13	ND	0.017	
123-86-4	n-Butyl Acetate	1.7	0.67	0.36	0.14	

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: 103601
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: AC01303

CAS Project ID: P0903022
CAS Sample ID: P0903022-002

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.34

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	1.1	0.67	0.24	0.14	
127-18-4	Tetrachloroethene	0.19	0.13	0.028	0.020	
108-90-7	Chlorobenzene	ND	0.13	ND	0.029	
100-41-4	Ethylbenzene	ND	0.67	ND	0.15	
179601-23-1	m,p-Xylenes	1.7	0.67	0.39	0.15	
75-25-2	Bromoform	ND	0.67	ND	0.065	
100-42-5	Styrene	4.7	0.67	1.1	0.16	
95-47-6	o-Xylene	0.74	0.67	0.17	0.15	
111-84-2	n-Nonane	1.1	0.67	0.21	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.020	
98-82-8	Cumene	ND	0.67	ND	0.14	
80-56-8	alpha-Pinene	71	0.67	13	0.12	
103-65-1	n-Propylbenzene	ND	0.67	ND	0.14	
622-96-8	4-Ethyltoluene	ND	0.67	ND	0.14	
108-67-8	1,3,5-Trimethylbenzene	ND	0.67	ND	0.14	
95-63-6	1,2,4-Trimethylbenzene	0.81	0.67	0.16	0.14	
100-44-7	Benzyl Chloride	ND	0.13	ND	0.026	
541-73-1	1,3-Dichlorobenzene	ND	0.13	ND	0.022	
106-46-7	1,4-Dichlorobenzene	0.16	0.13	0.027	0.022	
95-50-1	1,2-Dichlorobenzene	ND	0.13	ND	0.022	
5989-27-5	d-Limonene	13	0.67	2.3	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.67	ND	0.069	
120-82-1	1,2,4-Trichlorobenzene	ND	0.67	ND	0.090	
91-20-3	Naphthalene	7.2	0.67	1.4	0.13	
87-68-3	Hexachlorobutadiene	ND	0.67	ND	0.063	

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: _____

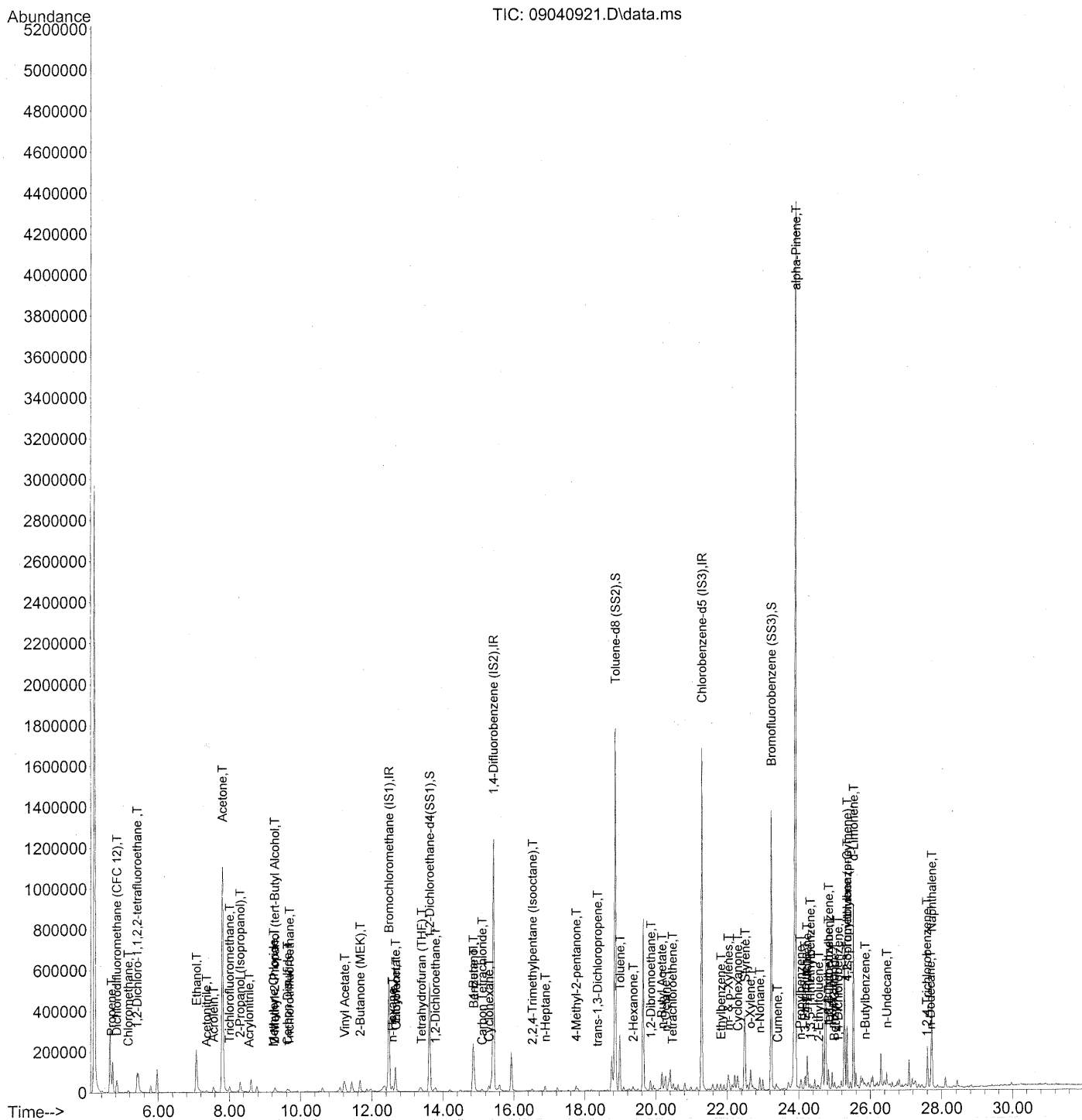
Date: _____

9/11/09

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Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 12:28 am
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 09 15:29:03 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\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 12:28 am
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 09 15:29:03 2009
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09/09/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	281174	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1398683	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	683061	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	542726	24.357	ng	-0.03
Spiked Amount	25.000		Recovery	=	97.44%	✓
57) Toluene-d8 (SS2)	18.85	98	1530667	25.075	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.28%	✓
73) Bromofluorobenzene (SS3)	23.23	174	440929	25.097	ng	-0.01
Spiked Amount	25.000		Recovery	=	100.40%	✓

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.68	42	18366	0.903	ng	95
3) Dichlorodifluoromethan...	4.83	85	58279	1.637	ng	99
4) Chloromethane	5.16	50	10672	0.446	ng	100
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	952	0.065	ng	# 43
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.87	54	116	N.D.		
8) Bromomethane	6.35	94	622	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.07	45	406763	32.253	ng	100
11) Acetonitrile	7.36	41	10871	0.310	ng	98
12) Acrolein	7.55	56	39431	4.095	ng	99
13) Acetone	7.80	58	607140	46.550	ng	93
14) Trichlorofluoromethane	8.00	101	25780	0.821	ng	98
15) 2-Propanol (Isopropanol)	8.30	45	102276	2.359	ng	91
16) Acrylonitrile	8.55	53	3592	0.167	ng	# 64
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.27	59	14289	0.329	ng	# 1
19) Methylene Chloride	9.24	84	2869	0.173	ng	99
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.	d	
21) Trichlorotrifluoroethane	9.69	151	4849	0.390	ng	94
22) Carbon Disulfide	9.63	76	38714	0.658	ng	98
23) trans-1,2-Dichloroethene	10.67	61	1039	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	10964	3.354	ng	# 75
27) 2-Butanone (MEK)	11.67	72	26754	2.539	ng	97
28) cis-1,2-Dichloroethene	12.23	61	620	N.D.		
29) Diisopropyl Ether	12.67	87	422	N.D.		
30) Ethyl Acetate	12.66	61	28141	4.971	ng	100
31) n-Hexane	12.57	57	15574	0.552	ng	99

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Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 12:28 am
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 09 15:29:03 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	12.67	83	4313	0.155 ng		99
34) Tetrahydrofuran (THF)	13.39	72	5250	0.460 ng	CM#L	38
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	10786	0.462 ng		98
38) 1,1,1-Trichloroethane	14.16	97	1000	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.85	56	217619	12.500 ng	#	41
41) Benzene	14.87	78	38345	0.583 ng		99
42) Carbon Tetrachloride	15.10	117	8062	0.365 ng		98
43) Cyclohexane	15.29	84	14815	0.611 ng		95
44) tert-Amyl Methyl Ether	16.03	73	102	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	16.45	130	98	N.D.		
48) 1,4-Dioxane	16.51	88	630	N.D.		
49) 2,2,4-Trimethylpentane...	16.52	57	6584	0.088 ng	#	47
50) Methyl Methacrylate	16.77	100	91	N.D.		
51) n-Heptane	16.88	71	7945	0.466 ng		97
52) cis-1,3-Dichloropropene	17.65	75	946	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	9135	0.608 ng		97
54) trans-1,3-Dichloropropene	18.35	75	2212	0.087 ng		88
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d	
58) Toluene	18.98	91	209242	3.182 ng		100
59) 2-Hexanone	19.36	43	24186	0.602 ng		94
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	19.85	107	984	0.057 ng		97
62) n-Butyl Acetate	20.16	43	59383	1.288 ng		85
63) n-Octane	20.26	57	12909	0.853 ng		92
64) Tetrachloroethene	20.46	166	2374	0.143 ng		94
65) Chlorobenzene	21.34	112	1198	N.D.		
66) Ethylbenzene	21.82	91	29884	0.297 ng	CM#L	94
67) m- & p-Xylenes	22.03	91	75533	1.262 ng		100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	153162	3.475 ng		99
70) o-Xylene	22.65	91	33189	0.552 ng		100
71) n-Nonane	22.91	43	29068	0.804 ng		85
72) 1,1,2,2-Tetrachloroethane	22.64	83	748	N.D.		
74) Cumene	23.41	105	4968	0.065 ng		92
75) alpha-Pinene	23.90	93	2093126	52.945 ng		87
76) n-Propylbenzene	24.04	91	11989	0.124 ng	CM#L	86
77) 3-Ethyltoluene	24.17	105	25249	0.346 ng		94
78) 4-Ethyltoluene	24.23	105	14636	0.203 ng	<	87
79) 1,3,5-Trimethylbenzene	24.31	105	12438	0.208 ng		92

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 12:28 am
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 09 15:29:03 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

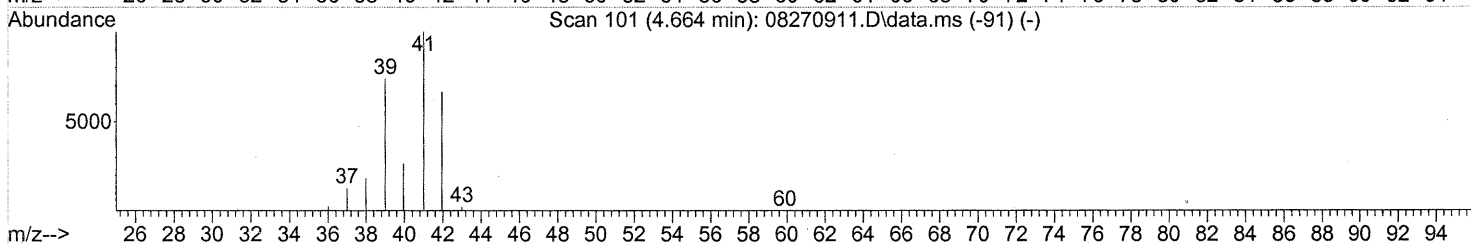
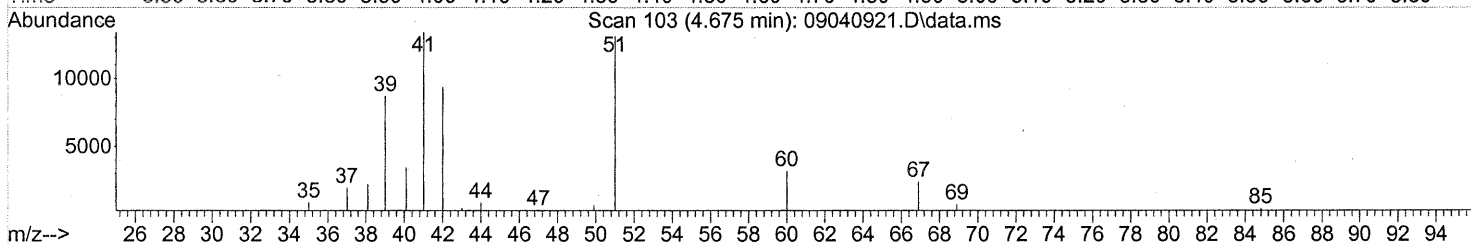
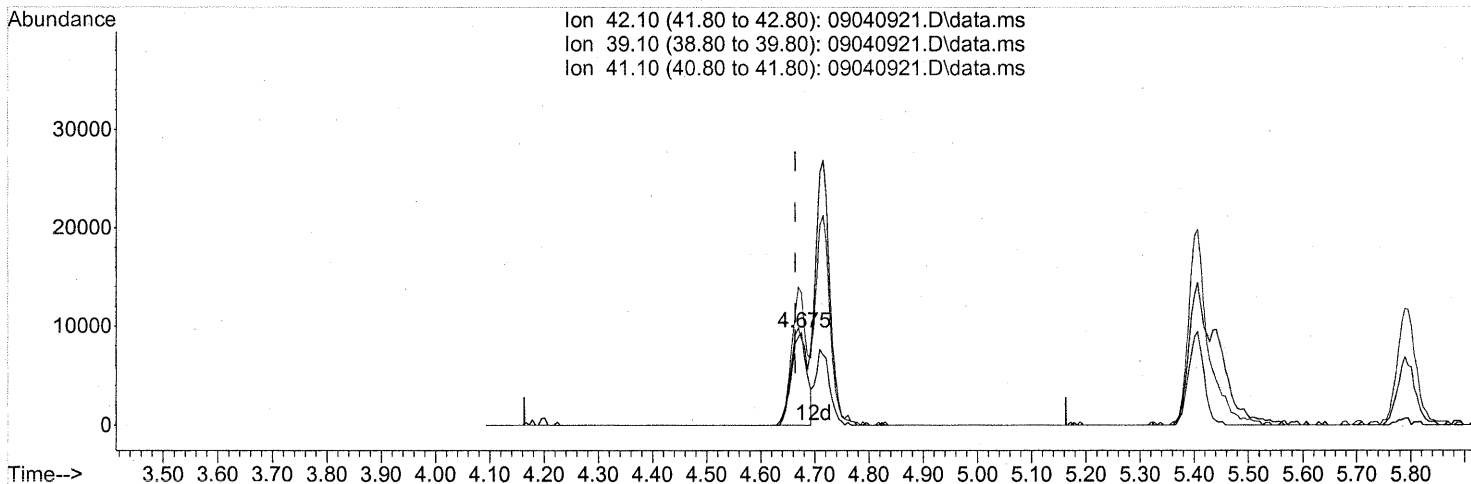
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	1449	N.D.		
81) 2-Ethyltoluene	24.55	105	12492	0.167 ng		89
82) 1,2,4-Trimethylbenzene	24.83	105	36950	0.604 ng		88
83) n-Decane	24.93	57	32004	0.877 ng		90
84) Benzyl Chloride	24.99	91	3237	0.053 ng		77
85) 1,3-Dichlorobenzene	25.02	146	1063	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	4211	0.122 ng		96
87) sec-Butylbenzene	25.15	105	2311	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	162974	2.165 ng		94
89) 1,2,3-Trimethylbenzene	25.35	105	25532	0.398 ng	#	36
90) 1,2-Dichlorobenzene	25.52	146	638	N.D.		
91) d-Limonene	25.53	68	230327	9.437 ng		100
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	23303	0.615 ng		81
94) 1,2,4-Trichlorobenzene	27.58	180	1360	0.063 ng	#	83
95) Naphthalene	27.72	128	452374	5.354 ng		99
96) n-Dodecane	27.69	57	20909	0.484 ng		88
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	41116	1.622 ng		95
99) tert-Butylbenzene	24.82	119	4383	0.074 ng	#	56
100) n-Butylbenzene	25.85	91	11202	0.165 ng	#	51

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(2) Propene (T)

4.675min (+0.011) 0.90ng

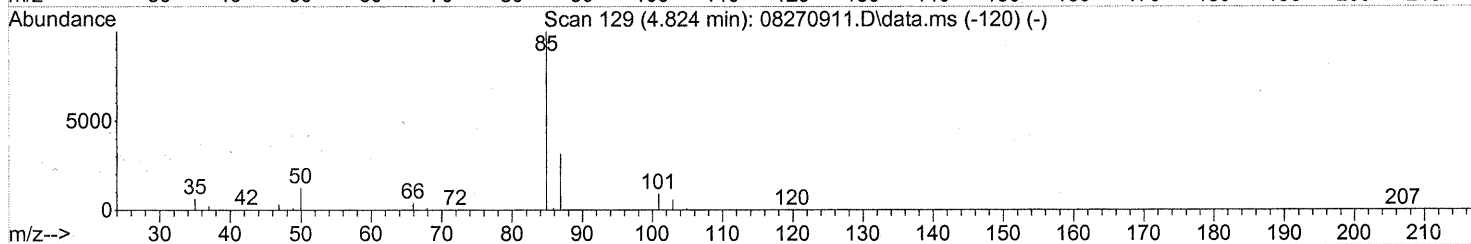
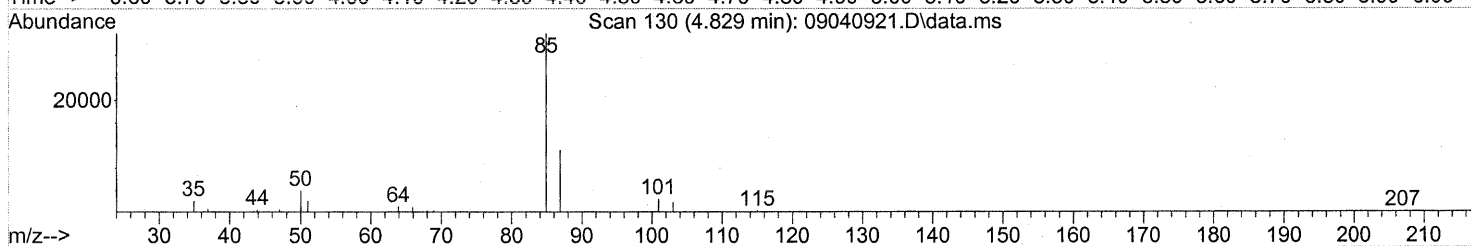
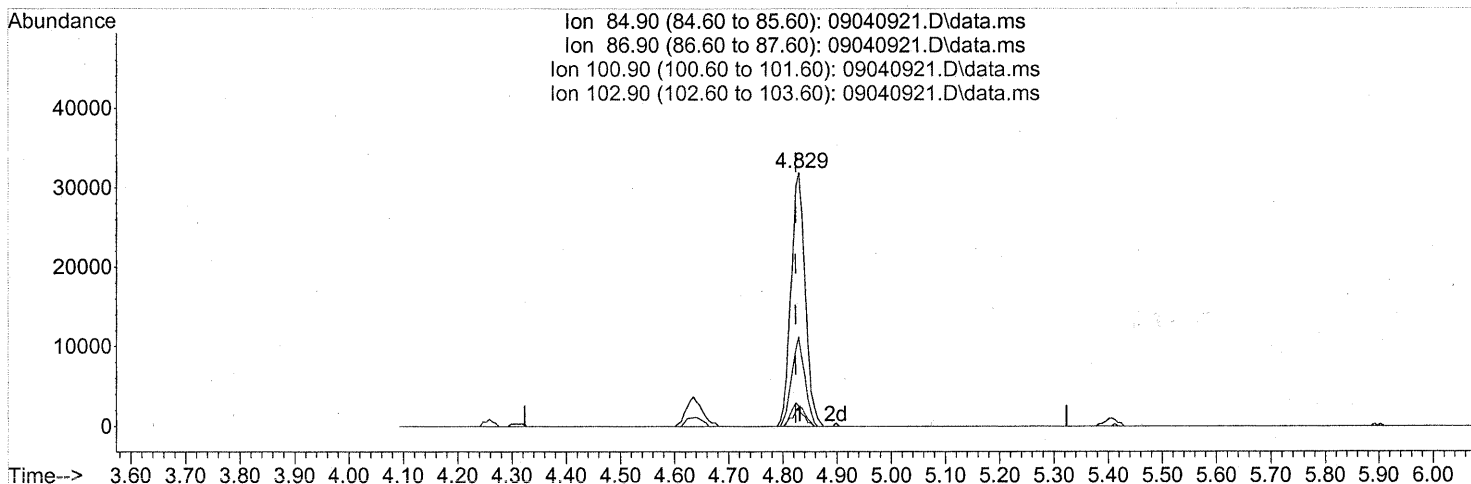
response 18366

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	100.22
41.10	149.80	147.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.829min (+0.006) 1.64ng

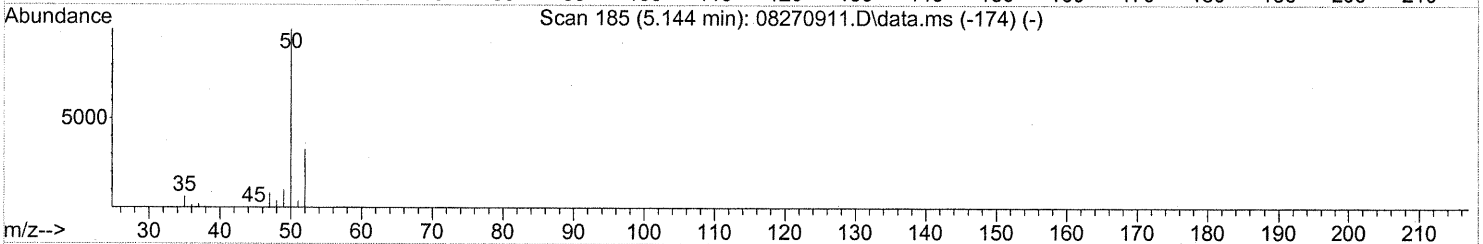
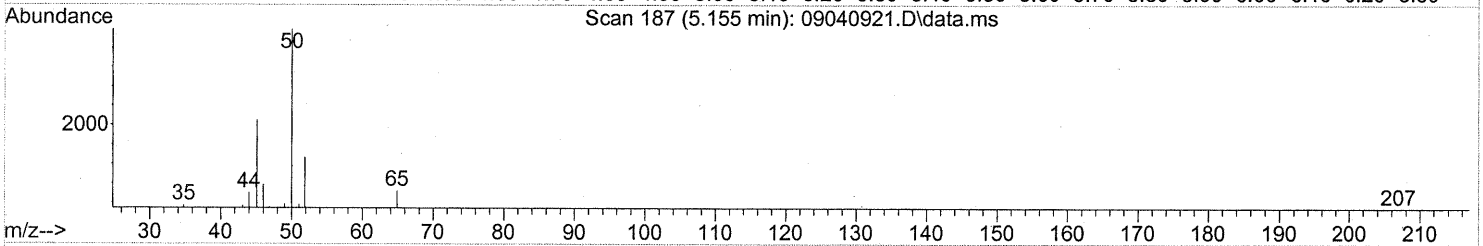
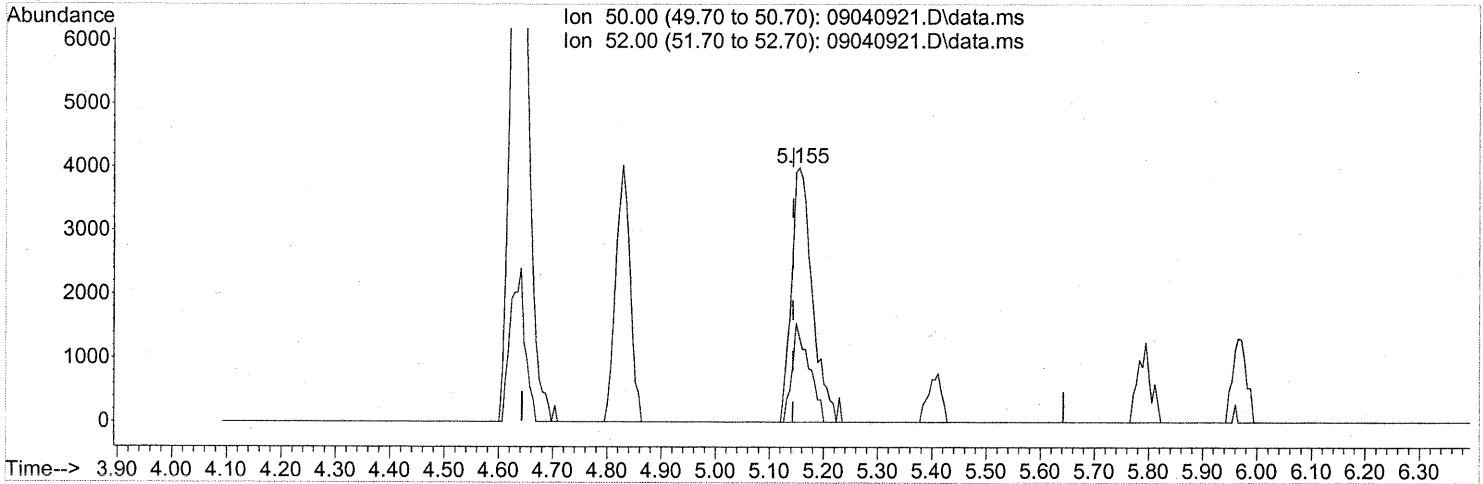
response 58279

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.62
100.90	8.80	8.51
102.90	5.60	5.89

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

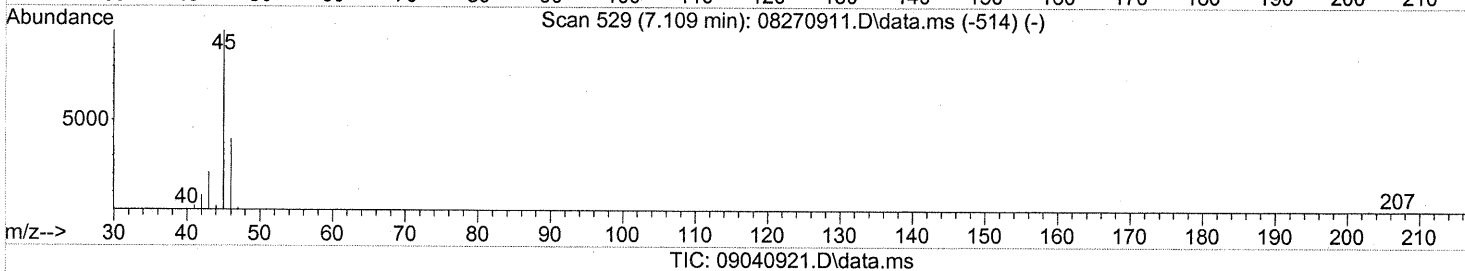
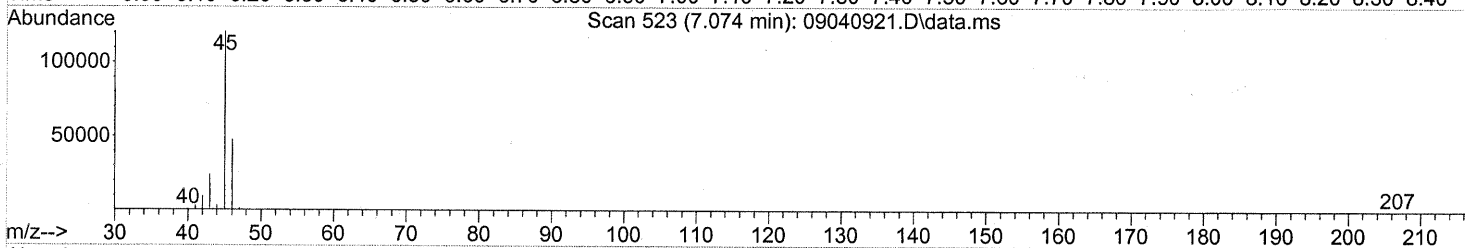
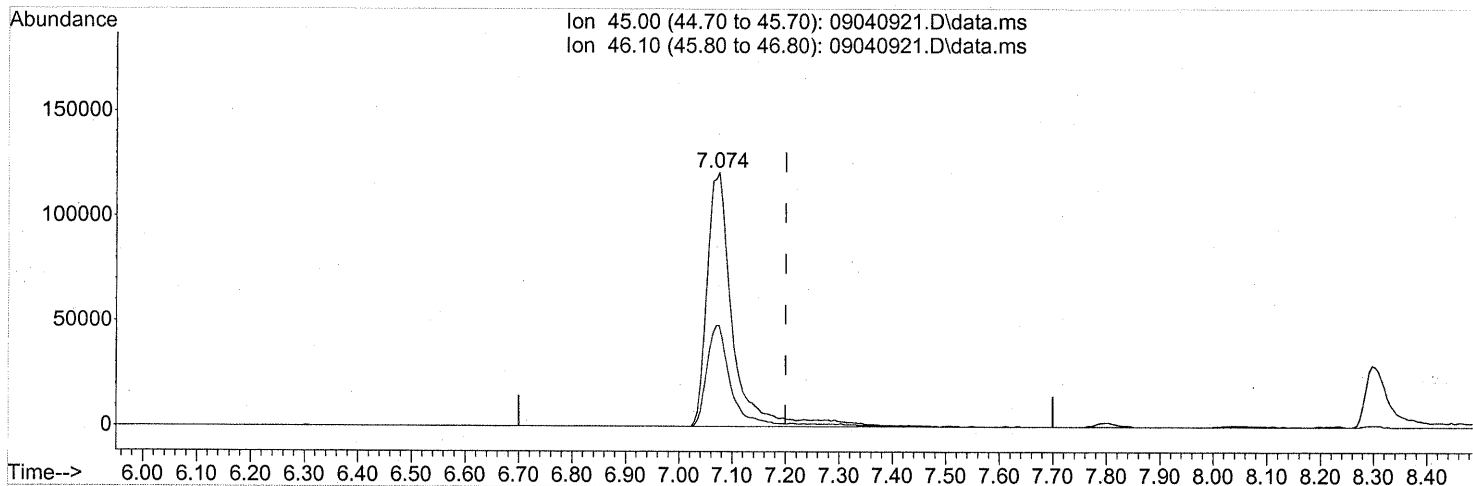
(4) Chloromethane (T)
 5.155min (+0.011) 0.45ng
 response 10672

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	31.86
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(10) Ethanol (T)

7.074min (-0.126) 32.25ng

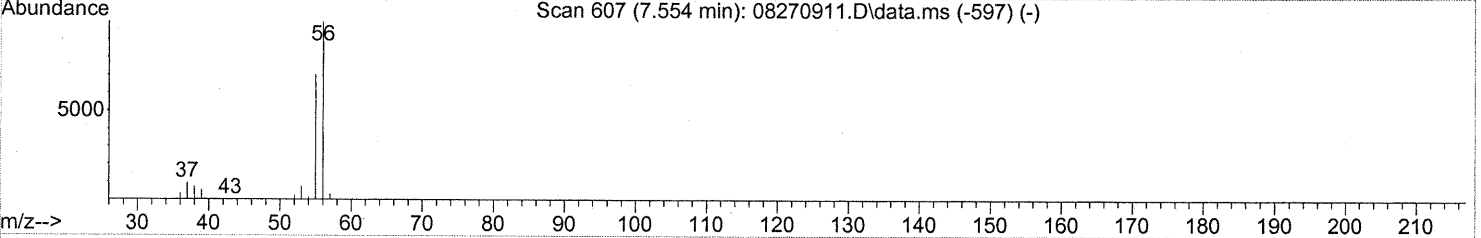
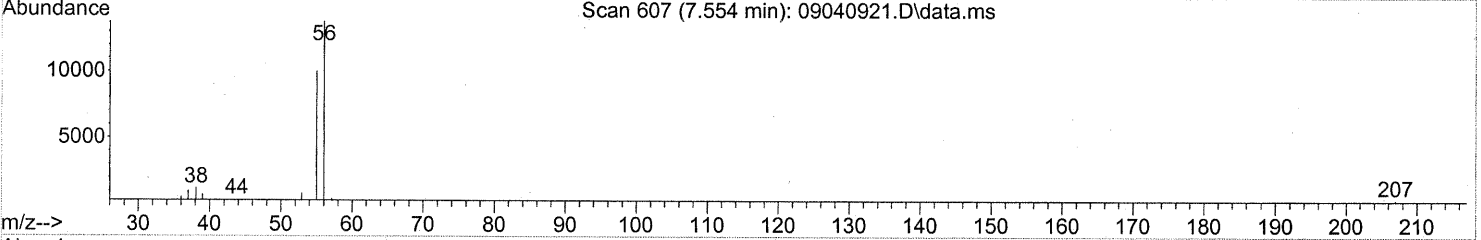
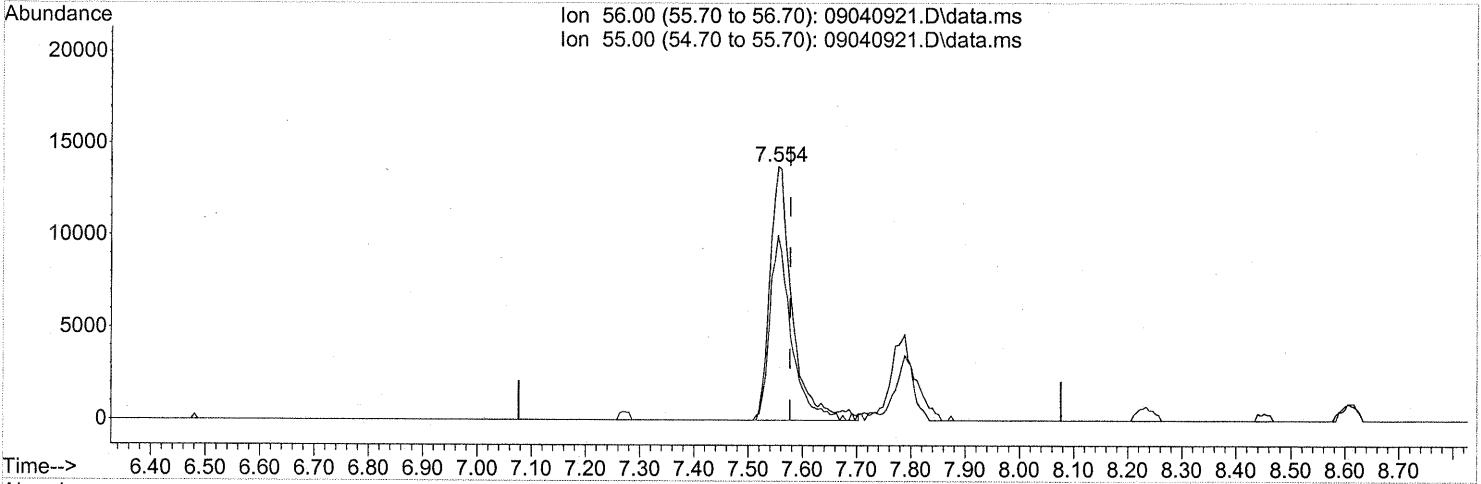
response 406763

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.40
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040921.D
Acq On : 5 Sep 2009 00:28
Operator : LM/CC
Sample : P0903022-002 (1000ml)
Misc : EH&E 103601
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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: 09040921.D\data.ms

(12) Acrolein (T)

7.554min (-0.023) 4.09ng

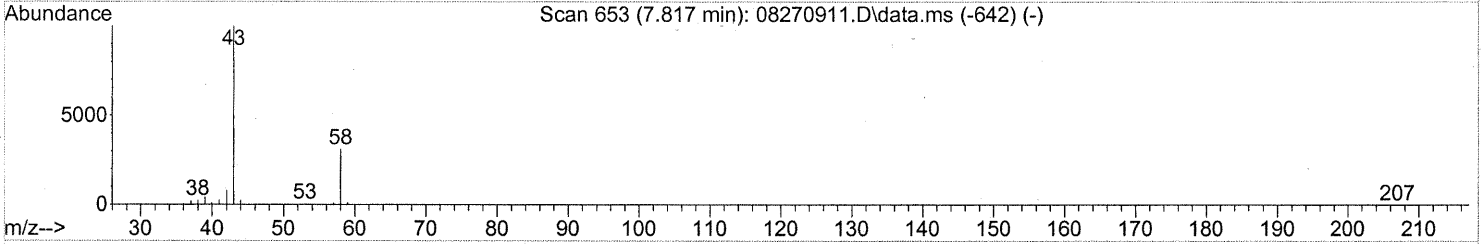
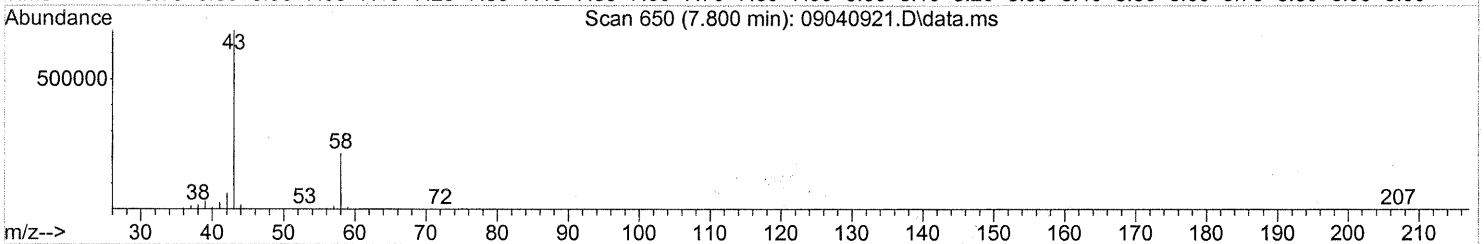
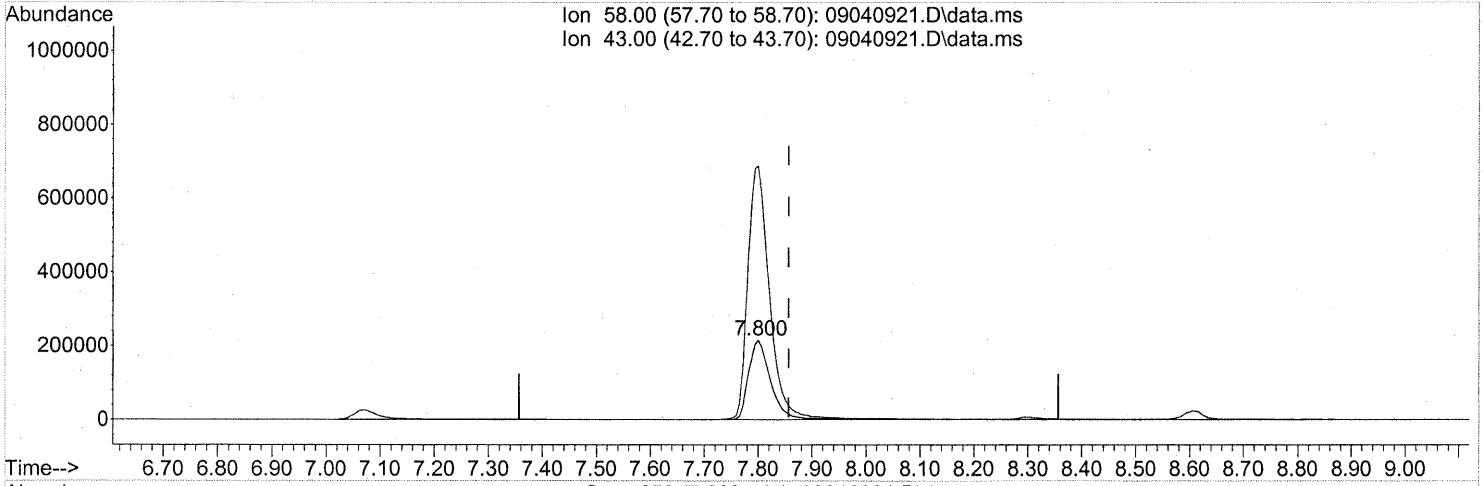
response 39431

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	70.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(13) Acetone (T)

7.800min (-0.057) 46.55ng

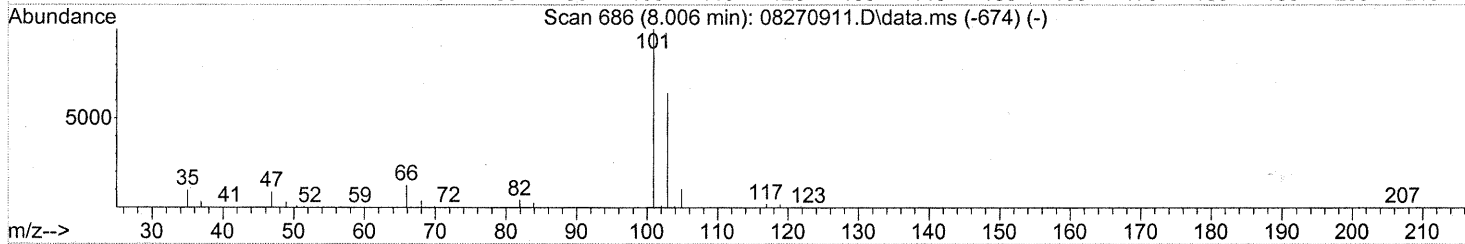
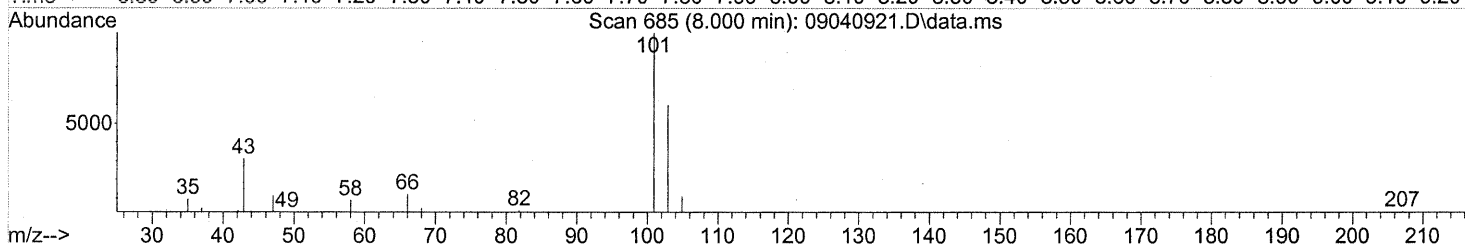
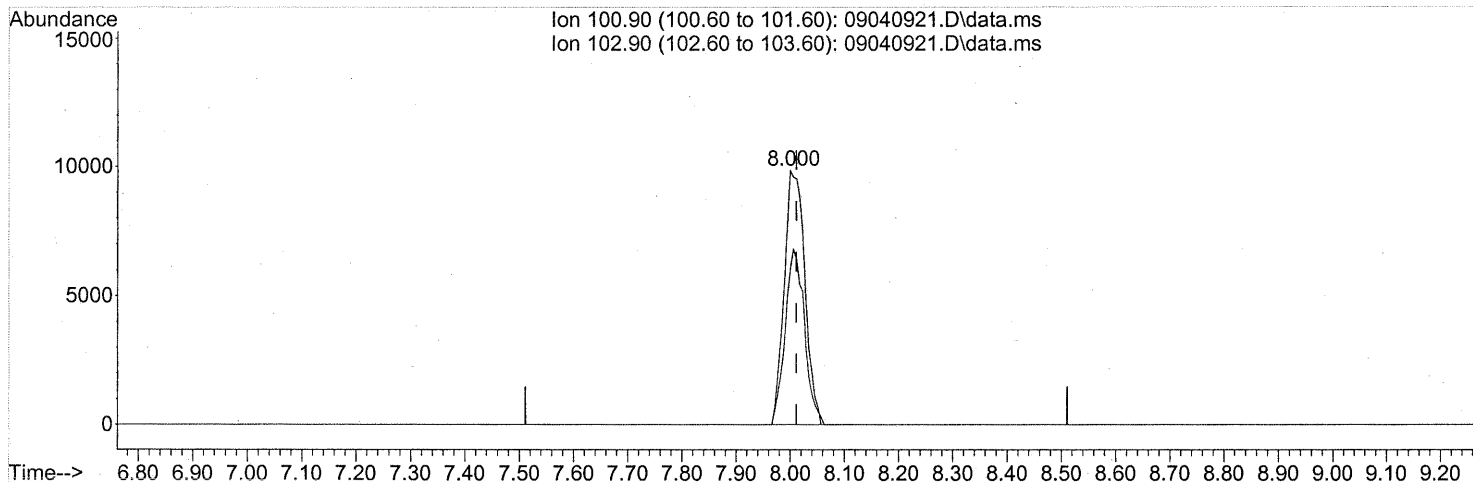
response 607140

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	317.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(14) Trichlorofluoromethane (T)

8.000min (-0.011) 0.82ng

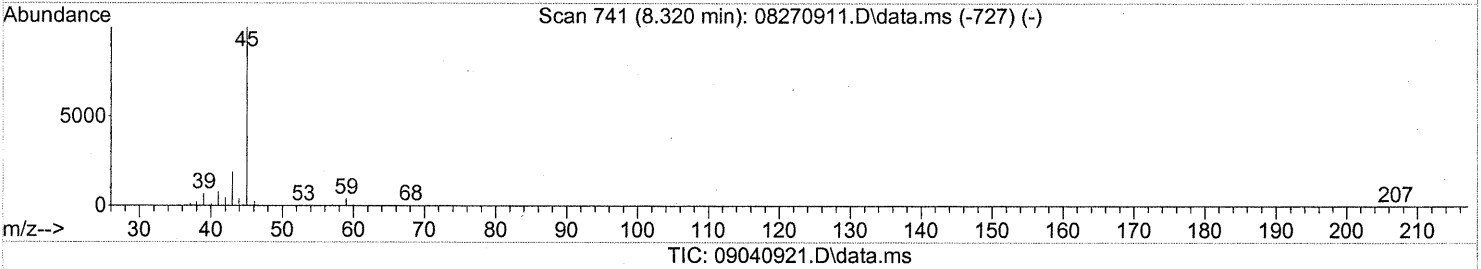
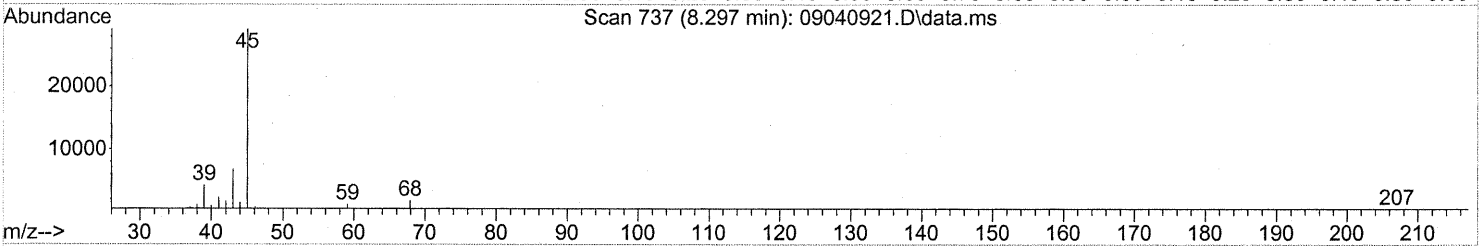
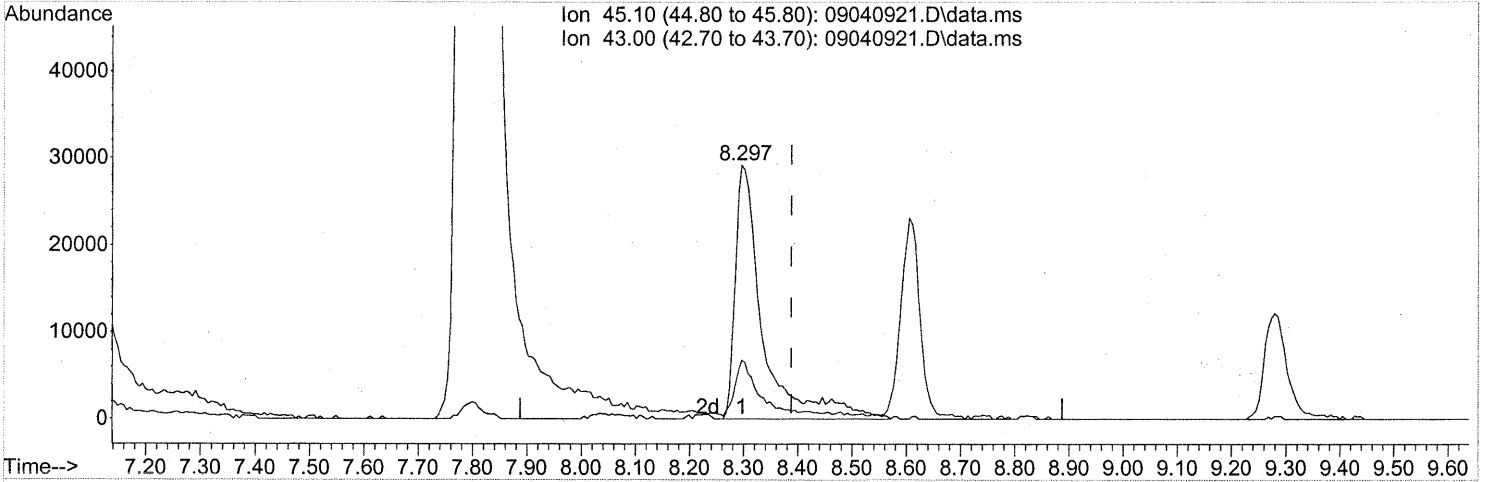
response 25780

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	64.74
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

8.297min (-0.091) 2.36ng

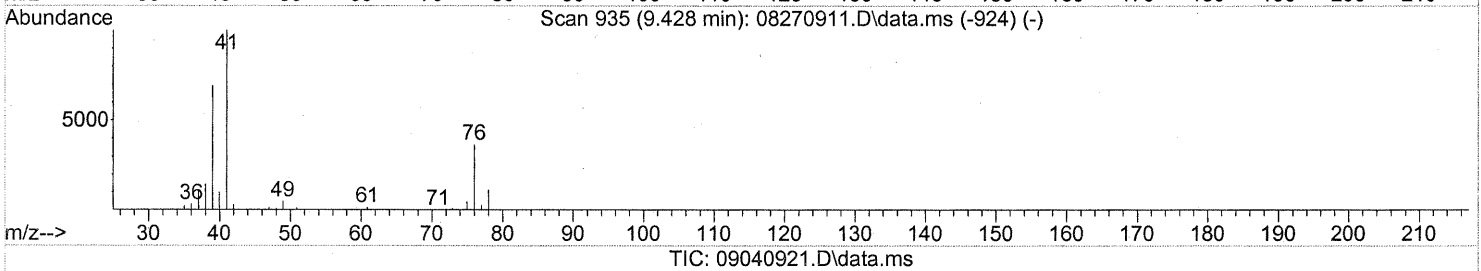
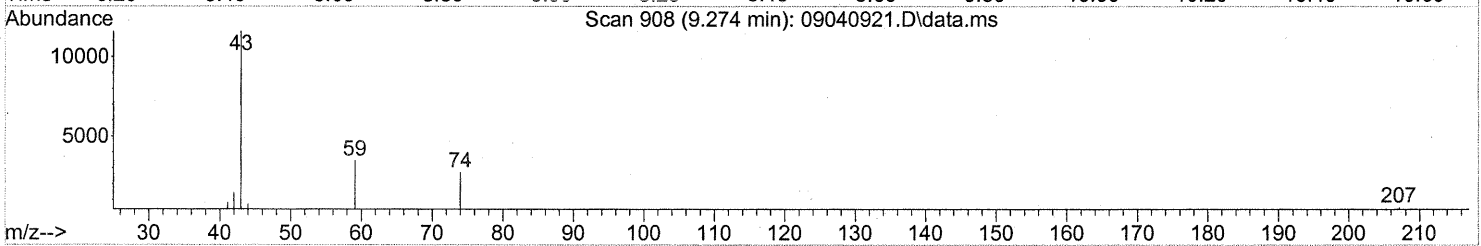
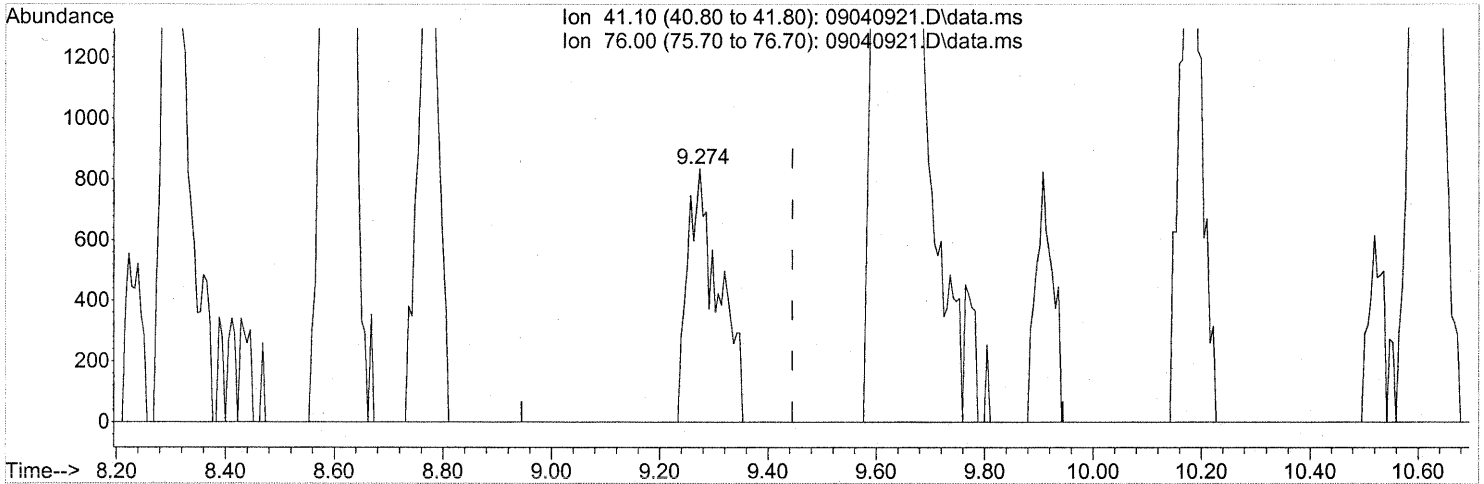
response 102276

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	22.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

9.274min (-0.171) 0.13ng

response 3306

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

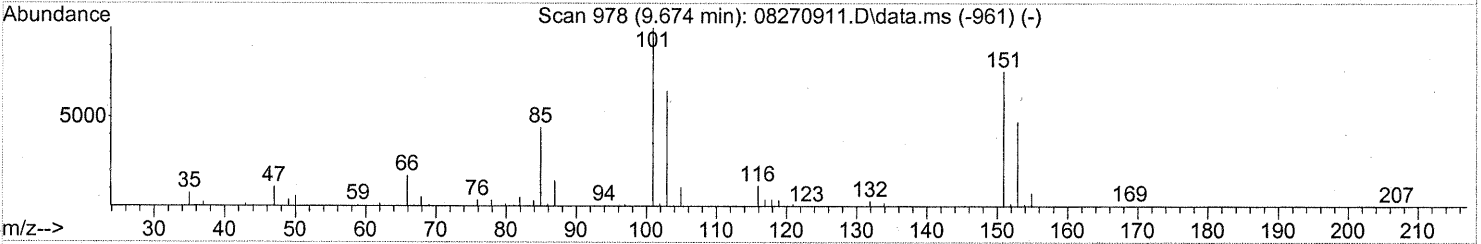
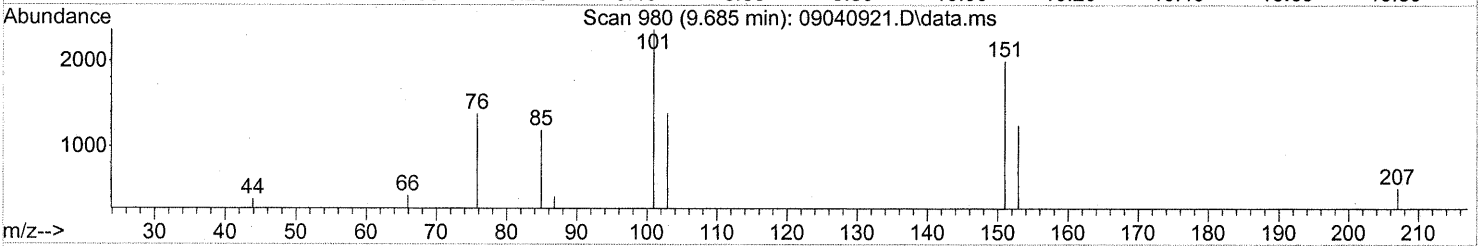
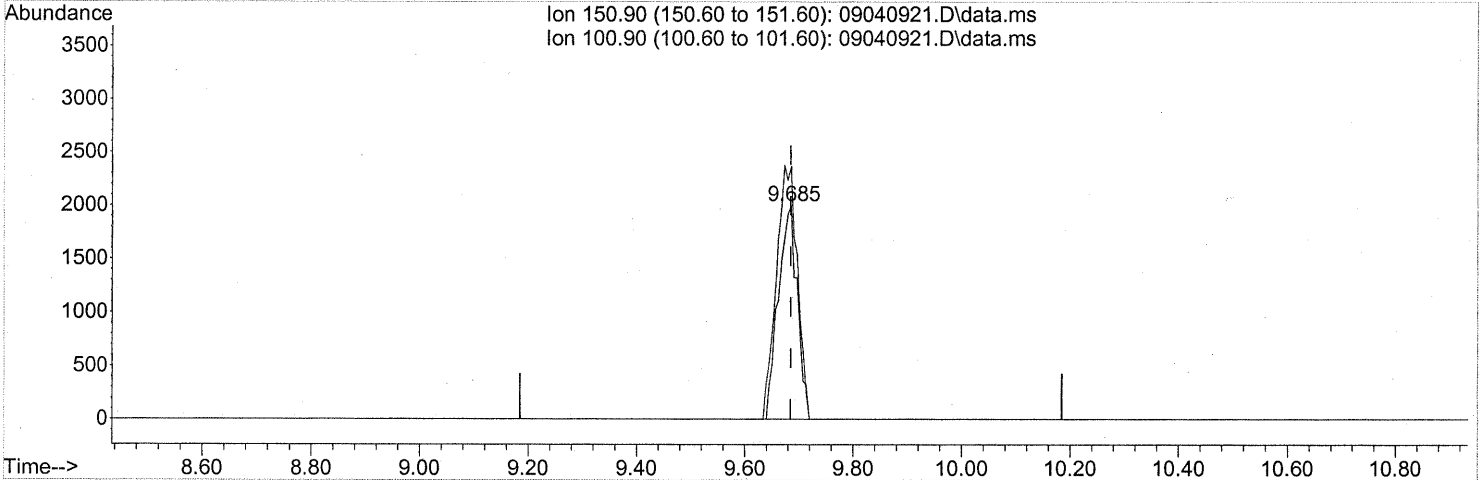
FP
11/9/09

R 9/11/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(21) Trichlorotrifluoroethane (T)

9.685min (+0.000) 0.39ng

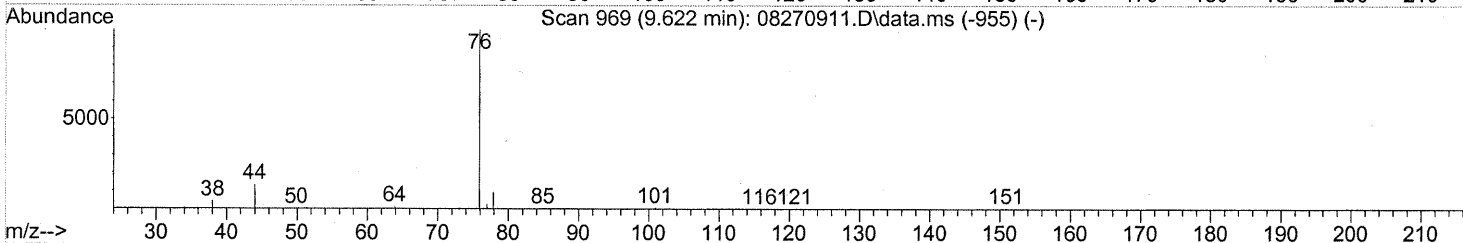
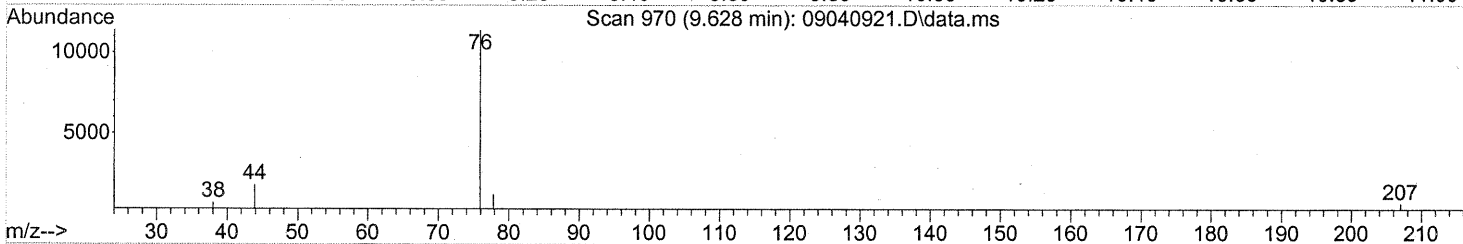
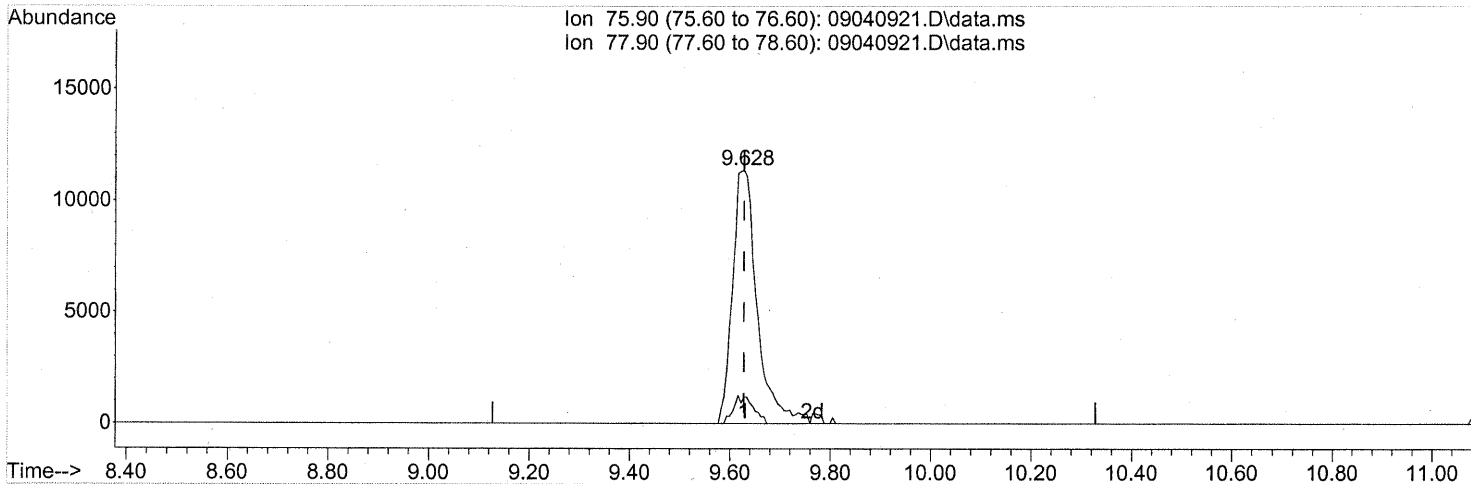
response 4849

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	131.53
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040921.D
Acq On : 5 Sep 2009 00:28
Operator : LM/CC
Sample : P0903022-002 (1000ml)
Misc : EH&E 103601
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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: 09040921.D\data.ms

(22) Carbon Disulfide (T)

9.628min (+0.000) 0.66ng

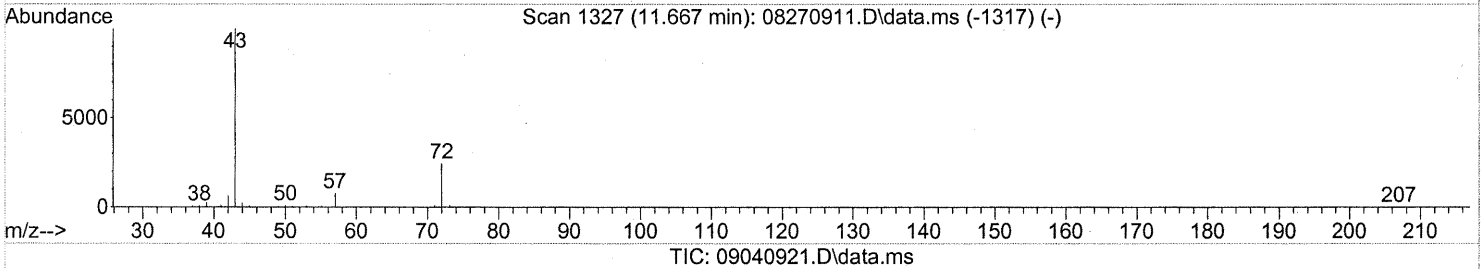
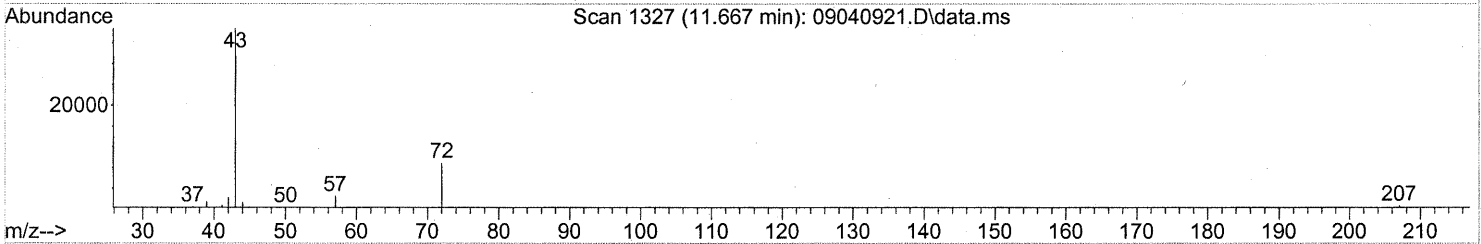
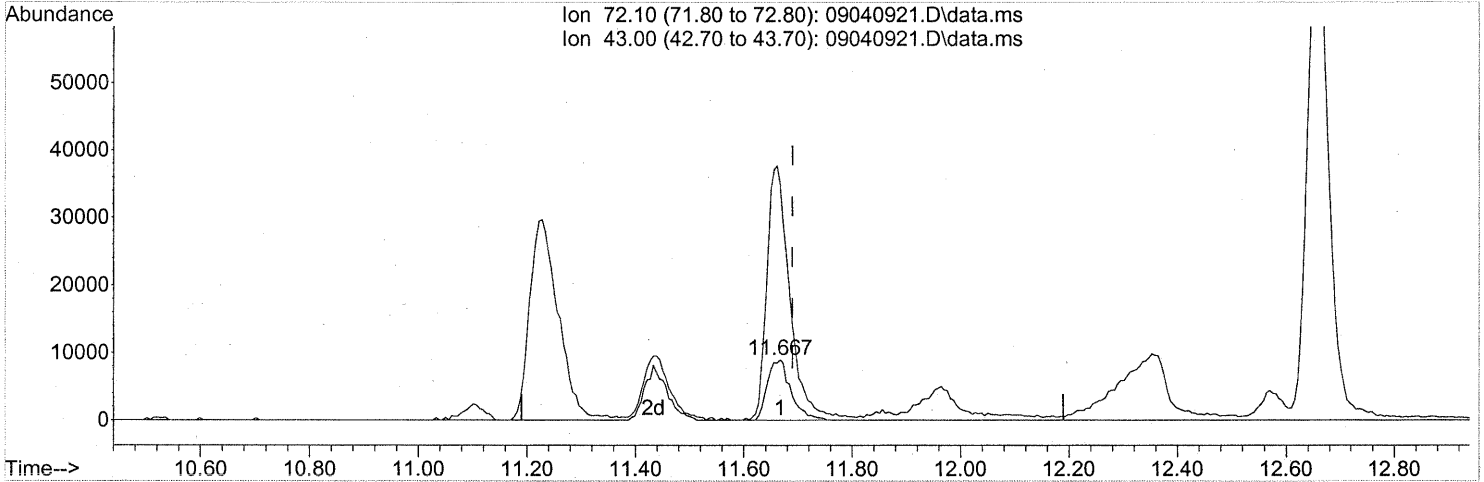
response 38714

