

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL073021\
 Data File : VL037303.D
 Acq On : 31 Jul 2021 4:39
 Operator : SY/AP
 Sample : M3121-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 31 06:57:13 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL073021AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jul 30 23:19:30 2021
 QLast Update : Fri Jul 30 23:19:30 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1140245	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	3461809	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.09	117	3109965	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2213681	9.78	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.80%

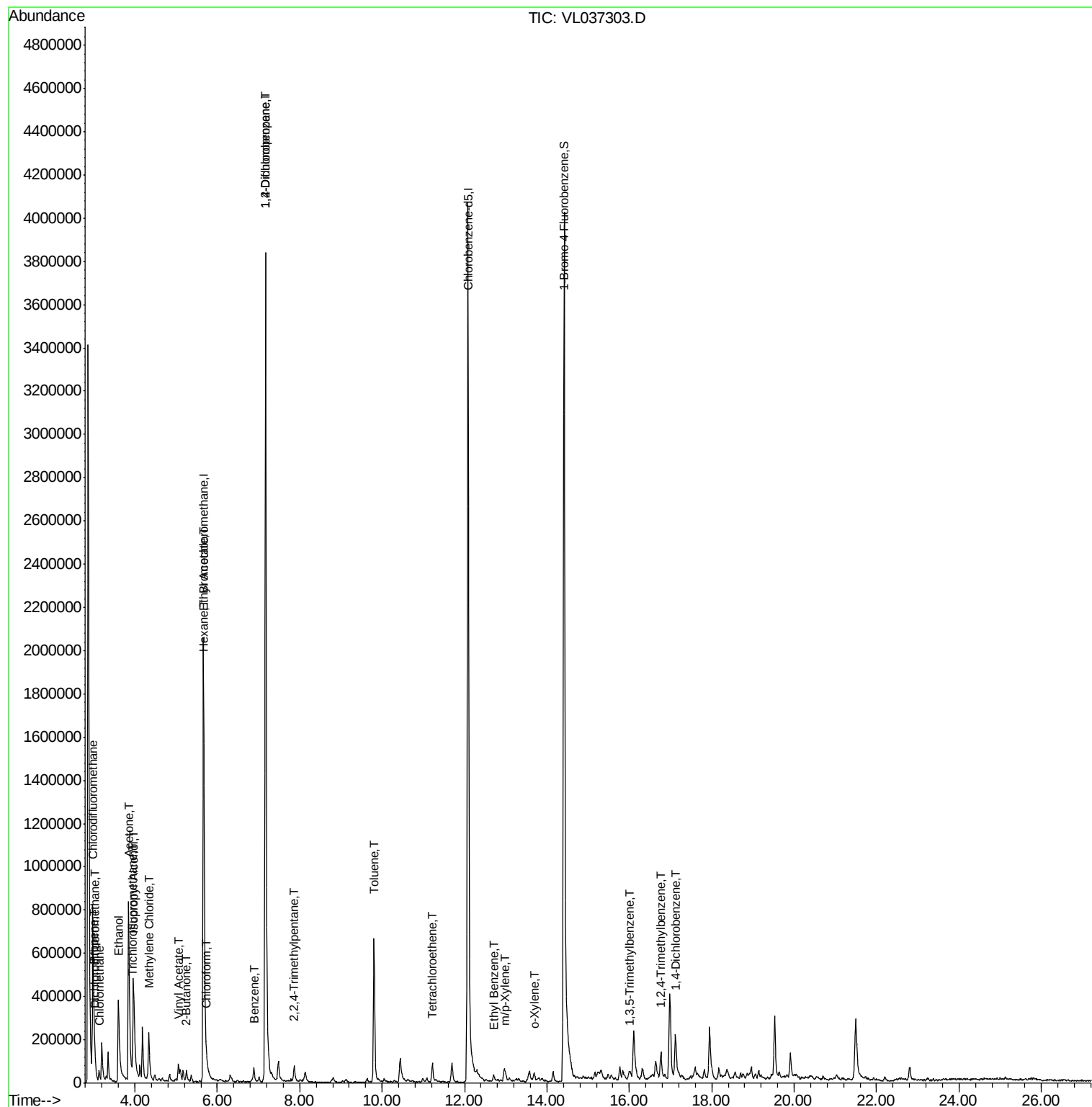
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	48572	0.296	ppbv	96
3) Chlorodifluoromethane	2.98	51	993338	4.348	ppbv	99
4) Chloromethane	3.13	50	40812	0.512	ppbv	96
9) Propene	3.01	41	42313	0.550	ppbv #	83
11) Trichlorofluoromethane	3.94	101	42733	0.210	ppbv	97
13) Ethanol	3.60	45	569697	33.723	ppbv	97
15) Acetone	3.84	43	1146539	5.582	ppbv	96
19) Isopropyl Alcohol	3.96	45	668758	8.416	ppbv #	89
20) Methylene Chloride	4.34	84	93058	1.171	ppbv	92
23) Vinyl Acetate	5.07	43	23534	0.136	ppbv #	81
25) Ethyl Acetate	5.68	43	74009	0.248	ppbv #	94
26) Hexane	5.68	57	69887	0.439	ppbv #	67
29) Chloroform	5.75	83	12248	0.054	ppbv #	76
34) 2-Butanone	5.25	43	67704	0.456	ppbv	93
36) Benzene	6.90	78	14747	0.050	ppbv	96
39) 1,2-Dichloropropane	7.17	63	792852	7.193	ppbv #	26
44) 2,2,4-Trimethylpentane	7.86	57	27478	0.057	ppbv #	9
52) Tetrachloroethene	11.22	164	12687	0.098	ppbv #	85
53) Toluene	9.80	91	555409	1.612	ppbv	100
58) Ethyl Benzene	12.71	91	18420	0.043	ppbv	93
59) m/p-Xylene	13.00	91	17394	0.047	ppbv #	30
60) o-Xylene	13.69	91	29481	0.084	ppbv	96
73) 1,3,5-Trimethylbenzene	16.00	105	16051	0.042	ppbv #	58
74) 1,2,4-Trimethylbenzene	16.77	105	83686	0.197	ppbv #	75
76) 1,4-Dichlorobenzene	17.13	146	10913	0.041	ppbv #	1

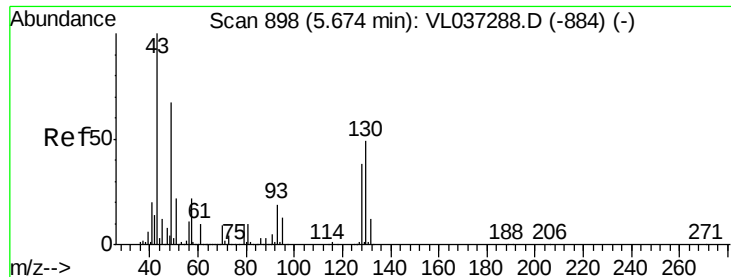
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jul 30 23:19:30 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

ClientSampleId :

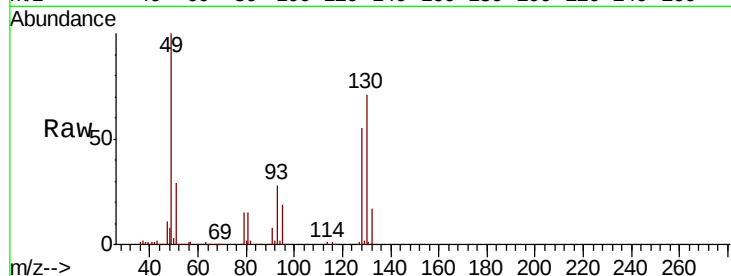
Tot Ion: 49 Resp: 1140245

Ion Ratio Lower Upper

49 100

128 58.9 30.6 92.0

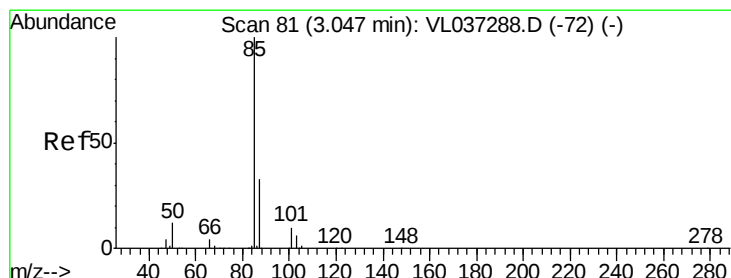
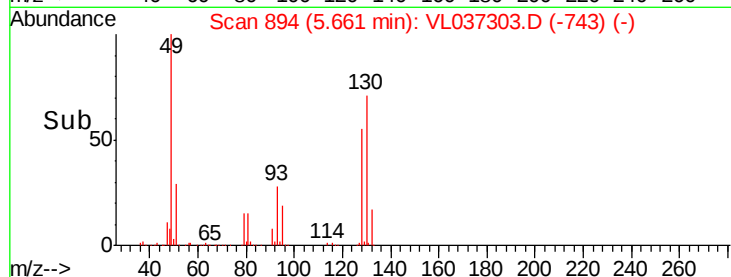
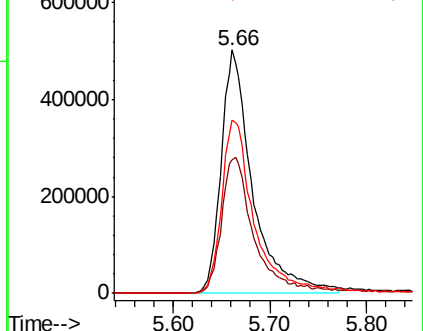
130 75.2 37.8 113.4



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: 0.296 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL037303.D

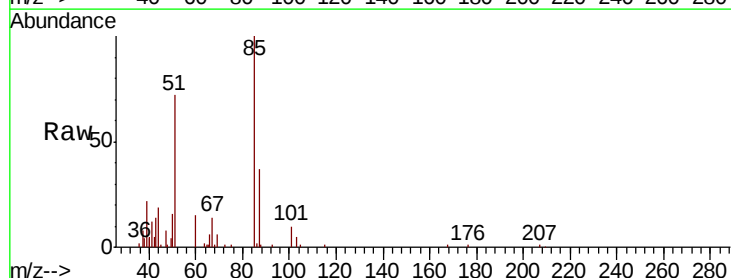
Acq: 31 Jul 2021 4:39

Tgt Ion: 85 Resp: 48572

Ion Ratio Lower Upper

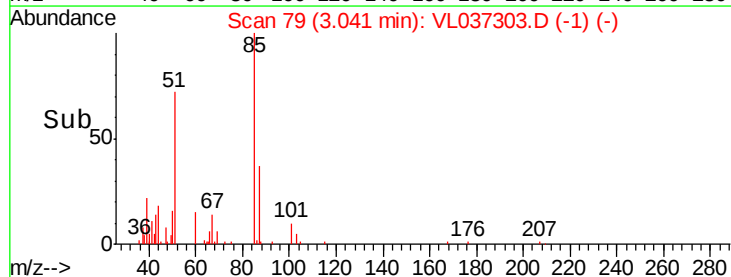
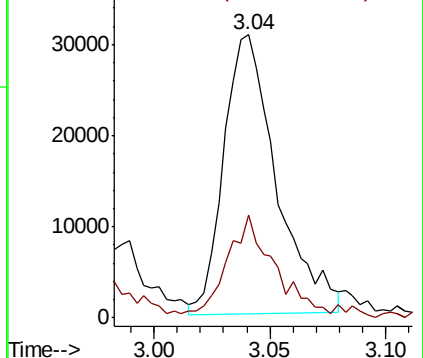
85 100

