

Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL072715\
 Data File : VL025759.D
 Acq On : 27 Jul 2015 18:55
 Operator : SY/MD
 Sample : G3092-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-217-I

Manual Integrations
 APPROVED

MMDadoda
 7/28/2015 12:57:06 PM

Quant Time: Jul 28 11:22:44 2015
 Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL070715AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 08 2015
 QLast Update : Wed Jul 08 02:22:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	813004	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.32	114	2104580	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.74	117	2412827	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	16.29	95	1962680	9.64	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.64	85	36102	0.17	ppbv	93
3) Chlorodifluoromethane	3.57	51	70267	0.61	ppbv	90
4) Chloromethane	3.75	50	30776	0.59	ppbv	98
9) Propene	3.61	41	842741m	22.14	ppbv	
10) Heptane	9.36	43	17338	0.12	ppbv #	84
11) Trichlorofluoromethane	4.70	101	45583	0.17	ppbv	97
13) Ethanol	4.33	45	3054010	516.02	ppbv	99
15) Acetone	4.59	43	2150785	14.98	ppbv	97
17) tert-Butyl alcohol	5.15	59	56232m	0.47	ppbv	
19) Isopropyl Alcohol	4.76	45	2306816	40.24	ppbv #	98
20) Methylene Chloride	5.15	84	192826	3.30	ppbv	97
25) Ethyl Acetate	6.66	43	92274	0.42	ppbv #	92
26) Hexane	6.65	57	102185	1.00	ppbv #	56
29) Chloroform	6.74	83	46436	0.23	ppbv	98
34) 2-Butanone	6.20	43	48290	0.40	ppbv	98
35) Carbon Tetrachloride	8.16	117	11592	0.05	ppbv	93
36) Benzene	8.02	78	31195	0.15	ppbv	94
44) 2,2,4-Trimethylpentane	9.09	57	69043	0.20	ppbv #	78
52) Tetrachloroethene	12.80	164	68307	0.68	ppbv	93
53) Toluene	11.24	91	129176	0.46	ppbv	97
59) m/p-Xylene	14.69	91	98032	0.28	ppbv	99
60) o-Xylene	15.49	91	42161	0.11	ppbv	100
64) n-propylbenzene	17.52	120	14386	0.11	ppbv	76
69) p-Isopropyltoluene	19.79	119	89848	0.16	ppbv	95
72) 4-Ethyltoluene	17.82	105	112988	0.27	ppbv	97
73) 1,3,5-Trimethylbenzene	17.99	105	54714	0.13	ppbv	99
74) 1,2,4-Trimethylbenzene	18.83	105	103427	0.23	ppbv #	67

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

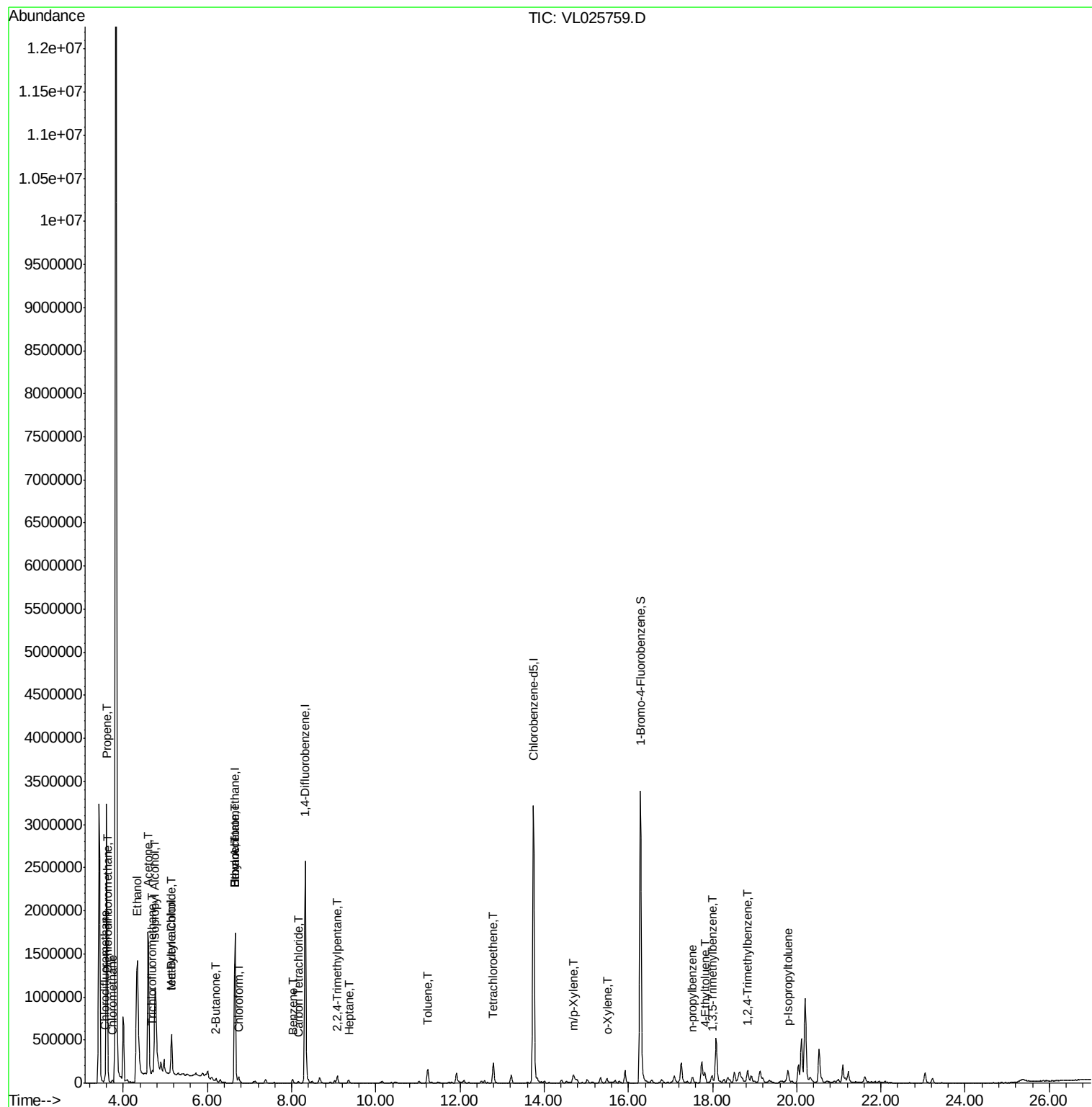
Data Path : W:\HPCHEM1\MSVOA_L\DATA\VL072715\
Data File : VL025759.D
Acq On : 27 Jul 2015 18:55
Operator : SY/MD
Sample : G3092-02
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

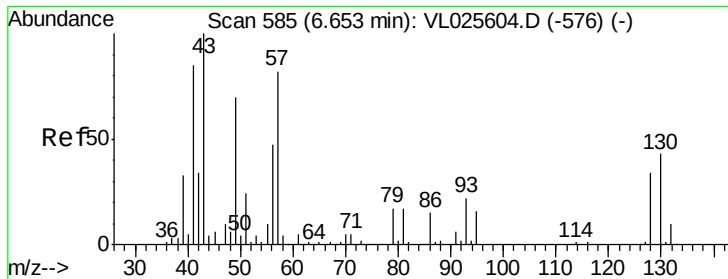
Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Manual Integrations
APPROVED

MMDadoda
7/28/2015 12:57:06 PM

Quant Time: Jul 28 11:22:44 2015
Quant Method : W:\HPCHEM1\MSVOA_L\METHODS\VL070715AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul
QLast Update : Wed Jul 08 02:22:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.65 min Scan# 585

Delta R.T. -0.00 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampled :

A-217-I

Tgt Ion: 49 Resp: 813004

Ion Ratio Lower Upper

49 100

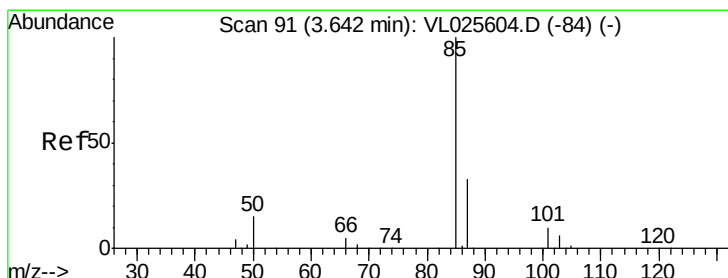
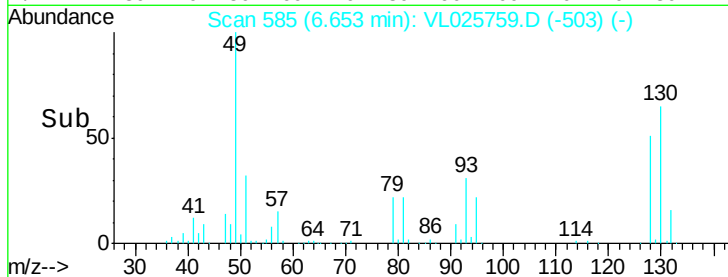
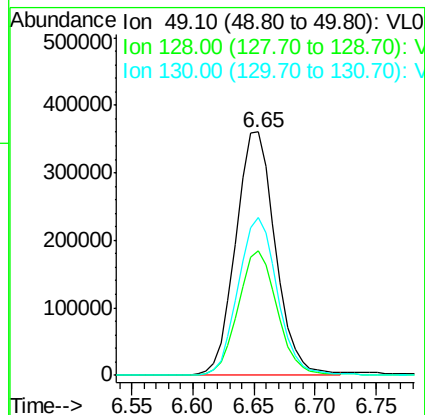
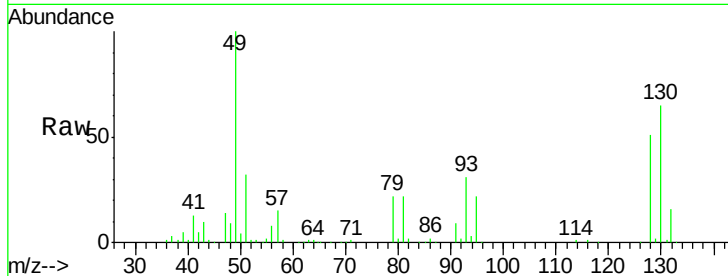
128 51.1 25.4 76.0

130 64.7 31.9 95.9

Manual Integrations
APPROVED

MMDadoda

7/28/2015 12:57:06 PM



#2

Dichlorodifluoromethane

Concen: 0.17 ppbv

RT: 3.64 min Scan# 90

Delta R.T. -0.01 min

Lab File: VL025759.D

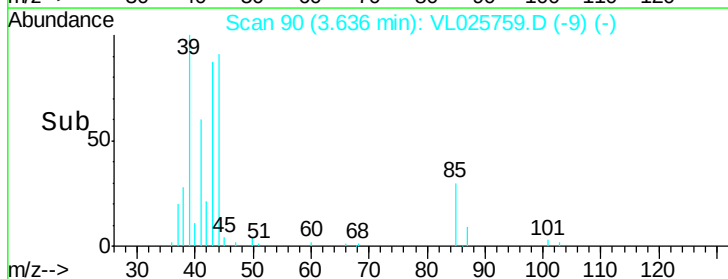
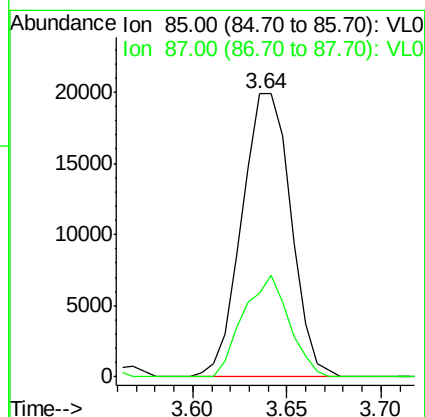
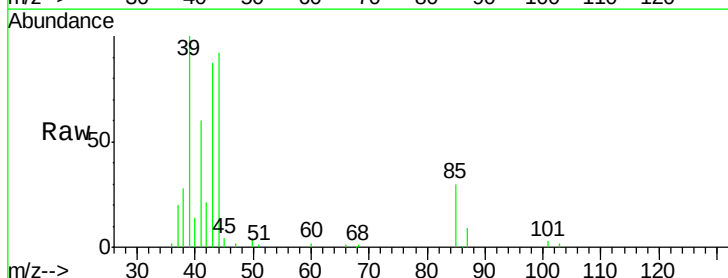
Acq: 27 Jul 2015 18:55

