

Data File : VL033377.D
Acq On : 19 Mar 2019 3:16
Operator : SY/AP
Sample : K1805-05 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
L1HA-OA1

Quant Time: Mar 19 06:58:50 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 15 14:52:14 2019
QLast Update : Fri Mar 15 14:52:14 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	736724	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1665829	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.24	117	1819382	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1395605 10.35 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 103.50%

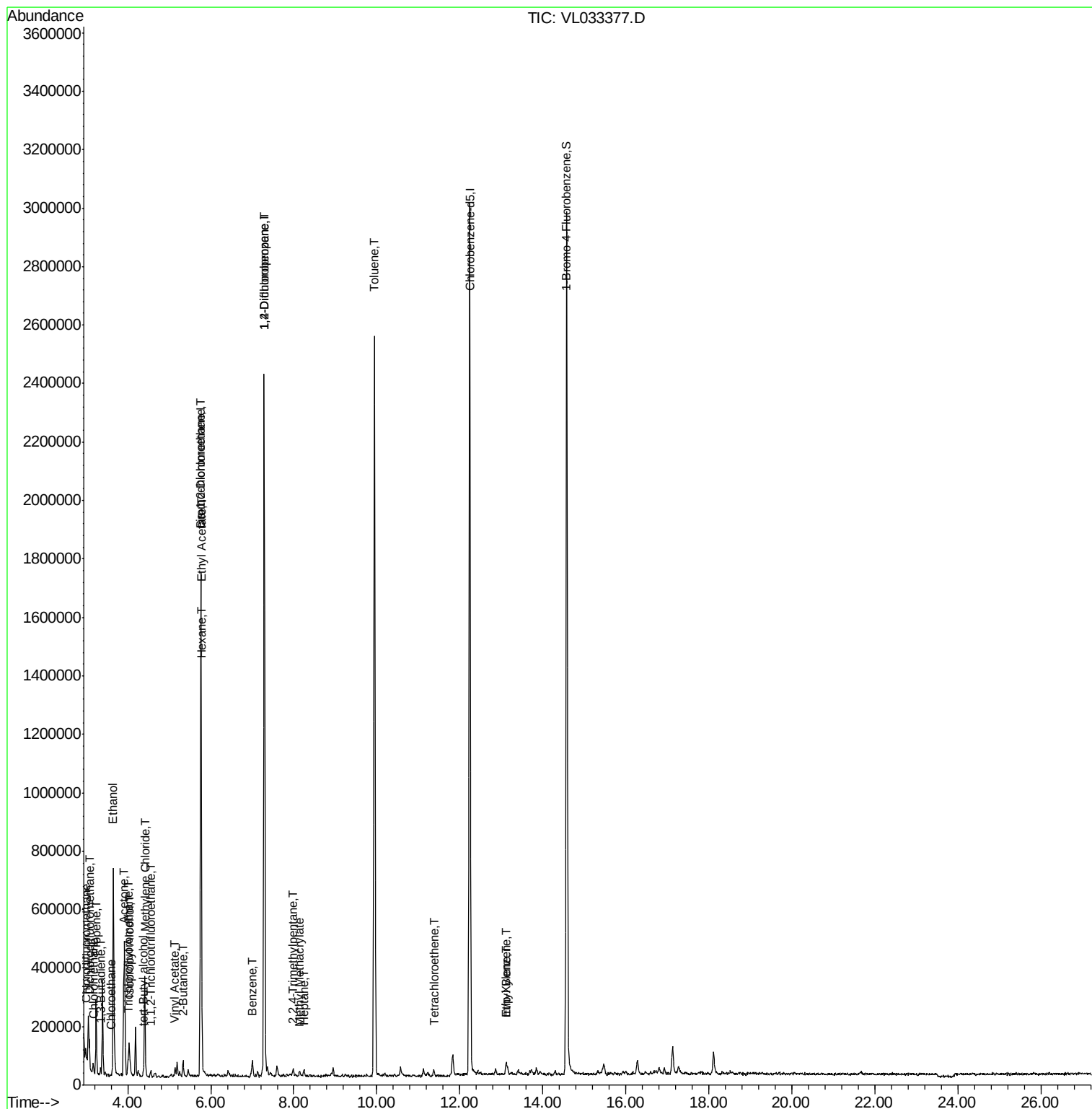
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	71508	0.552	ppbv	94
3) Chlorodifluoromethane	2.99	51	56097	0.663	ppbv #	80
4) Chloromethane	3.17	50	23450	0.512	ppbv	98
7) Chloroethane	3.60	64	1166	0.071	ppbv	98
9) Propene	3.24	41	58882	1.560	ppbv	97
10) Heptane	8.24	43	3301	0.035	ppbv #	1
11) Trichlorofluoromethane	4.00	101	31796	0.246	ppbv	86
12) 1,1,2-Trichlorotrifluoroet	4.55	101	6102	0.071	ppbv	100
13) Ethanol	3.65	45	727108	40.406	ppbv	98
15) Acetone	3.90	43	447988	3.912	ppbv #	89
16) 1,3-Butadiene	3.35	39	6949	0.187	ppbv #	2
17) tert-Butyl alcohol	4.37	59	1776	0.110	ppbv #	74
19) Isopropyl Alcohol	4.03	45	128278	2.355	ppbv #	96
20) Methylene Chloride	4.41	84	116336	3.115	ppbv	96
23) Vinyl Acetate	5.15	43	9657	0.073	ppbv #	1
25) Ethyl Acetate	5.78	43	110308	0.663	ppbv #	97
26) Hexane	5.78	57	69466	0.933	ppbv #	71
31) cis-1,2-Dichloroethene	5.77	61	4624	0.062	ppbv #	32
34) 2-Butanone	5.33	43	57106	0.522	ppbv	97
36) Benzene	7.00	78	21533	0.144	ppbv	94
39) 1,2-Dichloropropane	7.29	63	450058	8.061	ppbv #	24
43) Methyl Methacrylate	8.13	69	2362	0.041	ppbv #	1
44) 2,2,4-Trimethylpentane	7.99	57	16005	0.065	ppbv #	66
52) Tetrachloroethene	11.36	164	1983	0.032	ppbv #	39
53) Toluene	9.94	91	1966755	11.610	ppbv	100
58) Ethyl Benzene	13.11	91	11895	0.046	ppbv	89
59) m/p-Xylene	13.12	91	11842	0.054	ppbv #	100

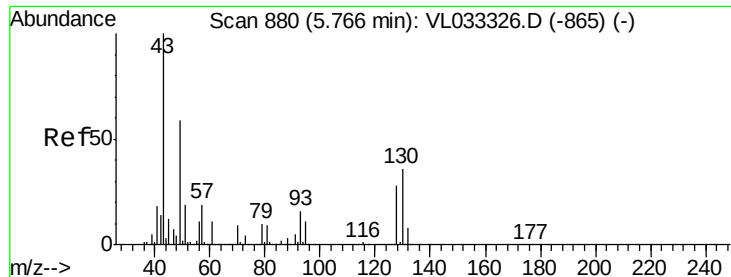
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

L1HA-OA1

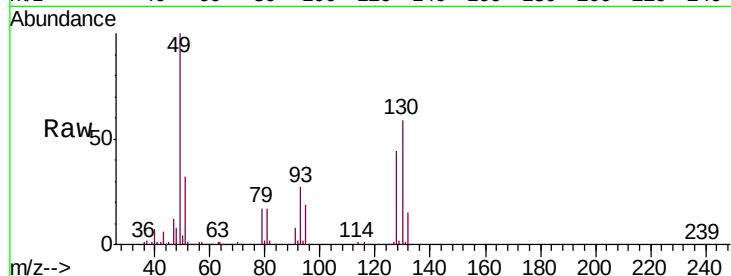
Tgt Ion: 49 Resp: 736724

Ion Ratio Lower Upper

49 100

128 46.7 23.5 70.6

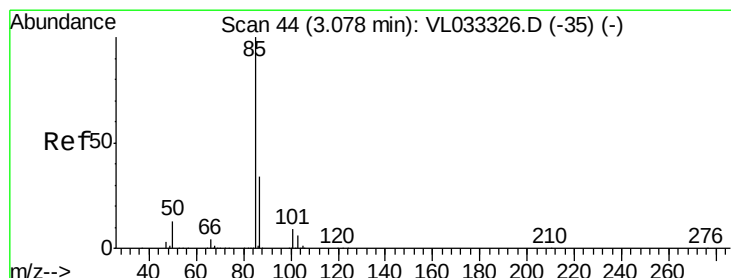
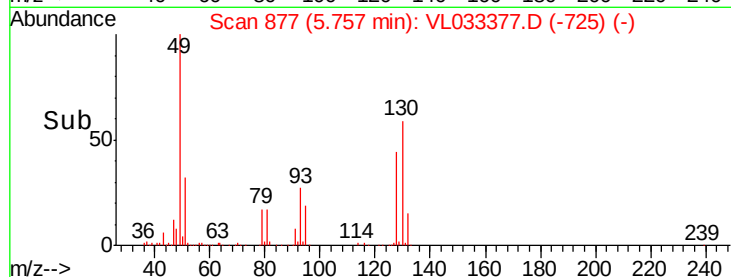
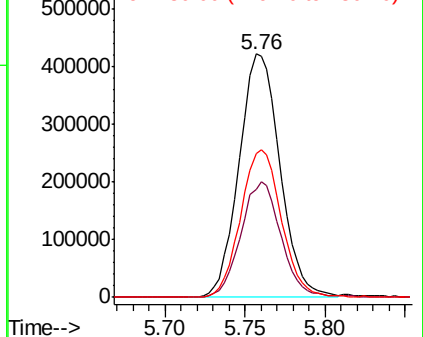
130 60.7 30.1 90.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.552 ppbv

RT: 3.07 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033377.D

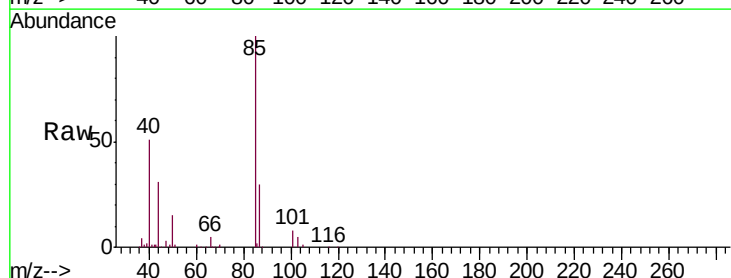
Acq: 19 Mar 2019 3:16

Tgt Ion: 85 Resp: 71508

Ion Ratio Lower Upper

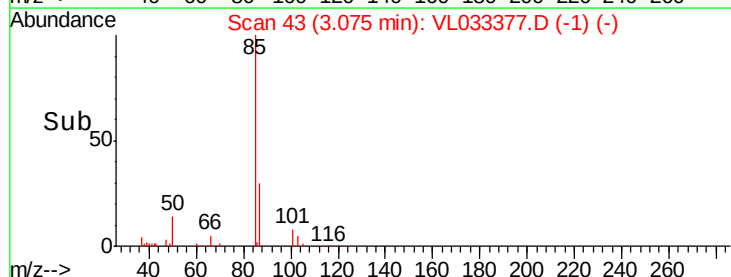
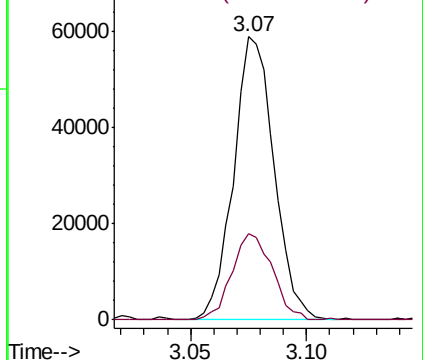
85 100

