

Data File : VL033371.D
Acq On : 18 Mar 2019 23:21
Operator : SY/AP
Sample : K1952-03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
L1HA-IA1DUP

Quant Time: Mar 19 06:56:52 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	723481	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1594921	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.24	117	1433472	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.58 95 1158714 10.91 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 109.10%

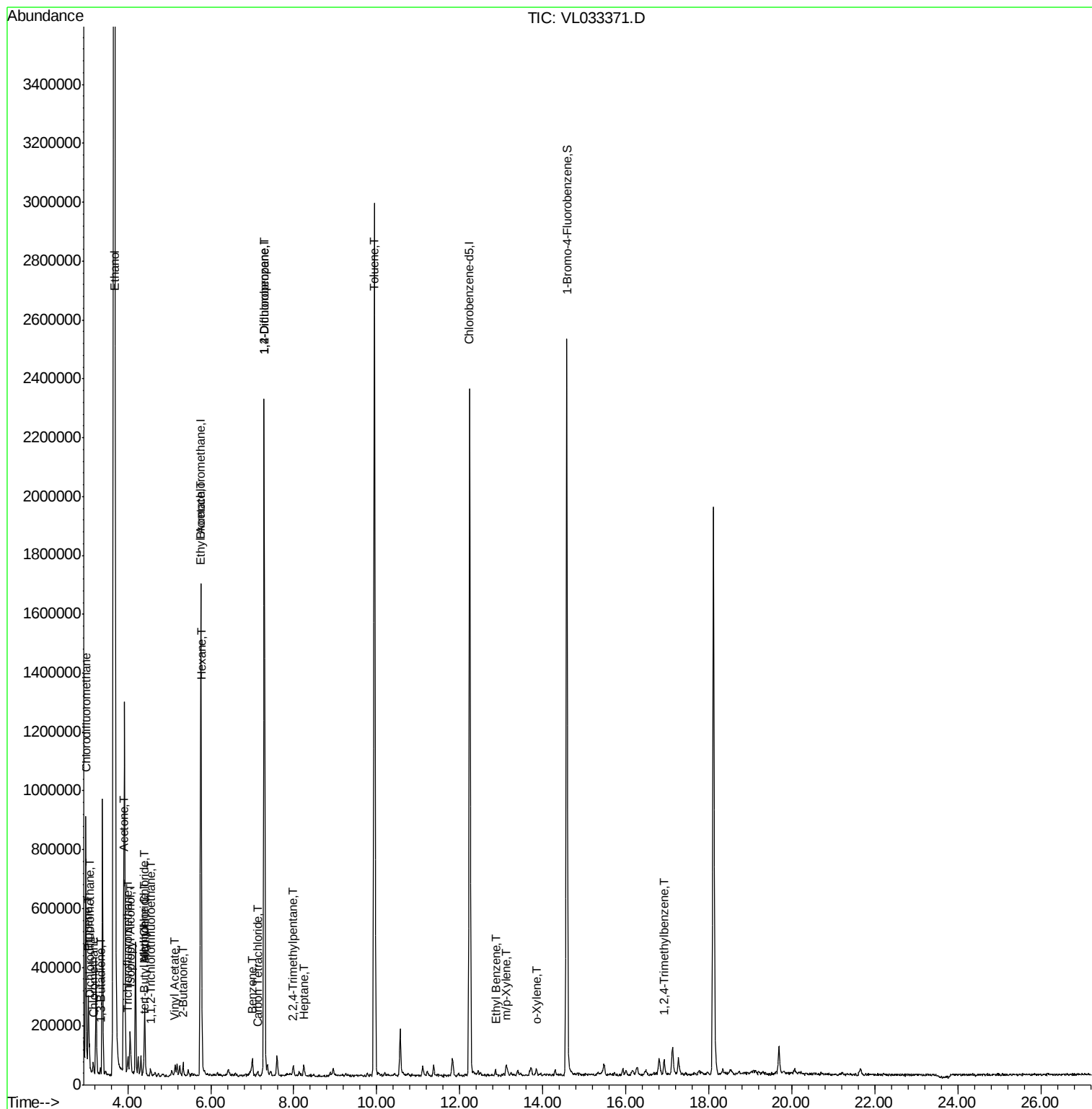
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	61919	0.487	ppbv	89
3) Chlorodifluoromethane	2.99	51	73453	0.885	ppbv #	76
4) Chloromethane	3.17	50	15108	0.336	ppbv	99
9) Propene	3.05	41	47382	1.278	ppbv #	65
10) Heptane	8.25	43	9055	0.098	ppbv #	53
11) Trichlorofluoromethane	4.00	101	31721	0.250	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.54	101	4007	0.048	ppbv #	14
13) Ethanol	3.68	45	9574179	541.781	ppbv	99
15) Acetone	3.90	43	492931	4.383	ppbv	92
16) 1,3-Butadiene	3.35	39	5756	0.158	ppbv #	2
17) tert-Butyl alcohol	4.38	59	7480	0.473	ppbv #	74
19) Isopropyl Alcohol	4.05	45	117121	2.189	ppbv #	93
20) Methylene Chloride	4.41	84	73085	1.993	ppbv	97
21) Allyl Chloride	4.40	41	5695	0.104	ppbv #	18
23) Vinyl Acetate	5.15	43	26823	0.206	ppbv #	78
25) Ethyl Acetate	5.77	43	102215	0.625	ppbv #	94
26) Hexane	5.78	57	79040	1.081	ppbv #	62
34) 2-Butanone	5.33	43	41493	0.396	ppbv	99
35) Carbon Tetrachloride	7.13	117	5442	0.048	ppbv #	91
36) Benzene	7.00	78	38129	0.267	ppbv	97
39) 1,2-Dichloropropane	7.29	63	423943	7.931	ppbv #	24
44) 2,2,4-Trimethylpentane	7.99	57	22153	0.094	ppbv #	66
53) Toluene	9.94	91	2314426	14.270	ppbv	99
58) Ethyl Benzene	12.86	91	7468	0.037	ppbv	93
59) m/p-Xylene	13.12	91	8321	0.048	ppbv #	100
60) o-Xylene	13.85	91	8880	0.052	ppbv #	50
74) 1,2,4-Trimethylbenzene	16.92	105	11596	0.058	ppbv #	63

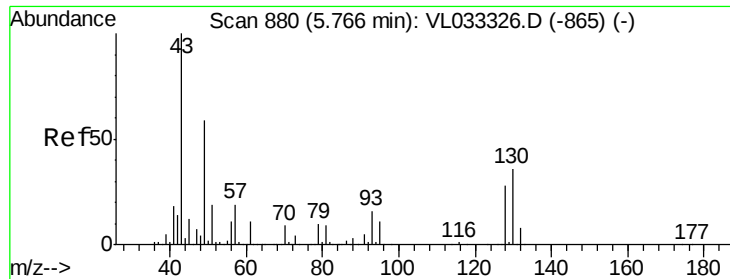
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

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Instrument :

MSVOA_L

ClientSampleId :

L1HA-IA1DUP

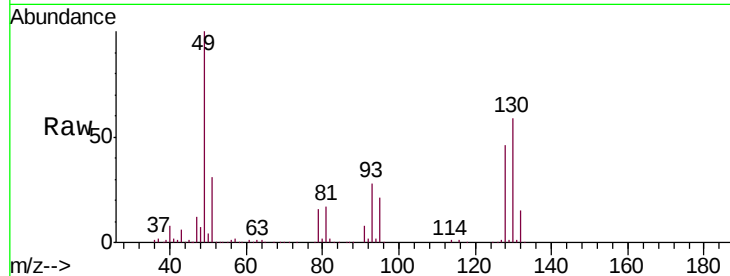
Tgt Ion: 49 Resp: 723481

Ion Ratio Lower Upper

49 100

128 46.5 23.5 70.6

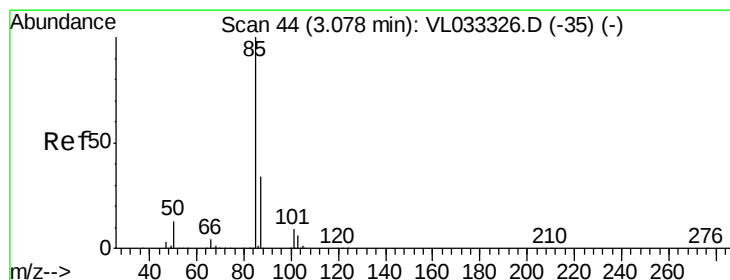
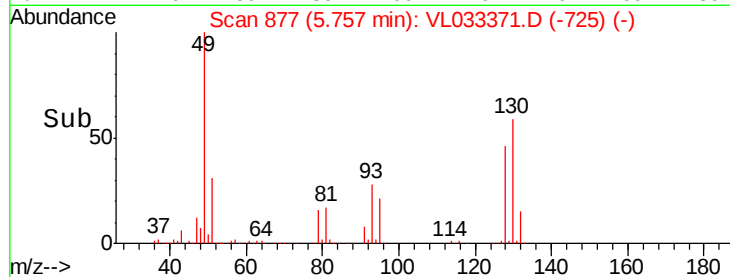
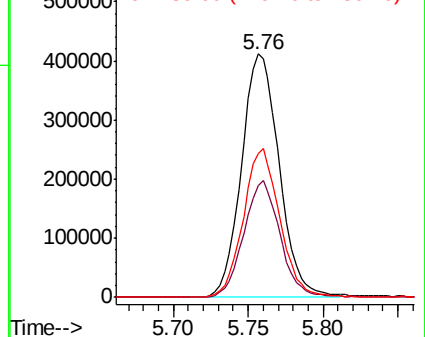
130 59.4 30.1 90.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.487 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL033371.D

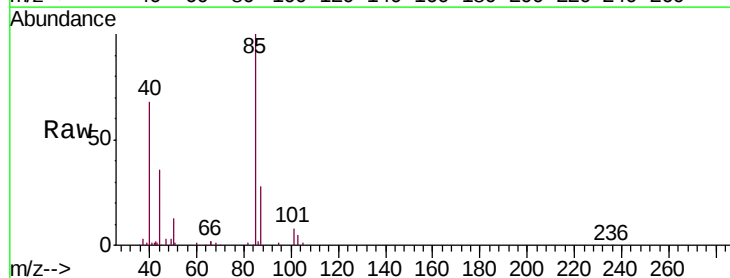
Acq: 18 Mar 2019 23:21

Tgt Ion: 85 Resp: 61919

Ion Ratio Lower Upper

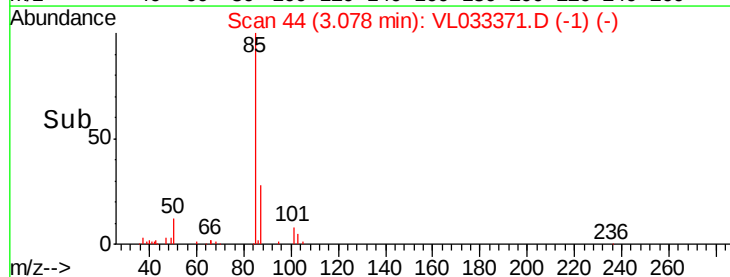
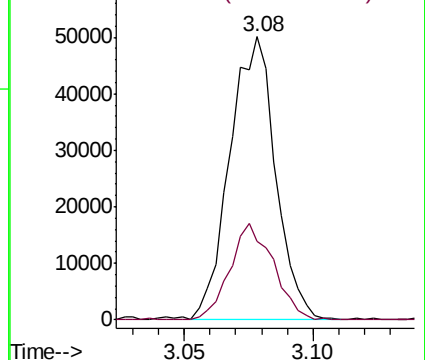
85 100