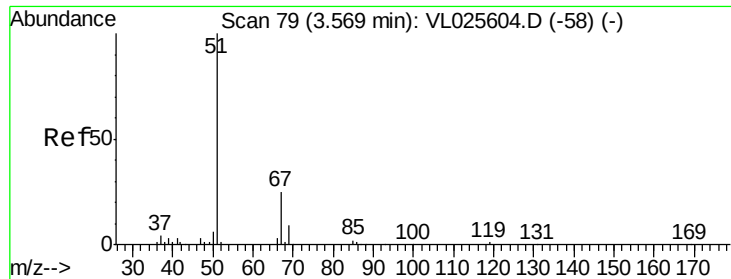
Tgt Ion: 85 Resp: 36102

Ion Ratio Lower Upper

85 100

87 29.4 26.5 39.7





#3

Chlorodifluoromethane

Concen: 0.61 ppbv

RT: 3.57 min Scan# 79

Delta R.T. -0.00 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampleId :

A-217-I

Tgt Ion: 51 Resp: 70267

Ion Ratio Lower Upper

51 100

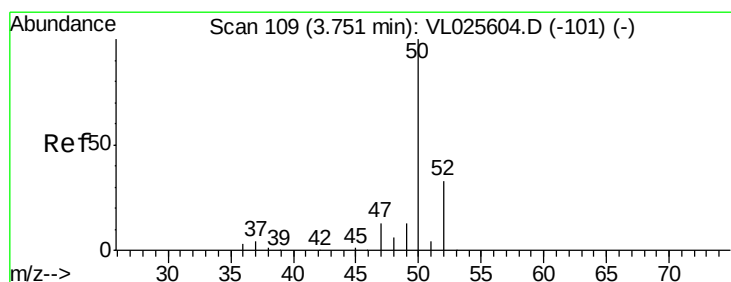
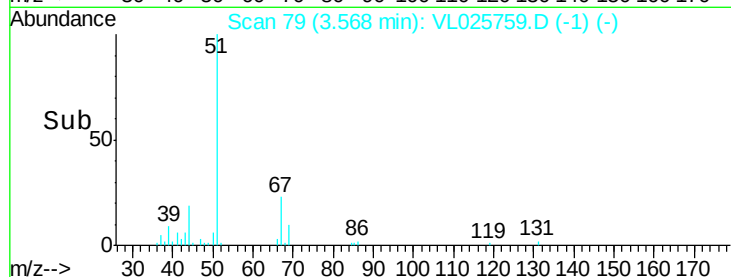
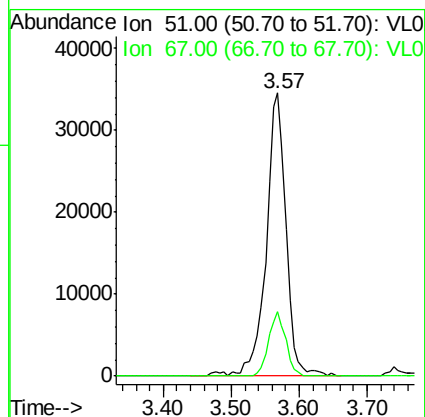
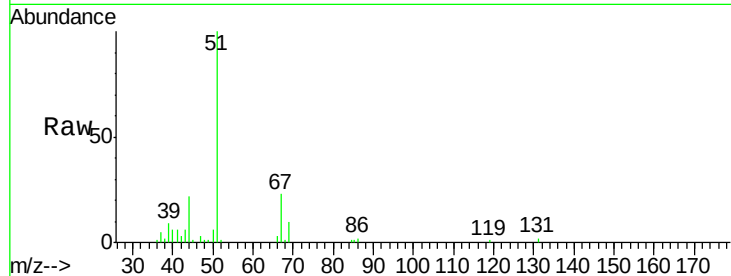
67 19.5 19.5 29.3

Manual Integrations

APPROVED

MMDadoda

7/28/2015 12:57:06 PM



#4

Chloromethane

Concen: 0.59 ppbv

RT: 3.75 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL025759.D

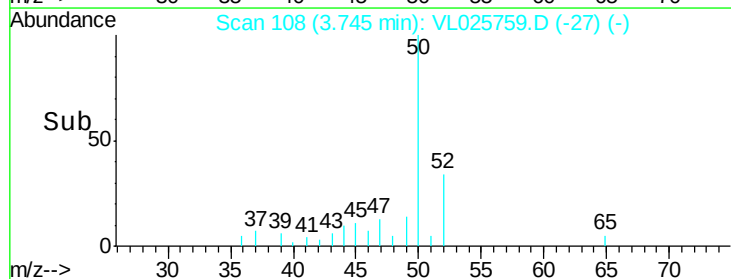
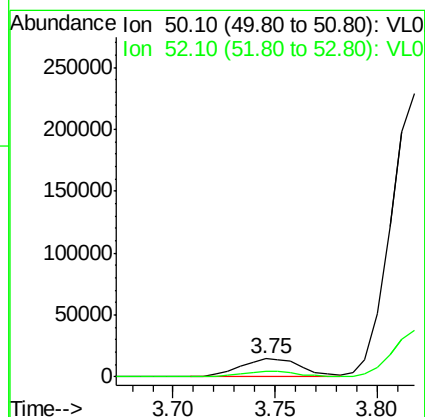
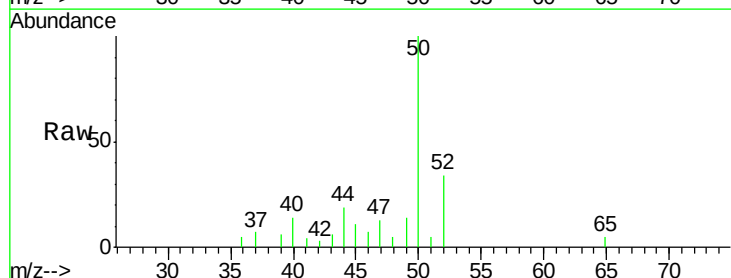
Acq: 27 Jul 2015 18:55

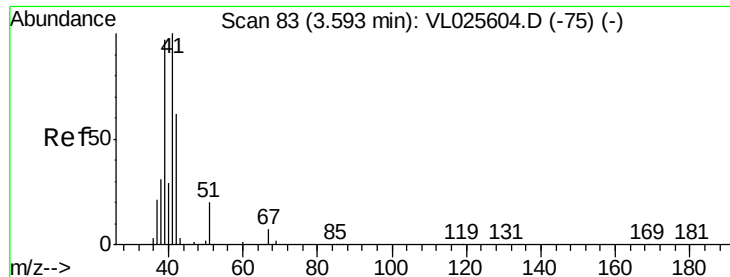
Tgt Ion: 50 Resp: 30776

Ion Ratio Lower Upper

50 100

52 33.6 26.2 39.2





#9

Propene

Concen: 22.14 ppbv m

RT: 3.61 min Scan# 86

Delta R.T. 0.02 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampleId :

A-217-I

Tgt Ion: 41 Resp: 842741

Ion Ratio Lower Upper

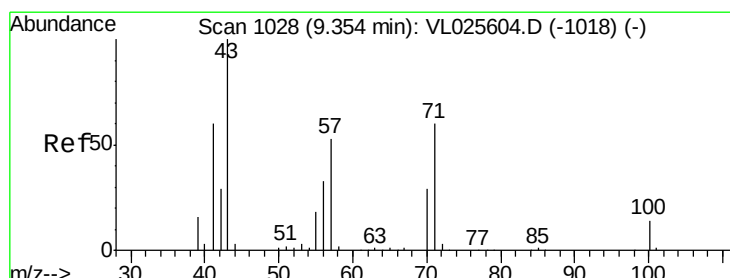
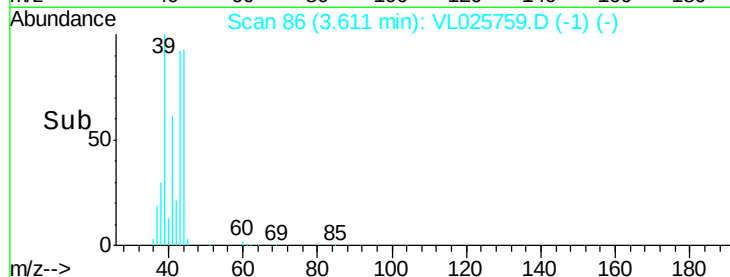
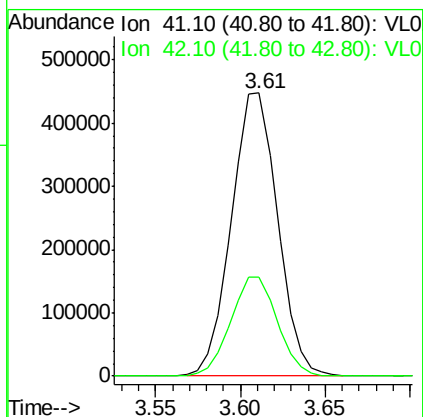
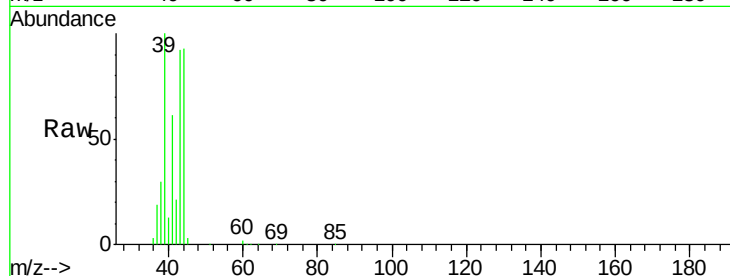
41 100

42 956.0 52.4 78.6#

Manual Integrations
APPROVED

MMDadoda

7/28/2015 12:57:06 PM



#10

Heptane

Concen: 0.12 ppbv

RT: 9.36 min Scan# 1029

Delta R.T. 0.01 min

Lab File: VL025759.D

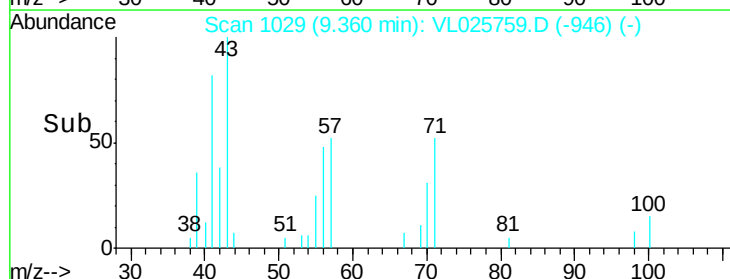
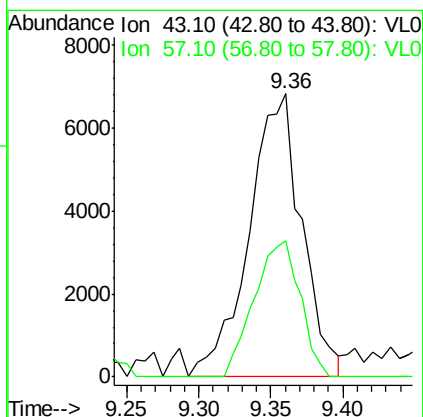
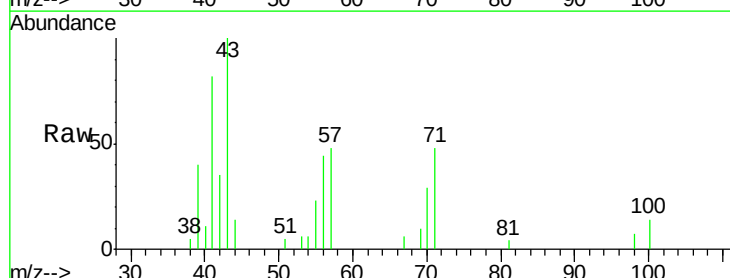
Acq: 27 Jul 2015 18:55

