

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100721\
 Data File : VL037799.D
 Acq On : 7 Oct 2021 17:07
 Operator : SY/AP
 Sample : M4079-07
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P18

Quant Time: Oct 08 10:05:57 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL100421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 04 17:43:54 2021
 QLast Update : Mon Oct 04 17:43:54 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1210145	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.16	114	3757386	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3043346	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2149182	10.10	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

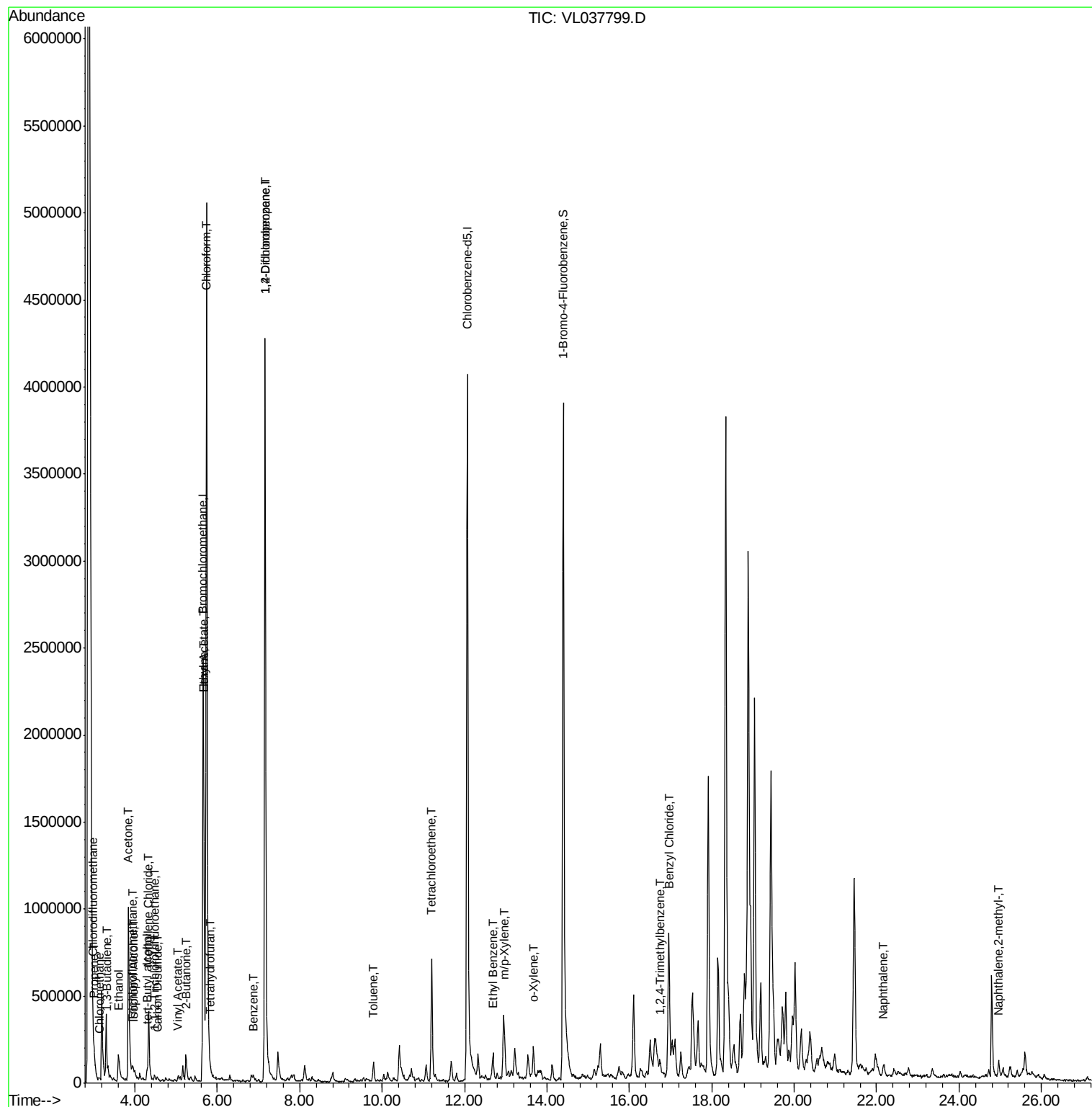
Target Compounds						Qvalue
3) Chlorodifluoromethane	2.98	51	22773	0.098	ppbv	93
4) Chloromethane	3.14	50	1907	0.022	ppbv #	74
9) Propene	3.01	41	38092	0.445	ppbv	97
11) Trichlorofluoromethane	3.94	101	20230	0.117	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.48	101	8003	0.061	ppbv #	74
13) Ethanol	3.60	45	122191	17.464	ppbv	68
15) Acetone	3.84	43	1282979	11.810	ppbv	92
16) 1,3-Butadiene	3.33	39	8232	0.104	ppbv #	11
17) tert-Butyl alcohol	4.29	59	22515	0.201	ppbv #	71
19) Isopropyl Alcohol	3.96	45	16514	0.244	ppbv #	96
20) Methylene Chloride	4.33	84	82745	1.507	ppbv	95
23) Vinyl Acetate	5.05	43	8840	0.054	ppbv #	64
25) Ethyl Acetate	5.67	43	184502	0.605	ppbv #	82
26) Hexane	5.67	57	222282	1.481	ppbv #	46
27) Carbon Disulfide	4.54	76	17742	0.133	ppbv #	46
29) Chloroform	5.74	83	4177294	19.469	ppbv	98
34) 2-Butanone	5.24	43	211540	1.395	ppbv	100
36) Benzene	6.88	78	7580	0.024	ppbv #	80
39) 1,2-Dichloropropane	7.16	63	885822	7.338	ppbv #	29
41) Tetrahydrofuran	5.83	42	1834	0.025	ppbv #	57
52) Tetrachloroethene	11.21	164	185874	1.489	ppbv	96
53) Toluene	9.79	91	77160	0.217	ppbv	88
58) Ethyl Benzene	12.69	91	102249	0.250	ppbv	97
59) m/p-Xylene	12.97	91	136553	0.389	ppbv #	30
60) o-Xylene	13.67	91	134215	0.399	ppbv	94
66) Benzyl Chloride	16.95	91	649	0.032	ppbv #	81
74) 1,2,4-Trimethylbenzene	16.74	105	25969	0.071	ppbv #	71
79) Naphthalene	22.17	128	22457	0.101	ppbv #	84
80) Naphthalene,2-methyl-	24.96	142	8048	0.134	ppbv	92