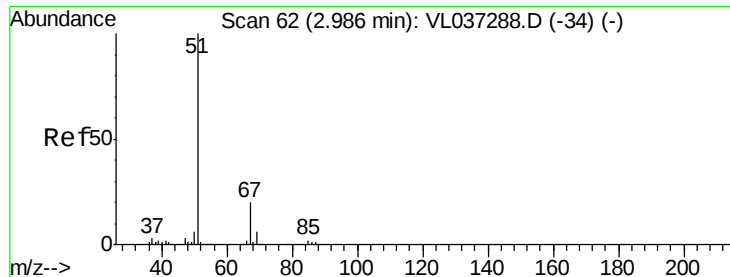
87 35.6 26.6 40.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

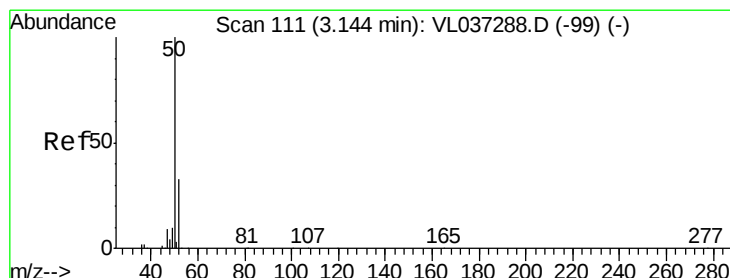
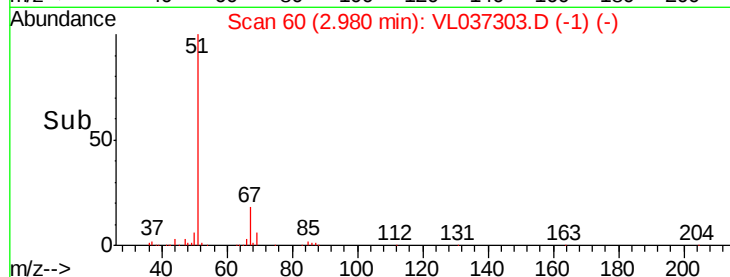
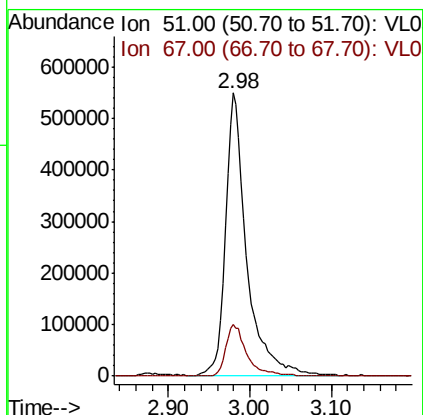
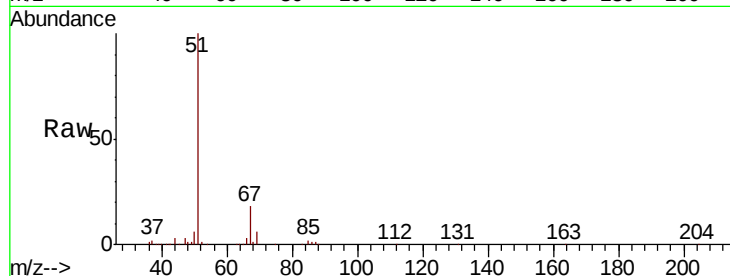




#3
 Chlorodifluoromethane
 Concen: 4.348 ppbv
 RT: 2.98 min Scan# 60
 Delta R.T. -0.01 min
 Lab File: VL037303.D
 Acq: 31 Jul 2021 4:39

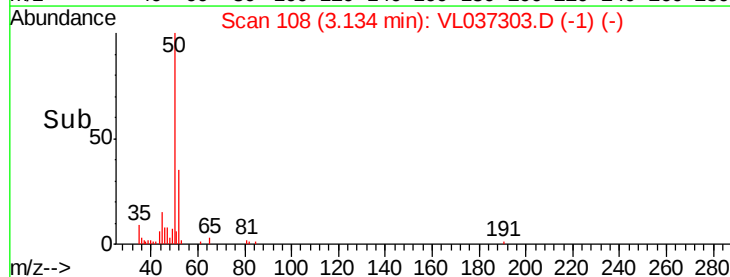
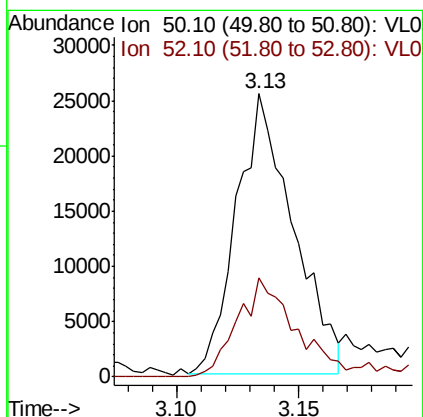
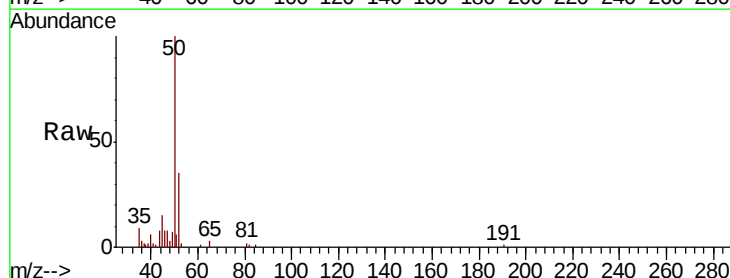
Instrument :
 MSVOA_L
 ClientSampleId :

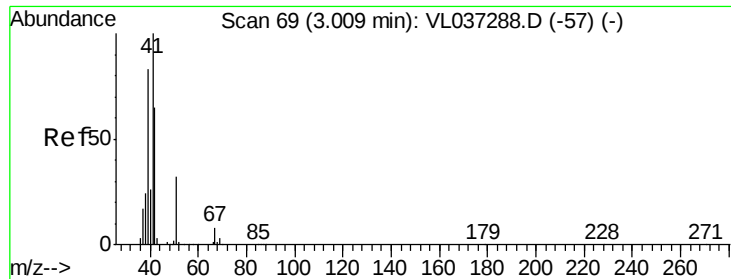
Tot Ion: 51 Resp: 993338
 Ion Ratio Lower Upper
 51 100
 67 18.7 15.2 22.8



#4
 Chloromethane
 Concen: 0.512 ppbv
 RT: 3.13 min Scan# 108
 Delta R.T. -0.01 min
 Lab File: VL037303.D
 Acq: 31 Jul 2021 4:39

Tgt Ion: 50 Resp: 40812
 Ion Ratio Lower Upper
 50 100
 52 35.3 26.2 39.4





#9

Propene

Concen: 0.550 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

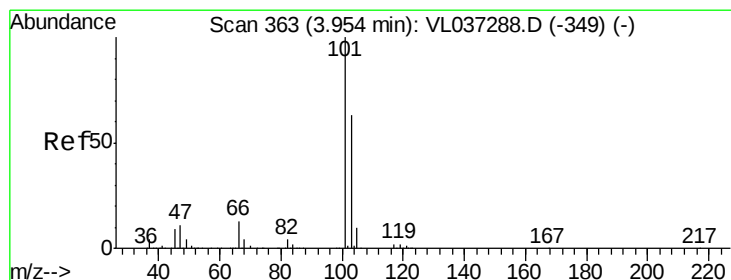
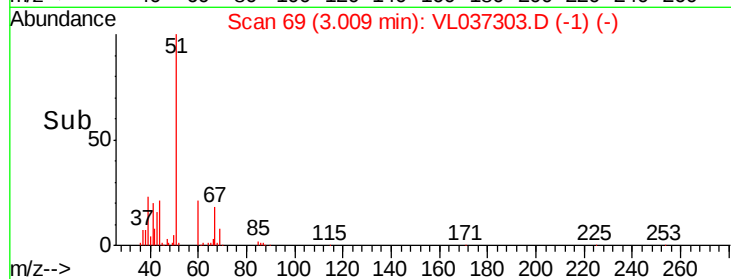
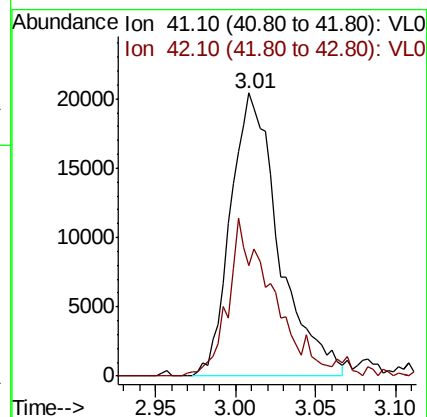
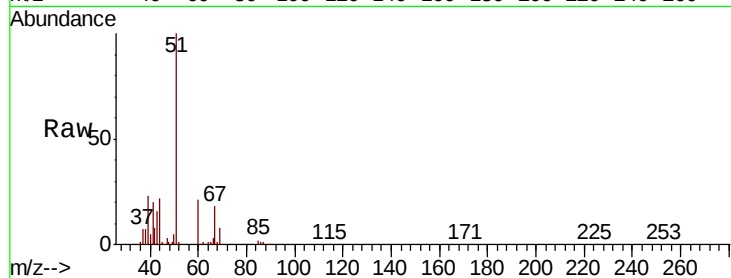
ClientSampleId :