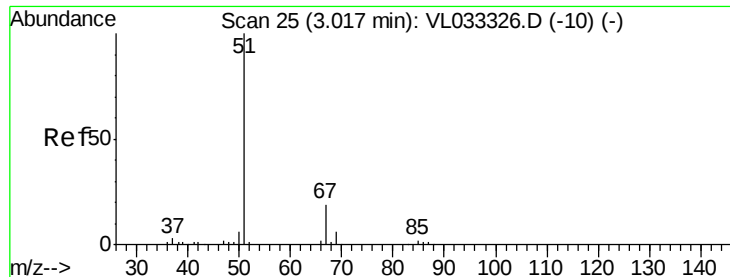
87 27.6 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.885 ppbv

RT: 2.99 min Scan# 16

Delta R.T. -0.03 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

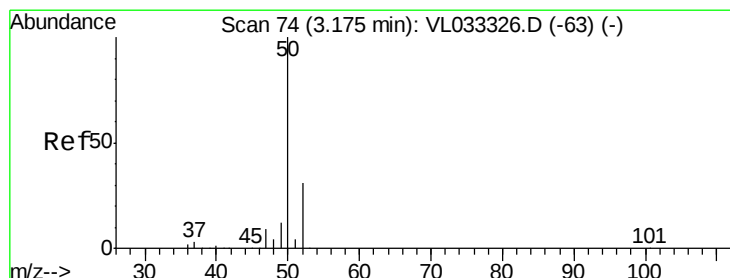
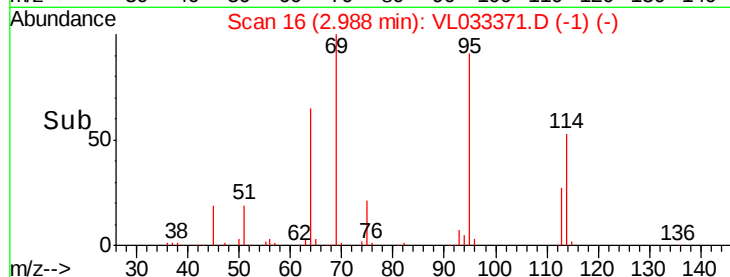
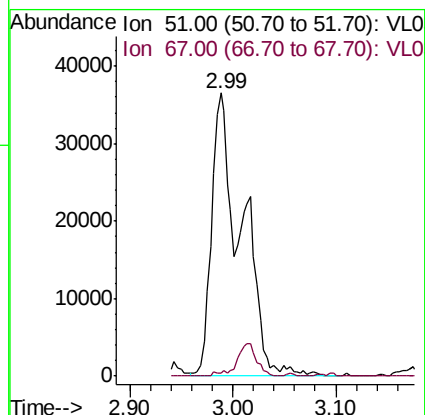
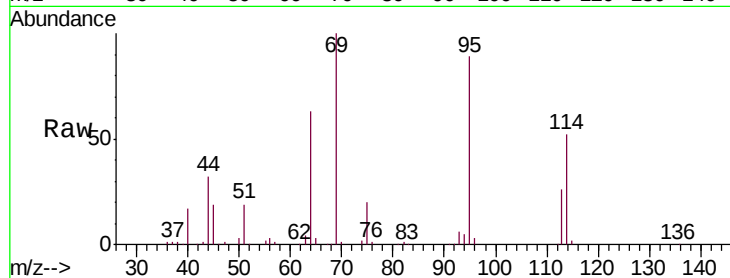
L1HA-IA1DUP

Tgt Ion: 51 Resp: 73453

Ion Ratio Lower Upper

51 100

67 7.8 14.9 22.3#



#4

Chloromethane

Concen: 0.336 ppbv

RT: 3.17 min Scan# 72

Delta R.T. -0.01 min

Lab File: VL033371.D

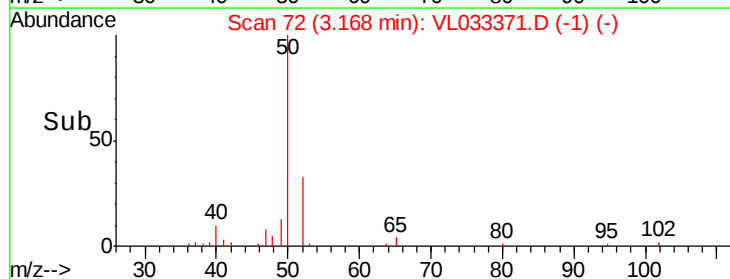
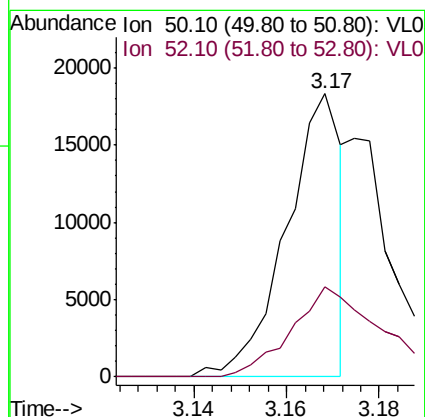
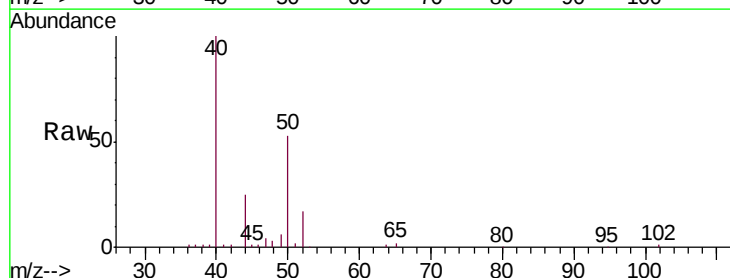
Acq: 18 Mar 2019 23:21

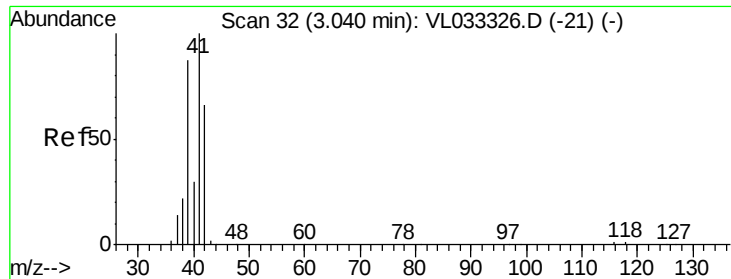
Tgt Ion: 50 Resp: 15108

Ion Ratio Lower Upper

50 100

52 32.0 25.0 37.6





#9

Propene

Concen: 1.278 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

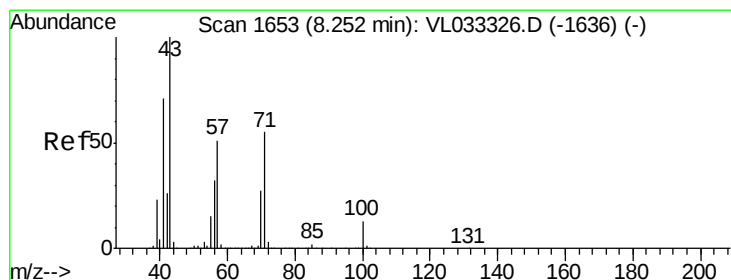
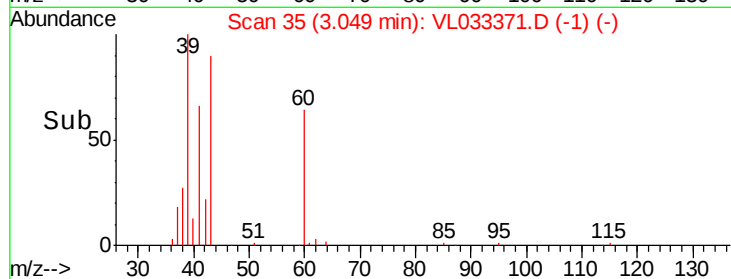
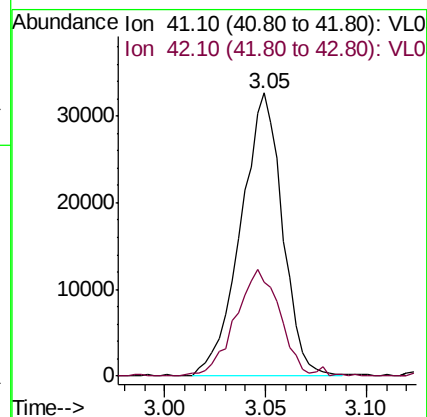
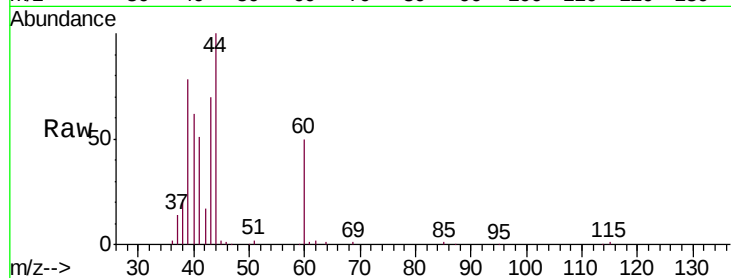
L1HA-IA1DUP

Tgt Ion: 41 Resp: 47382

Ion Ratio Lower Upper

41 100

42 40.8 55.2 82.8#



#10

Heptane

Concen: 0.098 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.01 min

Lab File: VL033371.D

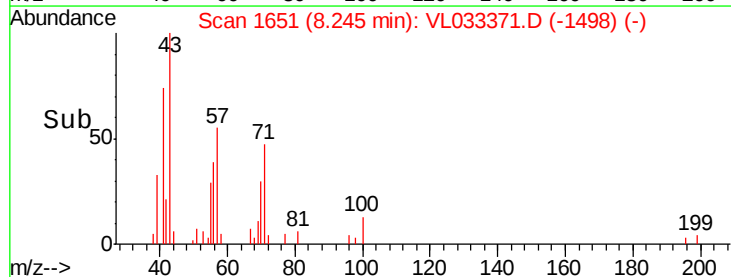
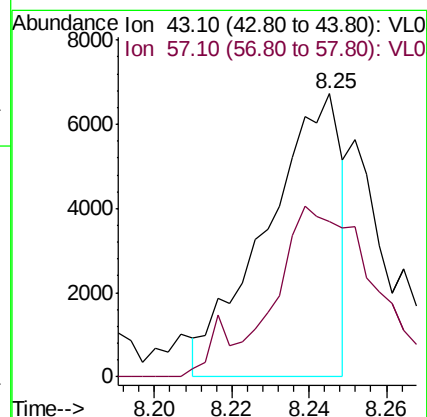
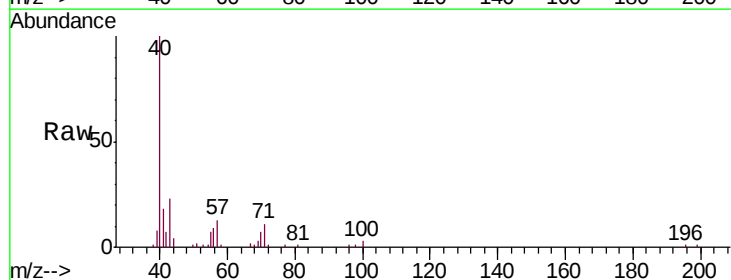
Acq: 18 Mar 2019 23:21