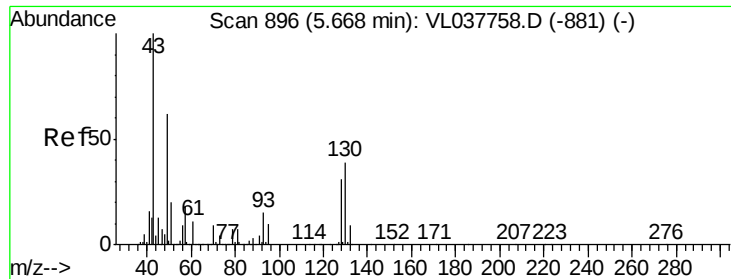
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Oct 04 17:43:54 2021
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.01 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

C0P18

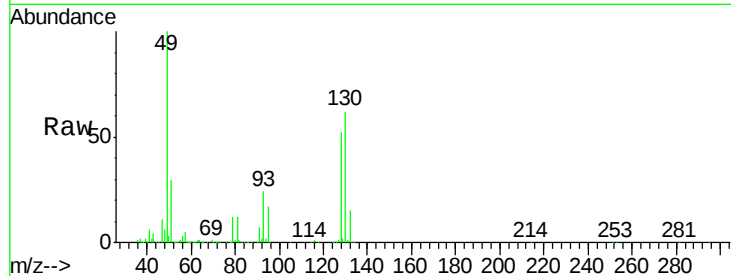
Tgt Ion: 49 Resp: 1210145

Ion Ratio Lower Upper

49 100

128 57.7 27.1 81.3

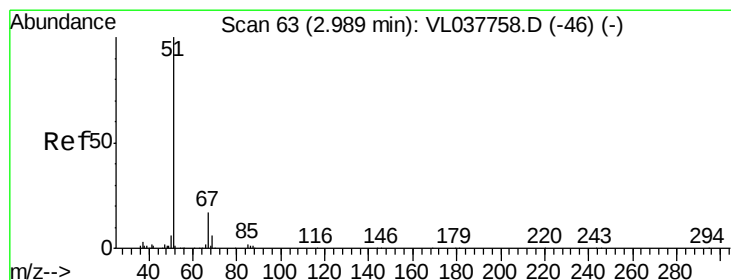
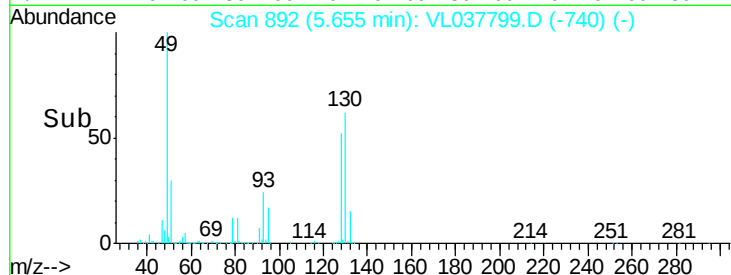
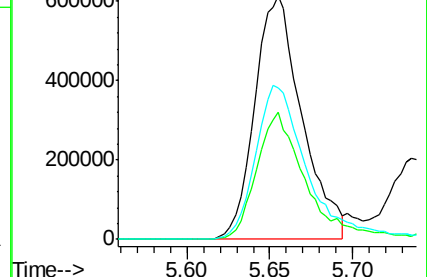
130 70.3 33.2 99.6