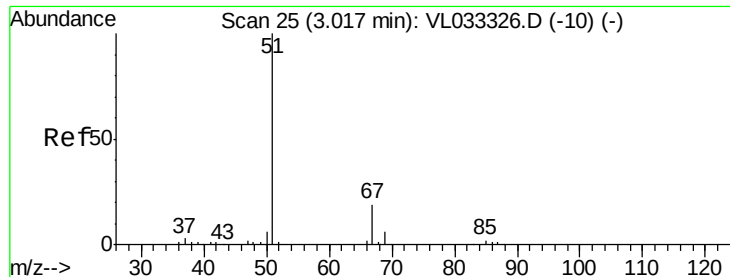
87 30.4 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

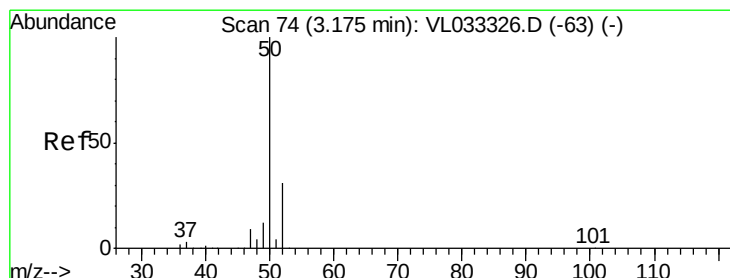
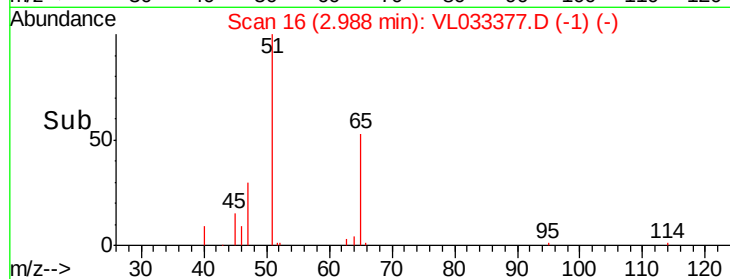
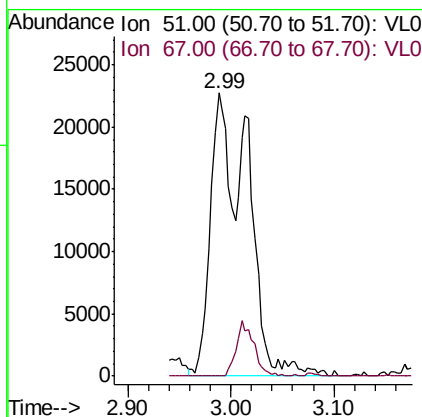
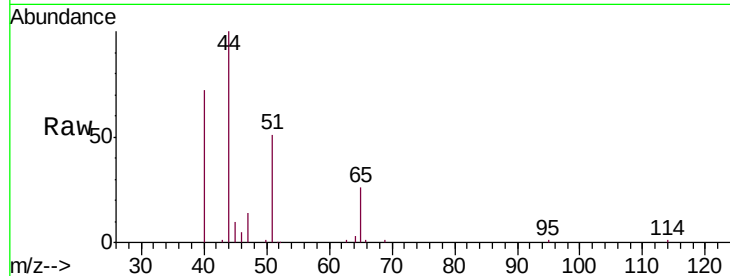




#3
 Chlorodifluoromethane
 Concen: 0.663 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.03 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

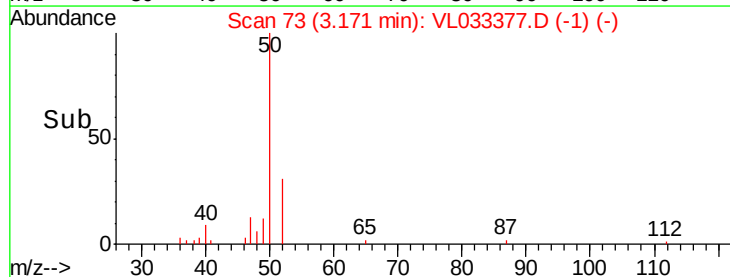
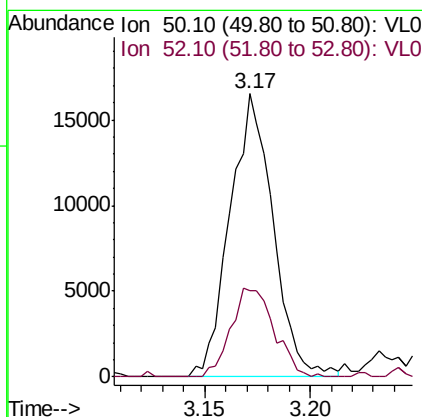
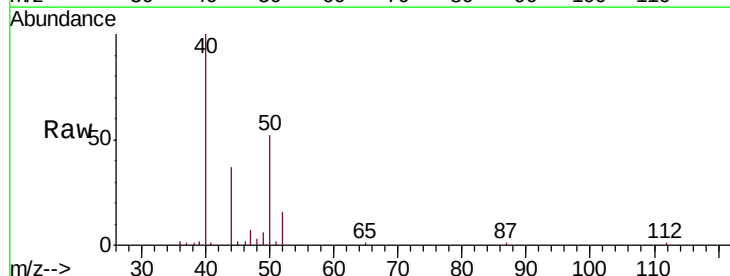
Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-OA1

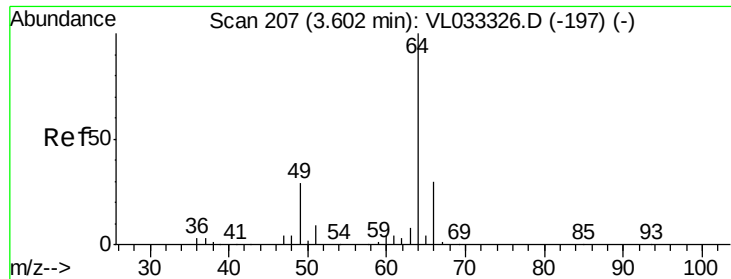
Tgt Ion: 51 Resp: 56097
 Ion Ratio Lower Upper
 51 100
 67 9.4 14.9 22.3#



#4
 Chloromethane
 Concen: 0.512 ppbv
 RT: 3.17 min Scan# 73
 Delta R.T. -0.00 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

Tgt Ion: 50 Resp: 23450
 Ion Ratio Lower Upper
 50 100
 52 30.3 25.0 37.6





#7

Chloroethane

Concen: 0.071 ppbv

RT: 3.60 min Scan# 207

Delta R.T. -0.00 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

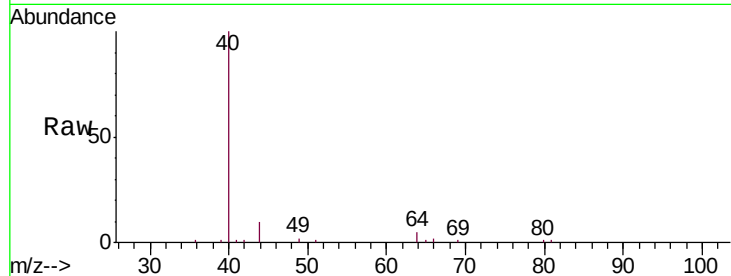
L1HA-OA1

Tgt Ion: 64 Resp: 1166

Ion Ratio Lower Upper

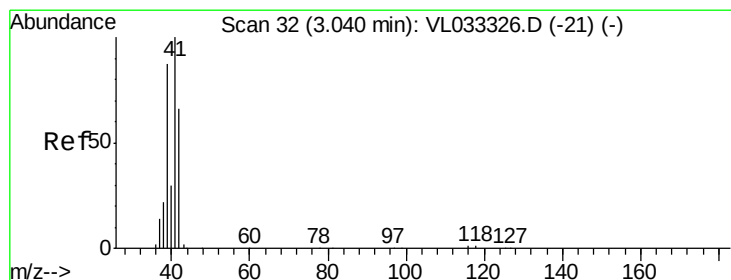
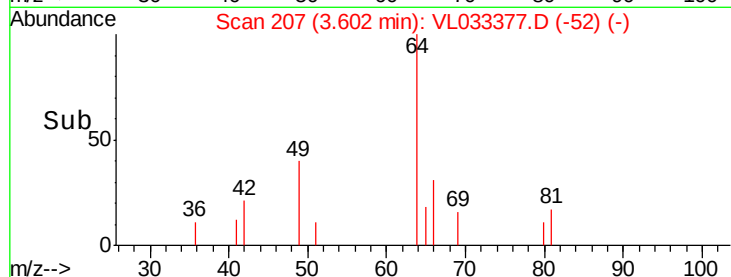
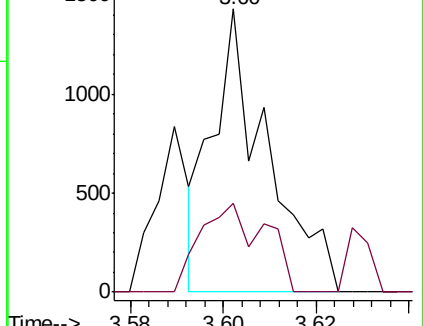
64 100

66 31.2 24.0 36.0



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#9

Propene

Concen: 1.560 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.20 min

Lab File: VL033377.D

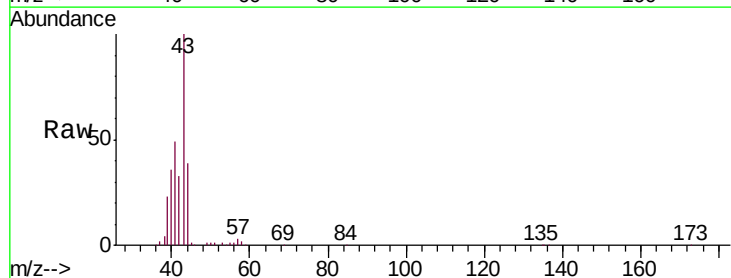
Acq: 19 Mar 2019 3:16

Tgt Ion: 41 Resp: 58882

Ion Ratio Lower Upper

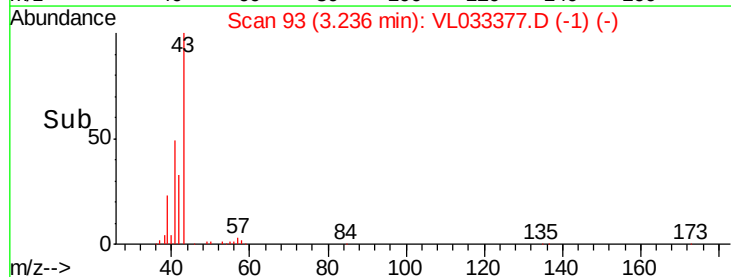
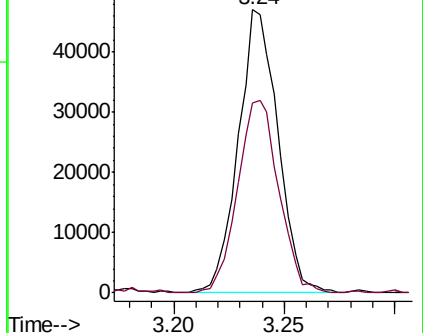
41 100