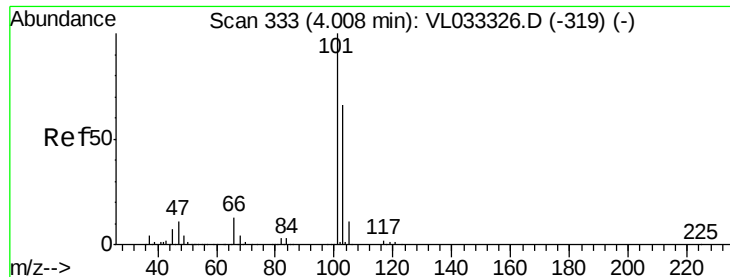
Tgt Ion: 43 Resp: 9055

Ion Ratio Lower Upper

43 100

57 83.2 40.4 60.6#

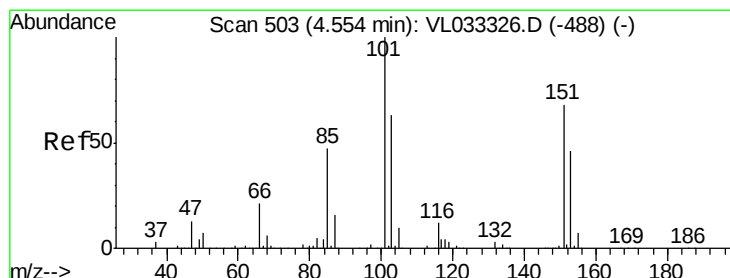
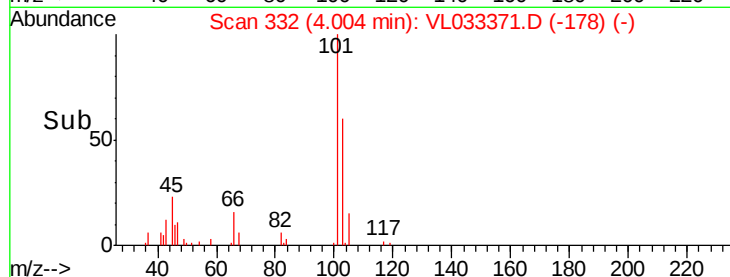
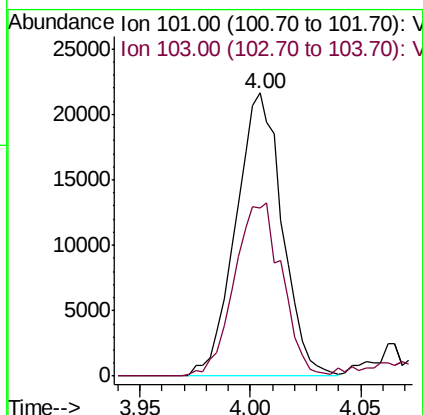
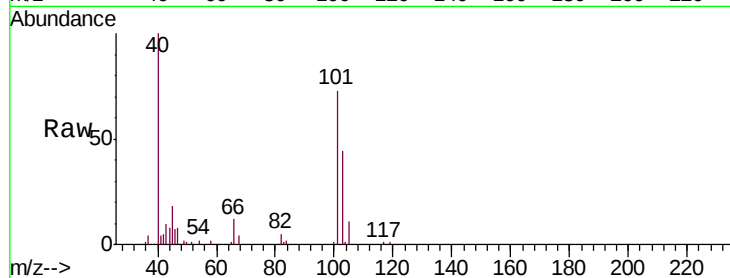




#11
 Trichlorofluoromethane
 Concen: 0.250 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

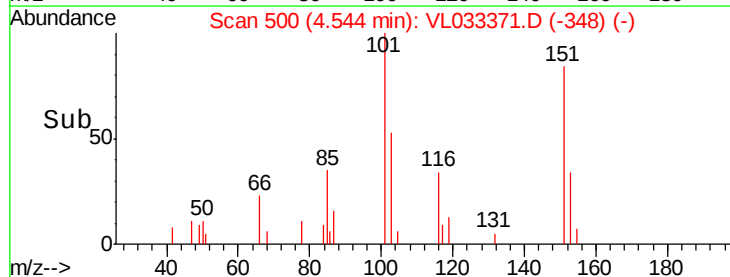
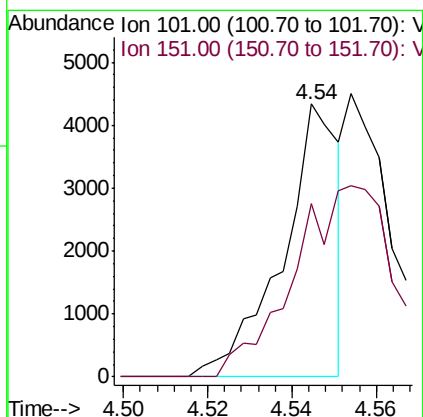
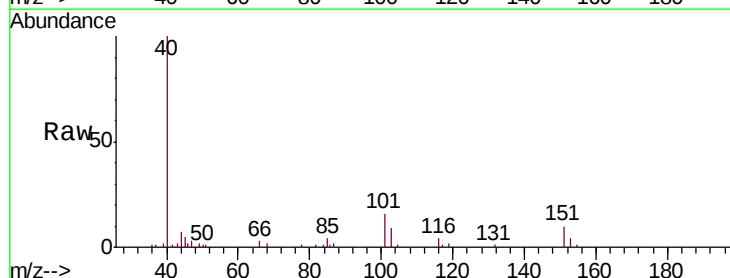
Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-IA1DUP

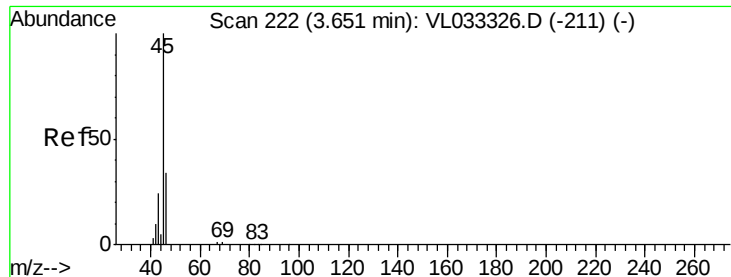
Tgt Ion:101 Resp: 31721
 Ion Ratio Lower Upper
 101 100
 103 58.8 52.9 79.3



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.048 ppbv
 RT: 4.54 min Scan# 500
 Delta R.T. -0.01 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Tgt Ion:101 Resp: 4007
 Ion Ratio Lower Upper
 101 100
 151 0.0 56.3 84.5#





#13

Ethanol

Concen: 541.781 ppbv

RT: 3.68 min Scan# 230

Delta R.T. 0.03 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

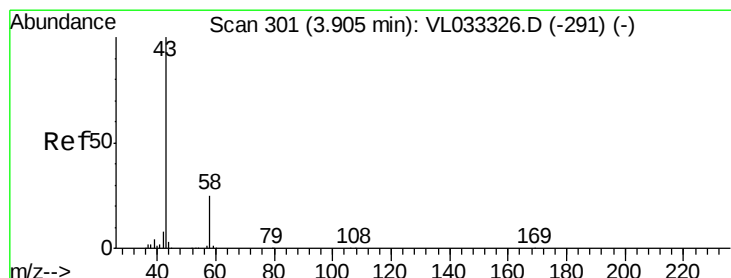
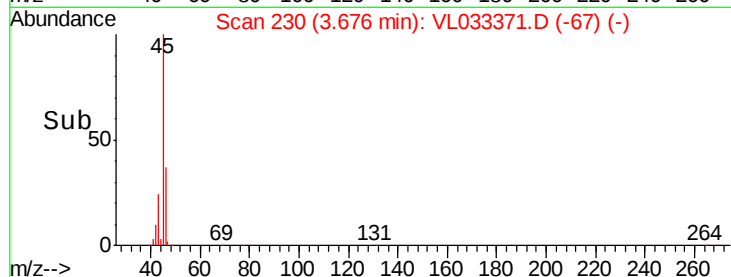
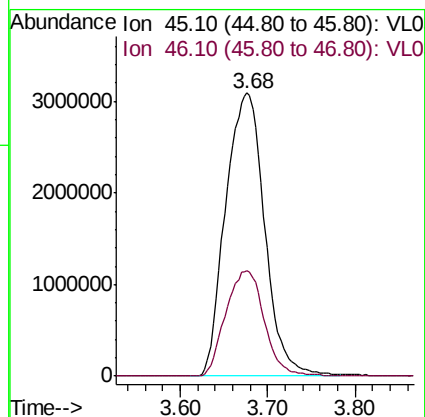
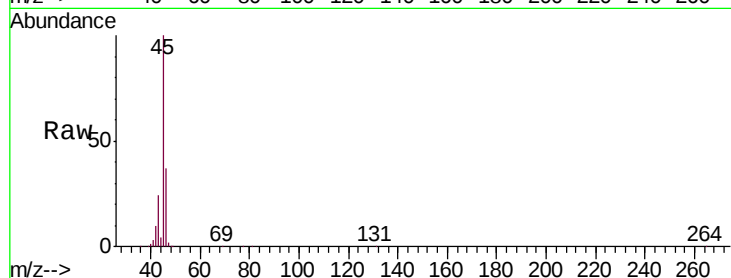
L1HA-IA1DUP

Tgt Ion: 45 Resp: 9574179

Ion Ratio Lower Upper

45 100

46 36.8 14.9 59.7



#15

Acetone

Concen: 4.383 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.01 min

Lab File: VL033371.D

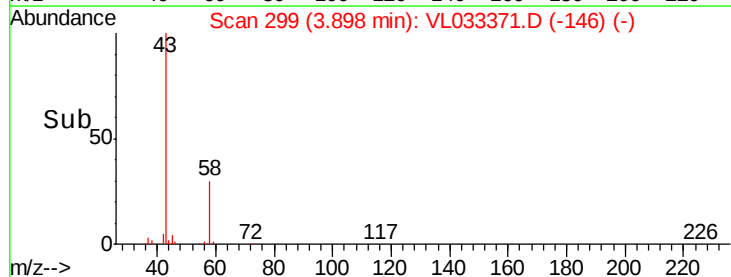
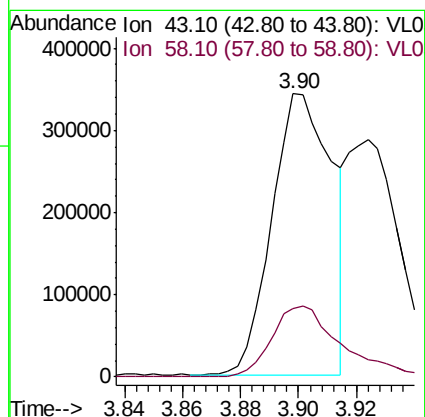
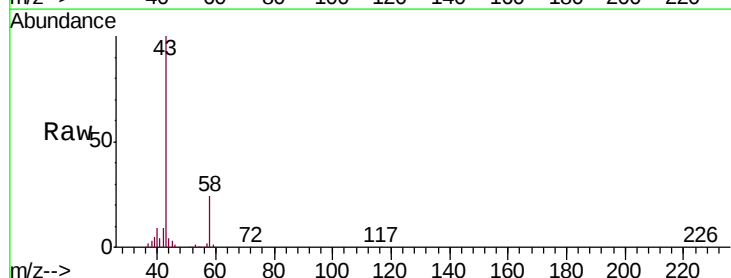
Acq: 18 Mar 2019 23:21