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



#3

Chlorodifluoromethane

Concen: 0.098 ppbv

RT: 2.98 min Scan# 61

Delta R.T. -0.01 min

Lab File: VL037799.D

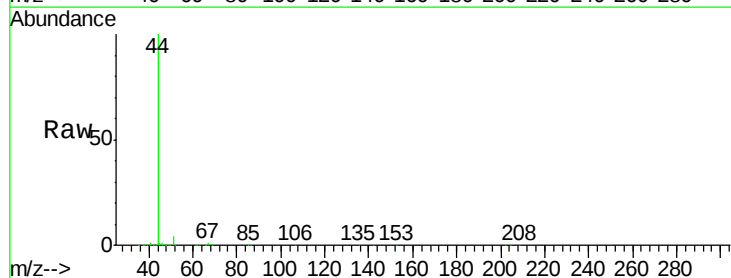
Acq: 7 Oct 2021 17:07

Tgt Ion: 51 Resp: 22773

Ion Ratio Lower Upper

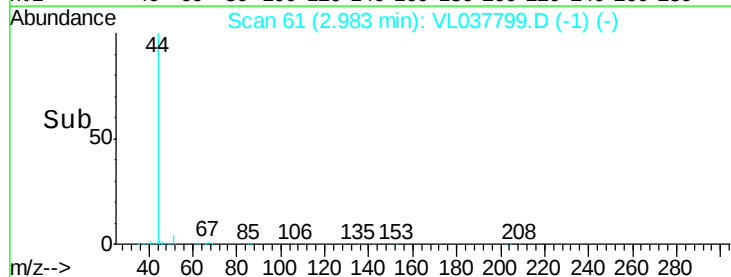
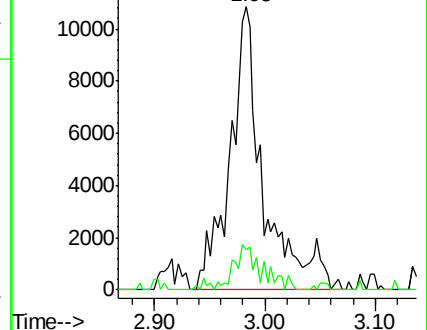
51 100

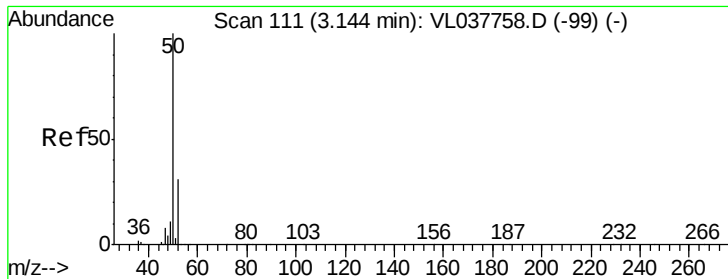
67 14.1 13.5 20.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.022 ppbv