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	8.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

11.667min (-0.023) 2.54ng

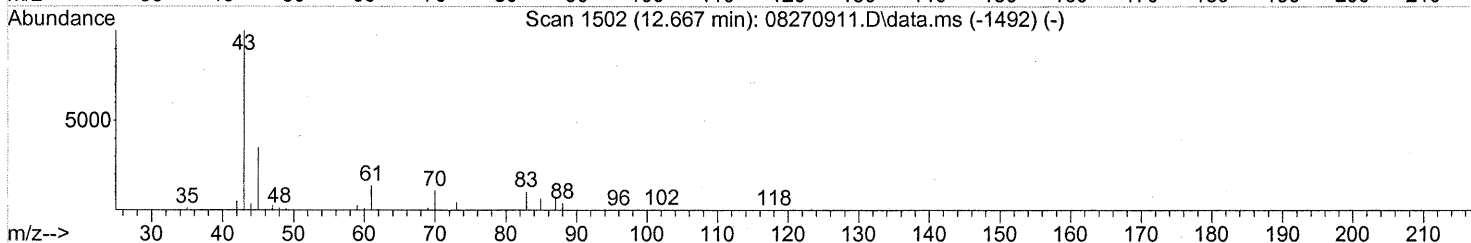
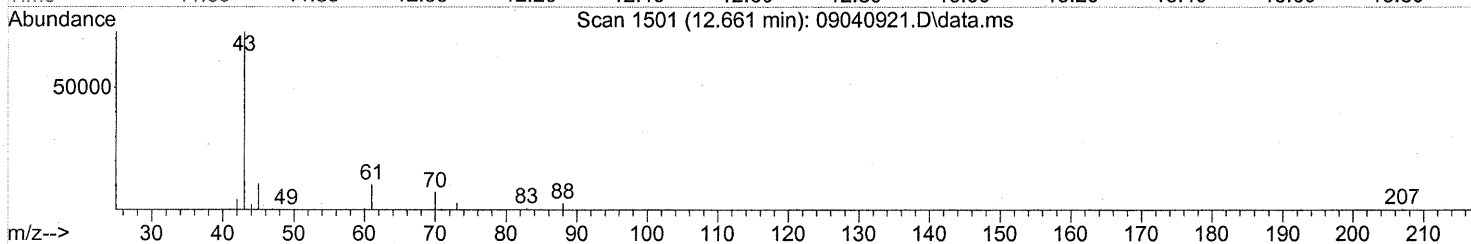
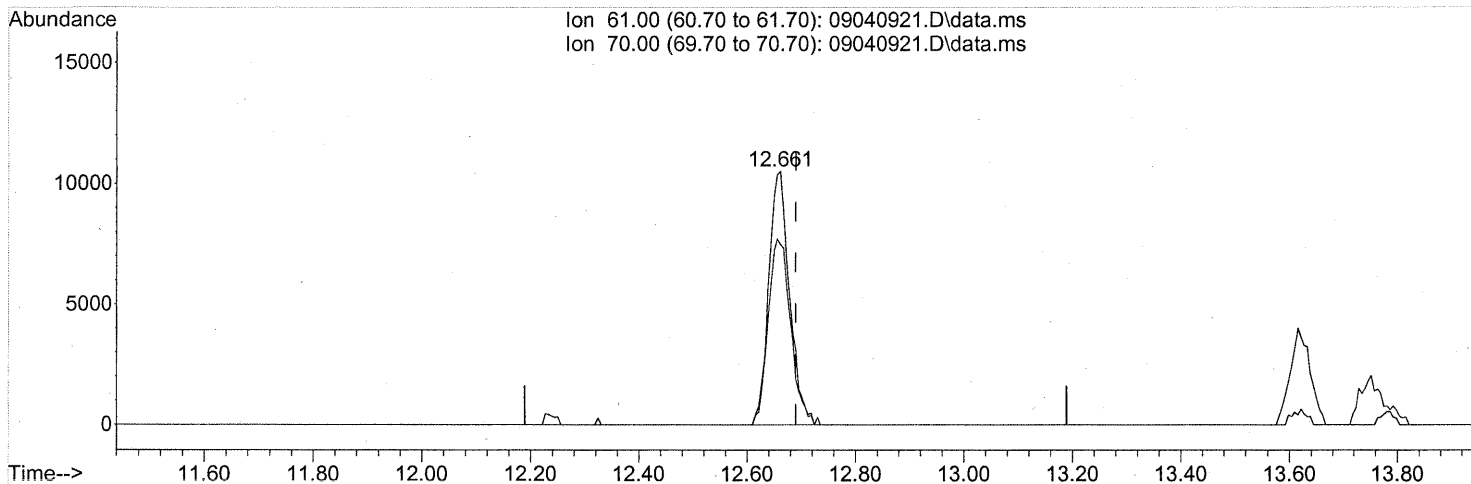
response 26754

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	418.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(30) Ethyl Acetate (T)

12.661min (-0.029) 4.97ng

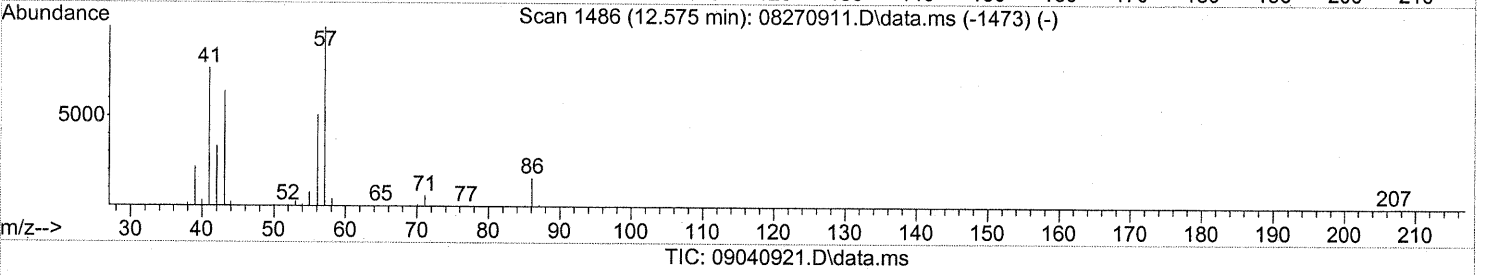
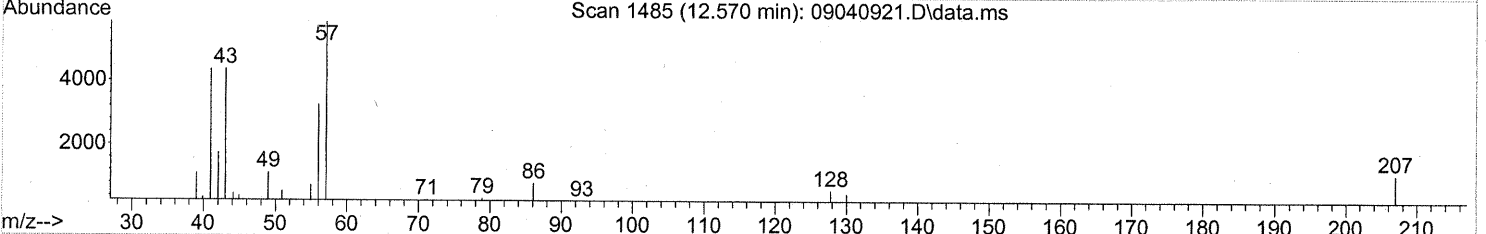
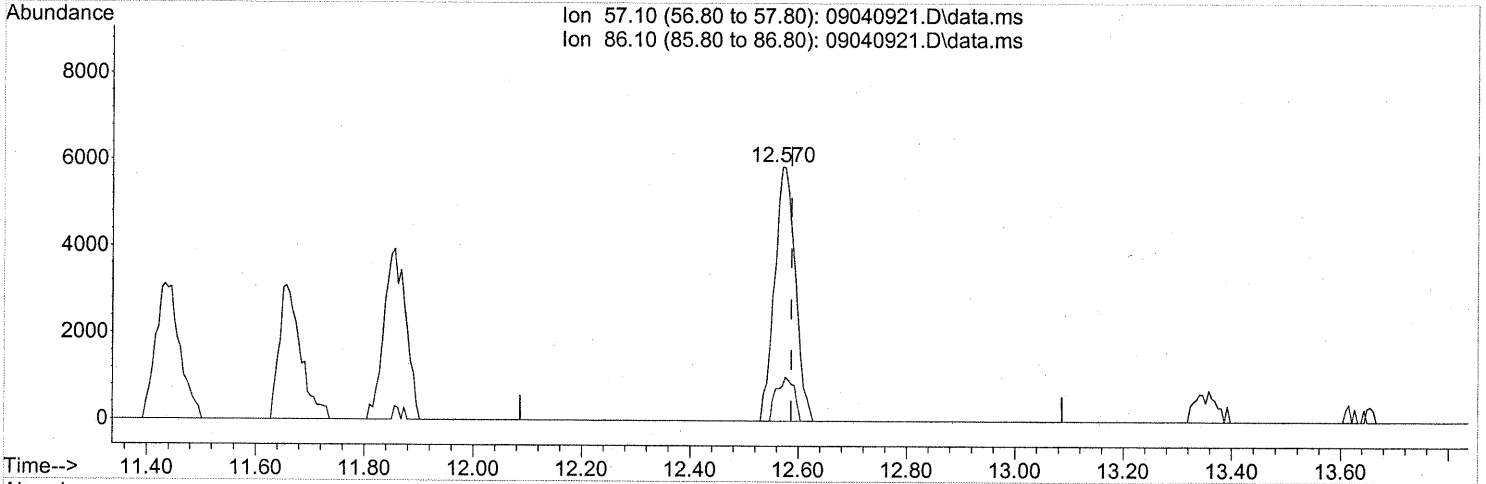
response 28141

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	78.49
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(31) n-Hexane (T)

12.570min (-0.017) 0.55ng

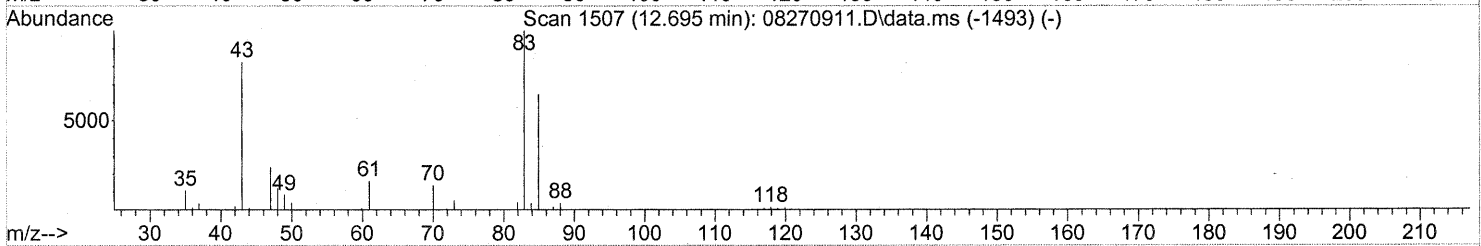
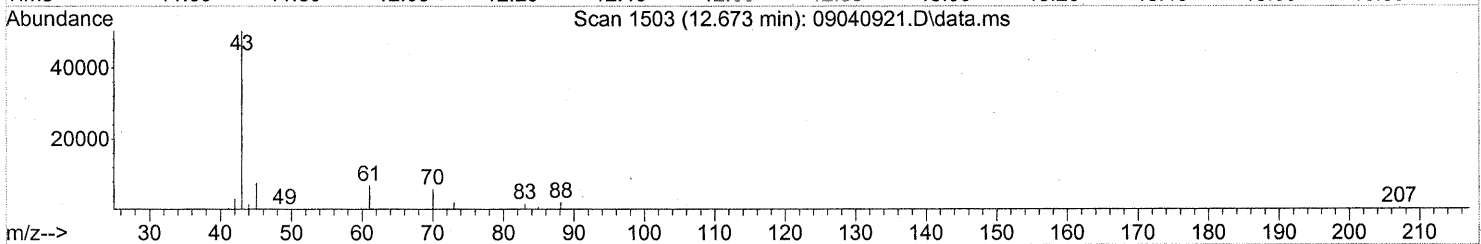
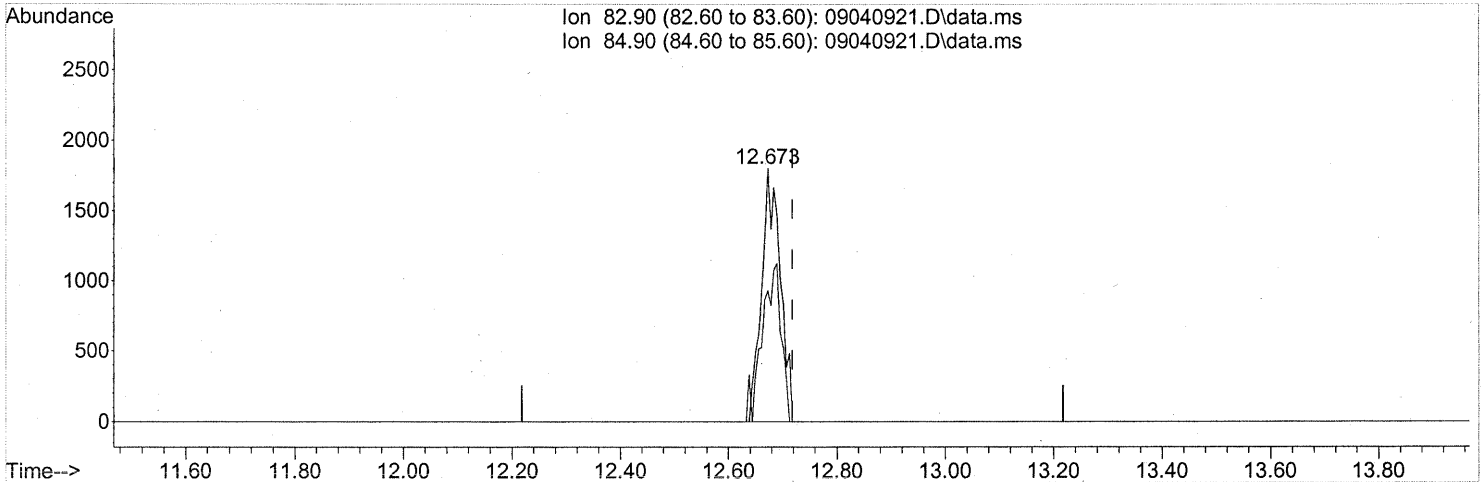
response 15574

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	14.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(32) Chloroform (T)

12.673min (-0.046) 0.16ng

response 4313

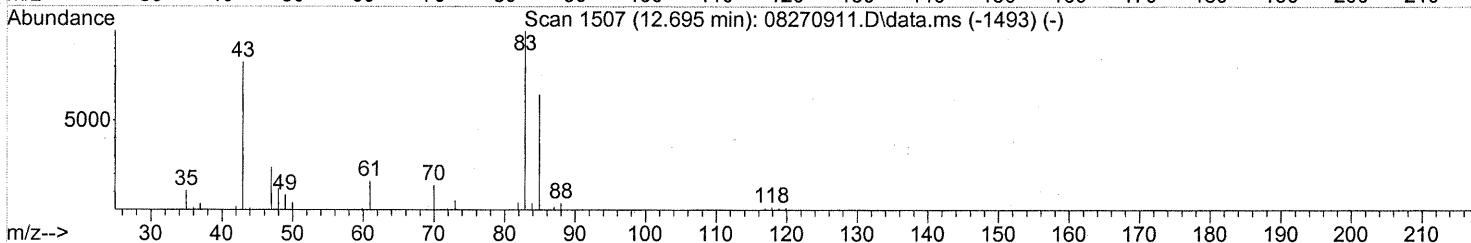
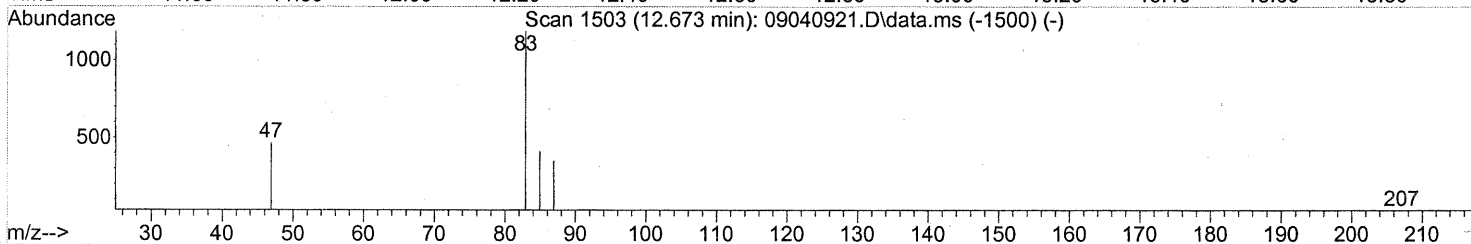
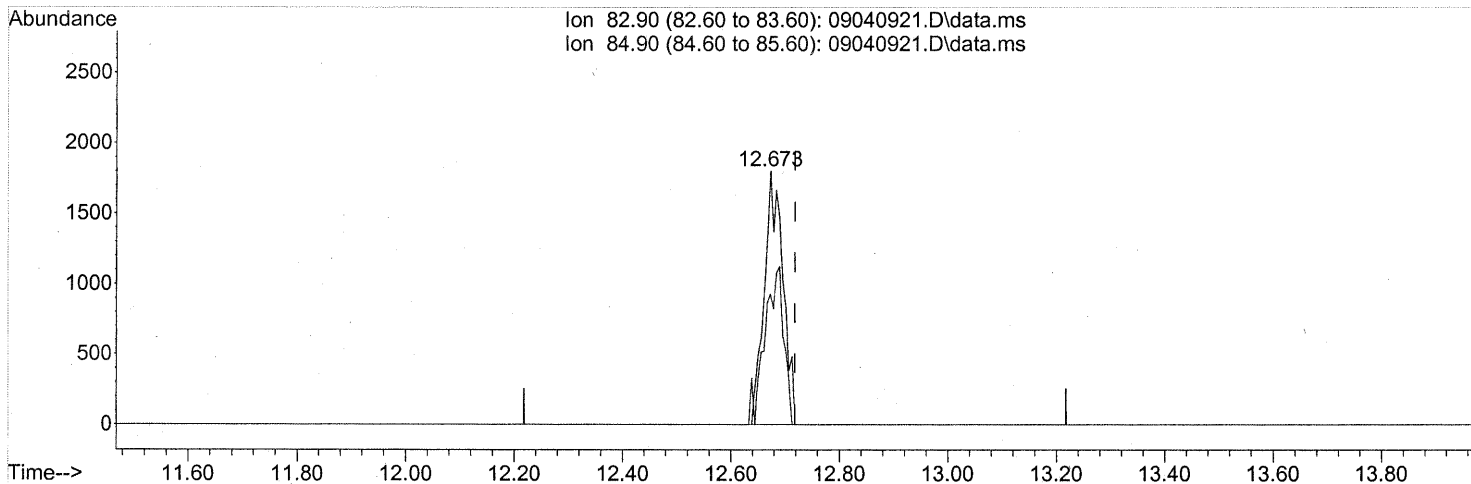
Ion	Exp%	Act%
82.90	100	100
84.90	62.60	63.34
0.00	0.00	0.00
0.00	0.00	0.00

Before submit.

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(32) Chloroform (T)
 12.673min (-0.046) 0.16ng
 response 4313

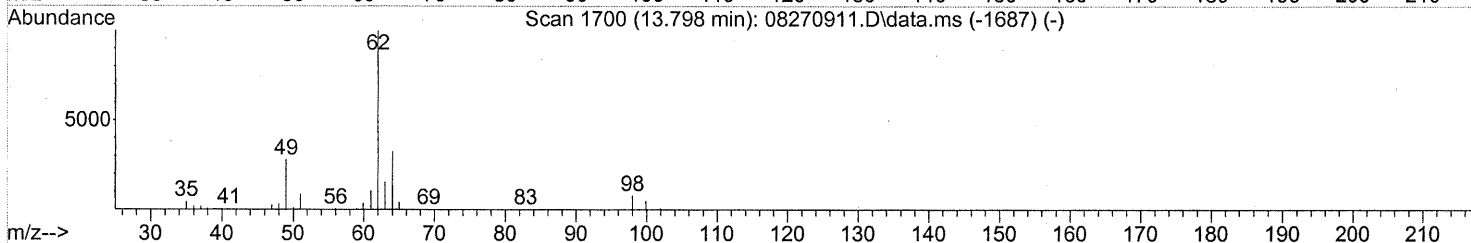
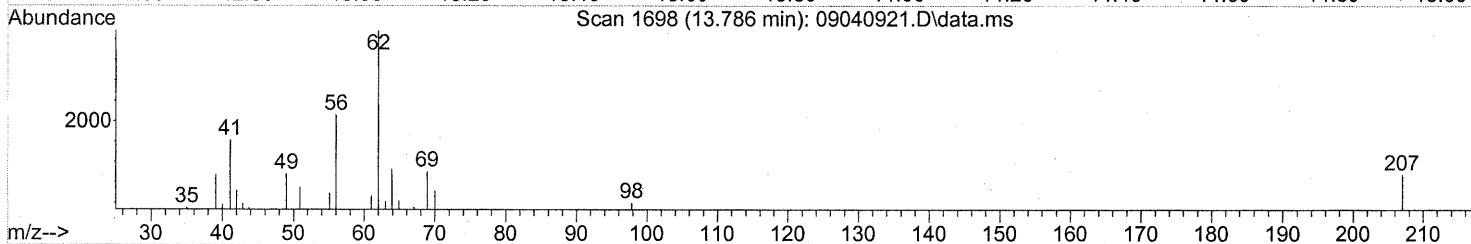
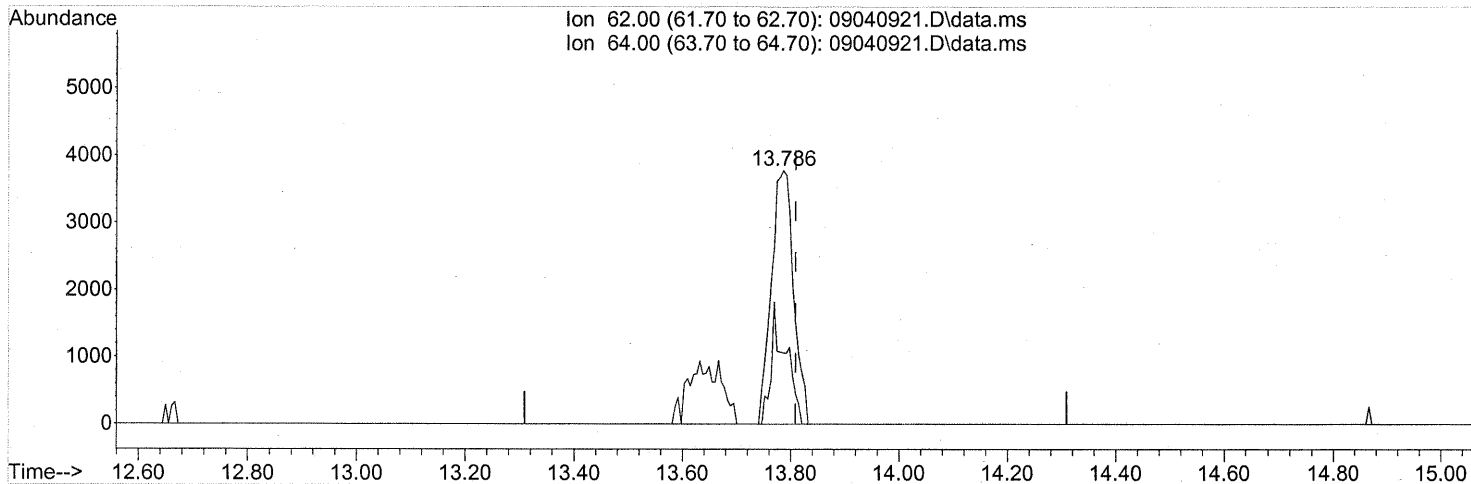
Ion	Exp%	Act%
82.90	100	100
84.90	62.60	63.34
0.00	0.00	0.00
0.00	0.00	0.00

After subtraction.

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(36) 1,2-Dichloroethane (T)

13.786min (-0.023) 0.46ng

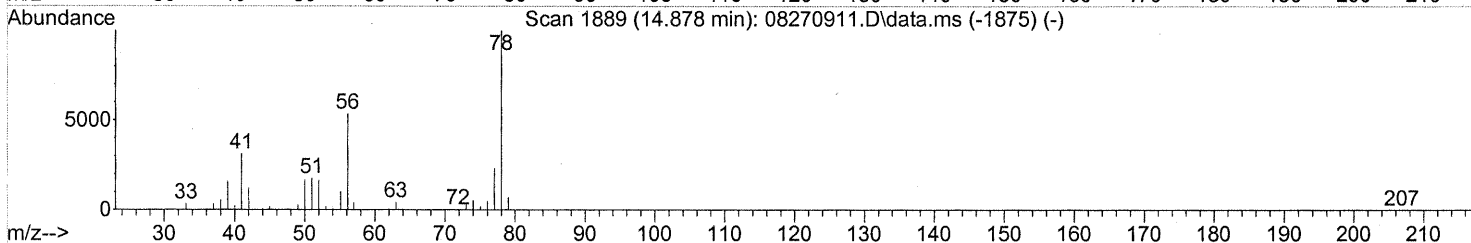
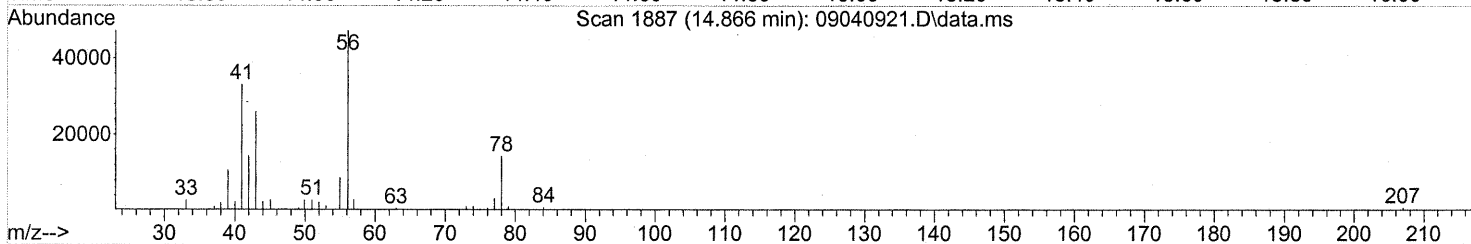
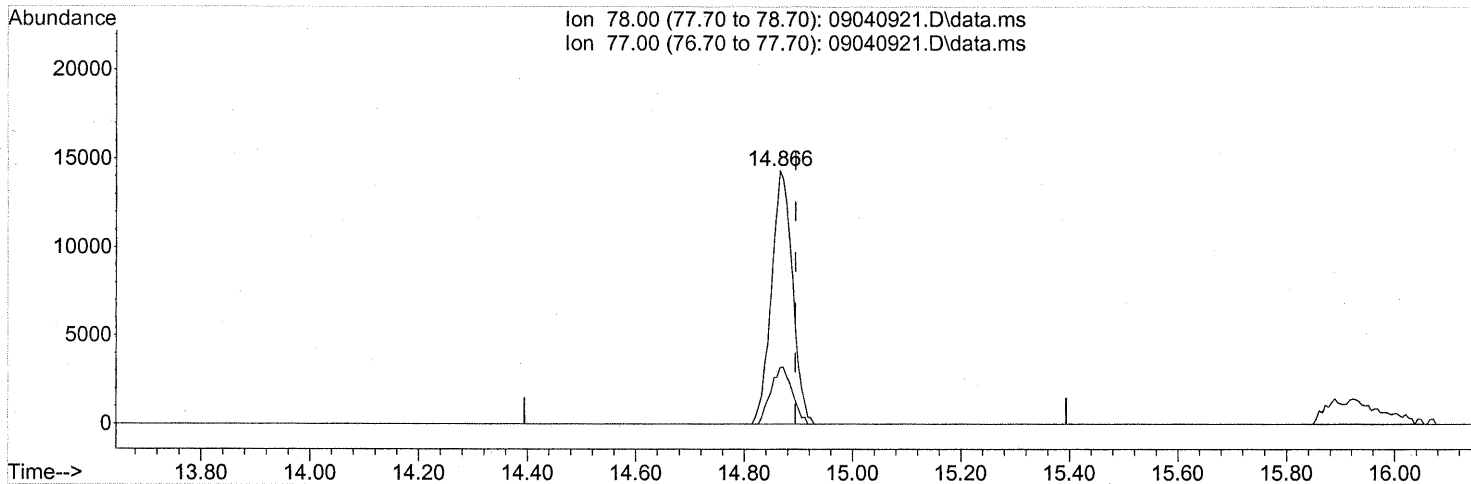
response 10786

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	32.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(41) Benzene (T)

14.866min (-0.028) 0.58ng

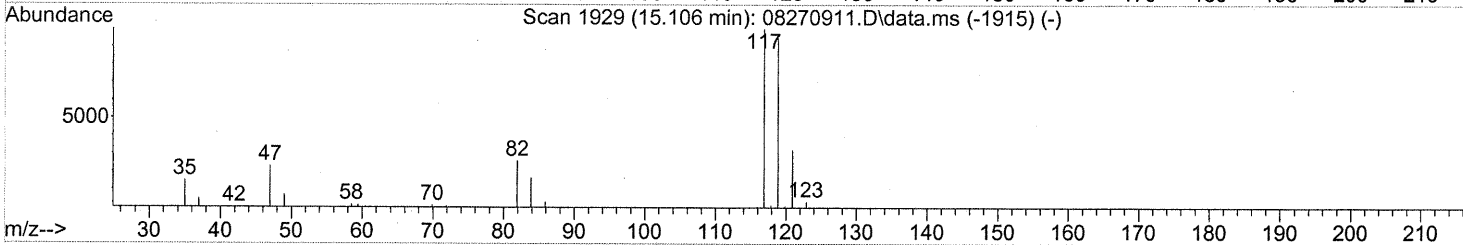
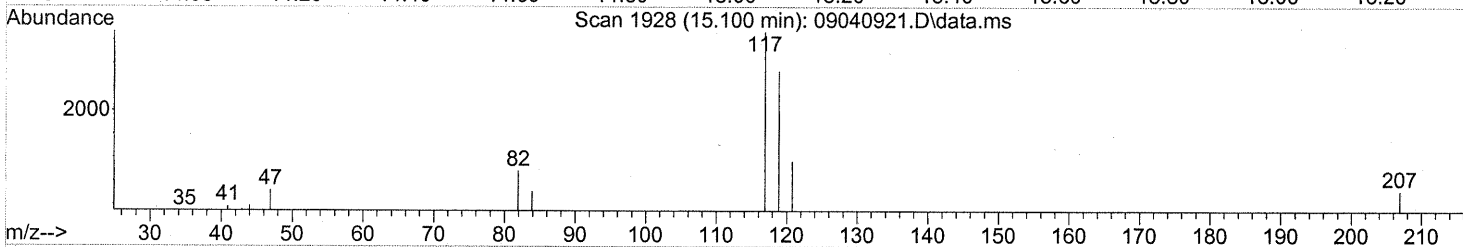
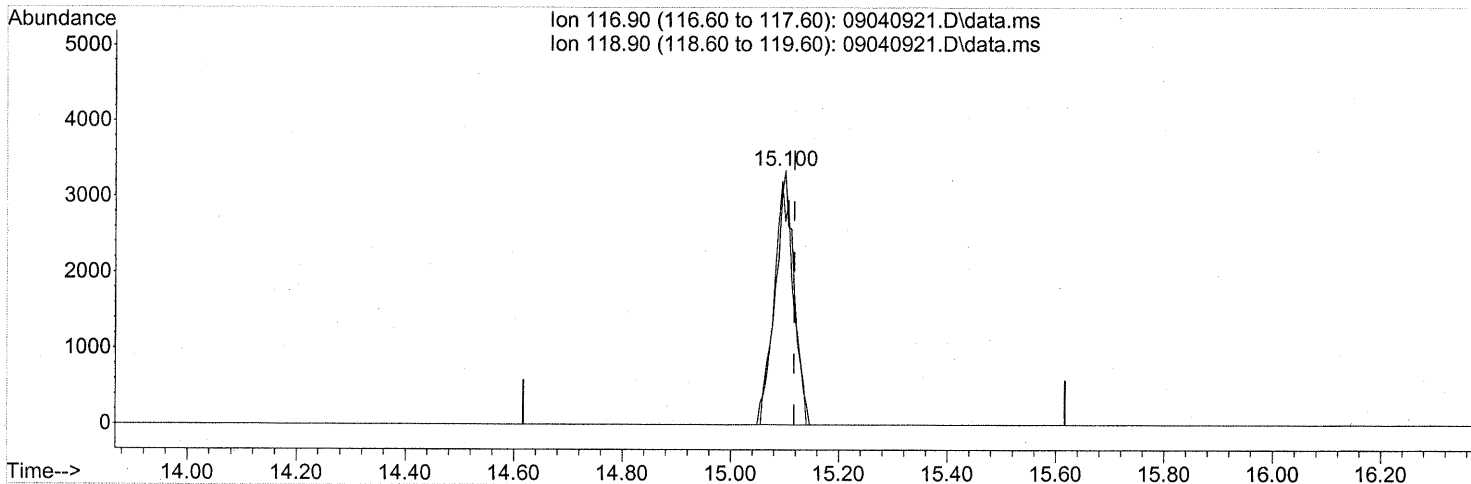
response 38345

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(42) Carbon Tetrachloride (T)

15.100min (-0.017) 0.37ng

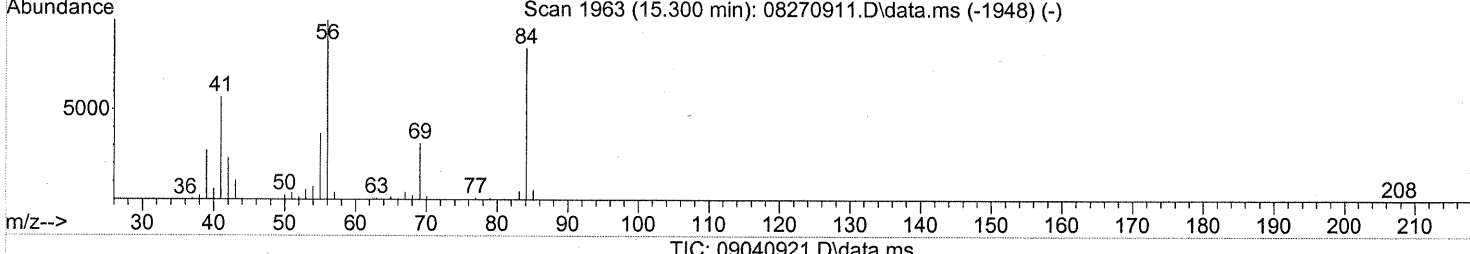
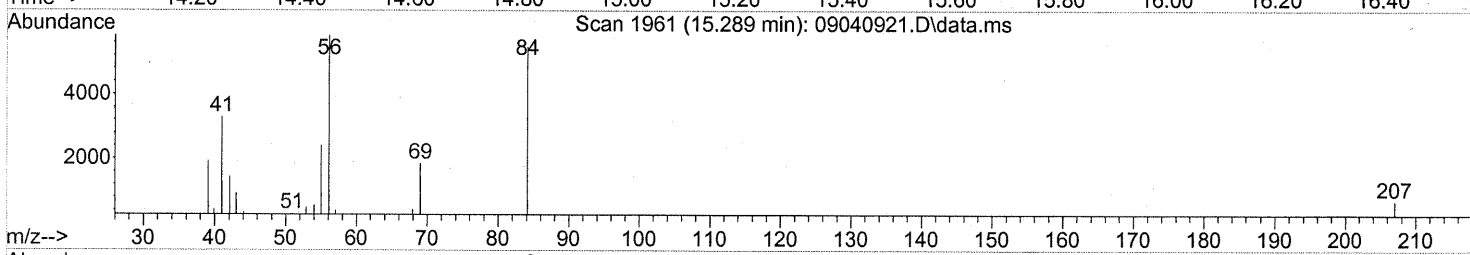
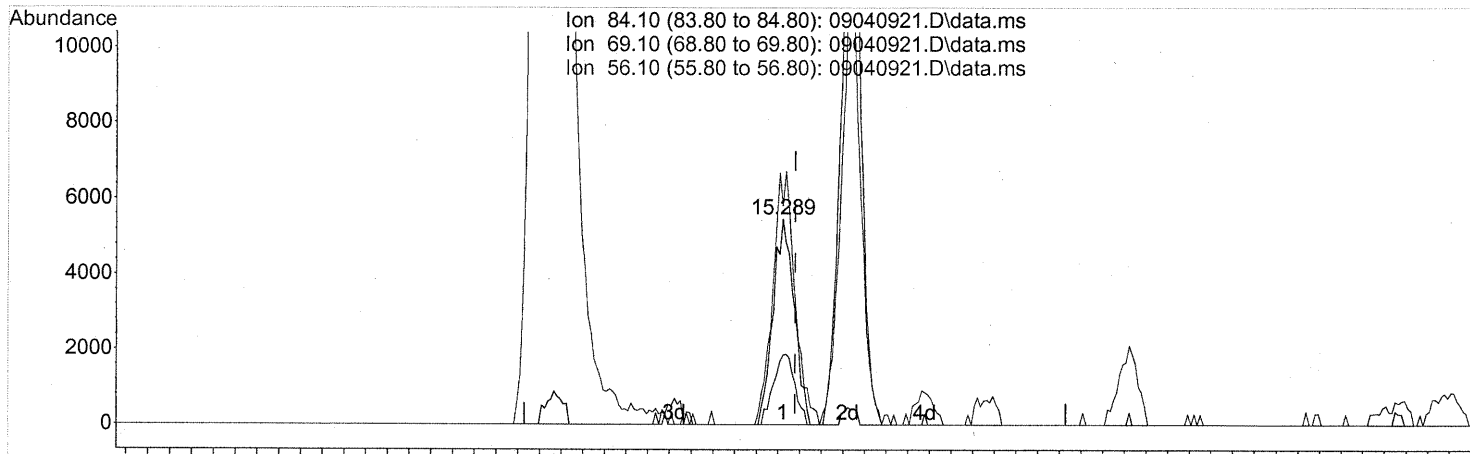
response 8062

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	98.59
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



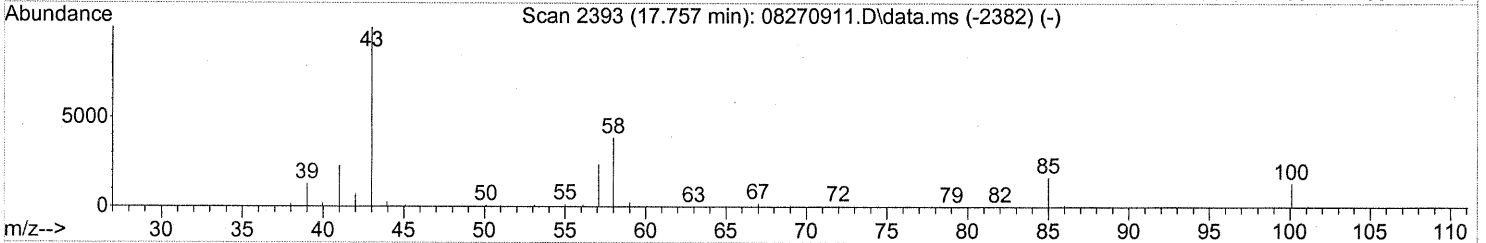
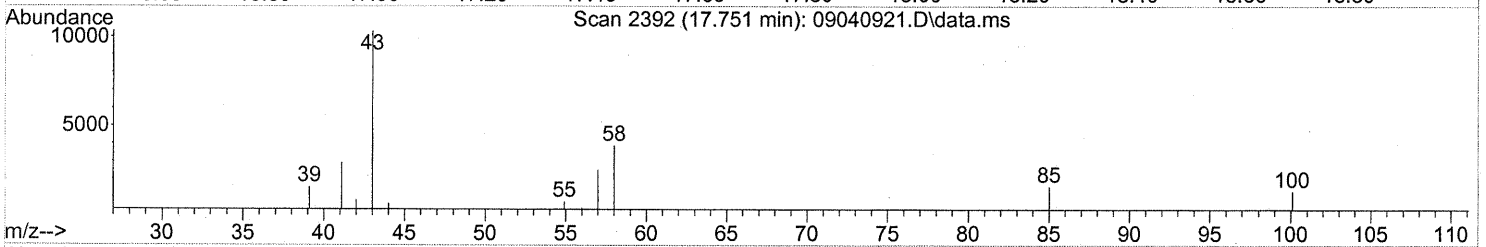
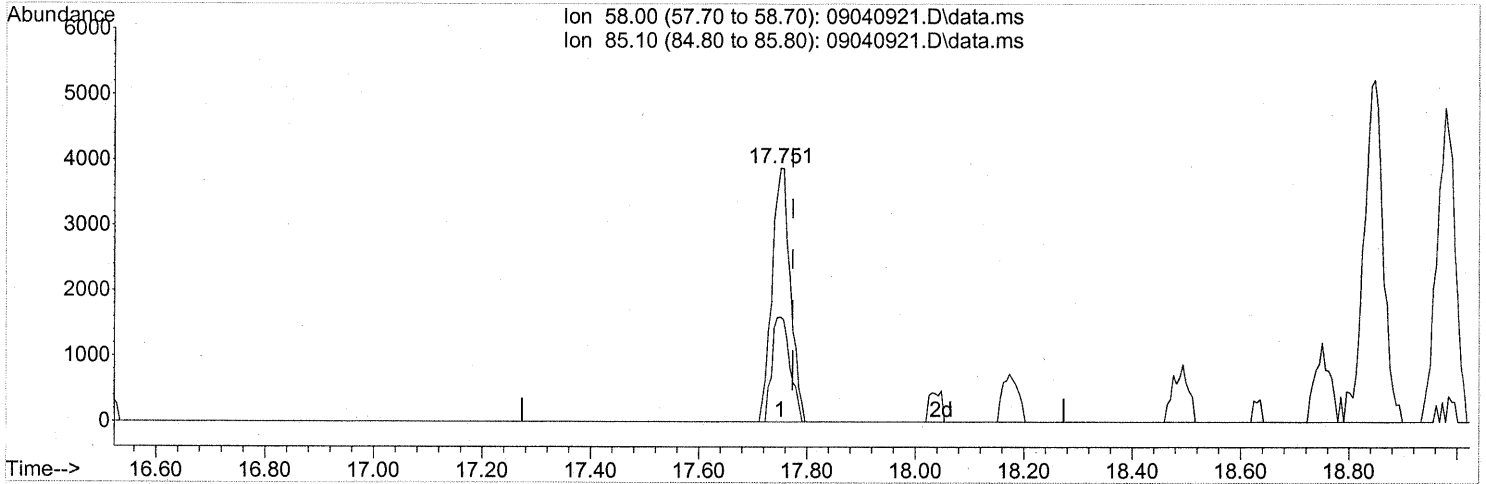
(43) Cyclohexane (T)
 15.289min (-0.023) 0.61ng
 response 14815

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	34.76
56.10	124.50	129.48
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040921.D
Acq On : 5 Sep 2009 00:28
Operator : LM/CC
Sample : P0903022-002 (1000ml)
Misc : EH&E 103601
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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: 09040921.D\data.ms

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

17.751min (-0.023) 0.61ng

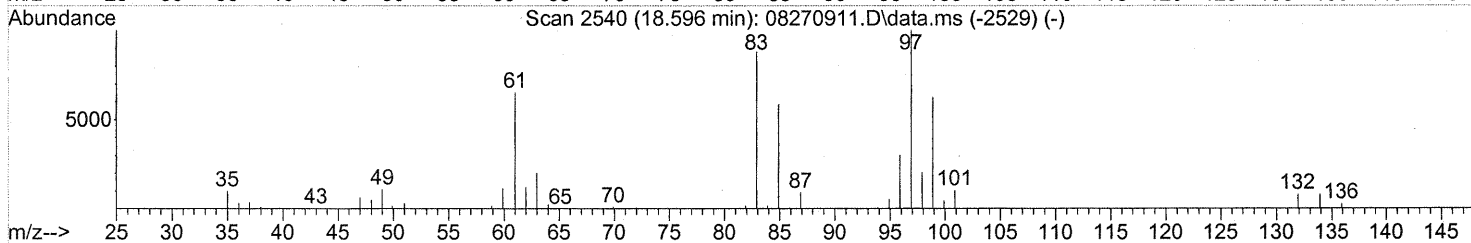
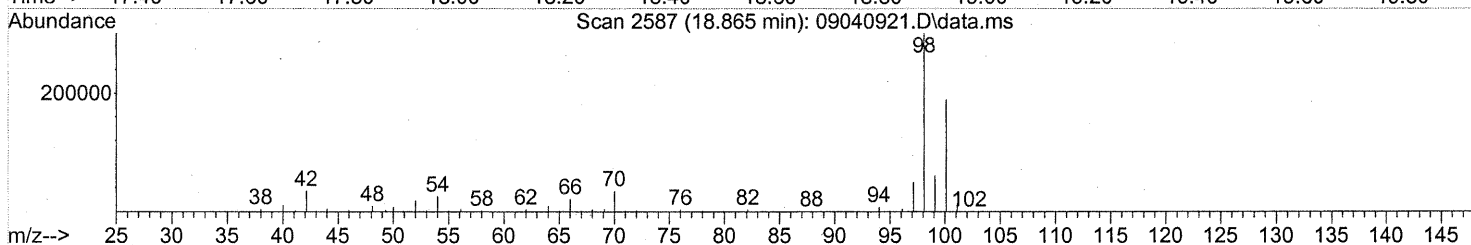
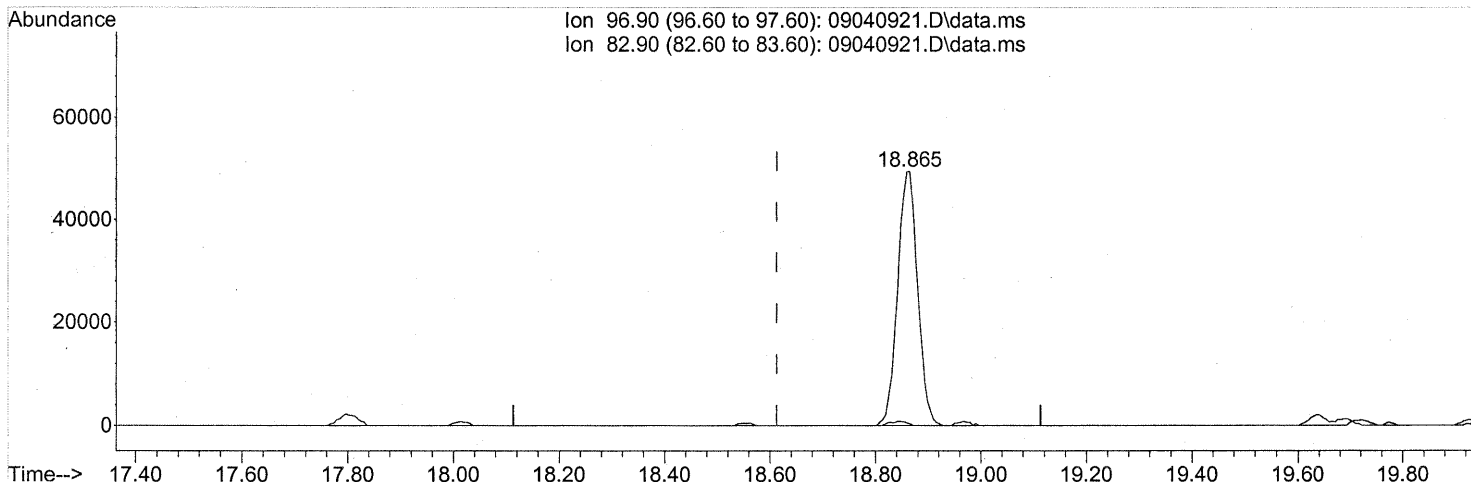
response 9135

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	40.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

18.865min (+0.251) 8.45ng

response 129406

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

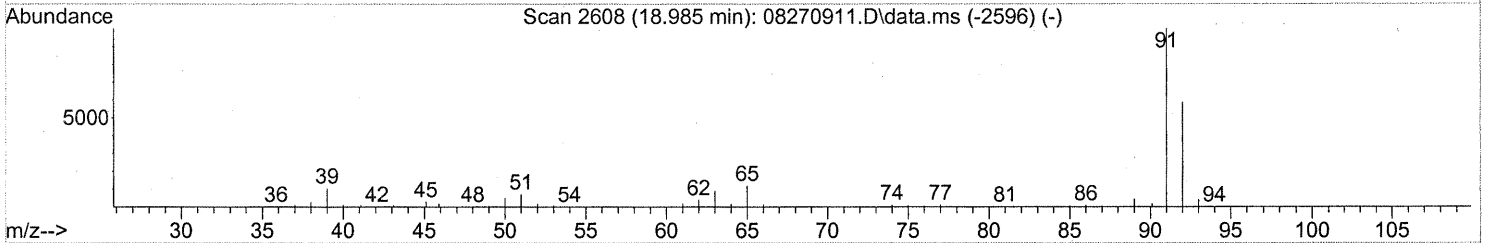
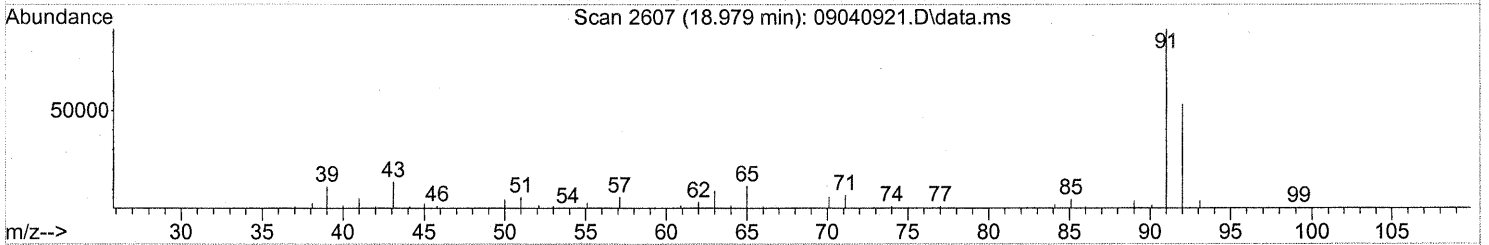
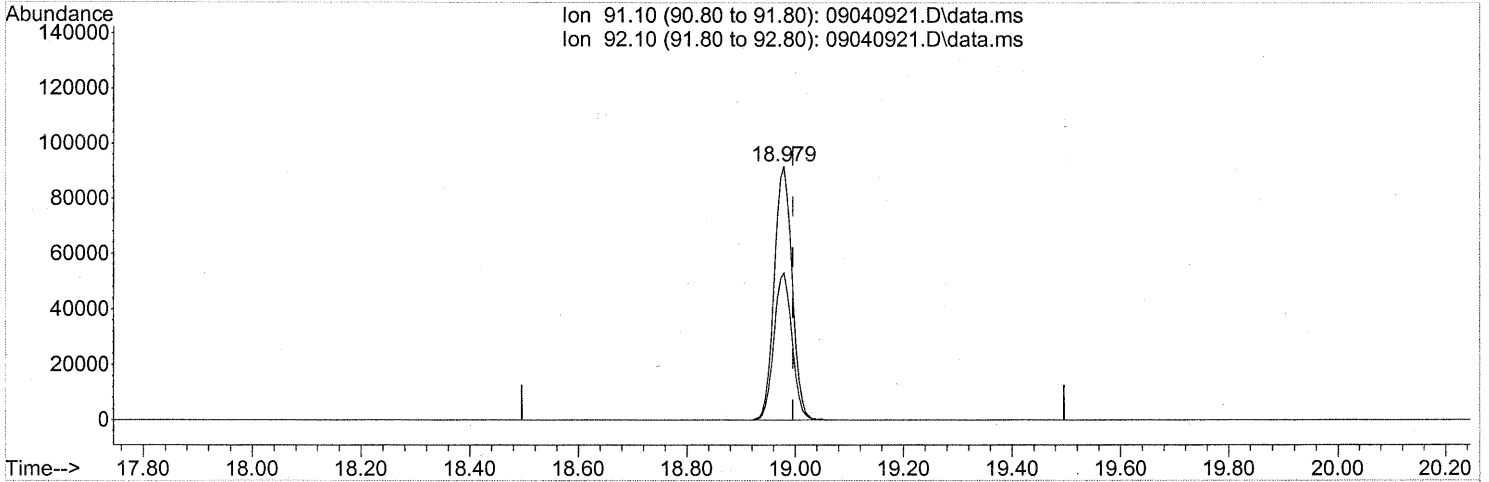
FP
11/9/09

L 9/11/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(58) Toluene (T)
 18.979min (-0.017) 3.18ng

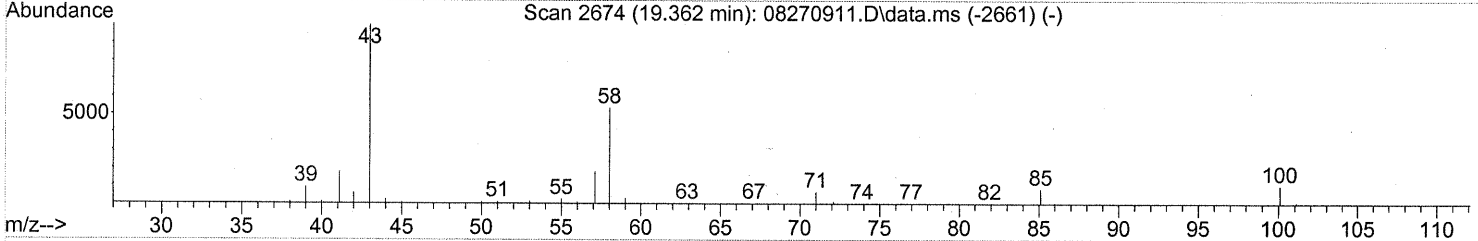
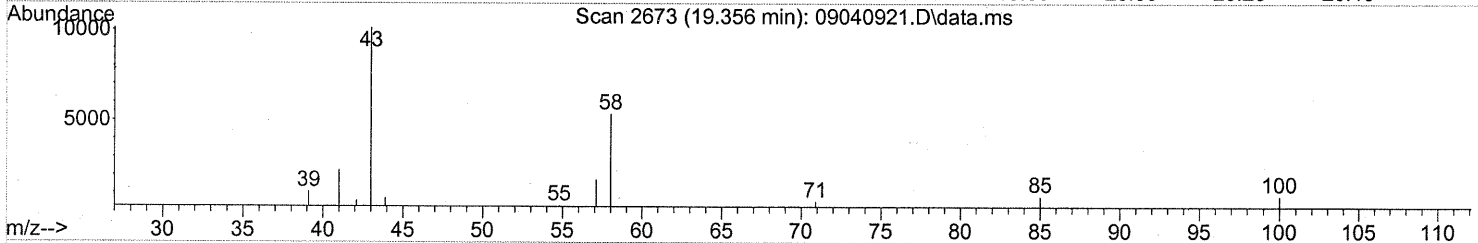
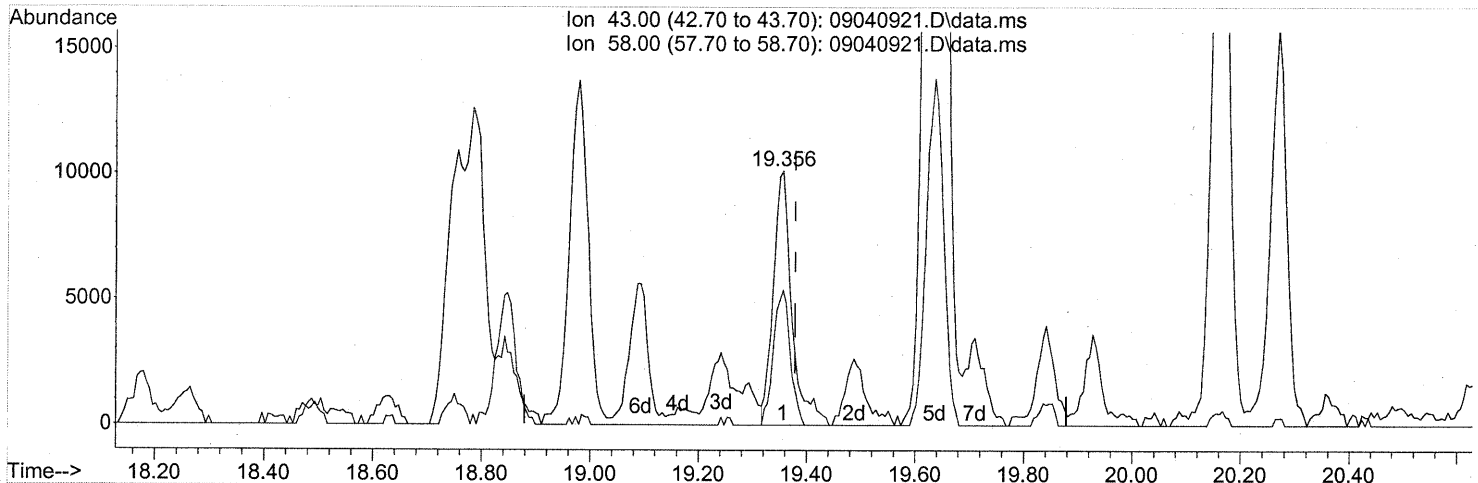
response 209242

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	58.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(59) 2-Hexanone (T)

19.356min (-0.023) 0.60ng

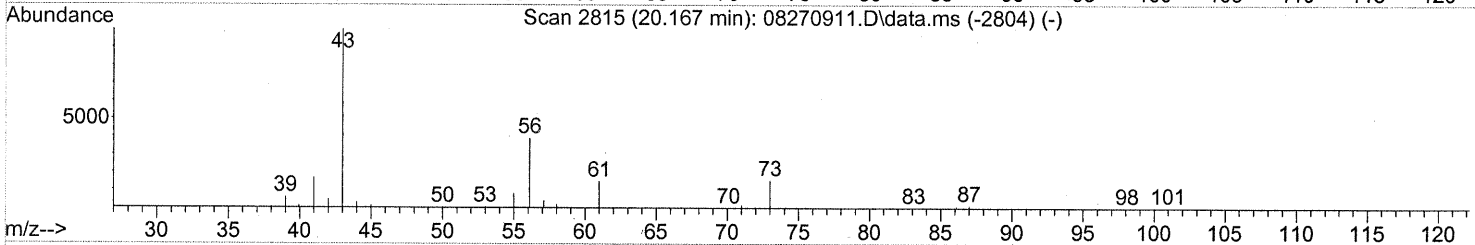
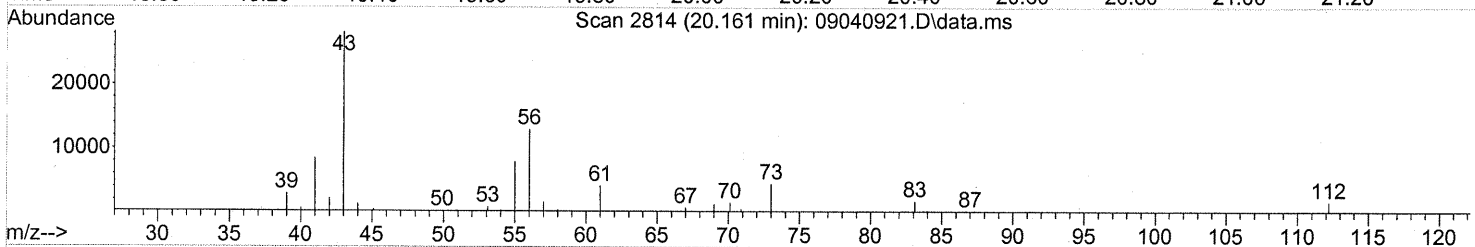
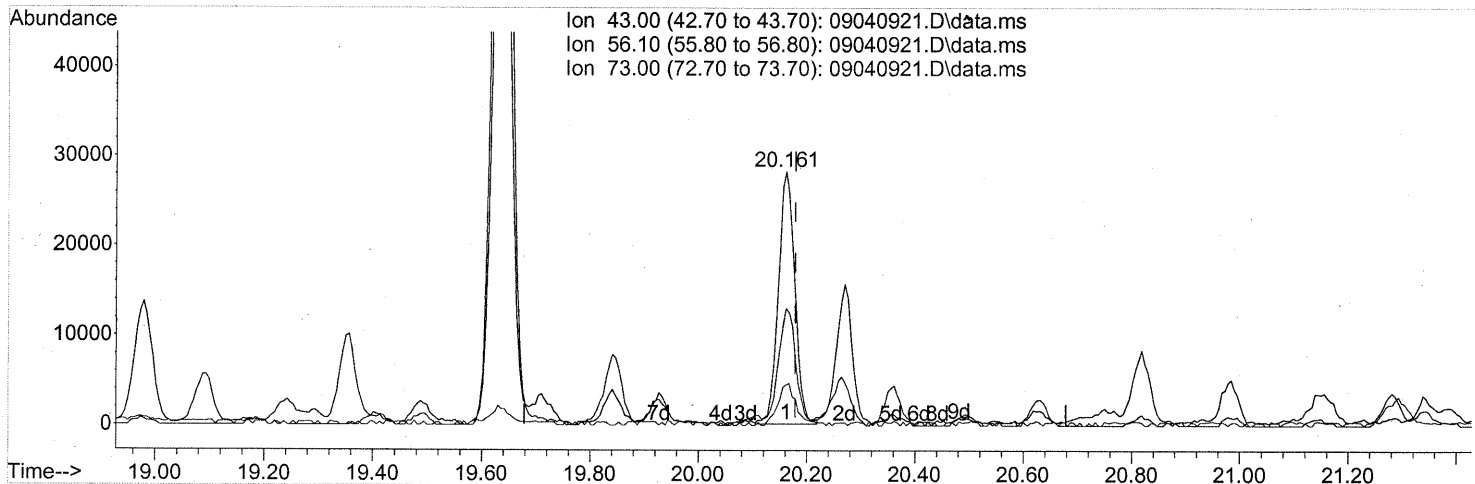
response 24186

Ion	Exp%	Act%
43.00	100	100
58.00	51.70	47.80
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



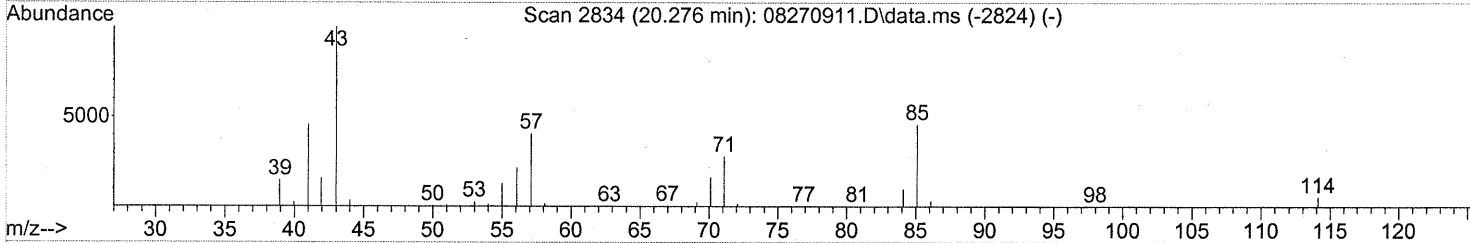
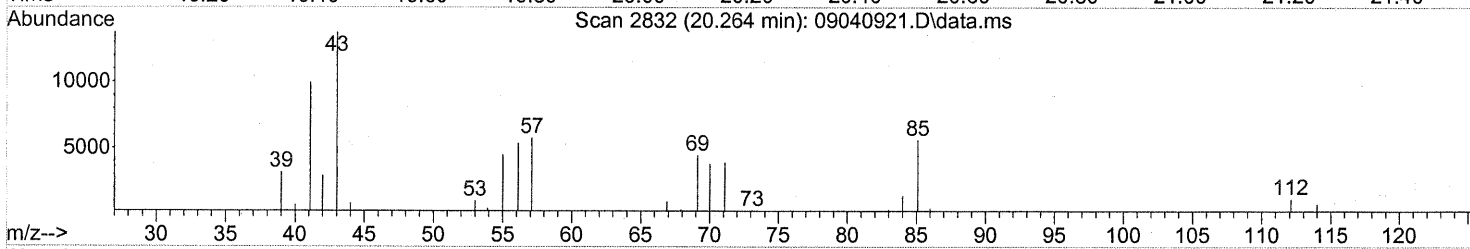
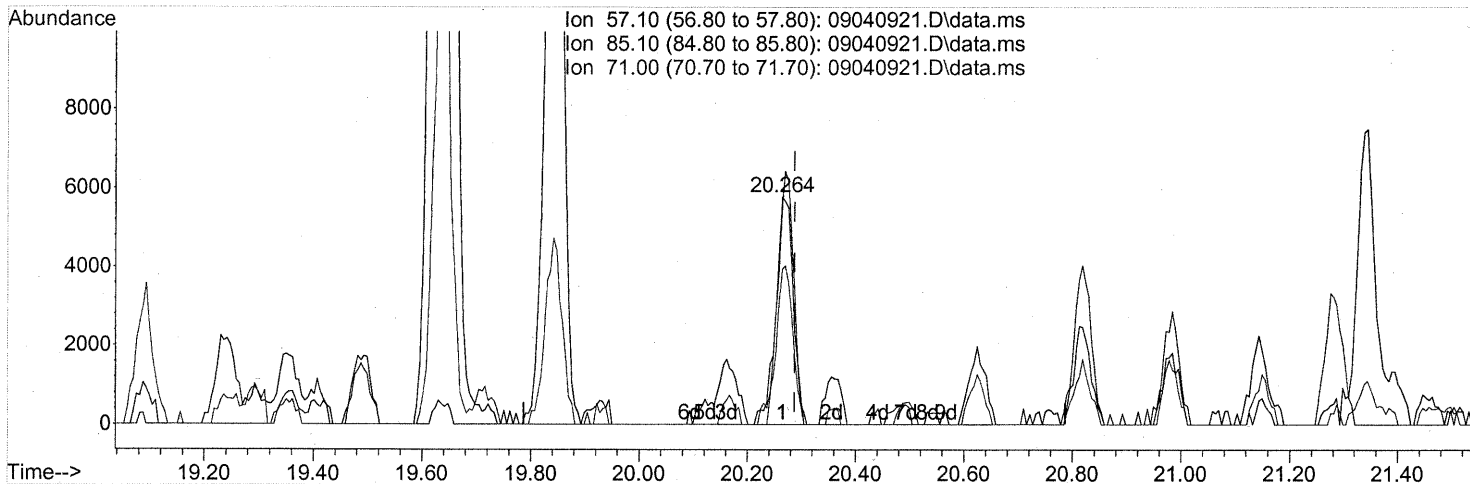
(62) n-Butyl Acetate (T)
 20.161min (-0.017) 1.29ng
 response 59383