Tot Ion: 41 Resp: 42313

Ion Ratio Lower Upper

41 100

42 53.5 54.0 81.0#



#11

Trichlorofluoromethane

Concen: 0.210 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL037303.D

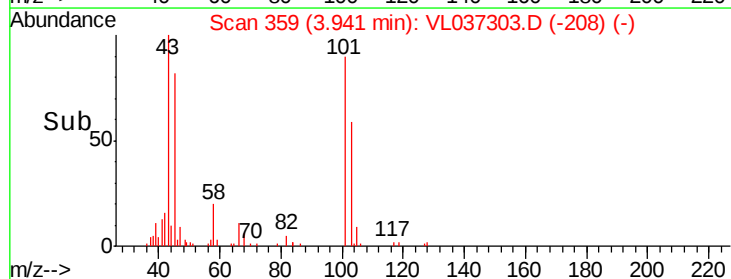
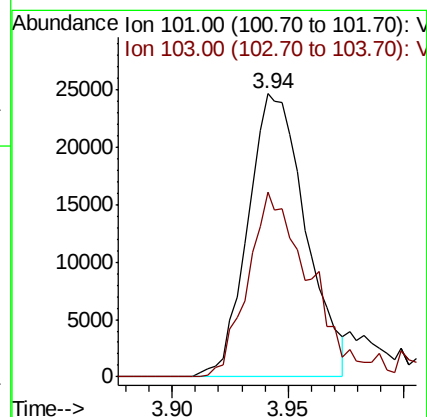
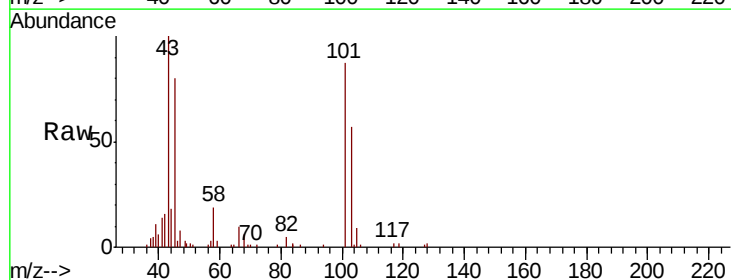
Acq: 31 Jul 2021 4:39

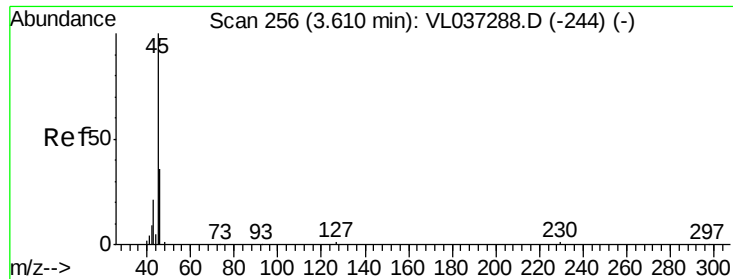
Tgt Ion: 101 Resp: 42733

Ion Ratio Lower Upper

101 100

103 65.5 50.6 75.8

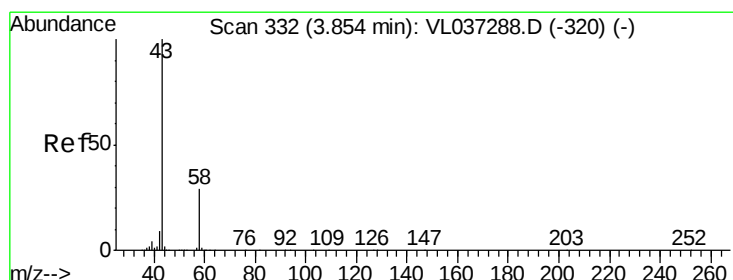
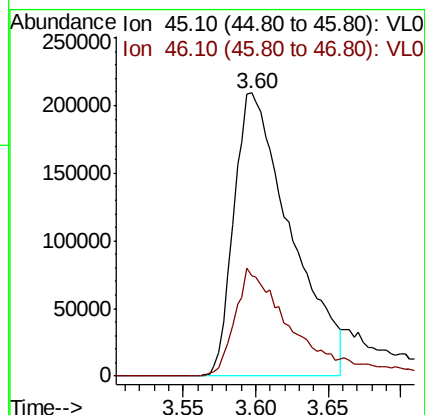
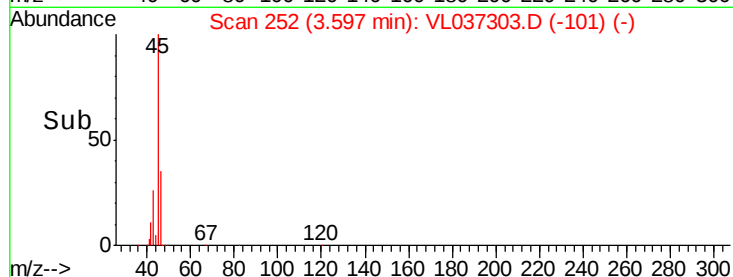
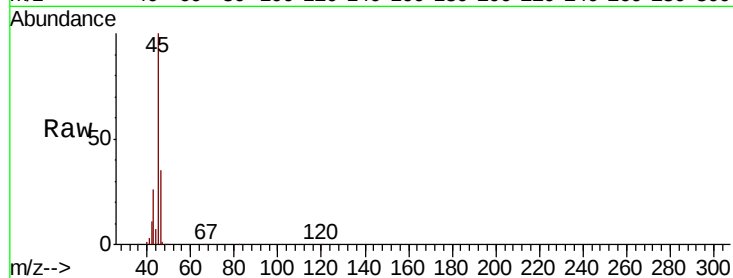




#13
Ethanol
Concen: 33.723 ppbv
RT: 3.60 min Scan# 252
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

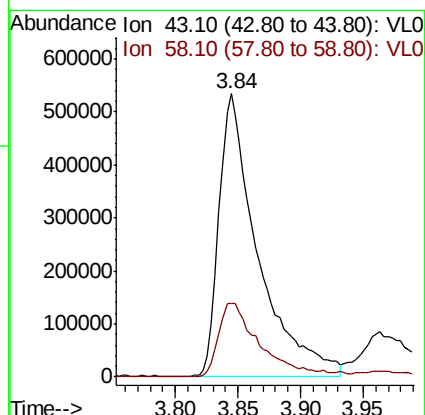
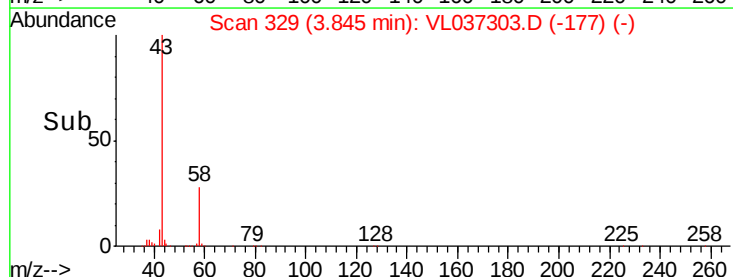
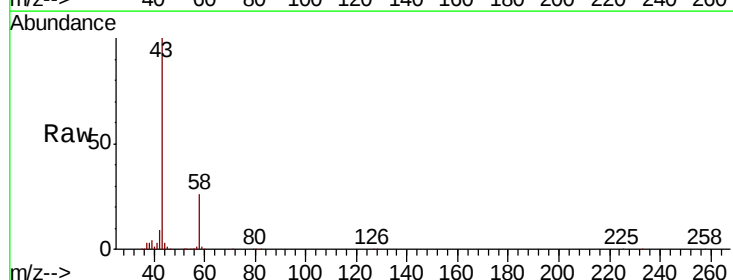
Instrument :
MSVOA_L
ClientSampleId :

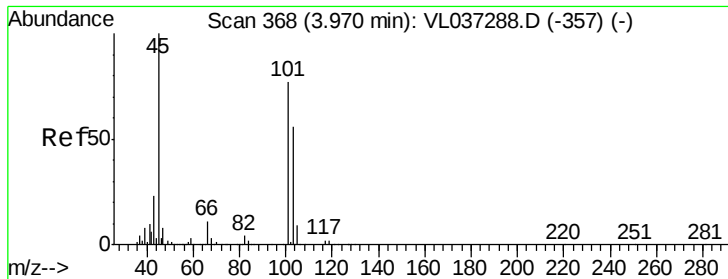
Tot Ion: 45 Resp: 569697
Ion Ratio Lower Upper
45 100
46 42.6 16.2 64.8



#15
Acetone
Concen: 5.582 ppbv
RT: 3.84 min Scan# 329
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

Tgt Ion: 43 Resp: 1146539
Ion Ratio Lower Upper
43 100
58 28.4 24.2 36.4





#19

Isopropyl Alcohol

Concen: 8.416 ppbv

RT: 3.96 min Scan# 366

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

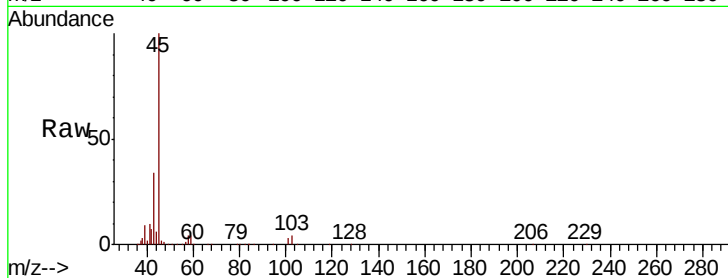
ClientSampled :

Tot Ion: 45 Resp: 668758

Ion Ratio Lower Upper

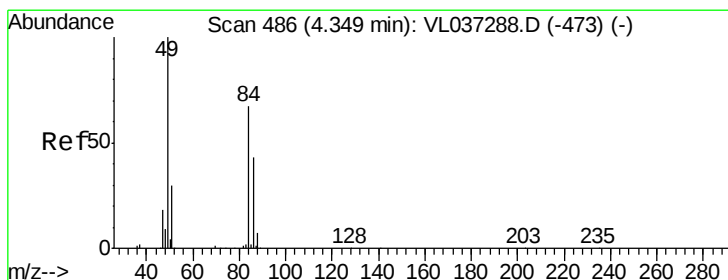
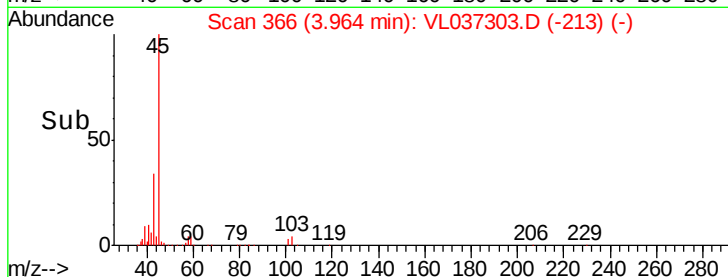
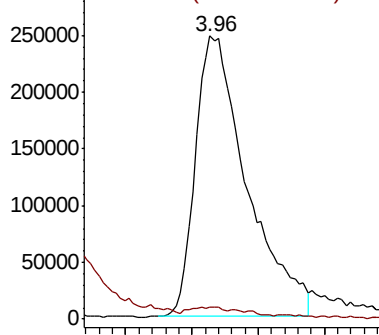
45 100

58 6.4 2.2 3.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.171 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Tgt Ion: 84 Resp: 93058