RT: 3.14 min Scan# 109

Delta R.T. -0.01 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

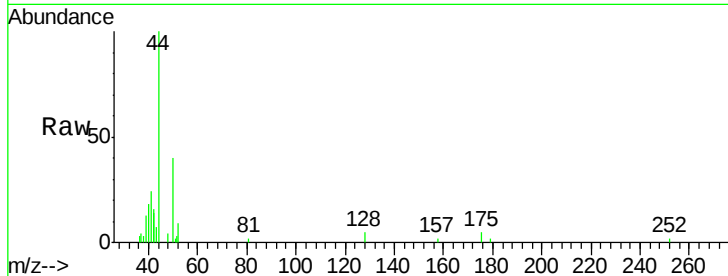
C0P18

Tgt Ion: 50 Resp: 1907

Ion Ratio Lower Upper

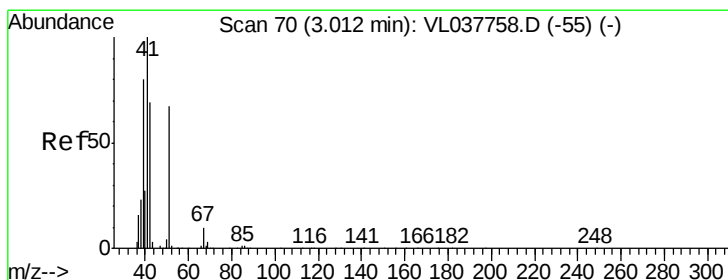
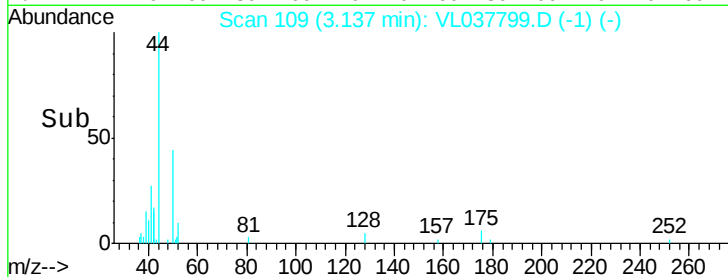
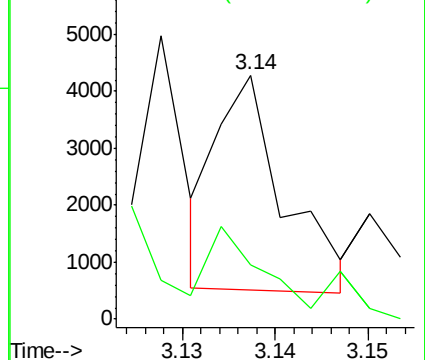
50 100

52 16.5 24.4 36.6#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 0.445 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL037799.D

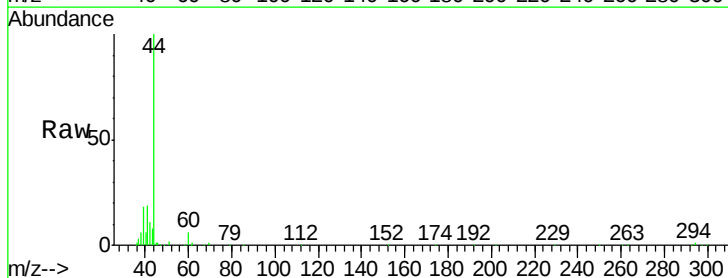
Acq: 7 Oct 2021 17:07

Tgt Ion: 41 Resp: 38092

Ion Ratio Lower Upper

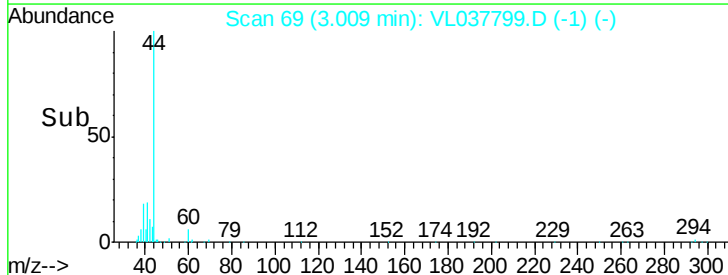
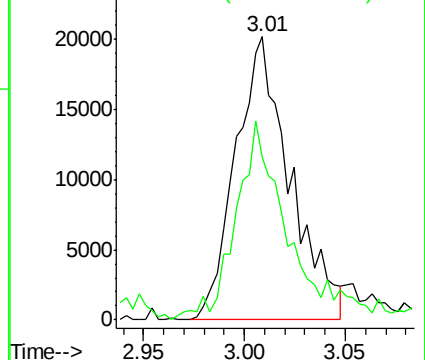
41 100

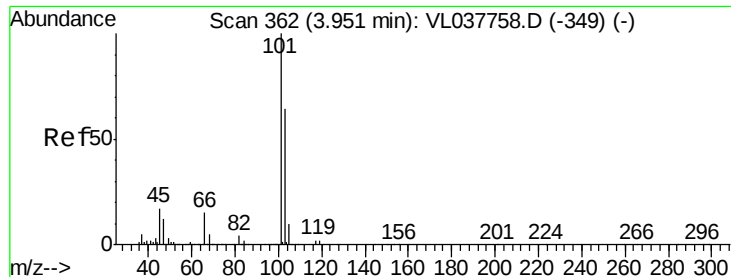
42 70.2 54.2 81.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