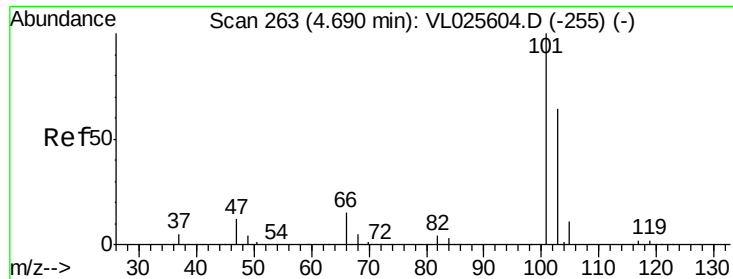
Tgt Ion: 43 Resp: 17338

Ion Ratio Lower Upper

43 100

57 41.9 42.6 64.0#





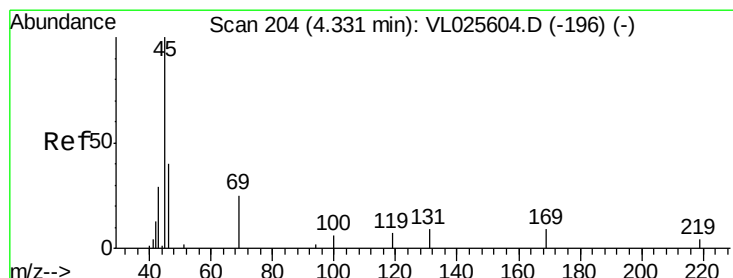
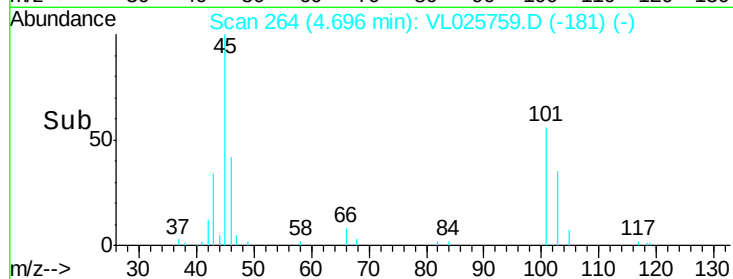
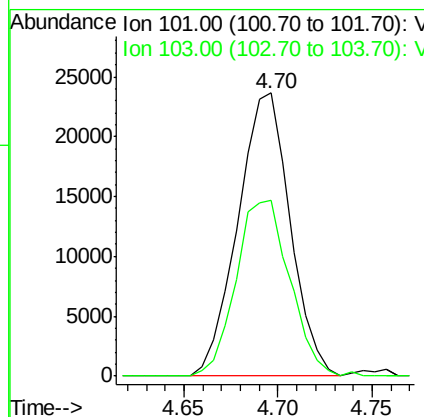
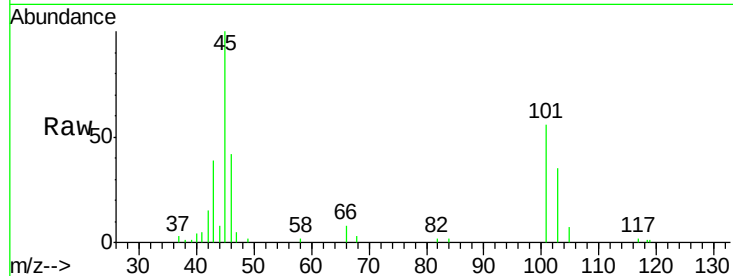
#11
 Trichlorofluoromethane
 Concen: 0.17 ppbv
 RT: 4.70 min Scan# 264
 Delta R.T. 0.01 min
 Lab File: VL025759.D
 Acq: 27 Jul 2015 18:55

Instrument :
 MSVOA_L
 ClientSampled :
 A-217-I

Tgt Ion: 101 Resp: 45583
 Ion Ratio Lower Upper
 101 100
 103 62.1 51.4 77.2

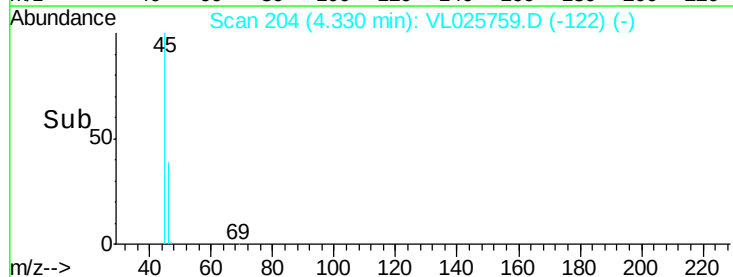
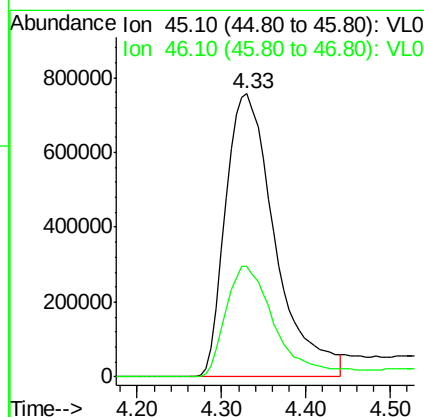
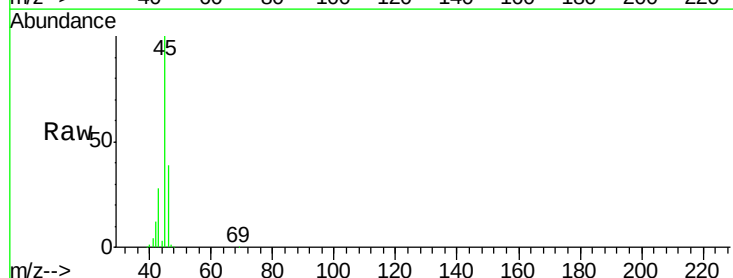
Manual Integrations
 APPROVED

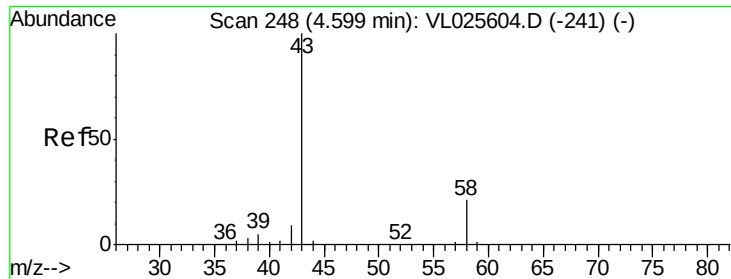
MMDadoda
 7/28/2015 12:57:06 PM



#13
 Ethanol
 Concen: 516.02 ppbv
 RT: 4.33 min Scan# 204
 Delta R.T. -0.00 min
 Lab File: VL025759.D
 Acq: 27 Jul 2015 18:55

Tgt Ion: 45 Resp: 3054010
 Ion Ratio Lower Upper
 45 100
 46 39.6 16.0 64.0





#15

Acetone

Concen: 14.98 ppbv

RT: 4.59 min Scan# 247

Delta R.T. -0.01 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampleId :

A-217-I

Tgt Ion: 43 Resp: 2150785

Ion Ratio Lower Upper

43 100

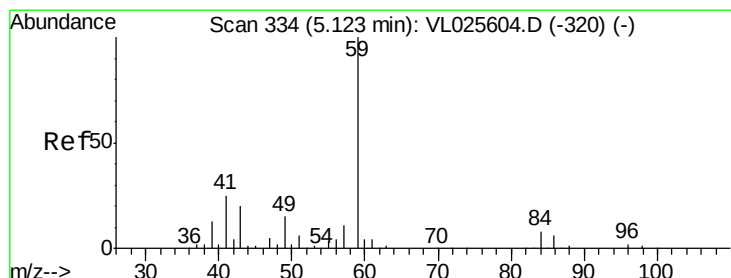
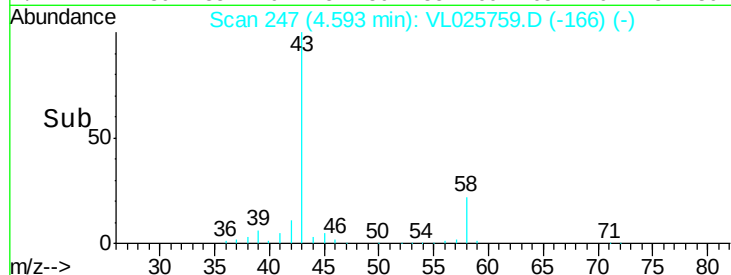
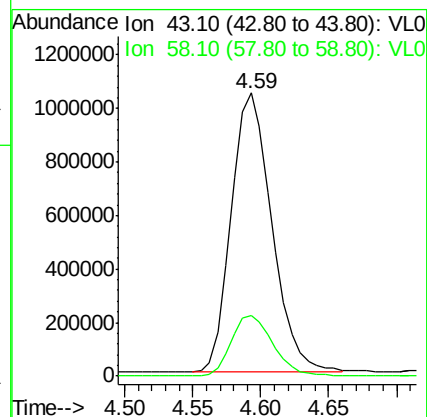
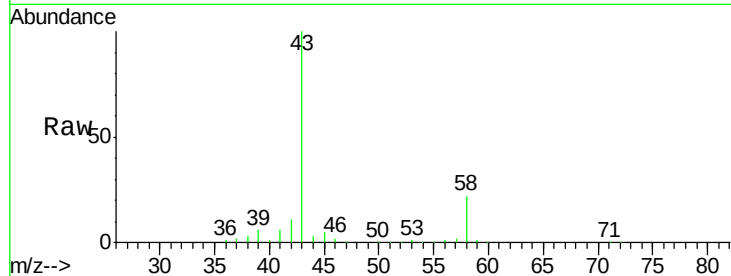
58 22.8 17.2 25.8

Manual Integrations

APPROVED

MMDadoda

7/28/2015 12:57:06 PM



#17

tert-Butyl alcohol

Concen: 0.47 ppbv m

RT: 5.15 min Scan# 338

Delta R.T. 0.02 min

Lab File: VL025759.D

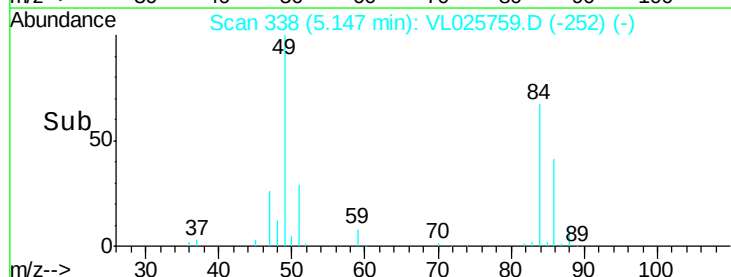
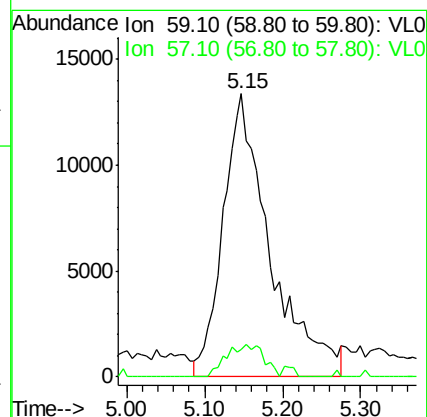
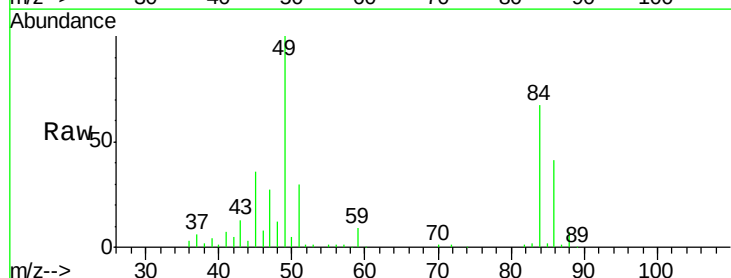
Acq: 27 Jul 2015 18:55