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	49.39
73.00	14.30	18.83
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(63) n-Octane (T)

20.264min (-0.023) 0.85ng

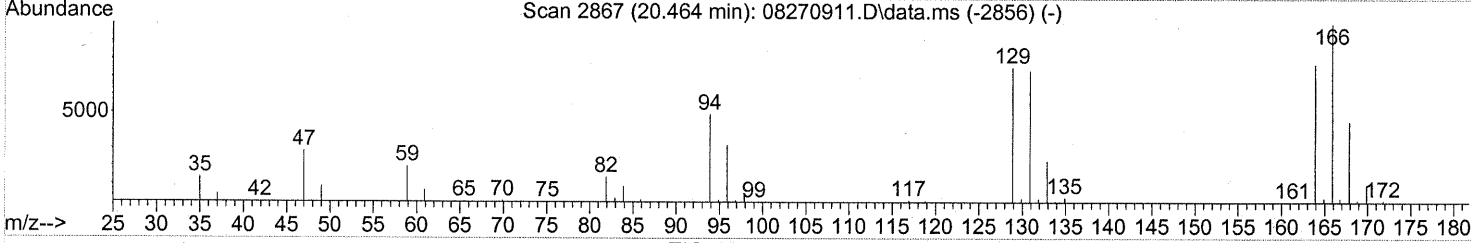
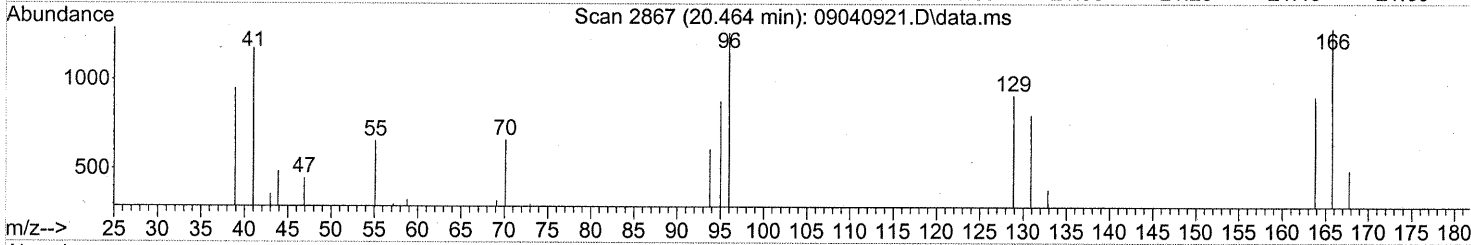
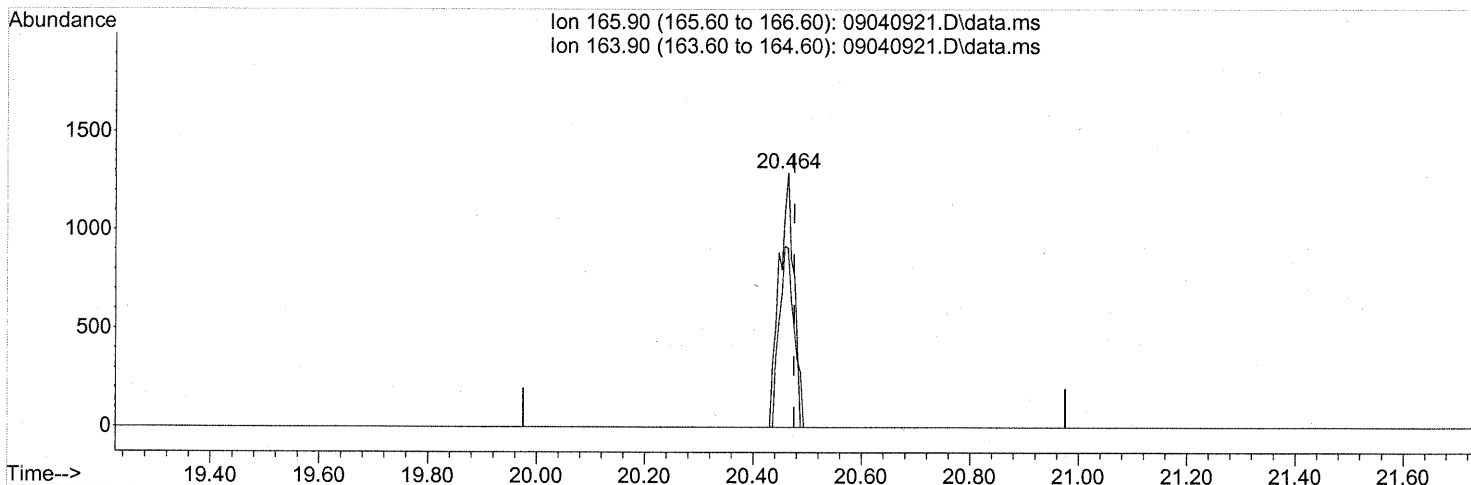
response 12909

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	100.12
71.00	69.10	68.17
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(64) Tetrachloroethene (T)

20.464min (-0.011) 0.14ng

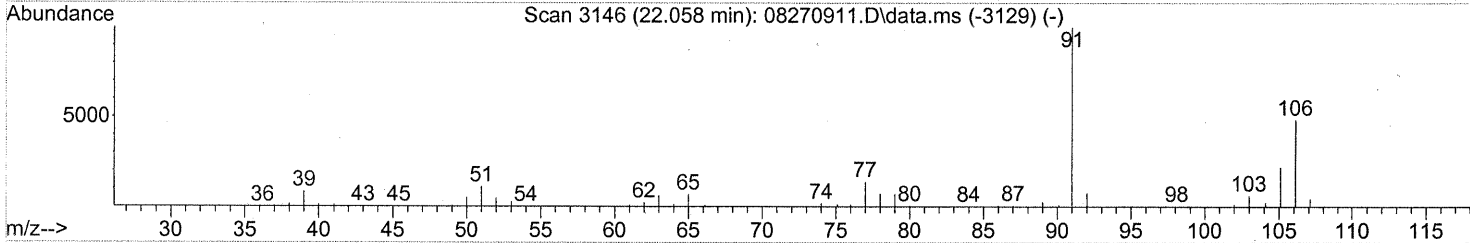
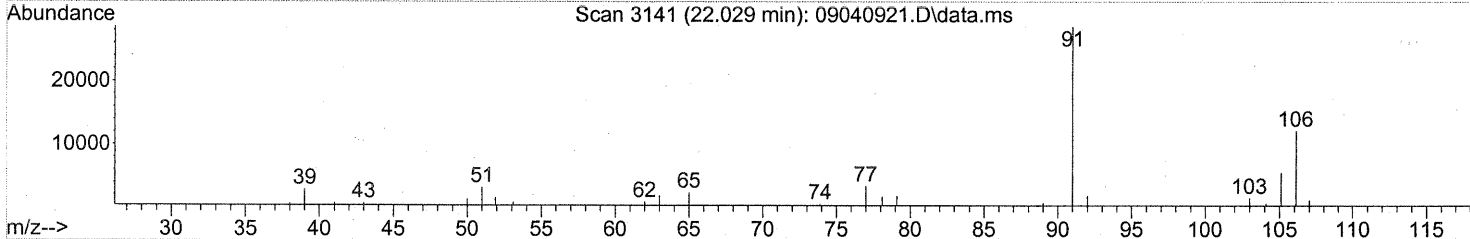
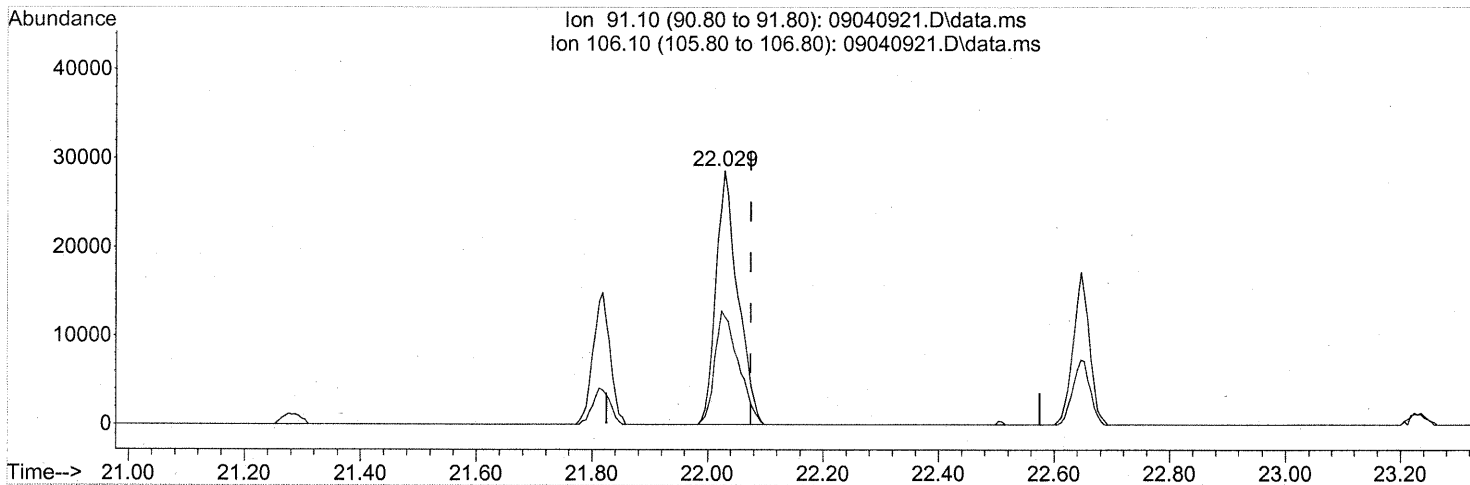
response 2374

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	73.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(67) m- & p-Xylenes (T)

22.029min (-0.046) 1.26ng

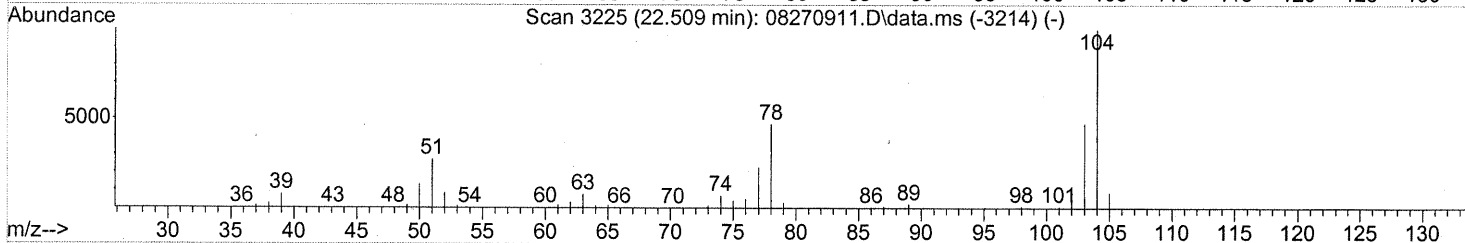
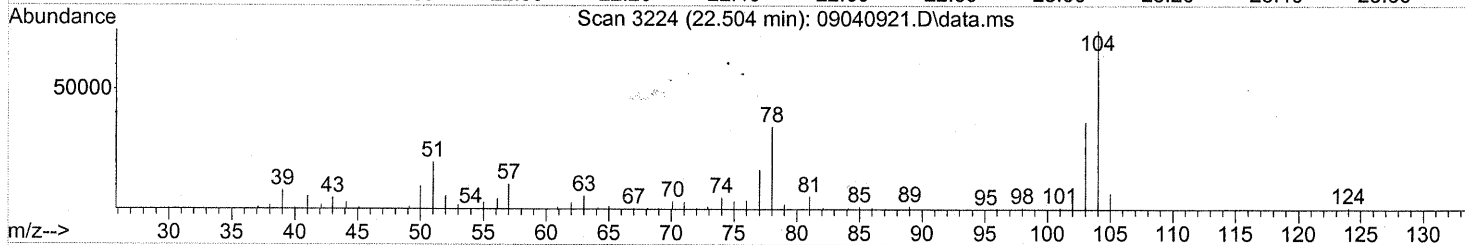
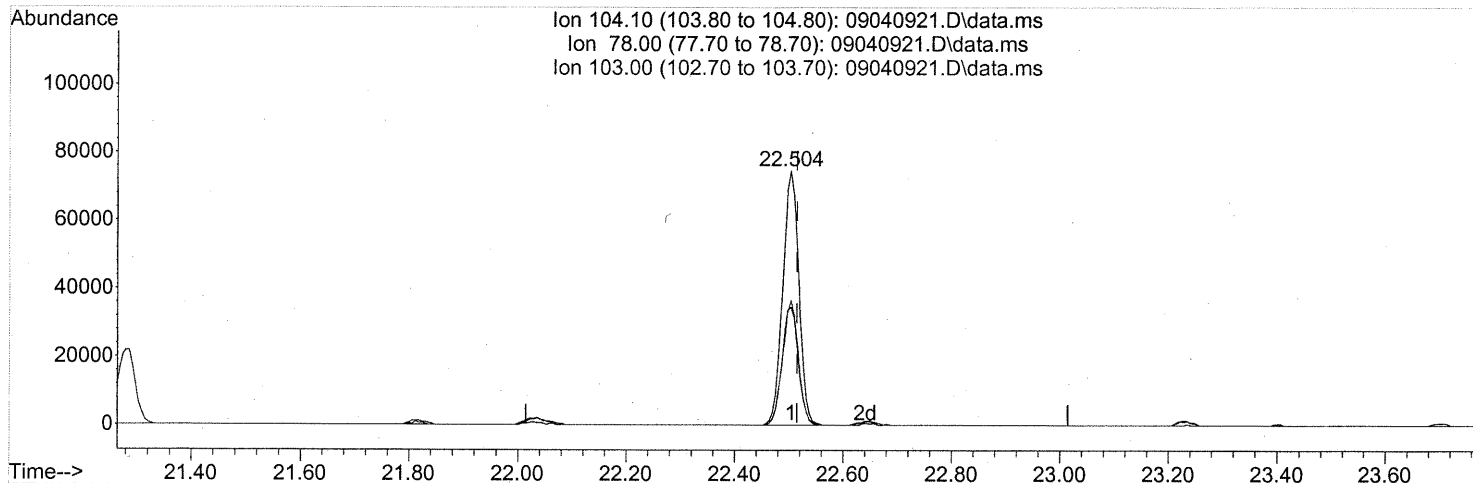
response 75533

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	47.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(69) Styrene (T)

22.504min (-0.011) 3.47ng

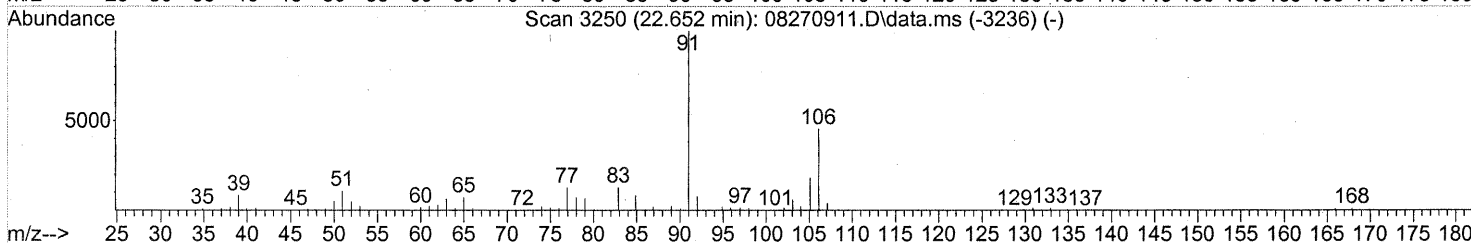
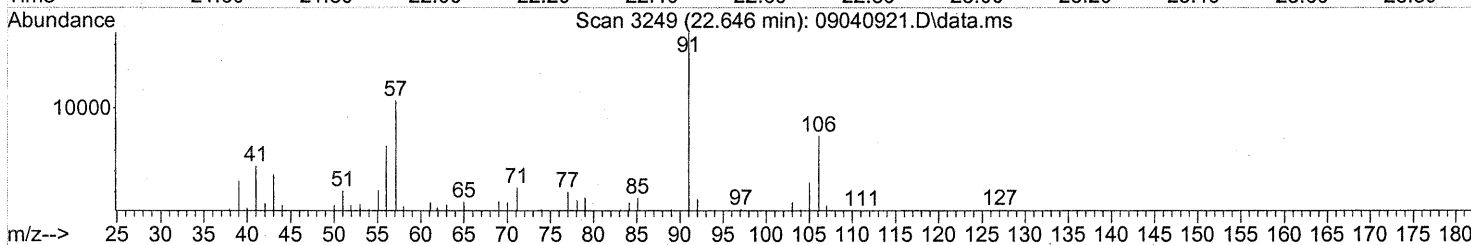
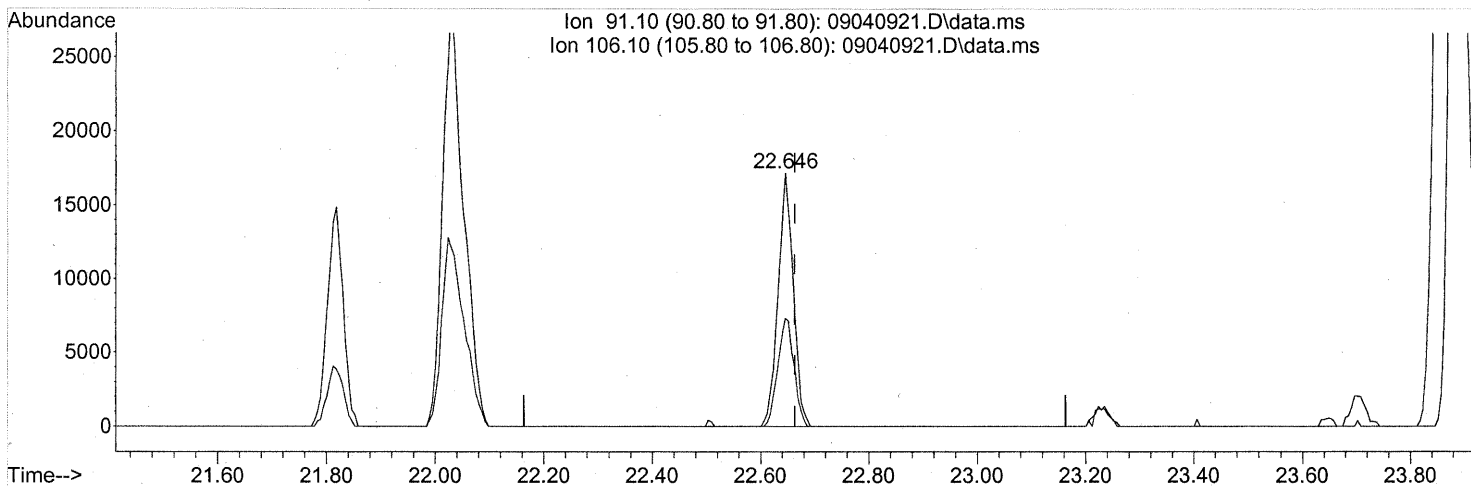
response 153162

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	46.82
103.00	47.00	47.87
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(70) o-Xylene (T)

22.646min (-0.017) 0.55ng

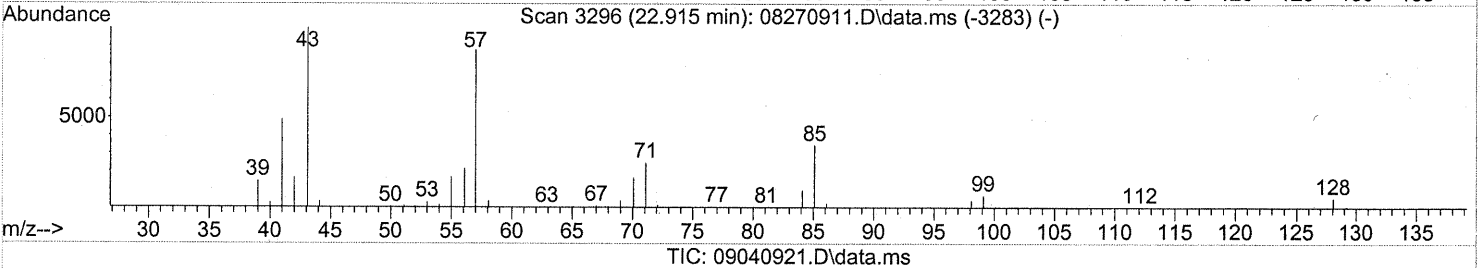
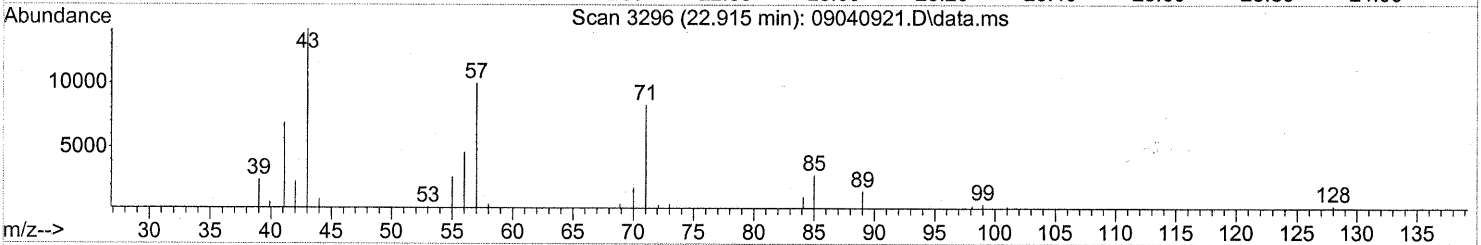
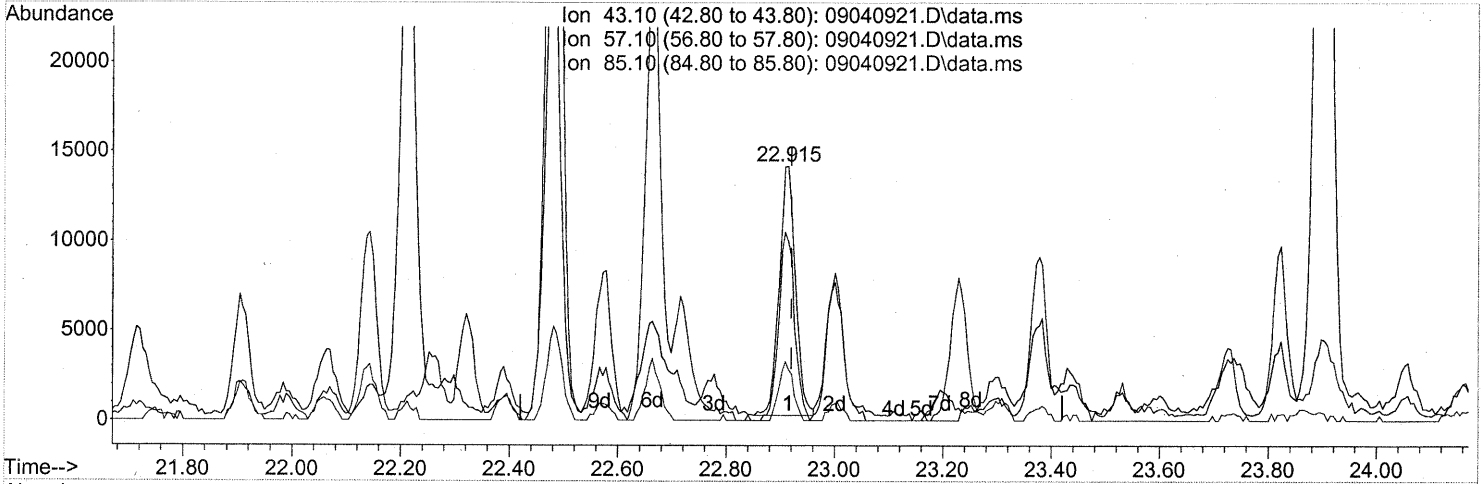
response 33189

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040921.D
Acq On : 5 Sep 2009 00:28
Operator : LM/CC
Sample : P0903022-002 (1000ml)
Misc : EH&E 103601
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



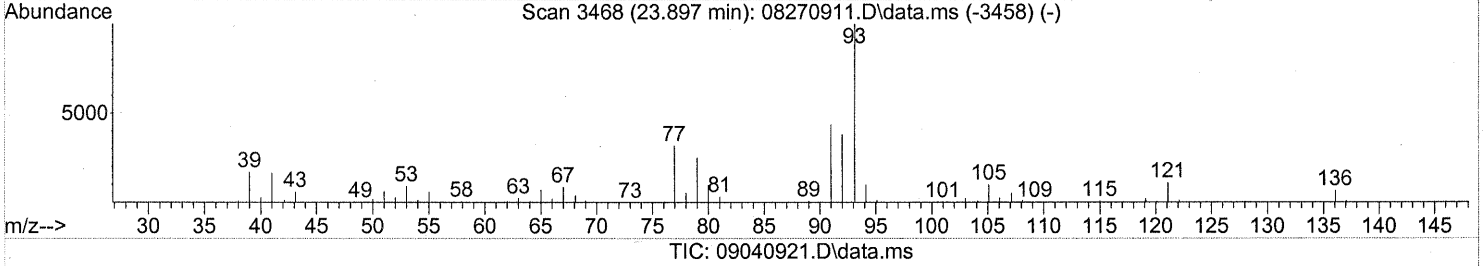
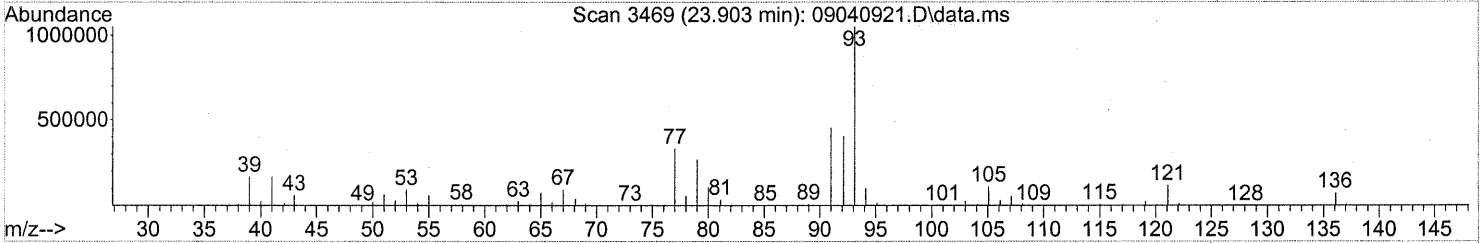
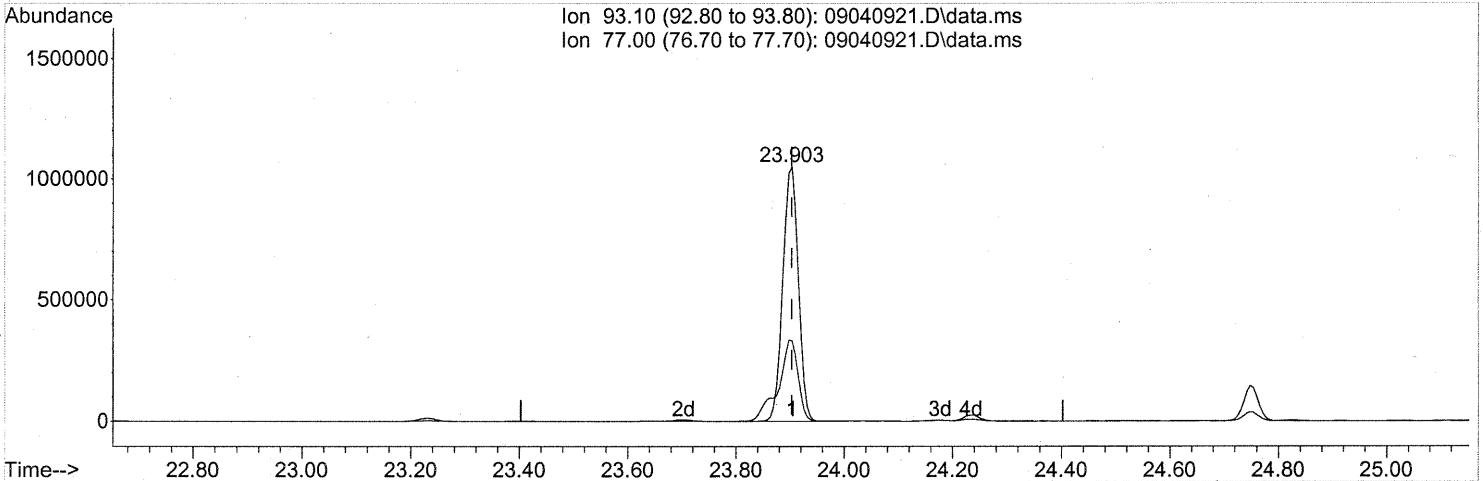
(71) n-Nonane (T)
22.915min (-0.006) 0.80ng
response 29068

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	73.89
85.10	32.20	20.46
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



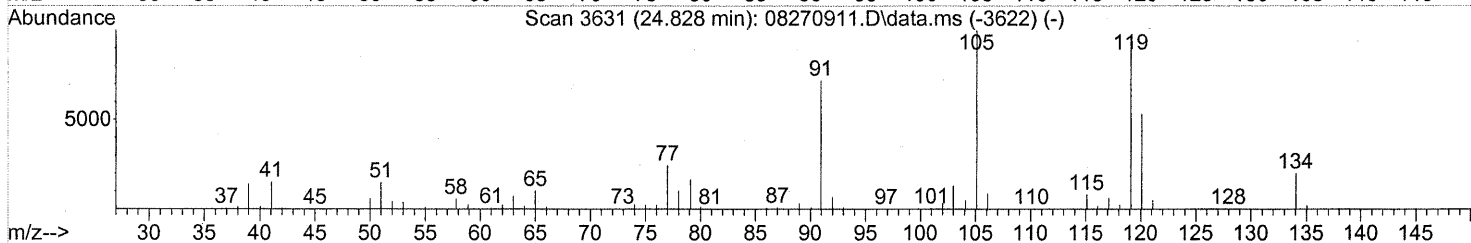
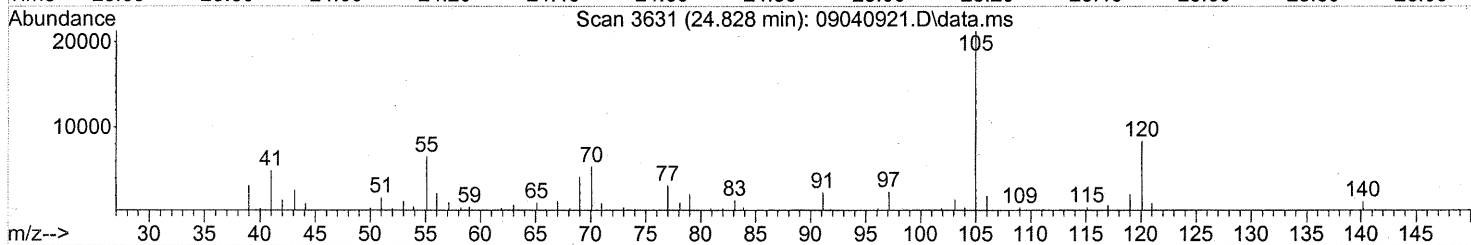
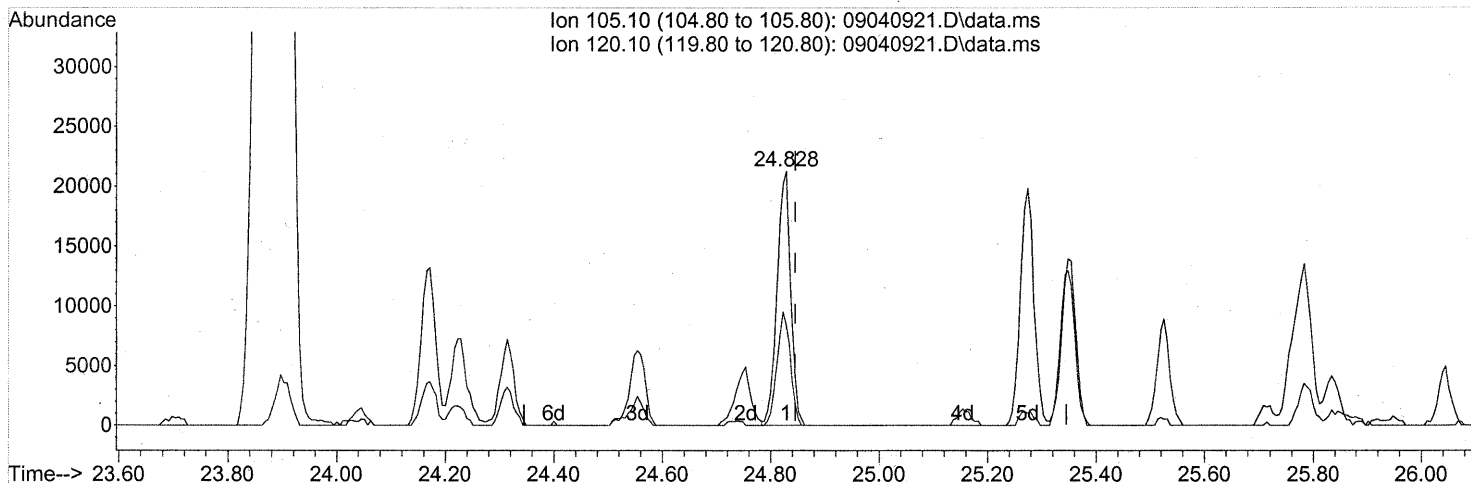
(75) alpha-Pinene (T)
 23.903min (+0.000) 52.94ng
 response 2093126

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	40.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

24.828min (-0.017) 0.60ng

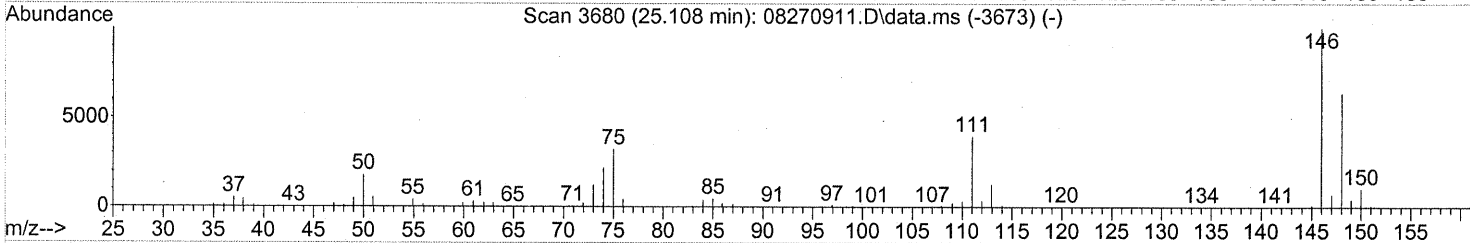
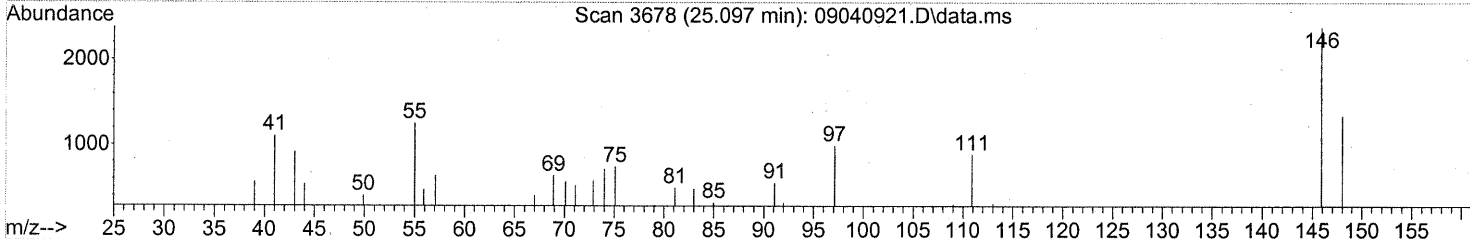
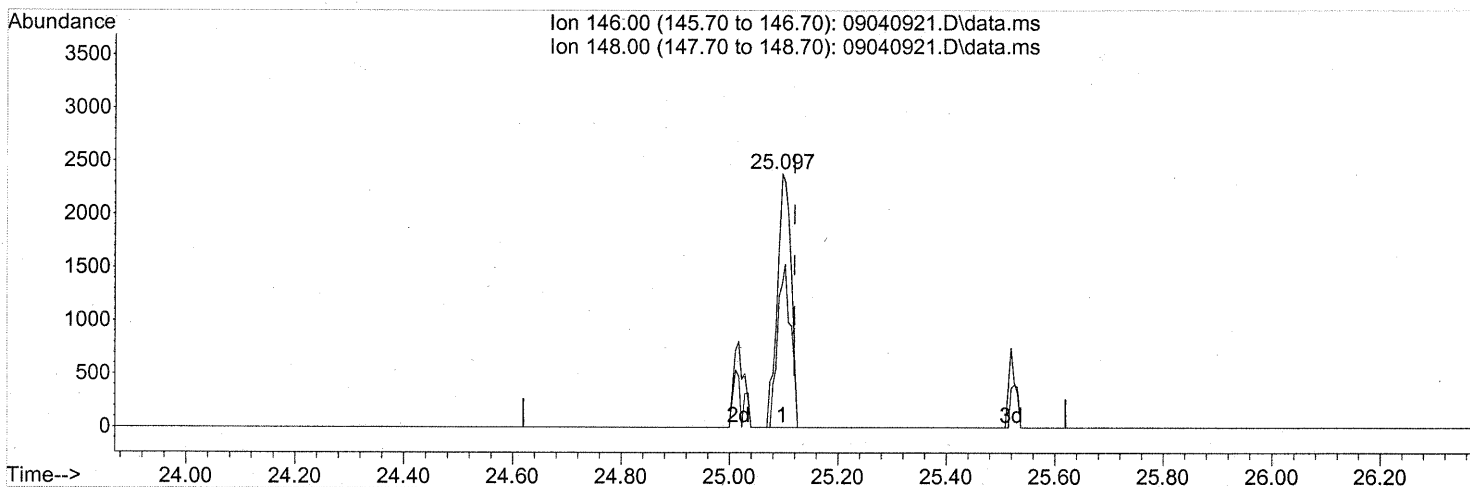
response 36950

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	43.72
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.097min (-0.023) 0.12ng

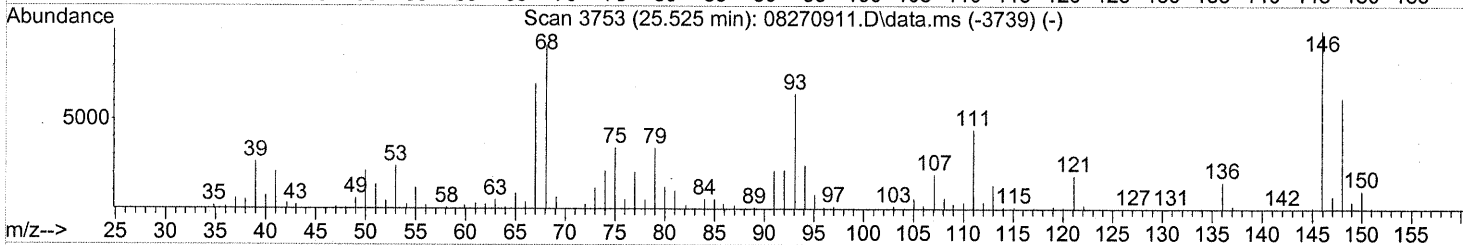
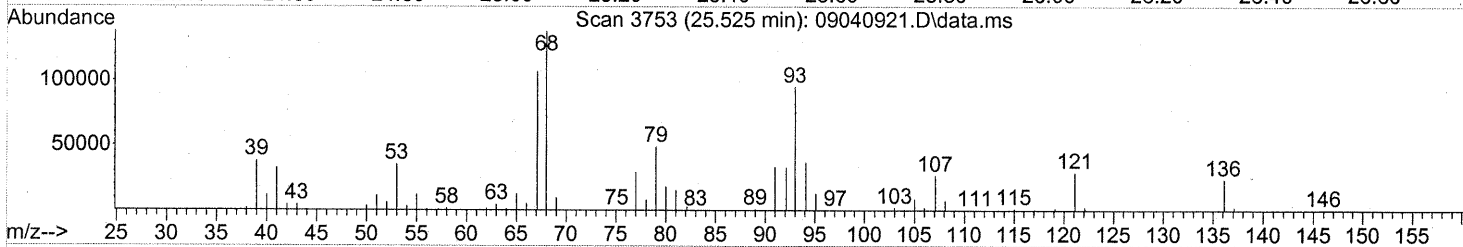
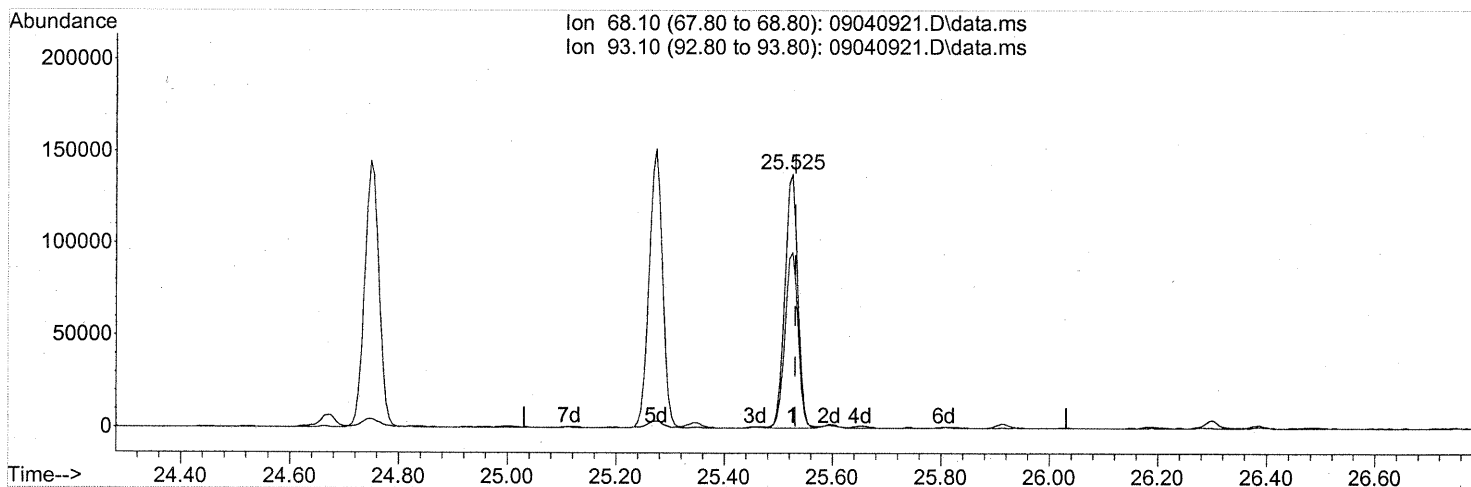
response 4211

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	61.29
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040921.D
 Acq On : 5 Sep 2009 00:28
 Operator : LM/CC
 Sample : P0903022-002 (1000ml)
 Misc : EH&E 103601
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040921.D\data.ms

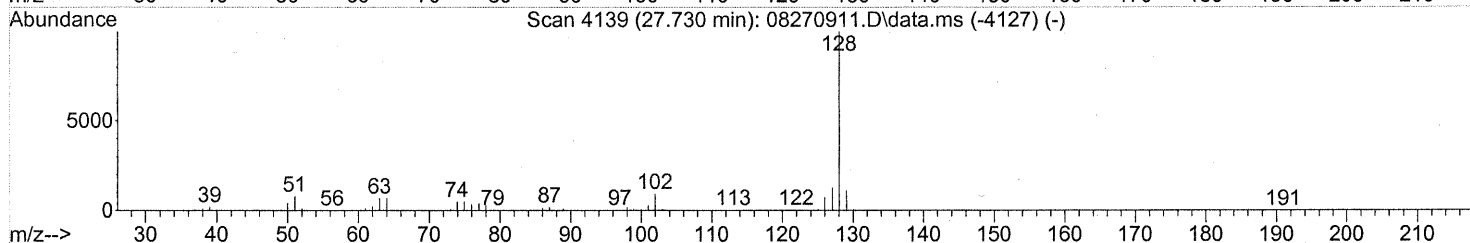
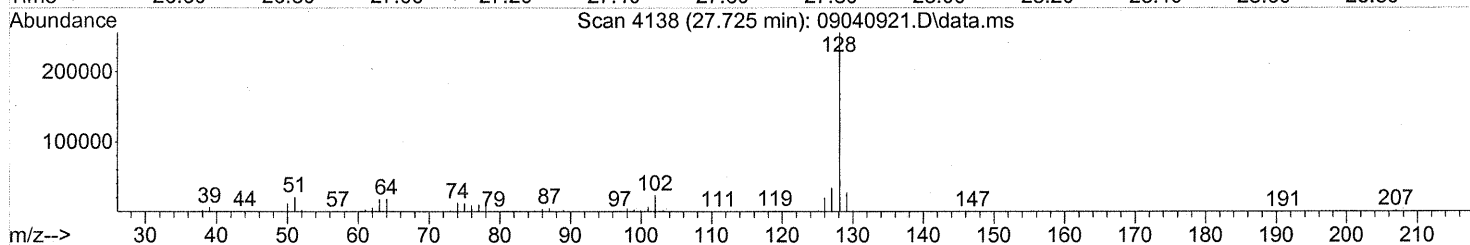
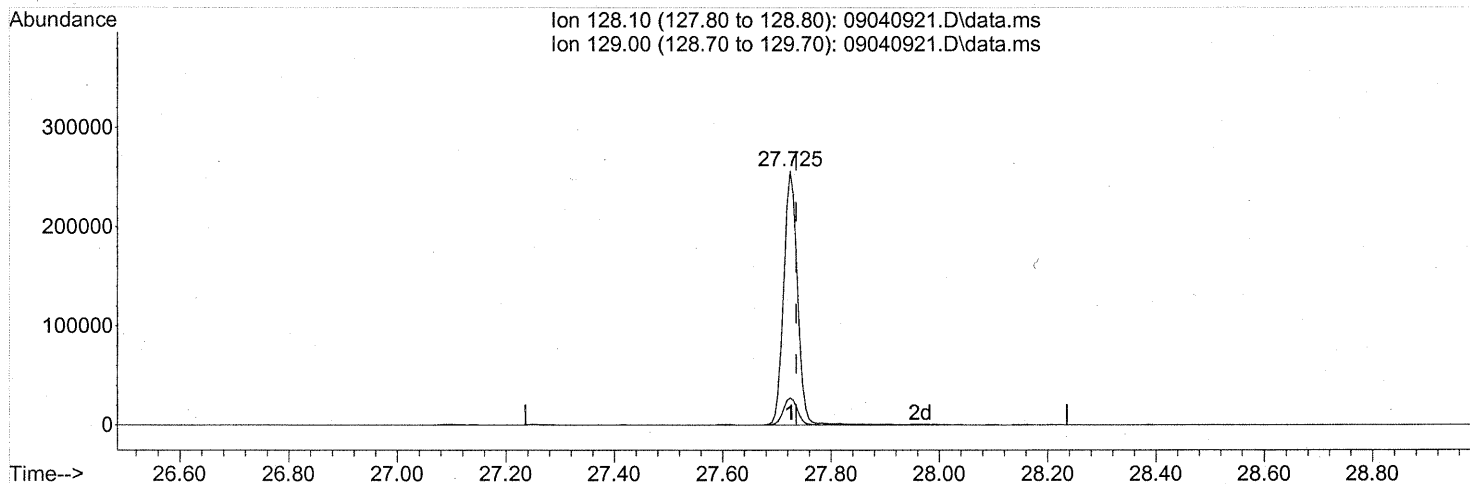
(91) d-Limonene (T)
 25.525min (-0.006) 9.44ng
 response 230327

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	69.95
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040921.D
Acq On : 5 Sep 2009 00:28
Operator : LM/CC
Sample : P0903022-002 (1000ml)
Misc : EH&E 103601
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 09:00:52 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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: 09040921.D\data.ms

(95) Naphthalene (T)

27.725min (-0.011) 5.35ng

response 452374

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	10.69
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: 103602
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: AC01334

CAS Project ID: P0903022
CAS Sample ID: P0903022-003

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
115-07-1	Propene	ND	0.68	ND	0.40	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.3	0.68	0.46	0.14	
74-87-3	Chloromethane	0.46	0.14	0.22	0.066	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.68	ND	0.097	
75-01-4	Vinyl Chloride	ND	0.14	ND	0.053	
106-99-0	1,3-Butadiene	ND	0.14	ND	0.062	
74-83-9	Bromomethane	ND	0.14	ND	0.035	
75-00-3	Chloroethane	ND	0.14	ND	0.052	
64-17-5	Ethanol	ND	6.8	ND	3.6	
75-05-8	Acetonitrile	ND	0.68	ND	0.41	
107-02-8	Acrolein	ND	0.68	ND	0.30	
67-64-1	Acetone	ND	6.8	ND	2.9	
75-69-4	Trichlorofluoromethane	1.1	0.14	0.19	0.024	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.68	ND	0.28	
107-13-1	Acrylonitrile	ND	0.68	ND	0.31	
75-35-4	1,1-Dichloroethene	ND	0.14	ND	0.034	
75-09-2	Methylene Chloride	ND	0.68	ND	0.20	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.14	ND	0.043	
76-13-1	Trichlorotrifluoroethane	0.48	0.14	0.062	0.018	
75-15-0	Carbon Disulfide	ND	0.68	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.14	ND	0.034	
75-34-3	1,1-Dichloroethane	ND	0.14	ND	0.034	
1634-04-4	Methyl tert-Butyl Ether	ND	0.14	ND	0.038	
108-05-4	Vinyl Acetate	ND	6.8	ND	1.9	
78-93-3	2-Butanone (MEK)	ND	0.68	ND	0.23	

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: 103602
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: AC01334

CAS Project ID: P0903022
CAS Sample ID: P0903022-003

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.3 **Final Pressure (psig):** 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.14	ND	0.034	
141-78-6	Ethyl Acetate	0.76	0.68	0.21	0.19	
110-54-3	n-Hexane	ND	0.68	ND	0.19	
67-66-3	Chloroform	ND	0.14	ND	0.028	
109-99-9	Tetrahydrofuran (THF)	ND	0.68	ND	0.23	
107-06-2	1,2-Dichloroethane	ND	0.14	ND	0.034	
71-55-6	1,1,1-Trichloroethane	ND	0.14	ND	0.025	
71-43-2	Benzene	0.31	0.14	0.098	0.043	
56-23-5	Carbon Tetrachloride	0.46	0.14	0.073	0.022	
110-82-7	Cyclohexane	1.8	0.68	0.51	0.20	
78-87-5	1,2-Dichloropropane	ND	0.14	ND	0.029	
75-27-4	Bromodichloromethane	ND	0.14	ND	0.020	
79-01-6	Trichloroethene	ND	0.14	ND	0.025	
123-91-1	1,4-Dioxane	ND	0.68	ND	0.19	
80-62-6	Methyl Methacrylate	ND	0.68	ND	0.17	
142-82-5	n-Heptane	ND	0.68	ND	0.17	
10061-01-5	cis-1,3-Dichloropropene	ND	0.68	ND	0.15	
108-10-1	4-Methyl-2-pentanone	ND	0.68	ND	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.68	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.14	ND	0.025	
108-88-3	Toluene	1.3	0.68	0.35	0.18	
591-78-6	2-Hexanone	ND	0.68	ND	0.17	
124-48-1	Dibromochloromethane	ND	0.14	ND	0.016	
106-93-4	1,2-Dibromoethane	ND	0.14	ND	0.018	
123-86-4	n-Butyl Acetate	1.2	0.68	0.25	0.14	

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: 103602
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: AC01334

CAS Project ID: P0903022
CAS Sample ID: P0903022-003

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.68	ND	0.15	
127-18-4	Tetrachloroethene	ND	0.14	ND	0.020	
108-90-7	Chlorobenzene	ND	0.14	ND	0.030	
100-41-4	Ethylbenzene	ND	0.68	ND	0.16	
179601-23-1	m,p-Xylenes	ND	0.68	ND	0.16	
75-25-2	Bromoform	ND	0.68	ND	0.066	
100-42-5	Styrene	ND	0.68	ND	0.16	
95-47-6	o-Xylene	ND	0.68	ND	0.16	
111-84-2	n-Nonane	ND	0.68	ND	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.020	
98-82-8	Cumene	ND	0.68	ND	0.14	
80-56-8	alpha-Pinene	1.1	0.68	0.20	0.12	
103-65-1	n-Propylbenzene	ND	0.68	ND	0.14	
622-96-8	4-Ethyltoluene	ND	0.68	ND	0.14	
108-67-8	1,3,5-Trimethylbenzene	ND	0.68	ND	0.14	
95-63-6	1,2,4-Trimethylbenzene	ND	0.68	ND	0.14	
100-44-7	Benzyl Chloride	ND	0.14	ND	0.026	
541-73-1	1,3-Dichlorobenzene	ND	0.14	ND	0.023	
106-46-7	1,4-Dichlorobenzene	ND	0.14	ND	0.023	
95-50-1	1,2-Dichlorobenzene	ND	0.14	ND	0.023	
5989-27-5	d-Limonene	ND	0.68	ND	0.12	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.68	ND	0.070	
120-82-1	1,2,4-Trichlorobenzene	ND	0.68	ND	0.092	
91-20-3	Naphthalene	ND	0.68	ND	0.13	
87-68-3	Hexachlorobutadiene	ND	0.68	ND	0.064	

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: _____

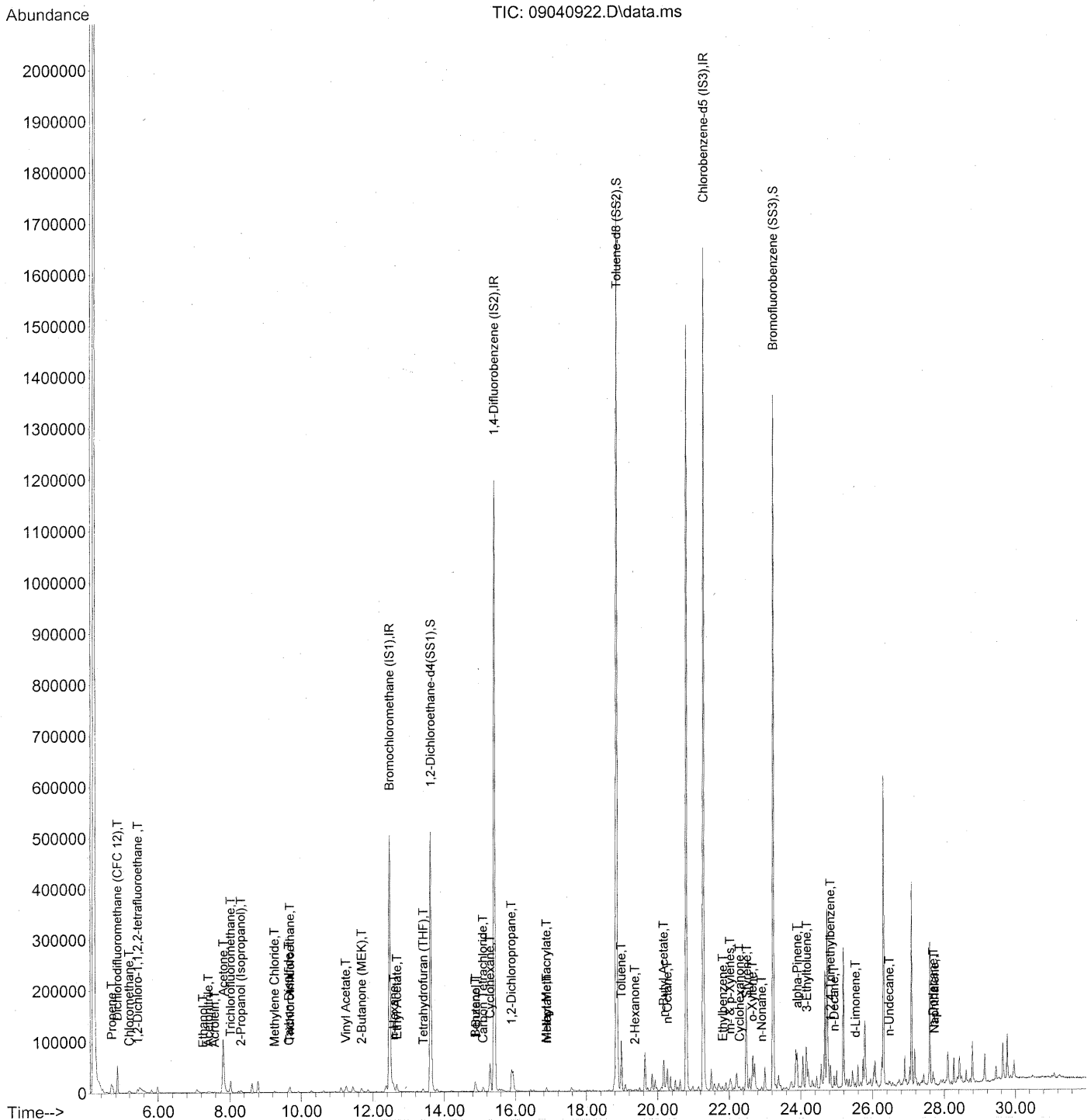
Date: _____

9/11/09

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Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040922.D
Acq On : 5 Sep 2009 1:10 am
Operator : LM/CC
Sample : P0903022-003 (1000ml)
Misc : EH&E 103602
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 09 15:34:12 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10 am
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 09 15:34:12 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
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in 9/19/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	277653	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1381020	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	674319	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	535325	24.330	ng	-0.03
Spiked Amount	25.000			Recovery =	97.32%	✓
57) Toluene-d8 (SS2)	18.85	98	1505379	24.980	ng	-0.01
Spiked Amount	25.000			Recovery =	99.92%	✓
73) Bromofluorobenzene (SS3)	23.23	174	438421	25.278	ng	-0.01
Spiked Amount	25.000			Recovery =	101.12%	✓

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.69	42	5412	0.269	ng #	67
3) Dichlorodifluoromethan...	<u>4.85</u>	85	58528	<u>1.664</u>	ng	99
4) Chloromethane	<u>5.19</u>	50	8038	<u>0.340</u>	ng	96
5) 1,2-Dichloro-1,1,2,2-t...	5.42	135	825	<u>0.057</u>	ng #	43
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	6.39	94	243	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.25	45	1427	0.115	ng #	48
11) Acetonitrile	<u>7.40</u>	41	7226	<u>0.209</u>	ng < RL	86
12) Acrolein	<u>7.58</u>	56	2483	<u>0.261</u>	ng < RL	97
13) Acetone	7.82	58	62996	<u>4.891</u>	ng	87
14) Trichlorofluoromethane	<u>8.02</u>	101	24785	<u>0.800</u>	ng	97
15) 2-Propanol (Isopropanol)	8.31	45	6616	<u>0.155</u>	ng	90
16) Acrylonitrile	8.61	53	86	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.30	59	86	N.D.		
19) Methylene Chloride	9.25	84	1571	<u>0.096</u>	ng #	1
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.		
21) Trichlorotrifluoroethane	<u>9.68</u>	151	4310	<u>0.351</u>	ng	98
22) Carbon Disulfide	9.65	76	9470	<u>0.163</u>	ng	78
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	11.24	86	254	<u>0.079</u>	ng #	1
27) 2-Butanone (MEK)	11.68	72	3256	<u>0.313</u>	ng #	72
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	<u>12.67</u>	61	3128	<u>0.560</u>	ng < RL	96
31) n-Hexane	<u>12.58</u>	57	5063	<u>0.182</u>	ng < RL	70

RL
9/19/09
96
 Page: 1

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10 am
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 09 15:34:12 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	919	N.D.		
34) Tetrahydrofuran (THF)	13.41	72	2062	0.183 ng		94
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.78	62	97	N.D.		
38) 1,1,1-Trichloroethane	14.16	97	110	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.88	56	11270	0.656 ng	#	34
41) Benzene	<u>14.87</u>	78	14966	<u>0.231</u> ng		100
42) Carbon Tetrachloride	<u>15.08</u>	117	7315	<u>0.336</u> ng		98
43) Cyclohexane	<u>15.29</u>	84	31073	<u>1.299</u> ng		93
44) tert-Amyl Methyl Ether	16.04	73	97	N.D.		
45) 1,2-Dichloropropane	15.89	63	1116	0.070 ng	#	1
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	2681	N.D.		
50) Methyl Methacrylate	16.87	100	495	0.082 ng	#	1
51) n-Heptane	16.88	71	2101	0.125 ng		95
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.76	58	126	N.D.		
54) trans-1,3-Dichloropropene	18.34	75	101	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D. d		
58) Toluene	<u>18.97</u>	91	62520	<u>0.963</u> ng		97
59) 2-Hexanone	19.36	43	4732	0.119 ng		74
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	<u>20.16</u>	43	40259	<u>0.885</u> ng		89
63) n-Octane	20.26	57	7435	0.498 ng		91
64) Tetrachloroethene	0.00	166	0	N.D. d		
65) Chlorobenzene	21.35	112	95	N.D.		
66) Ethylbenzene	21.82	91	8095	0.109 ng		98
67) m- & p-Xylenes	22.02	91	22875	0.387 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	18658	0.429 ng		98
70) o-Xylene	22.65	91	8860	0.149 ng		97
71) n-Nonane	<u>22.90</u>	43	4187	<u>0.117</u> ng	RL	88
72) 1,1,2,2-Tetrachloroethane	22.65	83	630	N.D.		
74) Cumene	23.39	105	2810	N.D.		
75) alpha-Pinene	<u>23.90</u>	93	31805	<u>0.815</u> ng	#	42
76) n-Propylbenzene	24.04	91	3333	N.D.		
77) 3-Ethyltoluene	24.17	105	6955	0.097 ng		89
78) 4-Ethyltoluene	24.22	105	3305	N.D.		
79) 1,3,5-Trimethylbenzene	24.31	105	2653	N.D.		

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
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 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 09 15:34:12 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration

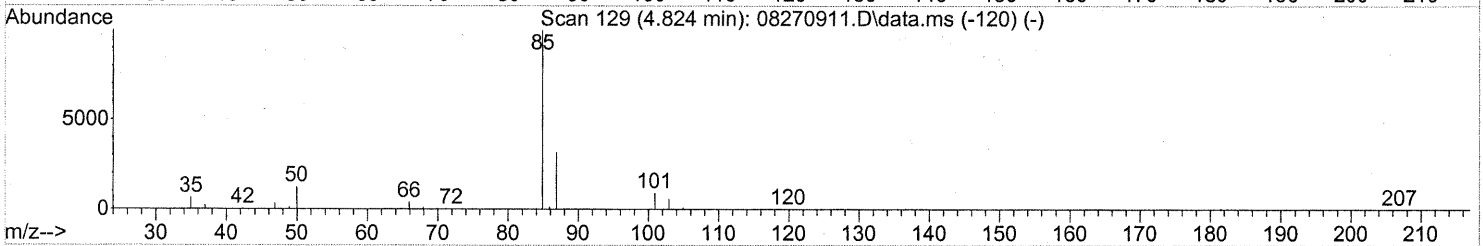
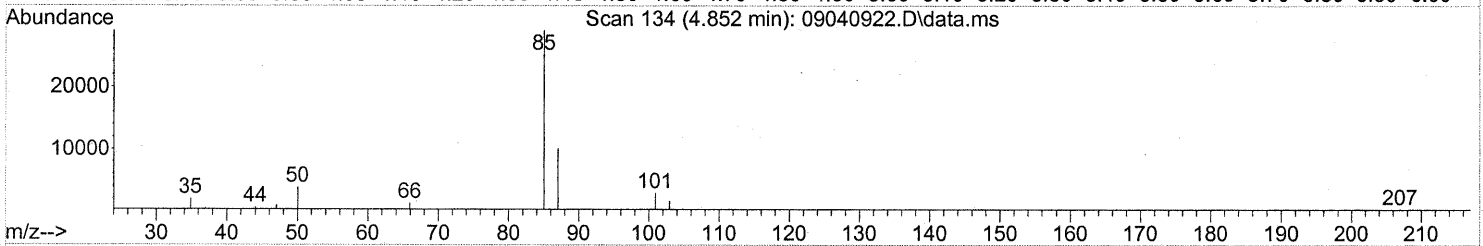
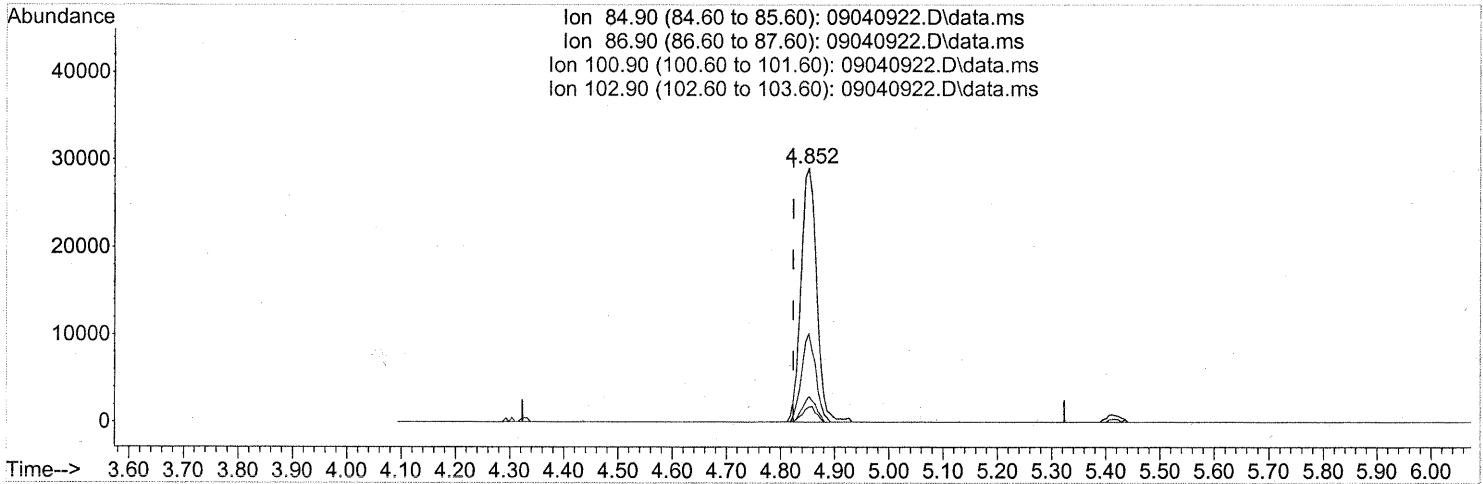
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.50	118	205	N.D.		
81) 2-Ethyltoluene	24.55	105	2329	N.D.		
82) 1,2,4-Trimethylbenzene	24.82	105	8796	0.146 ng		85
83) n-Decane	24.93	57	12393	0.344 ng		92
84) Benzyl Chloride	25.00	91	997	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	764	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	764	N.D.		
87) sec-Butylbenzene	25.17	105	88	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	2151	N.D.		
89) 1,2,3-Trimethylbenzene	25.35	105	2026	N.D.		
90) 1,2-Dichlorobenzene	25.10	146	764	N.D.		
91) d-Limonene	25.52	68	2831	0.117 ng		83
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	5215	0.139 ng		85
94) 1,2,4-Trichlorobenzene	27.58	180	95	N.D. ✓		
95) Naphthalene	27.72	128	10675	0.128 ng		100
96) n-Dodecane	27.69	57	8947	0.210 ng		84
97) Hexachlorobutadiene	0.00	225	0	N.D. ✓		
98) Cyclohexanone	22.29	55	5068	0.203 ng	#	88
99) tert-Butylbenzene	24.82	119	1003	N.D.		
100) n-Butylbenzene	25.86	91	1540	N.D.		