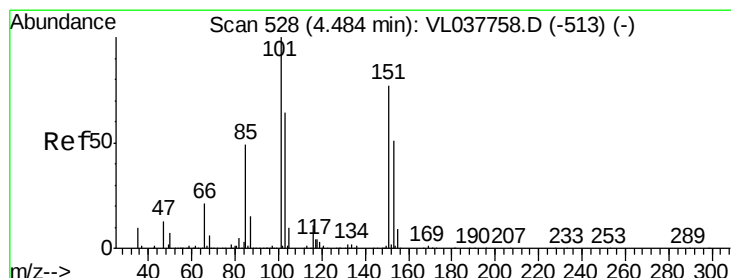
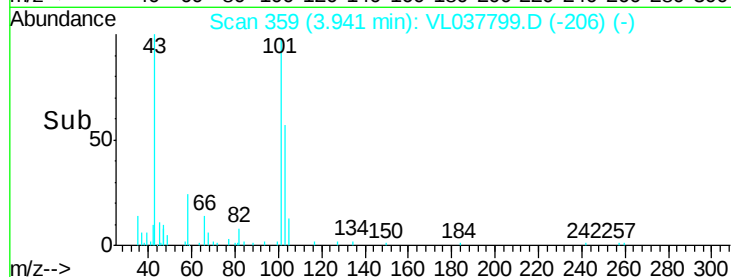
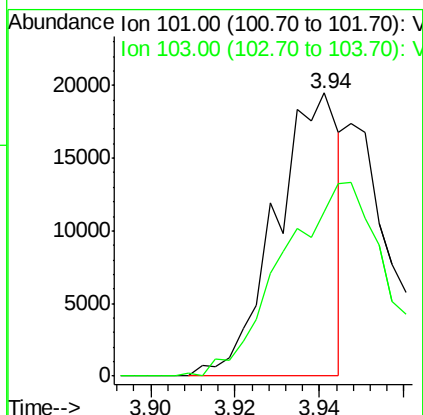
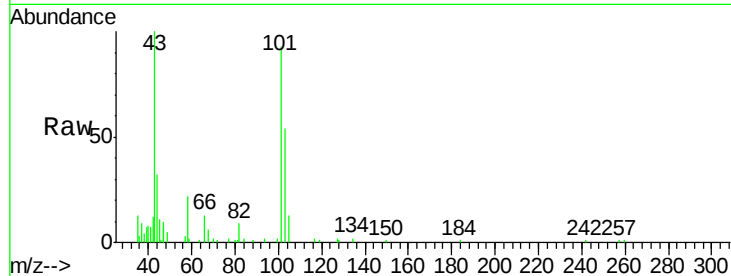




#11
 Trichlorofluoromethane
 Concen: 0.117 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL037799.D
 Acq: 7 Oct 2021 17:07

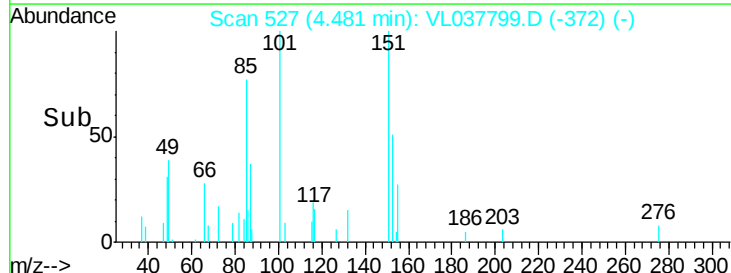
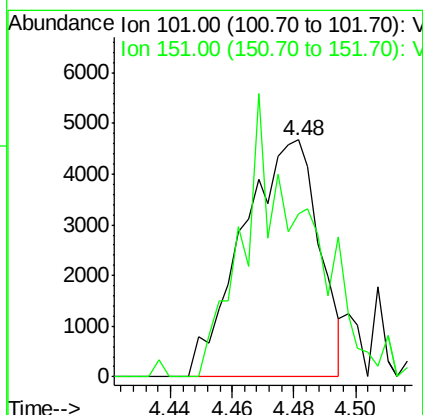
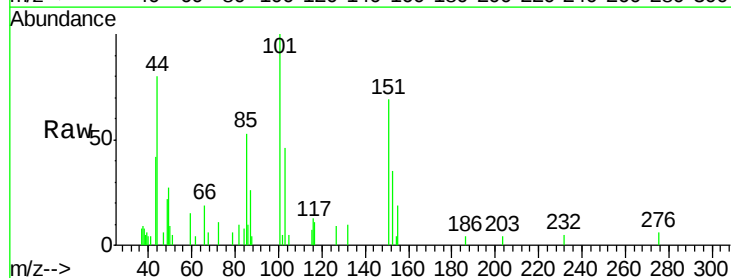
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P18

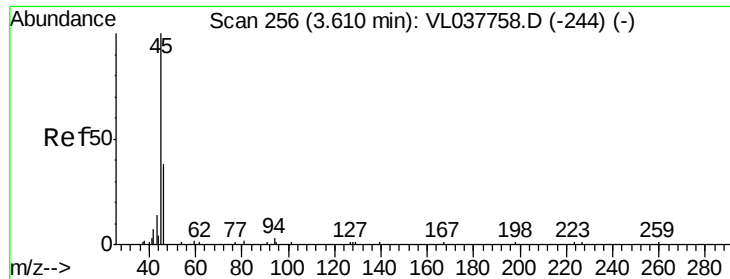
Tgt Ion:101 Resp: 20230
 Ion Ratio Lower Upper
 101 100
 103 57.1 51.5 77.3