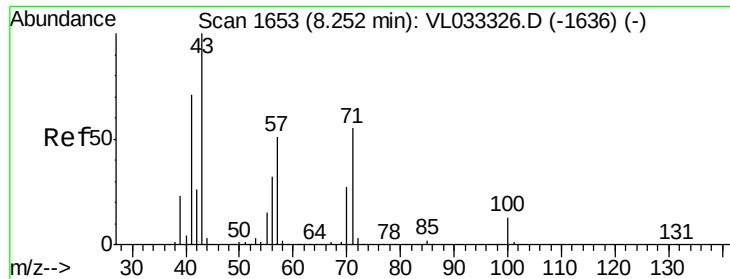
42 71.1 55.2 82.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.035 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

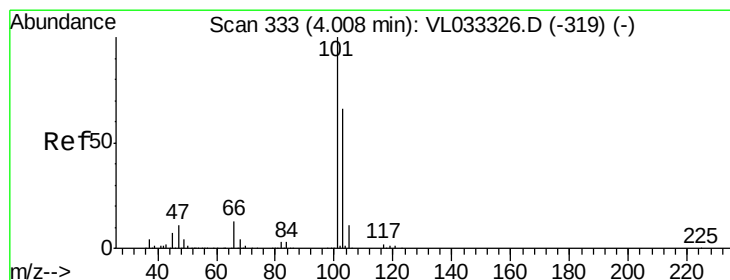
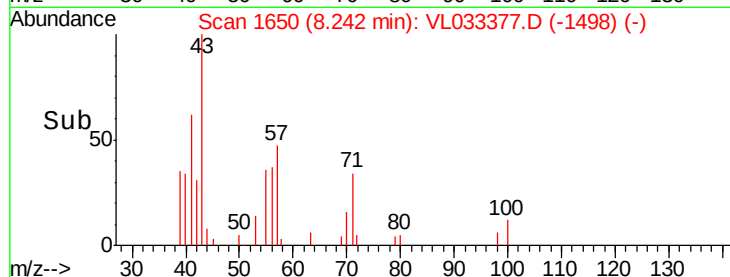
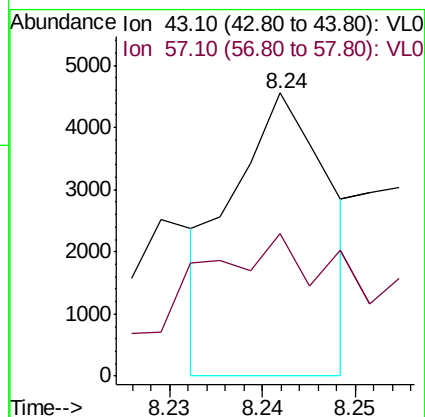
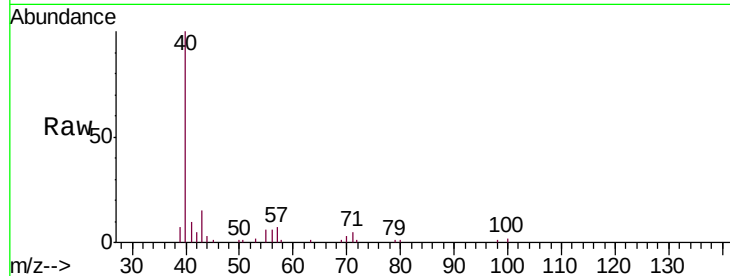
L1HA-OA1

Tgt Ion: 43 Resp: 3301

Ion Ratio Lower Upper

43 100

57 121.4 40.4 60.6#



#11

Trichlorofluoromethane

Concen: 0.246 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033377.D

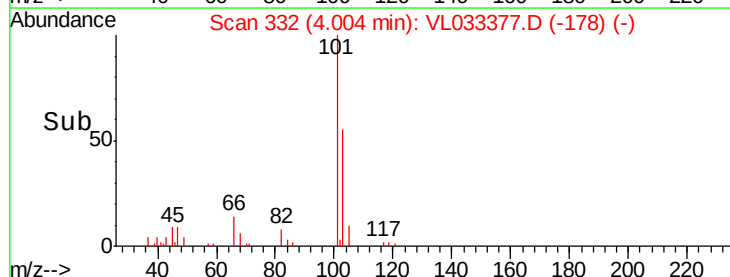
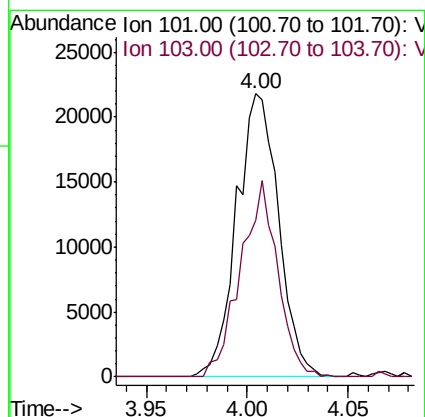
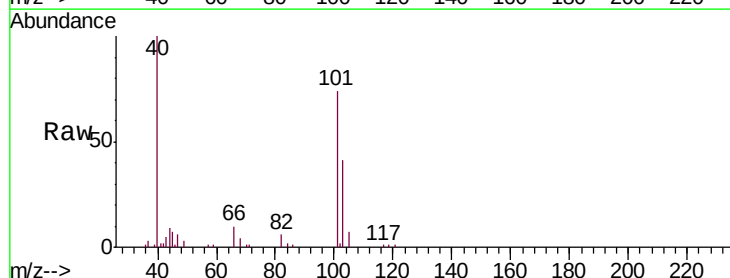
Acq: 19 Mar 2019 3:16

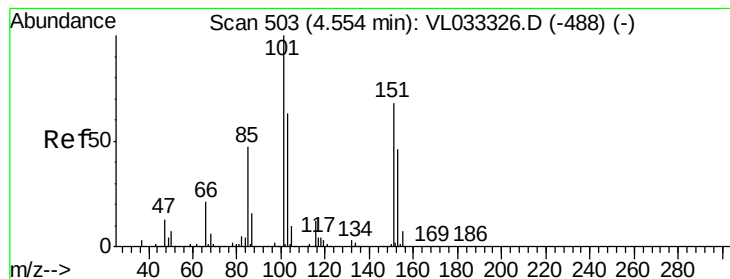
Tgt Ion: 101 Resp: 31796

Ion Ratio Lower Upper

101 100

103 55.1 52.9 79.3





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.071 ppbv

RT: 4.55 min Scan# 503

Delta R.T. -0.00 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

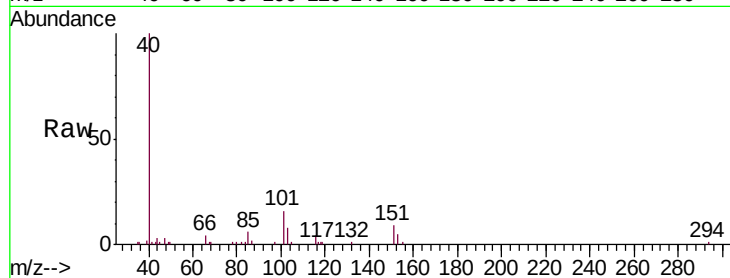
L1HA-OA1

Tgt Ion: 101 Resp: 6102

Ion Ratio Lower Upper

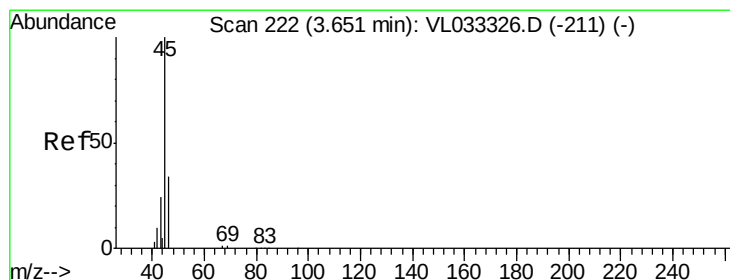
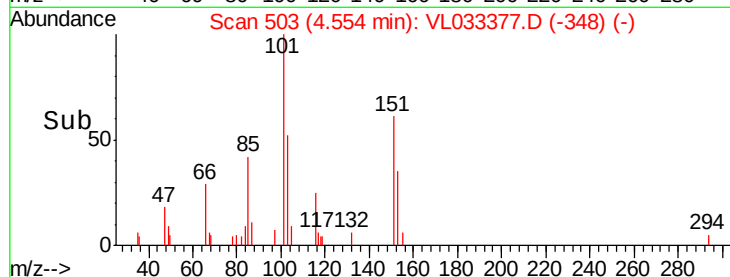
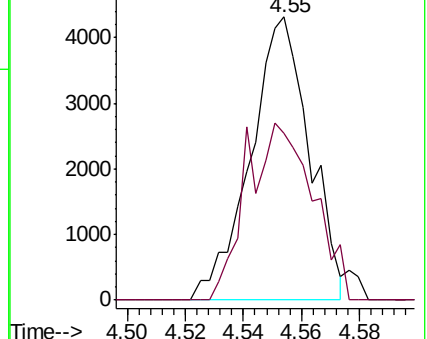
101 100

151 70.8 56.3 84.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 40.406 ppbv

RT: 3.65 min Scan# 222

Delta R.T. -0.00 min

Lab File: VL033377.D

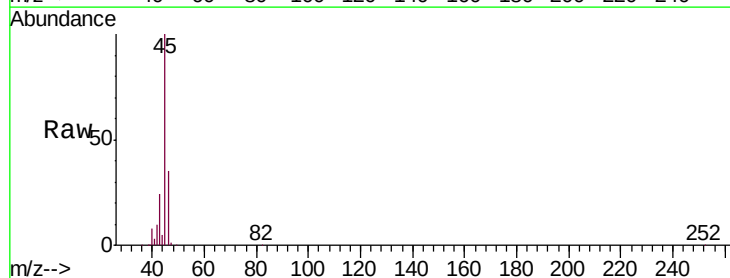
Acq: 19 Mar 2019 3:16

Tgt Ion: 45 Resp: 727108

Ion Ratio Lower Upper

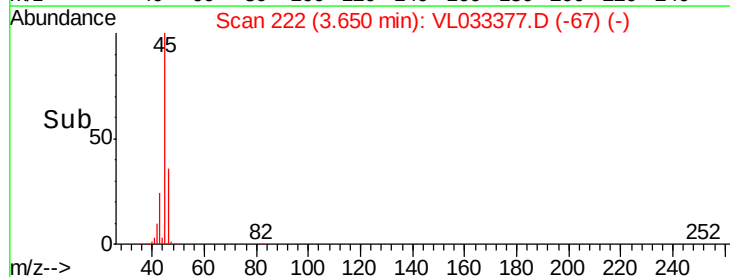
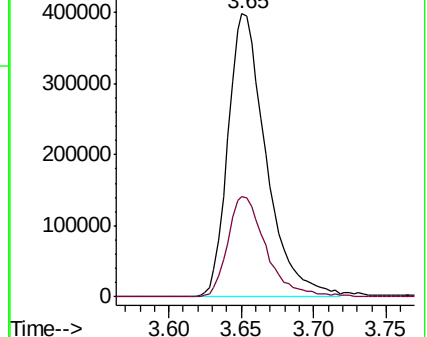
45 100

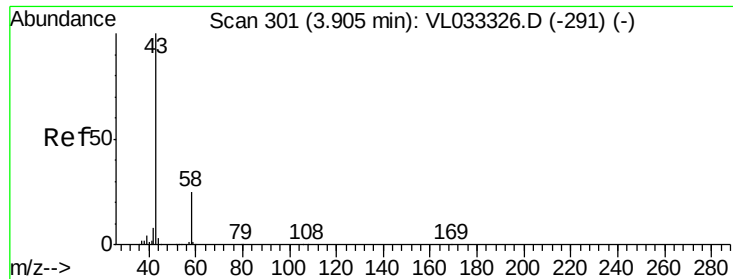
46 36.0 14.9 59.7



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 3.912 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampled :