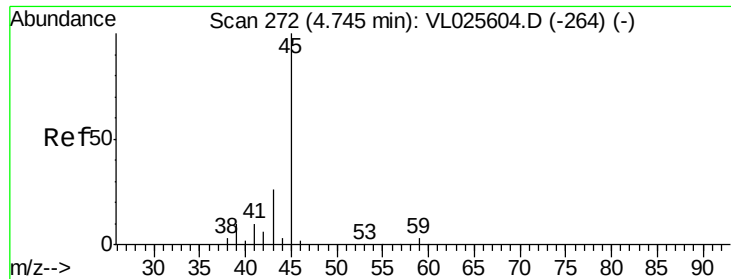
Tgt Ion: 59 Resp: 56232

Ion Ratio Lower Upper

59 100

57 9.9 9.4 14.2





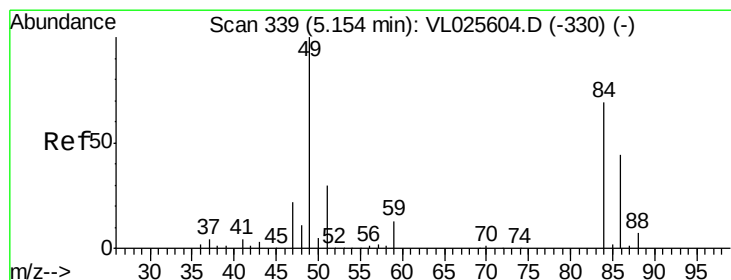
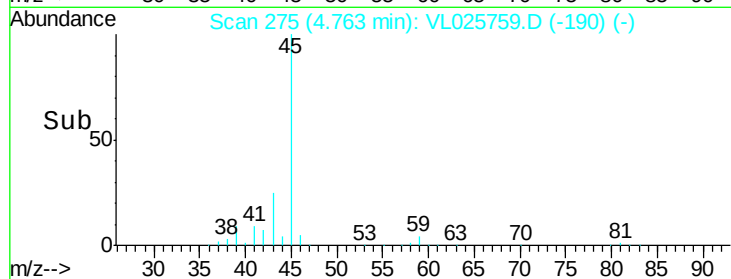
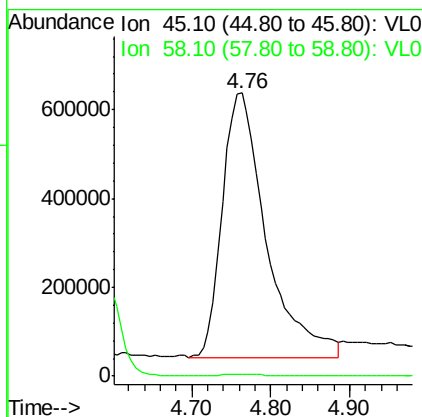
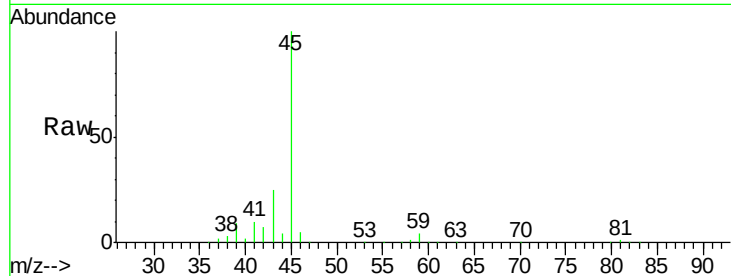
#19
Isopropyl Alcohol
Concen: 40.24 ppbv
RT: 4.76 min Scan# 275
Delta R.T. 0.02 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Tgt Ion: 45 Resp: 2306816
Ion Ratio Lower Upper
45 100
58 0.7 1.1 1.7#

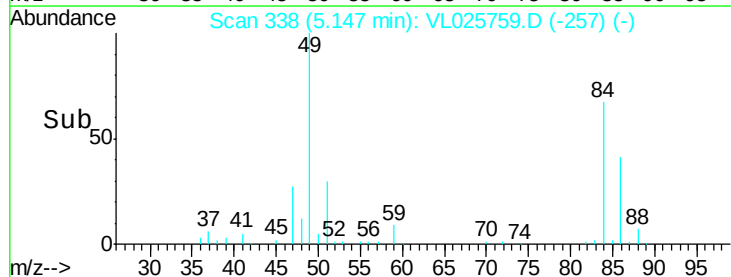
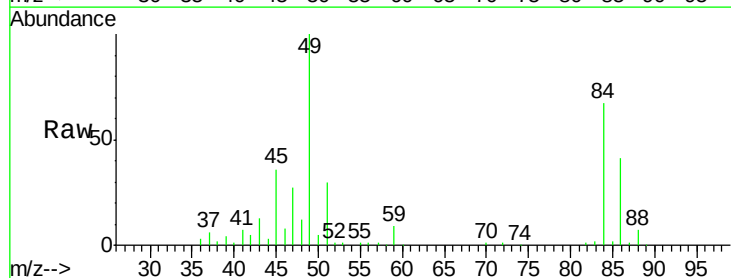
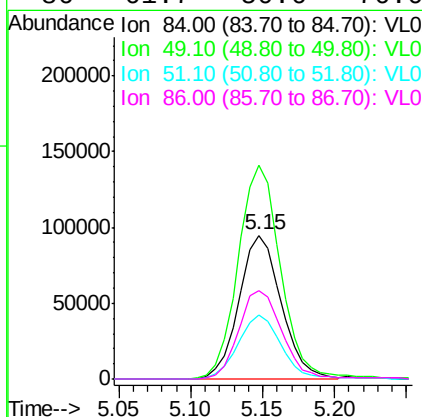
Manual Integrations
APPROVED

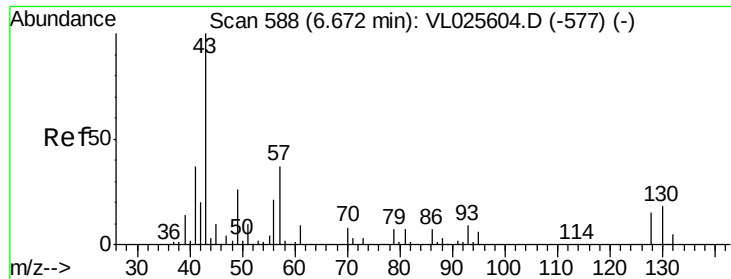
MMDadoda
7/28/2015 12:57:06 PM



#20
Methylene Chloride
Concen: 3.30 ppbv
RT: 5.15 min Scan# 338
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion: 84 Resp: 192826
Ion Ratio Lower Upper
84 100
49 148.9 115.2 172.8
51 44.3 35.0 52.6
86 61.7 50.6 76.0





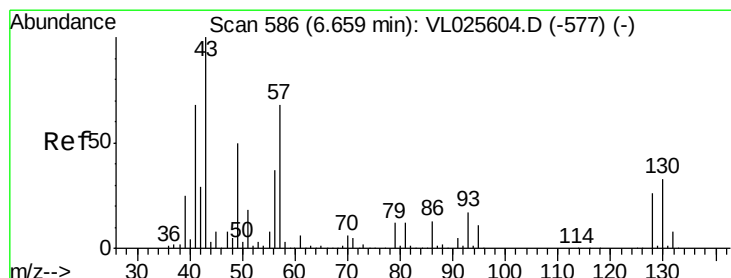
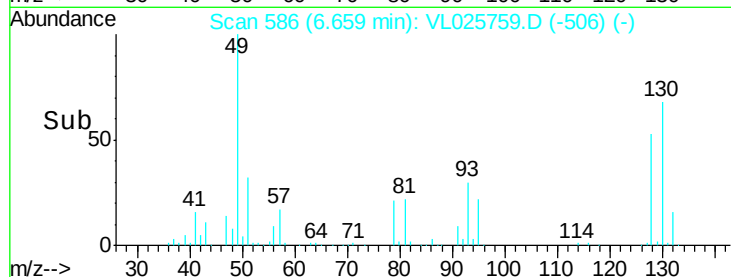
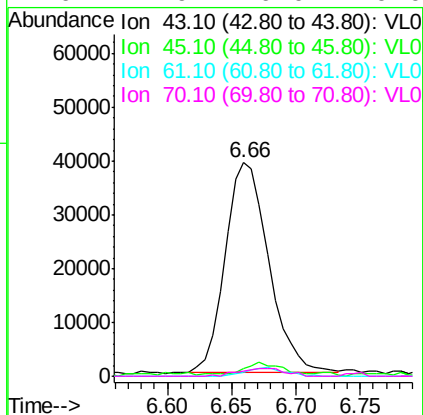
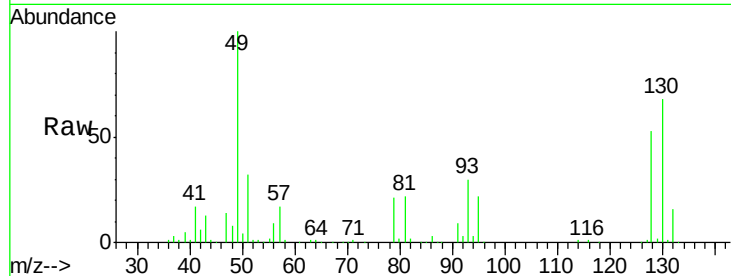
#25
Ethyl Acetate
Concen: 0.42 ppbv
RT: 6.66 min Scan# 586
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Tgt Ion	Ratio	Lower	Upper
43	100		
45	8.1	7.5	11.3
61	3.6	6.6	10.0#
70	4.9	6.0	9.0#

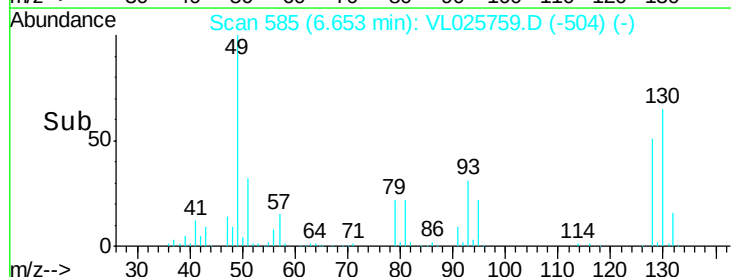
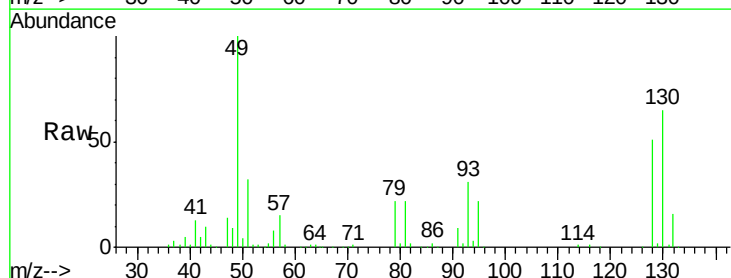
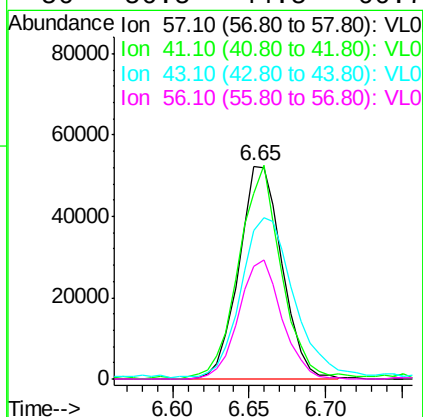
Manual Integrations
APPROVED