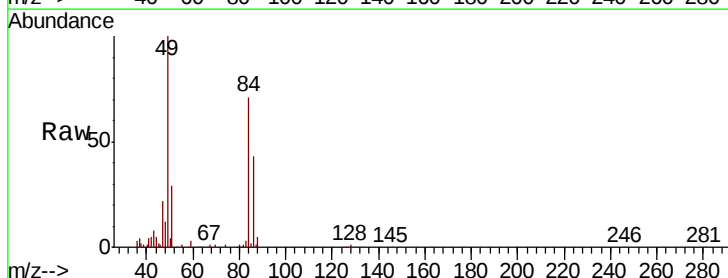
Ion Ratio Lower Upper

84 100

49 138.7 120.2 180.4

51 39.5 36.5 54.7

86 60.1 51.3 76.9

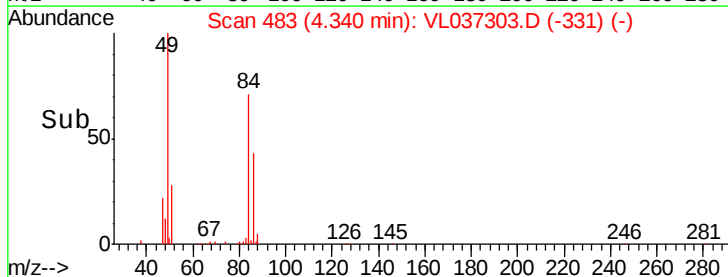
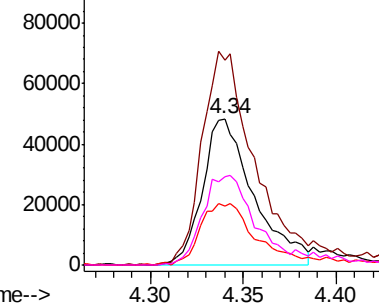


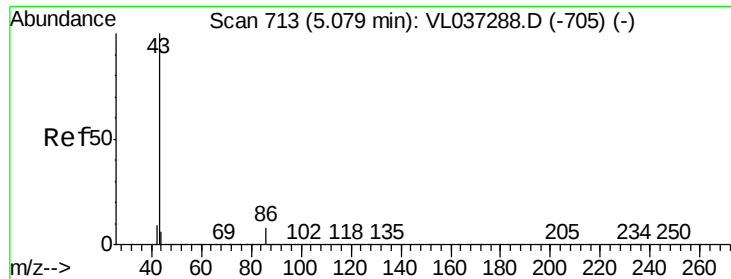
Abundance Ion 84.00 (83.70 to 84.70): VL0

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





#23

Vinyl Acetate

Concen: 0.136 ppbv

RT: 5.07 min Scan# 709

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 23534

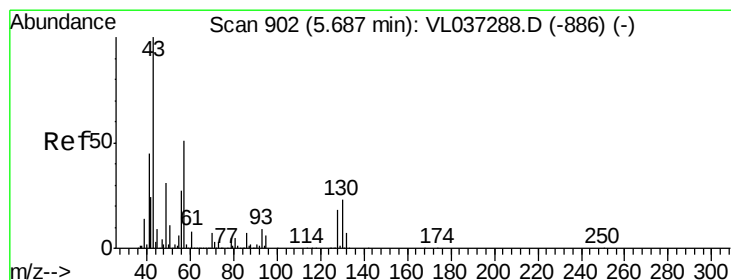
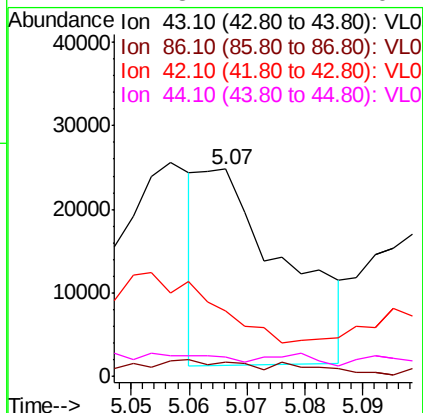
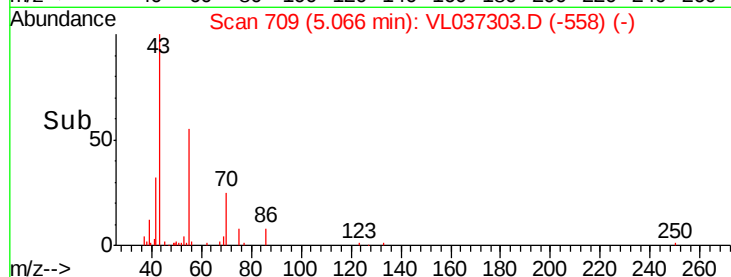
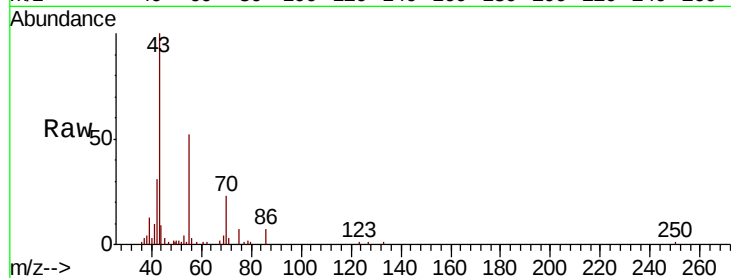
Ion Ratio Lower Upper

43 100

86 6.1 5.7 8.5

42 23.6 8.1 12.1#

44 7.8 4.1 6.1#



#25

Ethyl Acetate

Concen: 0.248 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Tgt Ion: 43 Resp: 74009

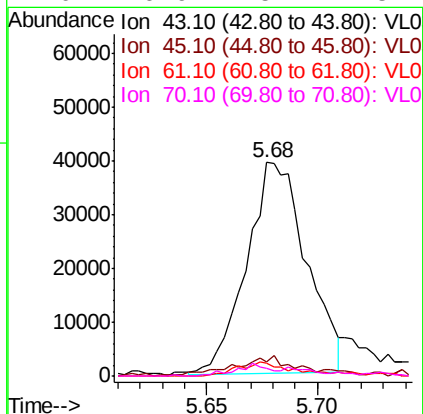
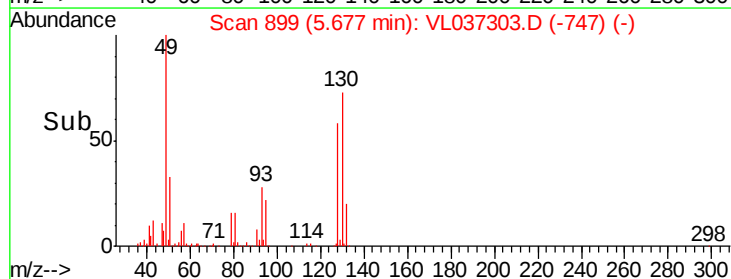
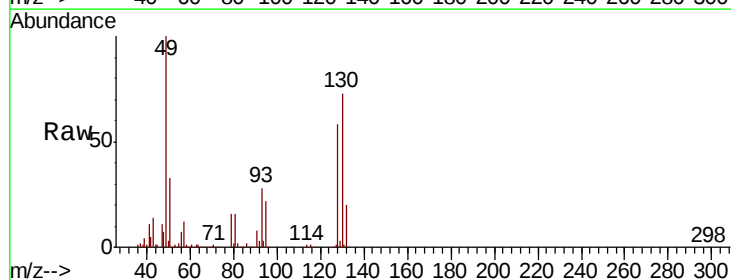
Ion Ratio Lower Upper

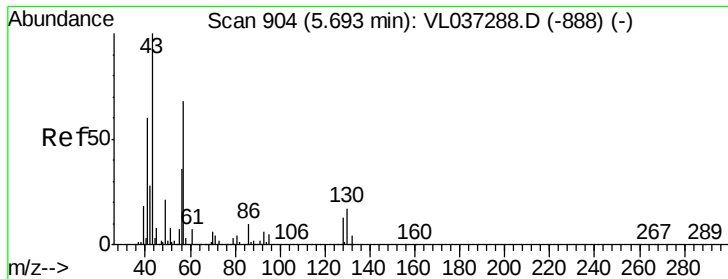
43 100

45 12.9 7.4 11.2#

61 7.1 7.8 11.6#

70 6.9 5.4 8.2

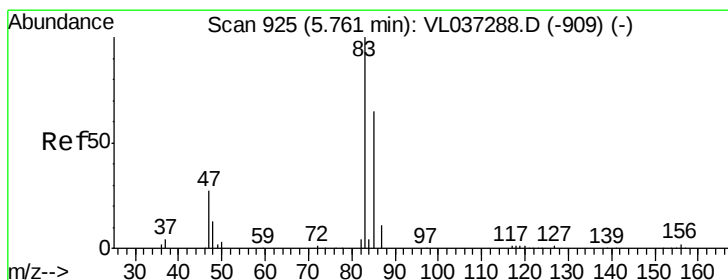
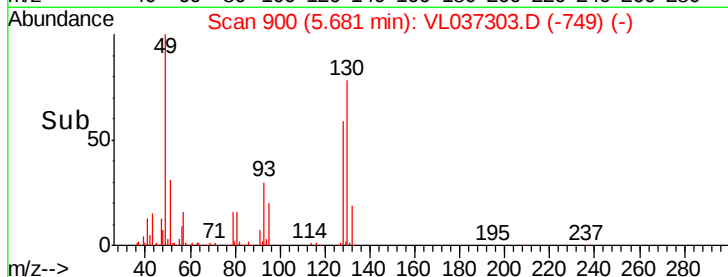
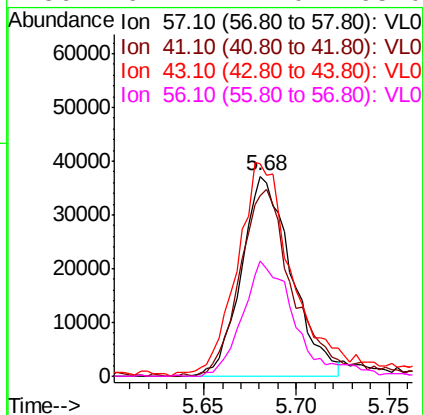
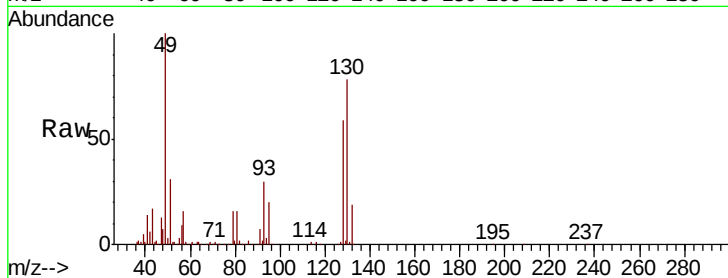