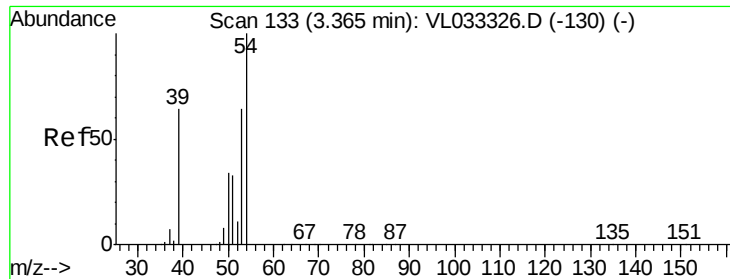
Tgt Ion: 43 Resp: 492931

Ion Ratio Lower Upper

43 100

58 29.3 20.4 30.6





#16

1,3-Butadiene

Concen: 0.158 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

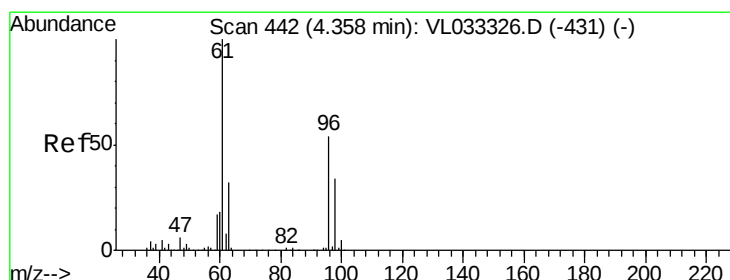
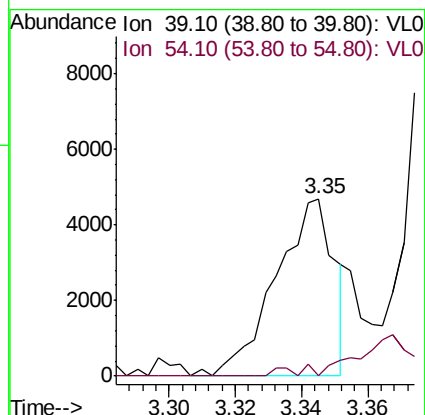
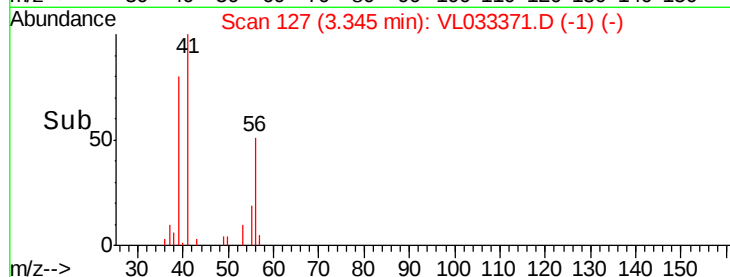
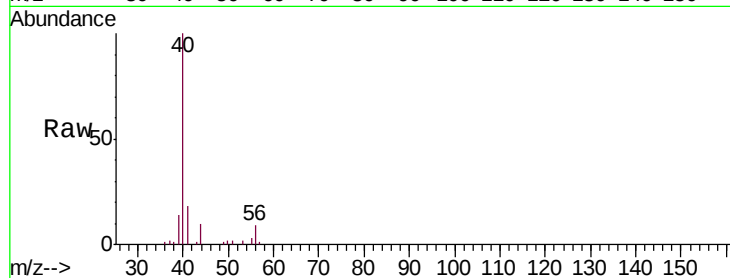
L1HA-IA1DUP

Tgt Ion: 39 Resp: 5756

Ion Ratio Lower Upper

39 100

54 0.0 76.8 115.2#



#17

tert-Butyl alcohol

Concen: 0.473 ppbv

RT: 4.38 min Scan# 448

Delta R.T. 0.02 min

Lab File: VL033371.D

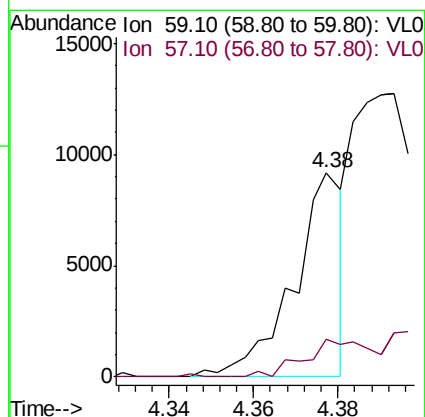
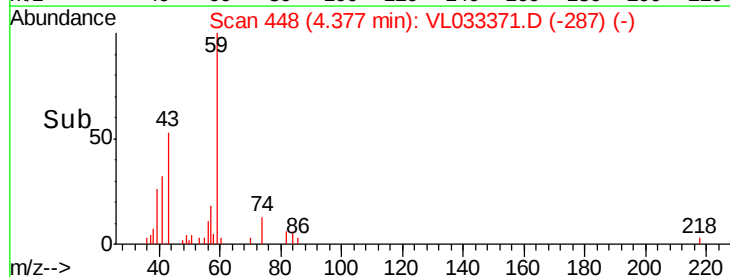
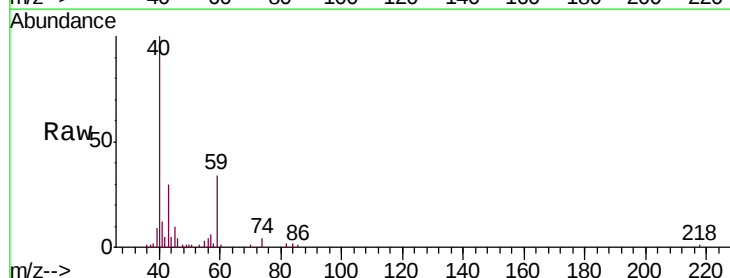
Acq: 18 Mar 2019 23:21

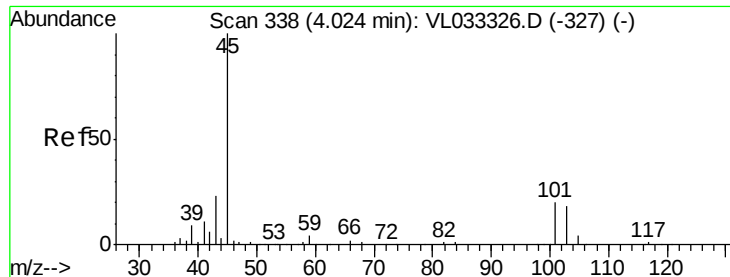
Tgt Ion: 59 Resp: 7480

Ion Ratio Lower Upper

59 100

57 0.0 7.7 11.5#





#19

Isopropyl Alcohol

Concen: 2.189 ppbv

RT: 4.05 min Scan# 347

Delta R.T. 0.03 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

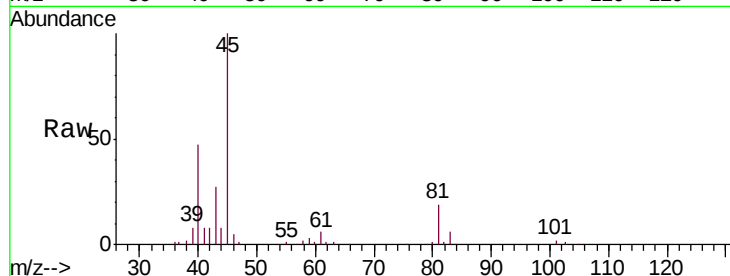
L1HA-IA1DUP

Tgt Ion: 45 Resp: 117121

Ion Ratio Lower Upper

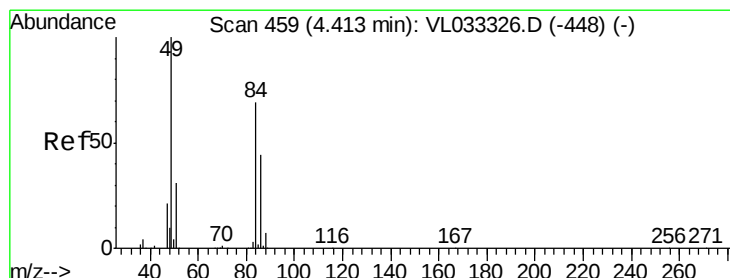
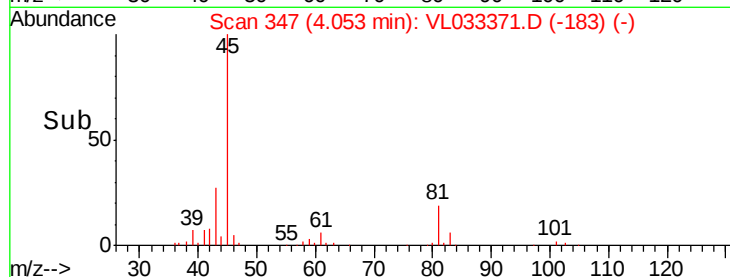
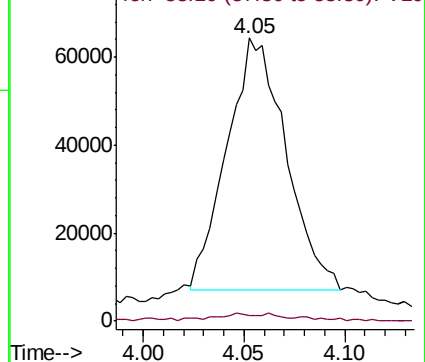
45 100

58 4.3 1.5 2.3#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.993 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Tgt Ion: 84 Resp: 73085

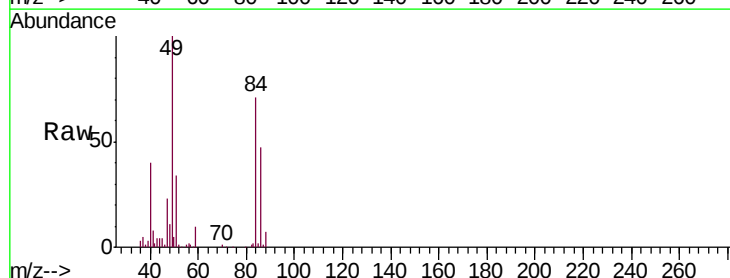
Ion Ratio Lower Upper

84 100

49 139.5 115.4 173.0

51 46.5 35.8 53.6

86 64.9 50.6 75.8

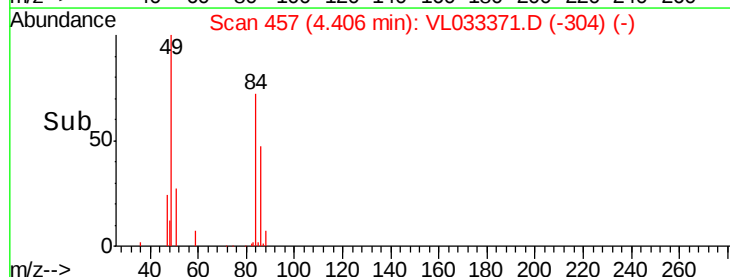
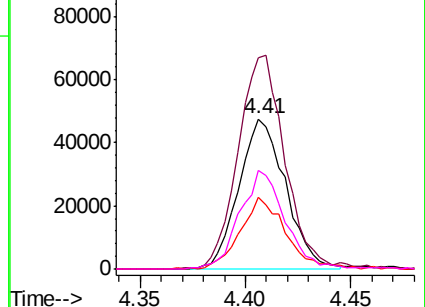


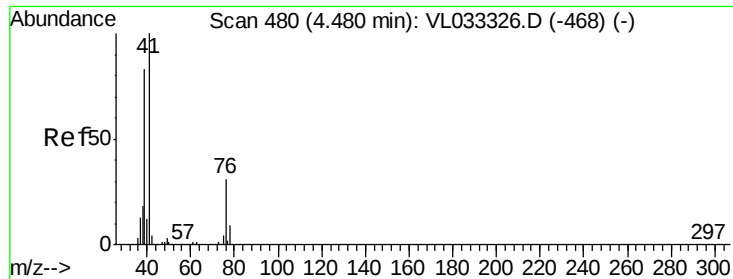
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