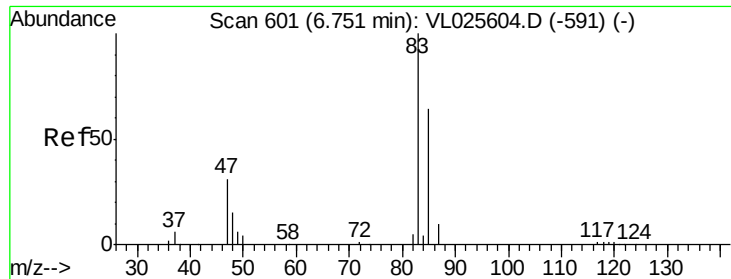
MMDadoda
7/28/2015 12:57:06 PM



#26
Hexane
Concen: 1.00 ppbv
RT: 6.65 min Scan# 585
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion	Ratio	Lower	Upper
57	100		
41	101.1	81.4	122.2
43	94.9	171.4	257.2#
56	56.5	44.5	66.7





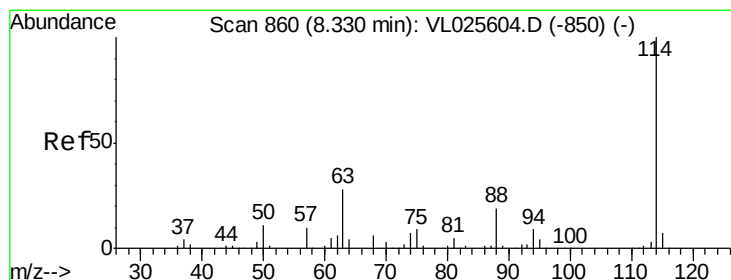
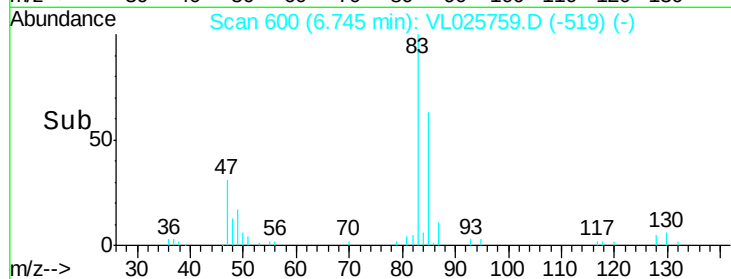
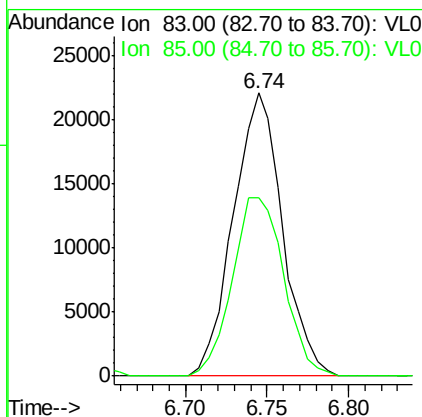
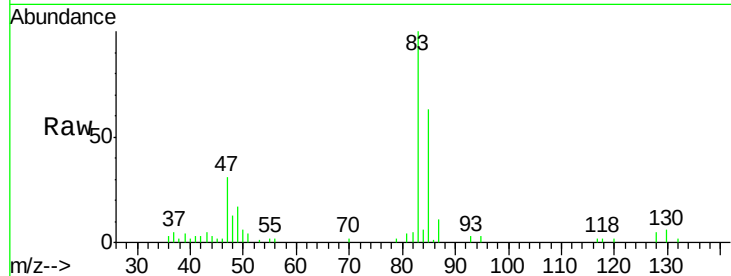
#29
Chloroform
Concen: 0.23 ppbv
RT: 6.74 min Scan# 600
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampled :
A-217-I

Tgt Ion: 83 Resp: 46436
Ion Ratio Lower Upper
83 100
85 62.9 51.6 77.4

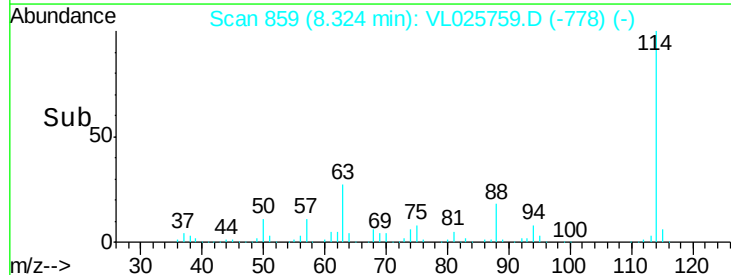
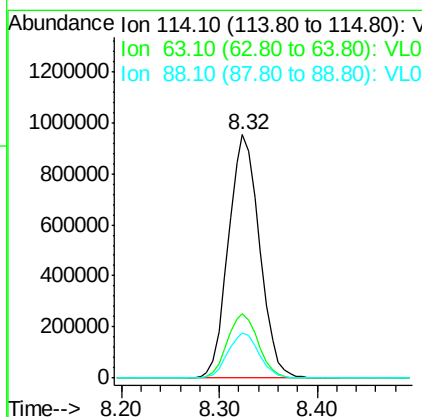
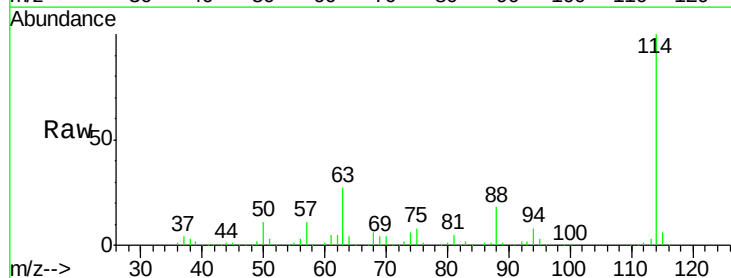
Manual Integrations
APPROVED

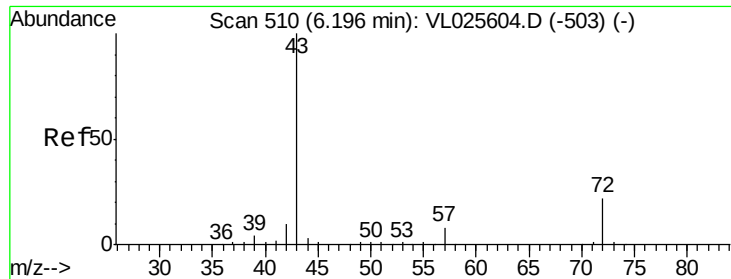
MMDadoda
7/28/2015 12:57:06 PM



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 8.32 min Scan# 859
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion: 114 Resp: 2104580
Ion Ratio Lower Upper
114 100
63 26.6 22.4 33.6
88 18.5 15.0 22.4





#34

2-Butanone

Concen: 0.40 ppbv

RT: 6.20 min Scan# 510

Delta R.T. -0.00 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampled :

A-217-I

Tgt Ion: 43 Resp: 48290

Ion Ratio Lower Upper

43 100

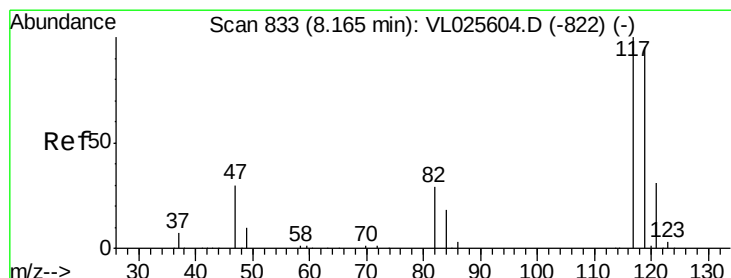
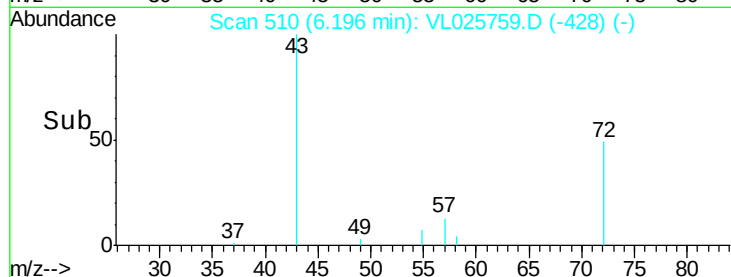
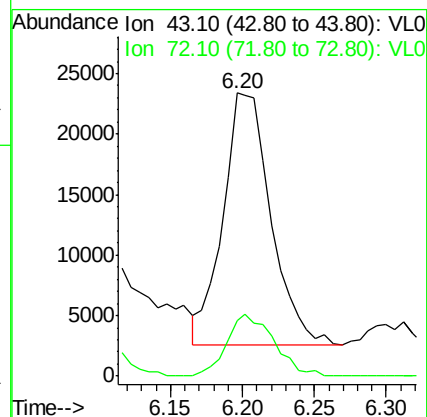
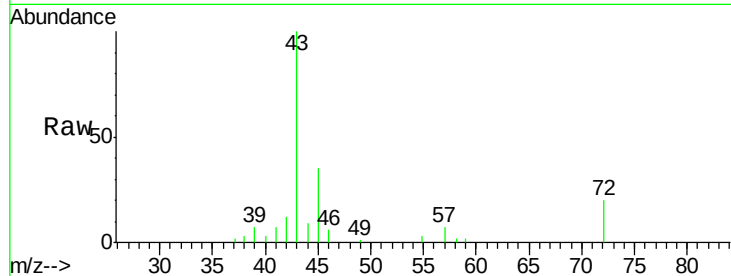
72 24.2 18.6 28.0

Manual Integrations

APPROVED

MMDadoda

7/28/2015 12:57:06 PM



#35

Carbon Tetrachloride

Concen: 0.05 ppbv

RT: 8.16 min Scan# 832

Delta R.T. -0.01 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

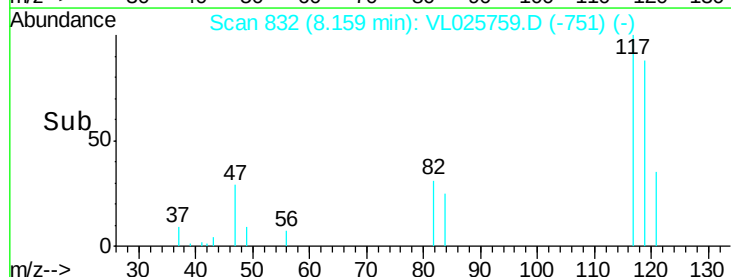
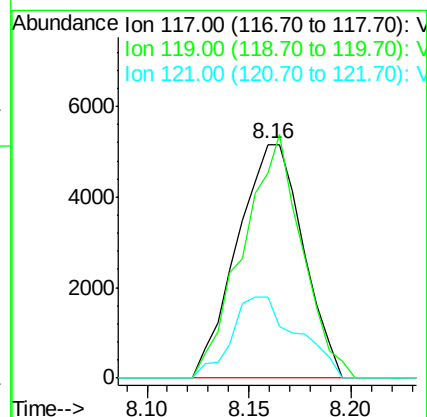
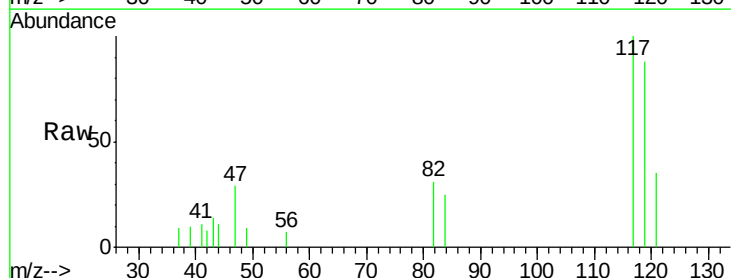
Tgt Ion: 117 Resp: 11592