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 08 09:00:56 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040922.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.852min (+0.029) 1.66ng

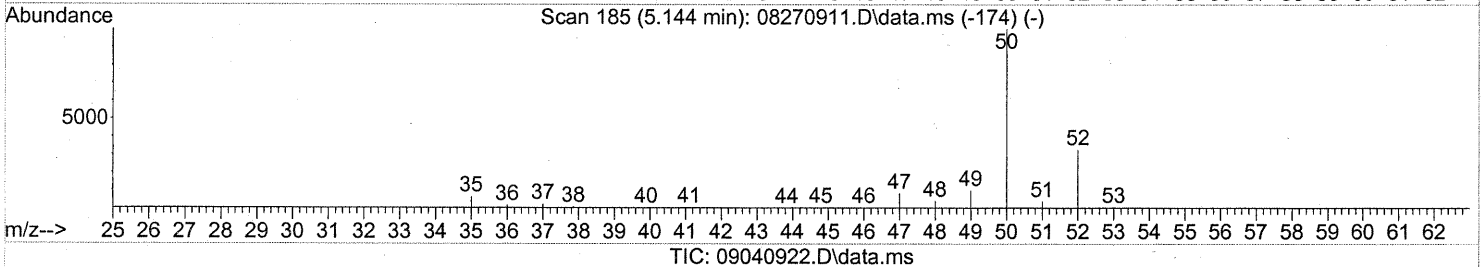
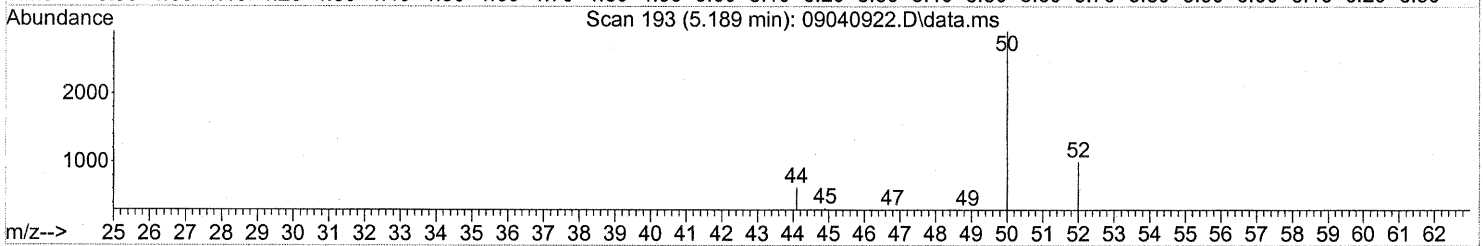
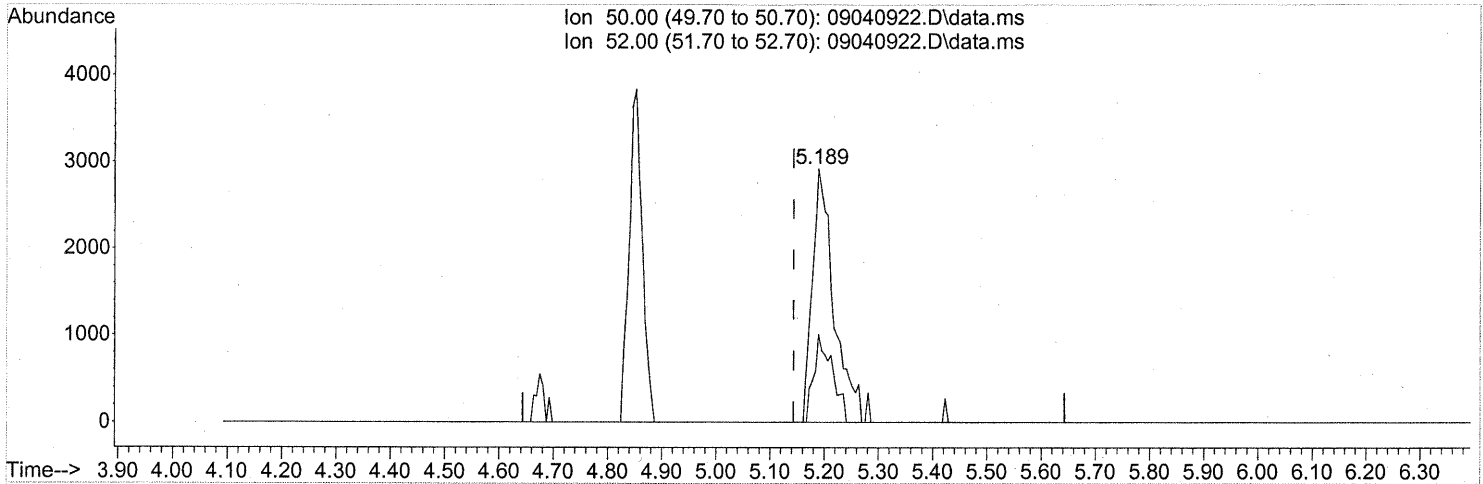
response 58528

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	31.65
100.90	8.80	8.50
102.90	5.60	5.13

Quantitation Report (Qedit)

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(4) Chloromethane (T)

5.189min (+0.046) 0.34ng

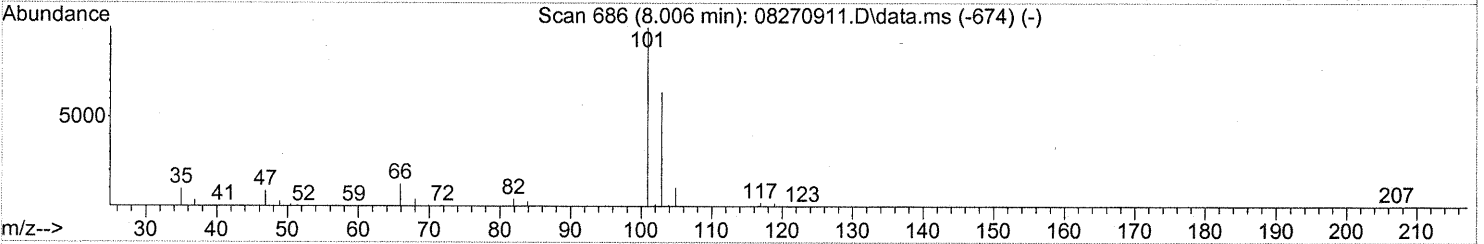
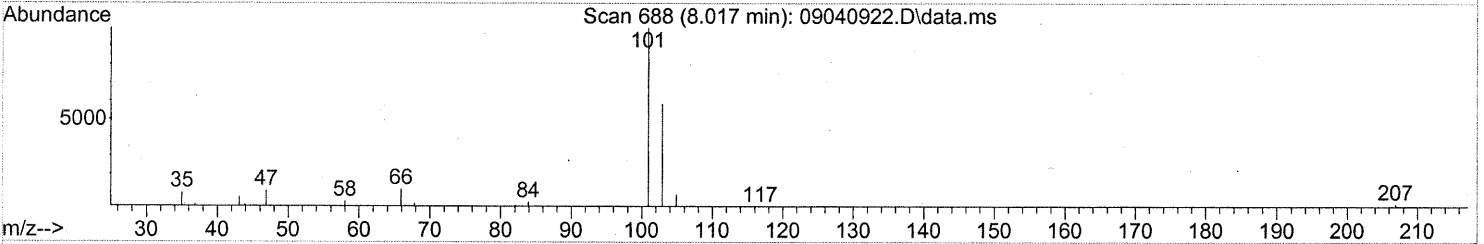
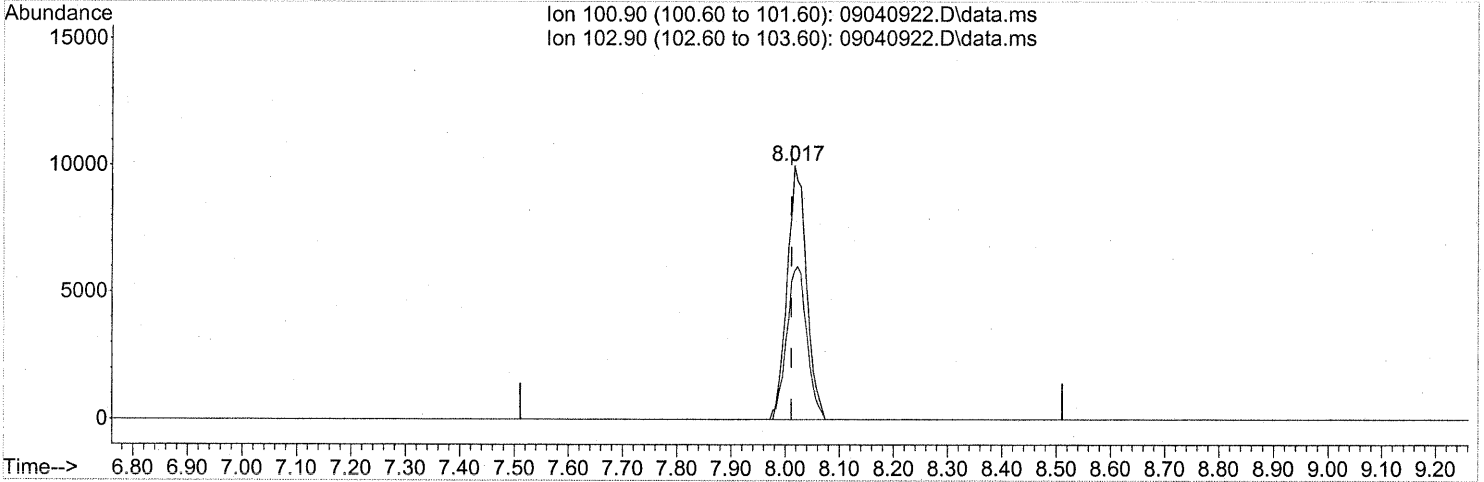
response 8038

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	29.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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 Operator : LM/CC
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TIC: 09040922.D\data.ms

(14) Trichlorofluoromethane (T)

8.017min (+0.006) 0.80ng

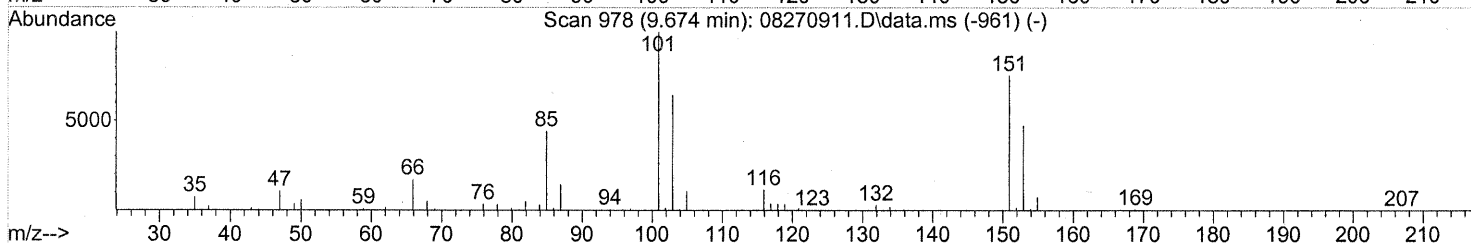
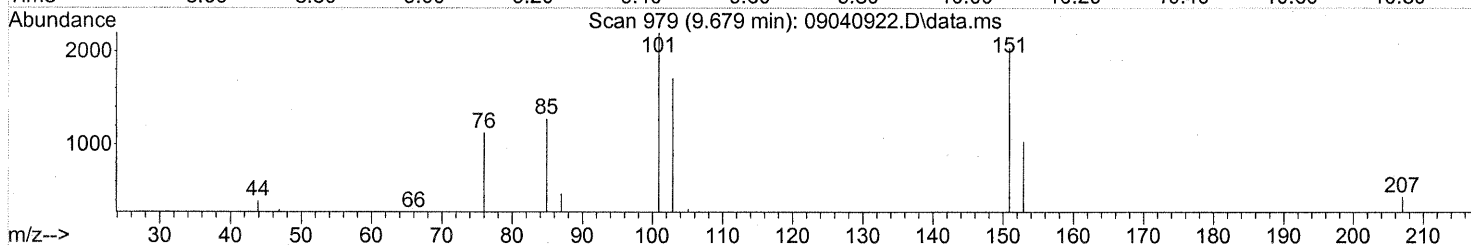
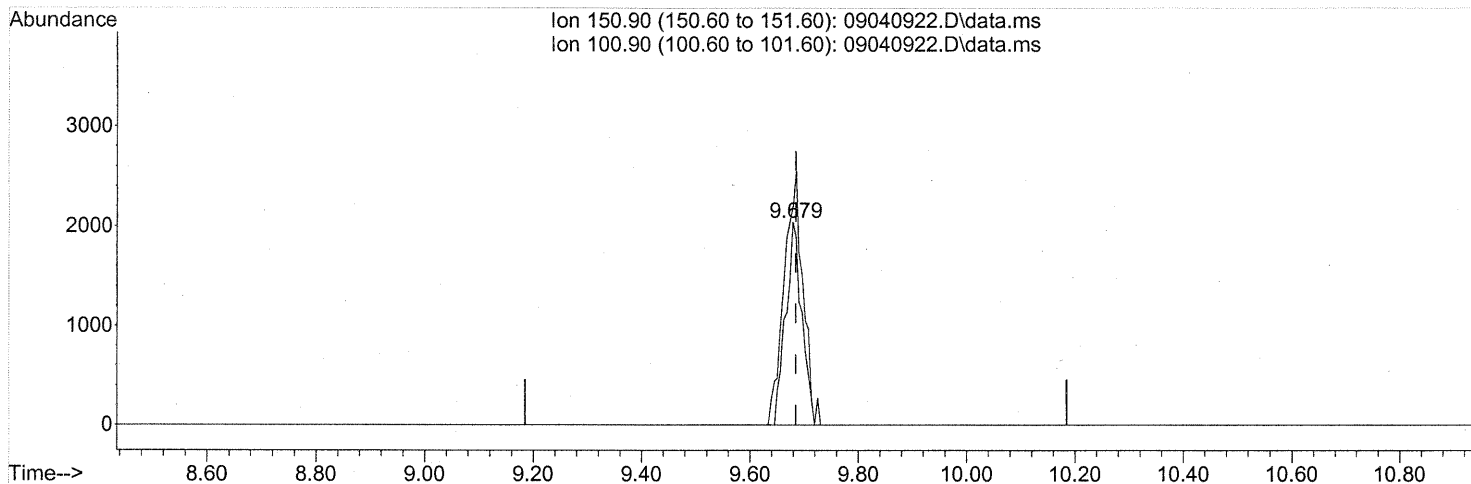
response 24785

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	63.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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TIC: 09040922.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.35ng

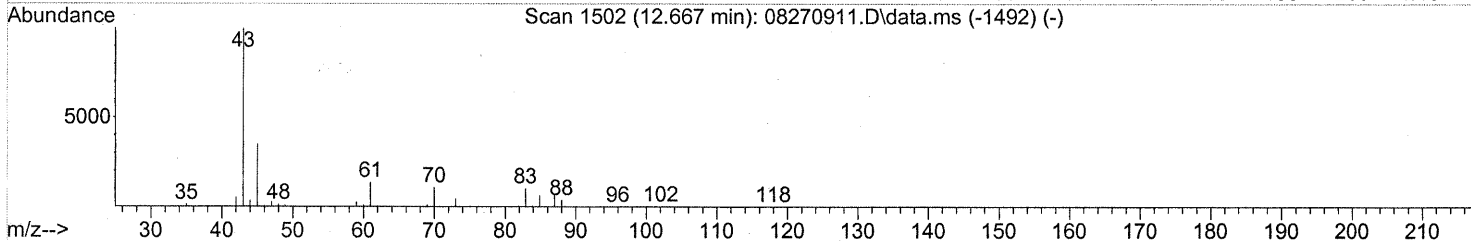
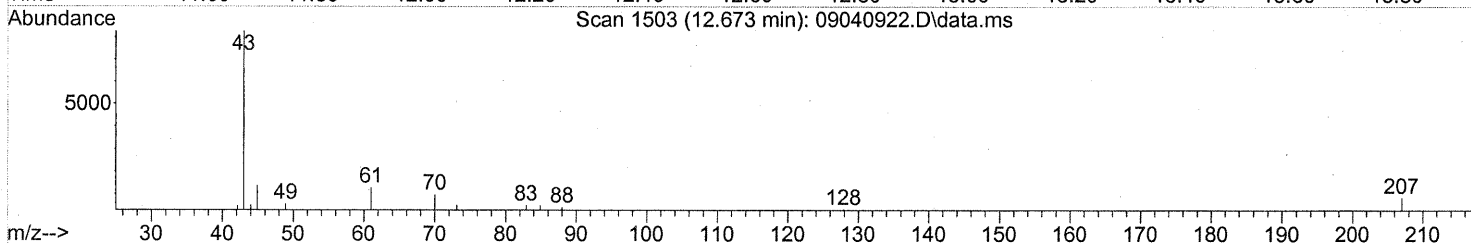
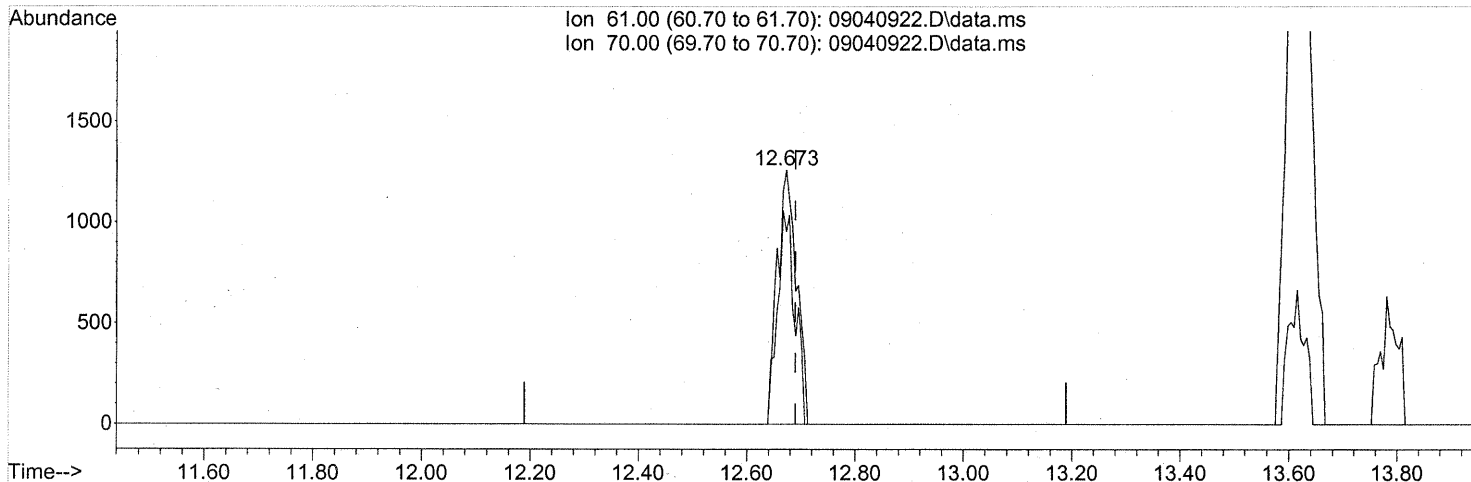
response 4310

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	141.25
0.00	0.00	0.00
0.00	0.00	0.00

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TIC: 09040922.D\data.ms

(30) Ethyl Acetate (T)

12.673min (-0.017) 0.56ng

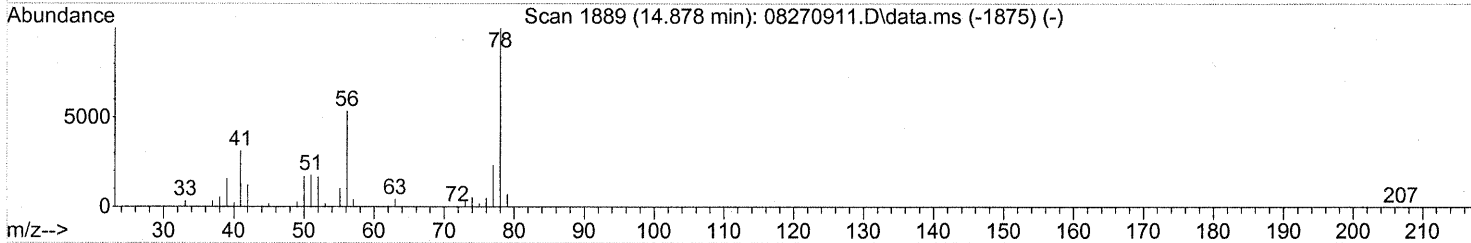
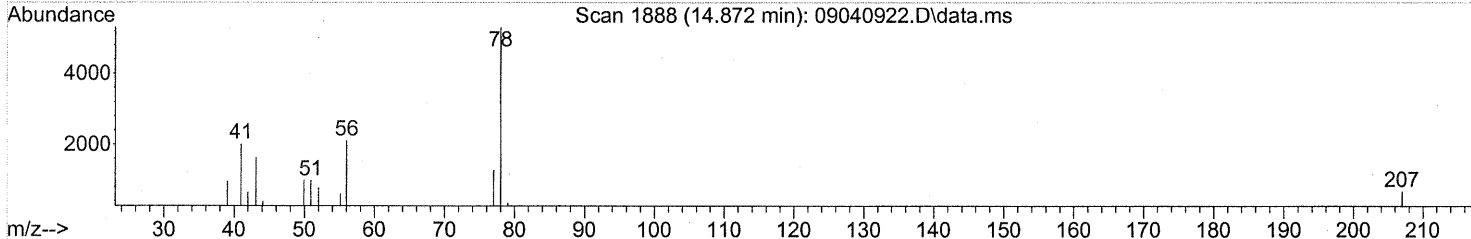
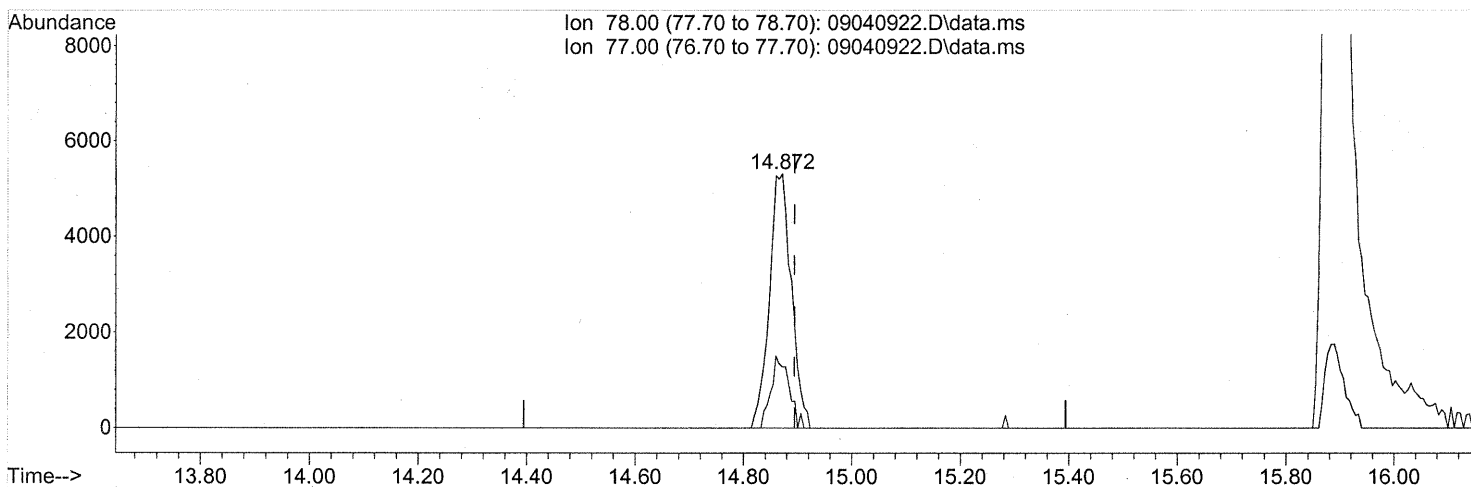
response 3128

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	75.35
0.00	0.00	0.00
0.00	0.00	0.00

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TIC: 09040922.D\data.ms

(41) Benzene (T)

14.872min (-0.023) 0.23ng

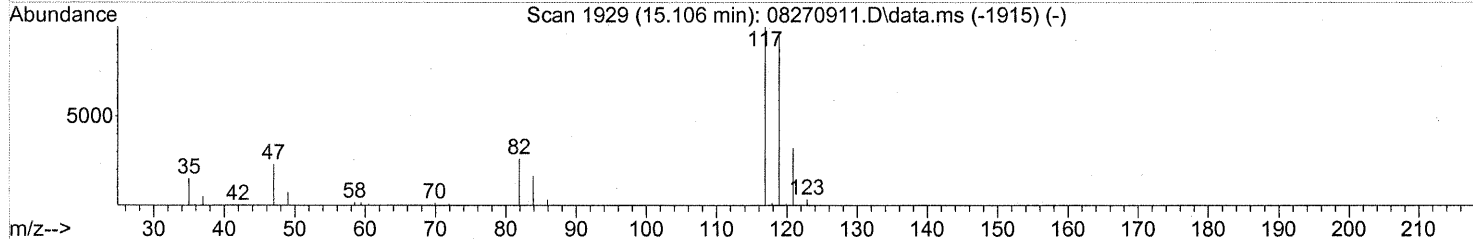
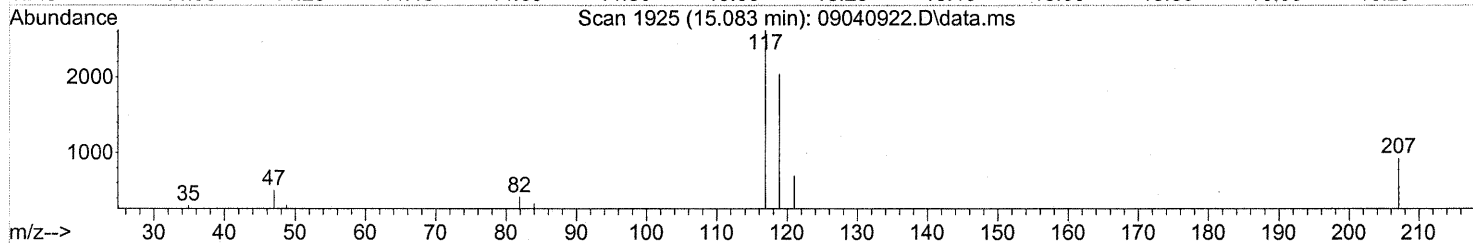
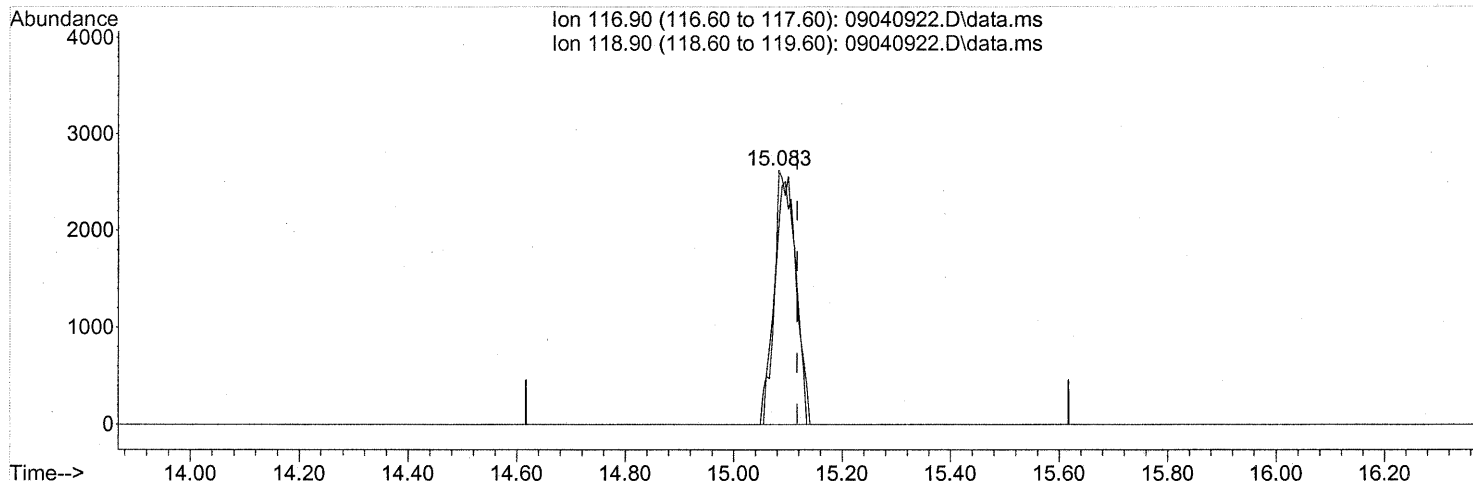
response 14966

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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 Response via : Initial Calibration



TIC: 09040922.D\data.ms

(42) Carbon Tetrachloride (T)

15.083min (-0.034) 0.34ng

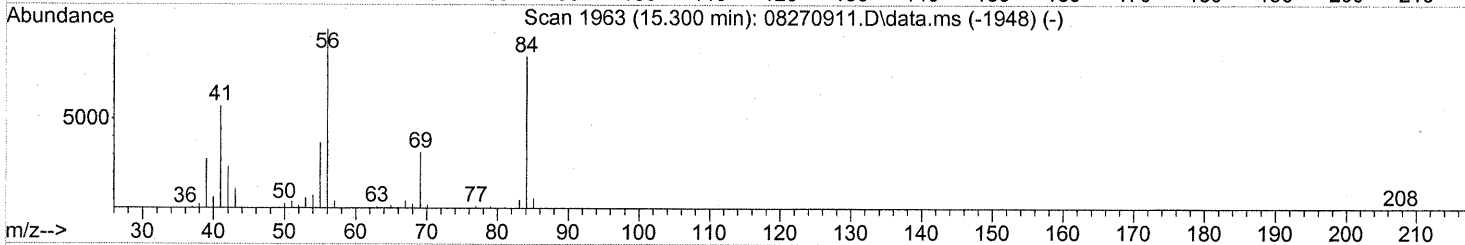
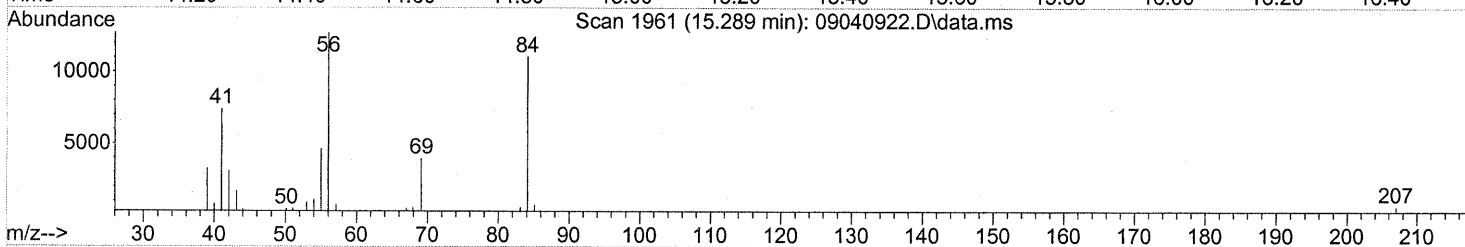
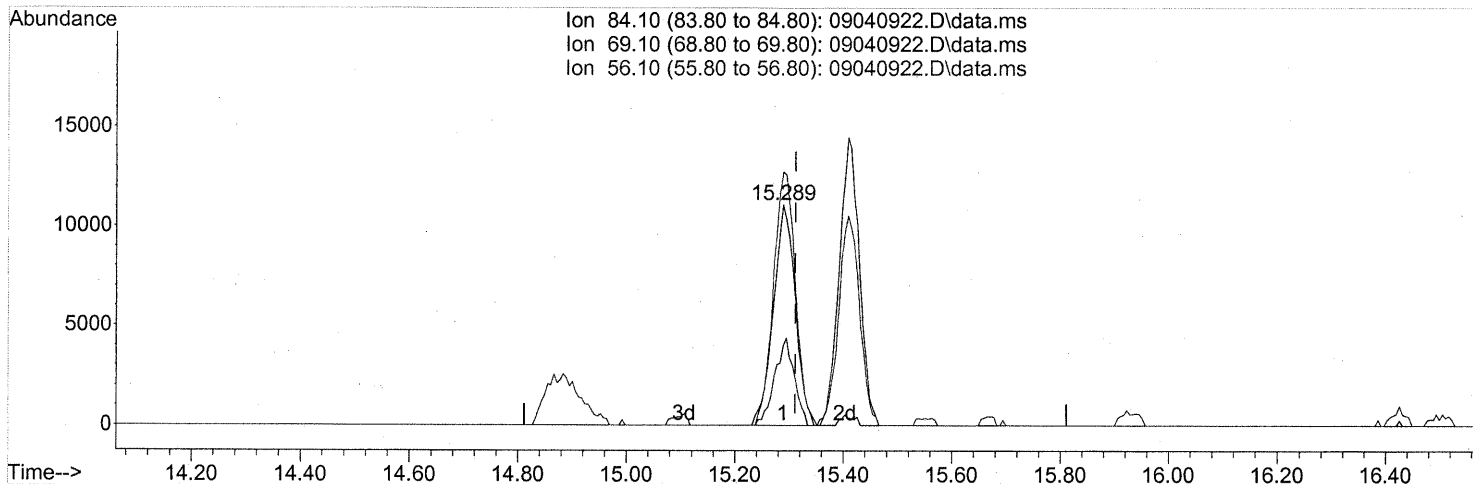
response 7315

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	93.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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 Response via : Initial Calibration



TIC: 09040922.D\data.ms

(43) Cyclohexane (T)

15.289min (-0.023) 1.30ng

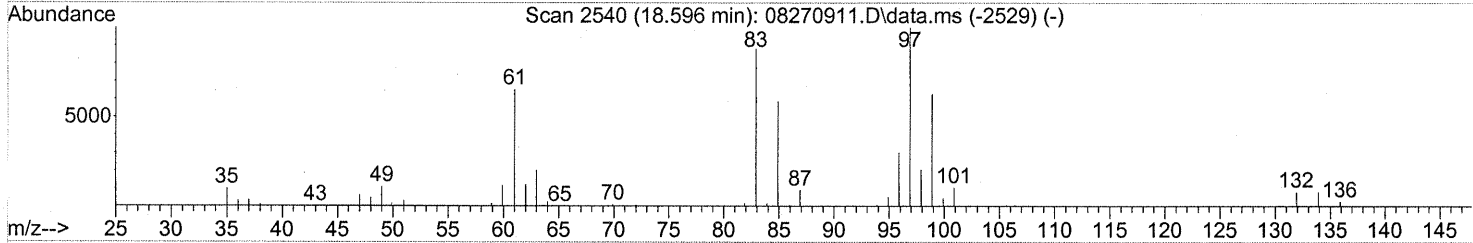
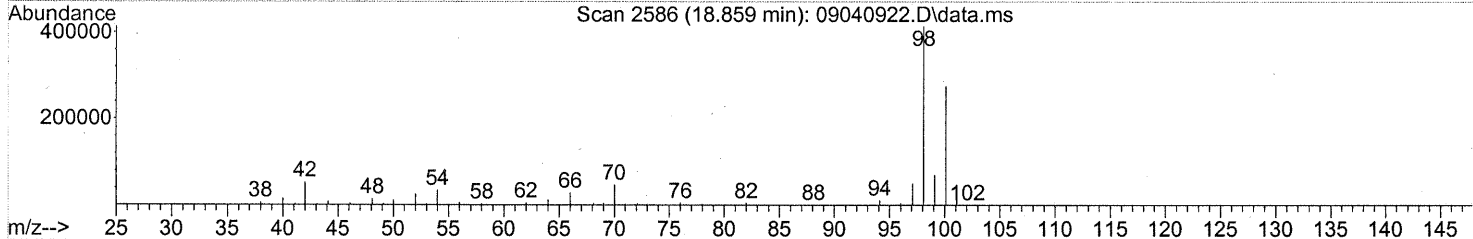
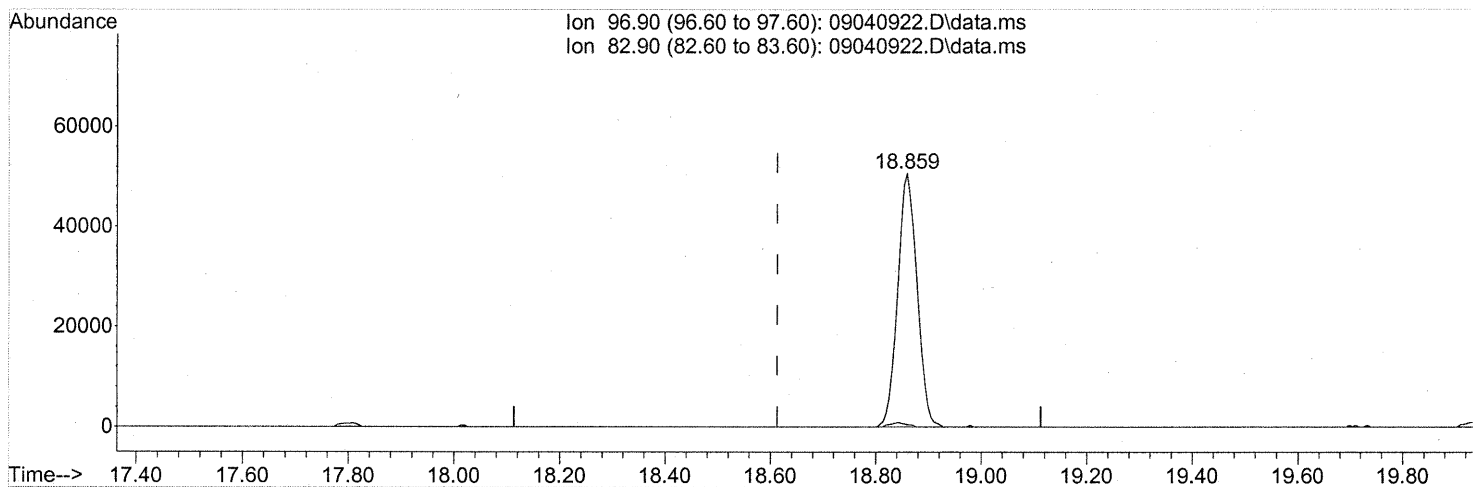
response 31073

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	35.27
56.10	124.50	115.77
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 08 09:00:56 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



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

18.859min (+0.246) 8.57ng

response 129573

Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.39#
0.00	0.00	0.00
0.00	0.00	0.00

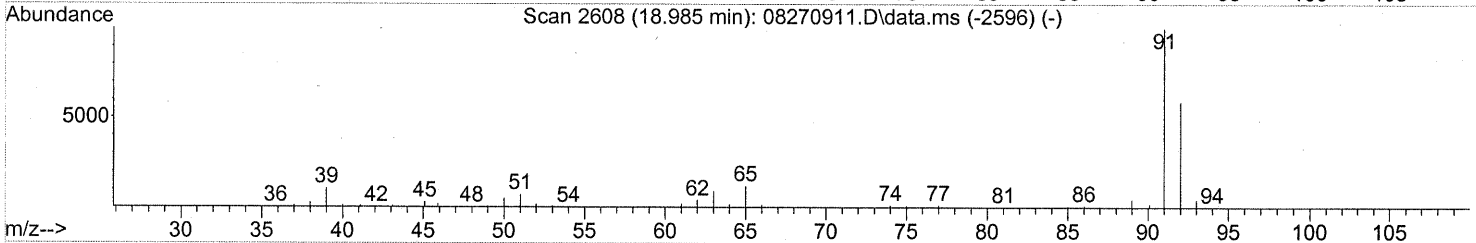
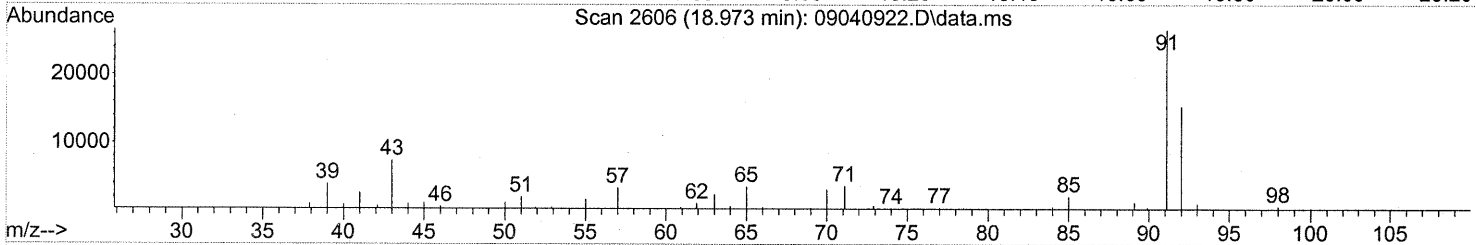
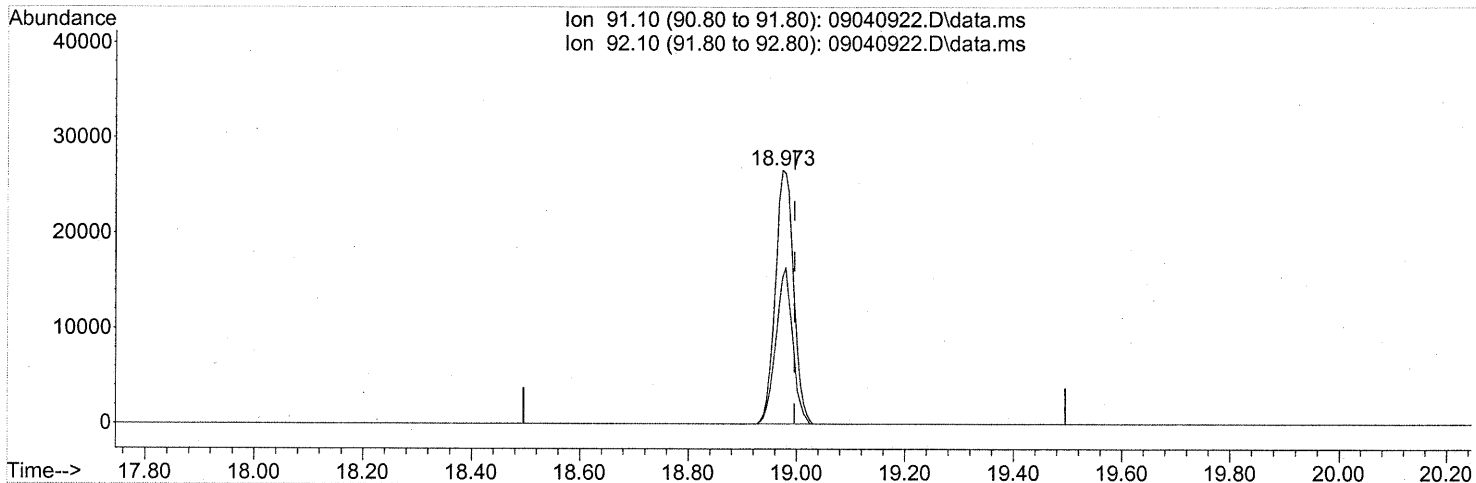
FP
11/9/09

[Signature]

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040922.D
Acq On : 5 Sep 2009 1:10
Operator : LM/CC
Sample : P0903022-003 (1000ml)
Misc : EH&E 103602
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 08 09:00:56 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA 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: 09040922.D\data.ms

(58) Toluene (T)

18.973min (-0.023) 0.96ng

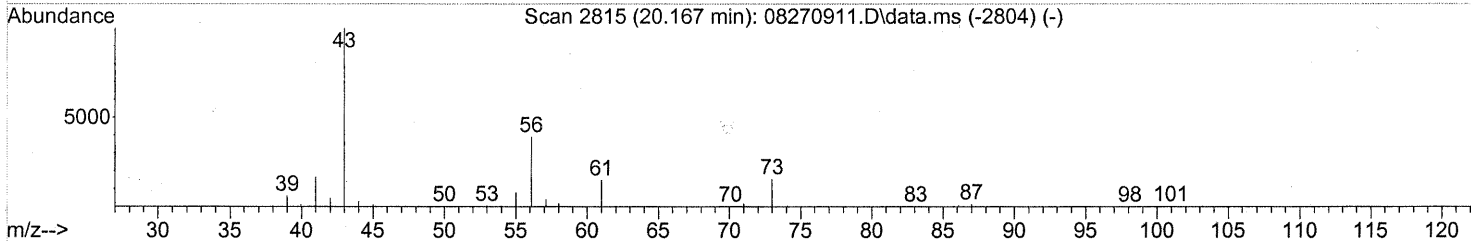
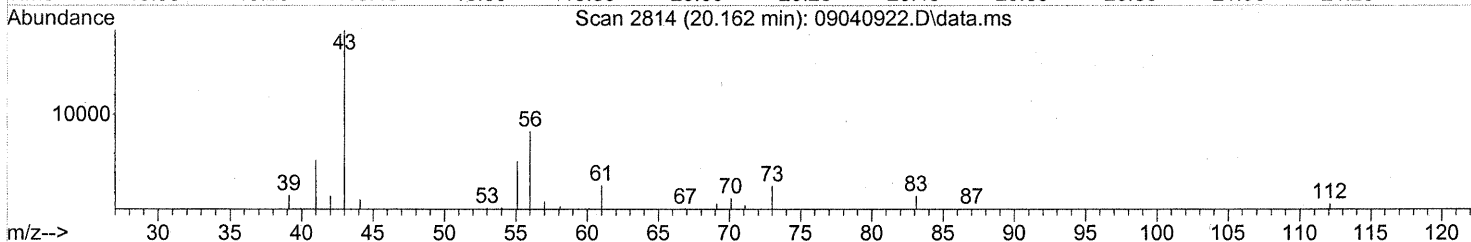
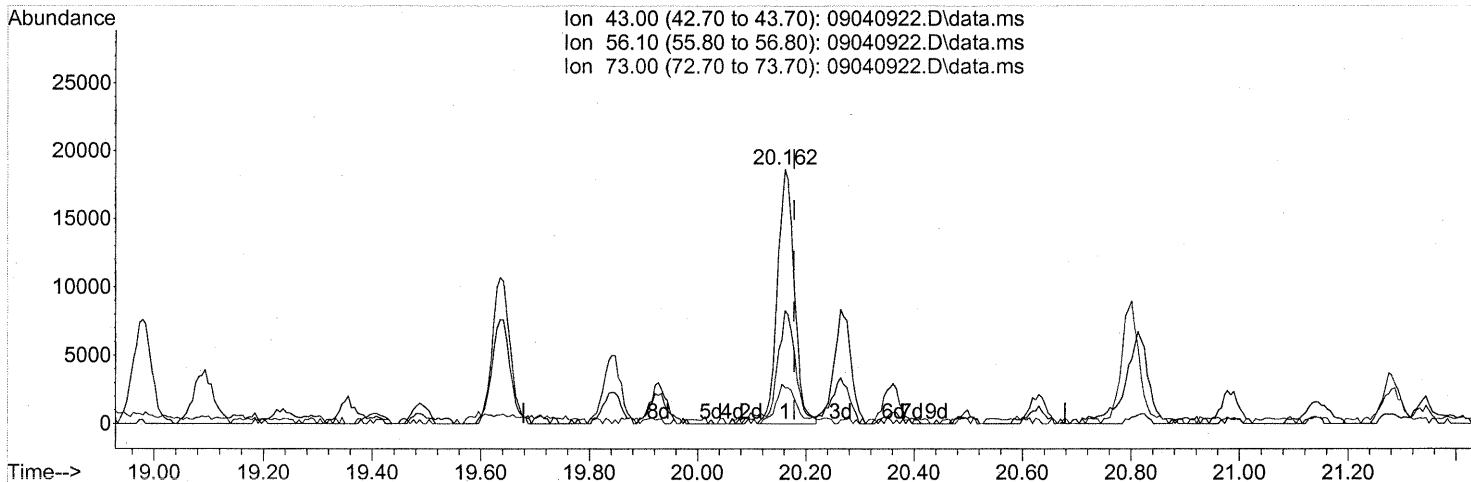
response 62520

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	56.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 08 09:00:56 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040922.D\data.ms

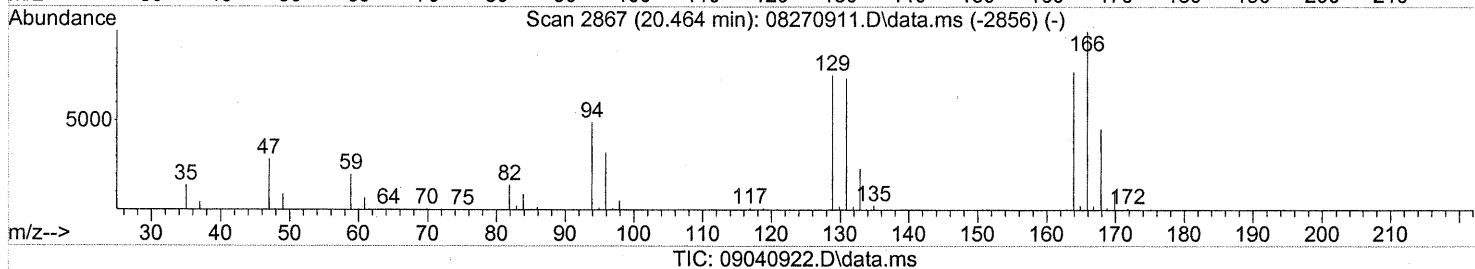
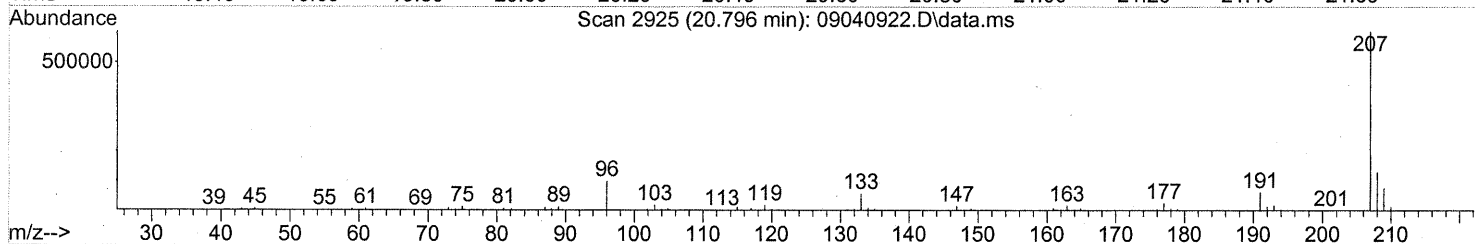
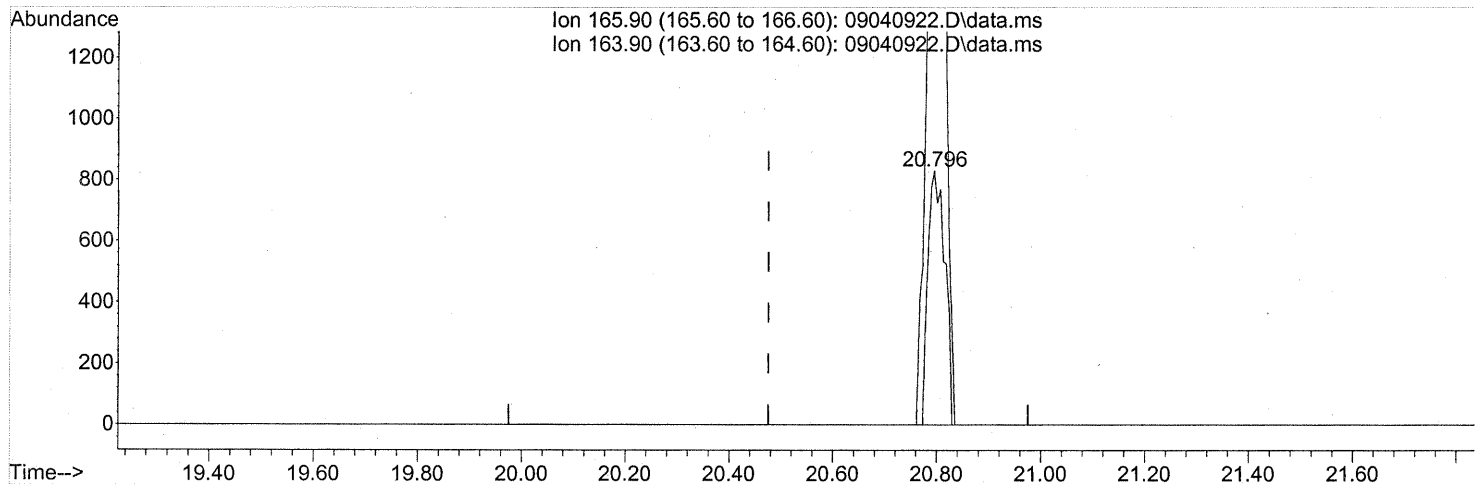
(62) n-Butyl Acetate (T)
 20.162min (-0.017) 0.88ng
 response 40259

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	45.69
73.00	14.30	20.03
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 08 09:00:56 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



(64) Tetrachloroethene (T)

20.796min (+0.320) 0.11ng

response 1869

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	323.38#
0.00	0.00	0.00
0.00	0.00	0.00

FP

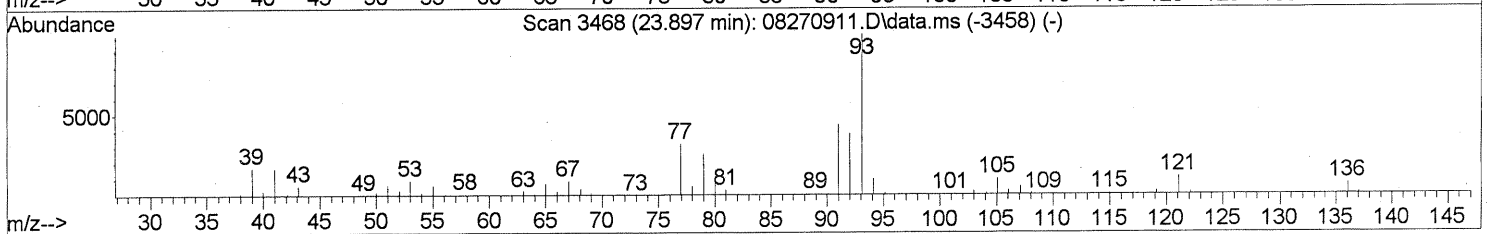
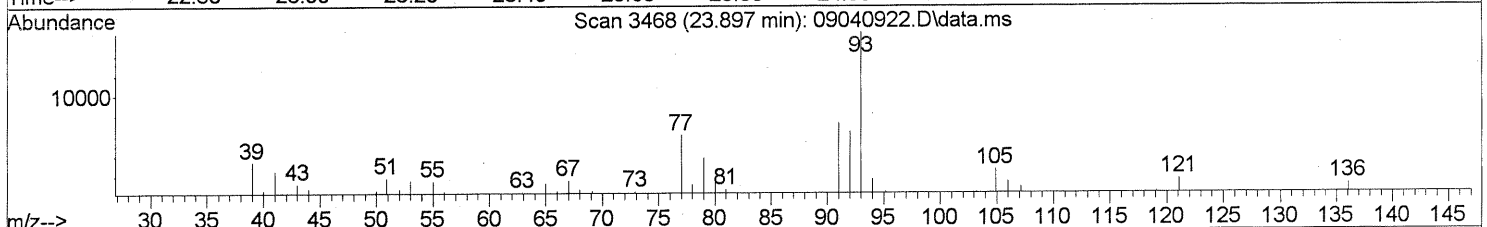
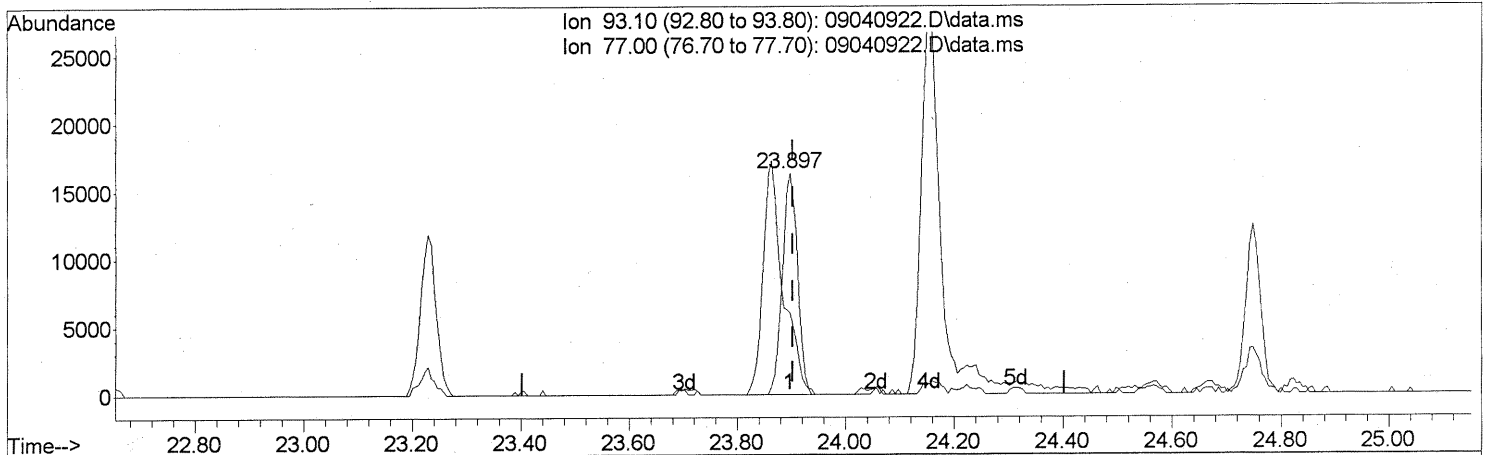
9/11/09

LM 9/11/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040922.D
 Acq On : 5 Sep 2009 1:10
 Operator : LM/CC
 Sample : P0903022-003 (1000ml)
 Misc : EH&E 103602
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 09 15:34:12 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040922.D\data.ms

(75) alpha-Pinene (T)
 23.897min (-0.006) 0.81ng
 response 31805

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	0.00#
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: 106303
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: AC01167

CAS Project ID: P0903022
 CAS Sample ID: P0903022-004

Date Collected: 8/27/09
 Date Received: 8/28/09
 Date Analyzed: 9/5/09
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	1.3	0.71	0.78	0.41	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.4	0.71	0.49	0.14	
74-87-3	Chloromethane	0.62	0.14	0.30	0.068	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.71	ND	0.10	
75-01-4	Vinyl Chloride	ND	0.14	ND	0.055	
106-99-0	1,3-Butadiene	ND	0.14	ND	0.064	
74-83-9	Bromomethane	ND	0.14	ND	0.036	
75-00-3	Chloroethane	ND	0.14	ND	0.053	
64-17-5	Ethanol	49	7.1	26	3.7	
75-05-8	Acetonitrile	ND	0.71	ND	0.42	
107-02-8	Acrolein	4.8	0.71	2.1	0.31	
67-64-1	Acetone	64	7.1	27	3.0	
75-69-4	Trichlorofluoromethane	1.2	0.14	0.22	0.025	
67-63-0	2-Propanol (Isopropyl Alcohol)	3.3	0.71	1.3	0.29	
107-13-1	Acrylonitrile	ND	0.71	ND	0.32	
75-35-4	1,1-Dichloroethene	ND	0.14	ND	0.036	
75-09-2	Methylene Chloride	ND	0.71	ND	0.20	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.14	ND	0.045	
76-13-1	Trichlorotrifluoroethane	0.53	0.14	0.070	0.018	
75-15-0	Carbon Disulfide	ND	0.71	ND	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	0.039	
108-05-4	Vinyl Acetate	ND	7.1	ND	2.0	
78-93-3	2-Butanone (MEK)	2.9	0.71	0.97	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.