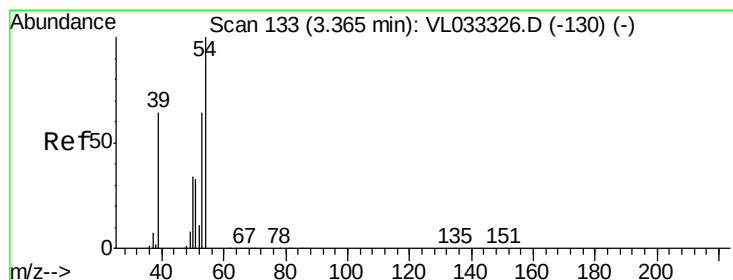
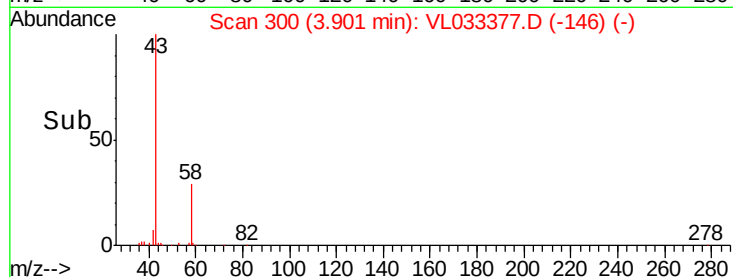
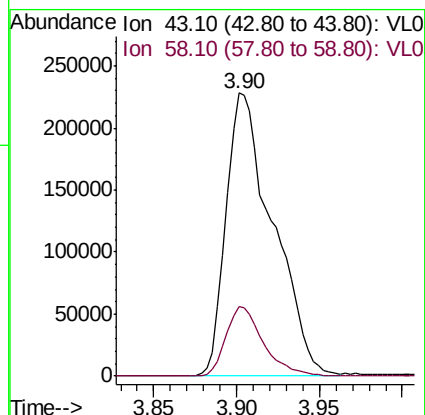
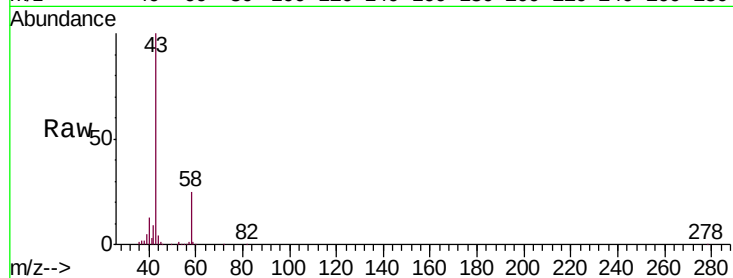
L1HA-OA1

Tgt Ion: 43 Resp: 447988

Ion Ratio Lower Upper

43 100

58 19.8 20.4 30.6#



#16

1,3-Butadiene

Concen: 0.187 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033377.D

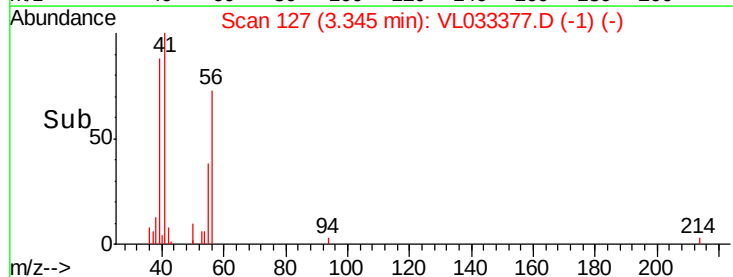
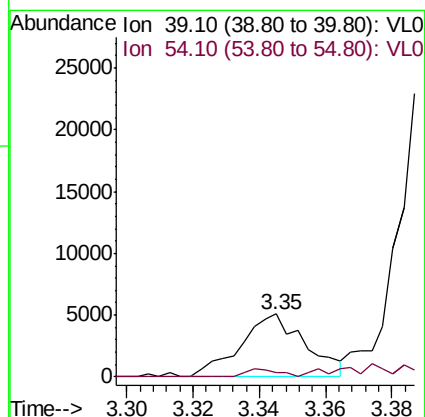
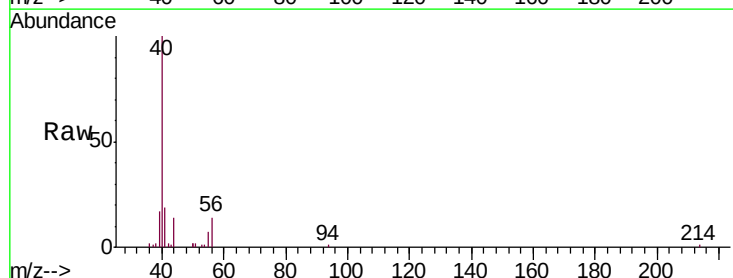
Acq: 19 Mar 2019 3:16

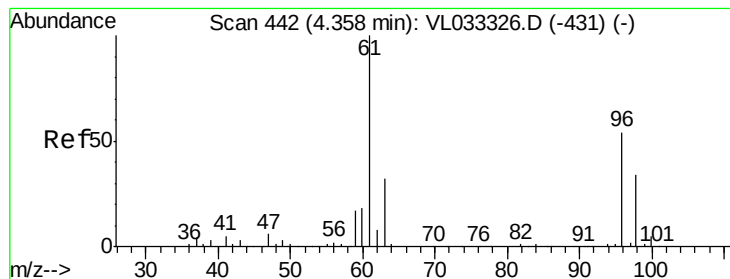
Tgt Ion: 39 Resp: 6949

Ion Ratio Lower Upper

39 100

54 0.0 76.8 115.2#





#17

tert-Butyl alcohol

Concen: 0.110 ppbv

RT: 4.37 min Scan# 445

Delta R.T. 0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

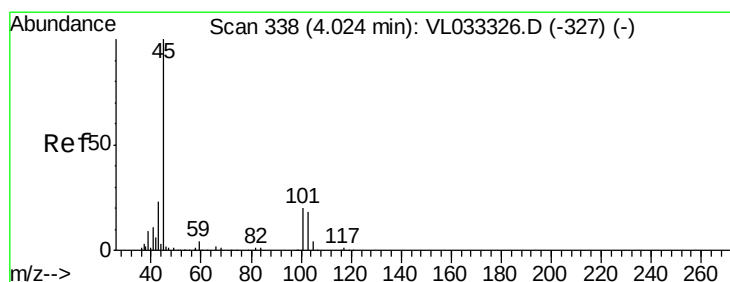
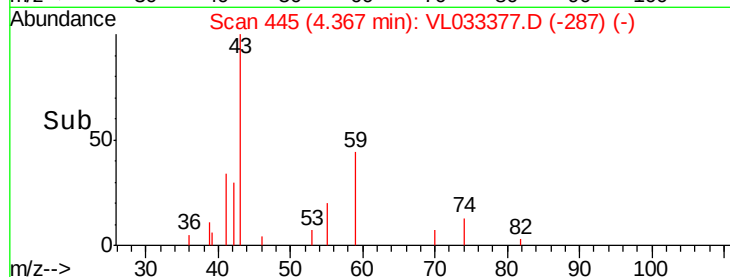
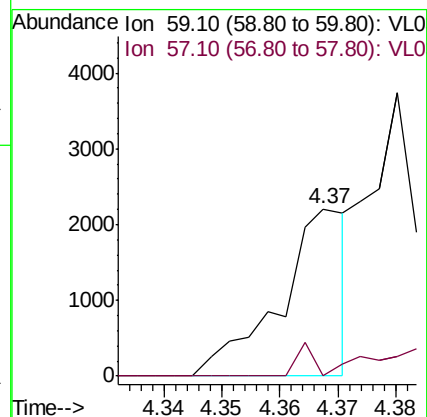
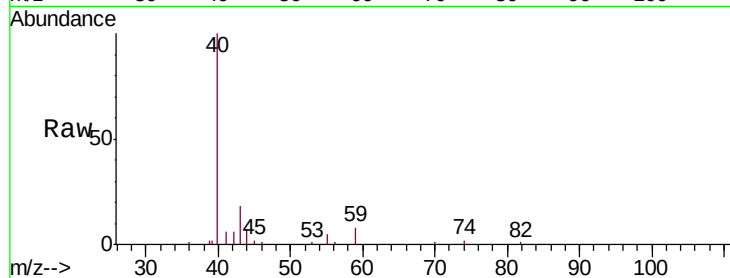
L1HA-OA1

Tgt Ion: 59 Resp: 1776

Ion Ratio Lower Upper

59 100

57 0.0 7.7 11.5#



#19

Isopropyl Alcohol

Concen: 2.355 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033377.D

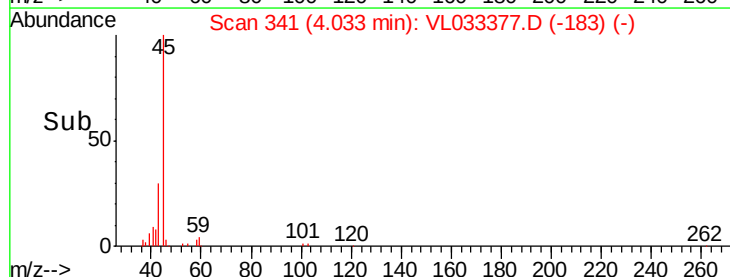
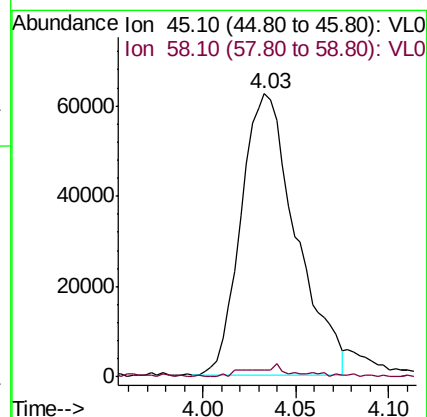
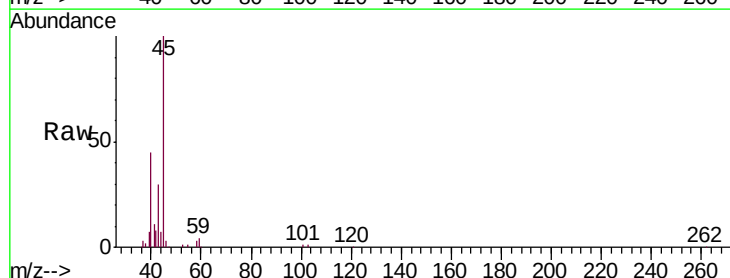
Acq: 19 Mar 2019 3:16