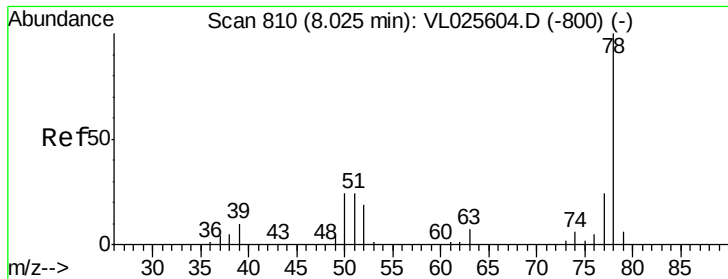
Ion Ratio Lower Upper

117 100

119 88.0 75.9 113.9

121 34.6 24.4 36.6





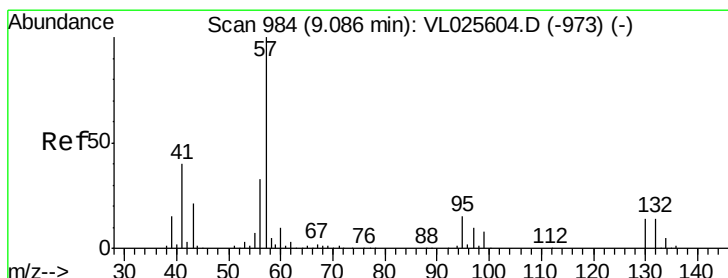
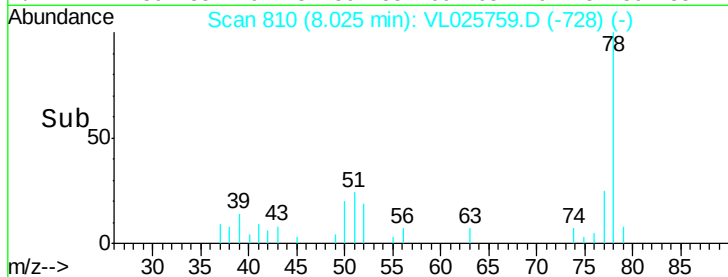
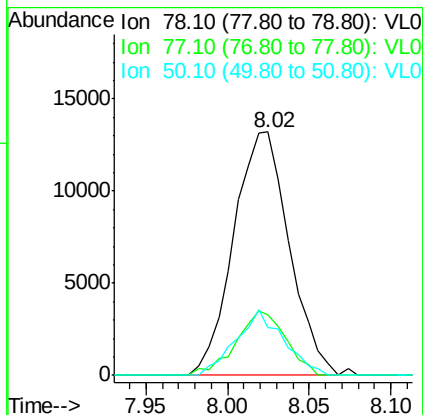
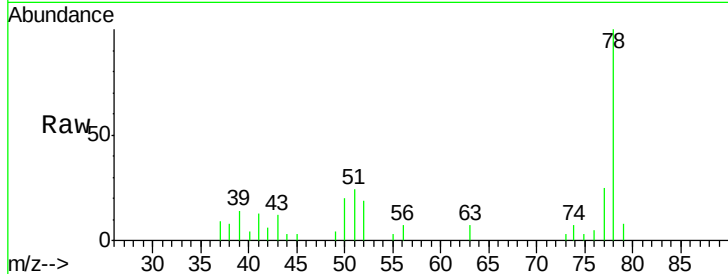
#36
Benzene
Concen: 0.15 ppbv
RT: 8.02 min Scan# 810
Delta R.T. -0.00 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Tgt Ion	Ratio	Lower	Upper
78	100		
77	25.0	19.0	28.4
50	19.6	19.2	28.8

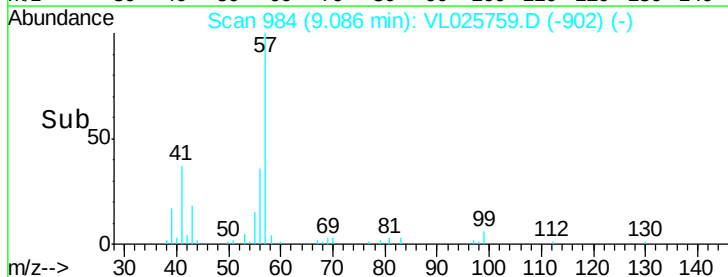
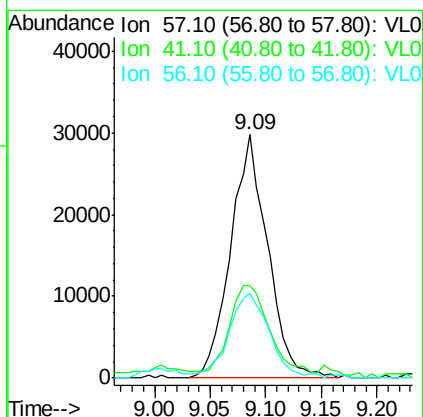
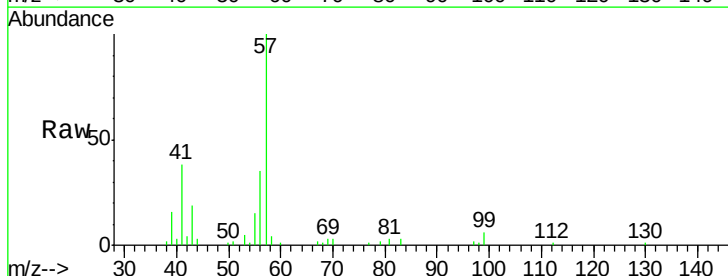
Manual Integrations
APPROVED

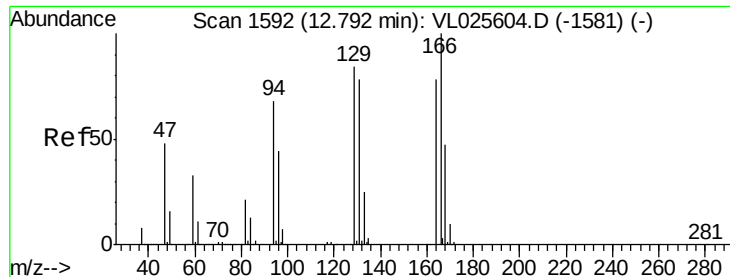
MMDadoda
7/28/2015 12:57:06 PM



#44
2,2,4-Trimethylpentane
Concen: 0.20 ppbv
RT: 9.09 min Scan# 984
Delta R.T. -0.00 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion	Ratio	Lower	Upper
57	100		
41	53.1	31.2	46.8#
56	42.6	25.4	38.2#





#52

Tetrachloroethene

Concen: 0.68 ppbv

RT: 12.80 min Scan# 1593

Delta R.T. 0.01 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

ClientSampled :

A-217-I

Tgt Ion: 164 Resp: 68307
Ion Ratio Lower Upper

164 100

166 123.9 102.3 153.5

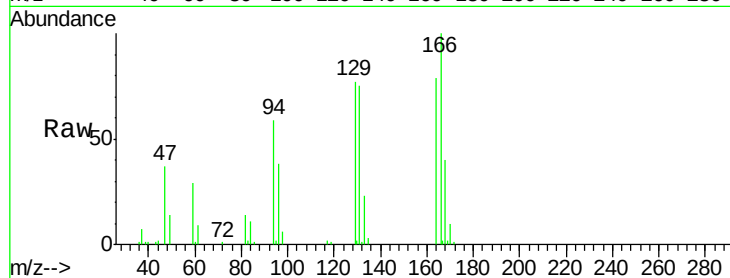
129 95.7 86.2 129.4

131 94.2 80.3 120.5

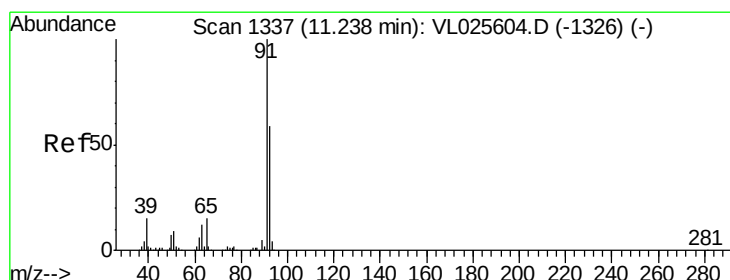
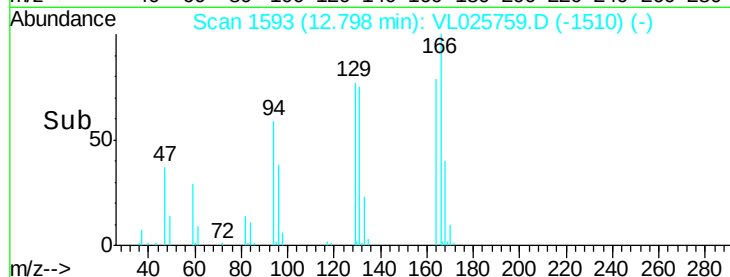
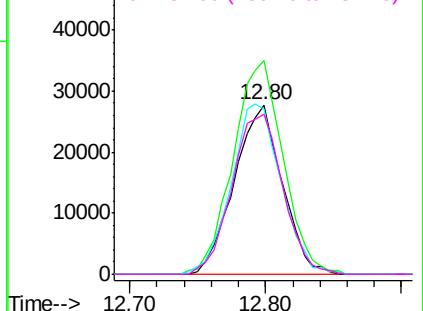
Manual Integrations
APPROVED

MMDadoda

7/28/2015 12:57:06 PM



Abundance Ion 163.90 (163.60 to 164.60): V
Ion 165.90 (165.60 to 166.60): V
Ion 129.00 (128.70 to 129.70): V
Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.46 ppbv

RT: 11.24 min Scan# 1337

Delta R.T. -0.00 min

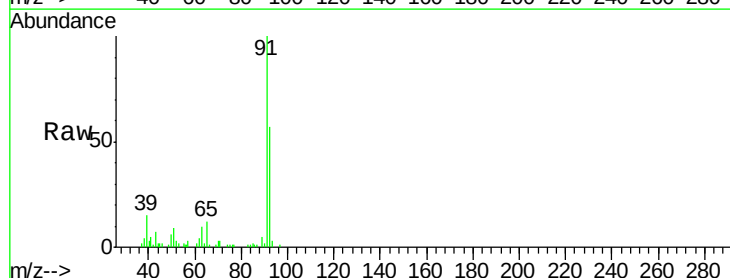
Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

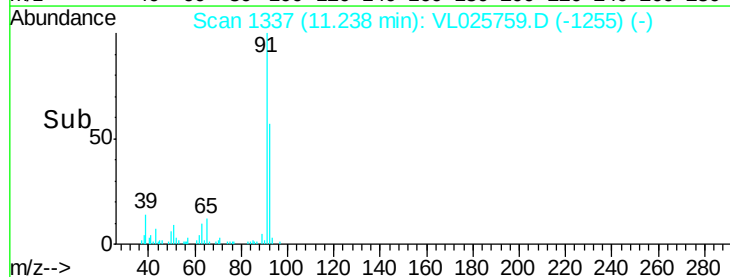
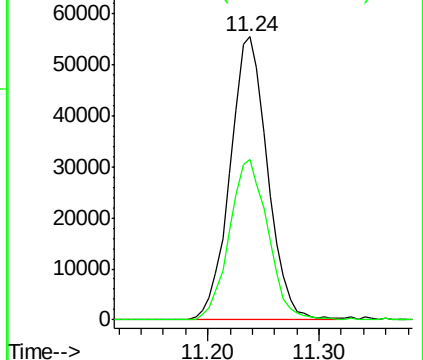
Tgt Ion: 91 Resp: 129176
Ion Ratio Lower Upper