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: 106303
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: AC01167

CAS Project ID: P0903022
CAS Sample ID: P0903022-004

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.41

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	ND	0.036	
141-78-6	Ethyl Acetate	5.9	0.71	1.6	0.20	
110-54-3	n-Hexane	0.92	0.71	0.26	0.20	
67-66-3	Chloroform	0.27	0.14	0.056	0.029	
109-99-9	Tetrahydrofuran (THF)	ND	0.71	ND	0.24	
107-06-2	1,2-Dichloroethane	0.53	0.14	0.13	0.035	
71-55-6	1,1,1-Trichloroethane	ND	0.14	ND	0.026	
71-43-2	Benzene	0.79	0.14	0.25	0.044	
56-23-5	Carbon Tetrachloride	0.44	0.14	0.069	0.022	
110-82-7	Cyclohexane	1.7	0.71	0.49	0.20	
78-87-5	1,2-Dichloropropane	ND	0.14	ND	0.031	
75-27-4	Bromodichloromethane	ND	0.14	ND	0.021	
79-01-6	Trichloroethene	ND	0.14	ND	0.026	
123-91-1	1,4-Dioxane	ND	0.71	ND	0.20	
80-62-6	Methyl Methacrylate	ND	0.71	ND	0.17	
142-82-5	n-Heptane	ND	0.71	ND	0.17	
10061-01-5	cis-1,3-Dichloropropene	ND	0.71	ND	0.16	
108-10-1	4-Methyl-2-pentanone	0.73	0.71	0.18	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.71	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.14	ND	0.026	
108-88-3	Toluene	4.0	0.71	1.1	0.19	
591-78-6	2-Hexanone	ND	0.71	ND	0.17	
124-48-1	Dibromochloromethane	ND	0.14	ND	0.017	
106-93-4	1,2-Dibromoethane	ND	0.14	ND	0.018	
123-86-4	n-Butyl Acetate	1.6	0.71	0.33	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: 9/5/09 **113**

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 106303
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: AC01167

CAS Project ID: P0903022
 CAS Sample ID: P0903022-004

Date Collected: 8/27/09
 Date Received: 8/28/09
 Date Analyzed: 9/5/09
 Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -1.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.41

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	0.88	0.71	0.19	0.15	
127-18-4	Tetrachloroethene	0.57	0.14	0.084	0.021	
108-90-7	Chlorobenzene	ND	0.14	ND	0.031	
100-41-4	Ethylbenzene	ND	0.71	ND	0.16	
179601-23-1	m,p-Xylenes	1.4	0.71	0.33	0.16	
75-25-2	Bromoform	ND	0.71	ND	0.068	
100-42-5	Styrene	4.4	0.71	1.0	0.17	
95-47-6	o-Xylene	ND	0.71	ND	0.16	
111-84-2	n-Nonane	1.2	0.71	0.22	0.13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.021	
98-82-8	Cumene	ND	0.71	ND	0.14	
80-56-8	alpha-Pinene	75	0.71	14	0.13	
103-65-1	n-Propylbenzene	ND	0.71	ND	0.14	
622-96-8	4-Ethyltoluene	ND	0.71	ND	0.14	
108-67-8	1,3,5-Trimethylbenzene	ND	0.71	ND	0.14	
95-63-6	1,2,4-Trimethylbenzene	0.76	0.71	0.15	0.14	
100-44-7	Benzyl Chloride	ND	0.14	ND	0.027	
541-73-1	1,3-Dichlorobenzene	ND	0.14	ND	0.023	
106-46-7	1,4-Dichlorobenzene	ND	0.14	ND	0.023	
95-50-1	1,2-Dichlorobenzene	ND	0.14	ND	0.023	
5989-27-5	d-Limonene	15	0.71	2.7	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.71	ND	0.073	
120-82-1	1,2,4-Trichlorobenzene	ND	0.71	ND	0.095	
91-20-3	Naphthalene	6.1	0.71	1.2	0.13	
87-68-3	Hexachlorobutadiene	ND	0.71	ND	0.066	

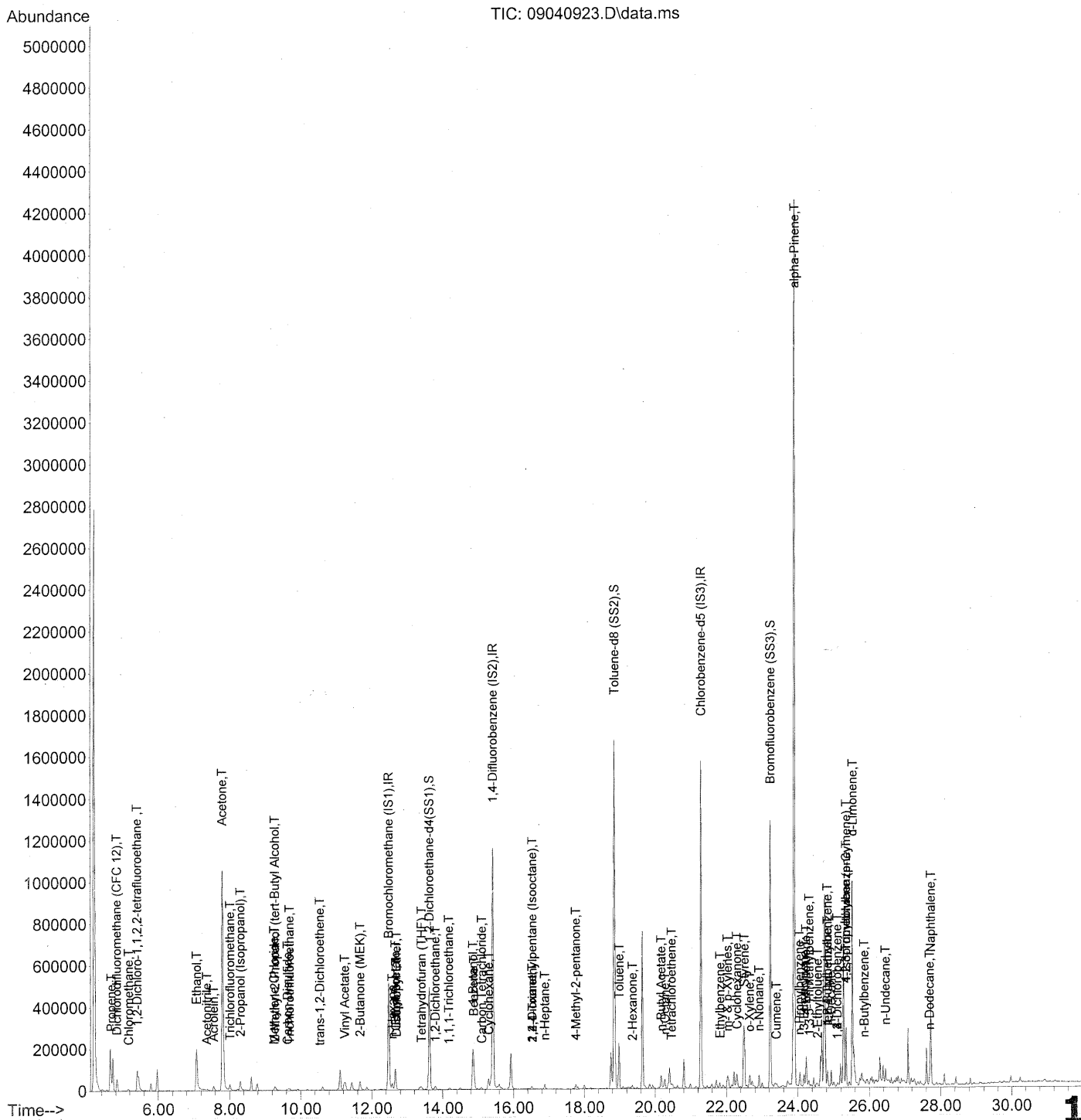
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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 **114**

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52 am
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:16:42 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52 am
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:16:42 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration

09/19/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	262340	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1326553	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	654746	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	512405	24.648	ng	-0.03
Spiked Amount	25.000		Recovery	=	98.60%	
57) Toluene-d8 (SS2)	18.85	98	1432884	24.488	ng	-0.01
Spiked Amount	25.000		Recovery	=	97.96%	
73) Bromofluorobenzene (SS3)	23.23	174	417726	24.805	ng	0.00
Spiked Amount	25.000		Recovery	=	99.20%	

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	18030	0.950	ng	87
3) Dichlorodifluoromethan...	4.83	85	56532	1.702	ng	99
4) Chloromethane	5.17	50	9838	0.441	ng	94
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	738	0.054	ng	# 43
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	5.88	54	105	N.D.		
8) Bromomethane	6.37	94	113	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.07	45	405509	34.462	ng	100
11) Acetonitrile	7.36	41	14795	0.453	ng	95
12) Acrolein	7.55	56	30802	3.428	ng	100
13) Acetone	7.80	58	552168	45.375	ng	96
14) Trichlorofluoromethane	8.01	101	25193	0.860	ng	98
15) 2-Propanol (Isopropanol)	8.30	45	93797	2.319	ng	92
16) Acrylonitrile	8.57	53	126	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	9.27	59	8899	0.220	ng	# 1
19) Methylene Chloride	9.25	84	3824	0.248	ng	94
20) 3-Chloro-1-propene (Al...	9.31	41	575	N.D.		
21) Trichlorotrifluoroethane	9.68	151	4395	0.379	ng	93
22) Carbon Disulfide	9.63	76	20154	0.367	ng	97
23) trans-1,2-Dichloroethene	10.53	61	1386	0.063	ng	# 19
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	11.12	73	1555	N.D.		
26) Vinyl Acetate	11.23	86	7243	2.375	ng	# 79
27) 2-Butanone (MEK)	11.66	72	19878	2.022	ng	100
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	12.68	87	960	0.067	ng	# 1
30) Ethyl Acetate	12.66	61	22075	4.179	ng	100
31) n-Hexane	12.57	57	17103	0.650	ng	

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52 am
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:16:42 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	5031	0.194	ng	94
34) Tetrahydrofuran (THF)	13.40	72	4501	0.422	ng #	80
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	8116	0.373	ng	95
38) 1,1,1-Trichloroethane	14.17	97	2073	0.085	ng #	75
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	14.85	56	184320	11.163	ng #	37
41) Benzene	14.87	78	34925	0.560	ng	98
42) Carbon Tetrachloride	15.10	117	6468	0.309	ng	95
43) Cyclohexane	15.29	84	27253	1.186	ng	97
44) tert-Amyl Methyl Ether	15.83	73	89	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	16.52	88	838	0.070	ng	85
49) 2,2,4-Trimethylpentane...	16.52	57	7217	0.102	ng #	53
50) Methyl Methacrylate	0.00	100	0	N.D.	d	
51) n-Heptane	16.87	71	7385	0.457	ng	98
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	17.75	58	7426	0.521	ng	98
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d	
58) Toluene	18.98	91	180142	2.858	ng	100
59) 2-Hexanone	19.36	43	16851	0.437	ng	98
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.16	43	49304	1.116	ng	90
63) n-Octane	20.27	57	9083	0.626	ng	95
64) Tetrachloroethene	20.46	166	6485	0.406	ng	95
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	21.82	91	23237	0.322	ng	99
67) m- & p-Xylenes	22.03	91	57944	1.010	ng	100
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	132885	3.145	ng	99
70) o-Xylene	22.65	91	26005	0.451	ng	98
71) n-Nonane	22.91	43	28716	0.829	ng	86
72) 1,1,2,2-Tetrachloroethane	22.64	83	316	N.D.		
74) Cumene	23.40	105	4749	0.065	ng	94
75) alpha-Pinene	23.90	93	2023409	53.395	ng	91
76) n-Propylbenzene	24.04	91	11734	0.126	ng #	81
77) 3-Ethyltoluene	24.17	105	21168	0.303	ng	99
78) 4-Ethyltoluene	24.23	105	12114	0.176	ng	90
79) 1,3,5-Trimethylbenzene	24.31	105	10004	0.174	ng	90

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52 am
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:16:42 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration

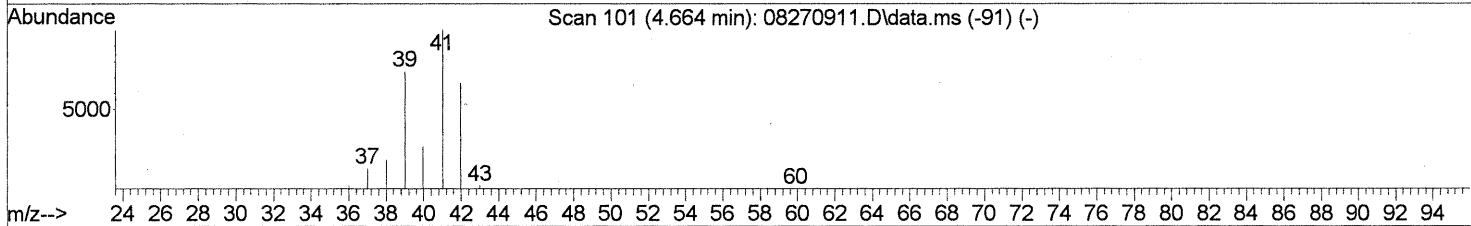
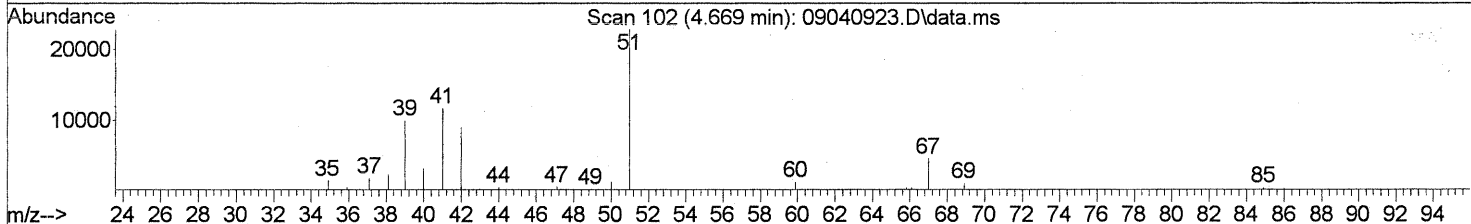
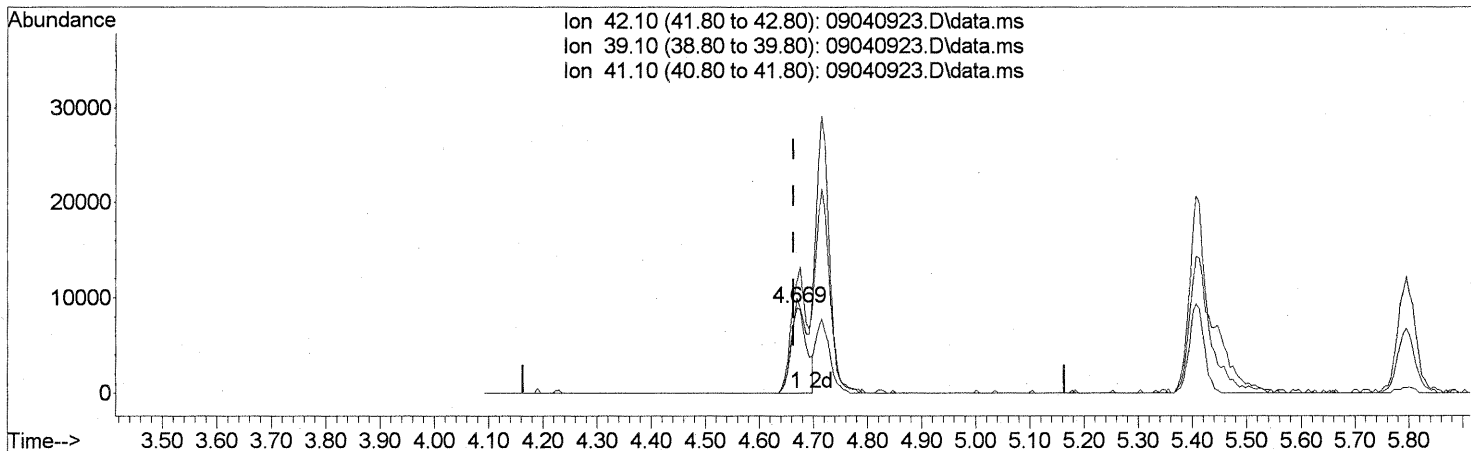
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	1318	N.D.		
81) 2-Ethyltoluene	24.55	105	11458	0.160 ng		92
82) 1,2,4-Trimethylbenzene	24.82	105	31606	0.539 ng		88
83) n-Decane	24.93	57	33180	0.948 ng		99
84) Benzyl Chloride	24.99	91	440	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	2261	0.071 ng		96
86) 1,4-Dichlorobenzene	25.10	146	2261	0.069 ng		96
87) sec-Butylbenzene	25.15	105	2067	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	142513	1.975 ng		95
89) 1,2,3-Trimethylbenzene	25.35	105	22445	0.365 ng	#	36
90) 1,2-Dichlorobenzene	25.10	146	2261	0.076 ng		98
91) d-Limonene	25.53	68	251536	10.752 ng		95
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.45	57	24636	0.678 ng		93
94) 1,2,4-Trichlorobenzene	28.04	180	1015	N.D.		
95) Naphthalene	27.72	128	349325	4.313 ng		99
96) n-Dodecane	27.69	57	15568	0.376 ng		89
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	36826	1.516 ng		97
99) tert-Butylbenzene	24.82	119	4110	0.072 ng	#	56
100) n-Butylbenzene	25.86	91	11295	0.173 ng	#	50

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

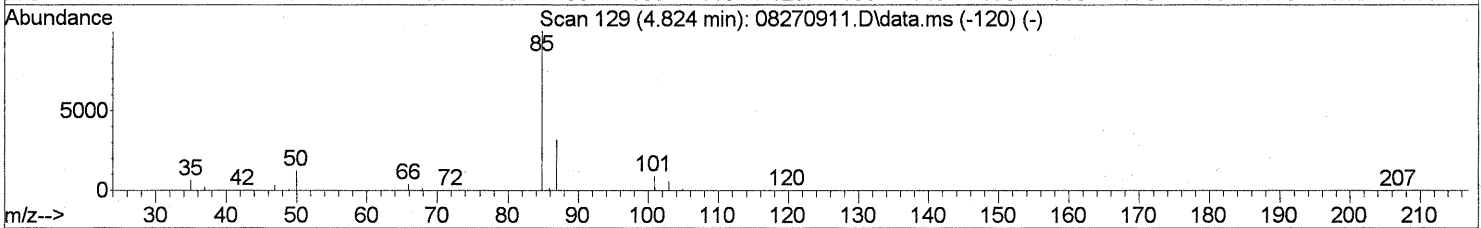
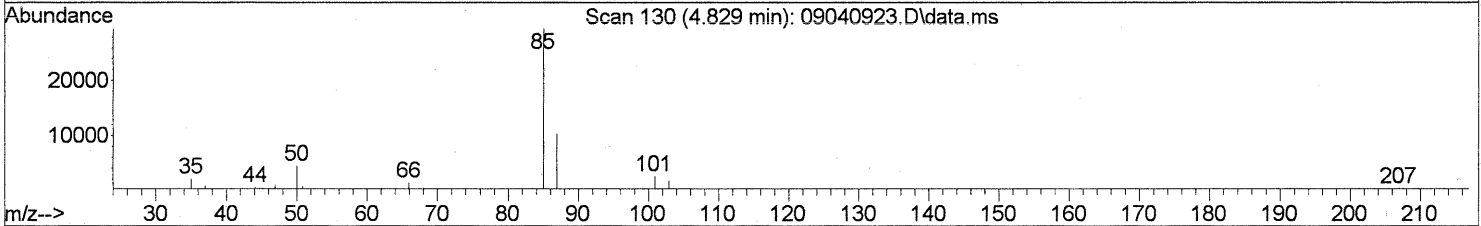
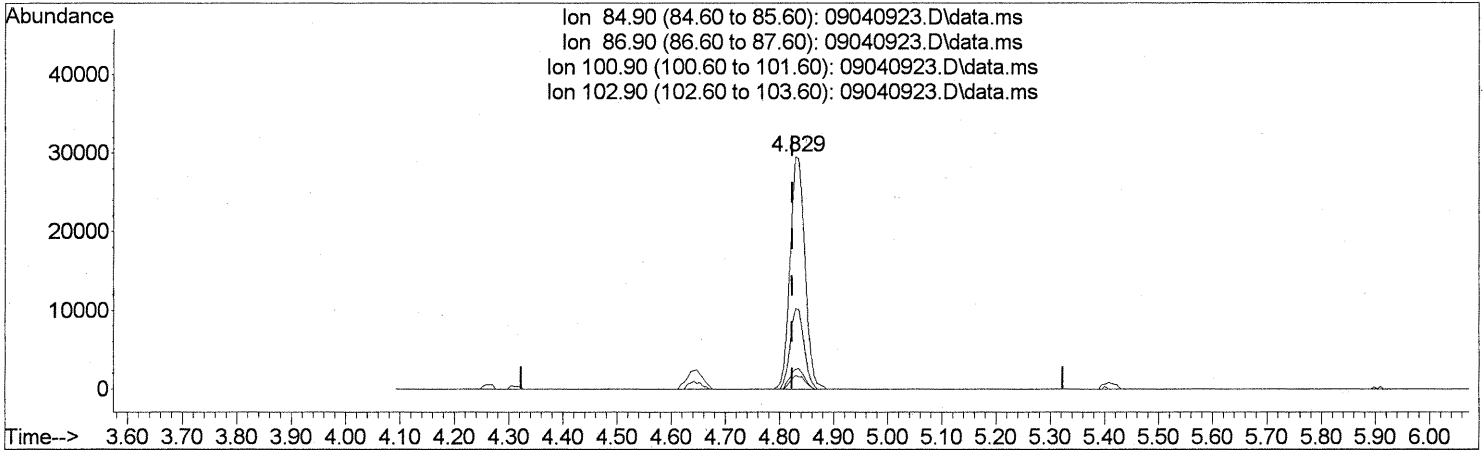
(2) Propene (T)
 4.669min (+0.006) 0.95ng
 response 18030

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	93.06
41.10	149.80	136.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040923.D
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Operator : LM/CC
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Quant Time: Sep 09 17:14:40 2009
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Response via : Initial Calibration



TIC: 09040923.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.829min (+0.006) 1.70ng

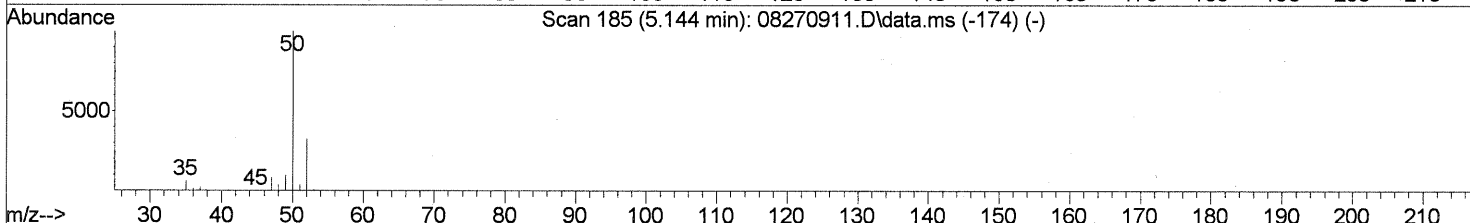
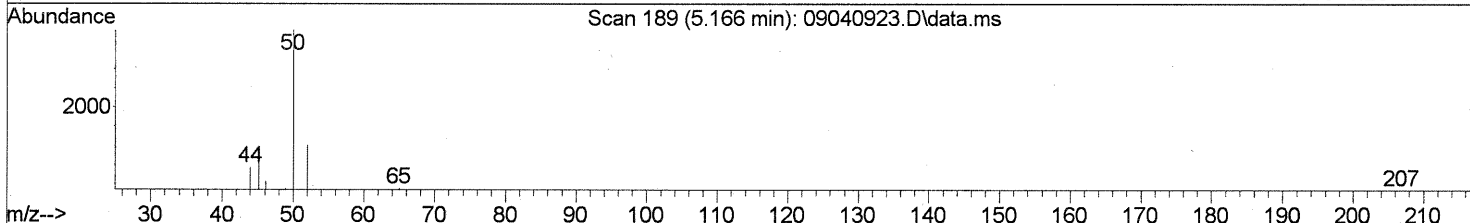
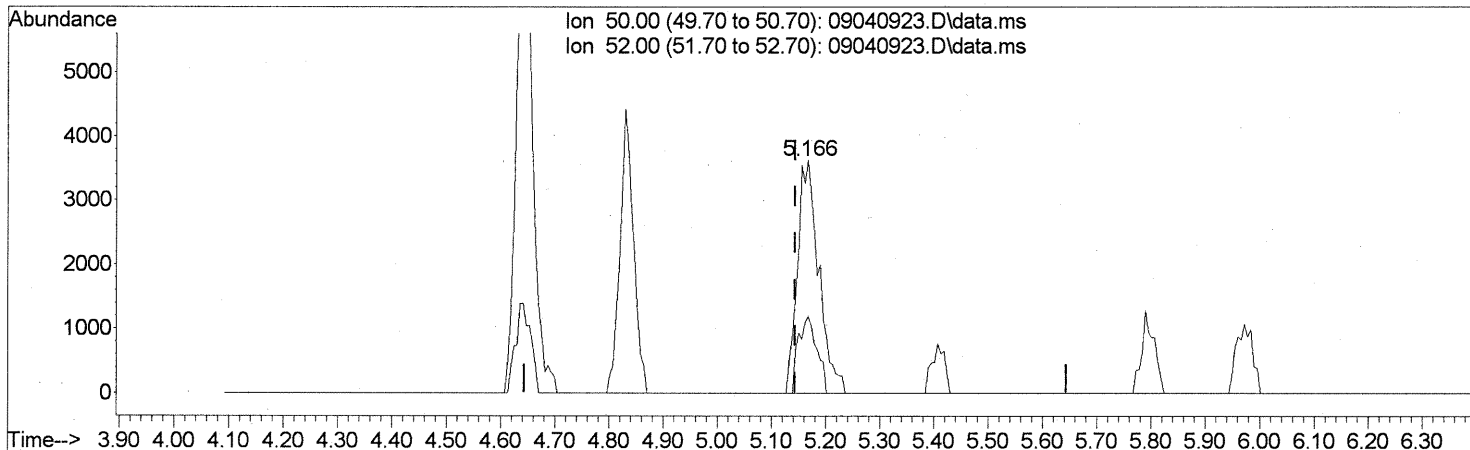
response 56532

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.36
100.90	8.80	8.39
102.90	5.60	5.53

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
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 Operator : LM/CC
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TIC: 09040923.D\data.ms

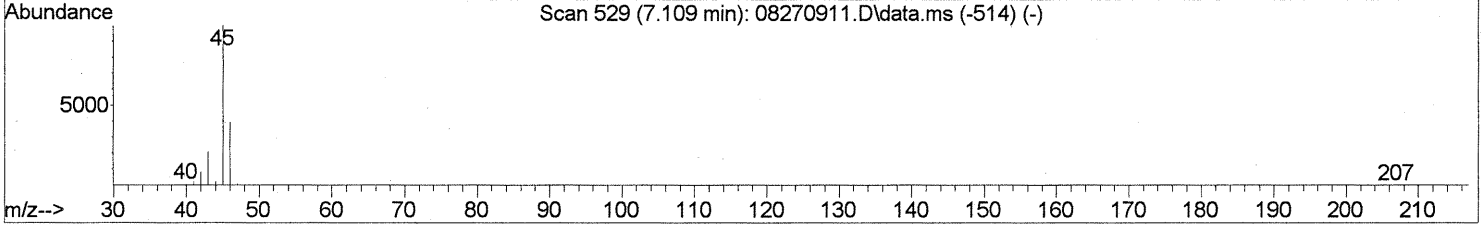
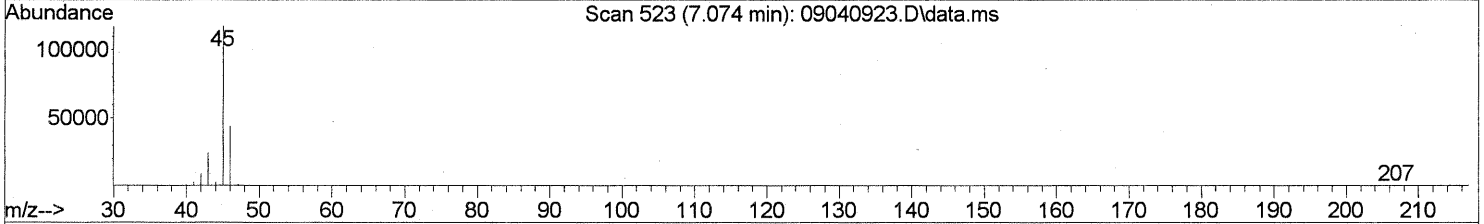
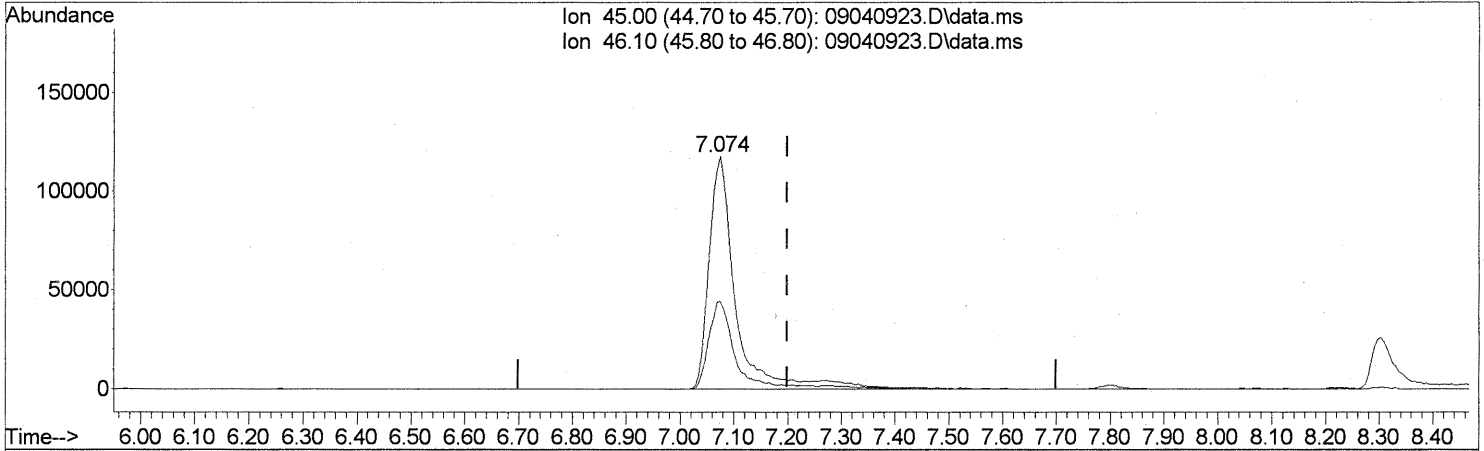
(4) Chloromethane (T)
 5.166min (+0.023) 0.44ng
 response 9838

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	28.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
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 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
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 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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TIC: 09040923.D\data.ms

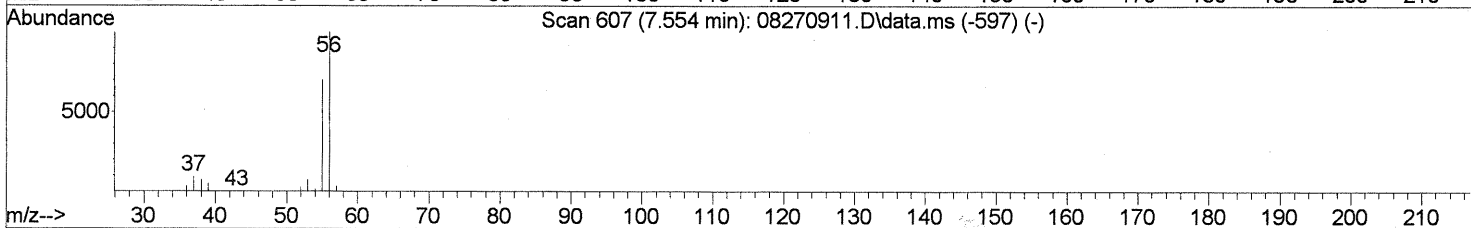
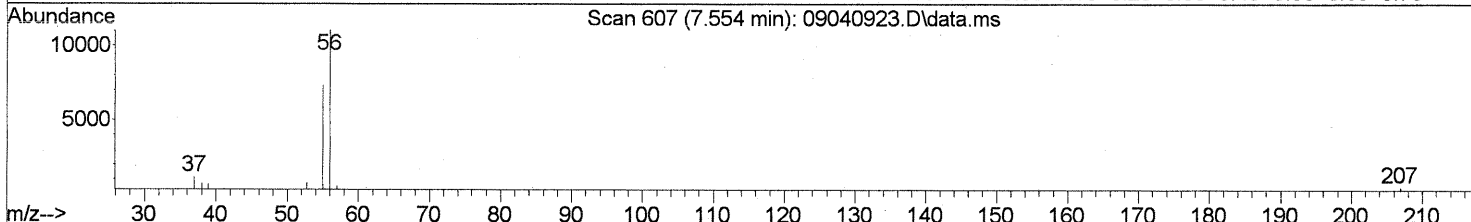
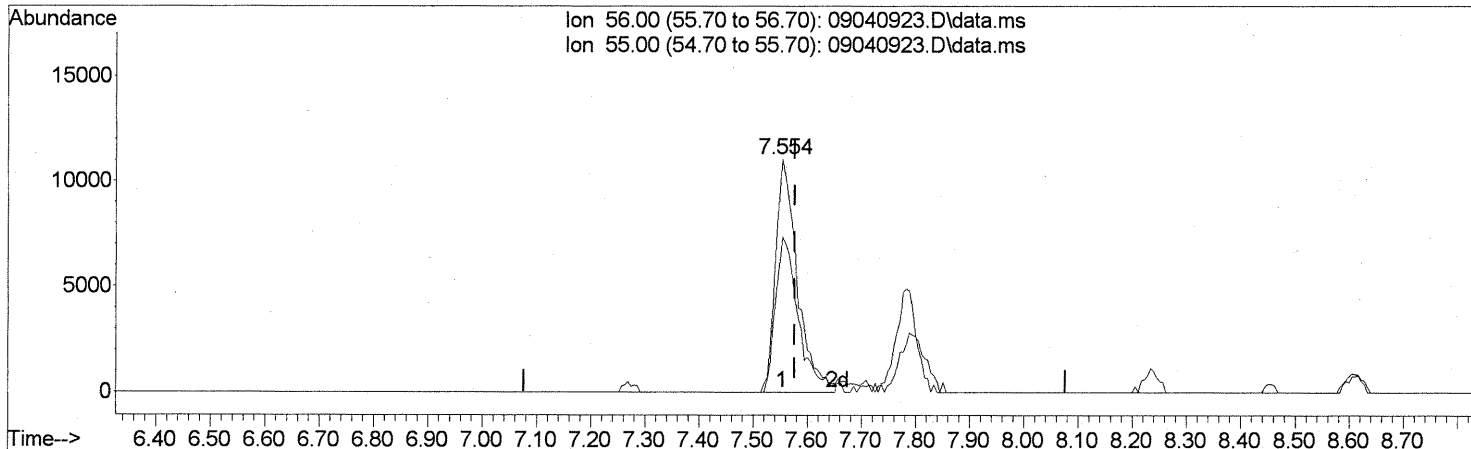
(10) Ethanol (T)
 7.074min (-0.126) 34.46ng
 response 405509

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
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TIC: 09040923.D\data.ms

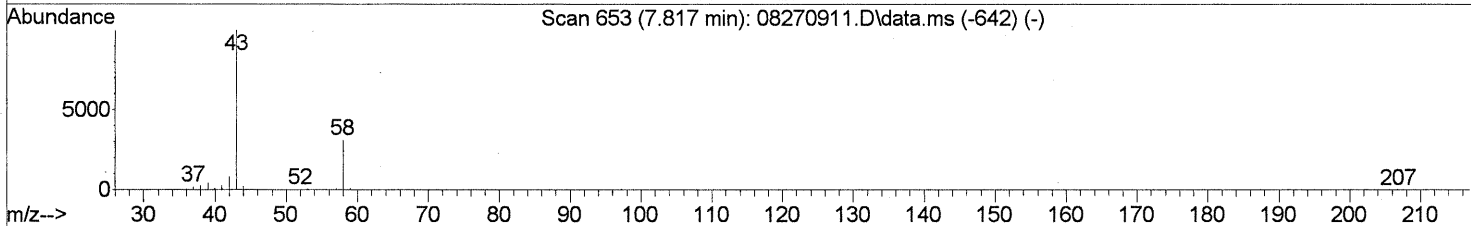
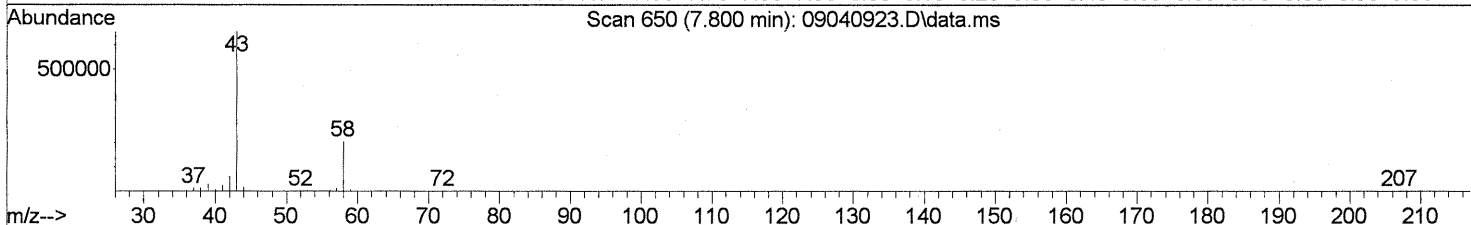
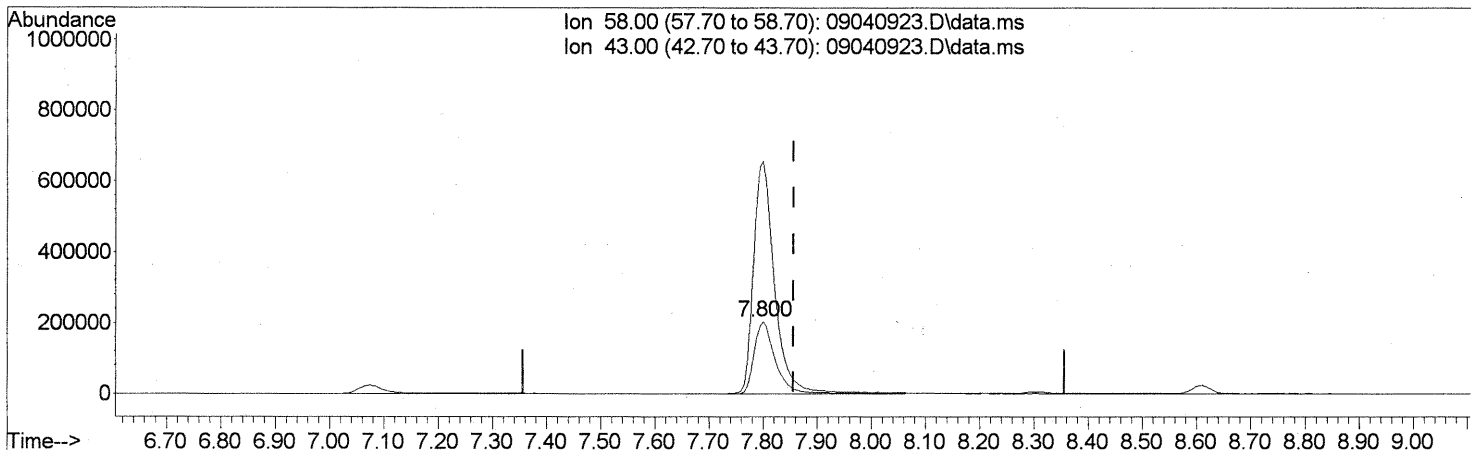
(12) Acrolein (T)
 7.554min (-0.023) 3.43ng
 response 30802

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	70.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
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TIC: 09040923.D\data.ms

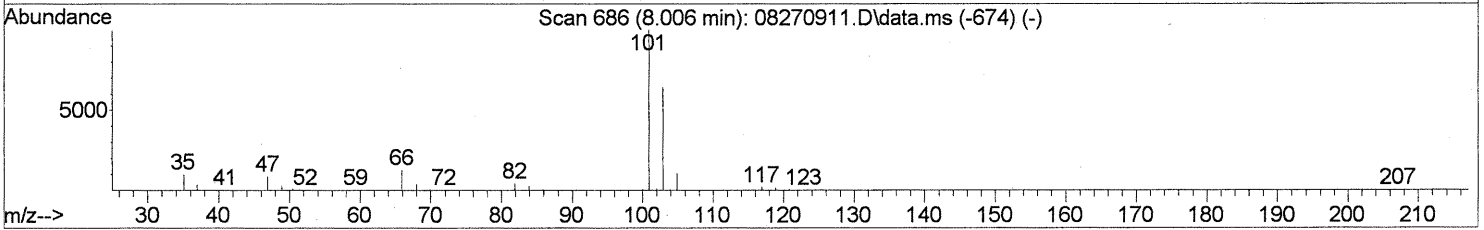
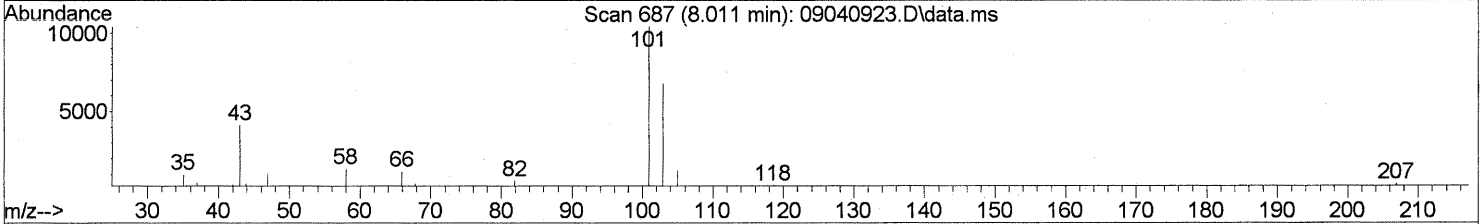
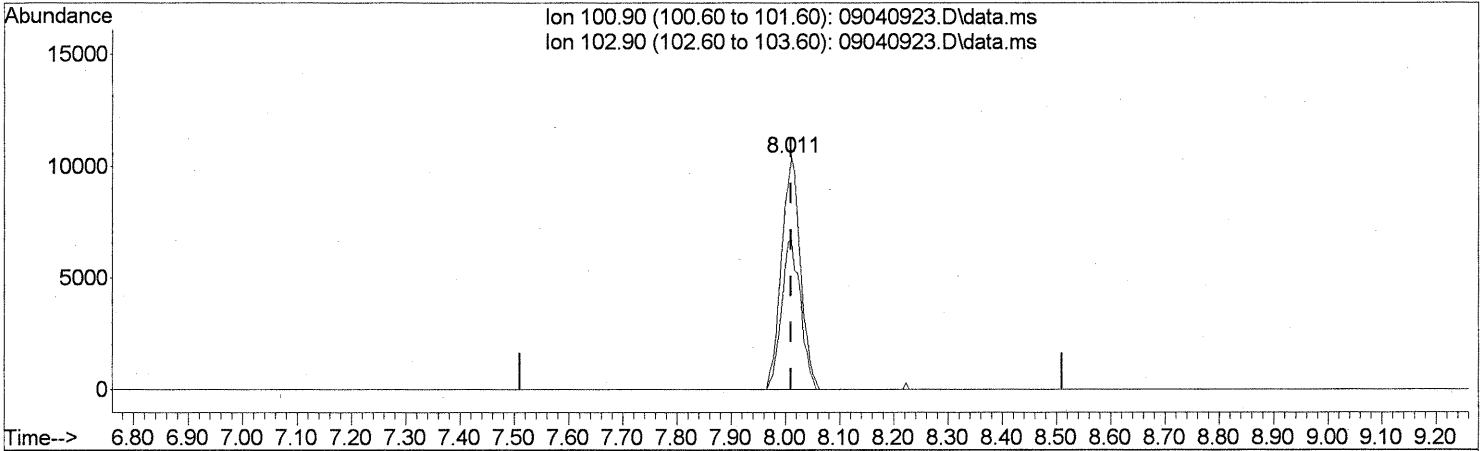
(13) Acetone (T)
 7.800min (-0.057) 45.37ng
 response 552168

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	323.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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TIC: 09040923.D\data.ms

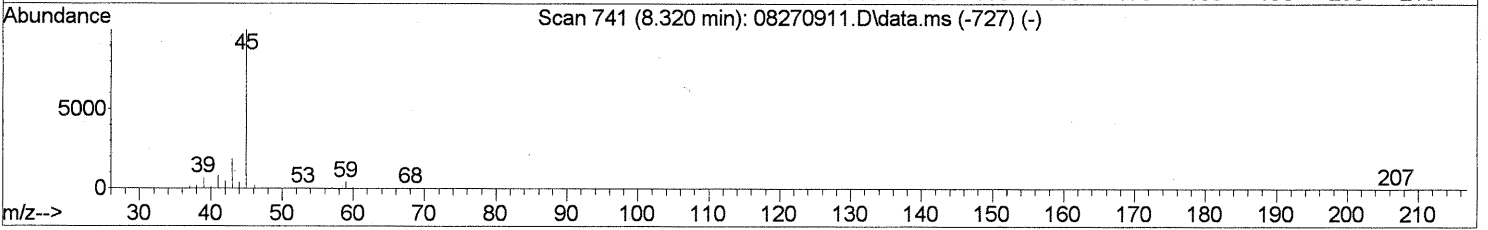
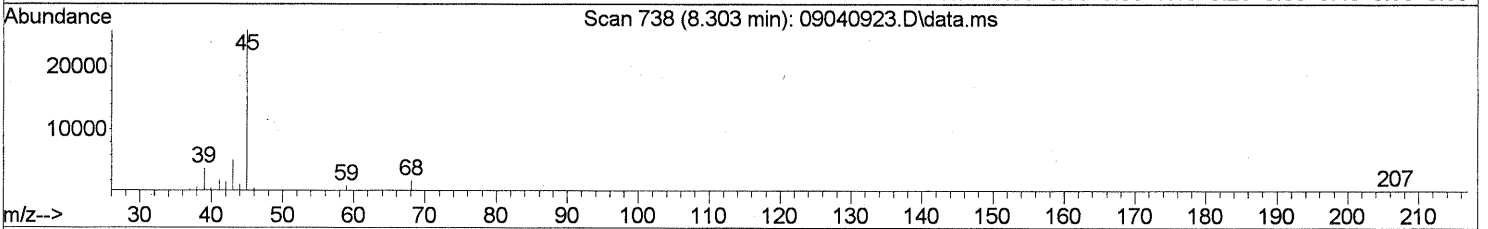
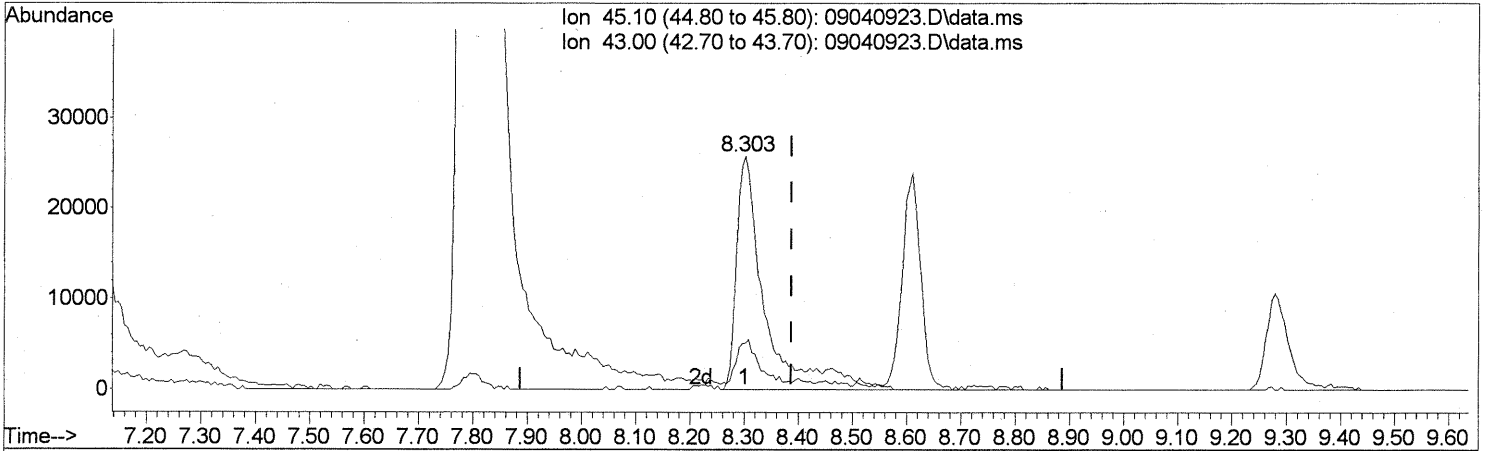
(14) Trichlorofluoromethane (T)
 8.011min (-0.000) 0.86ng
 response 25193

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	64.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
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TIC: 09040923.D\data.ms

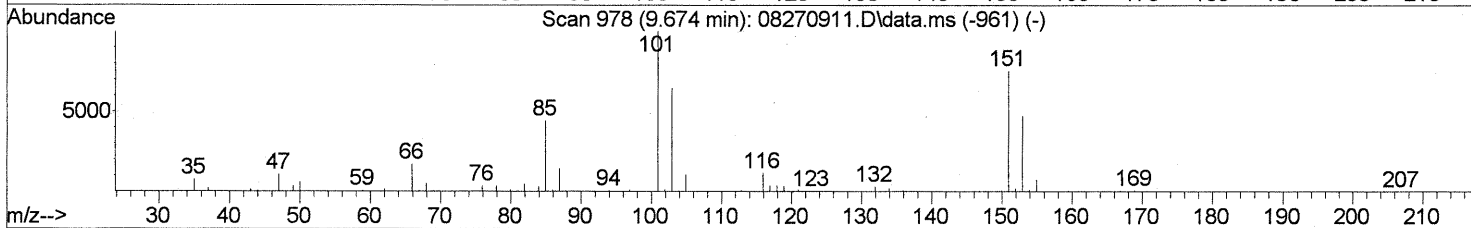
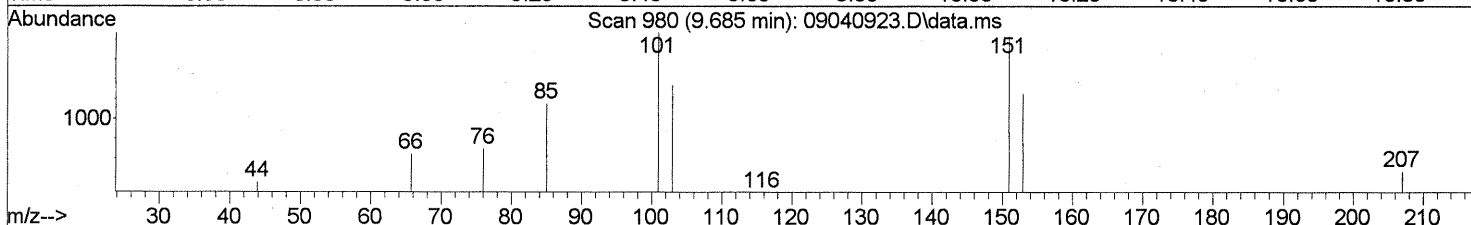
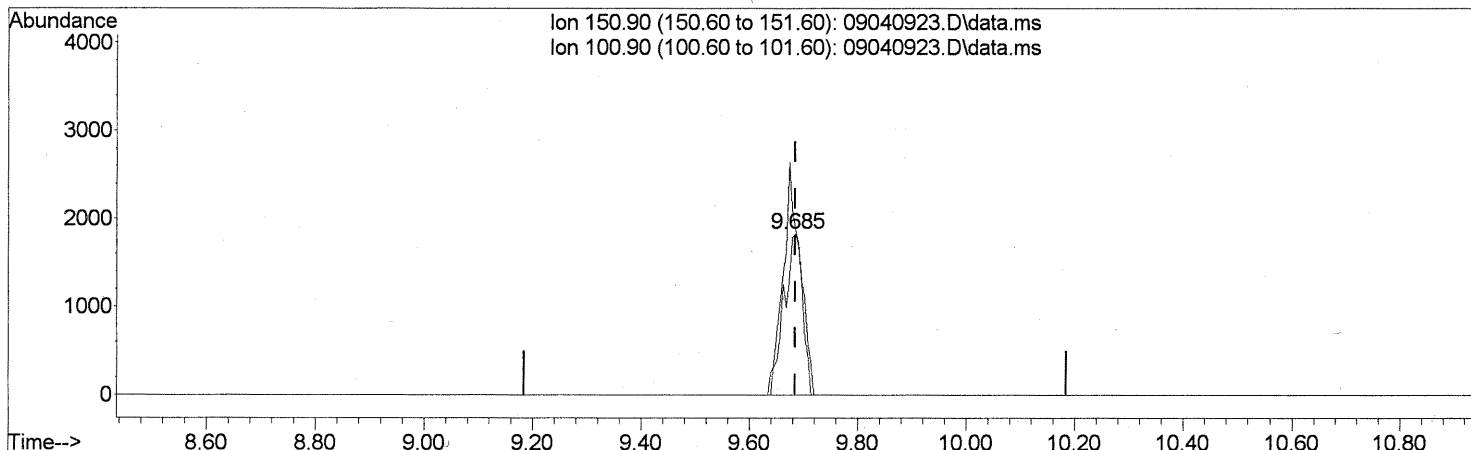
(15) 2-Propanol (Isopropanol) (T)
 8.303min (-0.085) 2.32ng
 response 93797

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	14.94
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
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 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
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TIC: 09040923.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.685min (-0.000) 0.38ng

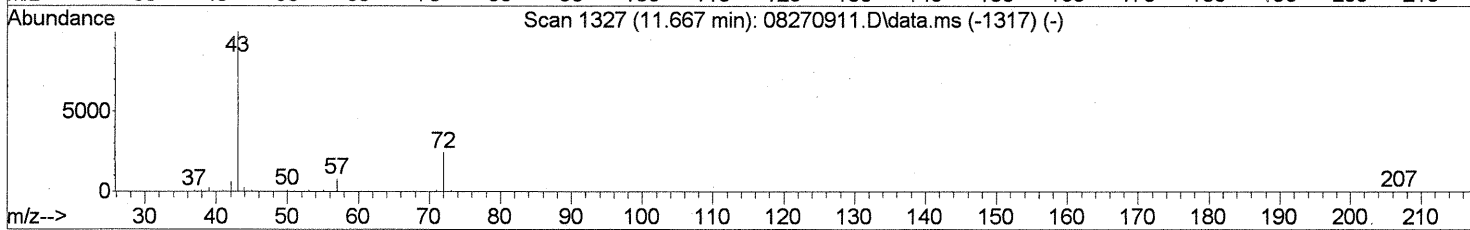
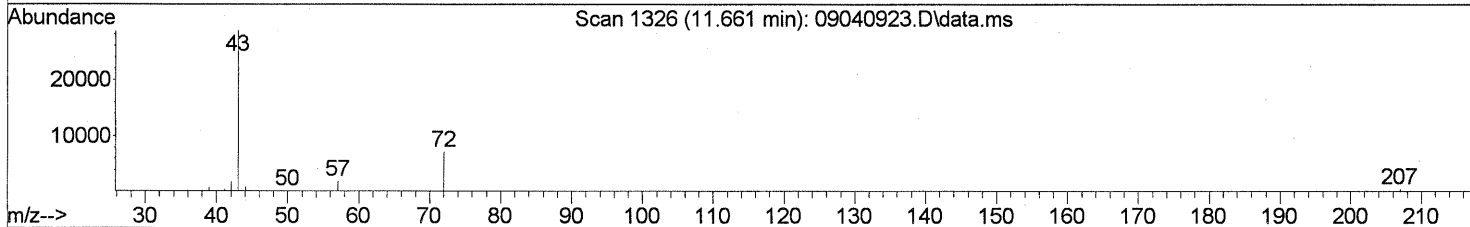
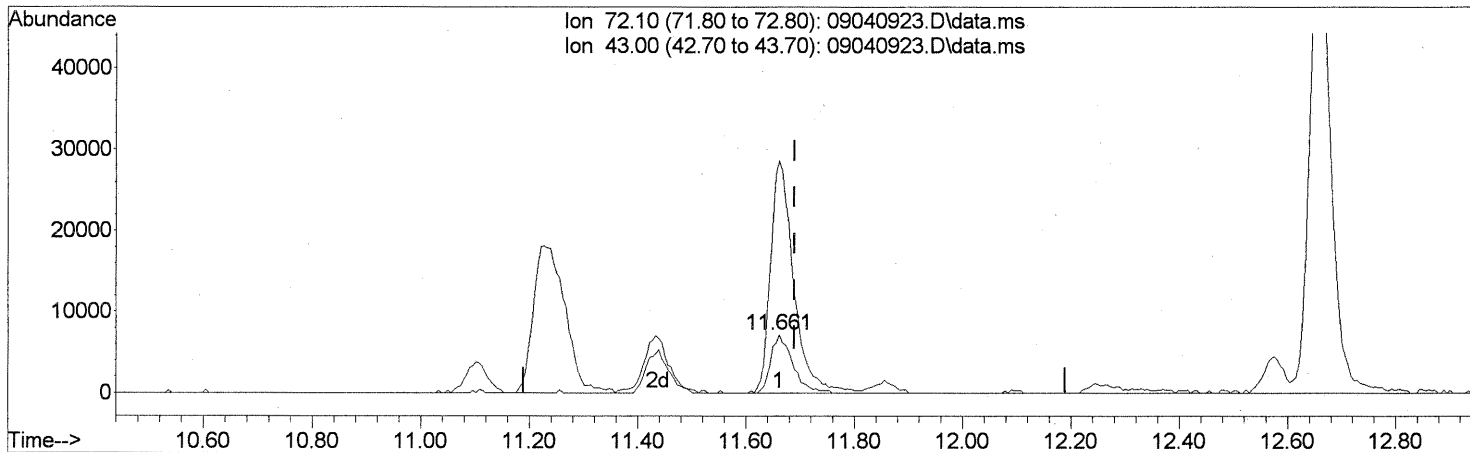
response 4395

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	130.33
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
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TIC: 09040923.D\data.ms

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

11.661min (-0.029) 2.02ng

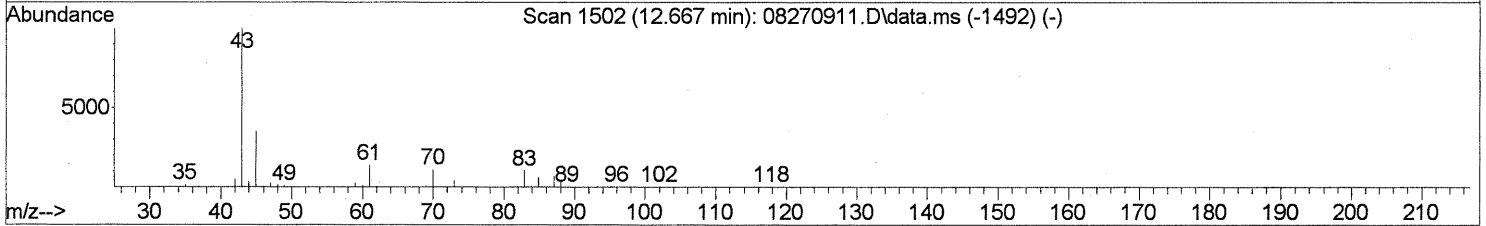
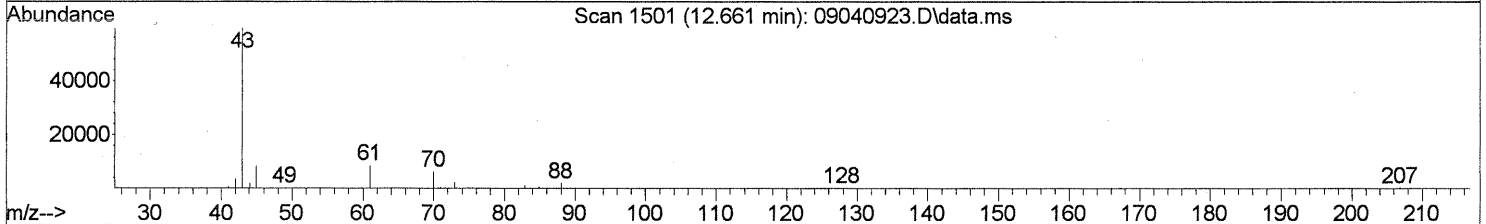
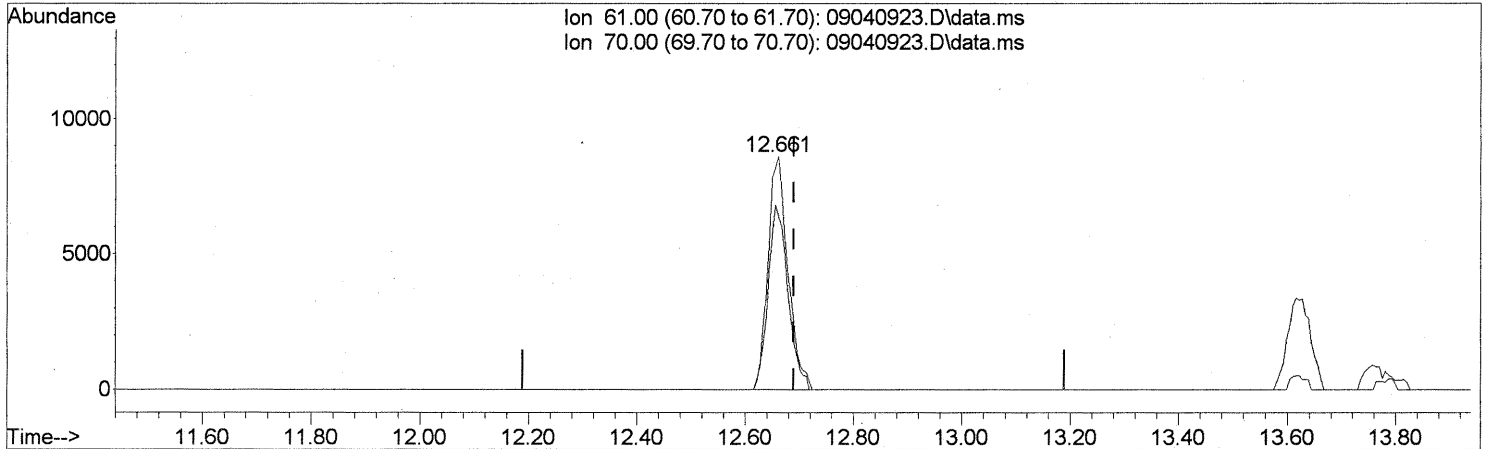
response 19878

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	425.07
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
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TIC: 09040923.D\data.ms

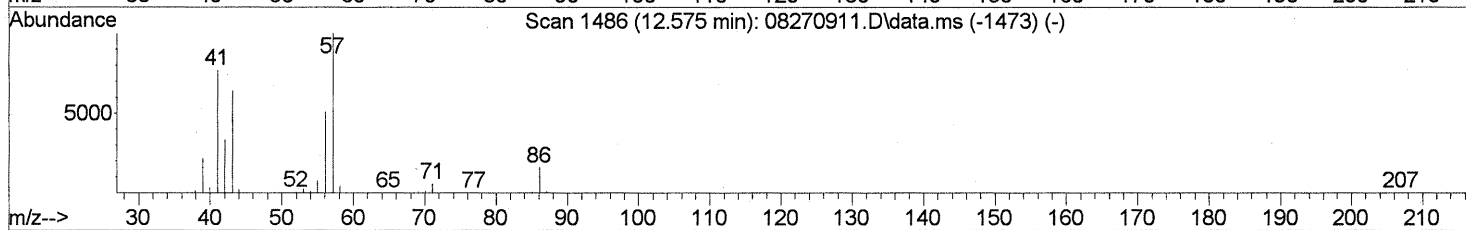
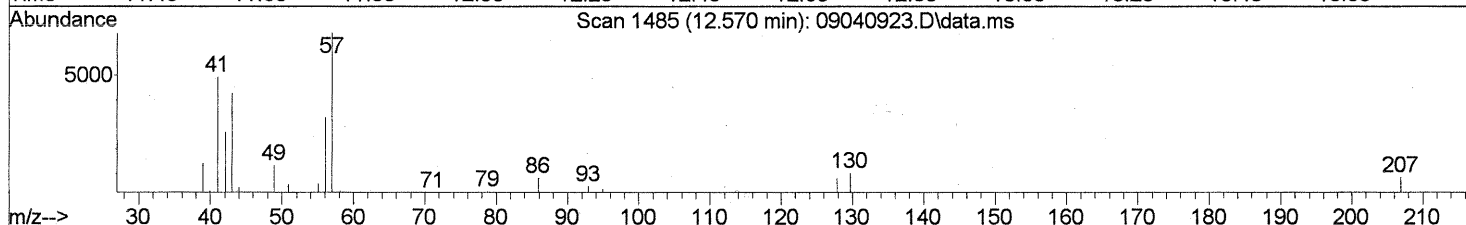
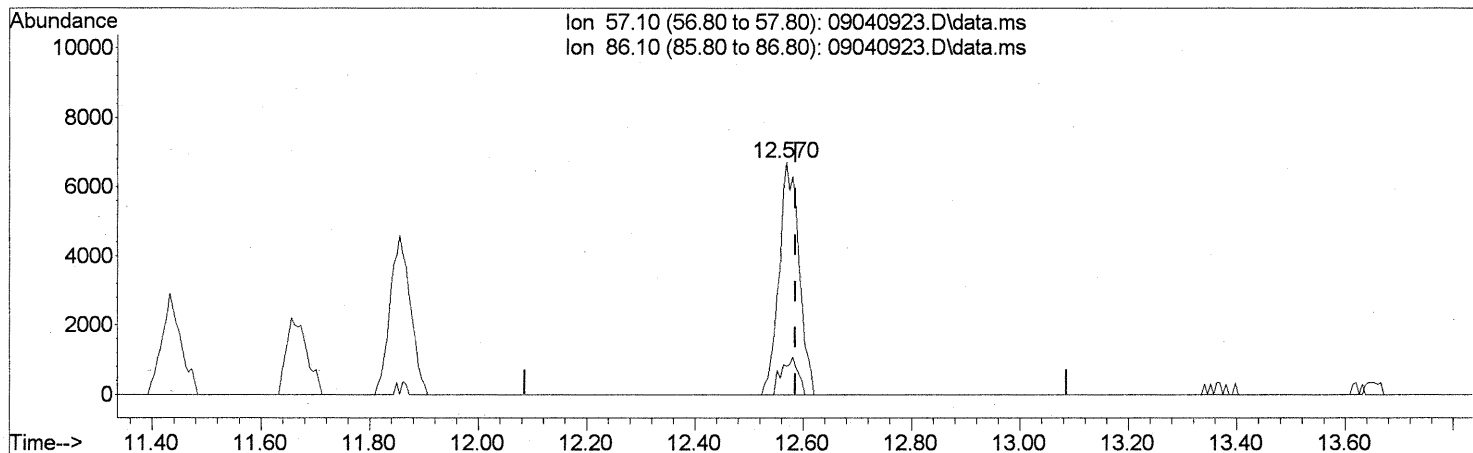
(30) Ethyl Acetate (T)
 12.661min (-0.029) 4.18ng
 response 22075

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	78.71
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
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TIC: 09040923.D\data.ms

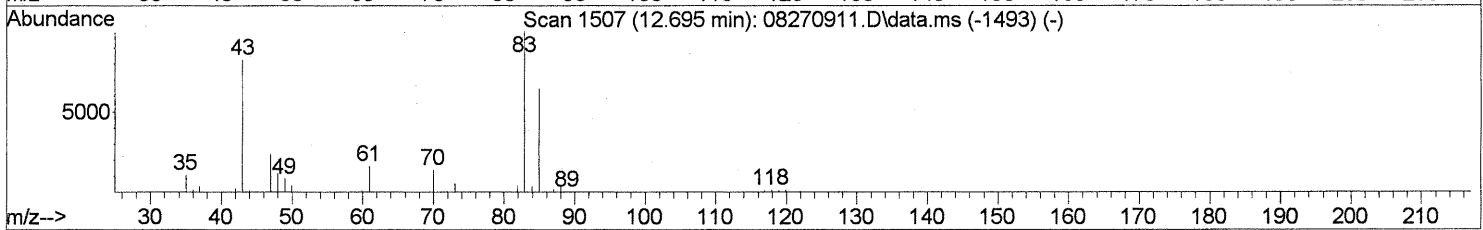
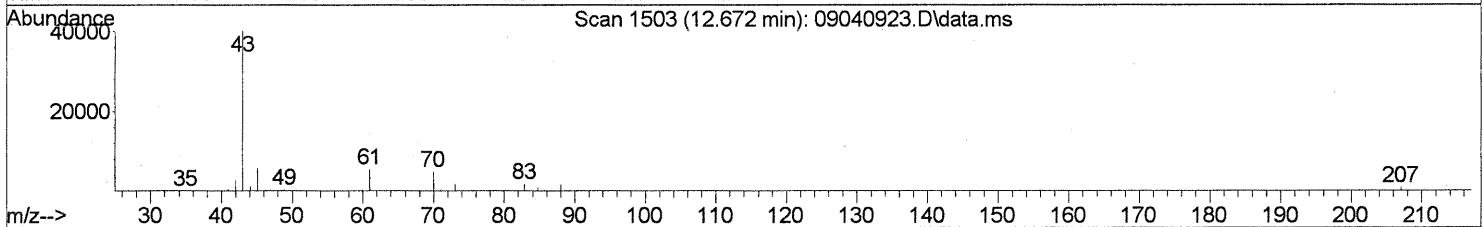
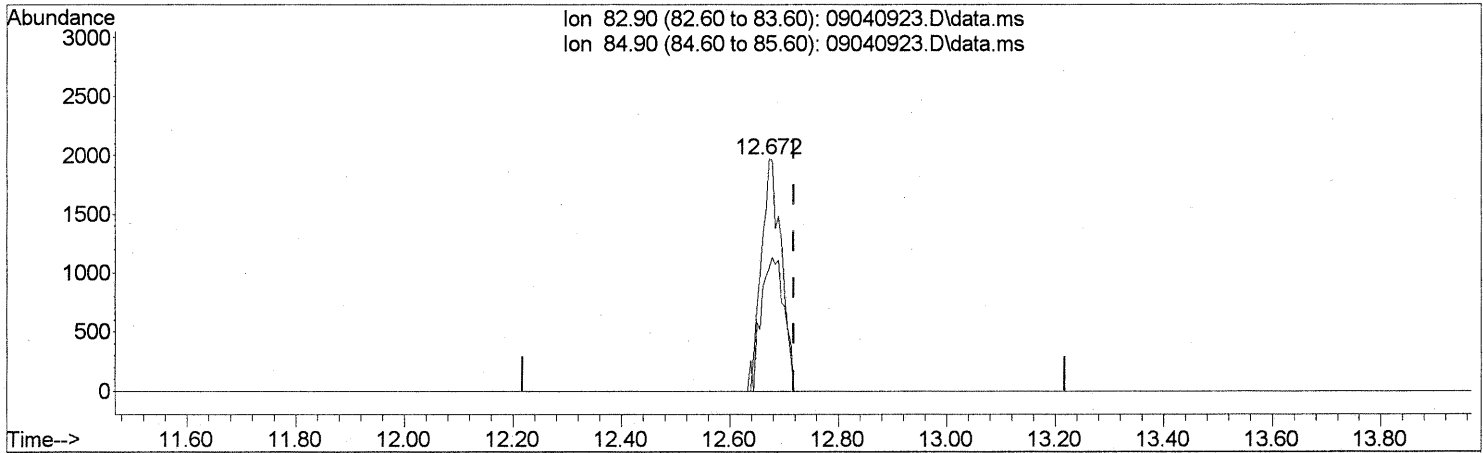
(31) n-Hexane (T)
 12.570min (-0.017) 0.65ng
 response 17103