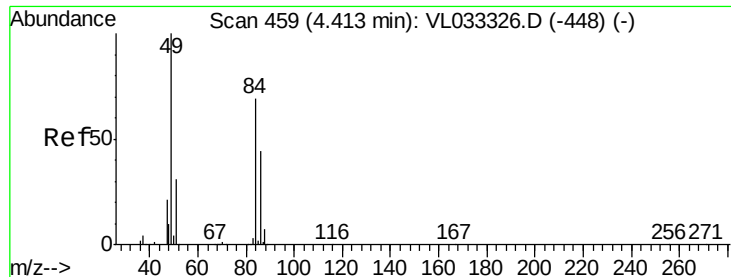
Tgt Ion: 45 Resp: 128278

Ion Ratio Lower Upper

45 100

58 3.2 1.5 2.3#

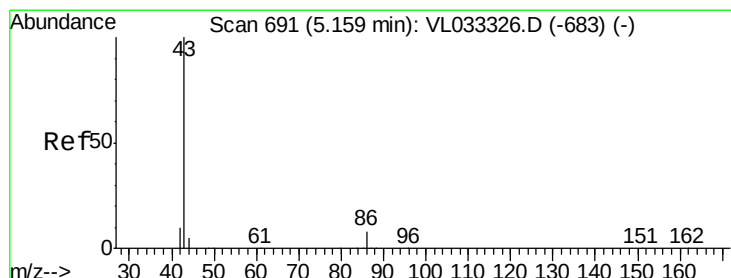
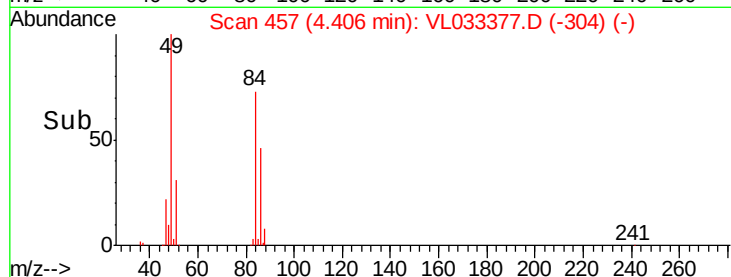
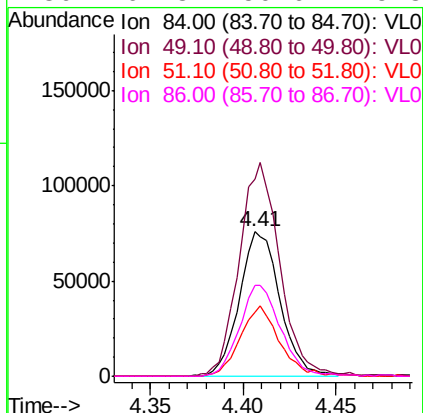
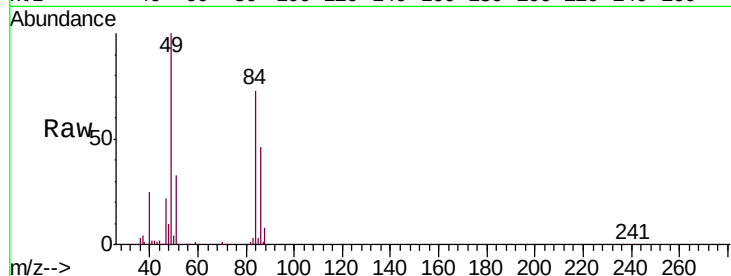




#20
Methylene Chloride
Concen: 3.115 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.01 min
Lab File: VL033377.D
Acq: 19 Mar 2019 3:16

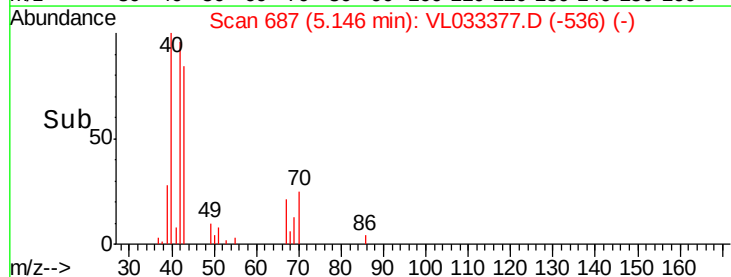
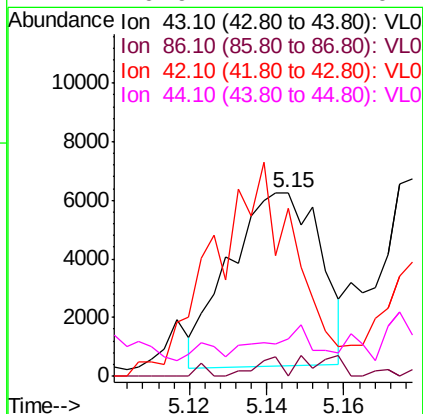
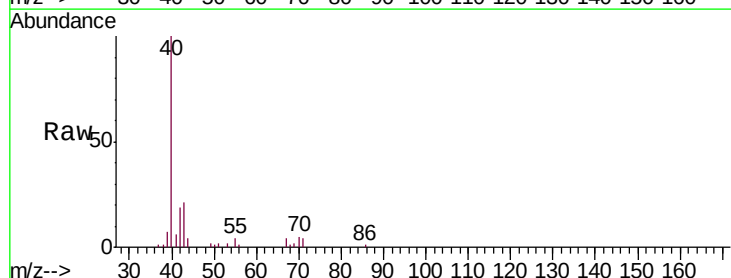
Instrument :
MSVOA_L
ClientSampleId :
L1HA-OA1

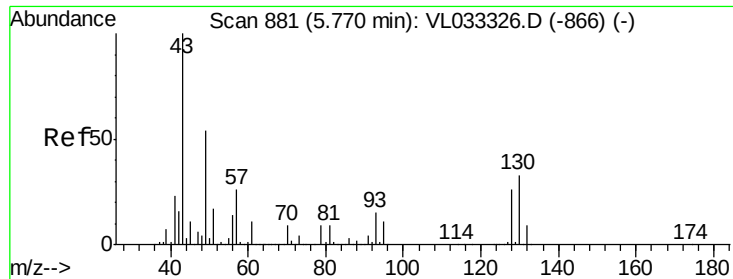
Tgt Ion:	84	Resp:	116336
Ion	Ratio	Lower	Upper
84	100		
49	136.3	115.4	173.0
51	44.4	35.8	53.6
86	62.8	50.6	75.8



#23
Vinyl Acetate
Concen: 0.073 ppbv
RT: 5.15 min Scan# 687
Delta R.T. -0.01 min
Lab File: VL033377.D
Acq: 19 Mar 2019 3:16

Tgt Ion:	43	Resp:	9657
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.2	9.2#
42	95.4	8.1	12.1#
44	10.9	4.1	6.1#

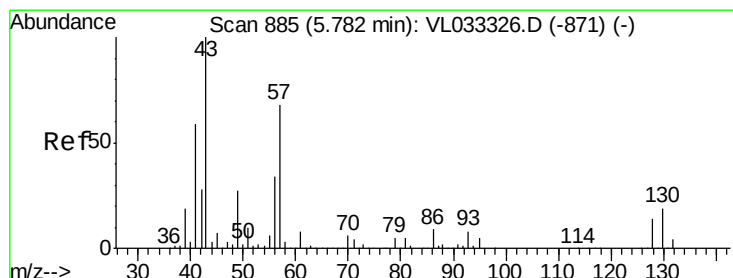
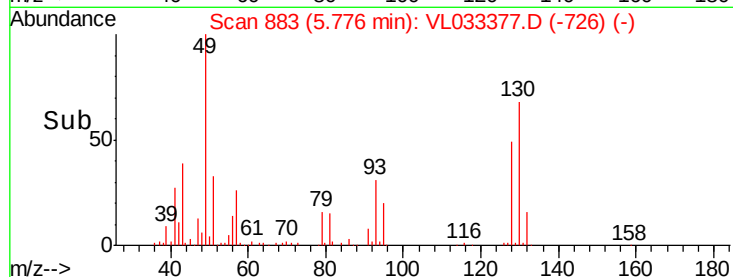
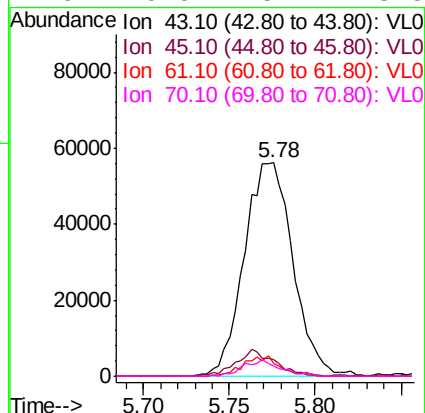
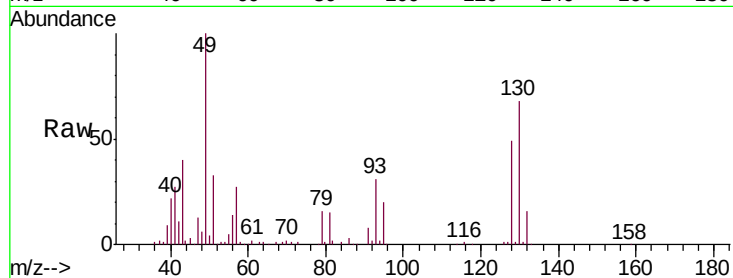




#25
Ethyl Acetate
Concen: 0.663 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.01 min
Lab File: VL033377.D
Acq: 19 Mar 2019 3:16

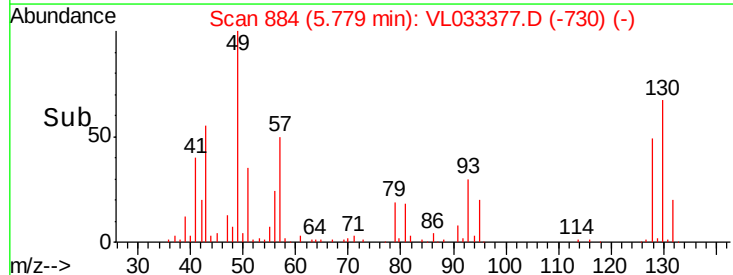
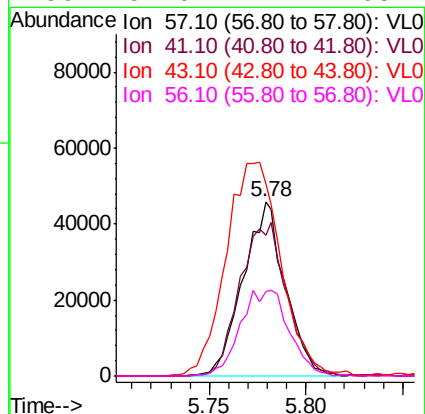
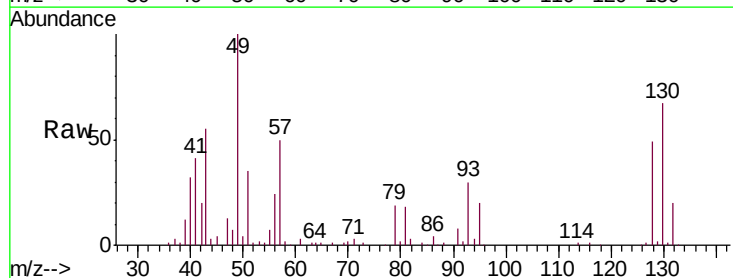
Instrument :
MSVOA_L
ClientSampleId :
L1HA-OA1

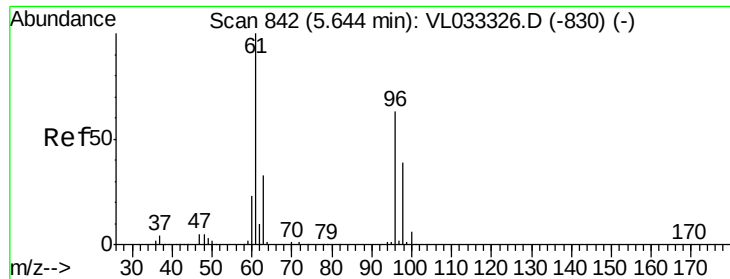
Tgt Ion:	43	Resp:	110308
Ion	Ratio	Lower	Upper
43	100		
45	10.3	7.9	11.9
61	7.2	7.4	11.2#
70	6.0	5.7	8.5