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.061 ppbv
 RT: 4.48 min Scan# 527
 Delta R.T. -0.00 min
 Lab File: VL037799.D
 Acq: 7 Oct 2021 17:07

Tgt Ion:101 Resp: 8003
 Ion Ratio Lower Upper
 101 100
 151 101.3 62.9 94.3#





#13

Ethanol

Concen: 17.464 ppbv

RT: 3.60 min Scan# 254

Delta R.T. -0.01 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

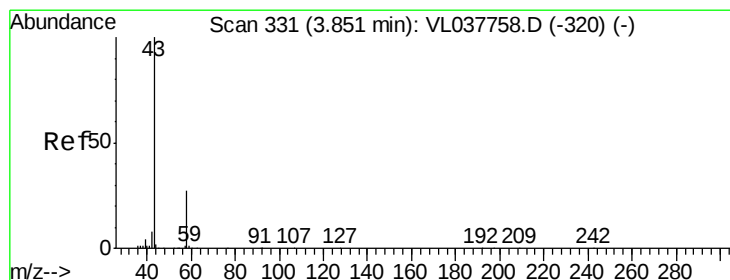
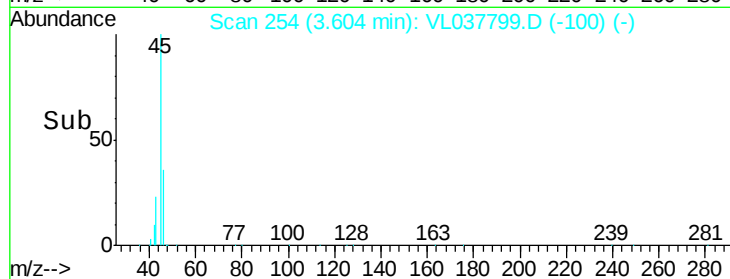
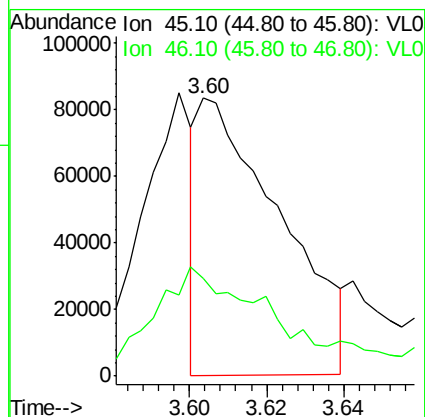
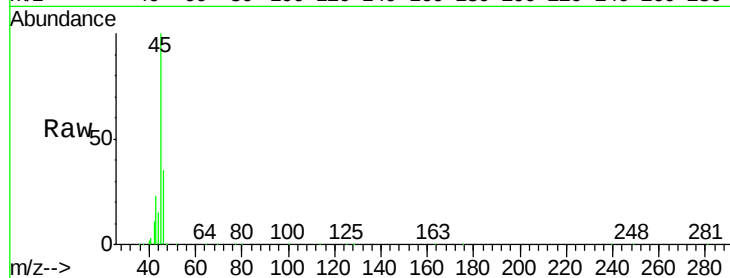
C0P18

Tgt Ion: 45 Resp: 122191

Ion Ratio Lower Upper

45 100

46 72.5 20.2 81.0



#15

Acetone

Concen: 11.810 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL037799.D

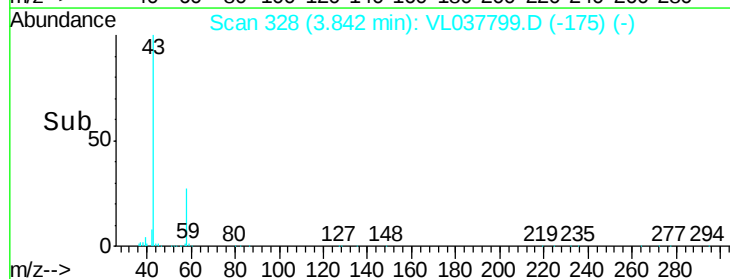
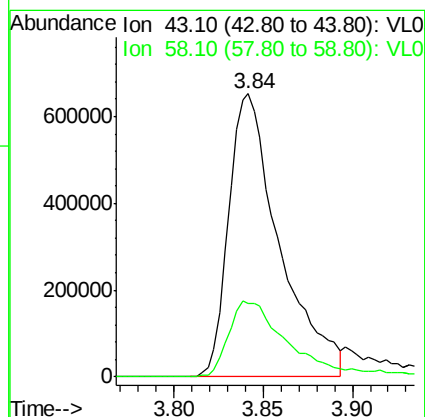
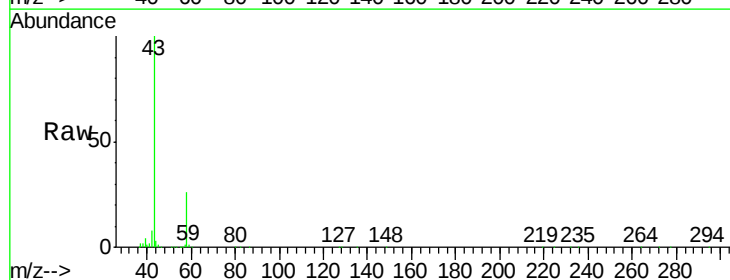
Acq: 7 Oct 2021 17:07