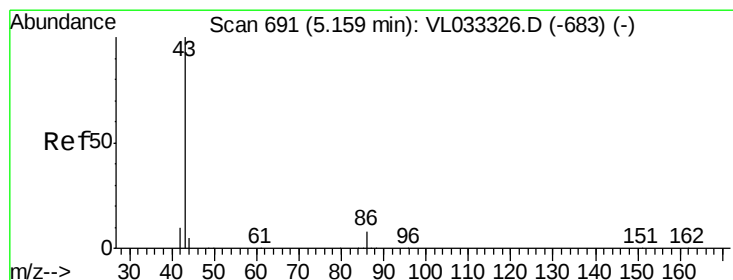
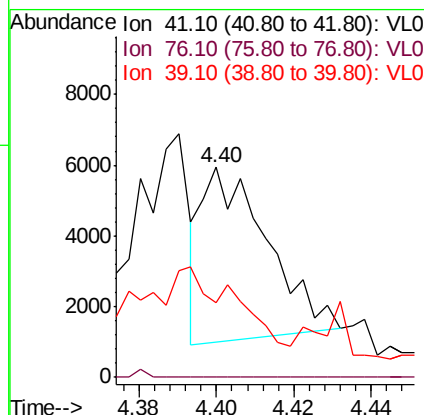
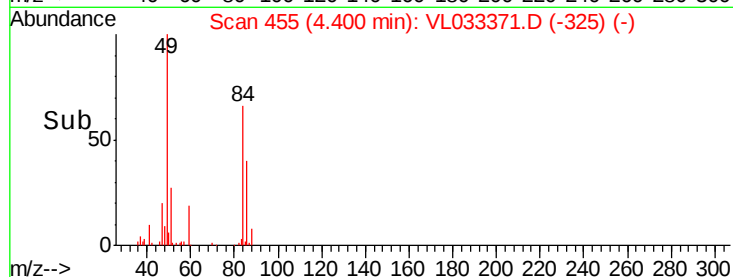
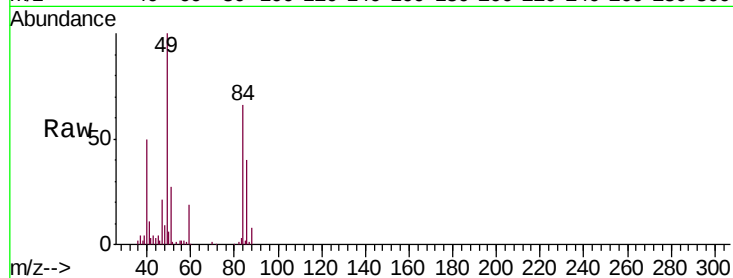




#21
 Allyl Chloride
 Concen: 0.104 ppbv
 RT: 4.40 min Scan# 455
 Delta R.T. -0.08 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

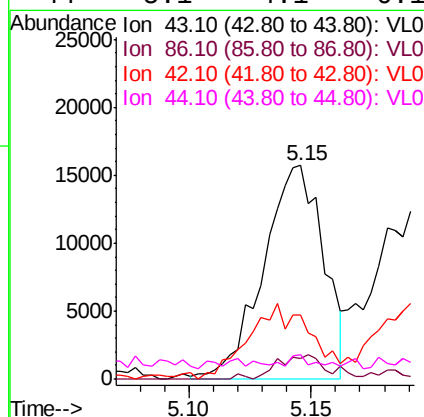
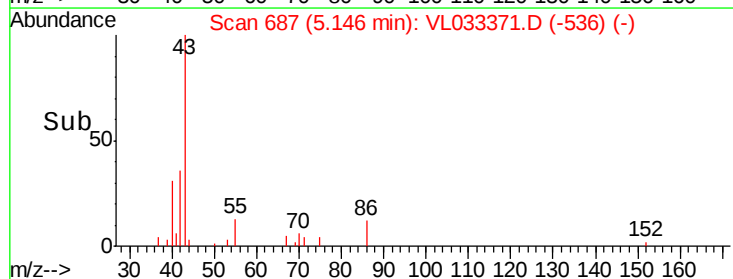
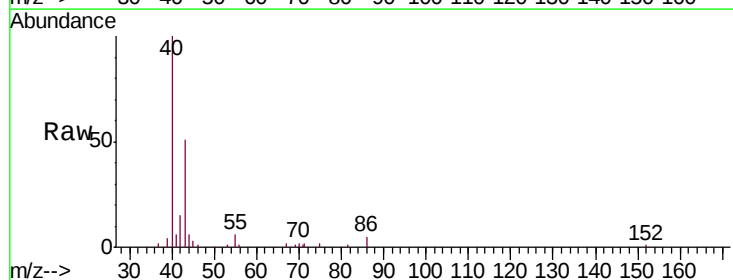
Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-IA1DUP

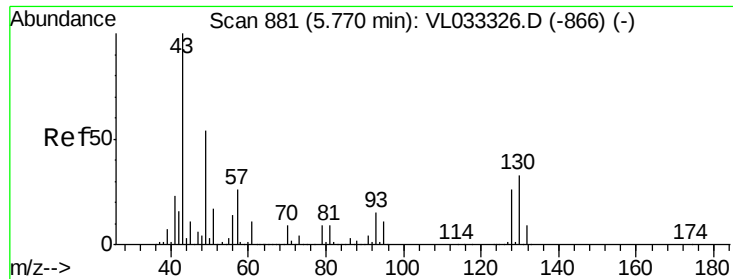
Tgt Ion: 41 Resp: 5695
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.0 37.4#
 39 0.0 65.9 98.9#



#23
 Vinyl Acetate
 Concen: 0.206 ppbv
 RT: 5.15 min Scan# 687
 Delta R.T. -0.01 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Tgt Ion: 43 Resp: 26823
 Ion Ratio Lower Upper
 43 100
 86 9.9 6.2 9.2#
 42 27.1 8.1 12.1#
 44 5.1 4.1 6.1

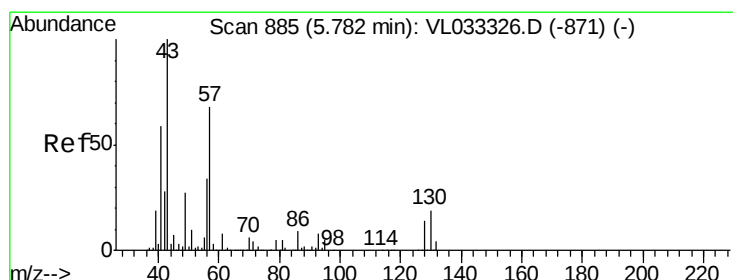
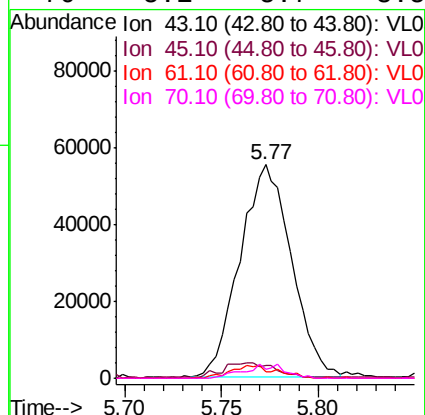
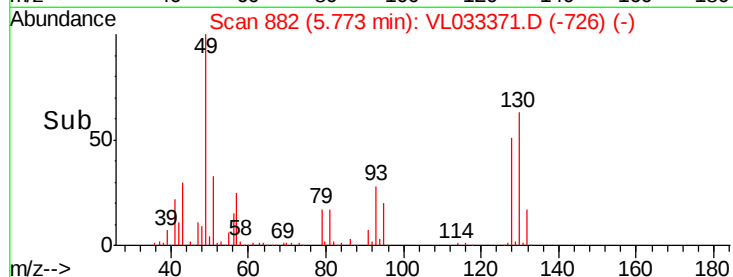
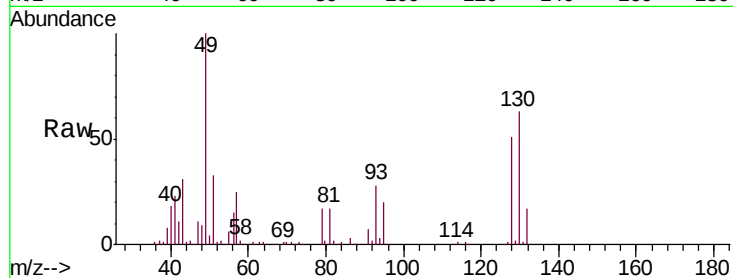




#25
Ethyl Acetate
Concen: 0.625 ppbv
RT: 5.77 min Scan# 882
Delta R.T. 0.00 min
Lab File: VL033371.D
Acq: 18 Mar 2019 23:21

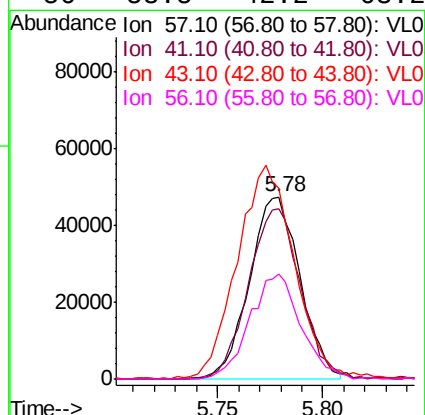
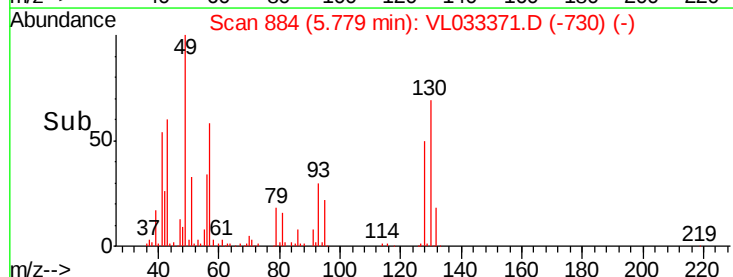
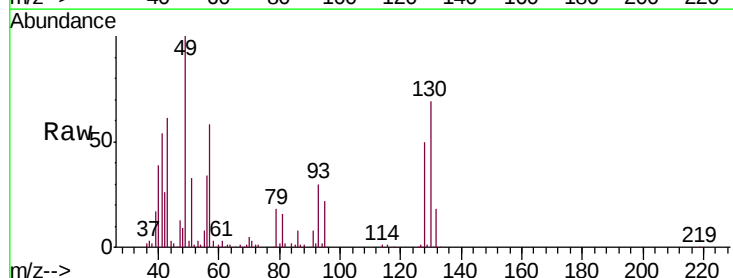
Instrument :
MSVOA_L
ClientSampleId :
L1HA-IA1DUP

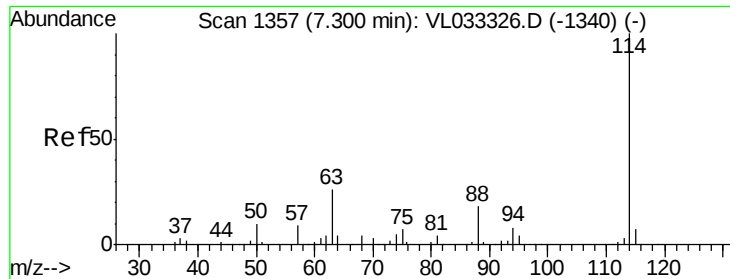
Tgt Ion:	43	Resp:	102215
Ion	Ratio	Lower	Upper
43	100		
45	8.8	7.9	11.9
61	5.7	7.4	11.2#
70	5.1	5.7	8.5#