#26
Hexane
Concen: 0.933 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033377.D
Acq: 19 Mar 2019 3:16

Tgt Ion:	57	Resp:	69466
Ion	Ratio	Lower	Upper
57	100		
41	99.2	70.5	105.7
43	160.7	181.8	272.8#
56	57.0	42.2	63.2



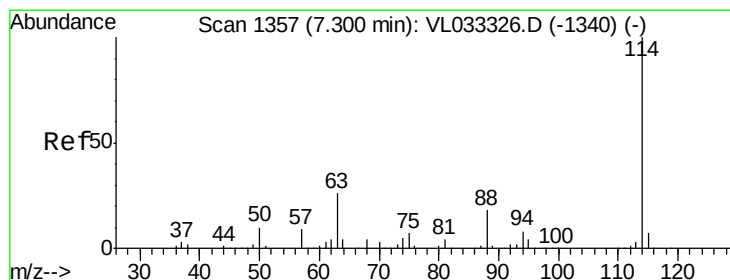
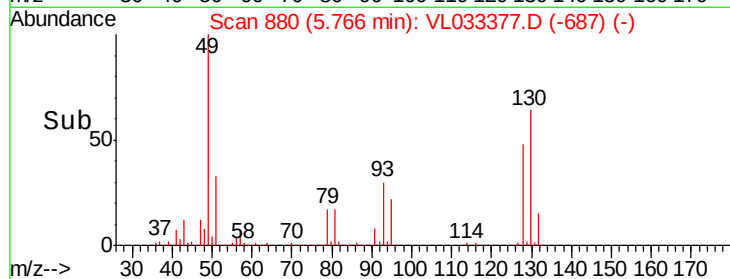
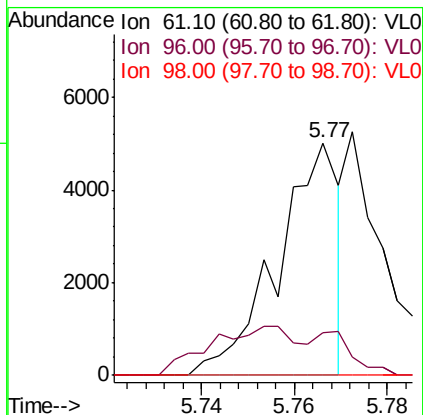
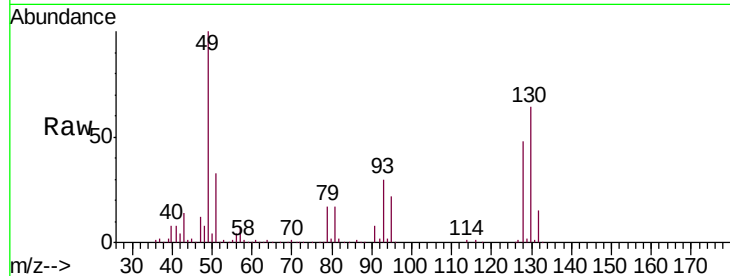


#31

cis-1,2-Dichloroethene
 Concen: 0.062 ppbv
 RT: 5.77 min Scan# 880
 Delta R.T. 0.12 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-OA1

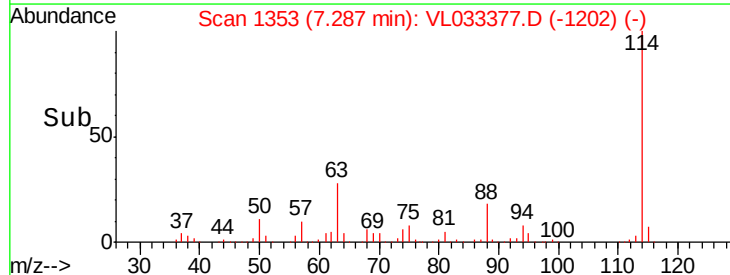
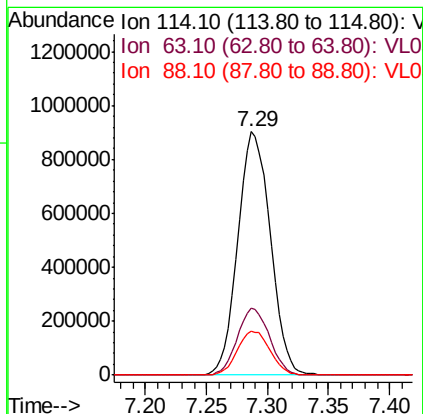
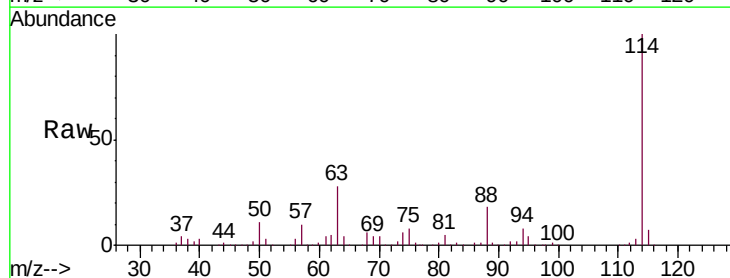
Tgt Ion: 61 Resp: 4624
 Ion Ratio Lower Upper
 61 100
 96 8.8 50.3 75.5#
 98 0.0 31.5 47.3#

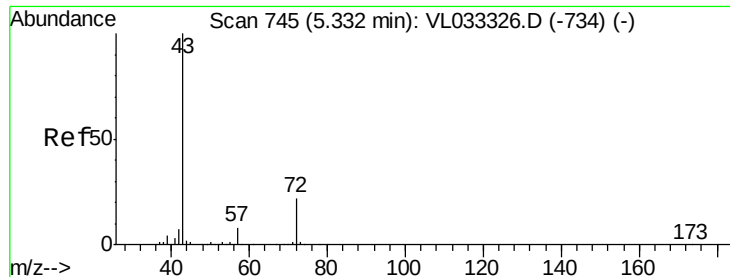


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

Tgt Ion: 114 Resp: 1665829
 Ion Ratio Lower Upper
 114 100
 63 27.1 21.4 32.2
 88 18.2 14.5 21.7





#34

2-Butanone

Concen: 0.522 ppbv

RT: 5.33 min Scan# 745

Delta R.T. -0.00 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

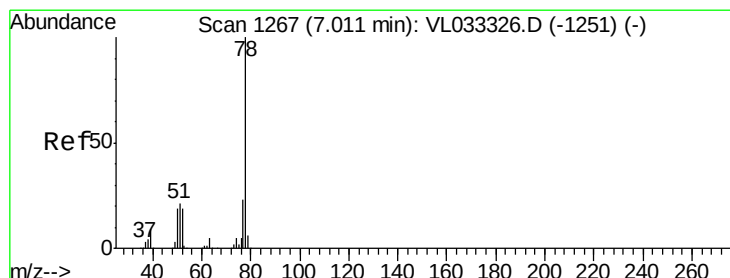
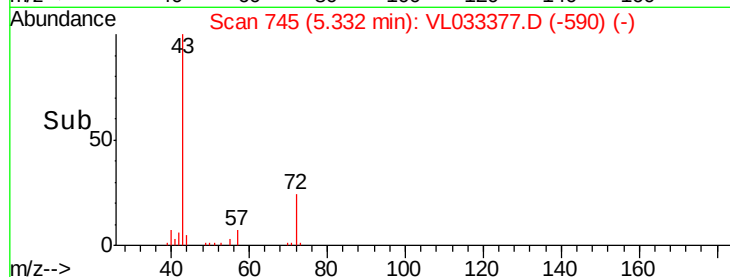
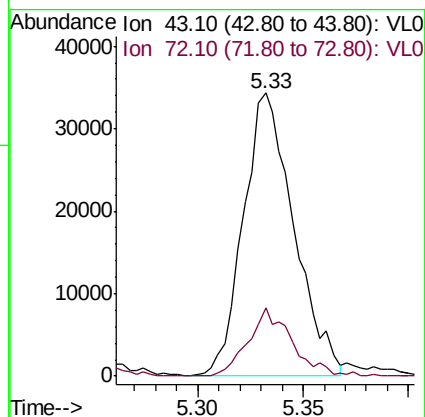
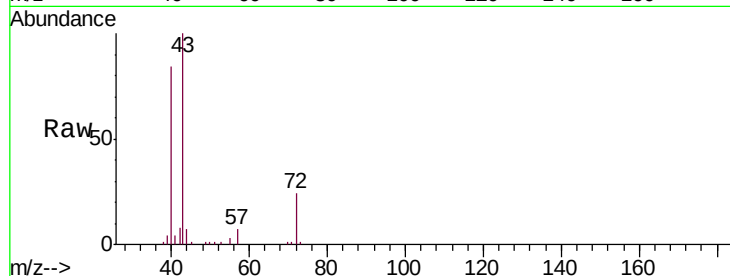
L1HA-OA1

Tgt Ion: 43 Resp: 57106

Ion Ratio Lower Upper

43 100

72 20.8 17.7 26.5



#36

Benzene

Concen: 0.144 ppbv

RT: 7.00 min Scan# 1265

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

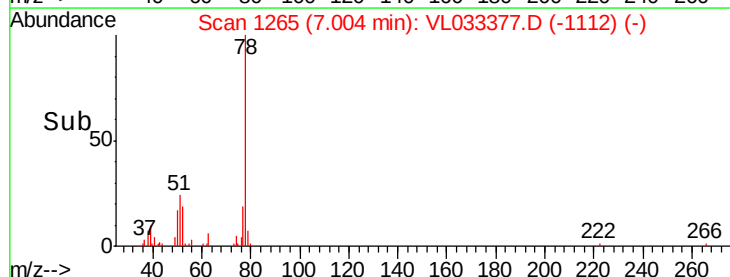
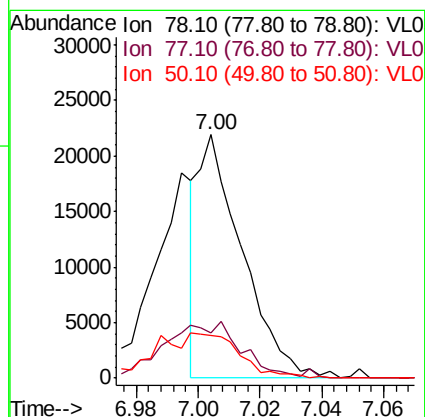
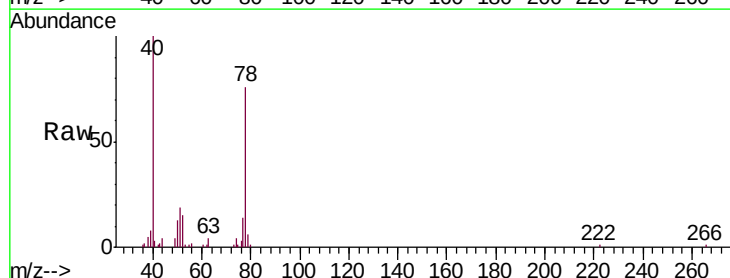
Tgt Ion: 78 Resp: 21533

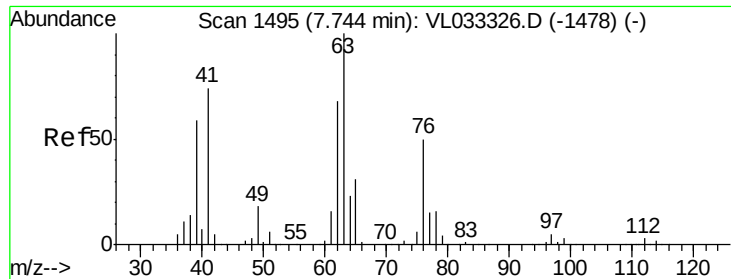
Ion Ratio Lower Upper

78 100

77 18.7 18.1 27.1

50 17.3 15.2 22.8





#39

1,2-Dichloropropane

Concen: 8.061 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.46 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