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	13.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
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TIC: 09040923.D\data.ms

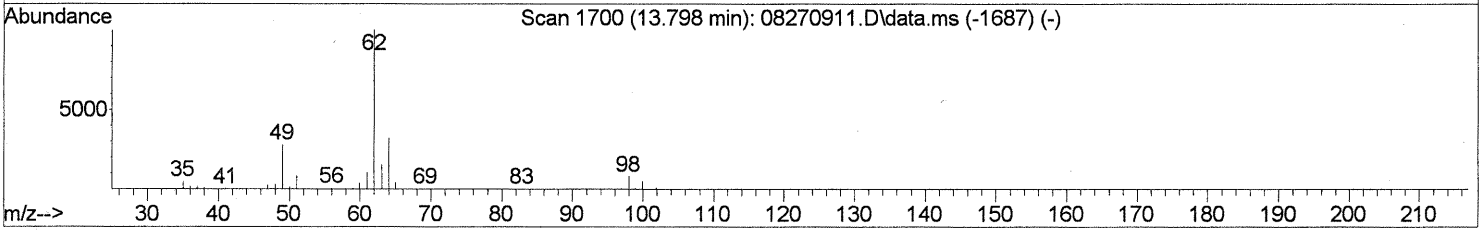
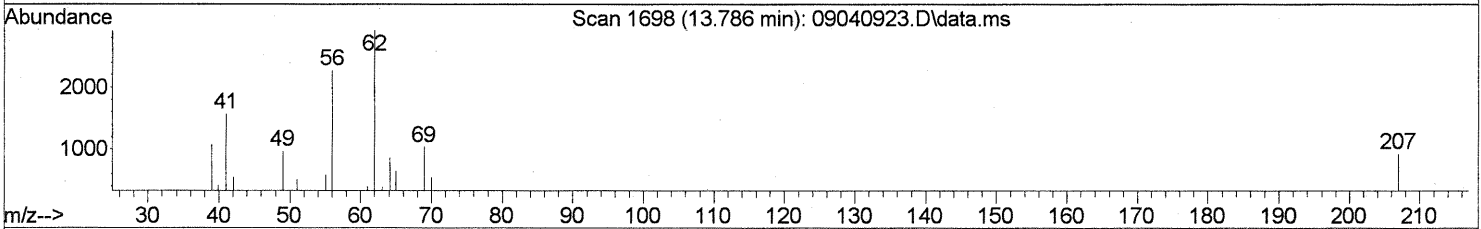
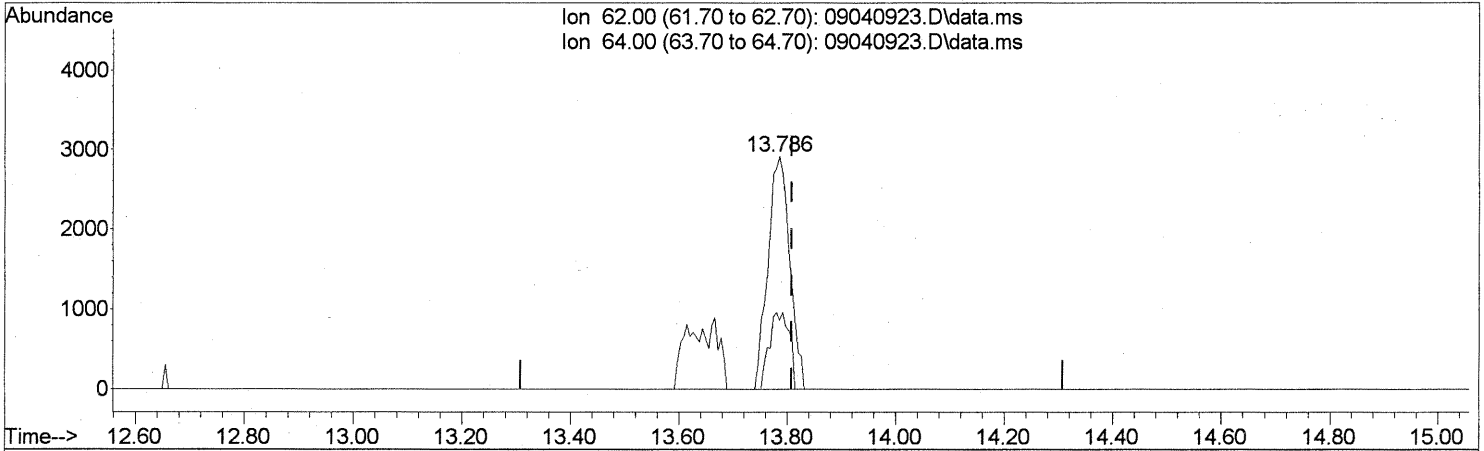
(32) Chloroform (T)
 12.672min (-0.046) 0.19ng
 response 5031

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	67.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

(36) 1,2-Dichloroethane (T)

13.786min (-0.023) 0.37ng

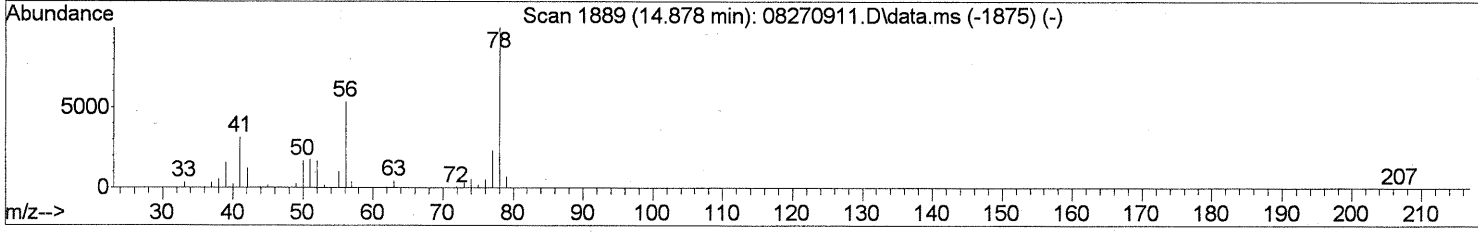
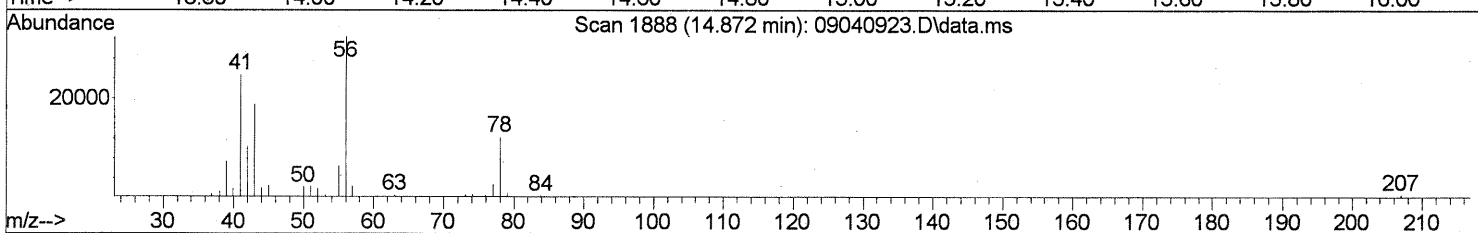
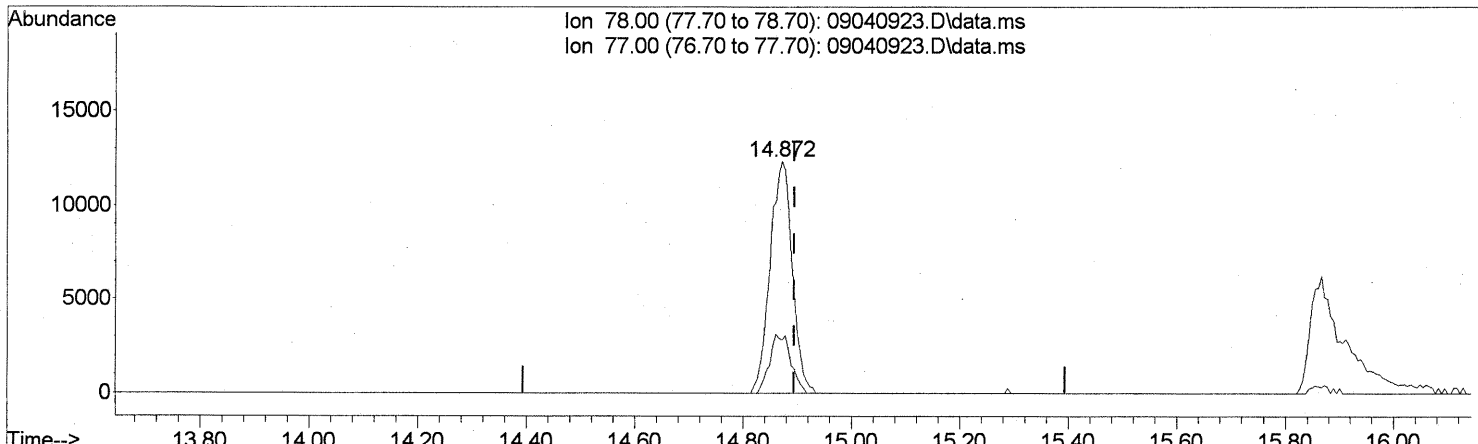
response 8116

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	30.16
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

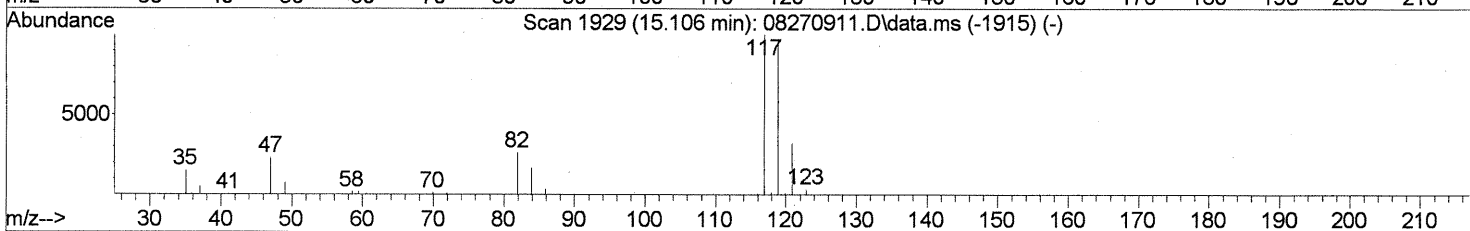
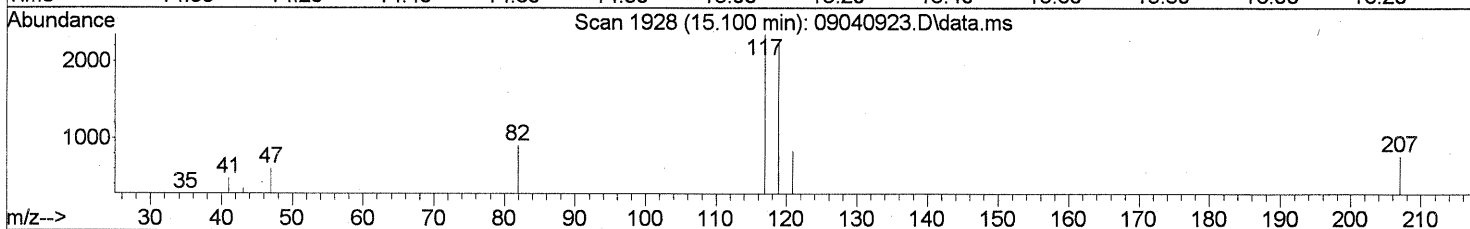
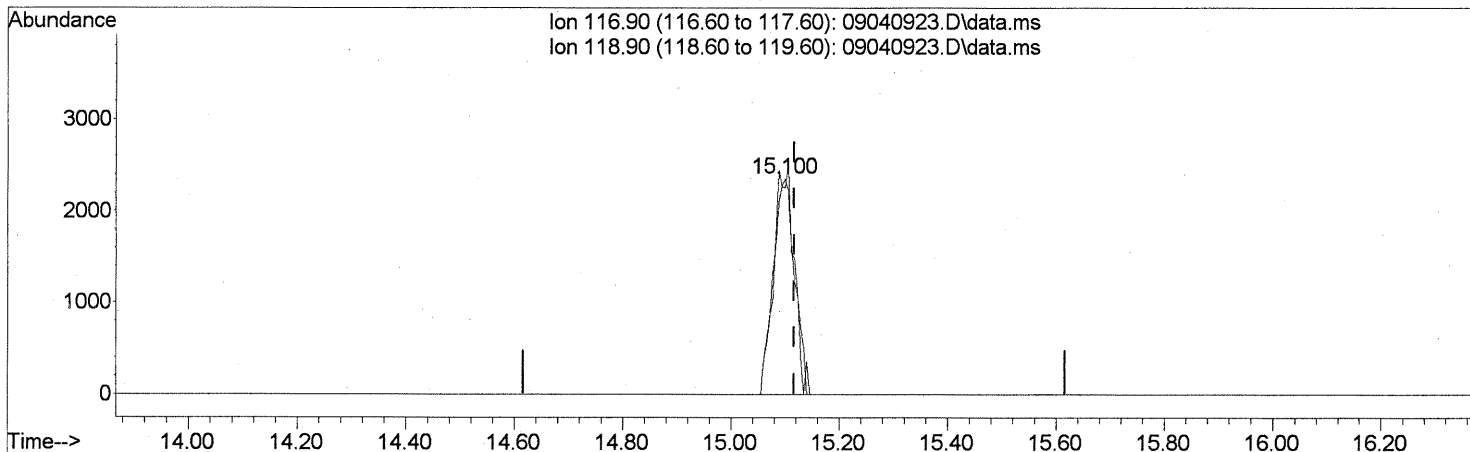
(41) Benzene (T)
 14.872min (-0.023) 0.56ng
 response 34925

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	24.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

(42) Carbon Tetrachloride (T)

15.100min (-0.017) 0.31ng

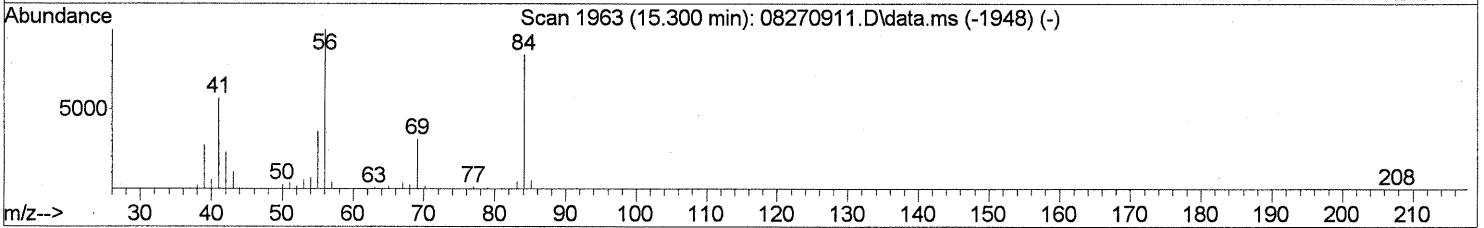
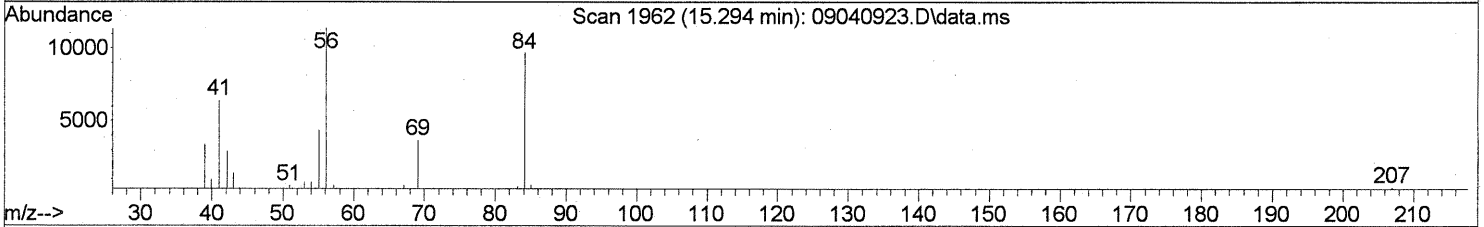
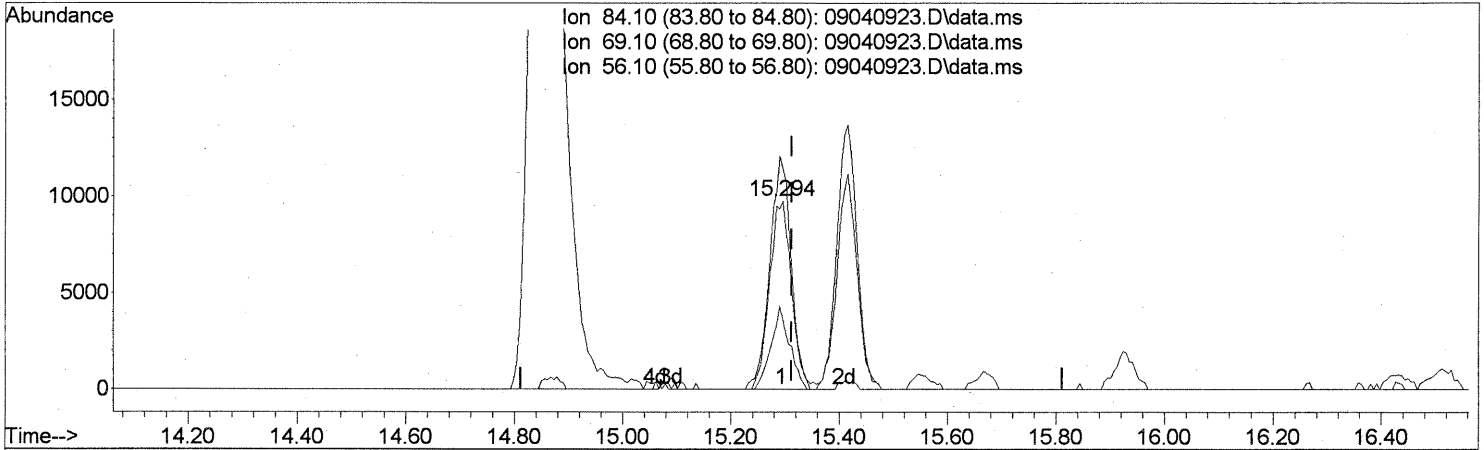
response 6468

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	100.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

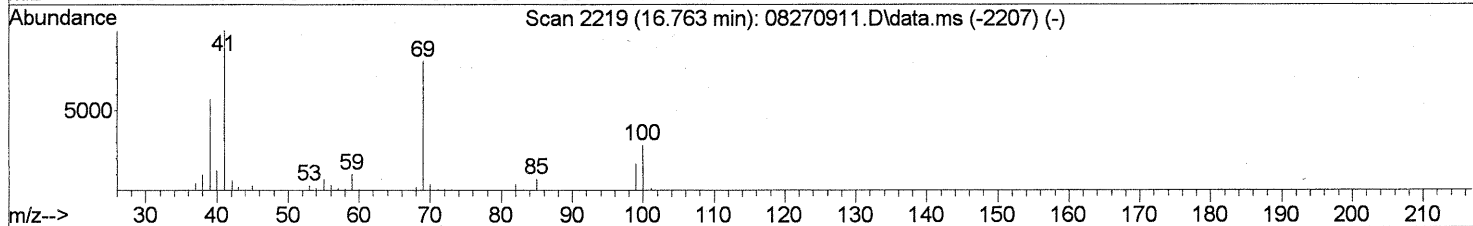
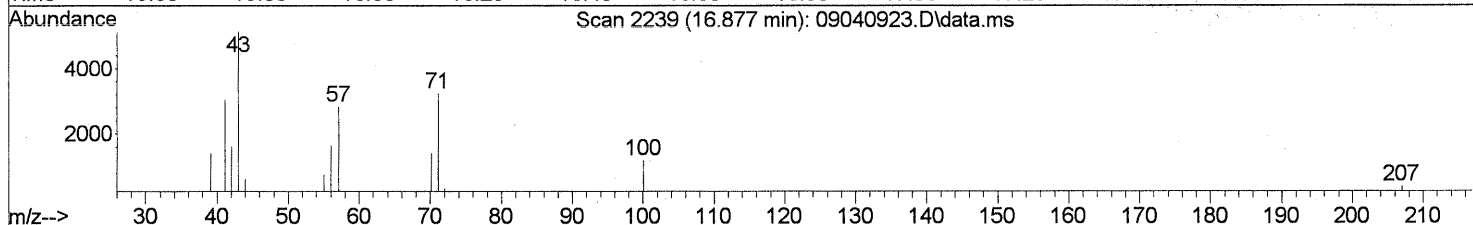
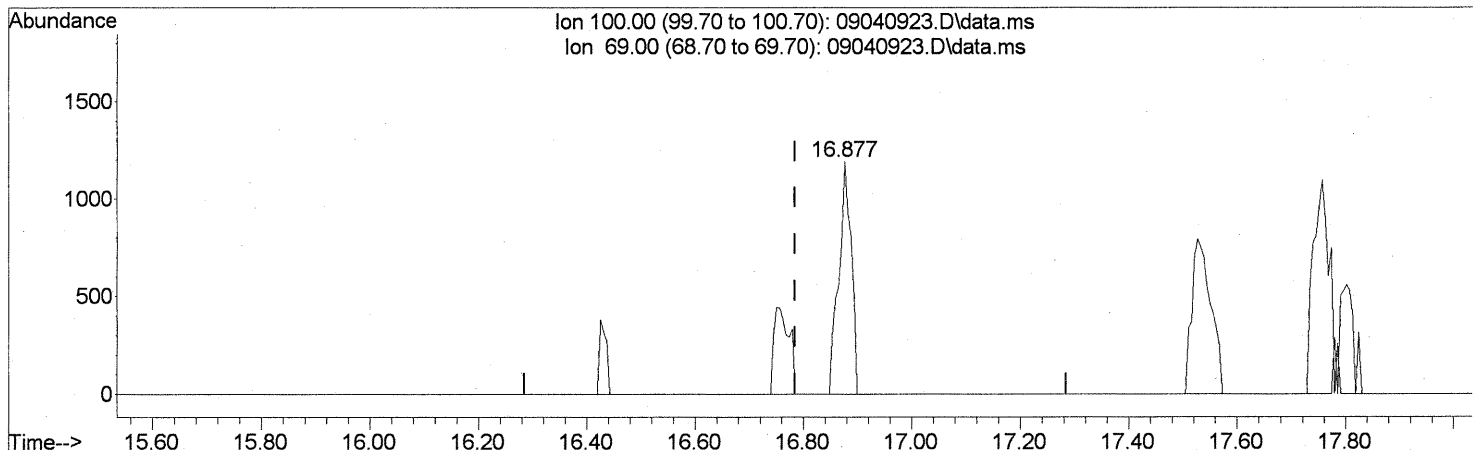
(43) Cyclohexane (T)
 15.294min (-0.017) 1.19ng
 response 27253

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	37.36
56.10	124.50	121.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

(50) Methyl Methacrylate (T)
 16.877min (+0.091) 0.33ng
 response 1915

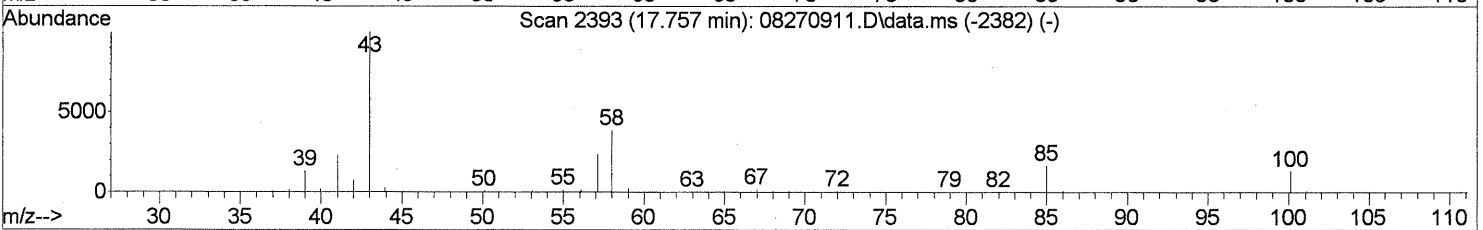
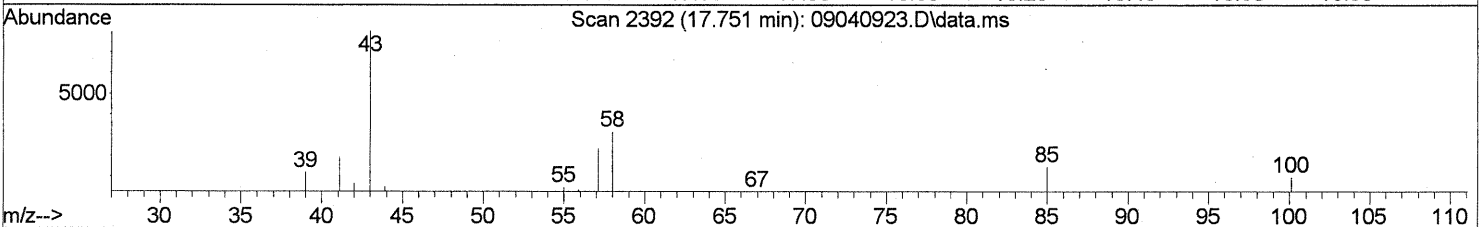
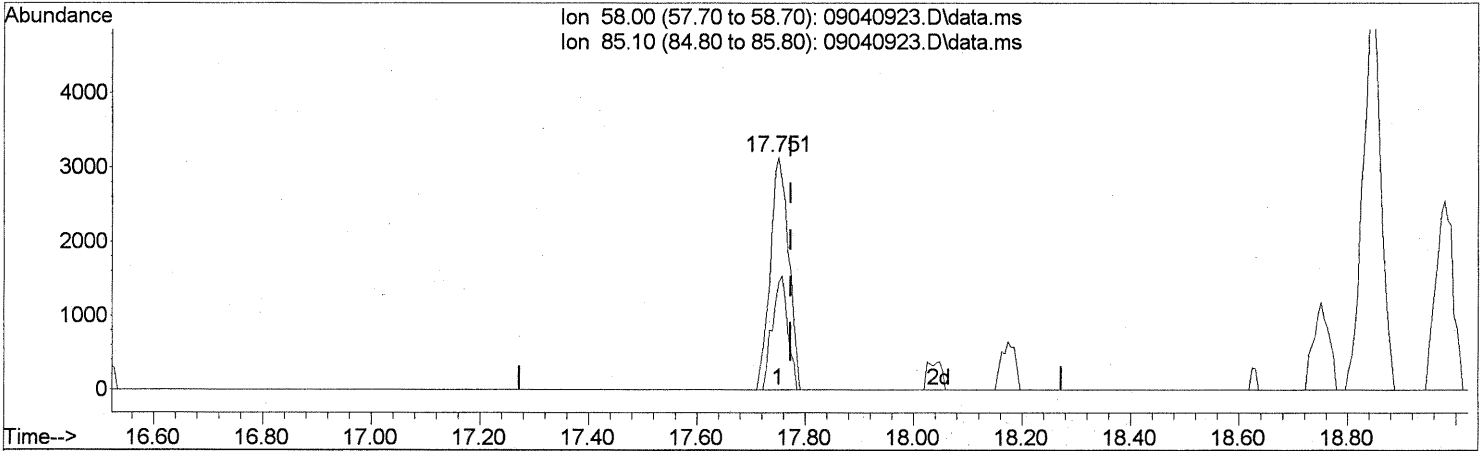
Ion	Exp%	Act%
100.00	100	100
69.00	293.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP
 07/19/09
 R 9/11/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

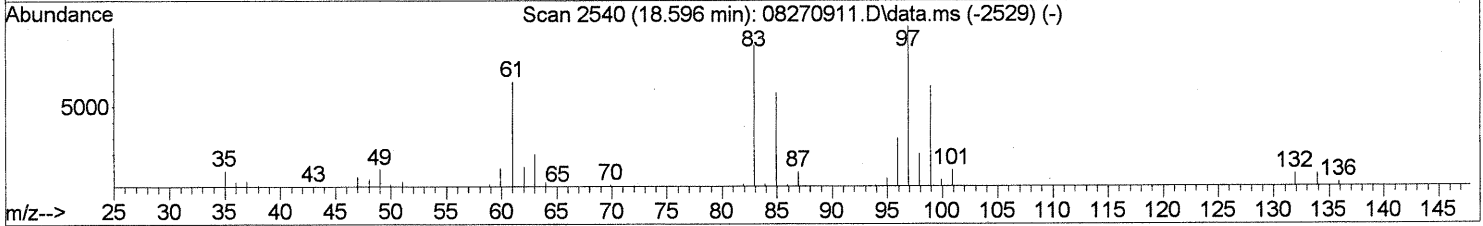
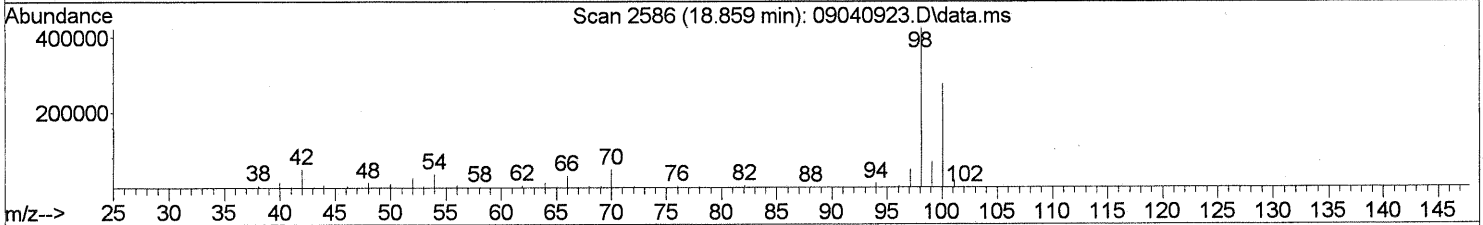
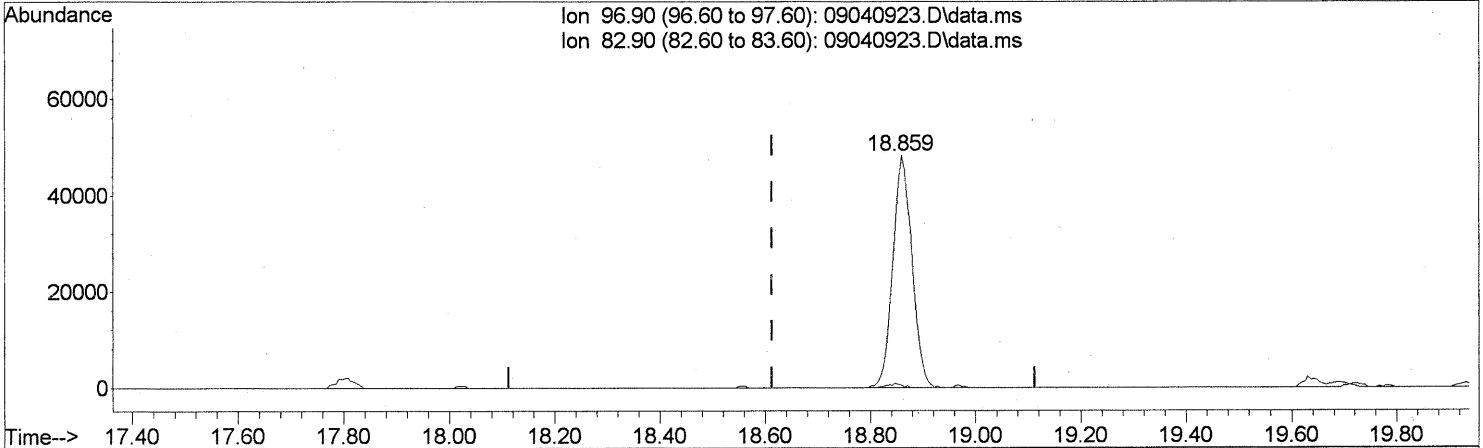
(53) 4-Methyl-2-pentanone (T)
 17.751min (-0.023) 0.52ng
 response 7426

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	40.91
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

(55) 1,1,2-Trichloroethane (T)
 18.859min (+0.246) 8.41ng
 response 122174

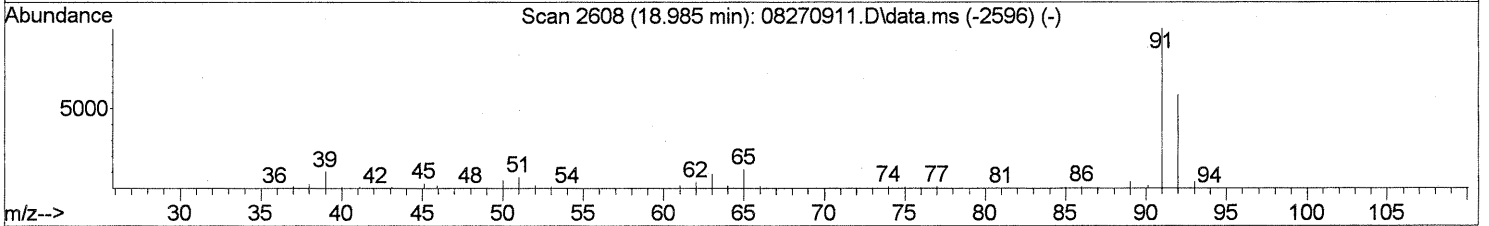
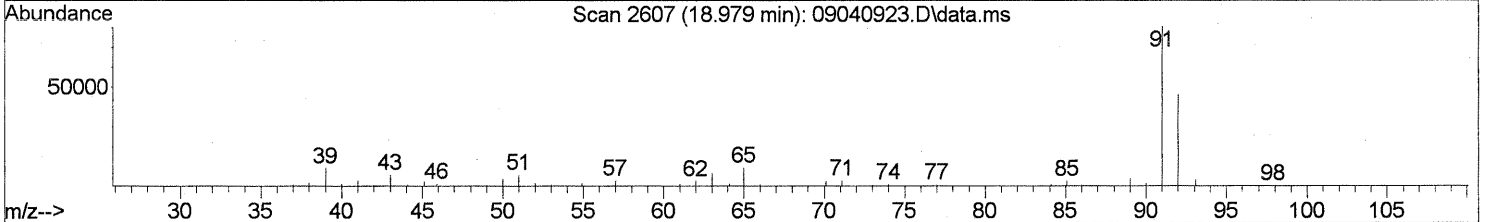
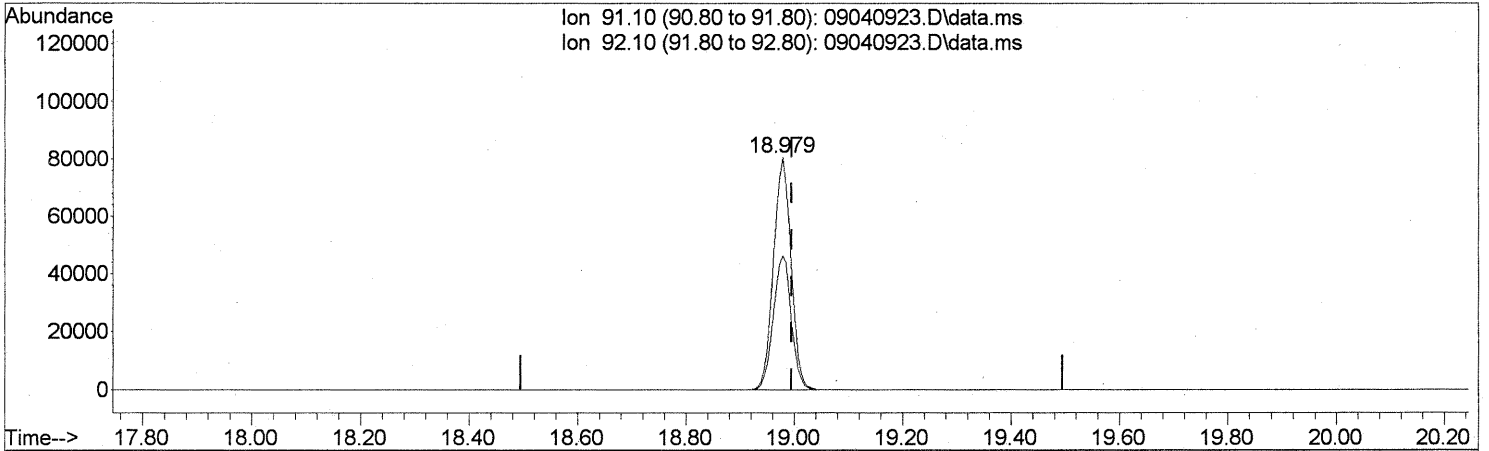
Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.23#
0.00	0.00	0.00
0.00	0.00	0.00

EP
07/19/09
[Signature]

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

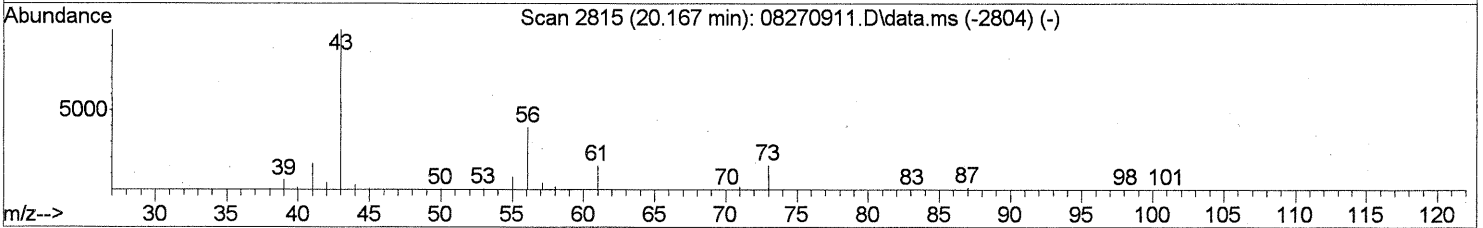
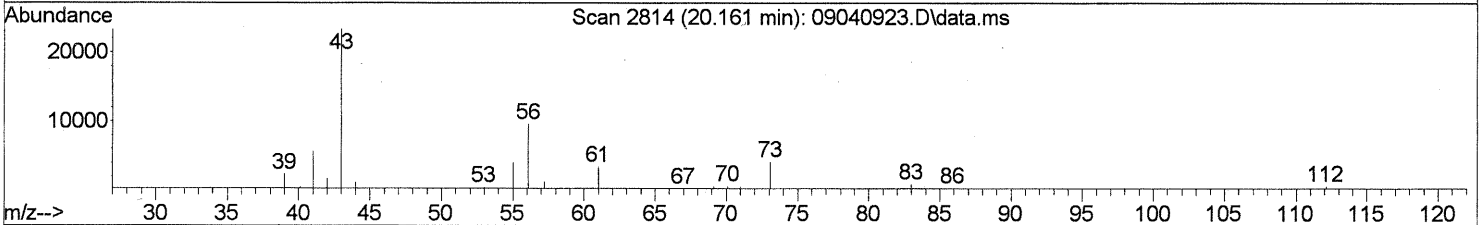
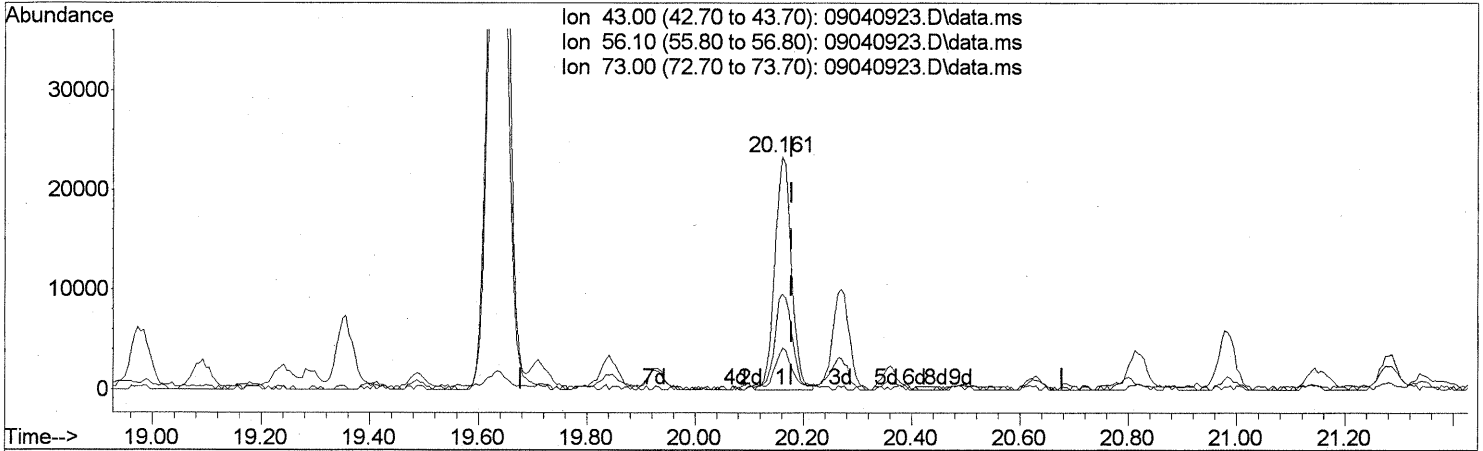
(58) Toluene (T)
 18.979min (-0.017) 2.86ng
 response 180142

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	58.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

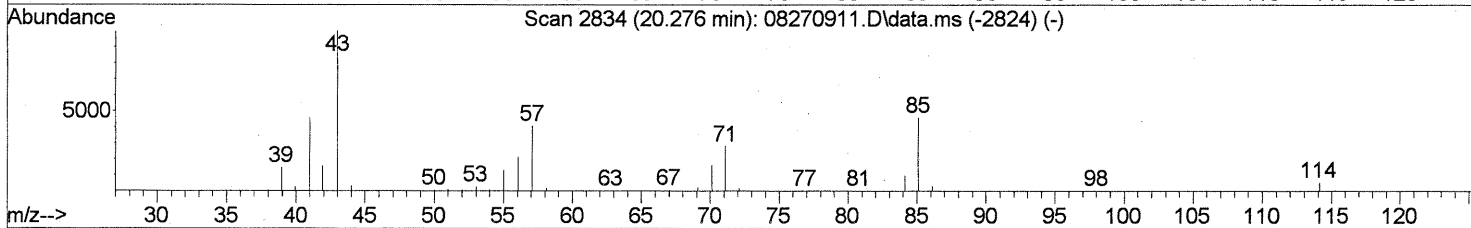
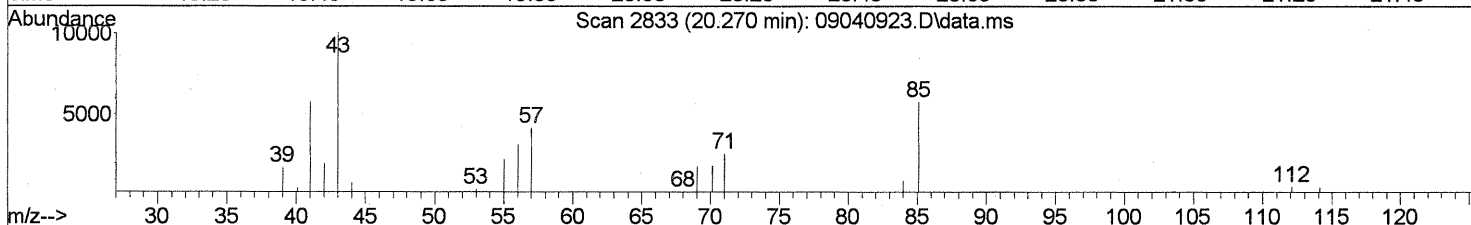
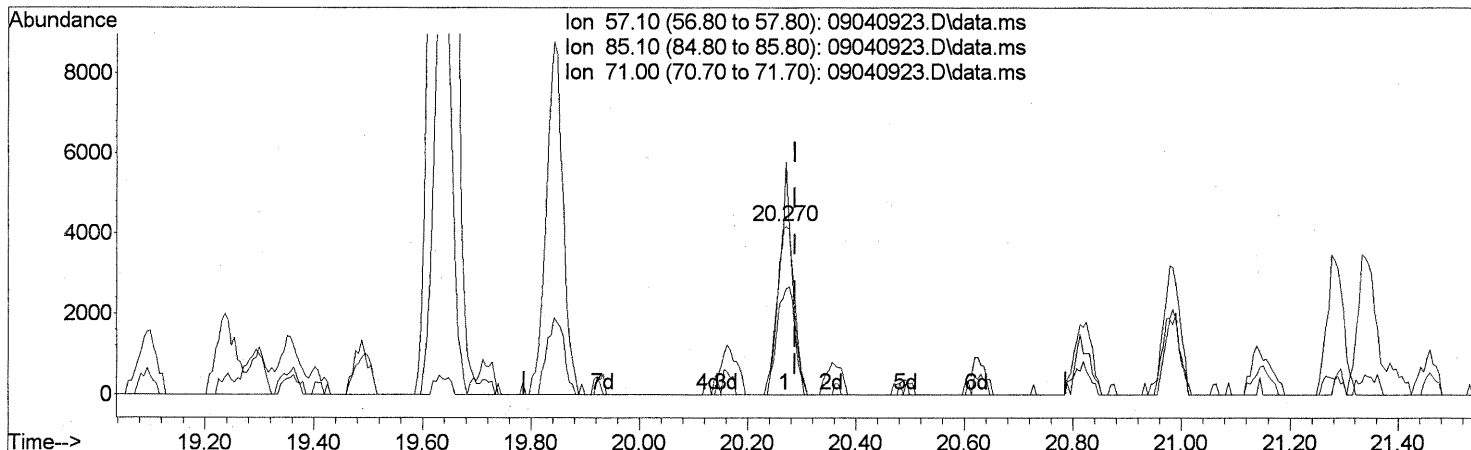
(62) n-Butyl Acetate (T)
 20.161min (-0.017) 1.12ng
 response 49304

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	43.97
73.00	14.30	21.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

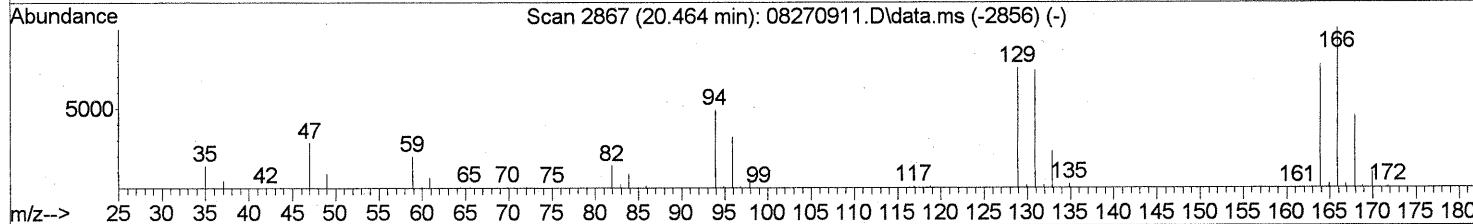
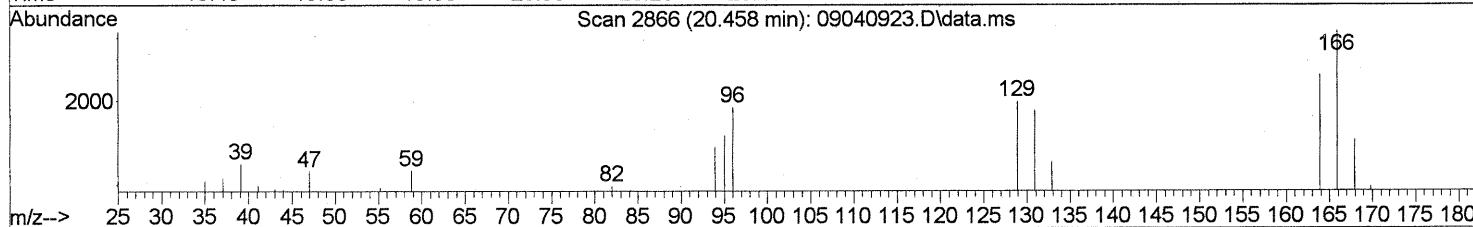
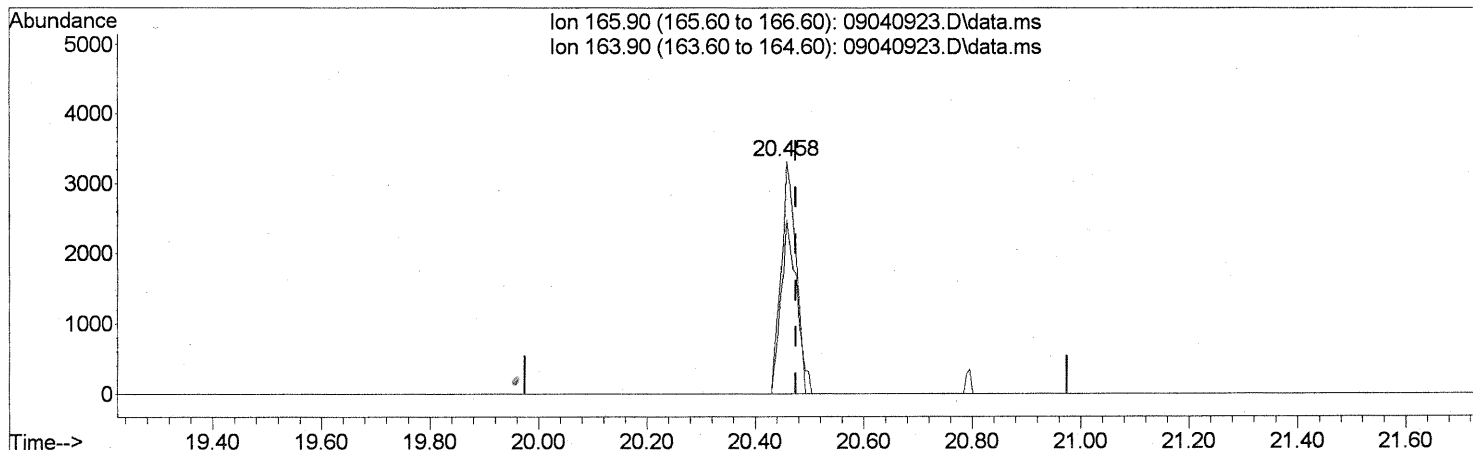
(63) n-Octane (T)
 20.270min (-0.017) 0.63ng
 response 9083

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	106.52
71.00	69.10	67.04
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

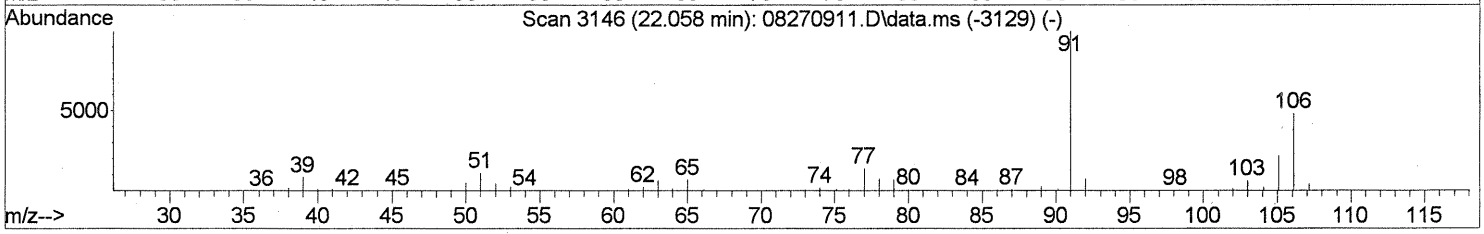
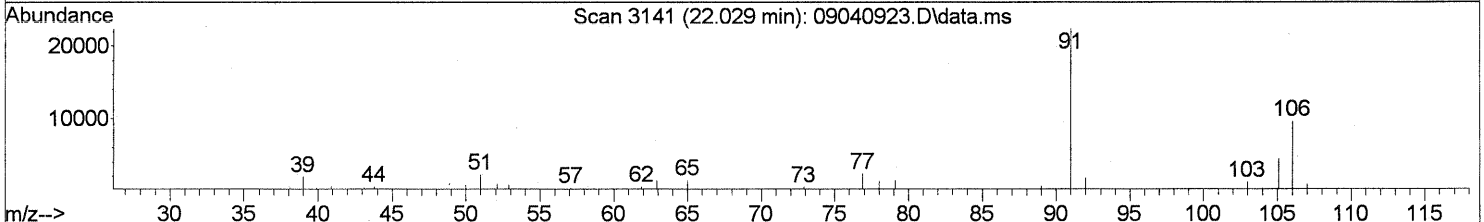
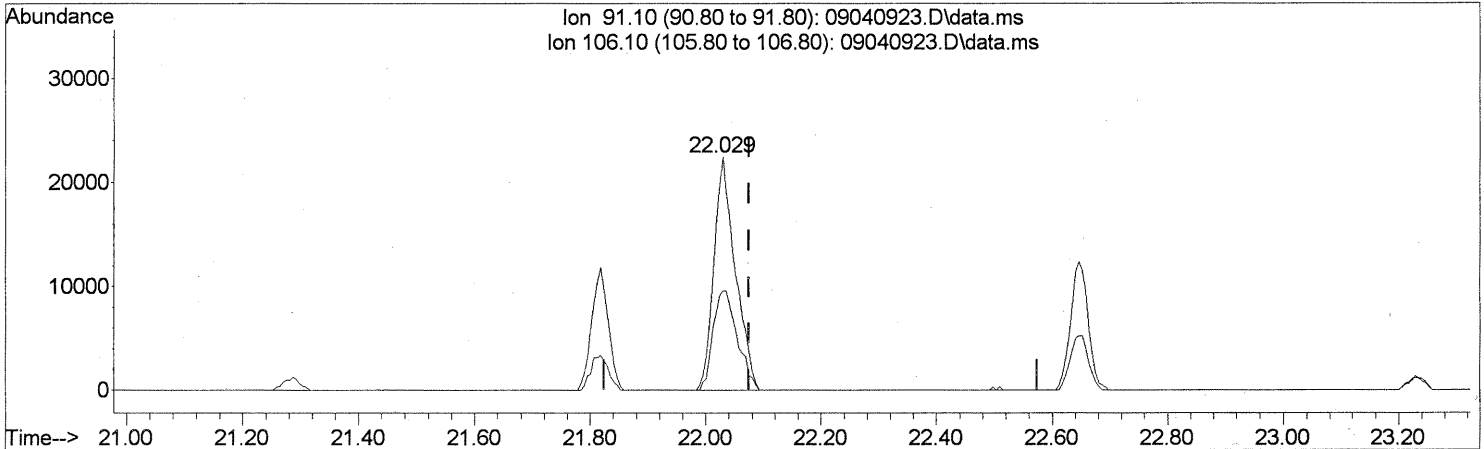
(64) Tetrachloroethene (T)
 20.458min (-0.017) 0.41ng
 response 6485

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	74.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

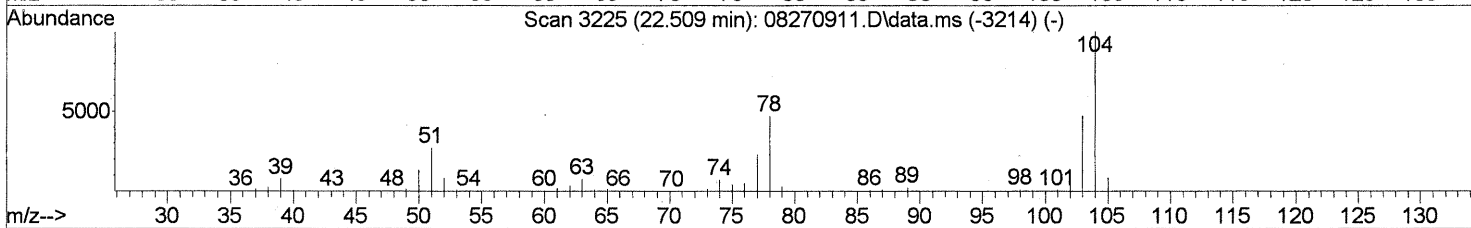
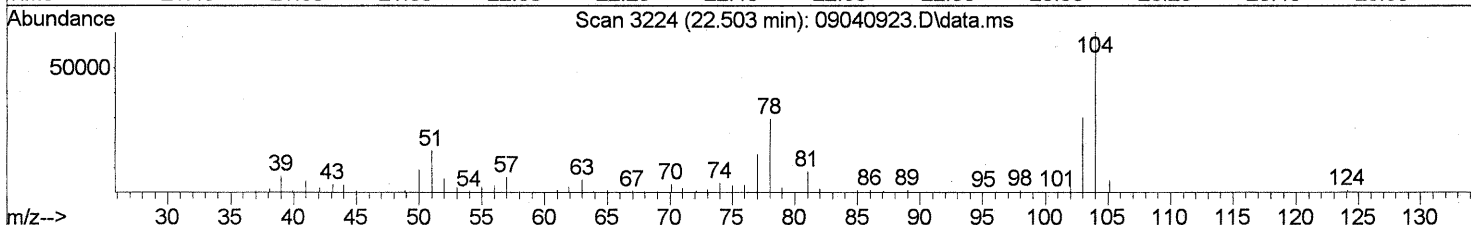
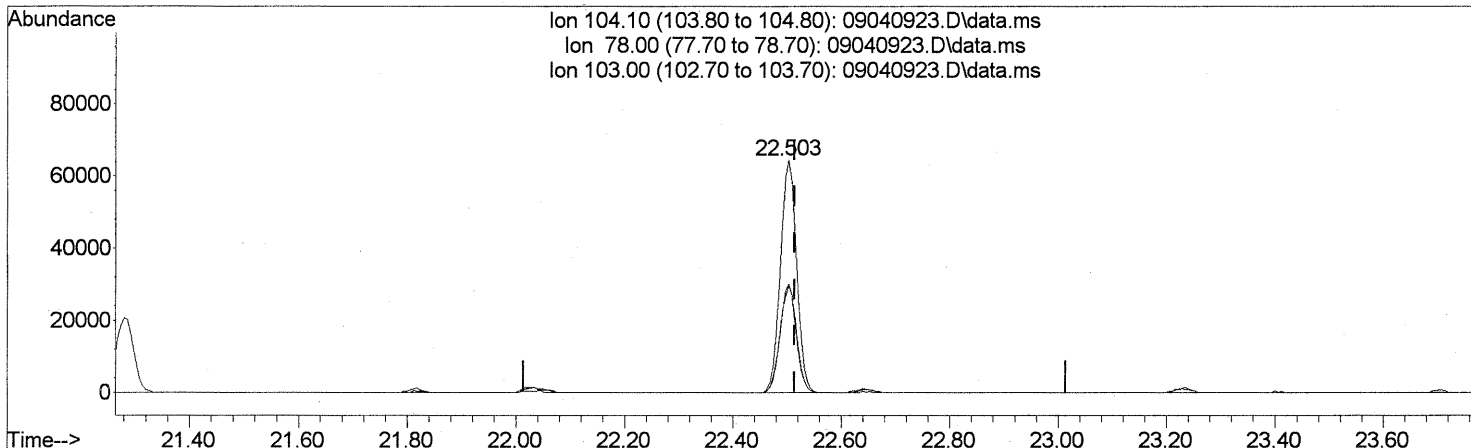
(67) m- & p-Xylenes (T)
 22.029min (-0.046) 1.01ng
 response 57944

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	48.32
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

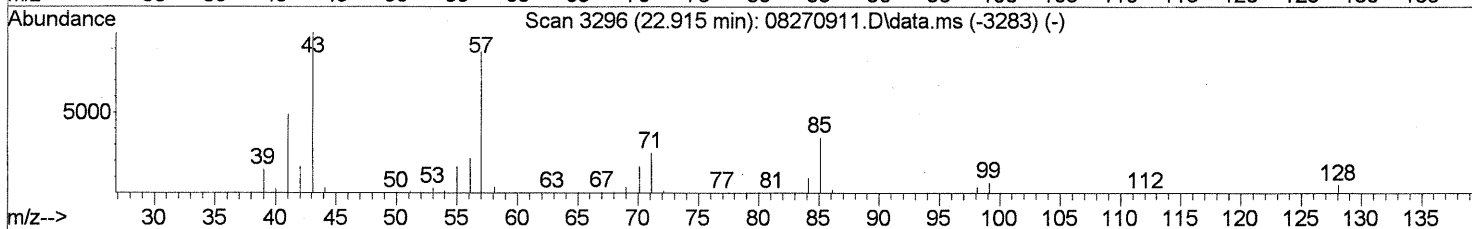
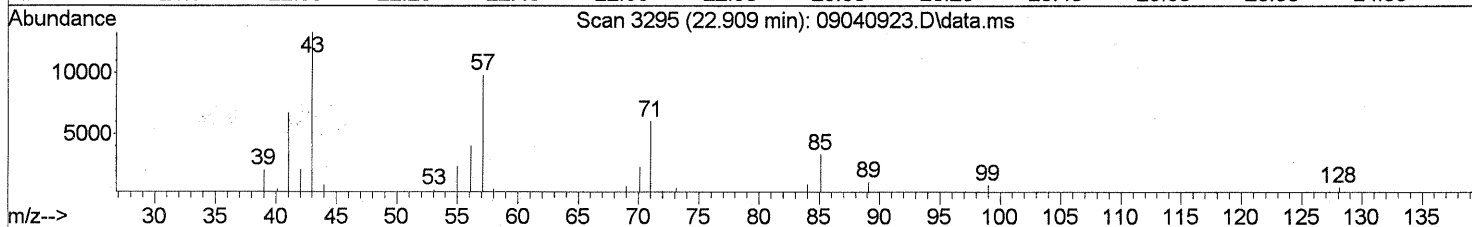
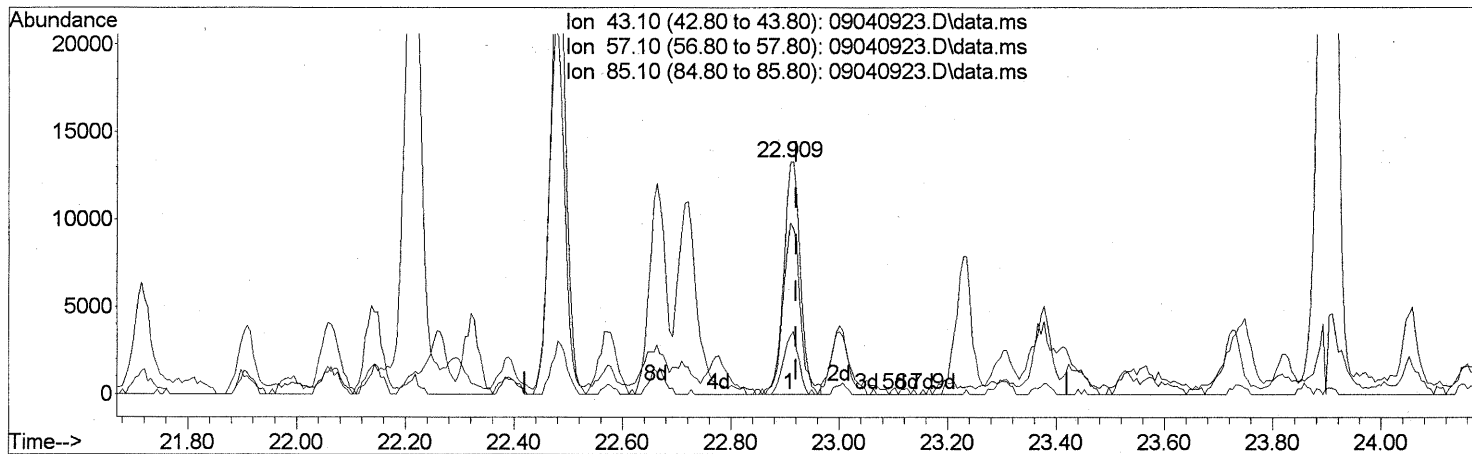
(69) Styrene (T)
 22.503min (-0.011) 3.14ng
 response 132885

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	45.86
103.00	47.00	47.28
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