#26
Hexane
Concen: 1.081 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033371.D
Acq: 18 Mar 2019 23:21

Tgt Ion:	57	Resp:	79040
Ion	Ratio	Lower	Upper
57	100		
41	96.9	70.5	105.7
43	134.6	181.8	272.8#
56	58.5	42.2	63.2

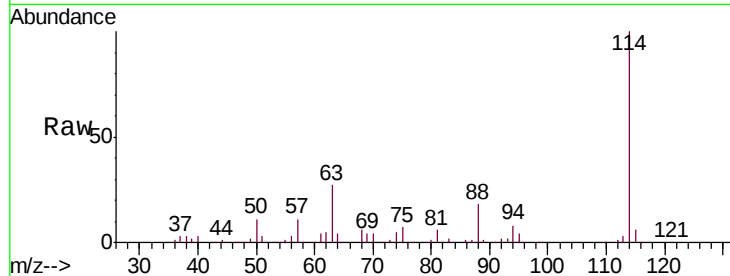




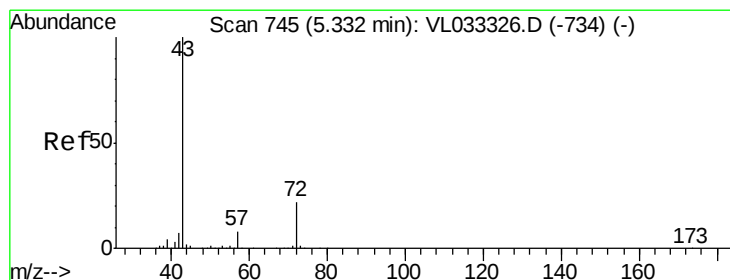
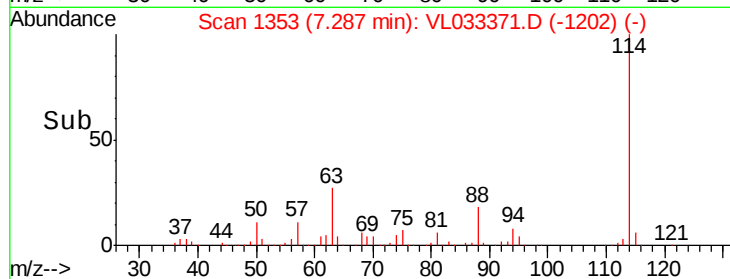
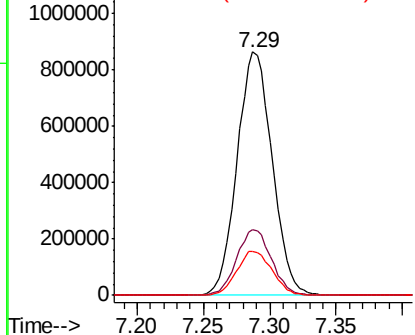
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-IA1DUP

Tgt Ion: 114 Resp: 1594921
 Ion Ratio Lower Upper
 114 100
 63 26.8 21.4 32.2
 88 18.3 14.5 21.7

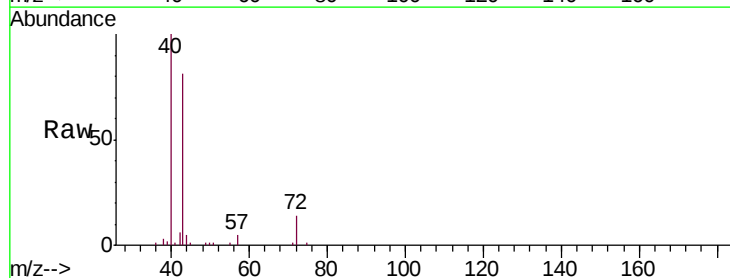


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

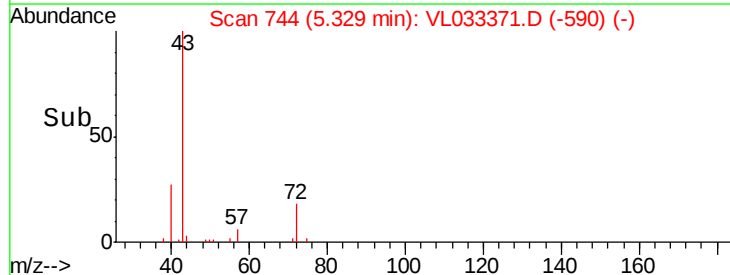
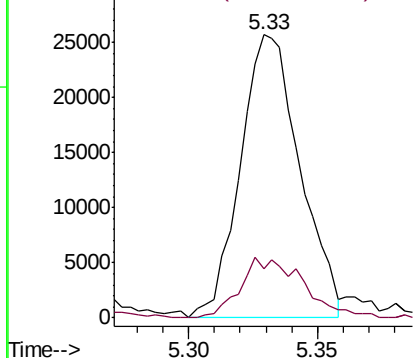


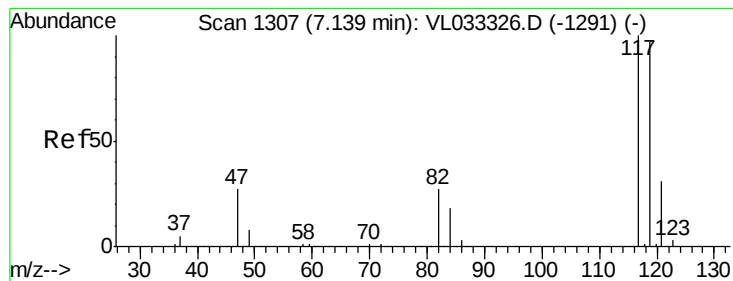
#34
 2-Butanone
 Concen: 0.396 ppbv
 RT: 5.33 min Scan# 744
 Delta R.T. -0.00 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Tgt Ion: 43 Resp: 41493
 Ion Ratio Lower Upper
 43 100
 72 22.7 17.7 26.5



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.048 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

L1HA-IA1DUP

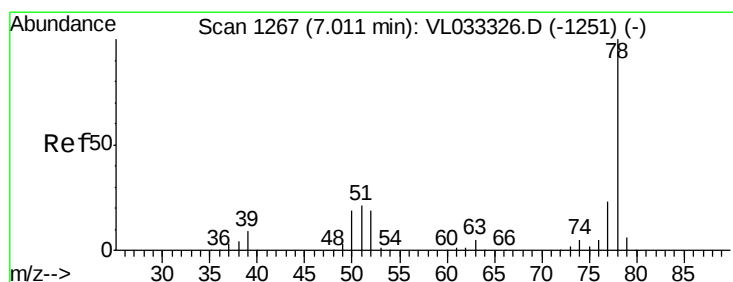
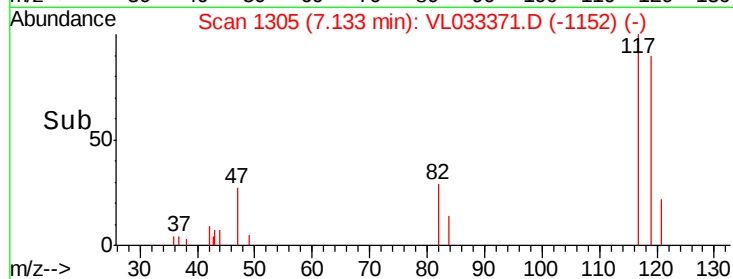
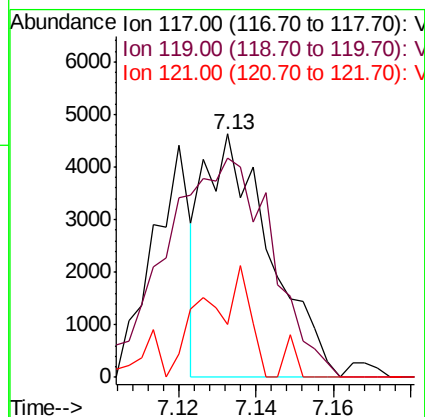
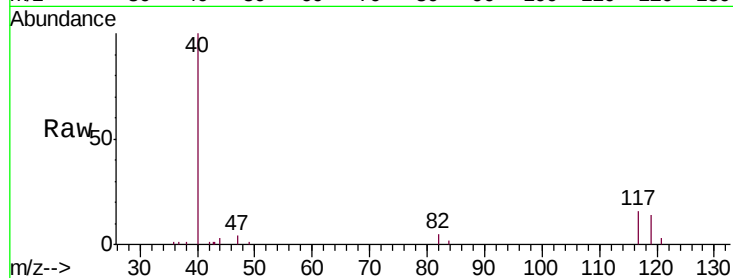
Tgt Ion:117 Resp: 5442

Ion Ratio Lower Upper

117 100

119 90.3 77.4 116.0

121 22.0 24.9 37.3#



#36

Benzene

Concen: 0.267 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

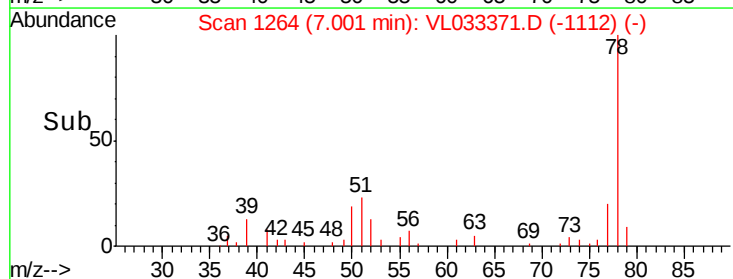
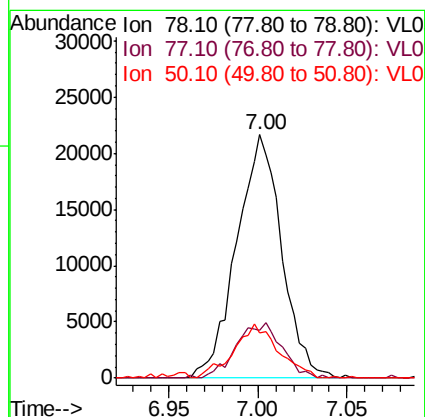
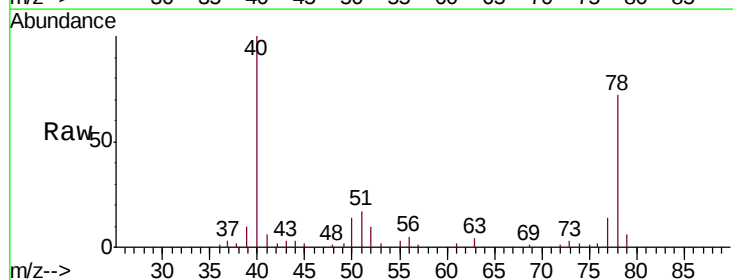
Tgt Ion: 78 Resp: 38129