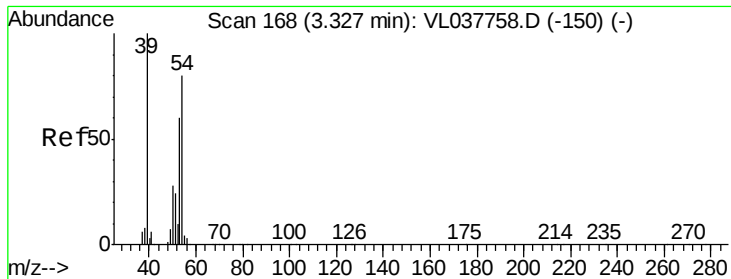
Tgt Ion: 43 Resp: 1282979

Ion Ratio Lower Upper

43 100

58 32.9 23.0 34.6





#16

1,3-Butadiene

Concen: 0.104 ppbv

RT: 3.33 min Scan# 168

Delta R.T. 0.00 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

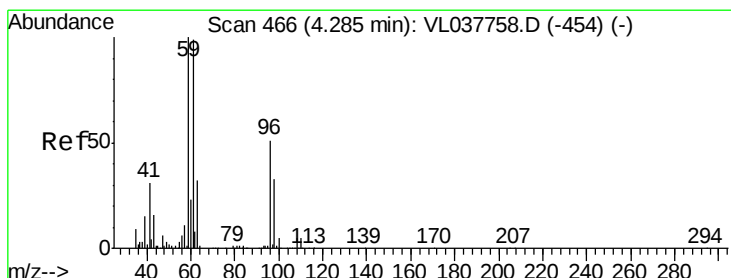
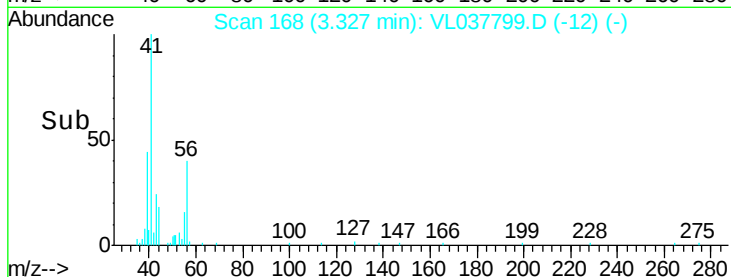
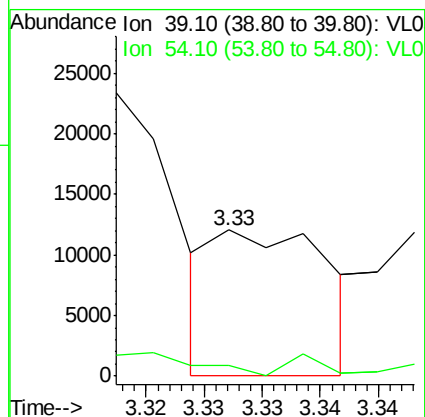
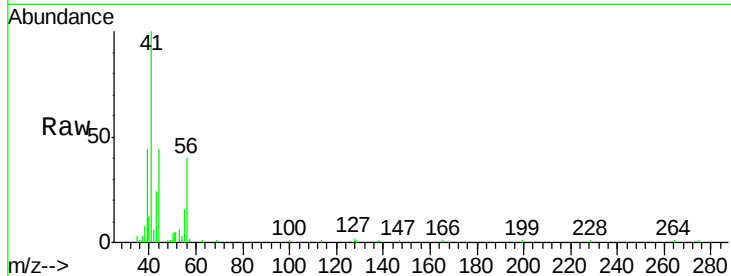
C0P18