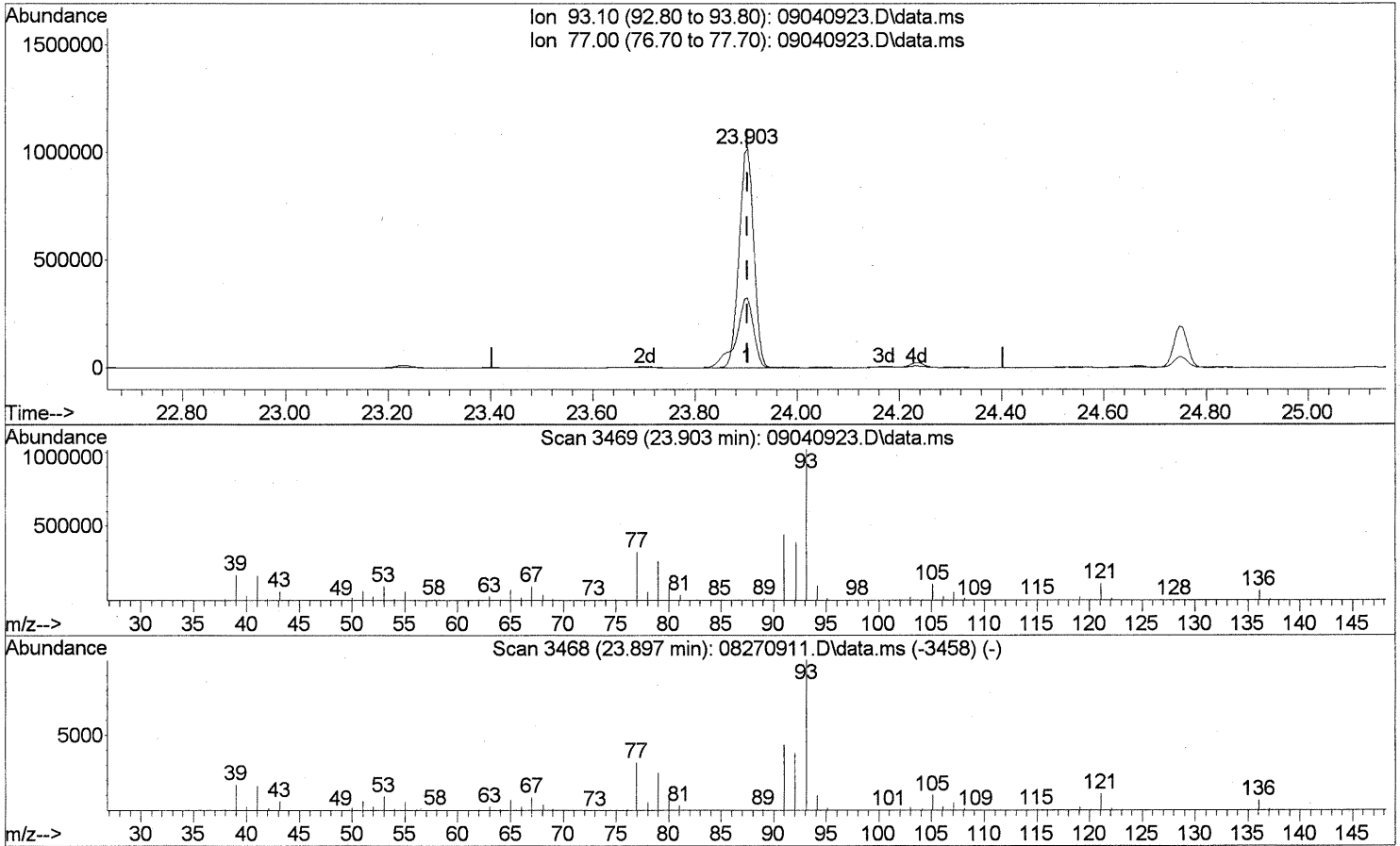
(71) n-Nonane (T)
 22.909min (-0.011) 0.83ng
 response 28716

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	73.66
85.10	32.20	23.86
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

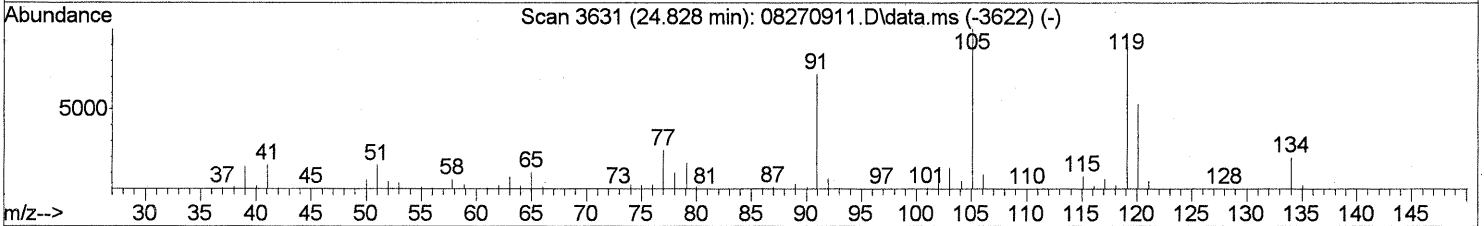
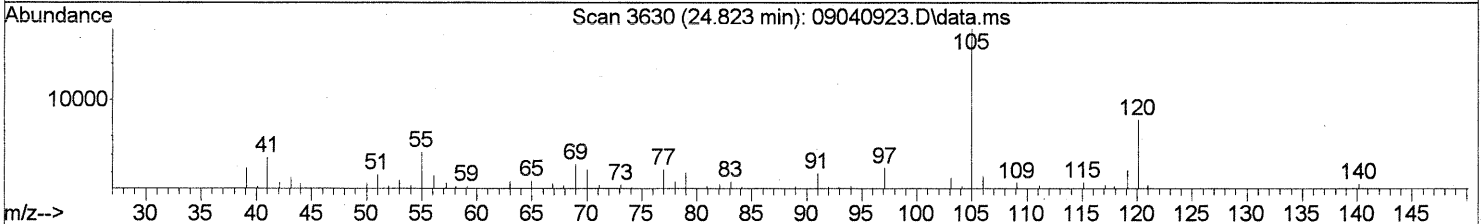
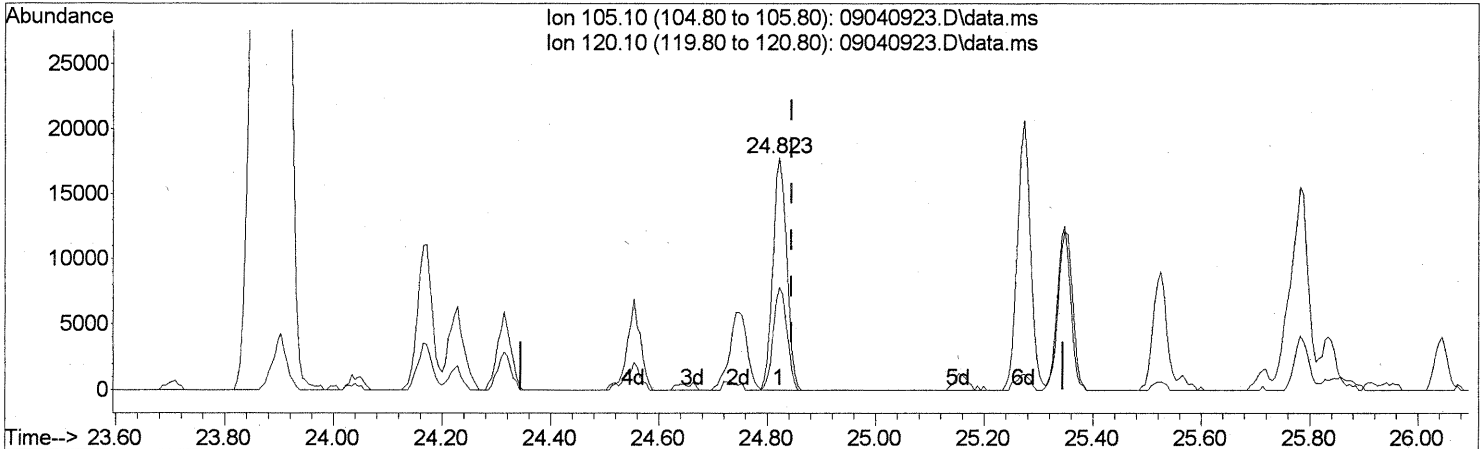
(75) alpha-Pinene (T)
 23.903min (-0.000) 53.39ng
 response 2023409

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	38.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



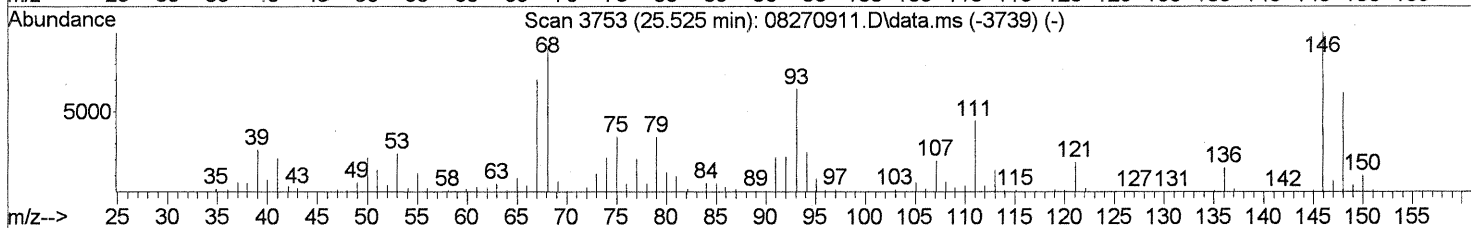
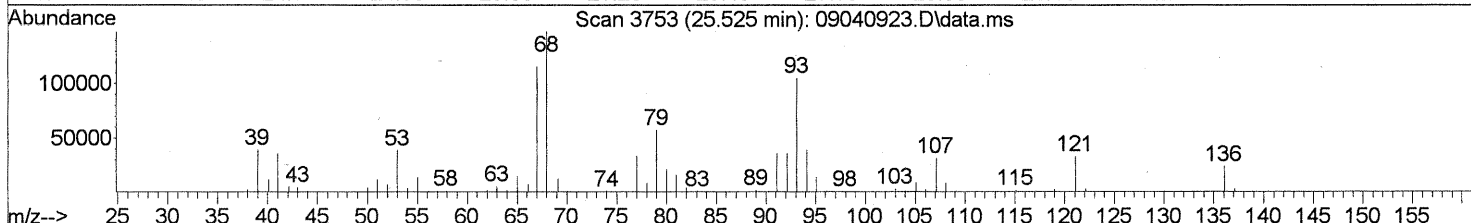
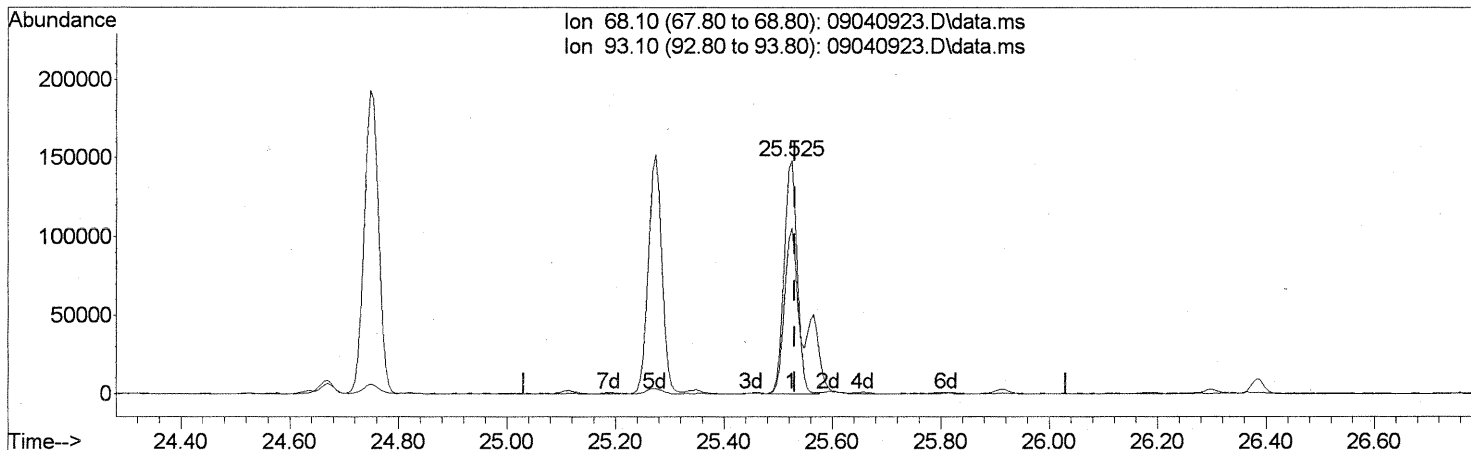
TIC: 09040923.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)		
24.823min (-0.023) 0.54ng		
response 31606		
Ion	Exp%	Act%
105.10	100	100
120.10	52.00	43.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

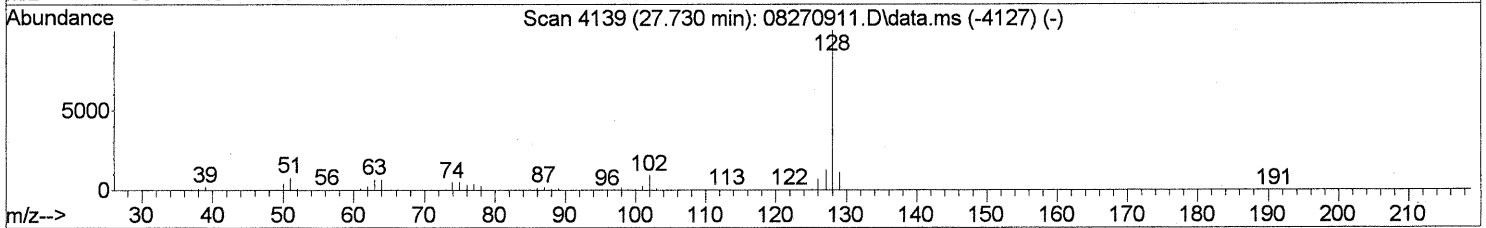
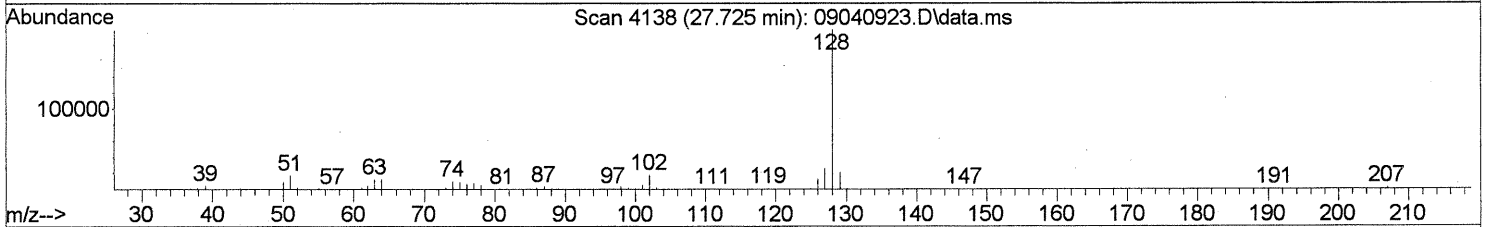
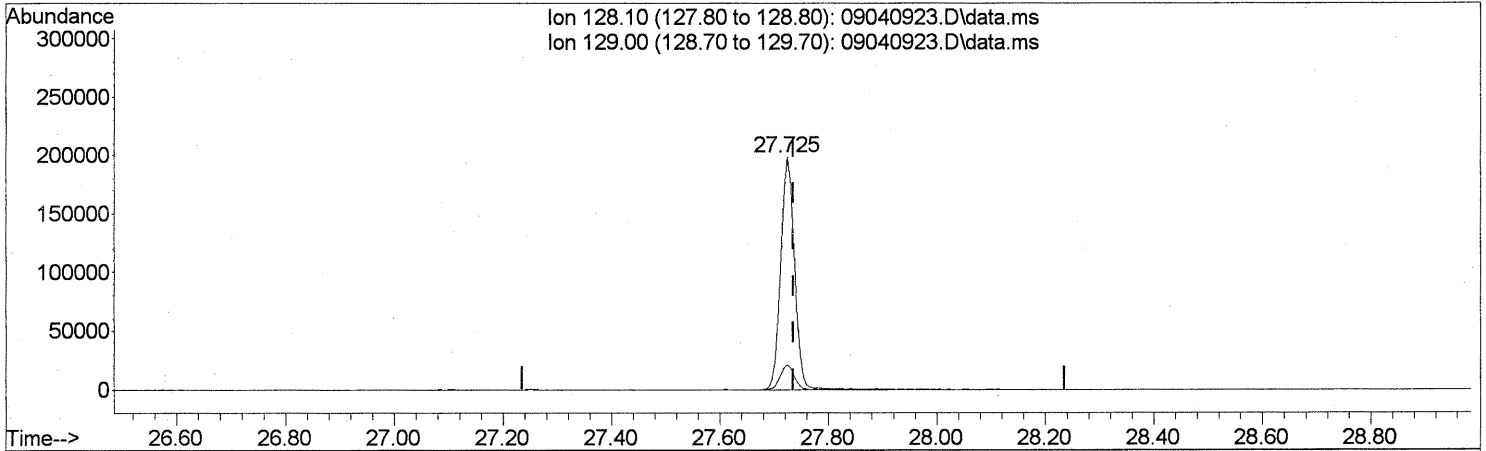
(91) d-Limonene (T)
 25.525min (-0.006) 10.75ng
 response 251536

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	74.01
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040923.D
 Acq On : 5 Sep 2009 1:52
 Operator : LM/CC
 Sample : P0903022-004 (1000ml)
 Misc : EH&E 103603
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 09 17:14:40 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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: 09040923.D\data.ms

(95) Naphthalene (T)
 27.725min (-0.011) 4.31ng
 response 349325

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	10.67
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: 103604

Client Project ID: 16512

CAS Project ID: P0903022

CAS Sample ID: P0903022-005

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: AC01319

Date Collected: 8/27/09
 Date Received: 8/28/09
 Date Analyzed: 9/5/09
 Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103604
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: AC01319

CAS Project ID: P0903022
CAS Sample ID: P0903022-005

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	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 **151**

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 3

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 103604
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: AC01319

CAS Project ID: P0903022
CAS Sample ID: P0903022-005


Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/5/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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	

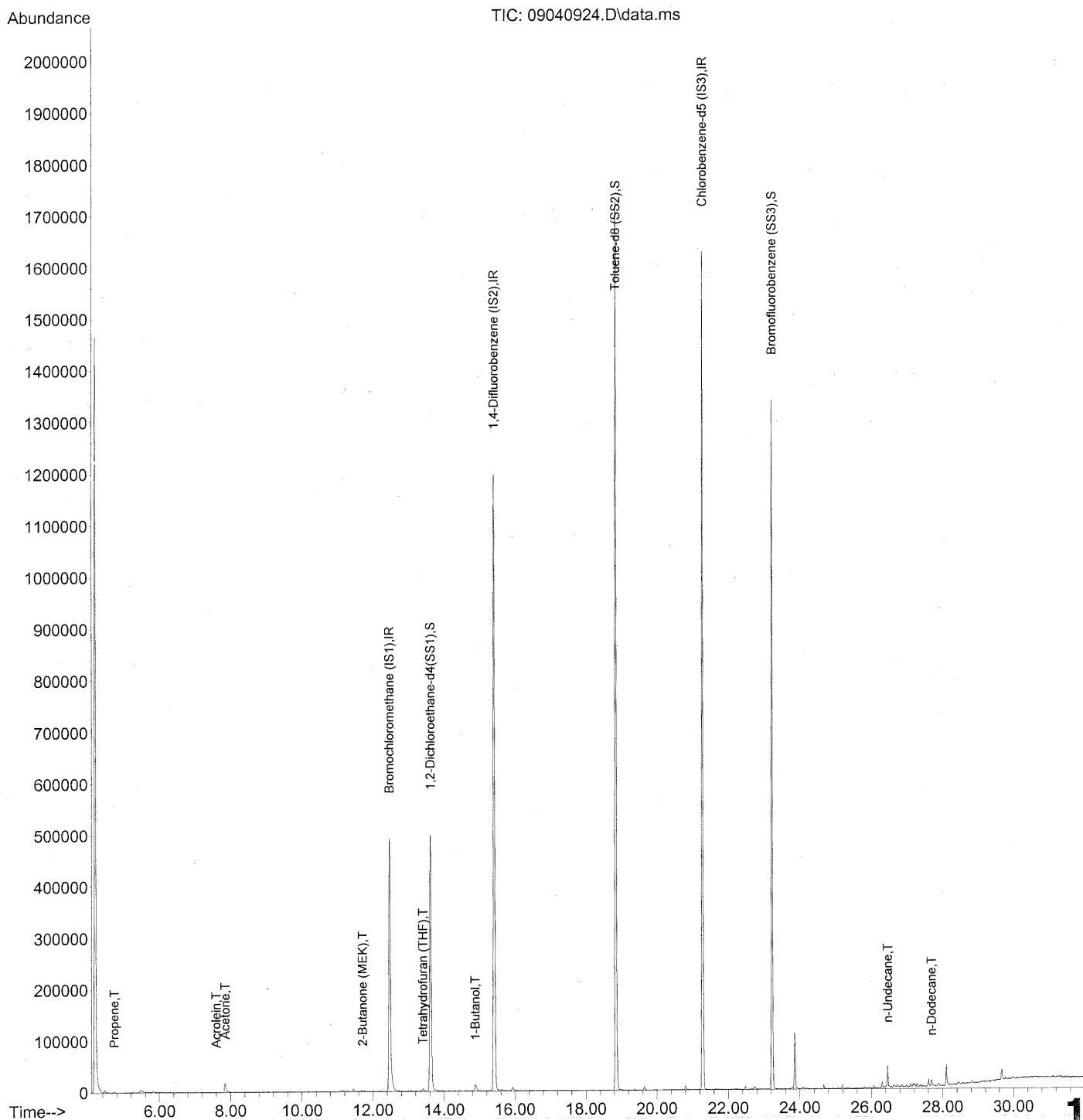
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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 **152**
 TO15scan.xls - 75 Compounds - PageNo.:

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040924.D
 Acq On : 5 Sep 2009 2:33 am
 Operator : LM/CC
 Sample : P0903022-005 (1000ml)
 Misc : EH&E 103604
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:32:05 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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\04\
 Data File : 09040924.D
 Acq On : 5 Sep 2009 2:33 am
 Operator : LM/CC
 Sample : P0903022-005 (1000ml)
 Misc : EH&E 103604
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:32:05 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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 9/10/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.47	130	273017	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1381669	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	668696	25.000	ng	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev (Min)
33) 1,2-Dichloroethane-d4(...)	13.62	65	532613	24.618	ng	-0.03
Spiked Amount				25.000		
Recovery						98.48%
57) Toluene-d8 (SS2)	18.85	98	1492802	24.980	ng	-0.01
Spiked Amount				25.000		
Recovery						99.92%
73) Bromofluorobenzene (SS3)	23.23	174	432220	25.130	ng	-0.01
Spiked Amount				25.000		
Recovery						100.52%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.73	42	1031	0.052	ng	89
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	7.19	45	208	N.D.		
11) Acetonitrile	7.43	41	109	N.D.		
12) Acrolein	7.59	56	509	0.054	ng	# 36
13) Acetone	7.85	58	11838	0.935	ng	# 77
14) Trichlorofluoromethane	0.00	101	0	N.D.		
15) 2-Propanol (Isopropanol)	8.33	45	1287	N.D.		
16) Acrylonitrile	0.00	53	0	N.D.		
17) 1,1-Dichloroethene	9.01	96	96	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.		
19) Methylene Chloride	9.25	84	365	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)	11.71	72	1067	0.104	ng	# 37
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\04\
 Data File : 09040924.D
 Acq On : 5 Sep 2009 2:33 am
 Operator : LM/CC
 Sample : P0903022-005 (1000ml)
 Misc : EH&E 103604
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:32:05 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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)	13.40	72	1397	0.126	ng	# 74
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	14.88	56	12433	0.723	ng	# 35
41) Benzene	14.88	78	1012	N.D.		
42) Carbon Tetrachloride	0.00	117	0	N.D.		
43) Cyclohexane	15.41	84	664	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...	0.00	57	0	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	0.00	97	0	N.D.	d	
58) Toluene	18.98	91	1515	N.D.		
59) 2-Hexanone	19.36	43	1611	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	19.92	43	89	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	0.00	91	0	N.D.		
67) m- & p-Xylenes	0.00	91	0	N.D.		
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	0.00	104	0	N.D.		
70) o-Xylene	0.00	91	0	N.D.		
71) n-Nonane	22.91	43	412	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.23	105	464	N.D.		
75) alpha-Pinene	24.18	93	1579	N.D.		
76) n-Propylbenzene	0.00	91	0	N.D.		
77) 3-Ethyltoluene	23.99	105	111	N.D.		
78) 4-Ethyltoluene	23.99	105	111	N.D.		
79) 1,3,5-Trimethylbenzene	23.99	105	111	N.D.		

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040924.D
 Acq On : 5 Sep 2009 2:33 am
 Operator : LM/CC
 Sample : P0903022-005 (1000ml)
 Misc : EH&E 103604
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 10 09:32:05 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	24.82	105	360	N.D.		
82) 1,2,4-Trimethylbenzene	24.82	105	360	N.D.		
83) n-Decane	24.93	57	354	N.D.		
84) Benzyl Chloride	25.01	91	97	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.		
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.		
87) sec-Butylbenzene	24.82	105	360	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D.		
89) 1,2,3-Trimethylbenzene	25.80	105	1808	N.D.		
90) 1,2-Dichlorobenzene	0.00	146	0	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	26.46	57	16296	0.439	ng	95
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.73	128	3793	N.D.		
96) n-Dodecane	27.69	57	4839	0.114	ng	90
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	568	N.D.		
99) tert-Butylbenzene	0.00	119	0	N.D.		
100) n-Butylbenzene	0.00	91	0	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

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: P0903022
 CAS Sample ID: P090904-MB

Date Collected: NA
 Date Received: NA
 Date Analyzed: 9/4/09
 Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	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: _____

9/4/09

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 3

Client: Environmental Health & Engineering, Inc.
Client Sample ID: 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: P0903022
 CAS Sample ID: P090904-MB

Date Collected: NA
 Date Received: NA
 Date Analyzed: 9/4/09
 Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: _____

P

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: P0903022
 CAS Sample ID: P090904-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: 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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.

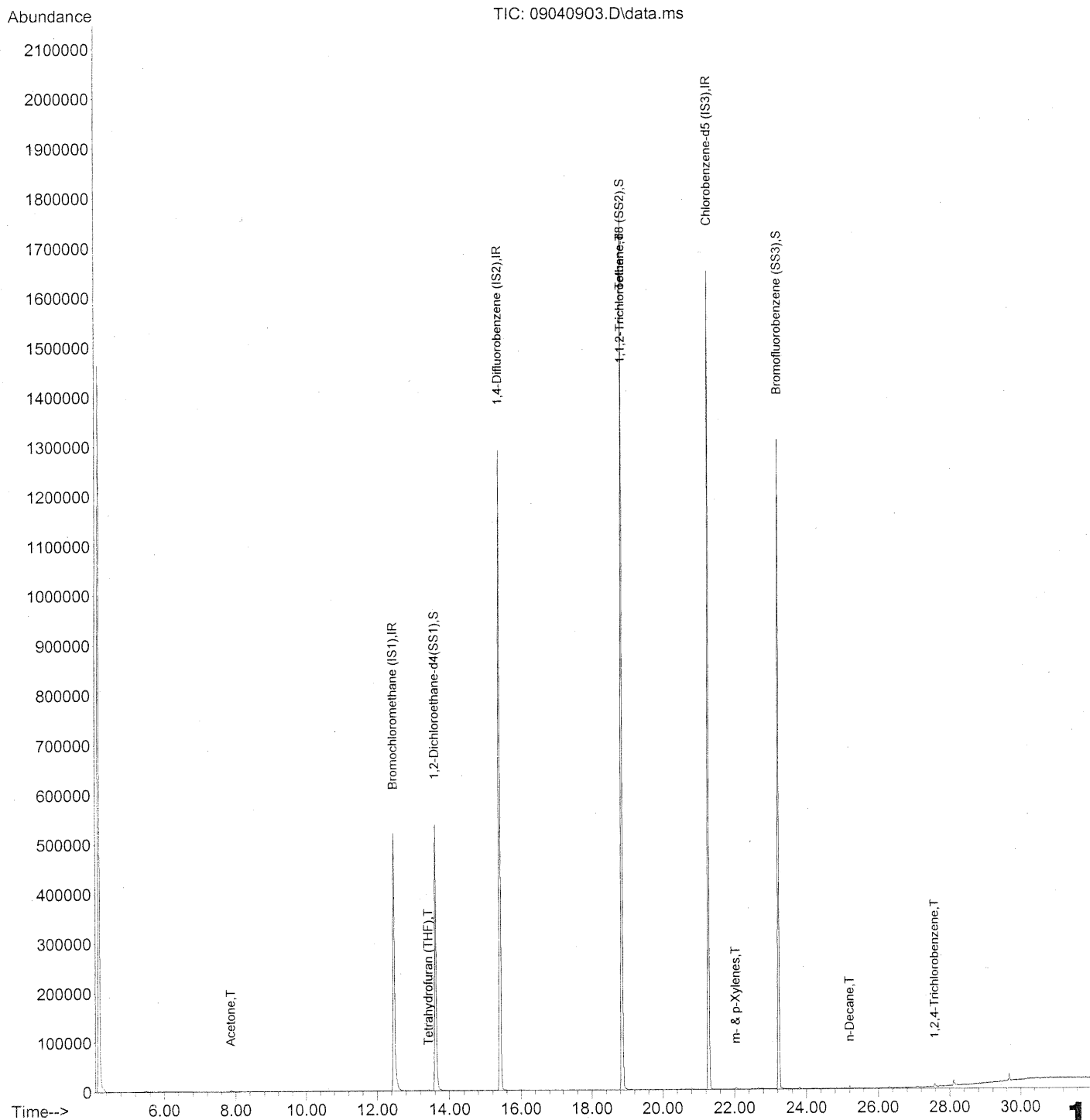
Verified By: _____

Date: 9/11/09

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Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040903.D
 Acq On : 4 Sep 2009 10:53 am
 Operator : LM/CC
 Sample : TO-15 Method Blank (1000ml)
 Misc : S20-08140906
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 11:21:30 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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\04\
 Data File : 09040903.D
 Acq On : 4 Sep 2009 10:53 am
 Operator : LM/CC
 Sample : TO-15 Method Blank (1000ml)
 Misc : S20-08140906
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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)
1) Bromochloromethane (IS1)	12.47	130	293549	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1478434	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	688948	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.62	65	573439	24.651	ng	-0.03
Spiked Amount	25.000		Recovery	=	98.60%	✓
57) Toluene-d8 (SS2)	18.85	98	1555707	25.267	ng	-0.01
Spiked Amount	25.000		Recovery	=	101.08%	✓
73) Bromofluorobenzene (SS3)	23.23	174	429821	24.256	ng	0.00
Spiked Amount	25.000		Recovery	=	97.04%	✓

Target Compounds

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.74	42	96	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	7.13	45	90	N.D.		
11) Acetonitrile	0.00	41	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) Acetone	7.87	58	1840	0.125	ng	88
14) Trichlorofluoromethane	0.00	101	0	N.D.		
15) 2-Propanol (Isopropanol)	8.35	45	90	N.D.		
16) Acrylonitrile	0.00	53	0	N.D.		
17) 1,1-Dichloroethene	9.06	96	89	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.		
19) Methylene Chloride	9.25	84	97	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.		

W 9/10/09
 CC
 9-10-09

Data Path : J:\MS13\DATA\2009_09\04\
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 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	663	0.056	ng #	81
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	91	N.D.		
41) Benzene	14.87	78	345	N.D.		
42) Carbon Tetrachloride	0.00	117	0	N.D.		
43) Cyclohexane	15.41	84	629	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	398	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	134550	8.308 ng	#	6
58) Toluene	18.97	91	1089	N.D.		
59) 2-Hexanone	19.63	43	100	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	0.00	43	0	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	1023	N.D.		
67) m- & p-Xylenes	22.04	91	4853	0.080	ng	91
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.50	104	429	N.D.		
70) o-Xylene	22.65	91	2402	N.D.		
71) n-Nonane	23.23	43	101	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	23.22	105	1002	N.D.		
75) alpha-Pinene	0.00	93	0	N.D.		
76) n-Propylbenzene	0.00	91	0	N.D.		
77) 3-Ethyltoluene	24.17	105	1245	N.D.		
78) 4-Ethyltoluene	24.22	105	532	N.D.		
79) 1,3,5-Trimethylbenzene	24.31	105	817	N.D.		

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040903.D
 Acq On : 4 Sep 2009 10:53 am
 Operator : LM/CC
 Sample : TO-15 Method Blank (1000ml)
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Quant Time: Sep 04 11:21:30 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA 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	24.57	105	648	N.D.		
82) 1,2,4-Trimethylbenzene	24.82	105	1325	N.D.		
83) n-Decane	25.21	57	3298	0.090 ng	#	42
84) Benzyl Chloride	25.00	91	459	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	311	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	311	N.D.		
87) sec-Butylbenzene	25.34	105	92	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D.		
89) 1,2,3-Trimethylbenzene	25.37	105	186	N.D.		
90) 1,2-Dichlorobenzene	25.10	146	311	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	863	N.D.		
94) 1,2,4-Trichlorobenzene	27.59	180	2618	0.119 ng	#	91
95) Naphthalene	27.74	128	2705	N.D.		
96) n-Dodecane	27.62	57	576	N.D.		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	24.83	119	98	N.D.		
100) n-Butylbenzene	0.00	91	0	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: P0903022

Test Code: EPA TO-15

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

Date(s) Collected: 8/27/09

Analyst: Liliana Marghitoiu

Date(s) Received: 8/28/09

Sampling Media: 6.0 L Summa Canister(s)

Date(s) Analyzed: 9/4 - 9/5/09

Test Notes:

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	P090904-MB	99	70-130	101	70-130	97	70-130	
Lab Control Sample	P090904-LCS	99	70-130	102	70-130	99	70-130	
103600	P0903022-001	97	70-130	100	70-130	100	70-130	
103601	P0903022-002	97	70-130	100	70-130	100	70-130	
103602	P0903022-003	97	70-130	100	70-130	101	70-130	
106303	P0903022-004	99	70-130	98	70-130	99	70-130	
103604	P0903022-005	98	70-130	100	70-130	101	70-130	

Verified By: _____



Date: _____

9/11/09

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

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: P0903022
CAS Sample ID: P090904-LCS

Date Collected: NA
Date Received: NA
Date Analyzed: 9/04/09
Volume(s) Analyzed: NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS	Data Qualifier
					Acceptance Limits	
115-07-1	Propene	26.3	19.7	75	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	18.4	71	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	19.7	76	65-122	
75-01-4	Vinyl Chloride	25.3	19.6	77	57-132	
106-99-0	1,3-Butadiene	26.8	21.0	78	66-161	
74-83-9	Bromomethane	25.8	23.1	90	67-130	
75-00-3	Chloroethane	25.5	20.3	80	68-123	
64-17-5	Ethanol	130	105	81	50-155	
75-05-8	Acetonitrile	26.0	19.6	75	48-148	
107-02-8	Acrolein	26.3	22.4	85	67-138	
67-64-1	Acetone	132	100	76	59-121	
75-69-4	Trichlorofluoromethane	26.3	19.9	76	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	37.9	79	54-126	
107-13-1	Acrylonitrile	25.8	22.5	87	65-134	
75-35-4	1,1-Dichloroethene	27.5	22.0	80	70-123	
75-09-2	Methylene Chloride	26.8	20.2	75	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	22.4	83	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	22.6	82	69-126	
75-15-0	Carbon Disulfide	26.0	20.7	80	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	21.8	85	69-125	
75-34-3	1,1-Dichloroethane	26.5	21.6	82	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	21.4	81	72-132	
108-05-4	Vinyl Acetate	126	120	95	73-158	
78-93-3	2-Butanone (MEK)	26.8	23.2	87	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
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: P0903022
CAS Sample ID: P090904-LCS

Date Collected: NA
Date Received: NA
Date Analyzed: 9/04/09
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	22.5	83	69-124	
141-78-6	Ethyl Acetate	52.0	45.5	88	65-126	
110-54-3	n-Hexane	26.0	20.5	79	63-125	
67-66-3	Chloroform	27.5	21.6	79	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	20.9	79	65-124	
107-06-2	1,2-Dichloroethane	26.3	21.0	80	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	21.0	81	69-127	
71-43-2	Benzene	25.8	20.5	79	68-122	
56-23-5	Carbon Tetrachloride	26.3	22.1	84	68-137	
110-82-7	Cyclohexane	51.8	42.4	82	68-121	
78-87-5	1,2-Dichloropropane	26.0	21.5	83	69-128	
75-27-4	Bromodichloromethane	26.3	21.8	83	71-131	
79-01-6	Trichloroethene	25.8	22.0	85	72-122	
123-91-1	1,4-Dioxane	26.0	22.2	85	73-127	
80-62-6	Methyl Methacrylate	52.8	46.8	89	80-133	
142-82-5	n-Heptane	25.8	21.1	82	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	20.7	84	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	22.4	84	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	22.9	85	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	20.8	80	76-125	
108-88-3	Toluene	26.8	22.1	82	74-119	
591-78-6	2-Hexanone	27.0	22.4	83	64-118	
124-48-1	Dibromochloromethane	28.3	24.2	86	79-129	
106-93-4	1,2-Dibromoethane	26.3	22.2	84	79-125	
123-86-4	n-Butyl Acetate	27.5	22.4	81	70-136	

Verified By: _____

Date: _____

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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
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: P0903022
CAS Sample ID: P090904-LCS

Date Collected: NA
Date Received: NA
Date Analyzed: 9/04/09
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	21.6	82	75-126	
127-18-4	Tetrachloroethene	25.3	21.3	84	72-125	
108-90-7	Chlorobenzene	26.5	22.3	84	74-121	
100-41-4	Ethylbenzene	26.3	22.0	84	76-120	
179601-23-1	m,p-Xylenes	51.5	43.3	84	75-120	
75-25-2	Bromoform	26.5	22.1	83	76-143	
100-42-5	Styrene	26.3	23.2	88	78-124	
95-47-6	o-Xylene	26.0	22.3	86	76-121	
111-84-2	n-Nonane	25.8	21.2	82	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	22.3	83	77-126	
98-82-8	Cumene	25.3	21.5	85	78-125	
80-56-8	alpha-Pinene	24.8	21.0	85	78-125	
103-65-1	n-Propylbenzene	25.3	21.3	84	80-127	
622-96-8	4-Ethyltoluene	26.3	22.2	84	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	22.8	86	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	22.6	89	76-123	
100-44-7	Benzyl Chloride	26.8	22.0	82	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	22.4	86	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	22.1	84	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	22.4	87	75-124	
5989-27-5	d-Limonene	26.5	23.8	90	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	25.0	93	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	24.2	89	70-139	
91-20-3	Naphthalene	25.0	22.3	89	69-141	
87-68-3	Hexachlorobutadiene	26.8	22.6	84	68-138	

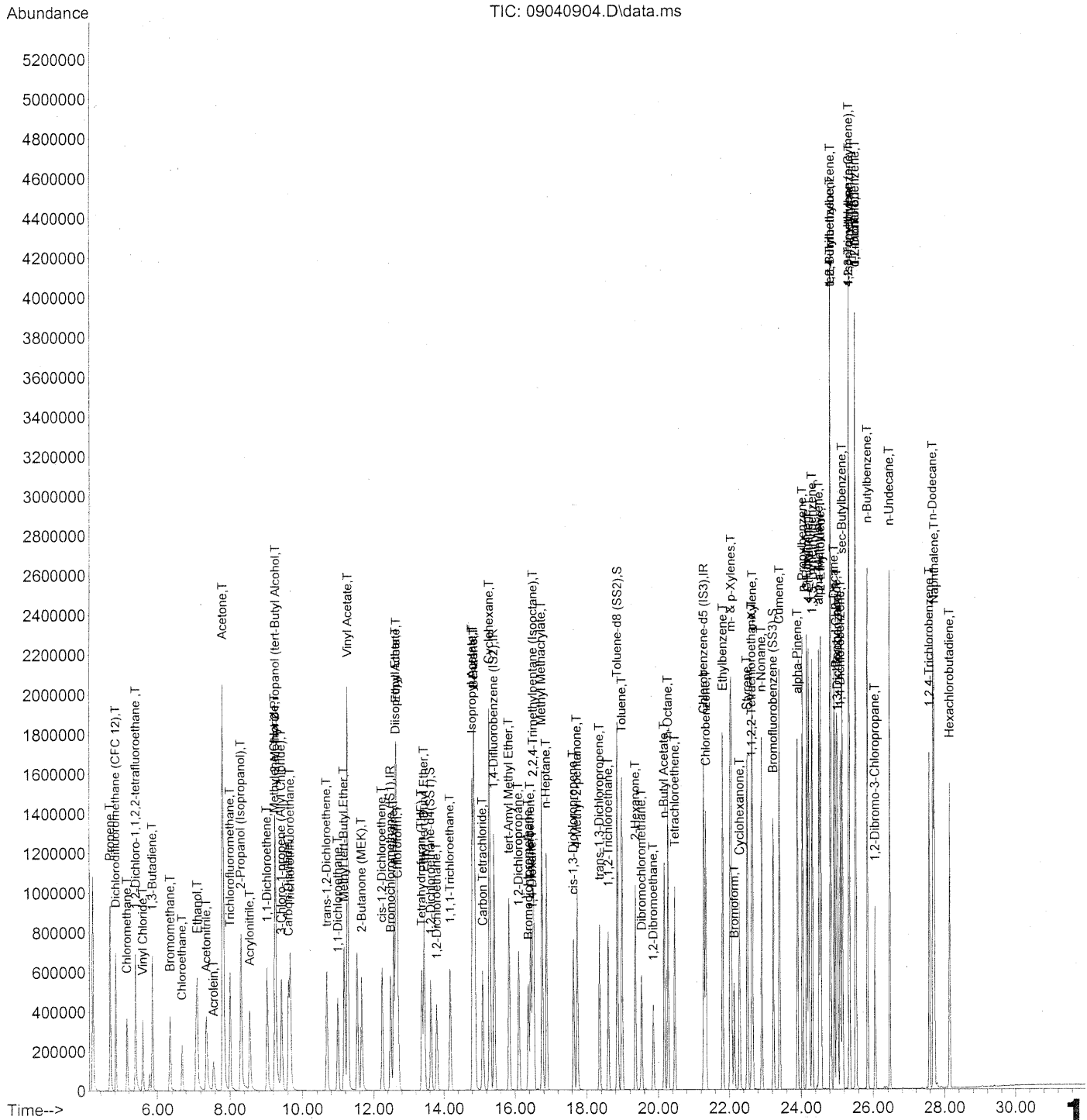
Verified By: _____

Date: _____

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Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040904.D
 Acq On : 4 Sep 2009 11:51 am
 Operator : LM/CC
 Sample : 25ng TO-15 LCS STD
 Misc : S20-08140906/S20-08240912
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 12:39:49 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Fri Aug 28 06:02:46 2009
 Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009_09\04\
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11/9/09
9-10-08

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.49	130	295065	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1479168	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	694999	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4 (...)	13.63	65	577475	24.697	ng	-0.02
Spiked Amount	25.000		Recovery	=	98.80%	✓
57) Toluene-d8 (SS2)	18.85	98	1582637	25.481	ng	0.00
Spiked Amount	25.000		Recovery	=	101.92%	✓
73) Bromofluorobenzene (SS3)	23.23	174	441025	24.671	ng	0.00
Spiked Amount	25.000		Recovery	=	98.68%	✓

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Propene	4.67	42	420599	19.706	ng	99
3) Dichlorodifluoromethan...	4.83	85	688538	18.426	ng	99
4) Chloromethane	5.15	50	509341	20.277	ng	98
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	304595	19.737	ng	100
6) Vinyl Chloride	5.59	62	460680	19.552	ng	99
7) 1,3-Butadiene	5.86	54	368443	20.968	ng	99
8) Bromomethane	6.35	94	335826	23.058	ng	97
9) Chloroethane	6.69	64	261861	20.301	ng	99
10) Ethanol	7.11	45	1389149	104.962	ng	99
11) Acetonitrile	7.36	41	718968	19.558	ng	99
12) Acrolein	7.55	56	225971	22.361	ng	98
13) Acetone	7.81	58	1369458	100.055	ng	96
14) Trichlorofluoromethane	8.01	101	654749	19.880	ng	99
15) 2-Propanol (Isopropanol)	8.31	45	1725137	37.914	ng	99
16) Acrylonitrile	8.55	53	508846	22.521	ng	98
17) 1,1-Dichloroethene	9.03	96	351056	21.973	ng	90
18) 2-Methyl-2-Propanol (t...	9.26	59	1880719	41.277	ng	99
19) Methylene Chloride	9.25	84	350396	20.184	ng	97
20) 3-Chloro-1-propene (Al...	9.43	41	605206	22.400	ng	97
21) Trichlorotrifluoroethane	9.67	151	294311	22.566	ng	95
22) Carbon Disulfide	9.62	76	1276318	20.664	ng	99
23) trans-1,2-Dichloroethene	10.68	61	541407	21.801	ng	93
24) 1,1-Dichloroethane	10.99	63	671366	21.615	ng	100
25) Methyl tert-Butyl Ether	11.17	73	1050558	21.413	ng	99
26) Vinyl Acetate	11.28	86	412232	120.185	ng	97
27) 2-Butanone (MEK)	11.66	72	256336	23.186	ng	96
28) cis-1,2-Dichloroethene	12.24	61	530911	22.477	ng	92
29) Diisopropyl Ether	12.64	87	364734	22.594	ng	# 19
30) Ethyl Acetate	12.66	61	270027	45.451	ng	97
31) n-Hexane	12.58	57	606537	20.494	ng	98

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 Data File : 09040904.D
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 Operator : LM/CC
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 Misc : S20-08140906/S20-08240912
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 12:39:49 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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	631081	21.632	ng	98
34) Tetrahydrofuran (THF)	13.37	72	250074	20.857	ng	95
35) Ethyl tert-Butyl Ether	13.44	87	412518	20.829	ng	95
36) 1,2-Dichloroethane	13.80	62	514919	21.037	ng	99
38) 1,1,1-Trichloroethane	14.18	97	574693	21.017	ng	98
39) Isopropyl Acetate	14.82	61	486441	43.234	ng	# 72
40) 1-Butanol	14.87	56	781833	42.465	ng	# 1
41) Benzene	14.88	78	1426138	20.510	ng	99
42) Carbon Tetrachloride	15.11	117	516403	22.122	ng	100
43) Cyclohexane	15.30	84	1086360	42.391	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1052917	20.444	ng	98
45) 1,2-Dichloropropane	16.11	63	368653	21.456	ng	99
46) Bromodichloromethane	16.38	83	500539	21.844	ng	99
47) Trichloroethene	16.44	130	372649	21.967	ng	100
48) 1,4-Dioxane	16.49	88	296188	22.163	ng	92
49) 2,2,4-Trimethylpentane...	16.52	57	1620222	20.475	ng	98
50) Methyl Methacrylate	16.76	100	301431	46.771	ng	94
51) n-Heptane	16.88	71	379424	21.053	ng	97
52) cis-1,3-Dichloropropene	17.65	75	585630	20.747	ng	100
53) 4-Methyl-2-pentanone	17.75	58	355636	22.394	ng	99
54) trans-1,3-Dichloropropene	18.36	75	611865	22.884	ng	100
55) 1,1,2-Trichloroethane	18.60	97	336411	20.762	ng	99
58) Toluene	18.98	91	1478579	22.102	ng	99
59) 2-Hexanone	19.36	43	916281	22.411	ng	97
60) Dibromochloromethane	19.53	129	407626	24.237	ng	99
61) 1,2-Dibromoethane	19.86	107	389493	22.169	ng	100
62) n-Butyl Acetate	20.17	43	1048788	22.360	ng	99
63) n-Octane	20.28	57	332214	21.579	ng	97
64) Tetrachloroethene	20.47	166	361004	21.312	ng	99
65) Chlorobenzene	21.34	112	955201	22.259	ng	100
66) Ethylbenzene	21.82	91	1683580	22.003	ng	100
67) m- & p-Xylenes	22.06	91	2639372	43.329	ng	99
68) Bromoform	22.15	173	321863	22.103	ng	100
69) Styrene	22.51	104	1040258	23.193	ng	99
70) o-Xylene	22.65	91	1366729	22.338	ng	98
71) n-Nonane	22.91	43	778572	21.175	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	625605	22.302	ng	98
74) Cumene	23.41	105	1668255	21.512	ng	98
75) alpha-Pinene	23.90	93	844341	20.990	ng	98
76) n-Propylbenzene	24.05	91	2102951	21.348	ng	99
77) 3-Ethyltoluene	24.17	105	1669496	22.504	ng	99
78) 4-Ethyltoluene	24.23	105	1625255	22.198	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1389783	22.805	ng	98

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 Operator : LM/CC
 Sample : 25ng TO-15 LCS STD
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 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 12:39:49 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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	771290	24.099	ng	100
81) 2-Ethyltoluene	24.56	105	1652330	21.705	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1403731	22.565	ng	98
83) n-Decane	24.93	57	815745	21.964	ng	97
84) Benzyl Chloride	25.00	91	1357662	22.044	ng	97
85) 1,3-Dichlorobenzene	25.03	146	751792	22.360	ng	100
86) 1,4-Dichlorobenzene	25.11	146	772893	22.073	ng	99
87) sec-Butylbenzene	25.16	105	1876339	22.082	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1671503	21.824	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	1420224	21.782	ng	99
90) 1,2-Dichlorobenzene	25.53	146	702352	22.383	ng	99
91) d-Limonene	25.53	68	590052	23.761	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	274326	24.987	ng	93
93) n-Undecane	26.46	57	885497	22.966	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	535469	24.228	ng	99
95) Naphthalene	27.73	128	1918137	22.311	ng	100
96) n-Dodecane	27.69	57	897642	20.424	ng	98
97) Hexachlorobutadiene	28.14	225	300464	22.612	ng	100
98) Cyclohexanone	22.30	55	523191	20.284	ng	97
99) tert-Butylbenzene	24.83	119	1338079	22.211	ng	100
100) n-Butylbenzene	25.86	91	1596870	23.050	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

M 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
-----ISTD-----										
37) IR 1,4-Difluorobenze										
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
-----ISTD-----										
56) IR Chlorobenzene-d5										
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

175

(#) Out of Range ### Number of calibration levels exceeded format ###
 R13082709.M Fri Aug 28 11:16:18 2009

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 Bromofluorobenzen	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-Methylstyre	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

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 ³	Primary Working Standards			Working STD Conc.(ng/L): Injection (L): ICAL Points:	ICAL Concentrations (Primary Source)									
		200ng/L	20ng/L	4ng/L		0.025	0.05	0.025	0.050	0.20	0.25	0.125	0.200	0.25	0.50
		200ng/L	20ng/L	4ng/L		0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng		
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 ³	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	0.050	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.

LM 8/3/09

*CC
8-31-09*

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

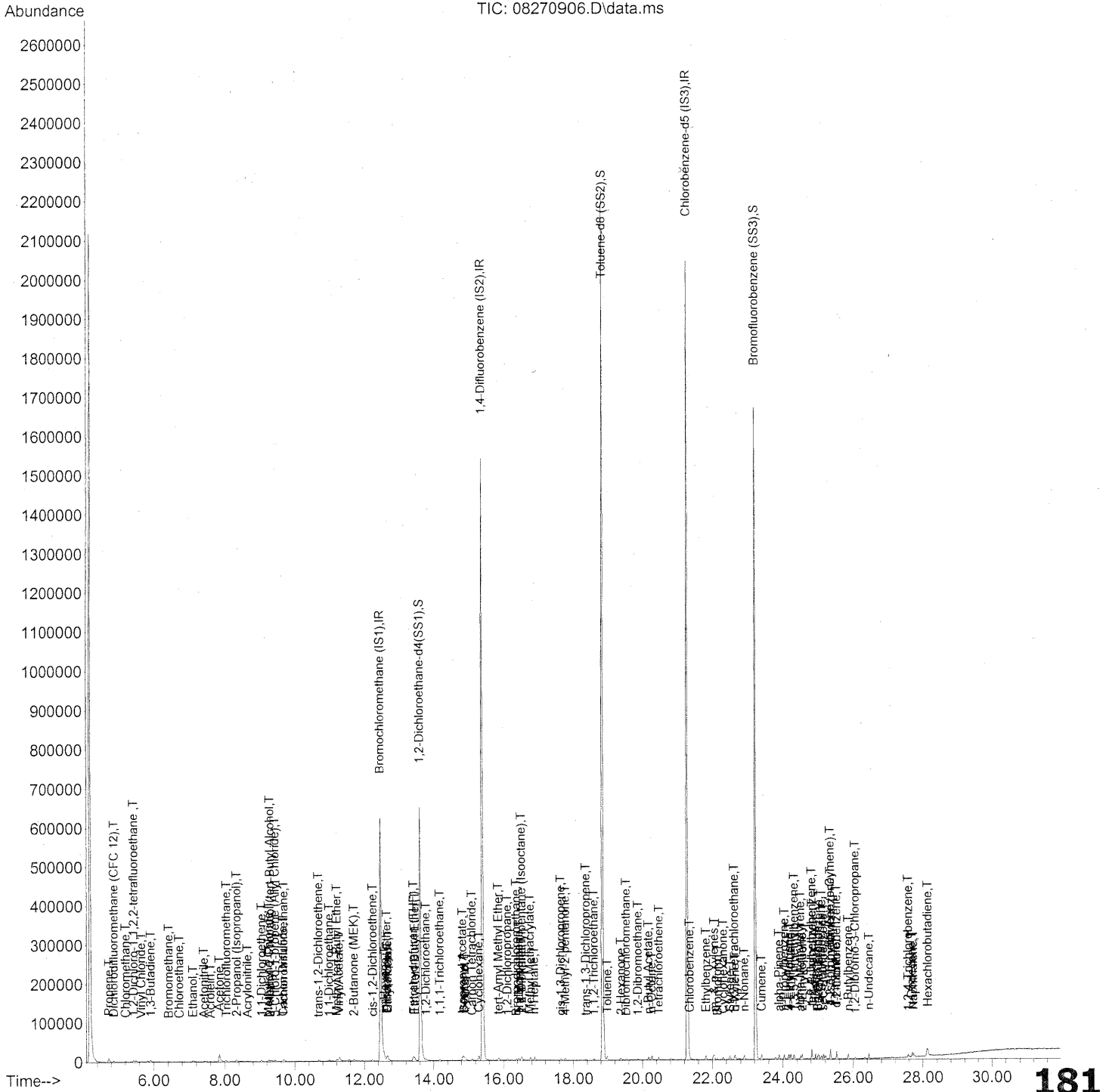
R13082709.M Fri Aug 28 06:14:23 2009

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

VM 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	R.T.	QIon	Response	Conc	Units	Dev (Min)	Recovery
33) 1,2-Dichloroethane-d4(...)	13.62	65	691489	23.020	ng	-0.01	92.08% ✓
Spiked Amount				25.000			
57) Toluene-d8 (SS2)	18.85	98	1893630	25.481	ng	0.00	101.92% ✓
Spiked Amount				25.000			
73) Bromofluorobenzene (SS3)	23.23	174	541883	27.650	ng	0.00	110.60% ✓
Spiked Amount				25.000			

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	

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	98

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

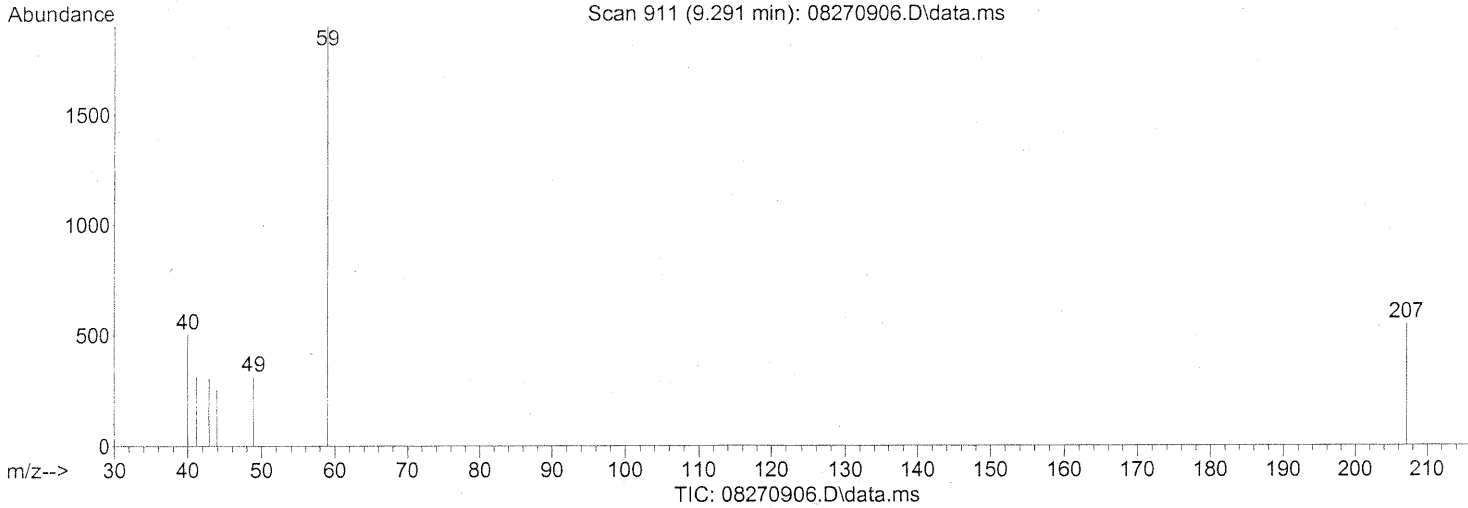
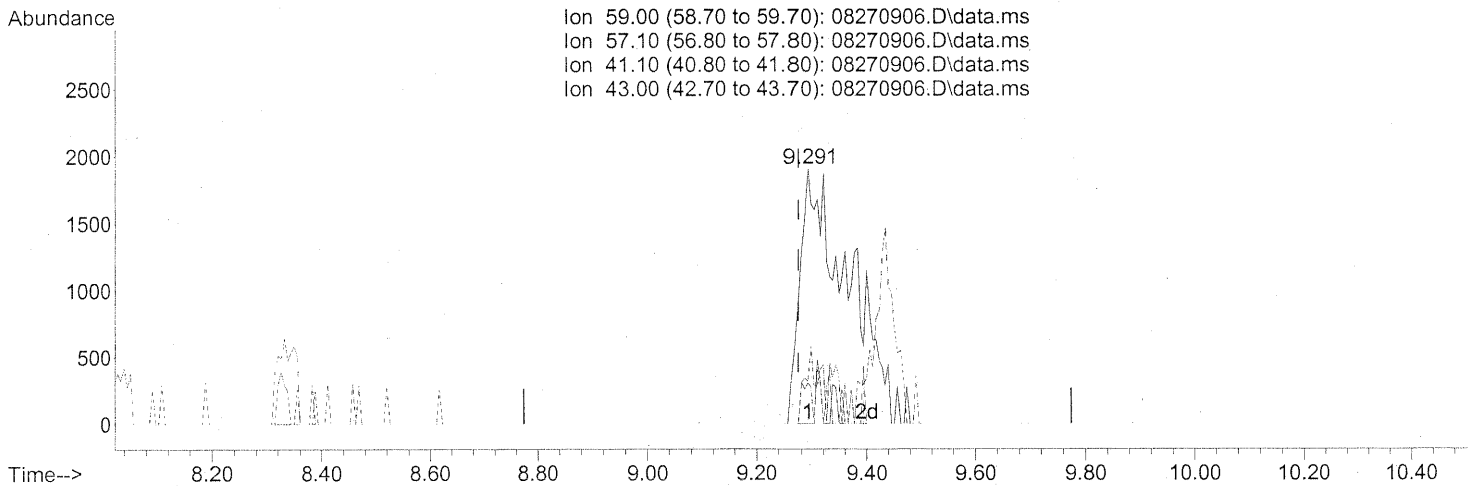
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.50	118	3476	0.097	ng	94
81) 2-Ethyltoluene	24.56	105	10184	0.124	ng	94
82) 1,2,4-Trimethylbenzene	24.82	105	8179	0.120	ng	97
83) n-Decane	24.93	57	5026	0.113	ng	95
84) Benzyl Chloride	25.00	91	8718	0.137	ng	96
85) 1,3-Dichlorobenzene	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)

SP

9.291min (+0.017) 0.20ng

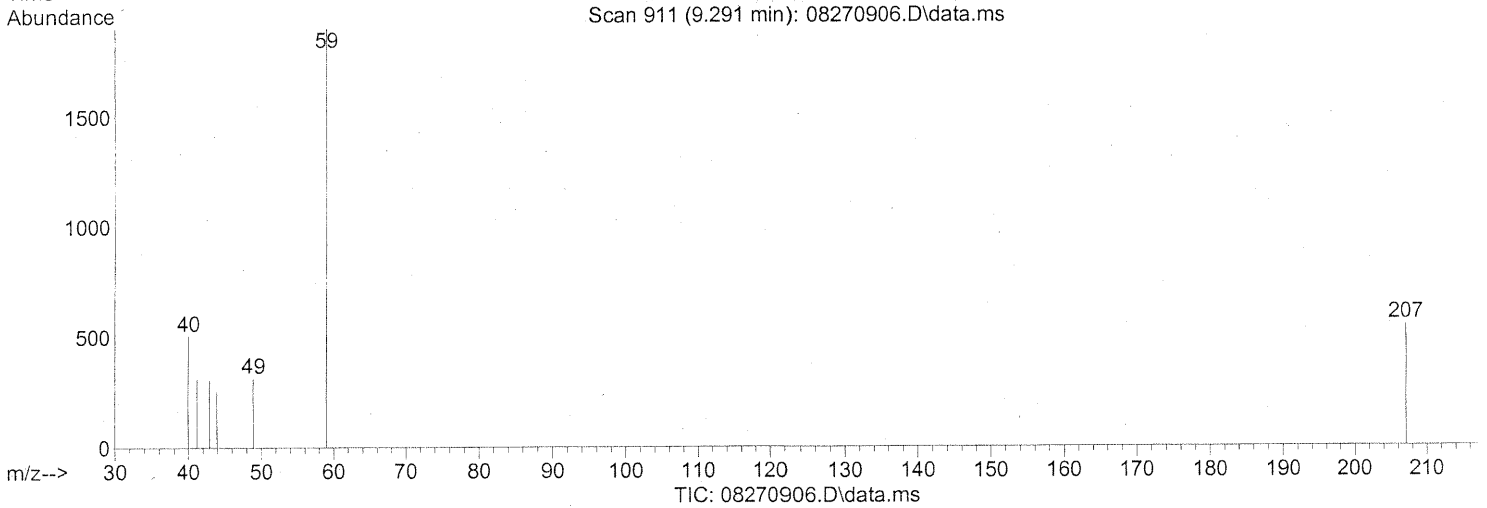
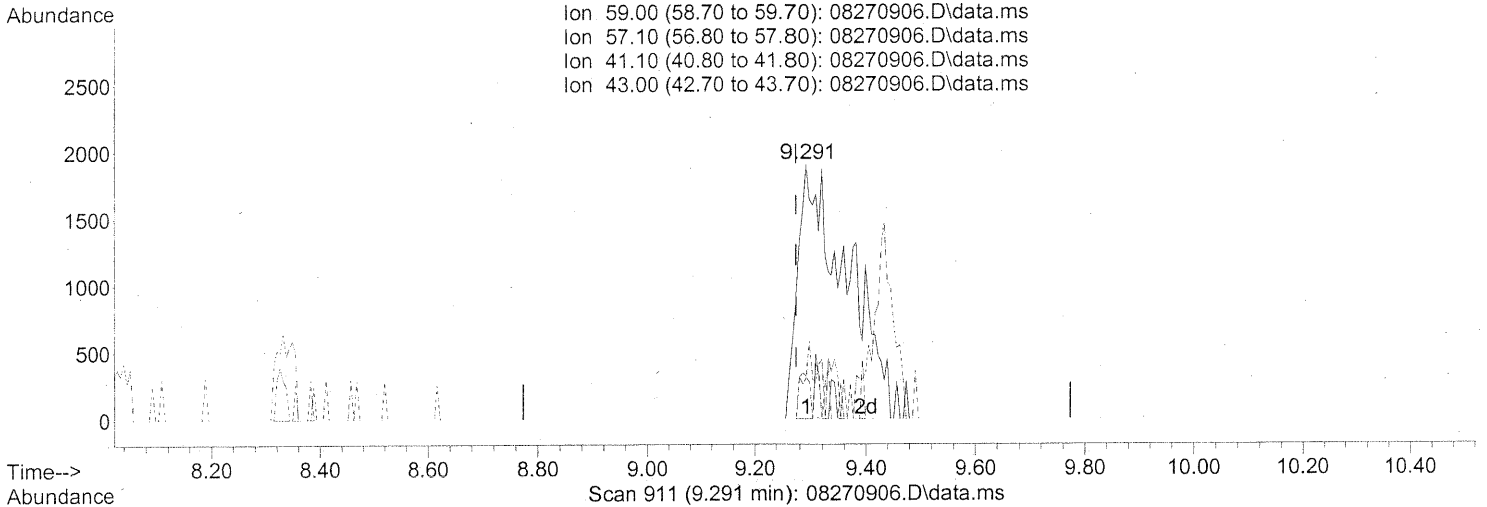
response 9815