L1HA-OA1

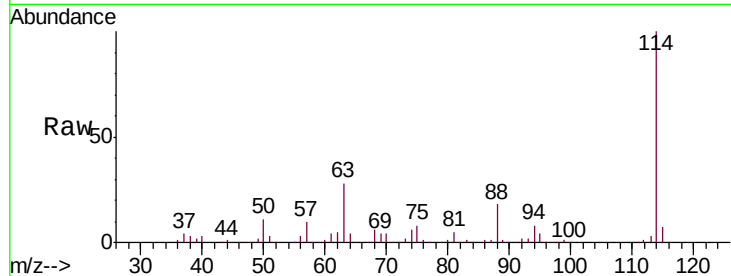
Tgt Ion: 63 Resp: 450058

Ion Ratio Lower Upper

63 100

41 0.0 59.5 89.3#

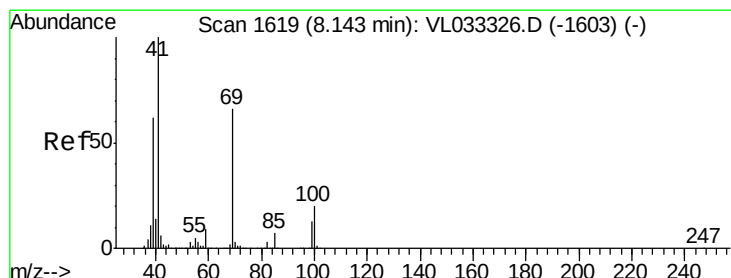
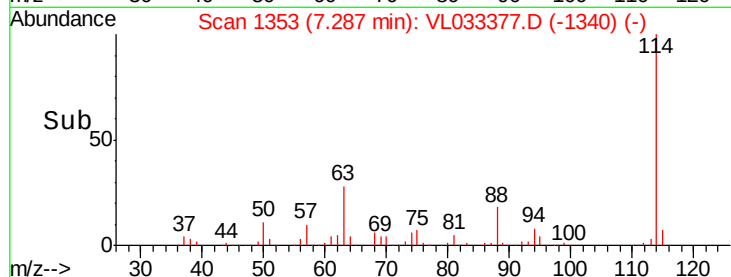
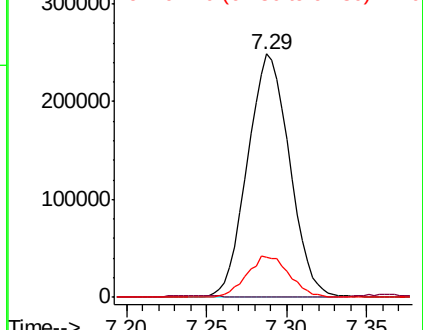
62 16.5 54.7 82.1#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#43

Methyl Methacrylate

Concen: 0.041 ppbv

RT: 8.13 min Scan# 1614

Delta R.T. -0.02 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

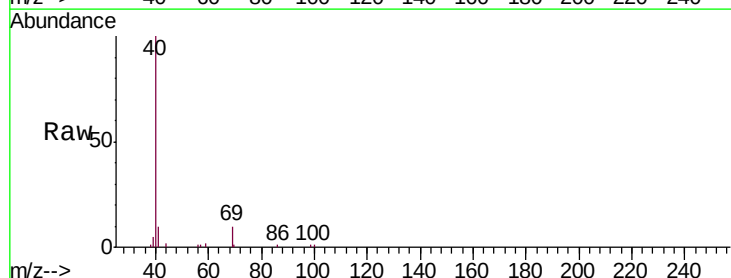
Tgt Ion: 69 Resp: 2362

Ion Ratio Lower Upper

69 100

41 0.0 119.5 179.3#

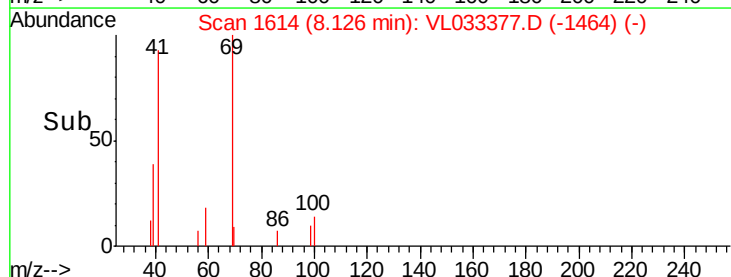
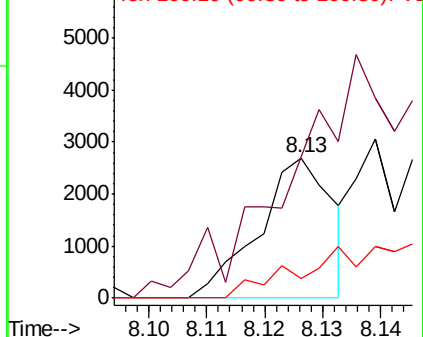
100 0.0 24.4 36.6#

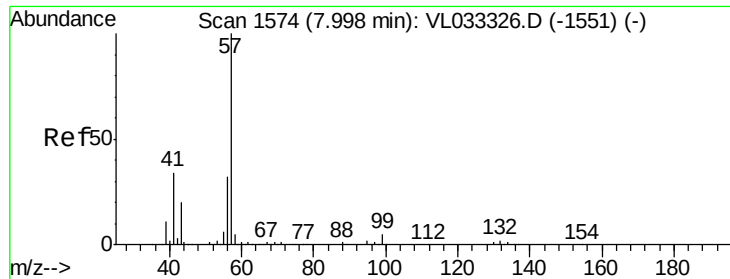


Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.065 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

L1HA-OA1

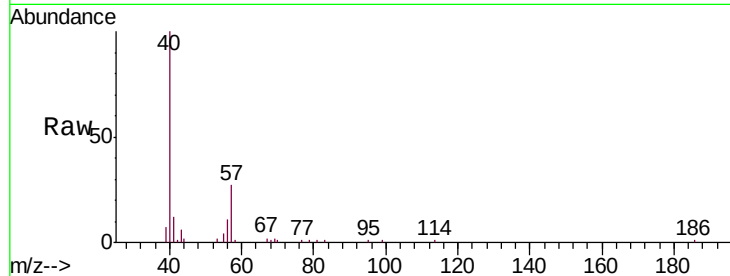
Tgt Ion: 57 Resp: 16005

Ion Ratio Lower Upper

57 100

41 58.8 26.0 39.0#

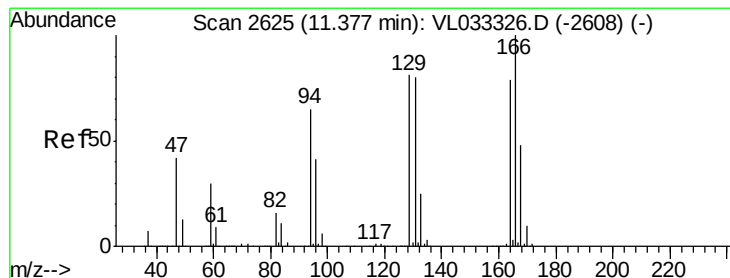
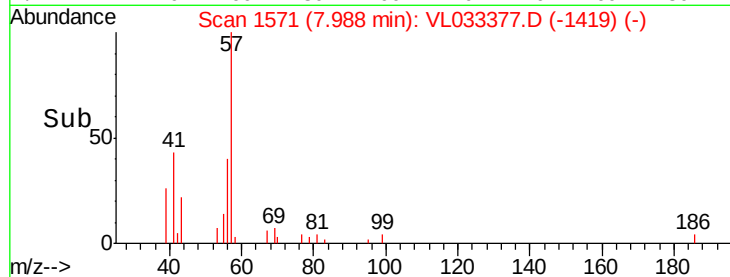
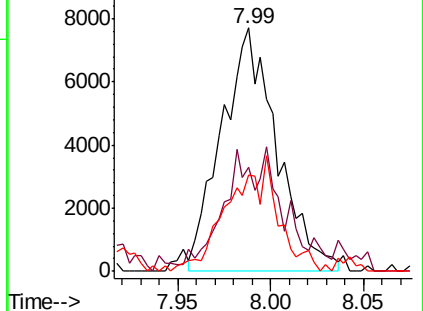
56 41.8 24.6 36.8#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.032 ppbv

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Tgt Ion: 164 Resp: 1983

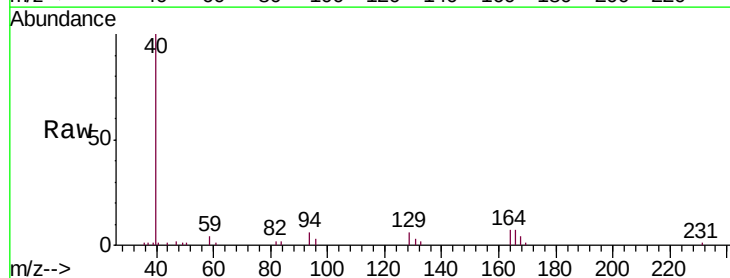
Ion Ratio Lower Upper

164 100

166 68.9 101.5 152.3#

129 67.4 82.2 123.2#

131 0.0 81.1 121.7#

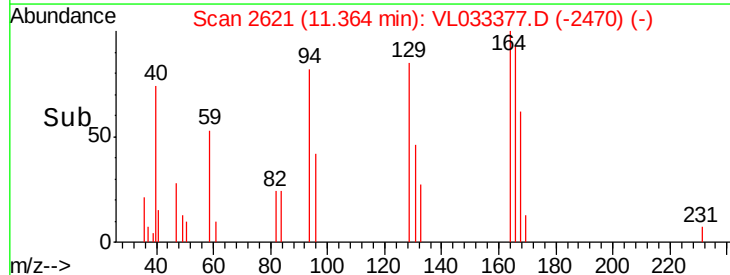
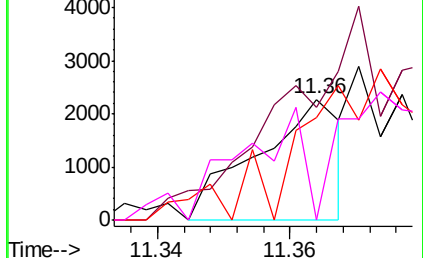


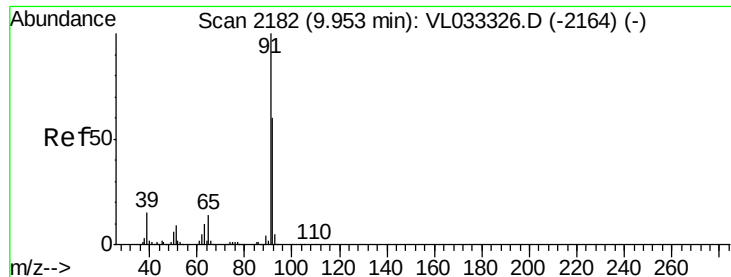
Abundance Ion 163.90 (163.60 to 164.60): V

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: 11.610 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