#26
Hexane
Concen: 0.439 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

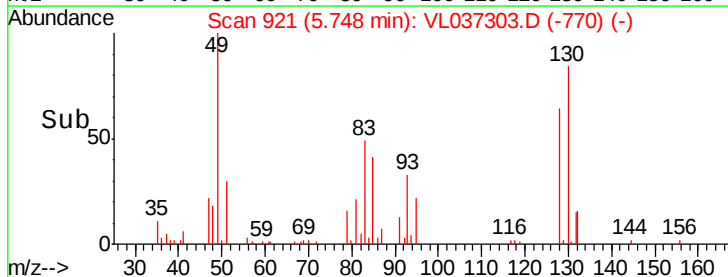
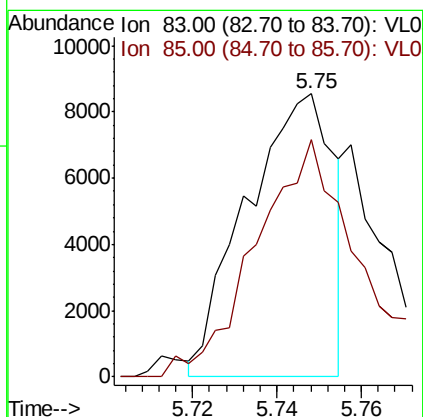
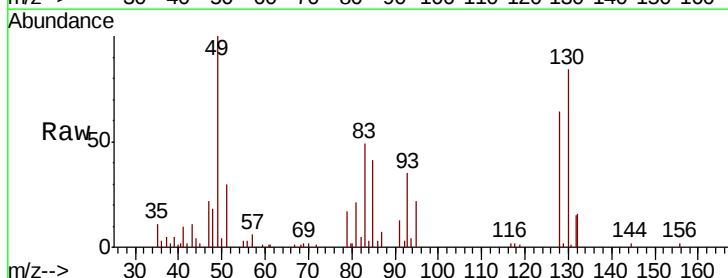
Instrument :
MSVOA_L
ClientSampled :

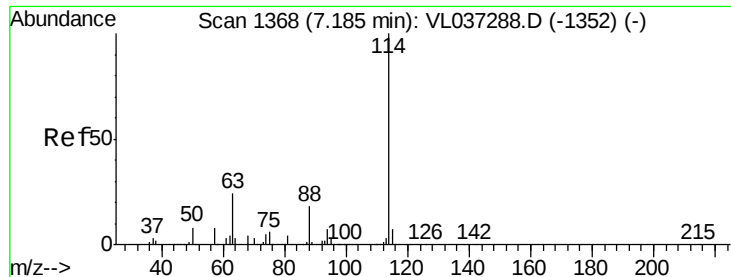
Tot Ion: 57 Resp: 69887
Ion Ratio Lower Upper
57 100
41 104.9 71.0 106.6
43 125.2 155.0 232.4#
56 61.1 42.0 63.0



#29
Chloroform
Concen: 0.054 ppbv
RT: 5.75 min Scan# 921
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

Tgt Ion: 83 Resp: 12248
Ion Ratio Lower Upper
83 100
85 83.7 51.9 77.9#

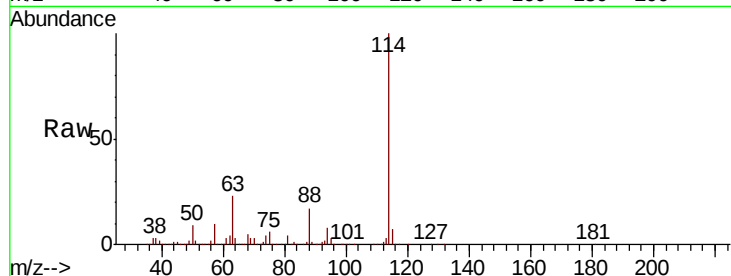




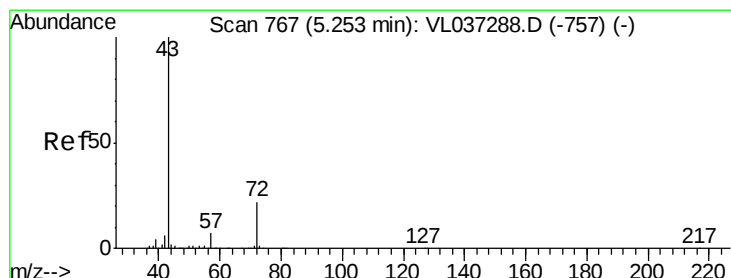
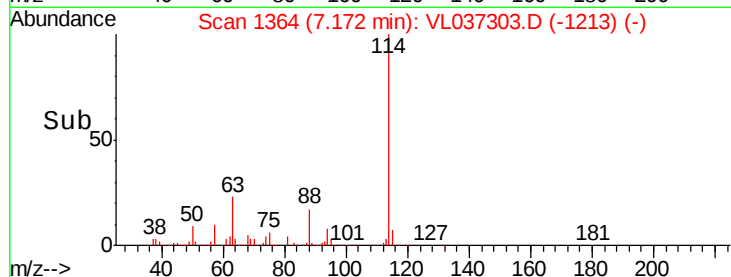
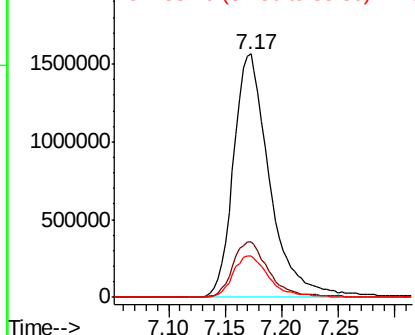
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.01 min
 Lab File: VL037303.D
 Acq: 31 Jul 2021 4:39

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3461809
 Ion Ratio Lower Upper
 114 100
 63 23.4 19.0 28.4
 88 17.6 14.0 21.0

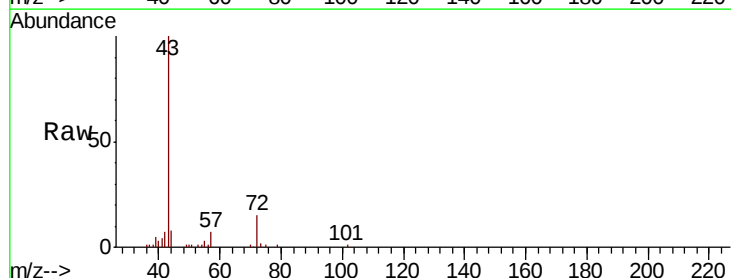


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

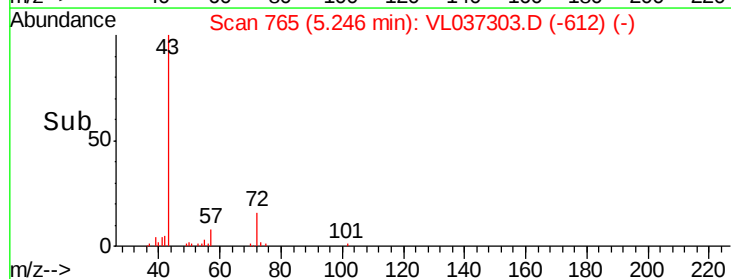
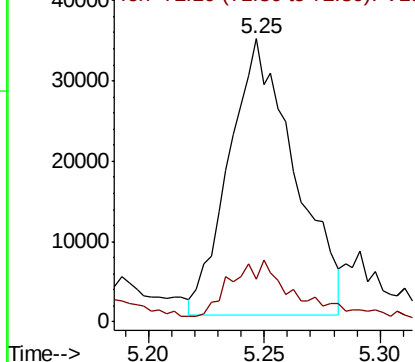


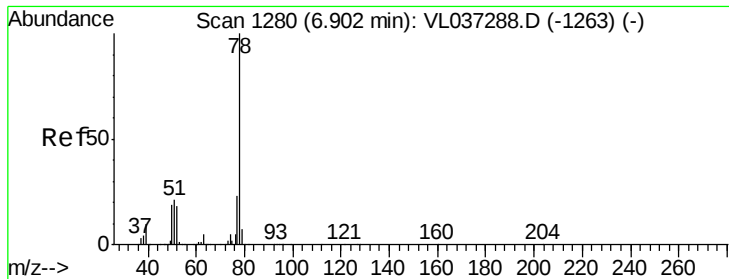
#34
 2-Butanone
 Concen: 0.456 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. -0.01 min
 Lab File: VL037303.D
 Acq: 31 Jul 2021 4:39

Tgt Ion: 43 Resp: 67704
 Ion Ratio Lower Upper
 43 100
 72 26.3 18.5 27.7



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





#36

Benzene

Concen: 0.050 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

ClientSampleId :

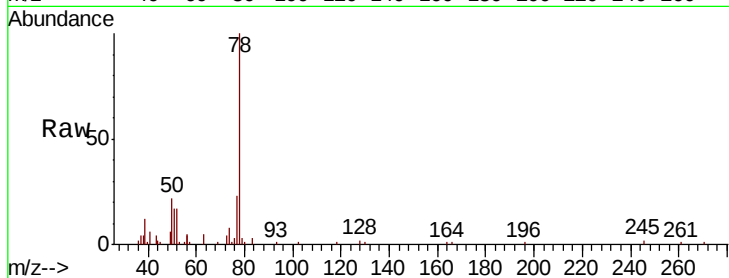
Tot Ion: 78 Resp: 14747

Ion Ratio Lower Upper

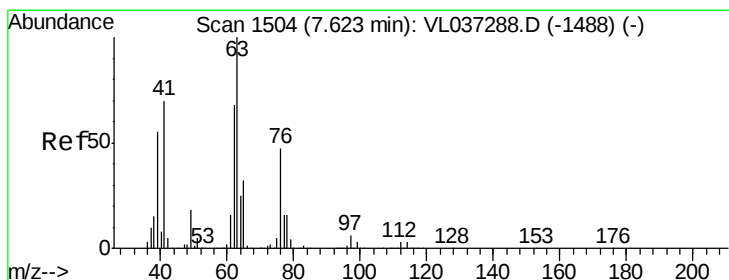
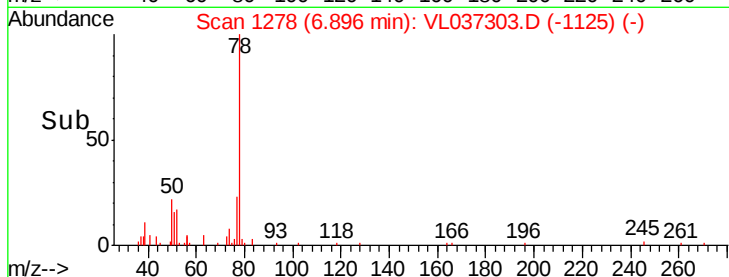
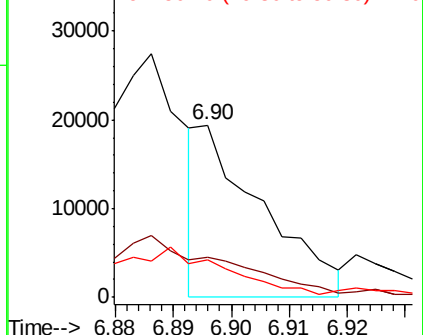
78 100