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

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

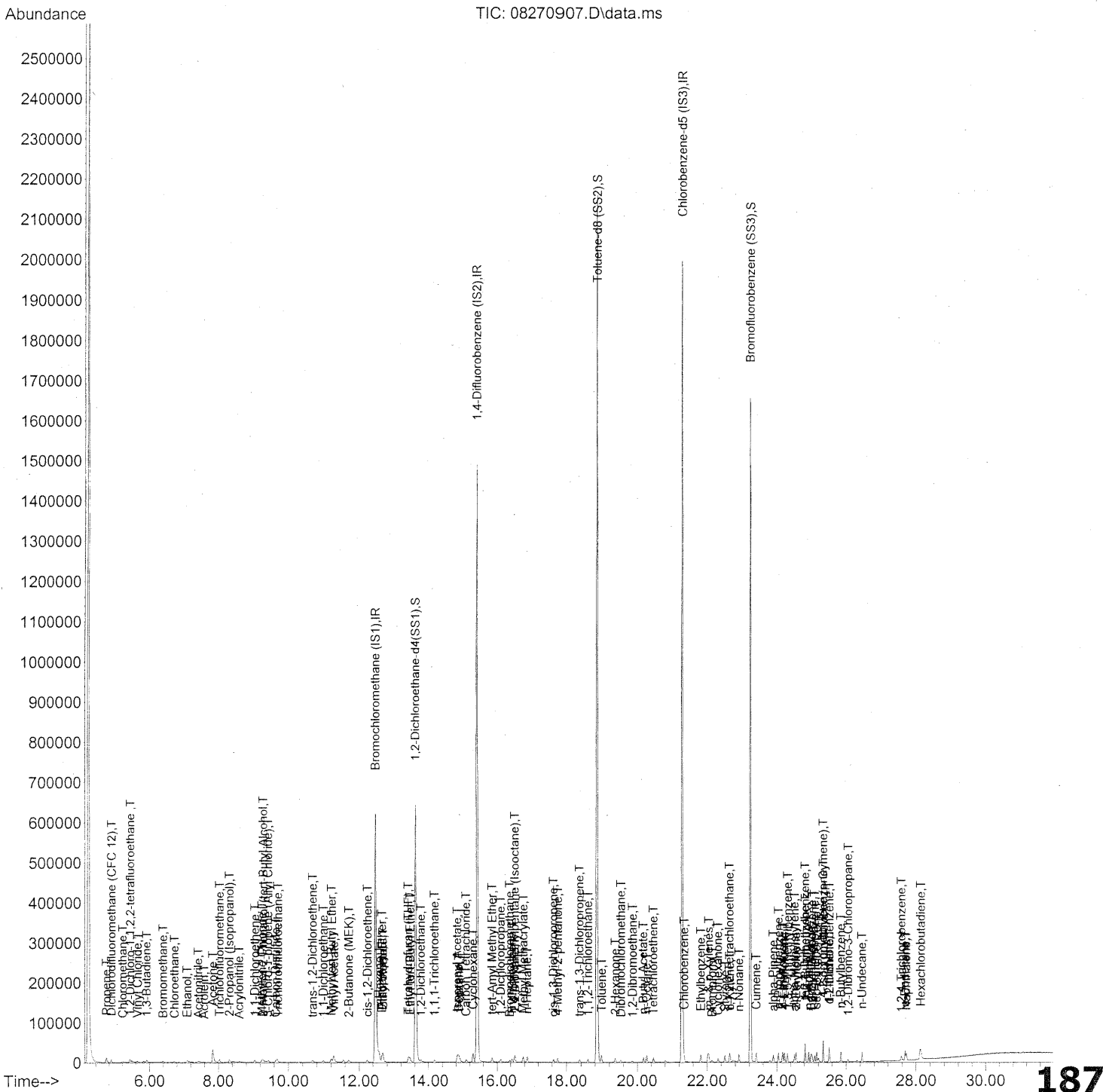
WA 8/28/09

*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

	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	83

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	93

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

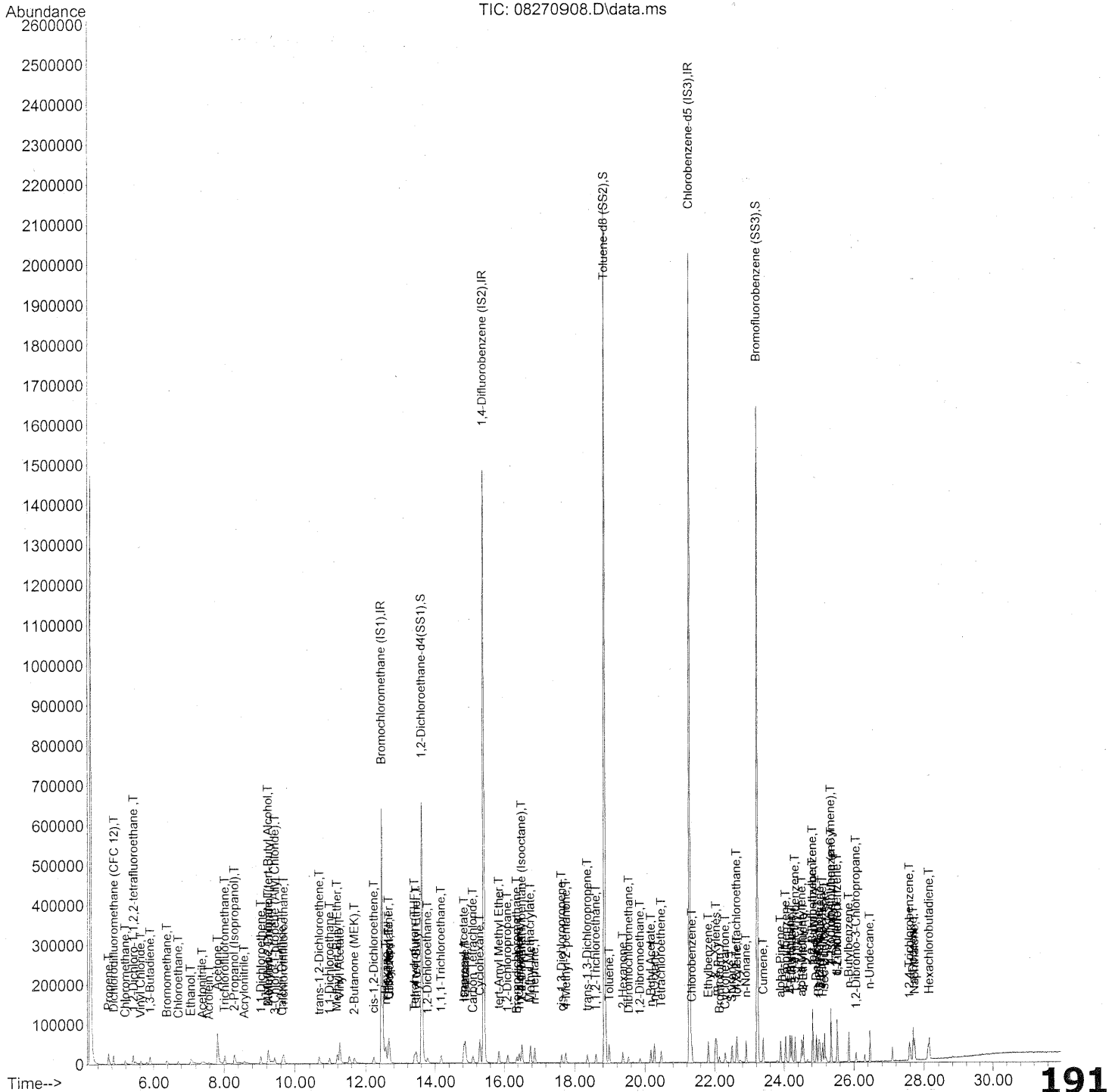
Quant Time: Aug 27 20:45:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Thu Aug 27 20:40:00 2009
 Response via : Initial Calibration

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



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

WA 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

Target Compounds	R.T.	QIon	Response	Conc	Units	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	92

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	99

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

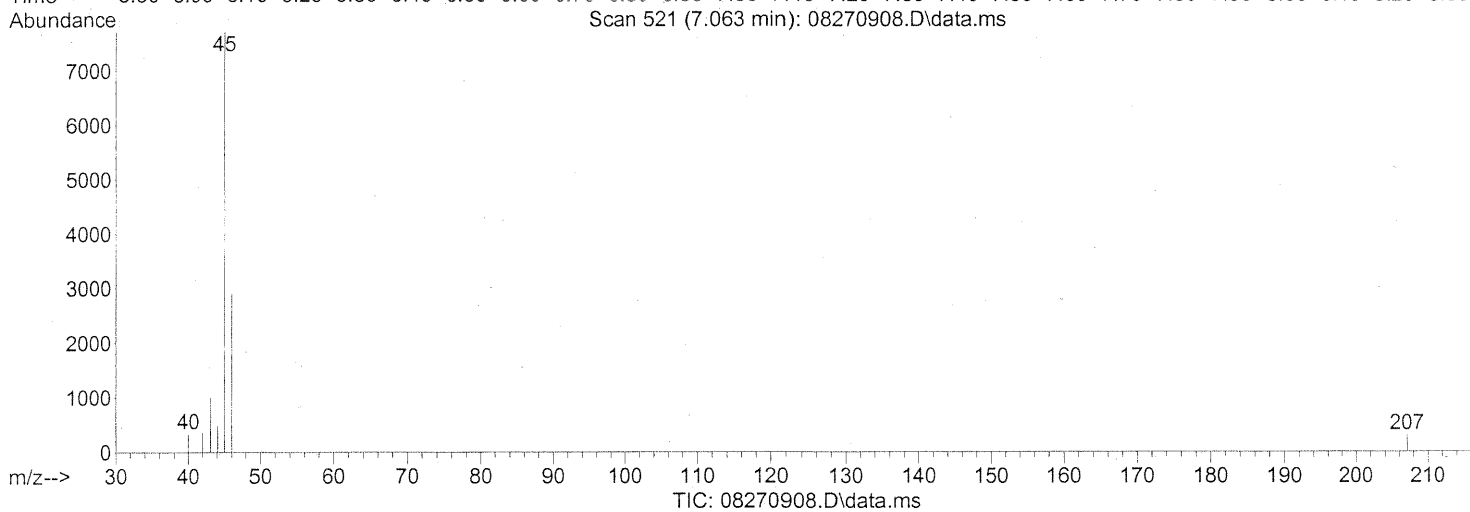
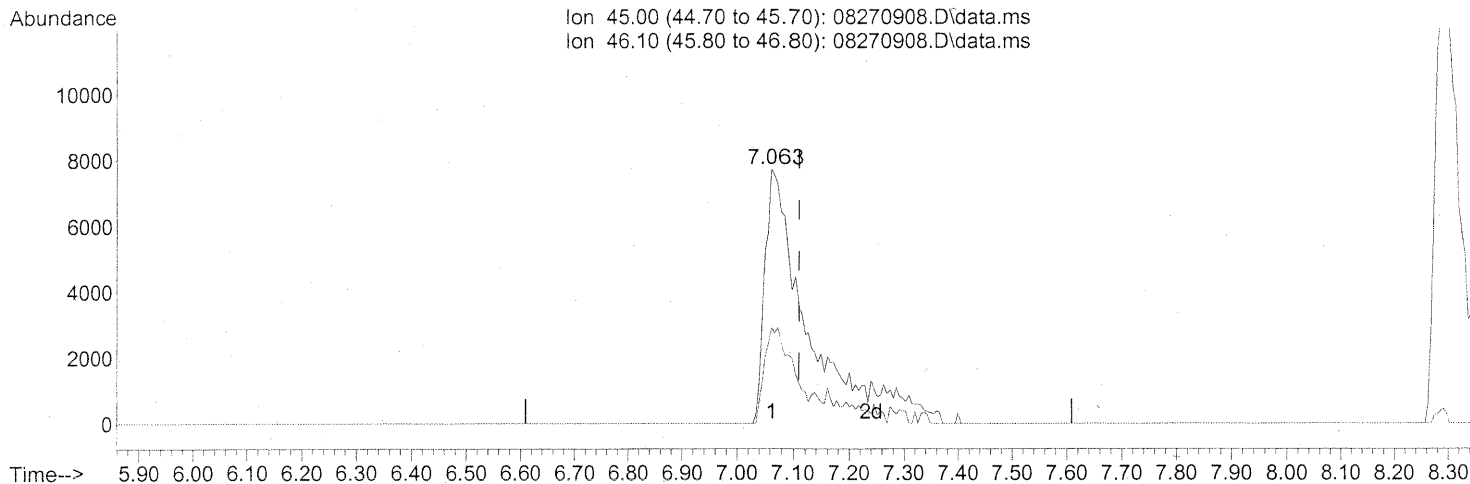
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	20092	0.573	ng	95
81) 2-Ethyltoluene	24.55	105	48257	0.598	ng	98
82) 1,2,4-Trimethylbenzene	24.82	105	40343	0.605	ng	95
83) n-Decane	24.93	57	25406	0.586	ng	99
84) Benzyl Chloride	25.00	91	40338	0.645	ng	96
85) 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

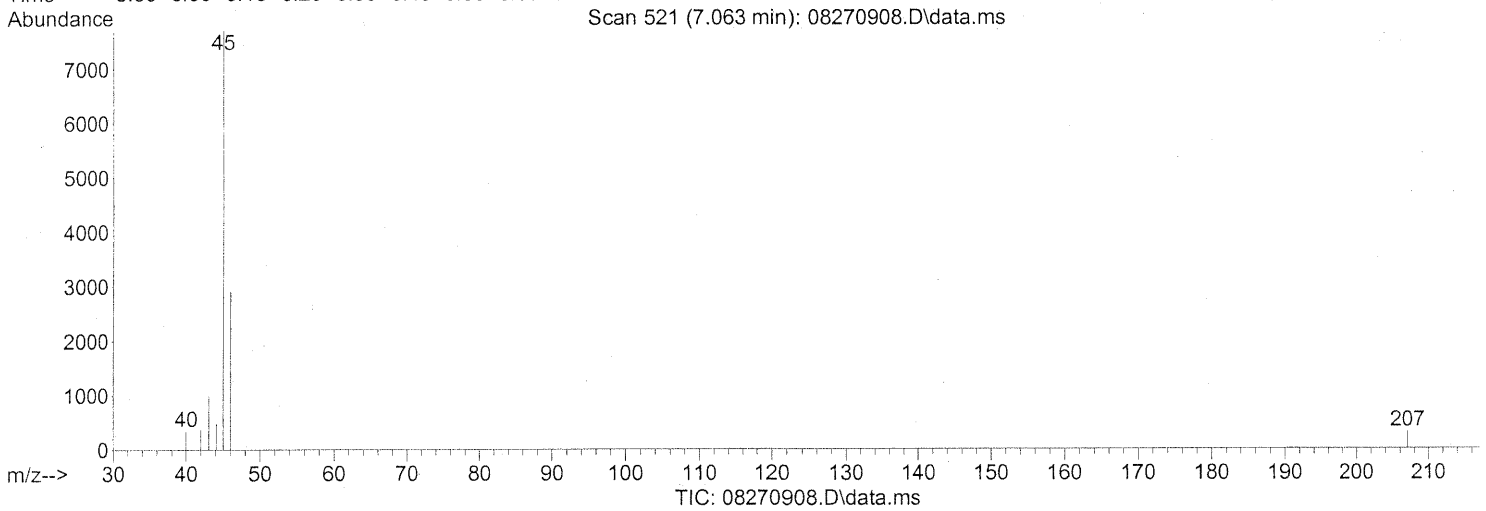
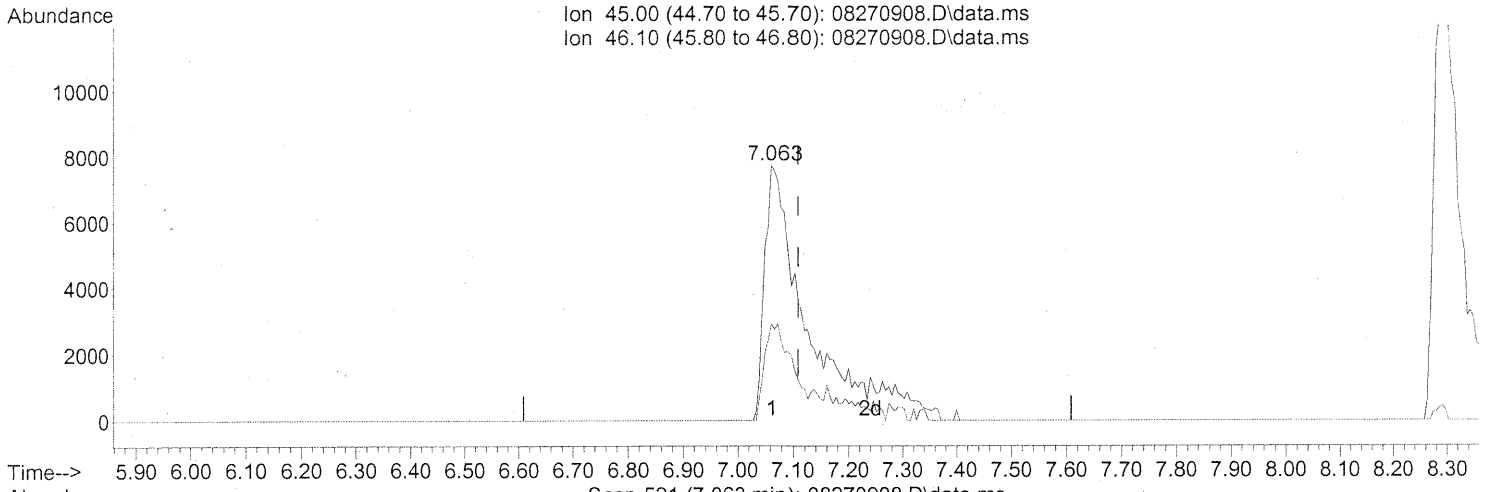
Ion	Exp%	Act%
45.00	100	100
46.10	38.20	30.77
0.00	0.00	0.00
0.00	0.00	0.00

PT

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
WA/CC 8/28/09

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	100

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

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

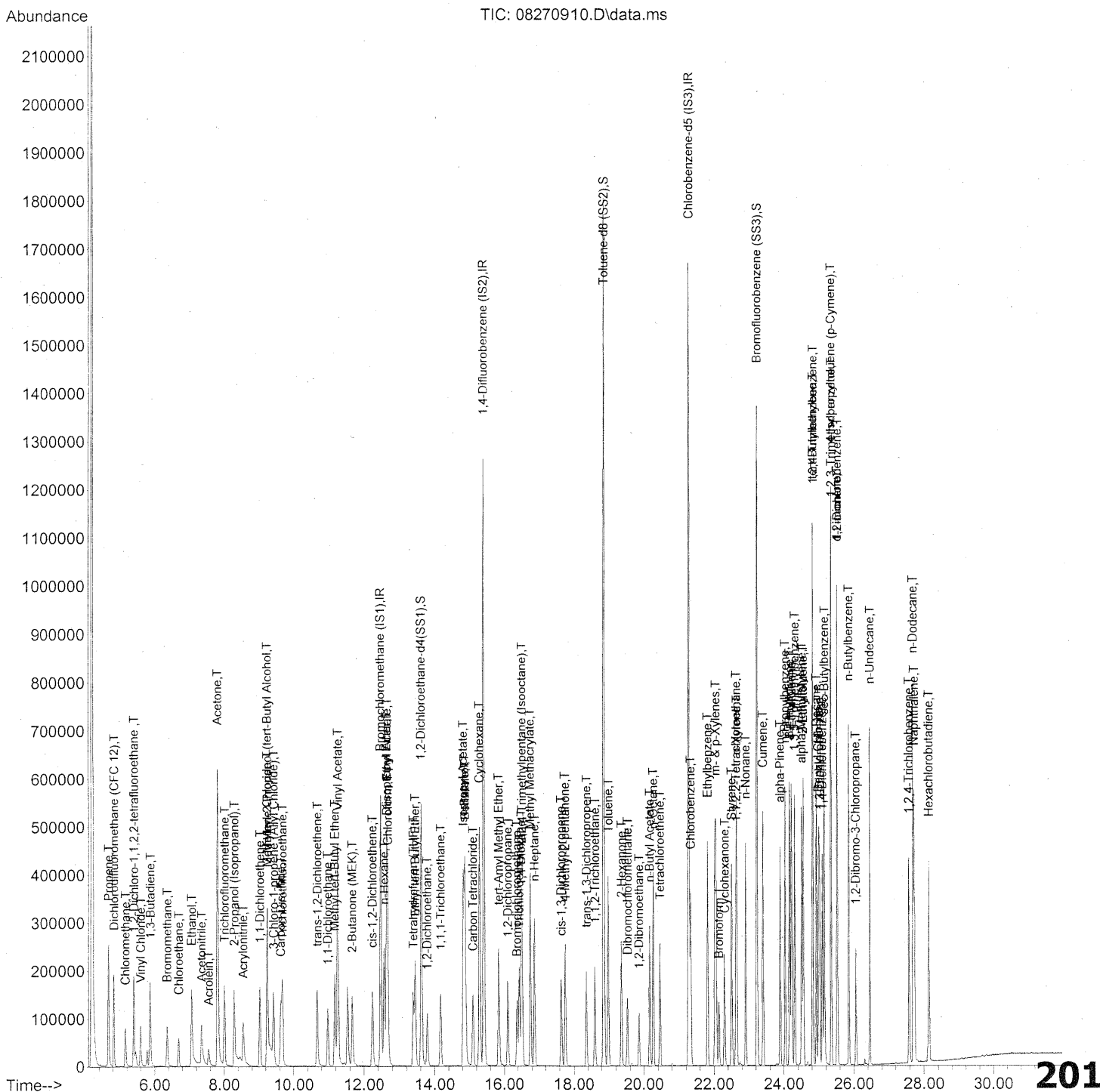
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	37555	1.090	ng	97
81) 2-Ethyltoluene	24.55	105	92466	1.165	ng	100
82) 1,2,4-Trimethylbenzene	24.82	105	75715	1.154	ng	98
83) n-Decane	24.93	57	48044	1.126	ng	99
84) Benzyl Chloride	24.99	91	74822	1.216	ng	99
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

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

W 8/28/09
 CC
 8/28/09

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	100

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

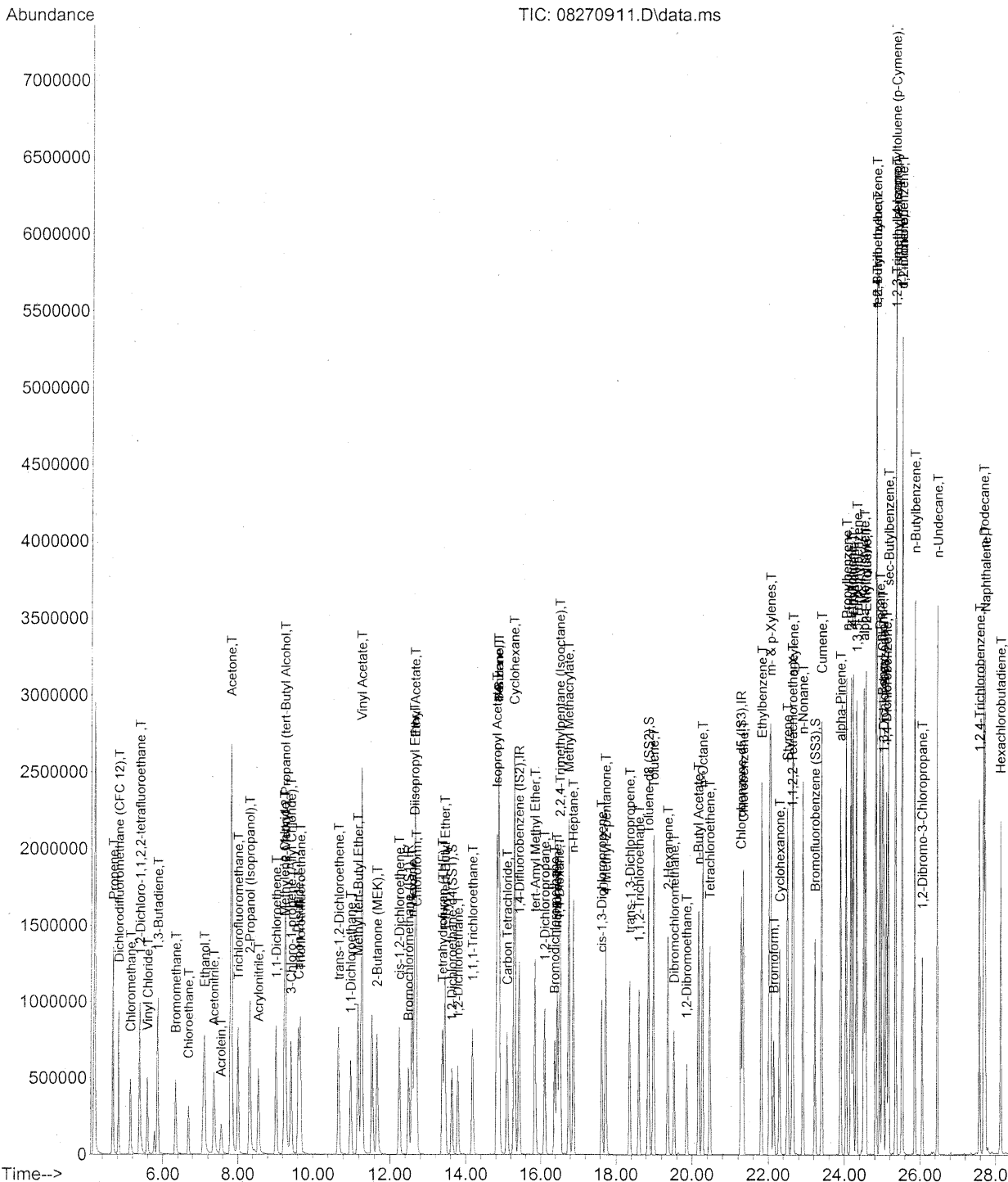
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
80) alpha-Methylstyrene	24.51	118	187722	6.414	ng	98
81) 2-Ethyltoluene	24.55	105	422733	6.266	ng	100
82) 1,2,4-Trimethylbenzene	24.83	105	355483	6.376	ng	98
83) n-Decane	24.93	57	216013	5.959	ng	97
84) Benzyl Chloride	24.99	91	361430	6.916	ng	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



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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

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	99

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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)
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

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

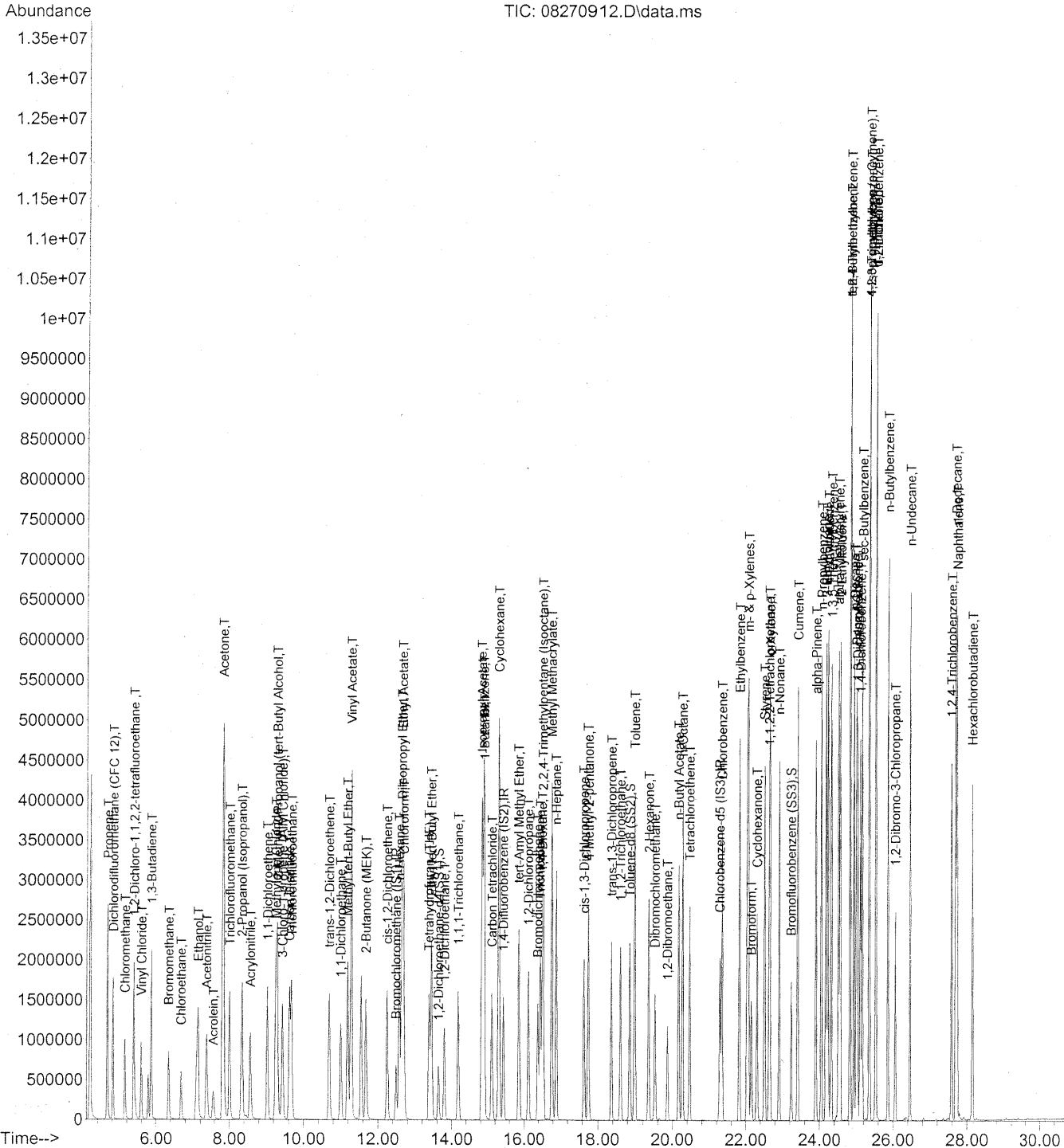
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1054165	35.698	ng	99
81) 2-Ethyltoluene	24.56	105	2259196	33.194	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1897450	33.733	ng	98
83) n-Decane	24.93	57	1120197	30.630	ng	97
84) Benzyl Chloride	25.00	91	1962770	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



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

	R.T.	QIon	Response	Conc	Units	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

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

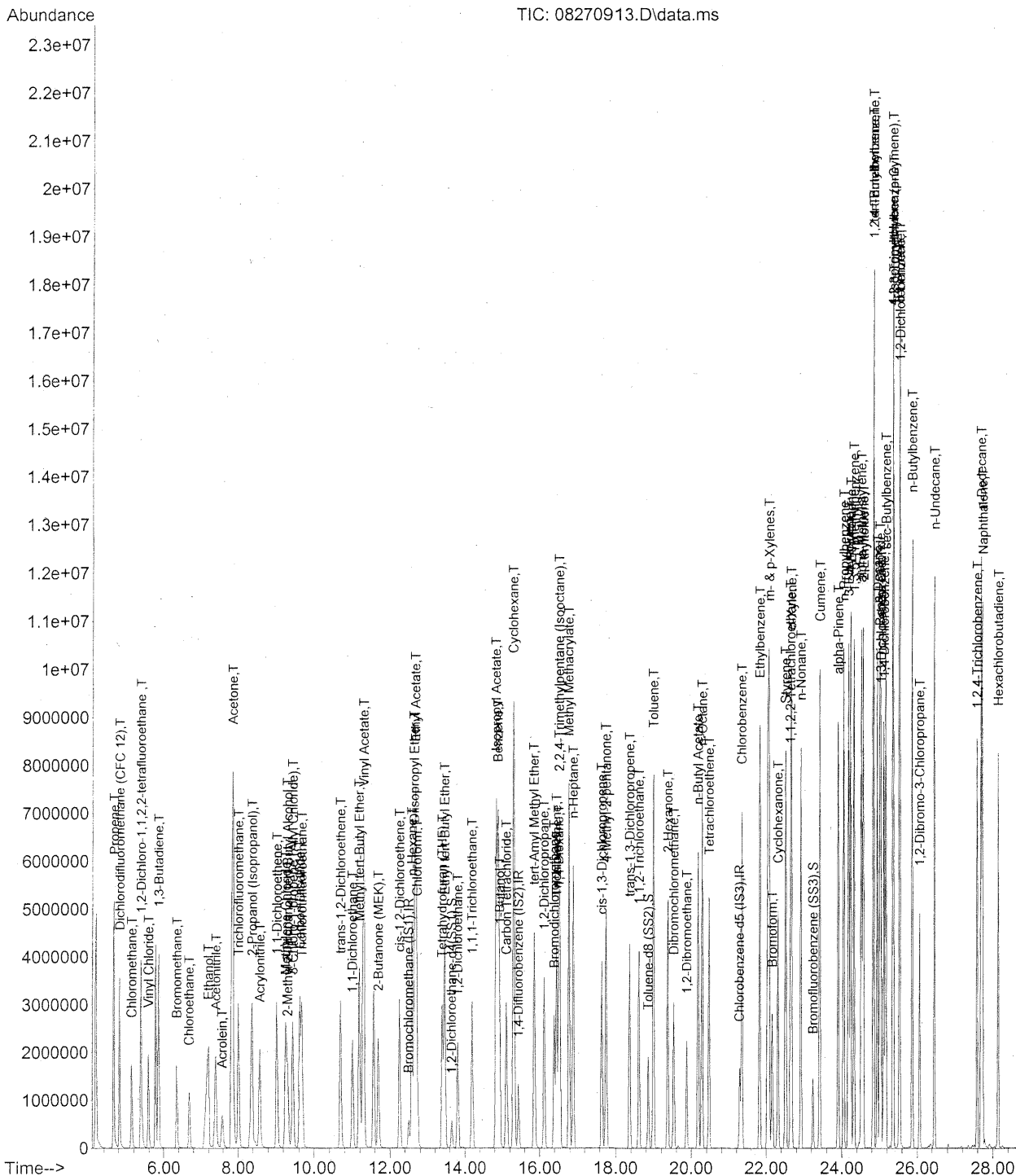
Quant Time: Aug 28 05:54:59 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : Thu Aug 27 20:40:00 2009
 Response via : Initial Calibration

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

WA 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

						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

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	ng	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

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

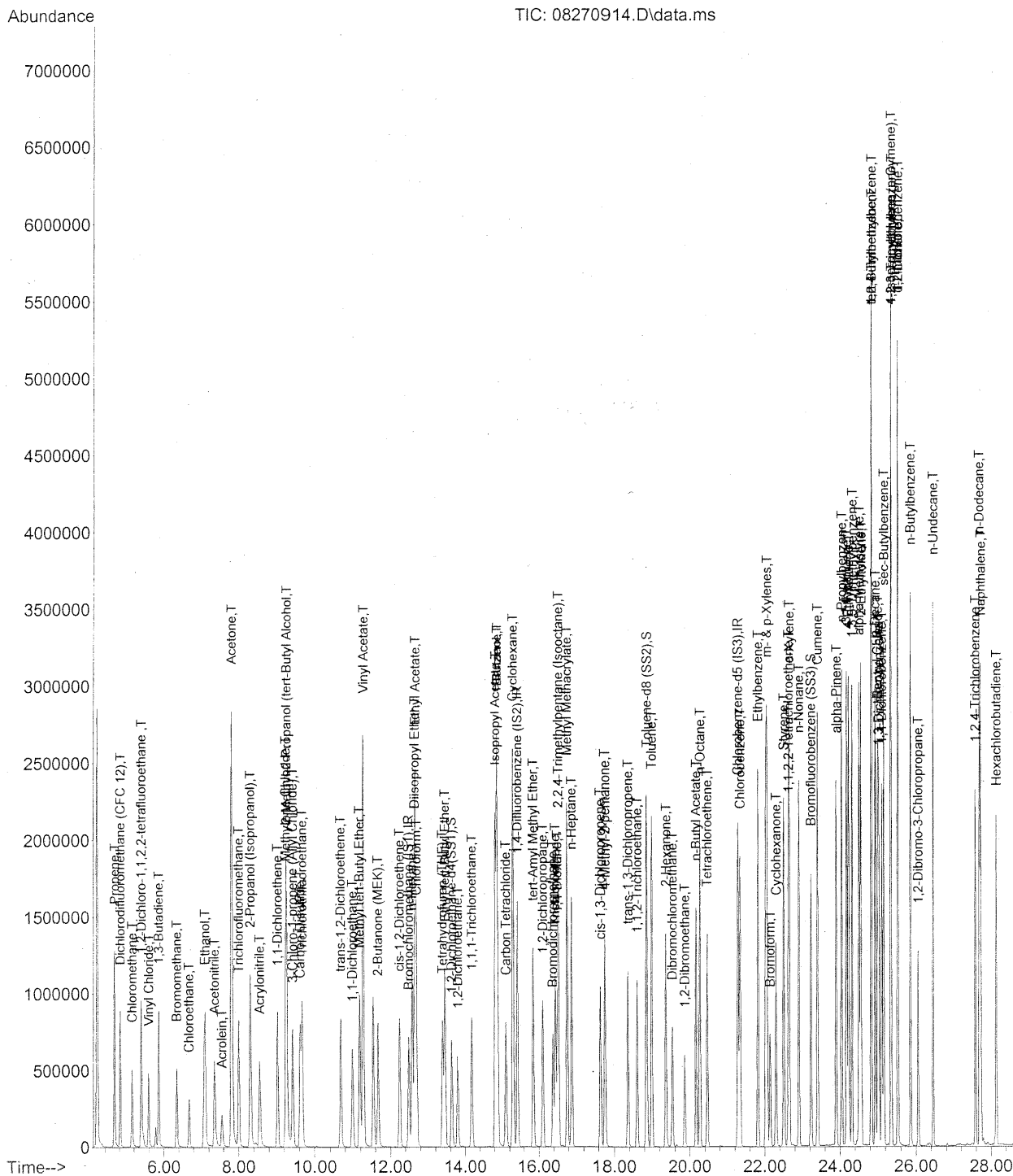
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.52	118	4021141	130.507	ng	96
81) 2-Ethyltoluene	24.57	105	8211566	115.630	ng	97
82) 1,2,4-Trimethylbenzene	24.85	105	6692639	114.032	ng	99
83) n-Decane	24.94	57	4009152	105.064	ng	97
84) Benzyl Chloride	25.01	91	7118793	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



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

						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	95

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

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	*

WA 8/28/09
CC
8/28/09

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\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

M 9/10/09
CC
9-10-09

Quant Time: Sep 04 09:20:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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)
1	IR Bromochloromethane (IS1)	1.000	1.000	0.0	110	-0.02
2	T Propene	1.808	1.400	22.6	80	0.00
3	T Dichlorodifluoromethane (CF	3.166	2.346	25.9	81	0.00
4	T Chloromethane	2.128	1.898	10.8	88	0.00
5	T 1,2-Dichloro-1,1,2,2-tetra	1.308	1.072	18.0	85	0.00
6	T Vinyl Chloride	1.996	1.655	17.1	84	0.00
7	T 1,3-Butadiene	1.489	1.285	13.7	84	0.00
8	T Bromomethane	1.234	1.163	5.8	87	-0.01
9	T Chloroethane	1.093	0.935	14.5	85	0.00
10	T Ethanol	1.121	0.978	12.8	87	-0.10
11	T Acetonitrile	3.115	2.573	17.4	86	-0.05
12	T Acrolein	0.856	0.766	10.5	86	-0.03
13	T Acetone	1.160	0.910	21.6	87	-0.05
14	T Trichlorofluoromethane	2.791	2.381	14.7	85	0.00
15	T 2-Propanol (Isopropanol)	3.855	3.370	12.6	92	-0.07
16	T Acrylonitrile	1.914	1.796	6.2	86	-0.04
17	T 1,1-Dichloroethene	1.354	1.153	14.8	86	-0.01
18	T 2-Methyl-2-Propanol (tert-B	3.860	3.437	11.0	87	-0.05
19	T Methylene Chloride	1.471	1.195	18.8	85	-0.03
20	T 3-Chloro-1-propene (Allyl C	2.289	1.995	12.8	86	-0.02
21	T Trichlorotrifluoroethane	1.105	0.954	13.7	85	-0.01
22	T Carbon Disulfide	5.233	4.470	14.6	85	-0.01
23	T trans-1,2-Dichloroethene	2.104	1.907	9.4	86	-0.02
24	T 1,1-Dichloroethane	2.632	2.293	12.9	87	-0.02
25	T Methyl tert-Butyl Ether	4.157	3.608	13.2	86	-0.02
26	T Vinyl Acetate	0.291	0.305	-4.8	96	-0.03
27	T 2-Butanone (MEK)	0.937	0.878	6.3	86	-0.03
28	T cis-1,2-Dichloroethene	2.001	1.762	11.9	85	-0.02
29	T Diisopropyl Ether	1.368	1.260	7.9	88	-0.02
30	T Ethyl Acetate	0.503	0.472	6.2	85	-0.03
31	T n-Hexane	2.508	2.079	17.1	85	0.00
32	T Chloroform	2.472	2.117	14.4	85	-0.02
33	S 1,2-Dichloroethane-d4 (SS1)	1.981	1.923	2.9	105	-0.02
34	T Tetrahydrofuran (THF)	1.016	0.844	16.9	86	-0.02
35	T Ethyl tert-Butyl Ether	1.678	1.489	11.3	87	-0.02
36	T 1,2-Dichloroethane	2.074	1.765	14.9	85	-0.02
37	IR 1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	108	-0.01
38	T 1,1,1-Trichloroethane	0.462	0.396	14.3	84	-0.01

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 09:20:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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	0.170	10.5	84	-0.02
40 T	1-Butanol	0.311	0.279	10.3	86	-0.07
41 T	Benzene	1.175	0.980	16.6	86	-0.02
42 T	Carbon Tetrachloride	0.395	0.351	11.1	84	-0.01
43 T	Cyclohexane	0.433	0.378	12.7	85	-0.01
44 T	tert-Amyl Methyl Ether	0.870	0.754	13.3	88	-0.02
45 T	1,2-Dichloropropane	0.290	0.256	11.7	85	-0.02
46 T	Bromodichloromethane	0.387	0.343	11.4	83	-0.02
47 T	Trichloroethene	0.287	0.255	11.1	85	-0.01
48 T	1,4-Dioxane	0.226	0.211	6.6	86	-0.02
49 T	2,2,4-Trimethylpentane (Iso	1.337	1.159	13.3	86	-0.01
50 T	Methyl Methacrylate	0.109	0.105	3.7	87	-0.03
51 T	n-Heptane	0.305	0.271	11.1	86	-0.02
52 T	cis-1,3-Dichloropropene	0.477	0.431	9.6	84	-0.01
53 T	4-Methyl-2-pentanone	0.268	0.245	8.6	85	-0.02
54 T	trans-1,3-Dichloropropene	0.452	0.410	9.3	84	-0.01
55 T	1,1,2-Trichloroethane	0.274	0.236	13.9	85	-0.01
56 IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	104	0.00
57 S	Toluene-d8 (SS2)	2.234	2.285	-2.3	106	0.00
58 T	Toluene	2.406	2.143	10.9	85	-0.01
59 T	2-Hexanone	1.471	1.342	8.8	84	-0.02
60 T	Dibromochloromethane	0.605	0.571	5.6	85	0.00
61 T	1,2-Dibromoethane	0.632	0.581	8.1	84	-0.01
62 T	n-Butyl Acetate	1.687	1.565	7.2	85	-0.01
63 T	n-Octane	0.554	0.494	10.8	86	-0.01
64 T	Tetrachloroethene	0.609	0.562	7.7	86	0.00
65 T	Chlorobenzene	1.544	1.393	9.8	85	0.00
66 T	Ethylbenzene	2.752	2.499	9.2	85	0.00
67 T	m- & p-Xylenes	2.191	1.988	9.3	84	-0.02
68 T	Bromoform	0.524	0.509	2.9	85	-0.01
69 T	Styrene	1.613	1.524	5.5	85	0.00
70 T	o-Xylene	2.201	2.018	8.3	84	0.00
71 T	n-Nonane	1.323	1.159	12.4	84	0.00
72 T	1,1,2,2-Tetrachloroethane	1.009	0.920	8.8	84	-0.01
73 S	Bromofluorobenzene (SS3)	0.643	0.629	2.2	101	0.00
74 T	Cumene	2.790	2.562	8.2	85	0.00
75 T	alpha-Pinene	1.447	1.316	9.1	85	0.00
76 T	n-Propylbenzene	3.543	3.218	9.2	84	0.00

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 09:20:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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%

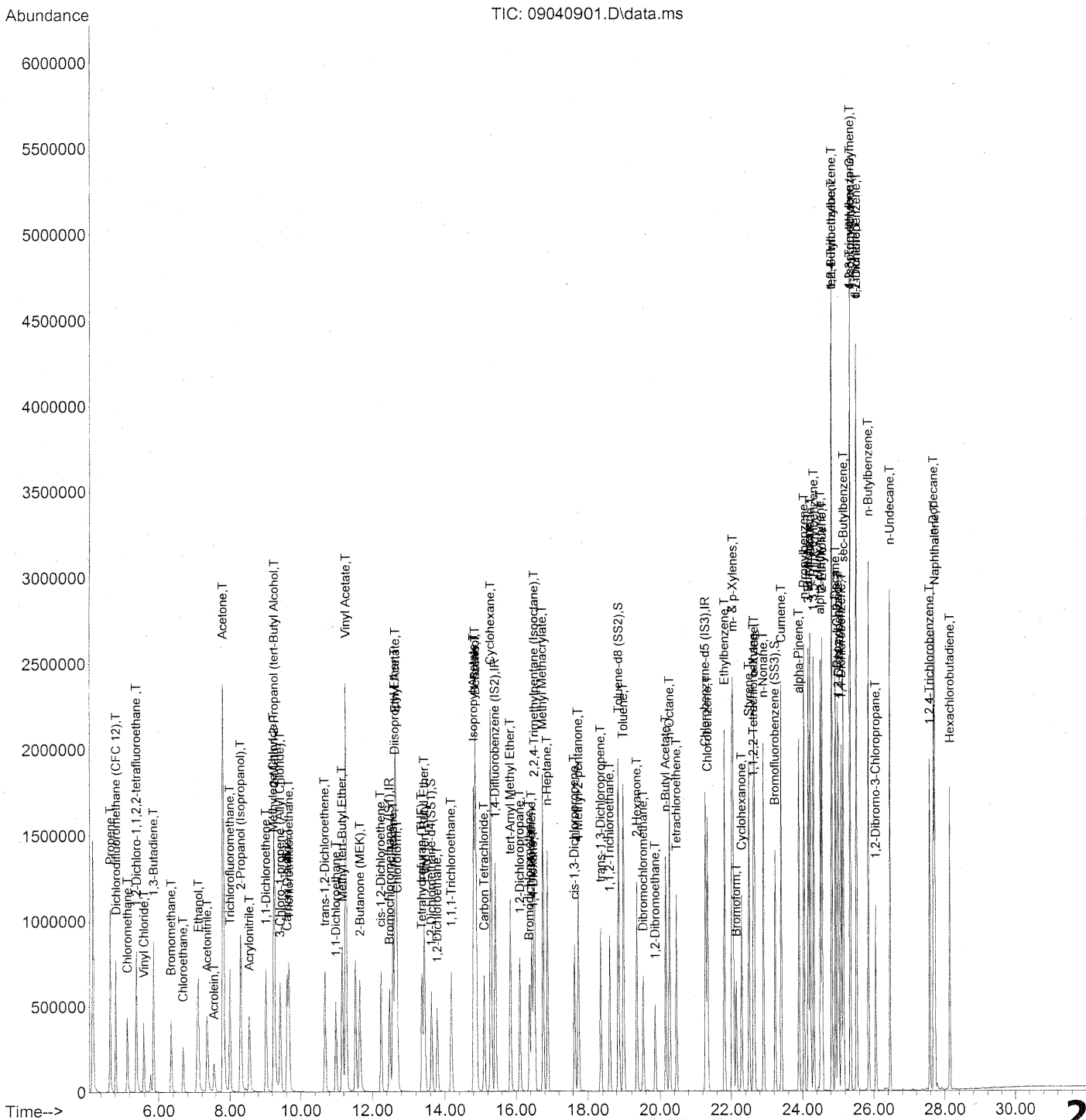
	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77 T	3-Ethyltoluene	2.669	2.431	8.9	85	0.00
78 T	4-Ethyltoluene	2.634	2.439	7.4	86	-0.01
79 T	1,3,5-Trimethylbenzene	2.192	2.018	7.9	85	0.00
80 T	alpha-Methylstyrene	1.151	1.149	0.2	85	0.00
81 T	2-Ethyltoluene	2.738	2.514	8.2	85	-0.01
82 T	1,2,4-Trimethylbenzene	2.238	2.093	6.5	85	-0.01
83 T	n-Decane	1.336	1.190	10.9	83	0.00
84 T	Benzyl Chloride	2.215	2.047	7.6	83	-0.01
85 T	1,3-Dichlorobenzene	1.209	1.096	9.3	85	-0.01
86 T	1,4-Dichlorobenzene	1.260	1.166	7.5	85	-0.01
87 T	sec-Butylbenzene	3.057	2.820	7.8	85	0.00
88 T	4-Isopropyltoluene (p-Cymen	2.755	2.579	6.4	85	0.00
89 T	1,2,3-Trimethylbenzene	2.345	2.125	9.4	85	-0.01
90 T	1,2-Dichlorobenzene	1.129	1.062	5.9	86	-0.01
91 T	d-Limonene	0.893	0.859	3.8	83	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.395	0.398	-0.8	83	0.00
93 T	n-Undecane	1.387	1.258	9.3	83	0.00
94 T	1,2,4-Trichlorobenzene	0.795	0.771	3.0	83	0.00
95 T	Naphthalene	3.093	2.955	4.5	83	0.00
96 T	n-Dodecane	1.581	1.386	12.3	82	0.00
97 T	Hexachlorobutadiene	0.478	0.433	9.4	84	0.00
98 T	Cyclohexanone	0.928	0.862	7.1	84	-0.02
99 T	tert-Butylbenzene	2.167	2.018	6.9	85	0.00
100 T	n-Butylbenzene	2.492	2.303	7.6	83	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : J:\MS13\DATA\2009_09\04\
Data File : 09040901.D
Acq On : 4 Sep 2009 8:52 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 09:20:29 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
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Quant Time: Sep 04 09:20:29 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

LM 9/10/09
CC
9-10-09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Bromochloromethane (IS1)	12.48	130	312346	25.000	ng	-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1557026	25.000	ng	-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	727648	25.000	ng	0.00

System Monitoring Compounds

33) 1,2-Dichloroethane-d4(...)	13.63	65	600730	24.270	ng	-0.02
Spiked Amount	25.000		Recovery	=	97.08%	✓
57) Toluene-d8 (SS2)	18.85	98	1662584	25.567	ng	0.00
Spiked Amount	25.000		Recovery	=	102.28%	✓
73) Bromofluorobenzene (SS3)	23.23	174	457756	24.458	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	468826	20.751	ng	99
3) Dichlorodifluoromethan...	4.82	85	770862	19.488	ng	99
4) Chloromethane	5.14	50	592695	22.290	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.38	135	354797	21.718	ng	100
6) Vinyl Chloride	5.58	62	523287	20.980	ng	99
7) 1,3-Butadiene	5.86	54	481678	25.896	ng	98
8) Bromomethane	6.34	94	370366	24.023	ng	97
9) Chloroethane	6.68	64	295677	21.655	ng	98
10) Ethanol	7.10	45	1588523	113.386	ng	99
11) Acetonitrile	7.35	41	845417	21.725	ng	100
12) Acrolein	7.55	56	258523	24.167	ng	97
13) Acetone	7.81	58	1568380	108.249	ng	98
14) Trichlorofluoromethane	8.01	101	782226	22.436	ng	98
15) 2-Propanol (Isopropanol)	8.31	45	1991770	41.352	ng	100
16) Acrylonitrile	8.55	53	594605	24.861	ng	98
17) 1,1-Dichloroethene	9.02	96	396140	23.423	ng	91
18) 2-Methyl-2-Propanol (t...	9.26	59	2168411	44.958	ng	99
19) Methylene Chloride	9.24	84	400049	21.770	ng	96
20) 3-Chloro-1-propene (Al...	9.42	41	673034	23.533	ng	98
21) Trichlorotrifluoroethane	9.67	151	327606	23.730	ng	96
22) Carbon Disulfide	9.62	76	1496806	22.893	ng	99
23) trans-1,2-Dichloroethene	10.68	61	631435	24.020	ng	94
24) 1,1-Dichloroethane	10.99	63	759135	23.089	ng	100
25) Methyl tert-Butyl Ether	11.17	73	1230707	23.697	ng	98
26) Vinyl Acetate	11.27	86	479661	132.106	ng	99
27) 2-Butanone (MEK)	11.66	72	301751	25.784	ng	95
28) cis-1,2-Dichloroethene	12.24	61	601046	24.039	ng	92
29) Diisopropyl Ether	12.64	87	421833	24.685	ng	# 40
30) Ethyl Acetate	12.66	61	314479	50.004	ng	97
31) n-Hexane	12.58	57	709044	22.633	ng	98

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Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 09:20:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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	708860	22.954	ng	96
34) Tetrahydrofuran (THF)	13.37	72	289843	22.837	ng	95
35) Ethyl tert-Butyl Ether	13.44	87	479806	22.886	ng	94
36) 1,2-Dichloroethane	13.79	62	584514	22.559	ng	98
38) 1,1,1-Trichloroethane	14.18	97	647951	22.511	ng	98
39) Isopropyl Acetate	14.82	61	552762	46.672	ng	# 71
40) 1-Butanol	14.87	56	901507	46.517	ng	# 1
41) Benzene	14.88	78	1617160	22.094	ng	99
42) Carbon Tetrachloride	15.11	117	589581	23.994	ng	99
43) Cyclohexane	15.30	84	1265698	46.919	ng	95
44) tert-Amyl Methyl Ether	15.84	73	1221200	22.525	ng	98
45) 1,2-Dichloropropane	16.11	63	418775	23.155	ng	98
46) Bromodichloromethane	16.37	83	576111	23.885	ng	99
47) Trichloroethene	16.44	130	421637	23.612	ng	98
48) 1,4-Dioxane	16.49	88	351669	24.999	ng	93
49) 2,2,4-Trimethylpentane...	16.52	57	1877280	22.537	ng	98
50) Methyl Methacrylate	16.76	100	348993	51.443	ng	92
51) n-Heptane	16.88	71	447520	23.589	ng	97
52) cis-1,3-Dichloropropene	17.65	75	665423	22.395	ng	99
53) 4-Methyl-2-pentanone	17.75	58	420243	25.139	ng	99
54) trans-1,3-Dichloropropene	18.36	75	701674	24.931	ng	100
55) 1,1,2-Trichloroethane	18.60	97	387091	22.696	ng	100
58) Toluene	18.98	91	1684010	24.044	ng	99
59) 2-Hexanone	19.36	43	1074542	25.103	ng	98
60) Dibromochloromethane	19.53	129	479052	27.206	ng	100
61) 1,2-Dibromoethane	19.86	107	448299	24.371	ng	100
62) n-Butyl Acetate	20.17	43	1252395	25.503	ng	99
63) n-Octane	20.28	57	385494	23.917	ng	98
64) Tetrachloroethene	20.47	166	417054	23.516	ng	99
65) Chlorobenzene	21.34	112	1094695	24.365	ng	100
66) Ethylbenzene	21.82	91	1927709	24.064	ng	100
67) m- & p-Xylenes	22.06	91	3008347	47.171	ng	99
68) Bromoform	22.15	173	381905	25.050	ng	100
69) Styrene	22.51	104	1188624	25.312	ng	99
70) o-Xylene	22.66	91	1556740	24.301	ng	98
71) n-Nonane	22.91	43	893925	23.221	ng	97
72) 1,1,2,2-Tetrachloroethane	22.63	83	717553	24.432	ng	98
74) Cumene	23.41	105	1924130	23.699	ng	98
75) alpha-Pinene	23.90	93	969058	23.010	ng	98
76) n-Propylbenzene	24.05	91	2416403	23.429	ng	99
77) 3-Ethyltoluene	24.18	105	1931284	24.865	ng	99
78) 4-Ethyltoluene	24.23	105	1937892	25.281	ng	98
79) 1,3,5-Trimethylbenzene	24.32	105	1603532	25.131	ng	99

Data Path : J:\MS13\DATA\2009_09\04\
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 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 09:20:29 2009
 Quant Method : J:\MS13\METHODS\R13082709.M
 Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
 QLast Update : 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	896034	26.740	ng	97
81) 2-Ethyltoluene	24.56	105	1924707	24.149	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1614433	24.788	ng	98
83) n-Decane	24.94	57	935347	24.054	ng	97
84) Benzyl Chloride	25.00	91	1638322	25.407	ng	98
85) 1,3-Dichlorobenzene	25.03	146	871128	24.747	ng	99
86) 1,4-Dichlorobenzene	25.11	146	899381	24.533	ng	99
87) sec-Butylbenzene	25.17	105	2174817	24.446	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1936641	24.152	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	1657542	24.281	ng	99
90) 1,2-Dichlorobenzene	25.53	146	818976	24.929	ng	99
91) d-Limonene	25.53	68	682461	26.249	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	318514	27.711	ng	92
93) n-Undecane	26.46	57	999424	24.758	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	628212	27.149	ng	99
95) Naphthalene	27.73	128	2279383	25.323	ng	100
96) n-Dodecane	27.70	57	1000216	21.737	ng	98
97) Hexachlorobutadiene	28.15	225	346978	24.941	ng	100
98) Cyclohexanone	22.30	55	614640	22.761	ng	96
99) tert-Butylbenzene	24.83	119	1556151	24.672	ng	99
100) n-Butylbenzene	25.86	91	1830269	25.234	ng	99

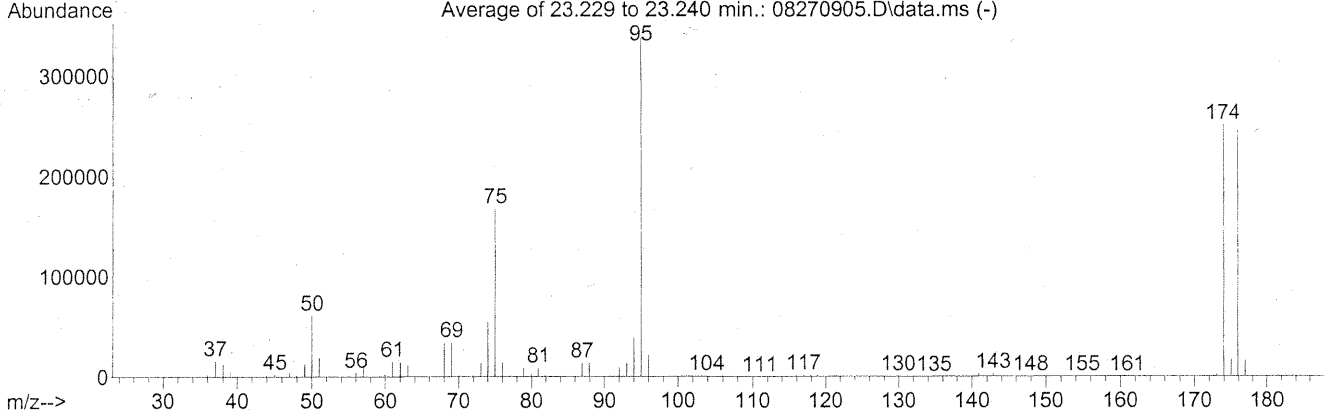
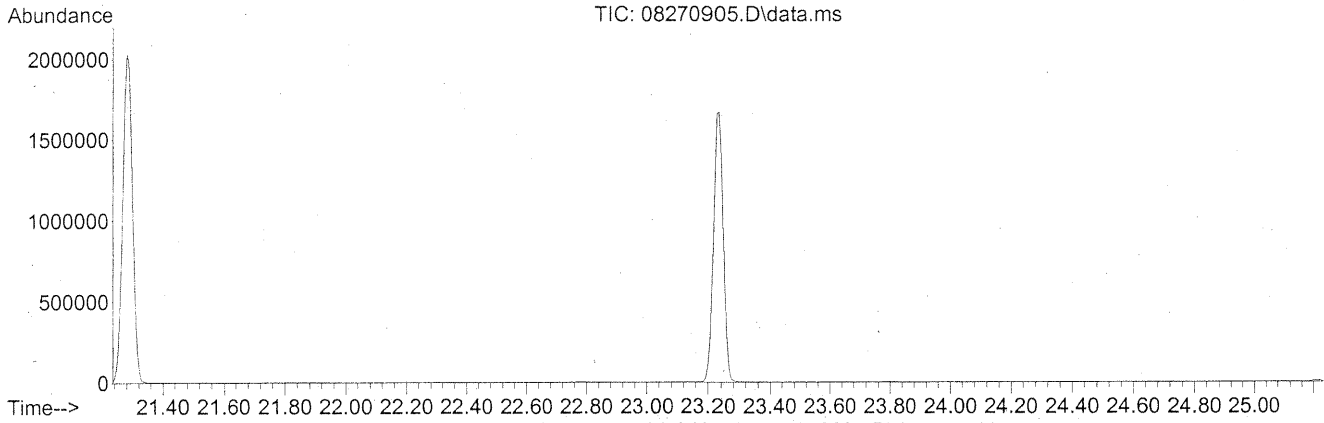
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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

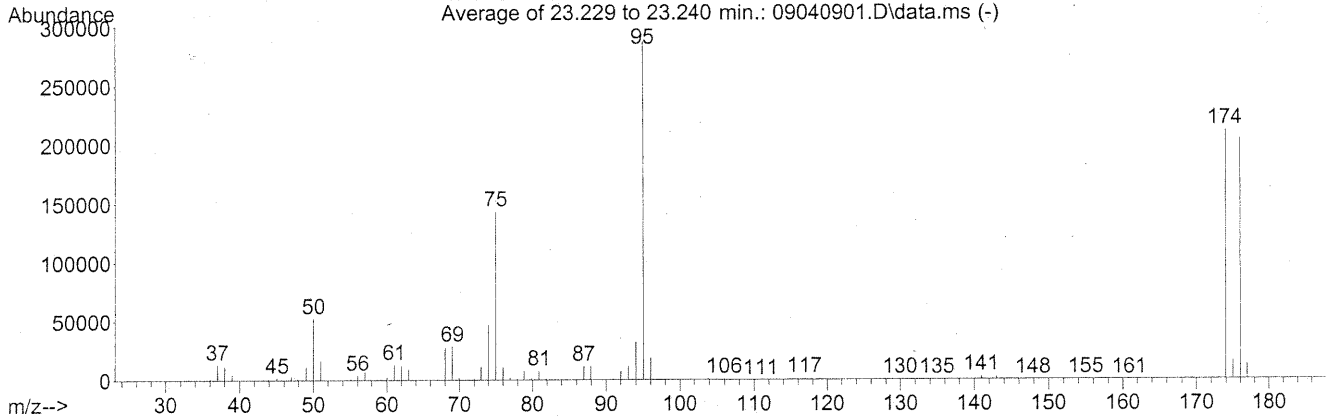
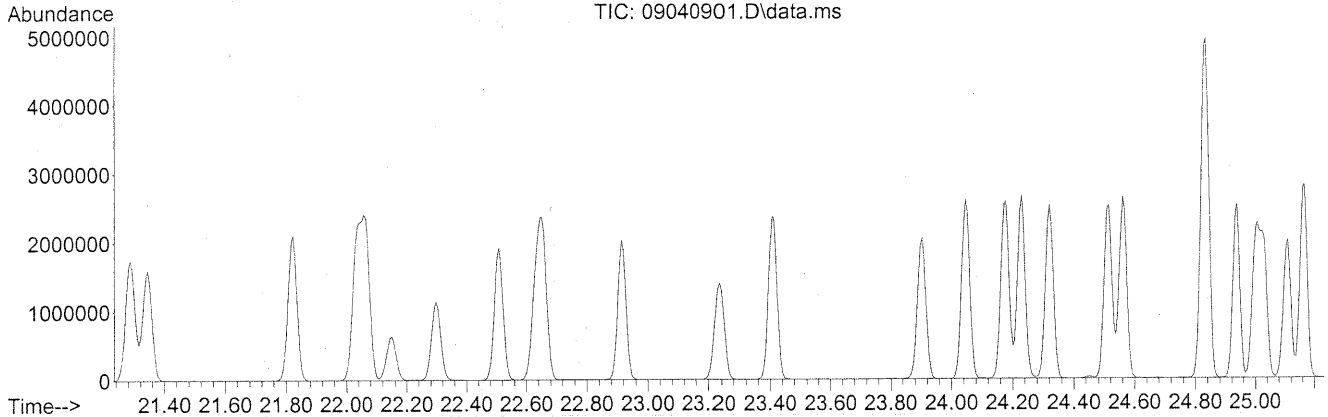
Data Path : J:\MS13\DATA\2009_09\04\
 Data File : 09040901.D
 Acq On : 4 Sep 2009 8:52 am
 Operator : LM/CC
 Sample : 25ng TO-15 CCV STD
 Misc : S20-08140906/S20-08240903
 ALS Vial : 4 Sample Multiplier: 1

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	18.4	52760	PASS
75	95	30	66	50.1	143744	PASS
95	95	100	100	100.0	287168	PASS
96	95	5	9	6.7	19136	PASS
173	174	0.00	2	0.9	1886	PASS
174	95	50	120	73.7	211733	PASS
175	174	4	9	7.6	16004	PASS
176	174	93	101	96.8	204971	PASS
177	176	5	9	6.4	13195	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	EM 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

EM 8/27

18	09/03/09 23:04	09030919.D	P0903021-001 (1000ml)	[REDACTED]	LM/CC	13	
19	09/03/09 23:46	09030920.D	P0903021-002 (1000ml)	[REDACTED]	LM/CC	14	
20	09/04/09 0:28	09030921.D	P0903021-003 (1000ml)	[REDACTED]	LM/CC	15	
21	09/04/09 1:10	09030922.D	P0903021-004 (1000ml)	[REDACTED]	LM/CC	16	
22	09/04/09 1:52	09030923.D	P0903021-005 (1000ml)	[REDACTED]	LM/CC	1	
23	09/04/09 2:33	09030924.D	P0902985-001 (600ml)	[REDACTED]	LM/CC	10	

9-3-09

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
	09/04/09 8:52	09040901.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
1	09/04/09 9:47	09040902.D	CAS CAN QC C3 3729J	1SC00505 (400ml)	LM/CC	2	Passed
2	09/04/09 10:53	09040903.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	Passed
3	09/04/09 11:51	09040904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	2	Passed
4	09/04/09 12:32	09040905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	2	Passed
5	09/04/09 13:13	09040906.D	P0903135-002 (2.0ml)	[REDACTED]	LM/CC	4	Case File ran high
6	09/04/09 13:53	09040907.D	P0903135-003 (50ml)	[REDACTED]	LM/CC	3	
7	09/04/09 14:34	09040908.D	P0903135-004 (5.0ml)	[REDACTED]	LM/CC	4	Case File ran high
8	09/04/09 15:34	09040909.D	P0903135-006 (50ml)	[REDACTED]	LM/CC	8	
9	09/04/09 16:14	09040910.D	P0903135-007 (100ml)	[REDACTED]	LM/CC	9	
10	09/04/09 16:55	09040911.D	P0903135-009 (25ml)	[REDACTED]	LM/CC	10	
11	09/04/09 18:19	09040912.D	P0903135-009 (50ml)	[REDACTED]	LM/CC	10	
12	09/04/09 19:00	09040913.D	P0903135-010 (50ml)	[REDACTED]	LM/CC	11	
13	09/04/09 19:40	09040914.D	P0903135-011 (100ml)	[REDACTED]	LM/CC	12	
14	09/04/09 20:20	09040915.D	P0903135-011dil (25ml)	[REDACTED]	LM/CC	12	
15	09/04/09 21:01	09040916.D	P0903135-002 (20ml)	[REDACTED]	LM/CC	5	
16	09/04/09 21:41	09040917.D	P0903135-002dup (20ml)	[REDACTED]	LM/CC	5	Passed
17	09/04/09 22:22	09040918.D	P0903135-004 (20ml)	[REDACTED]	LM/CC	7	
18	09/04/09 23:04	09040919.D	P0903022-001 (1000ml)	EH&E 103600	LM/CC	1	
19	09/04/09 23:46	09040920.D	P0903022-001dup (1000ml)	EH&E 103600	LM/CC	1	Case File not used
20	09/05/09 0:28	09040921.D	P0903022-002 (1000ml)	EH&E 103601	LM/CC	2	
21	09/05/09 1:10	09040922.D	P0903022-003 (1000ml)	EH&E 103602	LM/CC	3	
22	09/05/09 1:52	09040923.D	P0903022-004 (1000ml)	EH&E 103603	LM/CC	6	
23	09/05/09 2:33	09040924.D	P0903022-005 (1000ml)	EH&E 103604	LM/CC	8	

RPD did not pass

9-9-09

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
	09/08/09 9:18	09080901.D	blank (100ml)	S20-08140906	LM/CC	4	
1	09/08/09 10:15	09080902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
2	09/08/09 11:34	09080903.D	TO-15 Method Blank(1000ml)	S20-08140906	LM/CC	4	Passed
3	09/08/09 12:30	09080904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	5	Passed
4	09/08/09 13:10	09080905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	5	Passed
5	09/08/09 14:33	09080906.D	CAS CAN QC C3 3738 (1000ml)	AC00601	LM/CC	12	Passed
6	09/08/09 15:13	09080907.D	P0902973-003 (3.5ml)	[REDACTED]	LM/CC	4	
7	09/08/09 15:53	09080908.D	P0902973-004 (5ml)	[REDACTED]	LM/CC	4	

RPD failed for Free

cont. ->