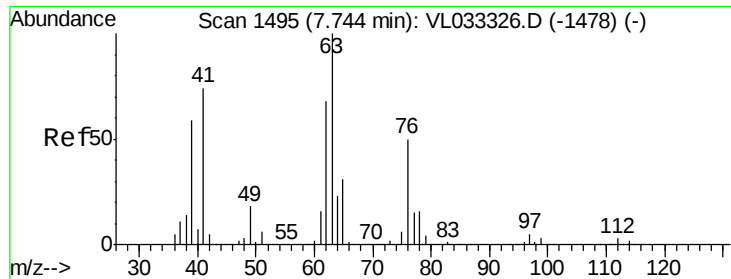
Ion Ratio Lower Upper

78 100

77 19.7 18.1 27.1

50 18.8 15.2 22.8

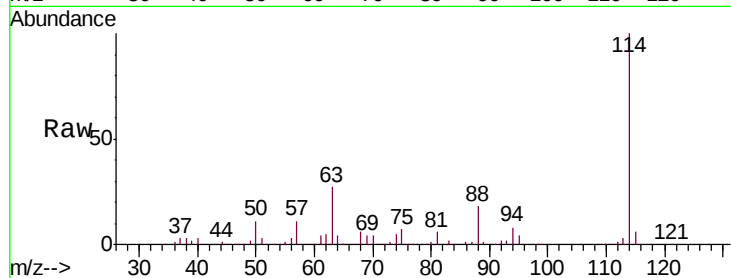




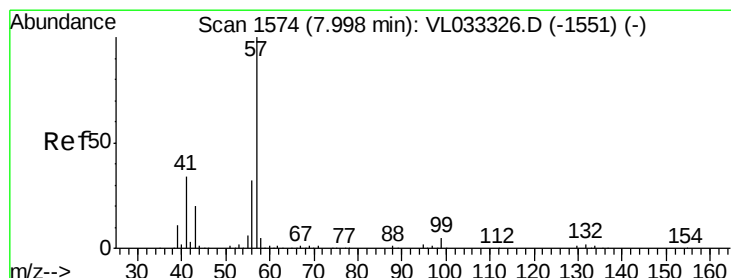
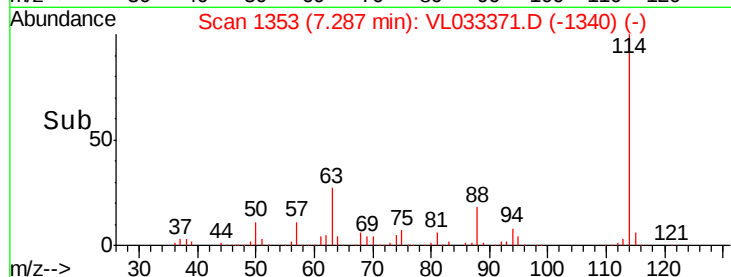
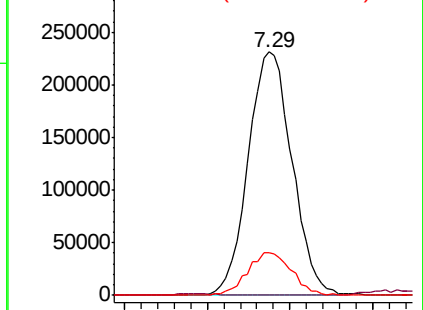
#39
 1,2-Dichloropropane
 Concen: 7.931 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.46 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-IA1DUP

Tgt Ion: 63 Resp: 423943
 Ion Ratio Lower Upper
 63 100
 41 0.0 59.5 89.3#
 62 17.7 54.7 82.1#

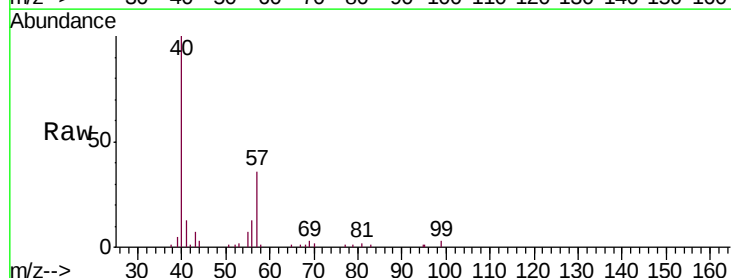


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

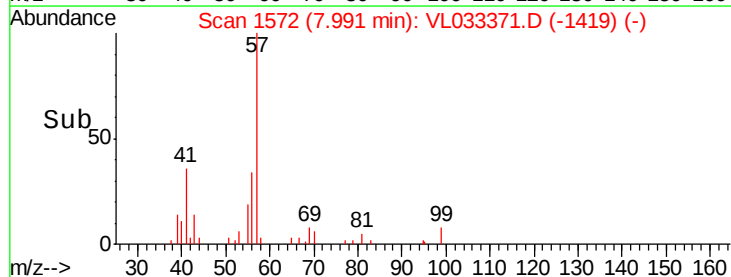
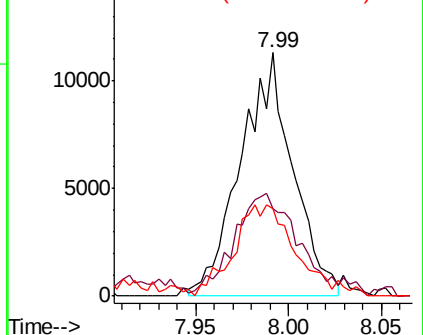


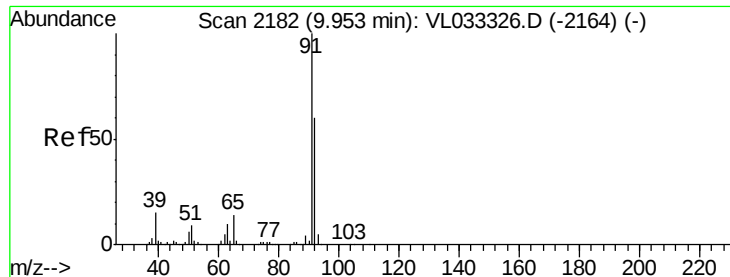
#44
 2,2,4-Trimethylpentane
 Concen: 0.094 ppbv
 RT: 7.99 min Scan# 1572
 Delta R.T. -0.01 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Tgt Ion: 57 Resp: 22153
 Ion Ratio Lower Upper
 57 100
 41 55.9 26.0 39.0#
 56 44.6 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





#53

Toluene

Concen: 14.270 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

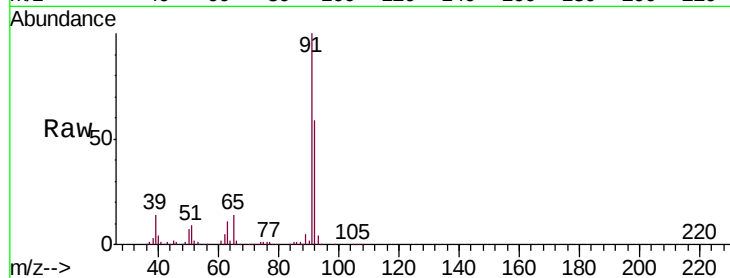
L1HA-IA1DUP

Tgt Ion: 91 Resp: 2314426

Ion Ratio Lower Upper

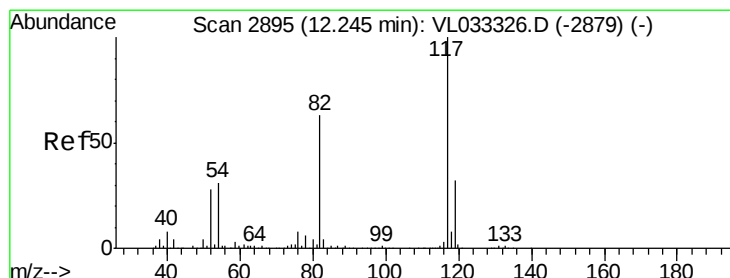
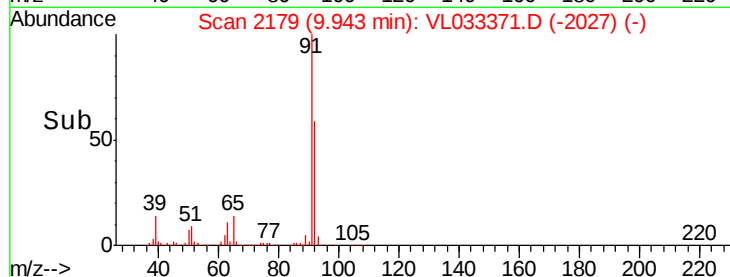
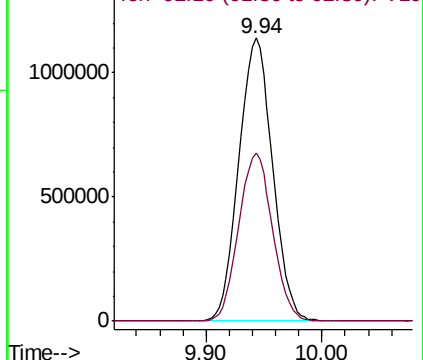
91 100

92 59.6 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

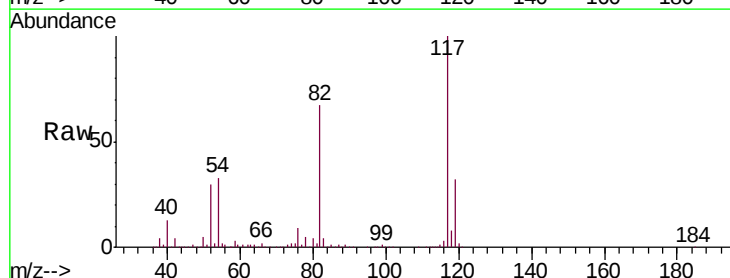
Tgt Ion: 117 Resp: 1433472

Ion Ratio Lower Upper

117 100

82 67.5 53.4 80.2

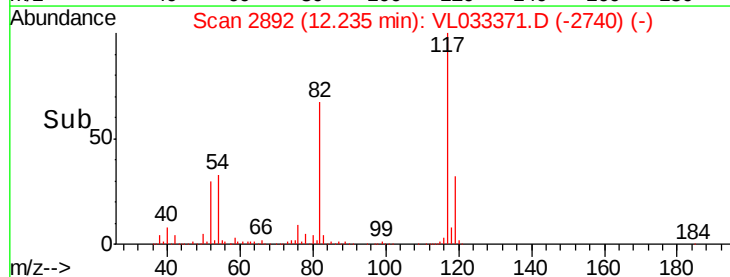
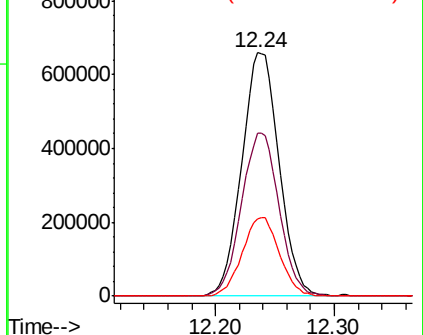
119 32.1 27.3 40.9

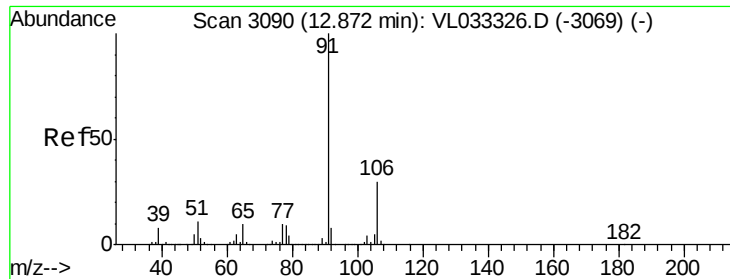


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.037 ppbv

RT: 12.86 min Scan# 3086

Delta R.T. -0.01 min

Lab File: VL033371.D

Acq: 18 Mar 2019 23:21

Instrument :

MSVOA_L

ClientSampleId :