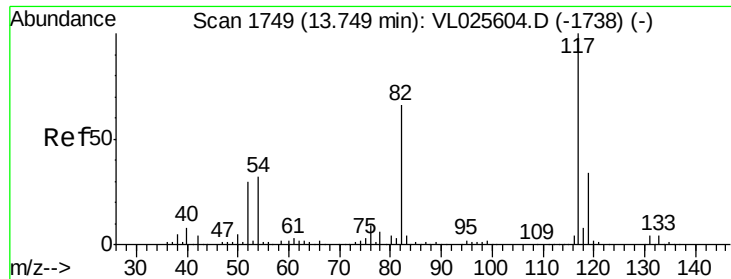
91 100

92 58.3 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0





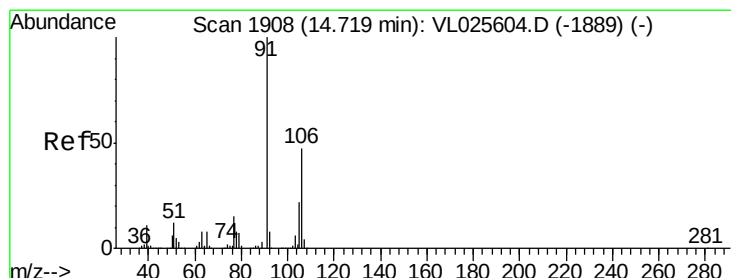
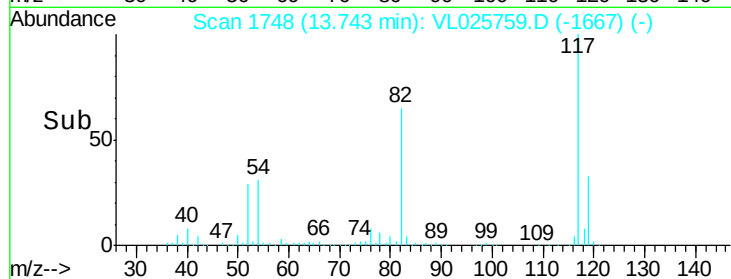
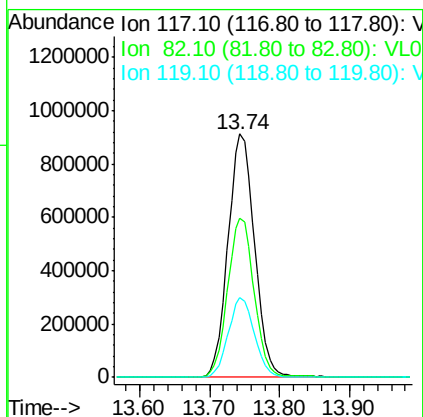
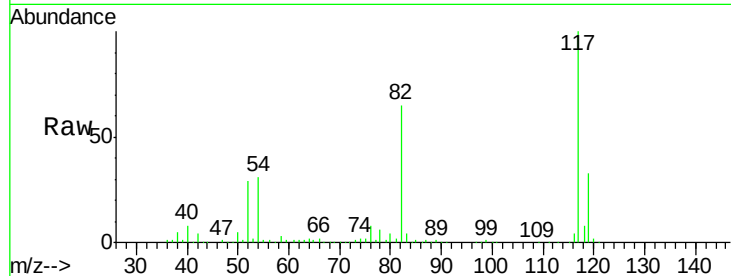
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 13.74 min Scan# 1748
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Tgt Ion: 117 Resp: 2412827
Ion Ratio Lower Upper
117 100
82 65.5 50.5 75.7
119 32.4 45.1 67.7#

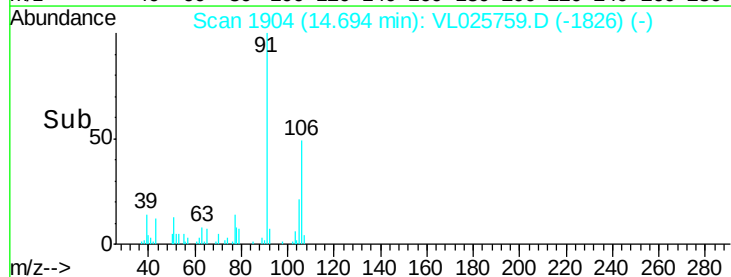
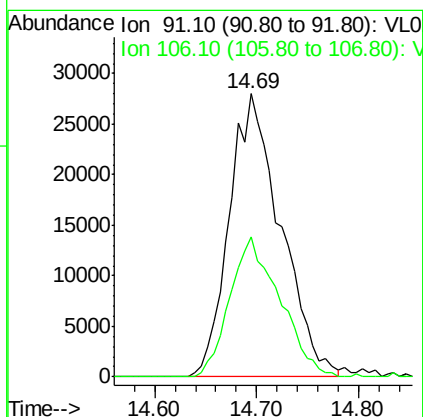
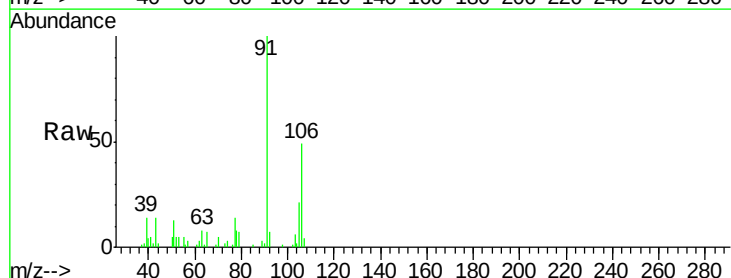
Manual Integrations
APPROVED

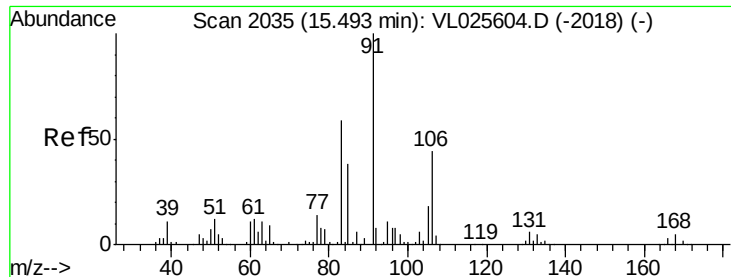
MMDadoda
7/28/2015 12:57:06 PM



#59
m/p-Xylene
Concen: 0.28 ppbv
RT: 14.69 min Scan# 1904
Delta R.T. -0.02 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion: 91 Resp: 98032
Ion Ratio Lower Upper
91 100
106 48.0 37.9 56.9





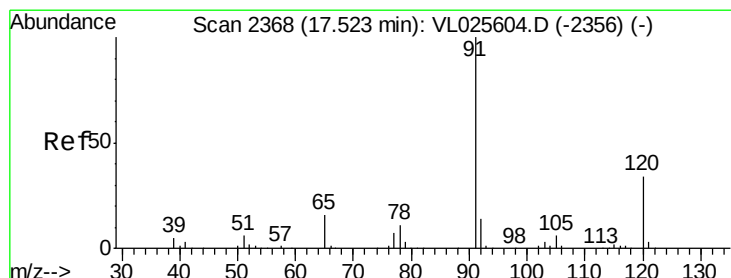
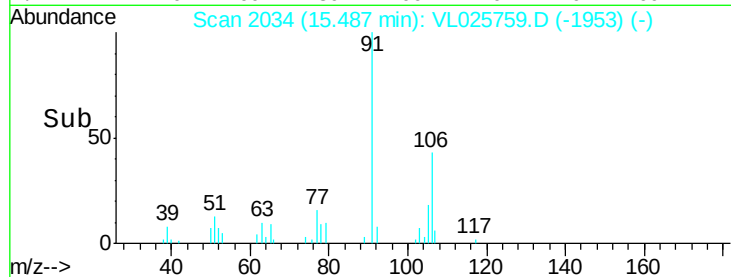
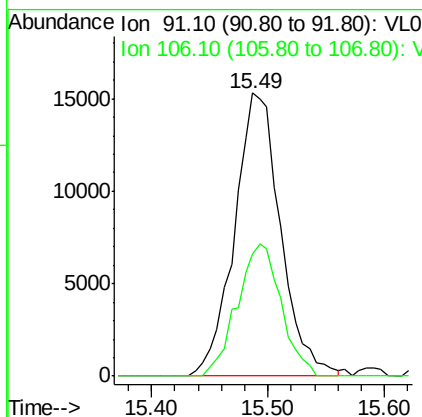
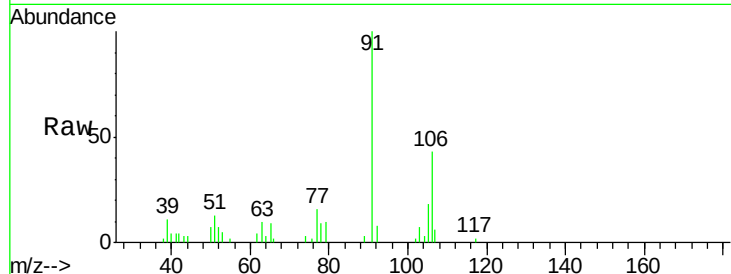
#60
o-Xylene
Concen: 0.11 ppbv
RT: 15.49 min Scan# 2034
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Instrument :
MSVOA_L
ClientSampleId :
A-217-I

Tgt Ion: 91 Resp: 42161
Ion Ratio Lower Upper
91 100
106 44.3 22.1 66.1

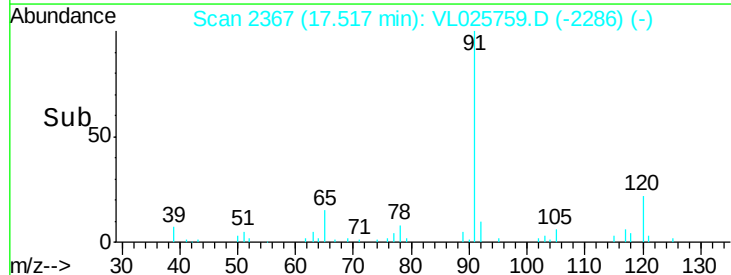
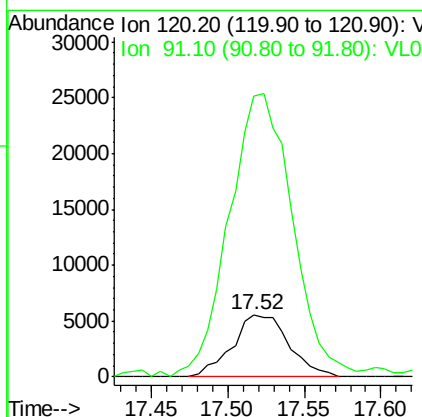
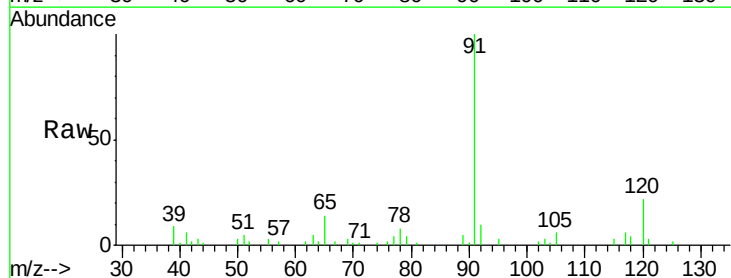
Manual Integrations
APPROVED

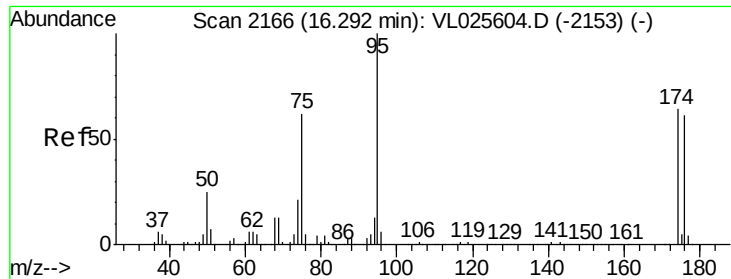
MMDadoda
7/28/2015 12:57:06 PM



#64
n-propylbenzene
Concen: 0.11 ppbv
RT: 17.52 min Scan# 2367
Delta R.T. -0.01 min
Lab File: VL025759.D
Acq: 27 Jul 2015 18:55