77 24.9 18.3 27.5

50 20.8 15.5 23.3



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.193 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. -0.45 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

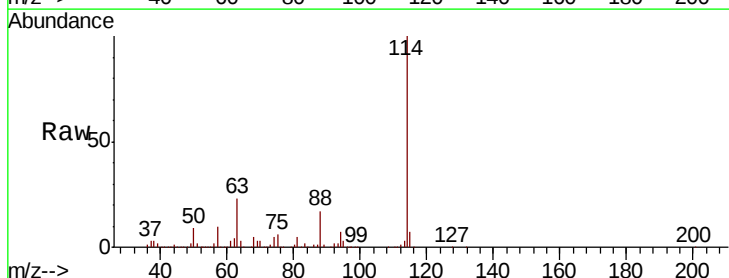
Tgt Ion: 63 Resp: 792852

Ion Ratio Lower Upper

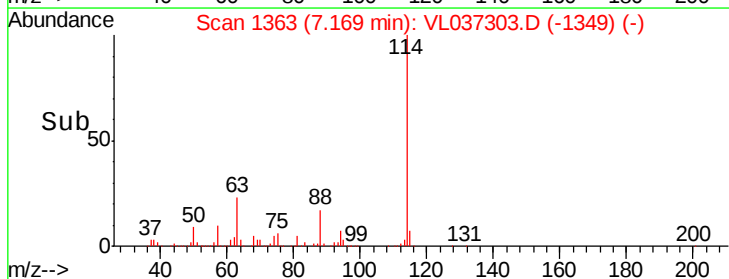
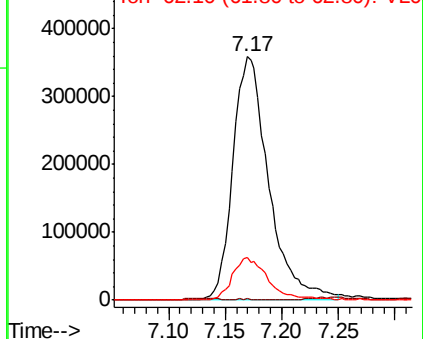
63 100

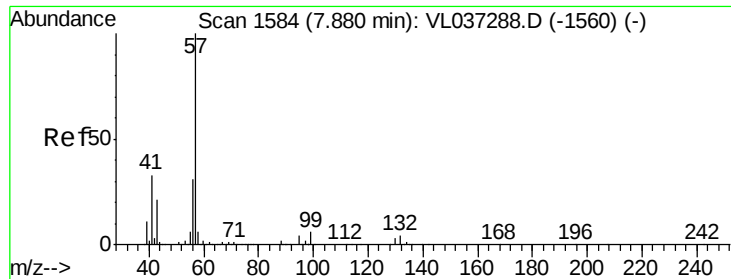
41 0.0 56.4 84.6#

62 17.6 54.6 82.0#



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: 0.057 ppbv

RT: 7.86 min Scan# 1579

Delta R.T. -0.02 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

ClientSampleId :

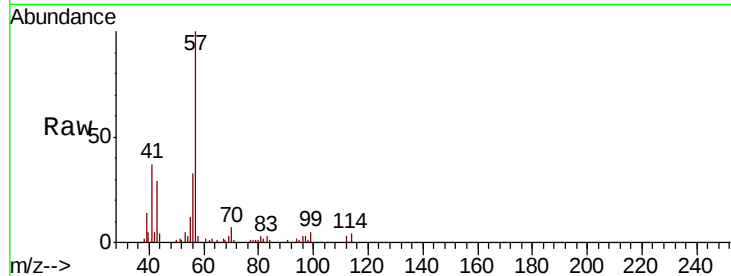
Tot Ion: 57 Resp: 27478

Ion Ratio Lower Upper

57 100

41 102.9 26.6 40.0#

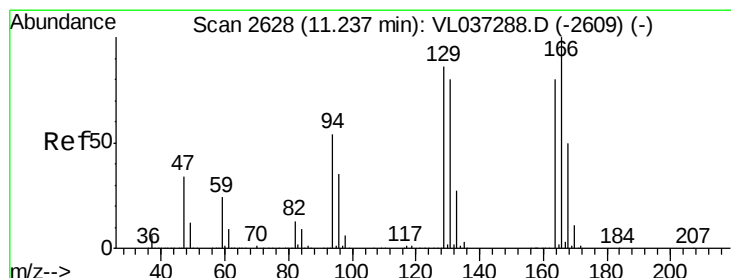
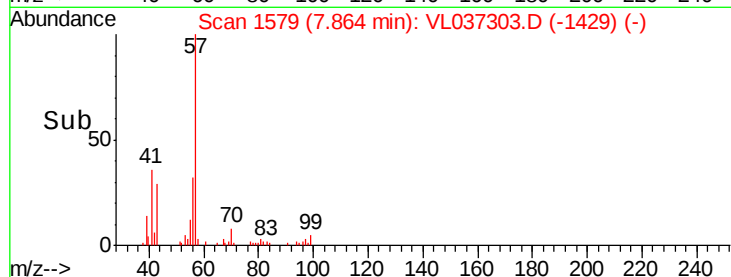
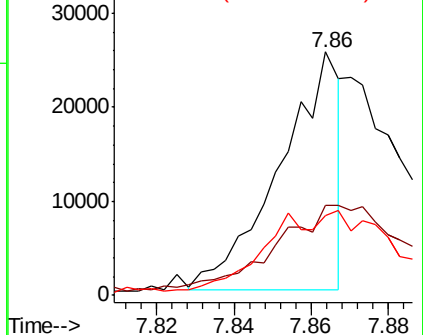
56 0.0 25.3 37.9#



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: 0.098 ppbv

RT: 11.22 min Scan# 2622

Delta R.T. -0.02 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Tgt Ion:164 Resp: 12687

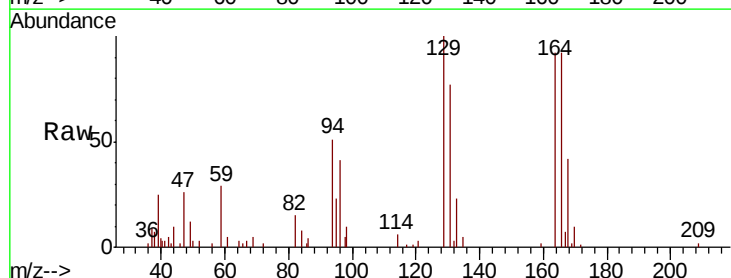
Ion Ratio Lower Upper

164 100

166 96.9 100.4 150.6#

129 105.7 86.2 129.4

131 83.9 80.5 120.7

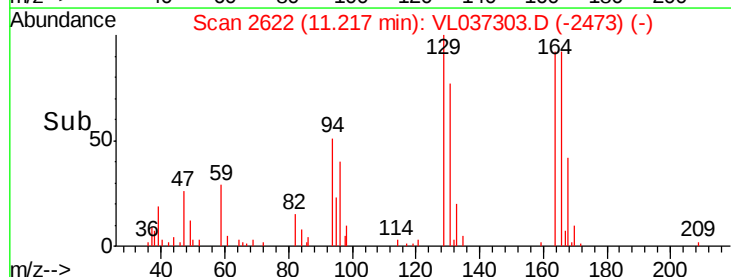
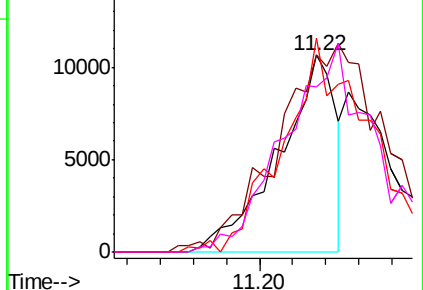


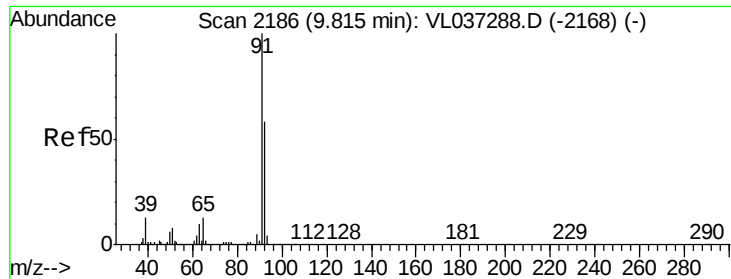
Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.612 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

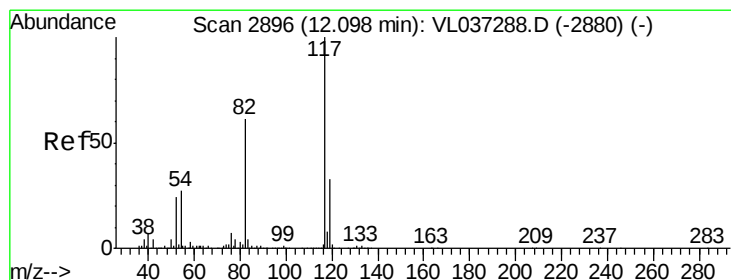
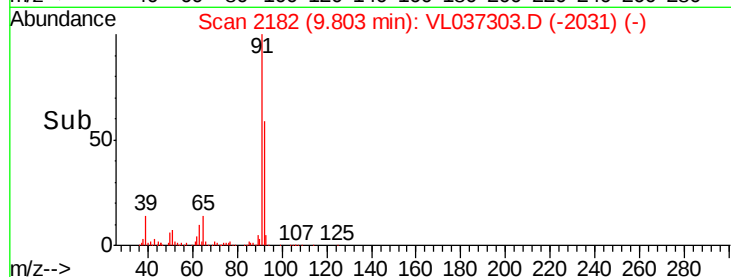
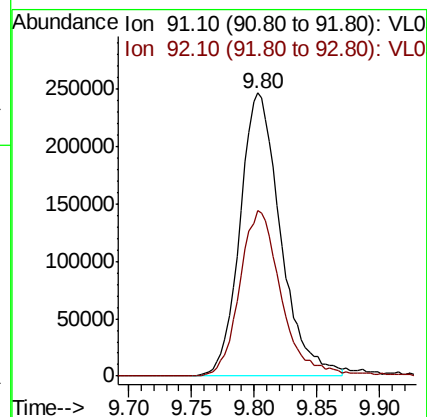
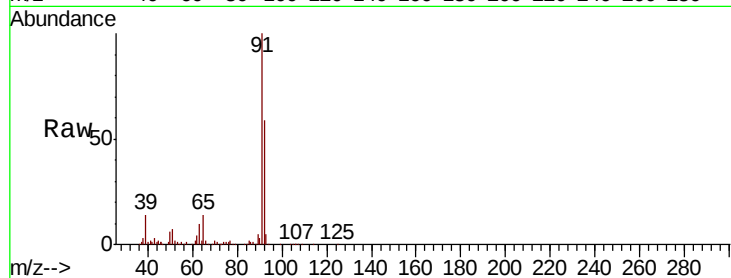
ClientSampleId :