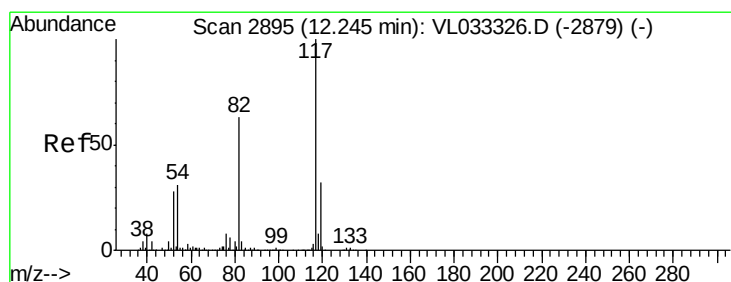
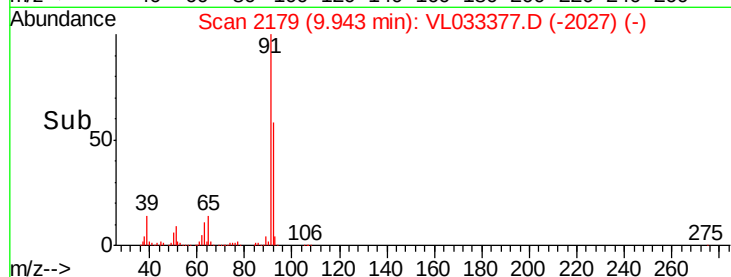
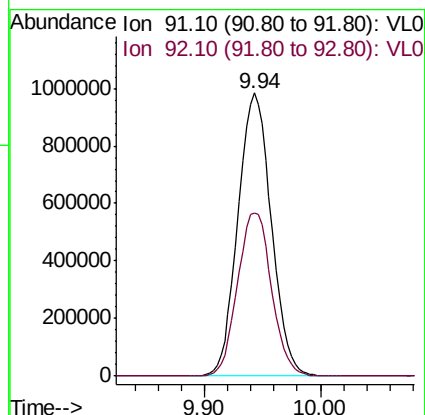
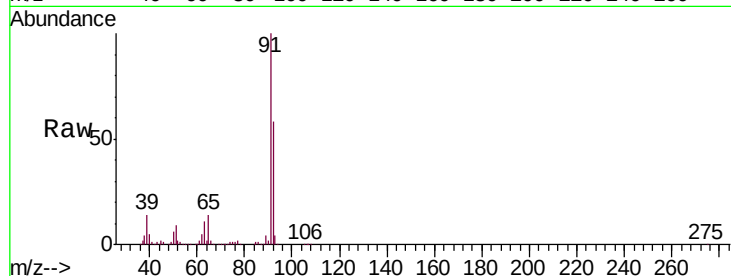
L1HA-OA1

Tgt Ion: 91 Resp: 1966755

Ion Ratio Lower Upper

91 100

92 58.9 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

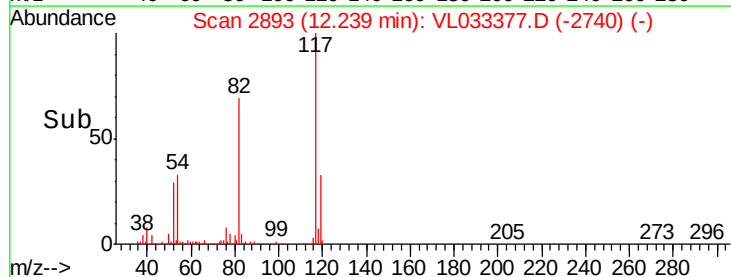
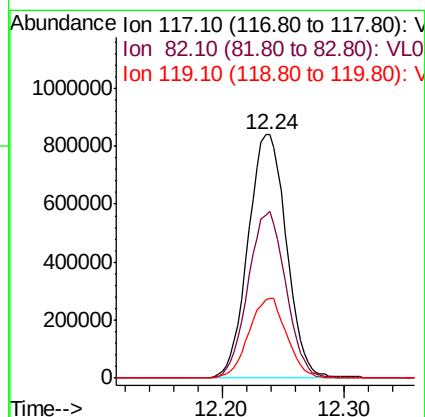
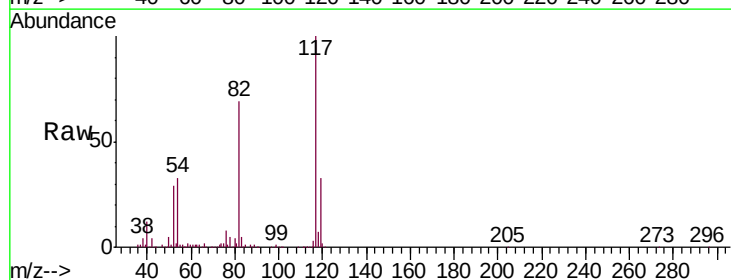
Tgt Ion: 117 Resp: 1819382

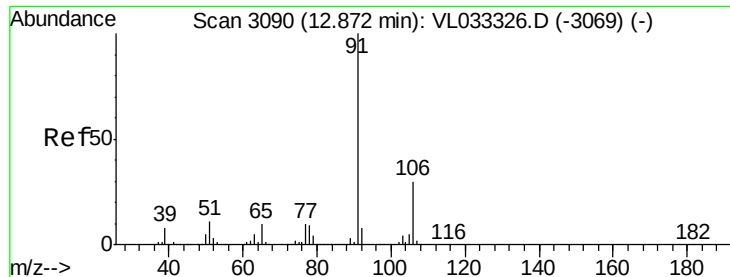
Ion Ratio Lower Upper

117 100

82 67.9 53.4 80.2

119 32.4 27.3 40.9

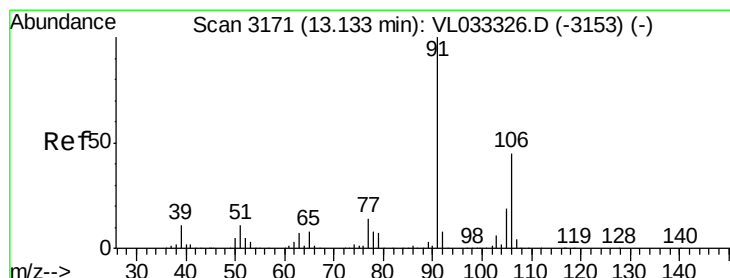
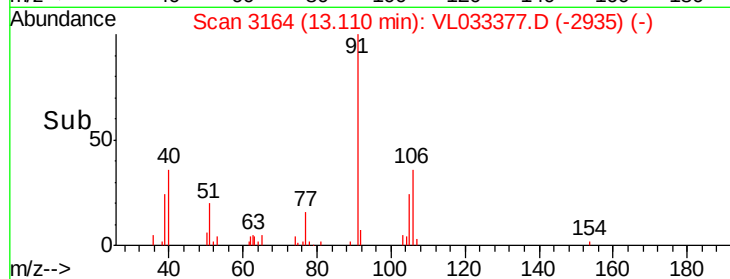
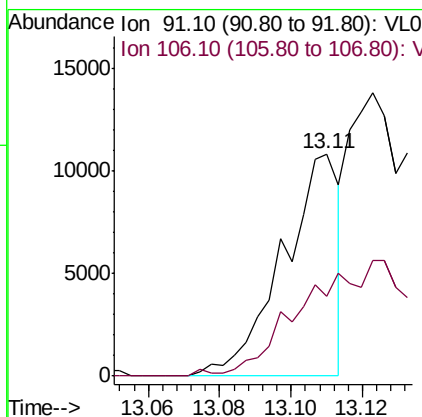
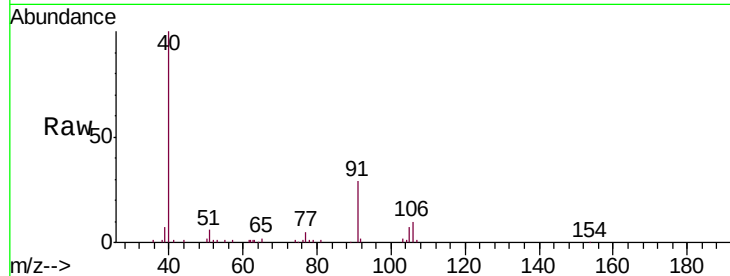




#58
 Ethyl Benzene
 Concen: 0.046 ppbv
 RT: 13.11 min Scan# 3164
 Delta R.T. 0.24 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

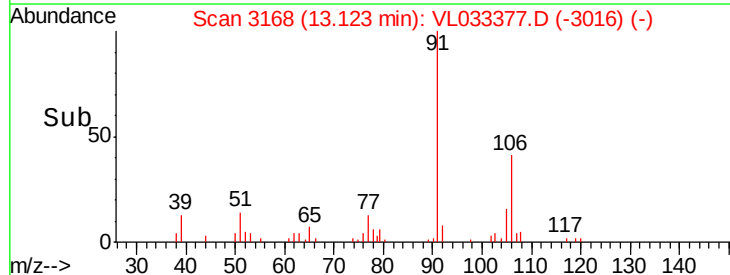
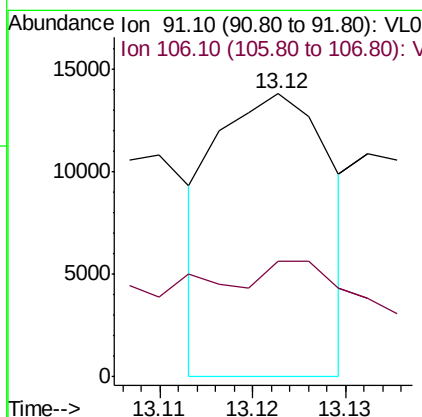
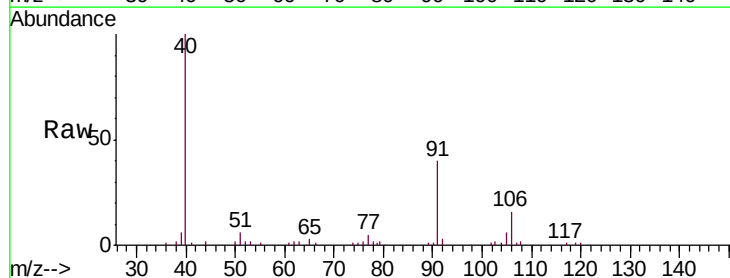
Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-OA1

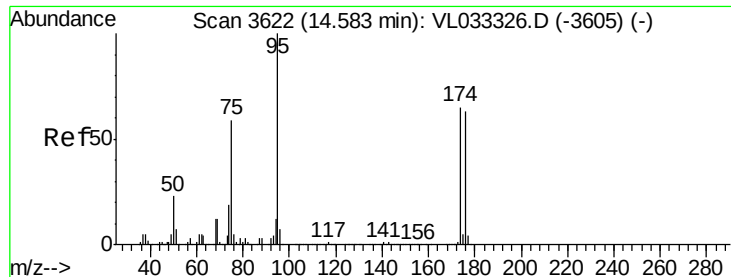
Tgt Ion: 91 Resp: 11895
 Ion Ratio Lower Upper
 91 100
 106 36.1 24.2 36.2



#59
 m/p-Xylene
 Concen: 0.054 ppbv
 RT: 13.12 min Scan# 3168
 Delta R.T. -0.01 min
 Lab File: VL033377.D
 Acq: 19 Mar 2019 3:16

Tgt Ion: 91 Resp: 11842
 Ion Ratio Lower Upper
 91 100
 106 142.3 0.0 0.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.352 ppbv

RT: 14.57 min Scan# 3619

Delta R.T. -0.01 min

Lab File: VL033377.D

Acq: 19 Mar 2019 3:16

Instrument :

MSVOA_L

ClientSampleId :

L1HA-OA1

Tgt Ion: 95 Resp: 1395605

Ion Ratio Lower Upper

95 100

174 64.6 51.5 77.3

175 4.6 3.8 5.6