Tgt Ion: 120 Resp: 14386
Ion Ratio Lower Upper
120 100
91 525.6 370.5 555.7





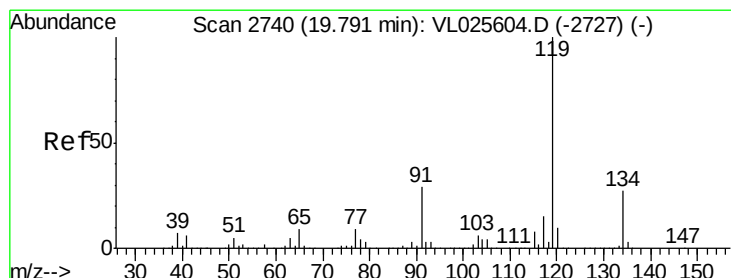
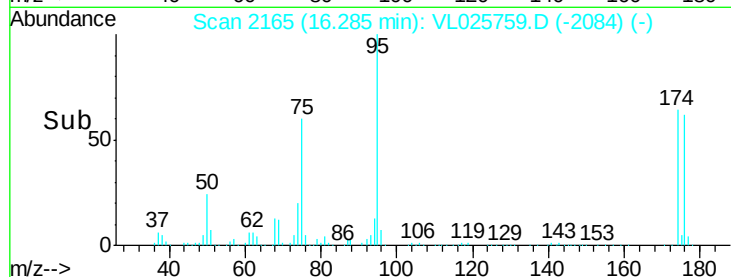
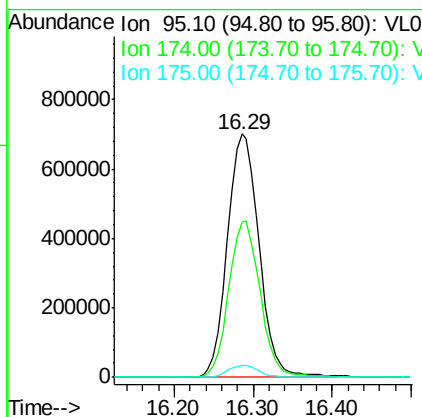
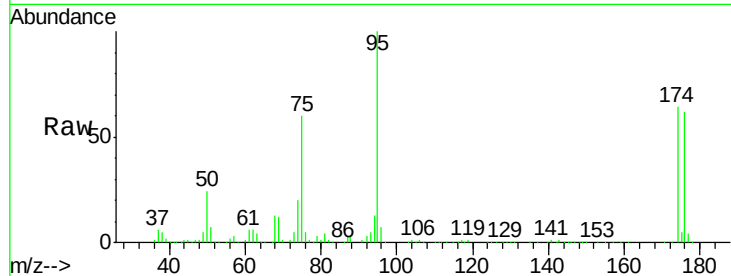
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.64 ppbv
 RT: 16.29 min Scan# 2165
 Delta R.T. -0.01 min
 Lab File: VL025759.D
 Acq: 27 Jul 2015 18:55

Instrument :
 MSVOA_L
 ClientSampled :
 A-217-I

Tgt Ion: 95 Resp: 1962680
 Ion Ratio Lower Upper
 95 100
 174 64.0 52.0 78.0
 175 4.9 3.9 5.9

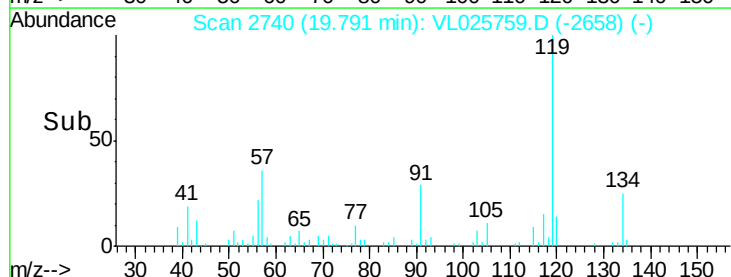
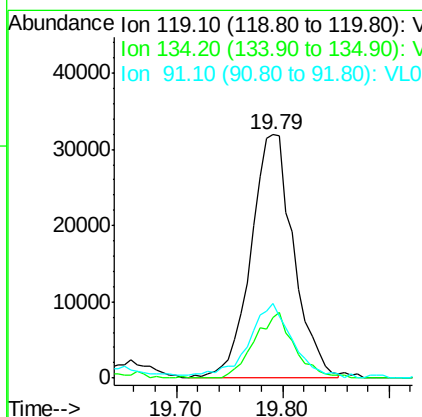
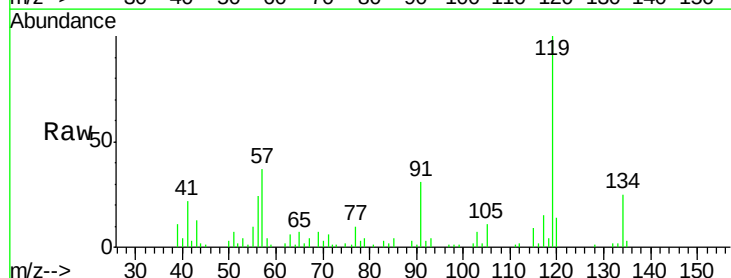
Manual Integrations
 APPROVED

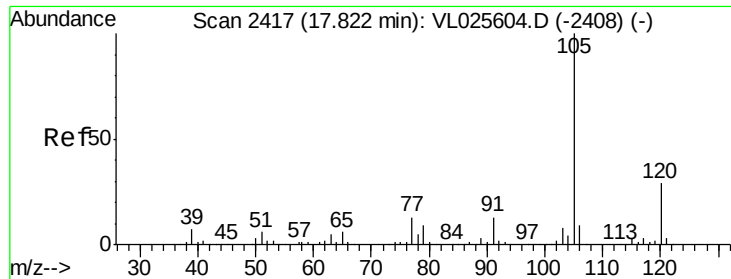
MMDadoda
 7/28/2015 12:57:06 PM



#69
 p-Isopropyltoluene
 Concen: 0.16 ppbv
 RT: 19.79 min Scan# 2740
 Delta R.T. -0.00 min
 Lab File: VL025759.D
 Acq: 27 Jul 2015 18:55

Tgt Ion: 119 Resp: 89848
 Ion Ratio Lower Upper
 119 100
 134 25.0 20.7 31.1
 91 32.6 22.6 34.0





#72

4-Ethyltoluene

Concen: 0.27 ppbv

RT: 17.82 min Scan# 2417

Delta R.T. -0.00 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Instrument :

MSVOA_L

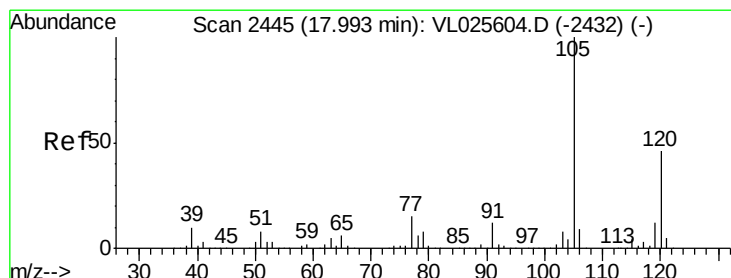
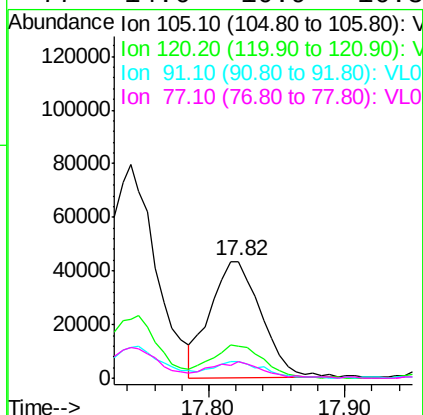
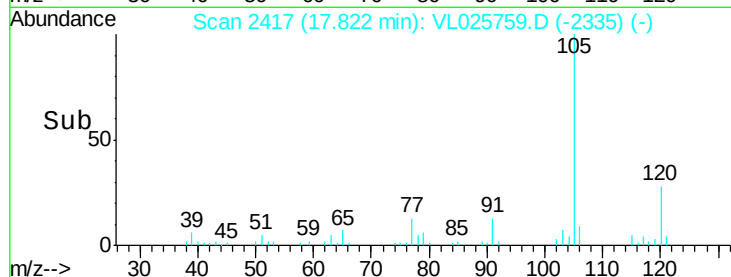
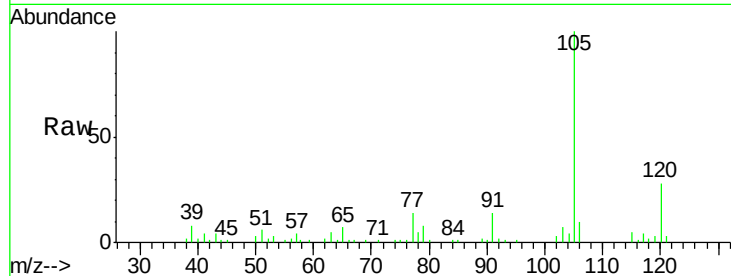
ClientSampleId :

A-217-I

Tgt Ion:	105	Resp:	112988
Ion Ratio	Lower	Upper	
105	100		
120	28.1	23.9	35.9
91	13.2	10.3	15.5
77	14.6	10.9	16.3

Manual Integrations
APPROVED

MMDadoda
7/28/2015 12:57:06 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.13 ppbv

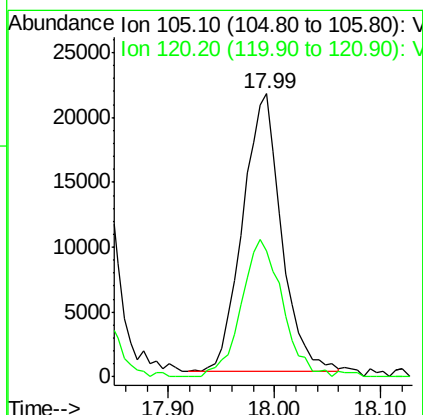
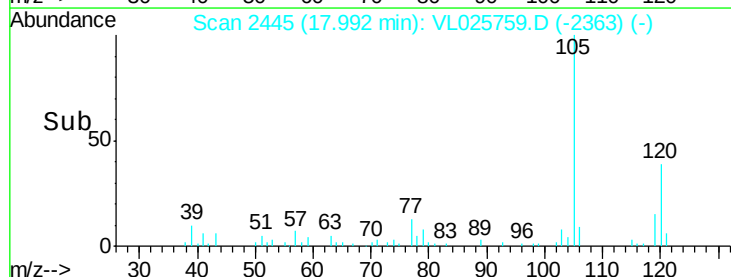
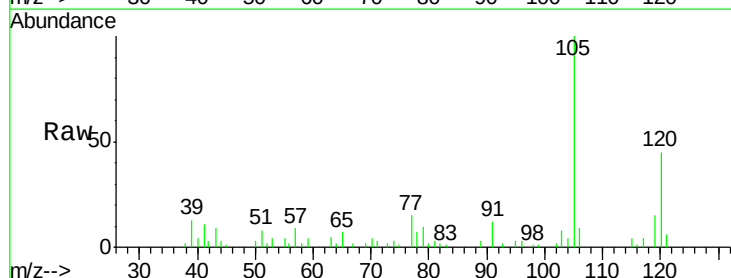
RT: 17.99 min Scan# 2445

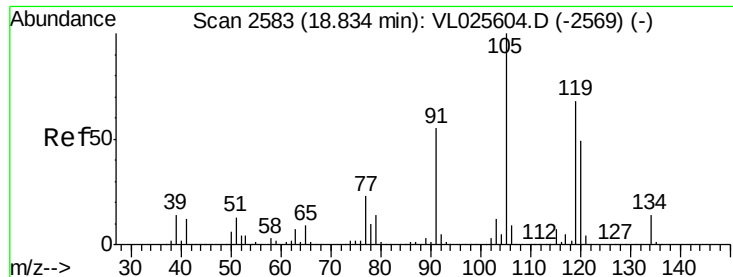
Delta R.T. -0.00 min

Lab File: VL025759.D

Acq: 27 Jul 2015 18:55

Tgt Ion:	105	Resp:	54714
Ion Ratio	Lower	Upper	
105	100		
120	45.5	37.0	55.4





#74
 1,2,4-Trimethylbenzene
 Concen: 0.23 ppbv
 RT: 18.83 min Scan# 2583
 Delta R.T. -0.00 min
 Lab File: VL025759.D
 Acq: 27 Jul 2015 18:55

Instrument :
 MSVOA_L
 ClientSampleId :
 A-217-I

Tgt Ion	Ratio	Resp Lower	Resp Upper
105	100		
120	40.1	39.3	58.9
91	13.8	43.8	65.6#
77	14.9	18.3	27.5#

Manual Integrations
 APPROVED

MMDadoda
 7/28/2015 12:57:06 PM