Tot Ion: 91 Resp: 555409

Ion Ratio Lower Upper

91 100

92 60.1 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

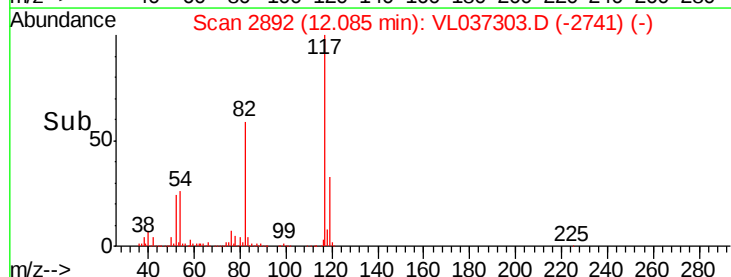
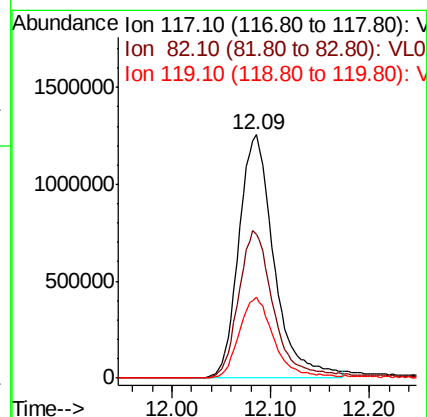
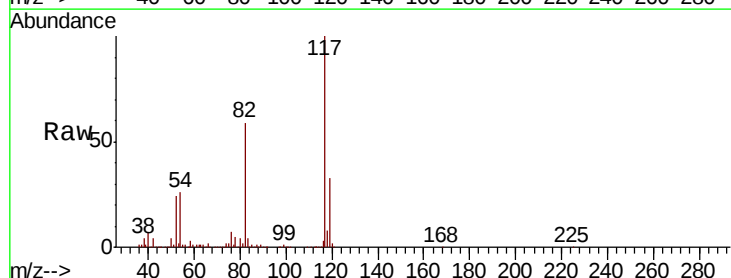
Tgt Ion: 117 Resp: 3109965

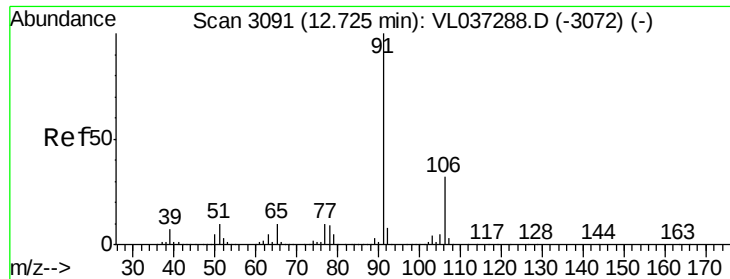
Ion Ratio Lower Upper

117 100

82 63.0 47.2 70.8

119 33.8 45.8 68.8#





#58

Ethyl Benzene

Concen: 0.043 ppbv

RT: 12.71 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

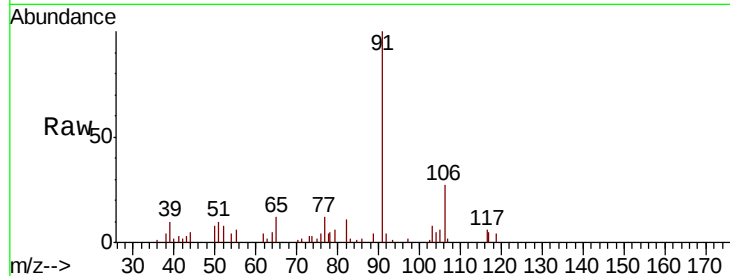
ClientSampleId :

Tot Ion: 91 Resp: 18420

Ion Ratio Lower Upper

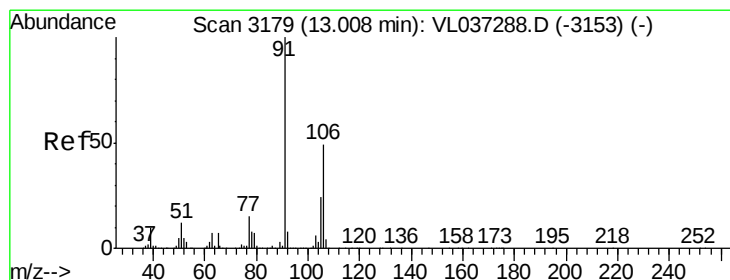
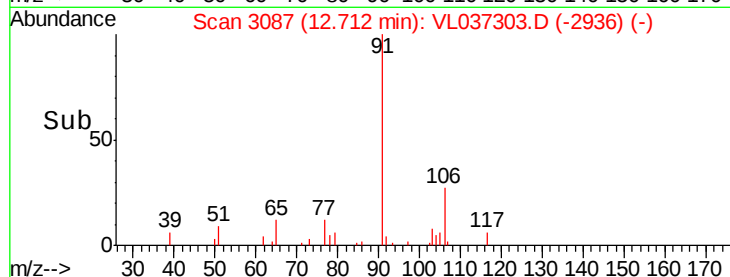
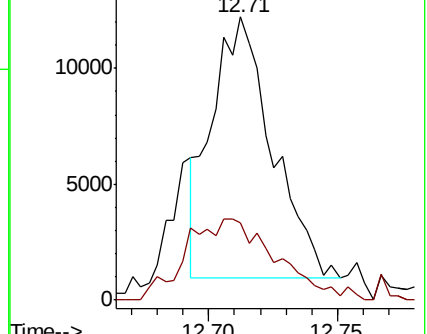
91 100

106 27.9 25.4 38.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 13.00 min Scan# 3176

Delta R.T. -0.01 min

Lab File: VL037303.D

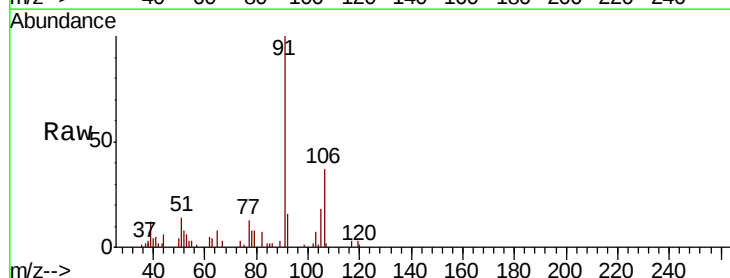
Acq: 31 Jul 2021 4:39

Tgt Ion: 91 Resp: 17394

Ion Ratio Lower Upper

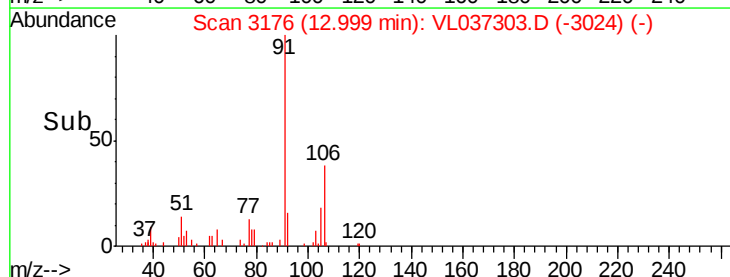
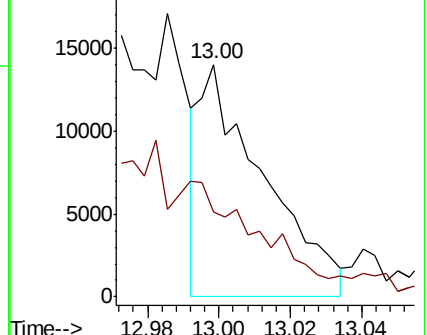
91 100

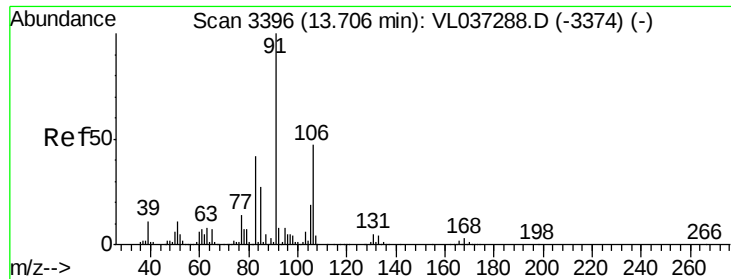
106 0.0 37.3 55.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

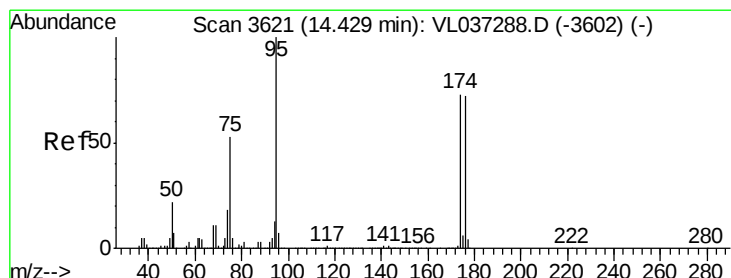
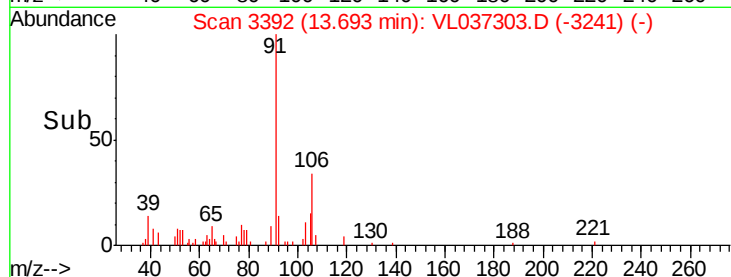
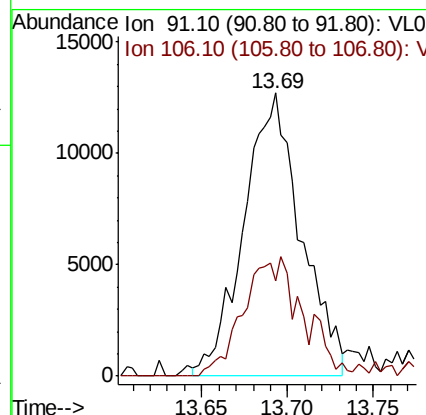
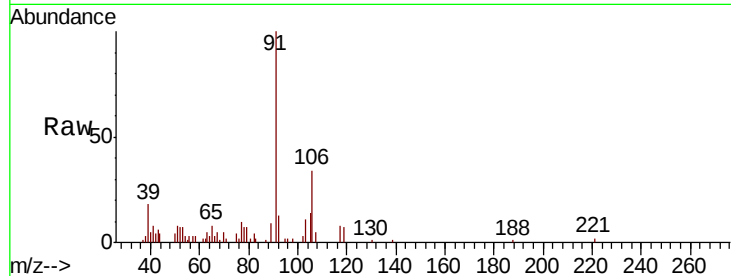