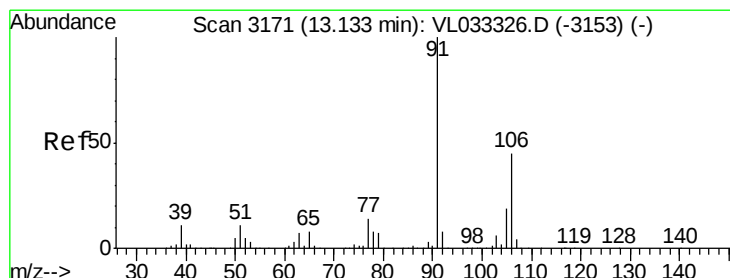
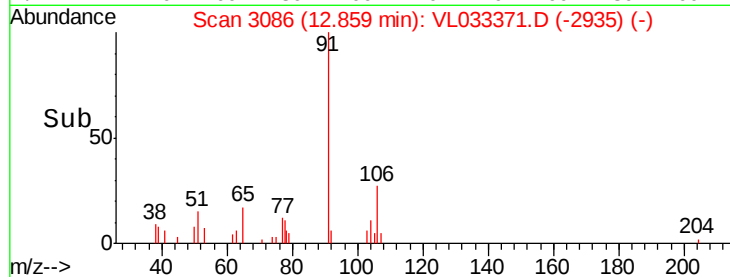
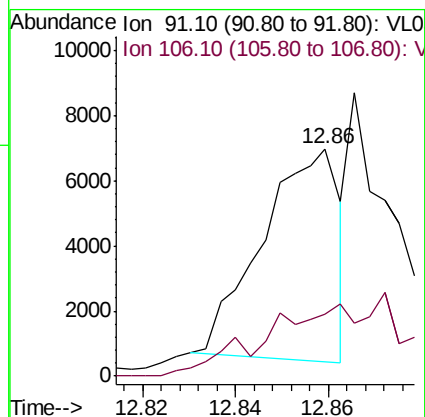
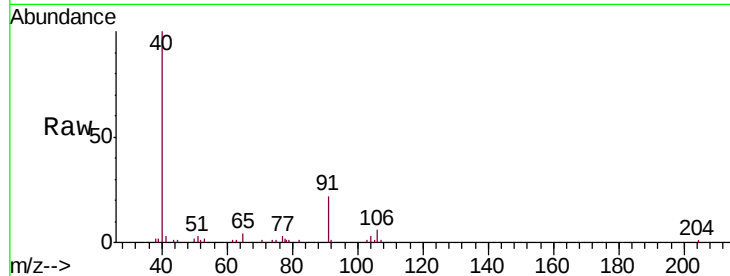
L1HA-IA1DUP

Tgt Ion: 91 Resp: 7468

Ion Ratio Lower Upper

91 100

106 26.3 24.2 36.2



#59

m/p-Xylene

Concen: 0.048 ppbv

RT: 13.12 min Scan# 3167

Delta R.T. -0.01 min

Lab File: VL033371.D

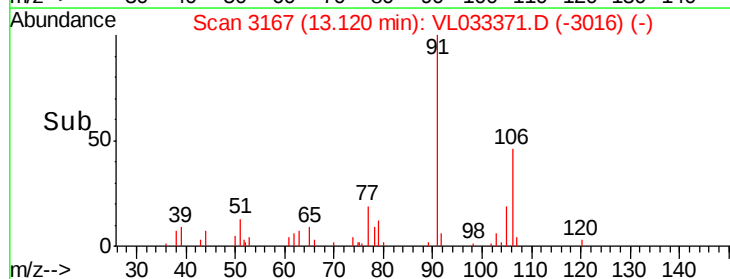
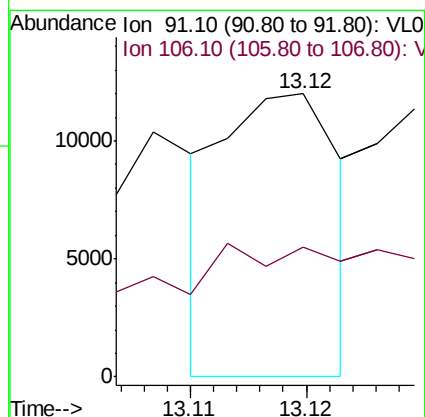
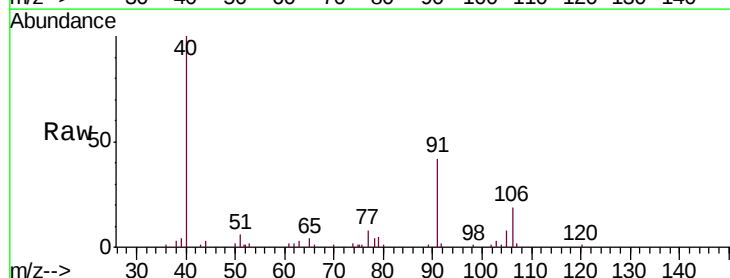
Acq: 18 Mar 2019 23:21

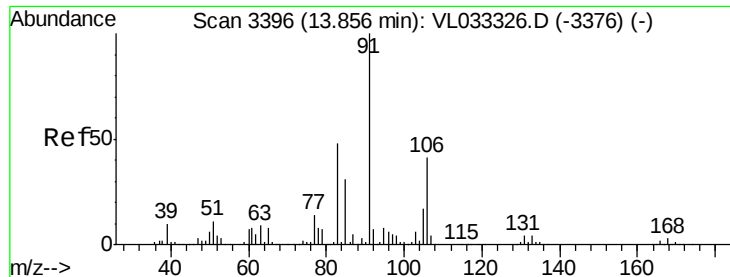
Tgt Ion: 91 Resp: 8321

Ion Ratio Lower Upper

91 100

106 198.9 0.0 0.0#

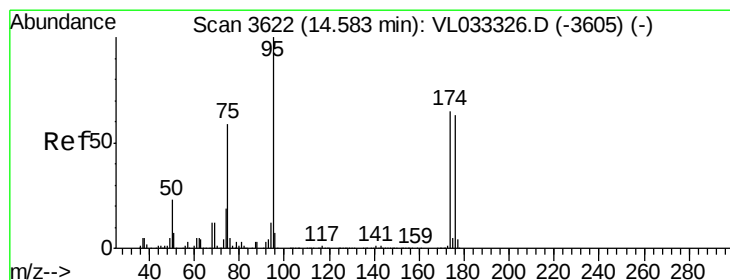
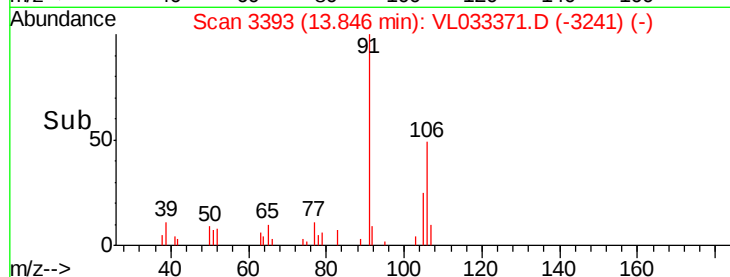
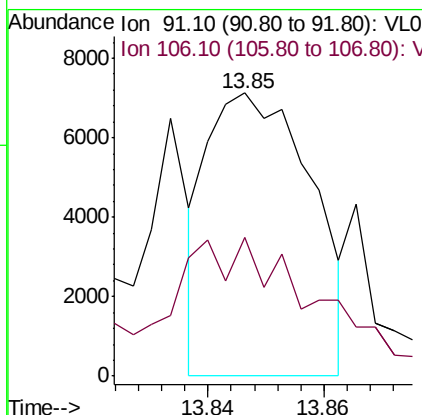
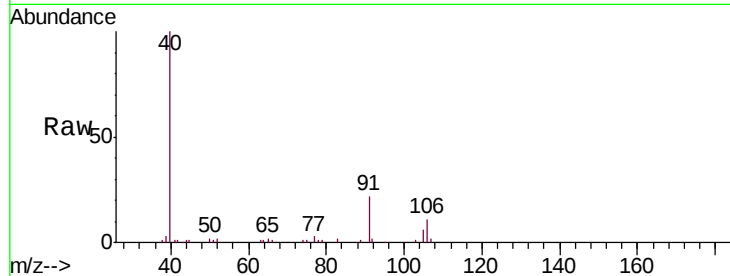




#60
o-Xylene
Concen: 0.052 ppbv
RT: 13.85 min Scan# 3393
Delta R.T. -0.01 min
Lab File: VL033371.D
Acq: 18 Mar 2019 23:21

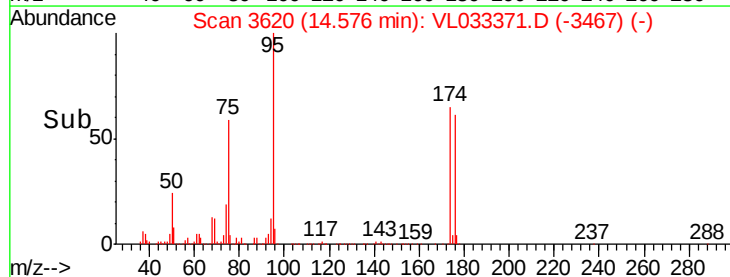
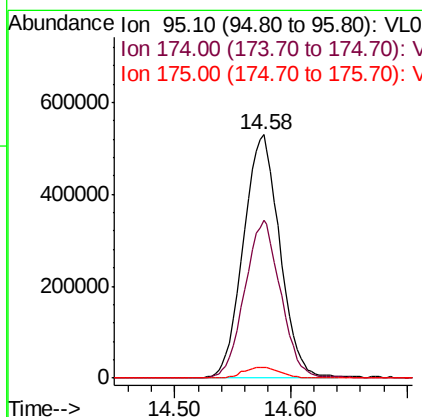
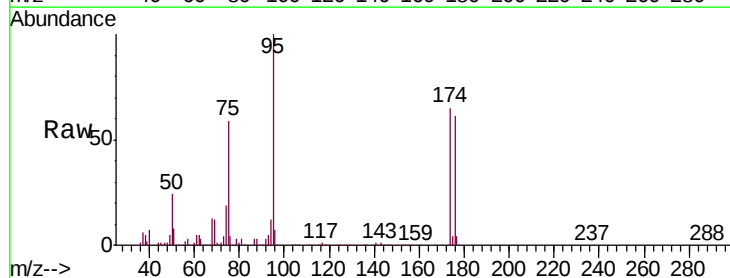
Instrument :
MSVOA_L
ClientSampleId :
L1HA-IA1DUP

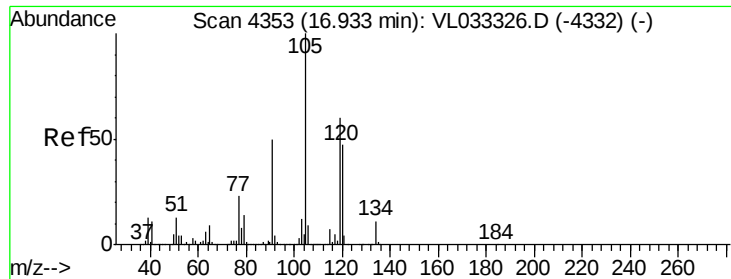
Tgt Ion: 91 Resp: 8880
Ion Ratio Lower Upper
91 100
106 74.2 21.3 63.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.909 ppbv
RT: 14.58 min Scan# 3620
Delta R.T. -0.01 min
Lab File: VL033371.D
Acq: 18 Mar 2019 23:21

Tgt Ion: 95 Resp: 1158714
Ion Ratio Lower Upper
95 100
174 64.5 51.5 77.3
175 4.7 3.8 5.6





#74
 1,2,4-Trimethylbenzene
 Concen: 0.058 ppbv
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.01 min
 Lab File: VL033371.D
 Acq: 18 Mar 2019 23:21

Instrument :
 MSVOA_L
 ClientSampleId :
 L1HA-IA1DUP

Tgt Ion:	105	Resp:	11596
Ion	Ratio	Lower	Upper
105	100		
120	54.0	37.4	56.2
91	8.9	41.0	61.4#
77	4.4	18.5	27.7#