#60
o-Xylene
Concen: 0.084 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

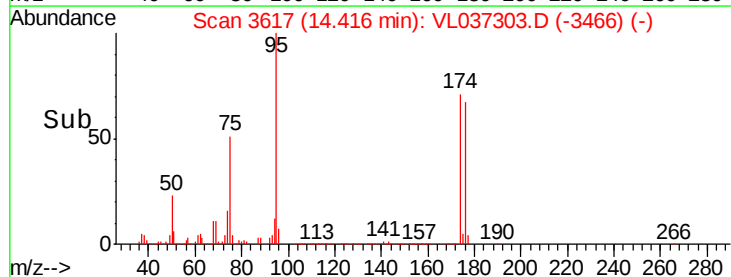
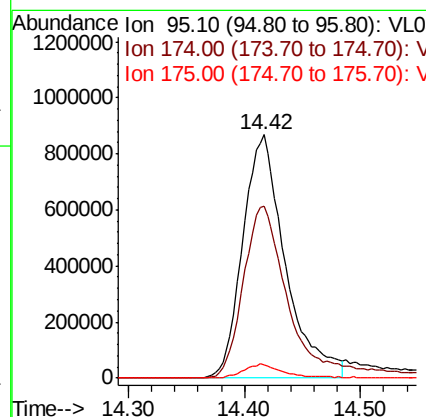
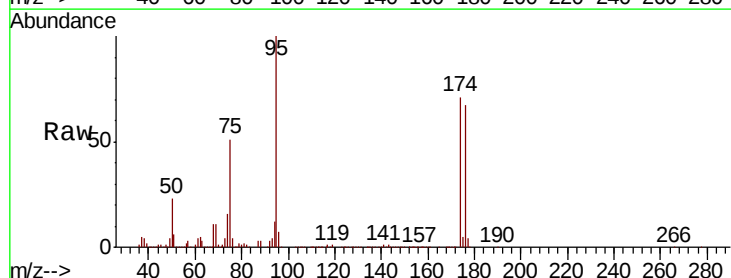
Instrument :
MSVOA_L
ClientSampleId :

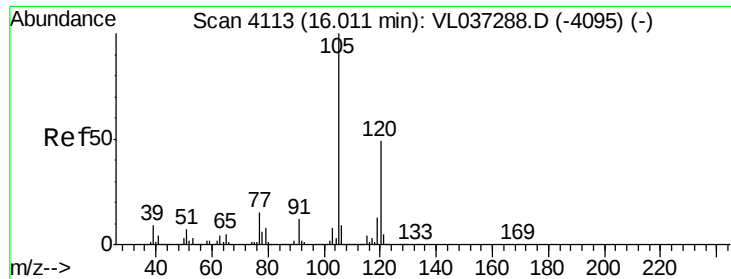
Tot Ion: 91 Resp: 29481
Ion Ratio Lower Upper
91 100
106 43.9 23.4 70.0



#68
1-Bromo-4-Fluorobenzene
Concen: 9.784 ppbv
RT: 14.42 min Scan# 3617
Delta R.T. -0.01 min
Lab File: VL037303.D
Acq: 31 Jul 2021 4:39

Tgt Ion: 95 Resp: 2213681
Ion Ratio Lower Upper
95 100
174 79.4 59.8 89.6
175 6.0 4.5 6.7





#73

1,3,5-Trimethylbenzene

Concen: 0.042 ppbv

RT: 16.00 min Scan# 4108

Delta R.T. -0.02 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

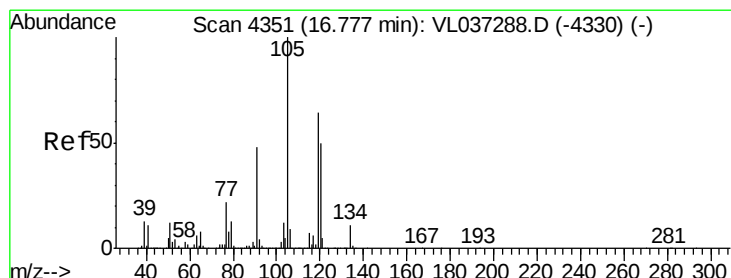
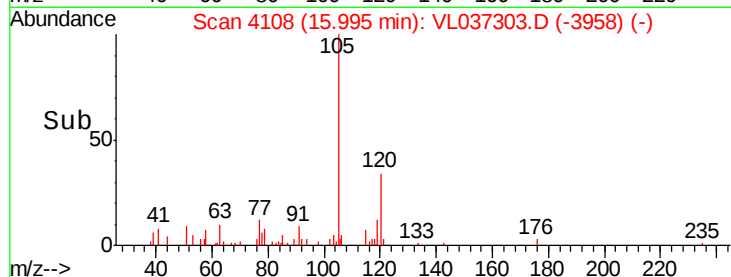
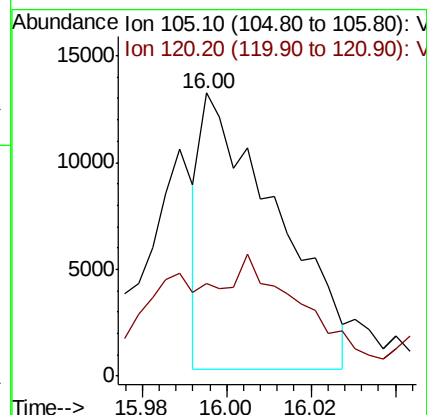
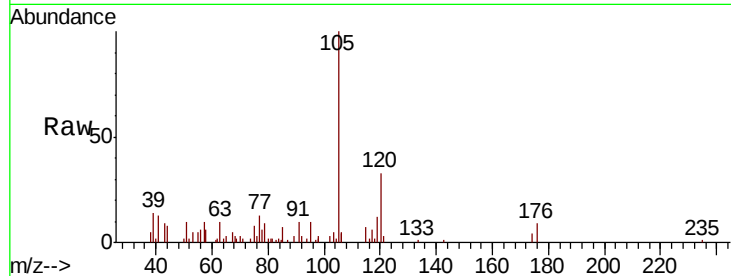
ClientSampled :

Tot Ion:105 Resp: 16051

Ion Ratio Lower Upper

105 100

120 20.2 39.0 58.6#



#74

1,2,4-Trimethylbenzene

Concen: 0.197 ppbv

RT: 16.77 min Scan# 4348

Delta R.T. -0.01 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Tgt Ion:105 Resp: 83686

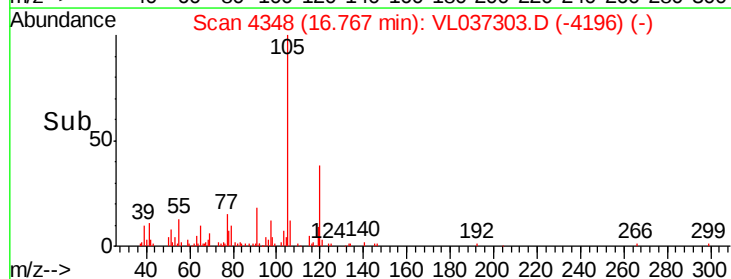
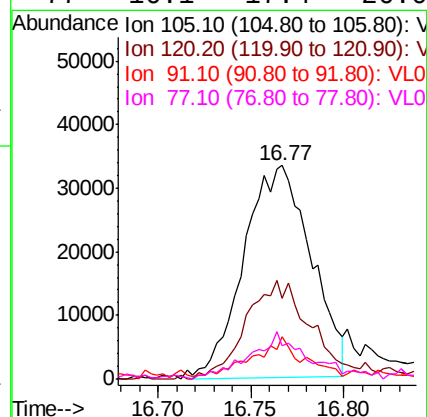
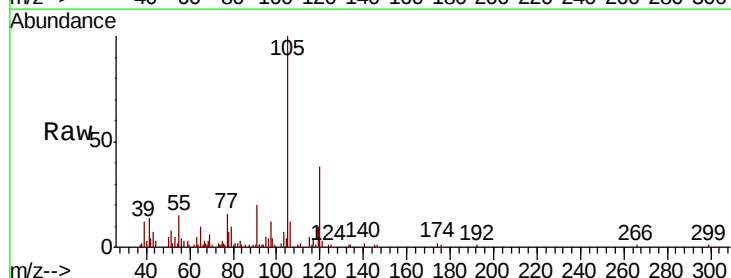
Ion Ratio Lower Upper

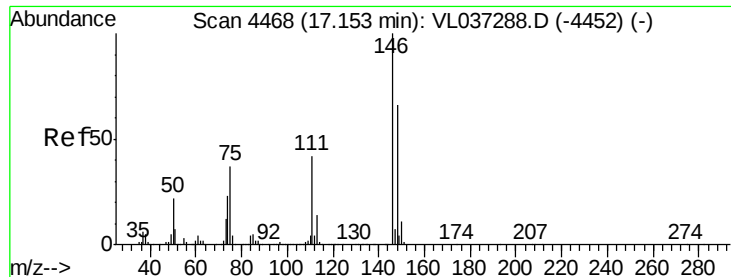
105 100

120 41.7 40.2 60.4

91 18.6 39.0 58.6#

77 16.1 17.4 26.0#





#76

1,4-Dichlorobenzene

Concen: 0.041 ppbv

RT: 17.13 min Scan# 4461

Delta R.T. -0.02 min

Lab File: VL037303.D

Acq: 31 Jul 2021 4:39

Instrument :

MSVOA_L

ClientSampleId :

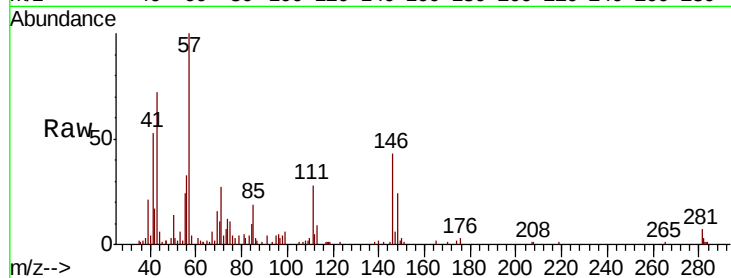
Tot Ion:146 Resp: 10913

Ion Ratio Lower Upper

146 100

111 193.0 21.2 63.6#

148 0.0 32.9 98.6#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V