Tgt Ion: 39 Resp: 8232

Ion Ratio Lower Upper

39 100

54 0.0 61.7 92.5#



#17

tert-Butyl alcohol

Concen: 0.201 ppbv

RT: 4.29 min Scan# 467

Delta R.T. 0.00 min

Lab File: VL037799.D

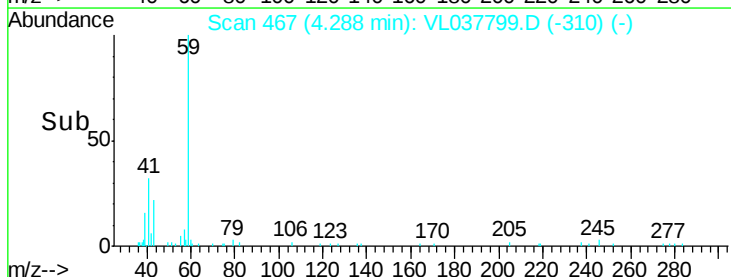
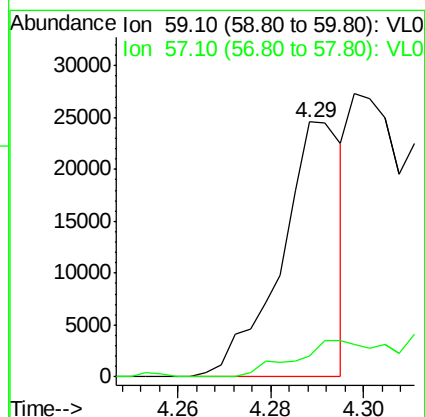
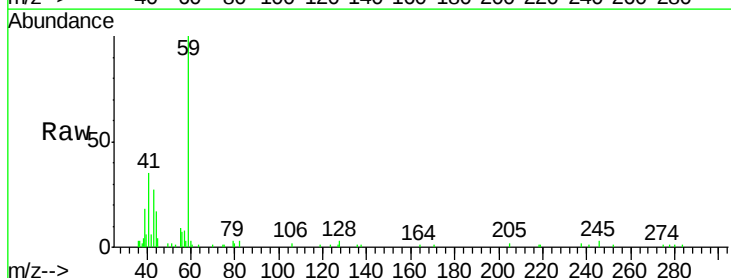
Acq: 7 Oct 2021 17:07

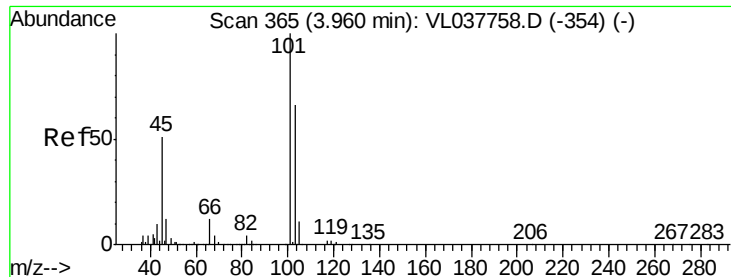
Tgt Ion: 59 Resp: 22515

Ion Ratio Lower Upper

59 100

57 0.0 8.6 13.0#





#19

Isopropyl Alcohol

Concen: 0.244 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.00 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampled :

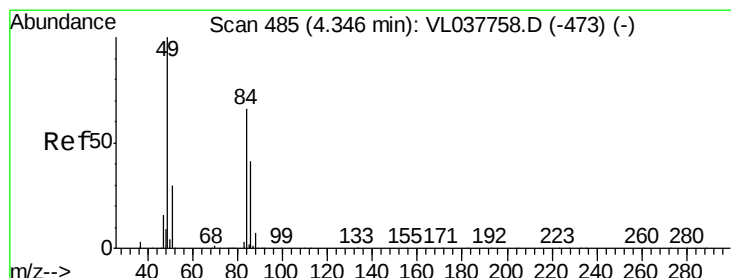
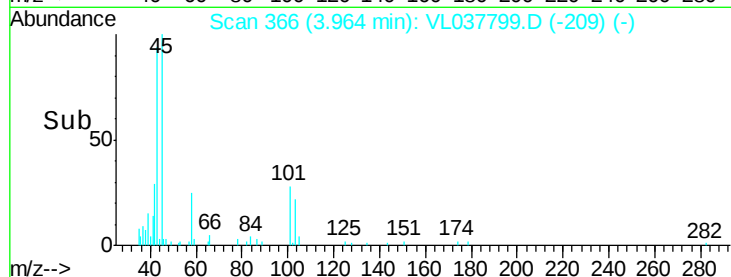
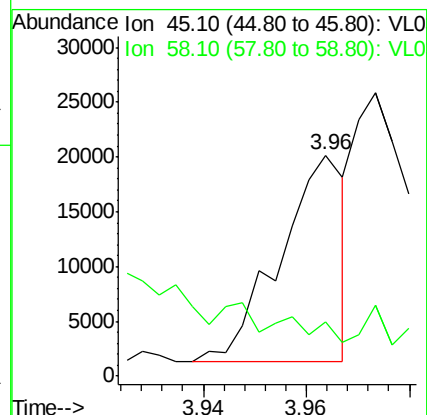
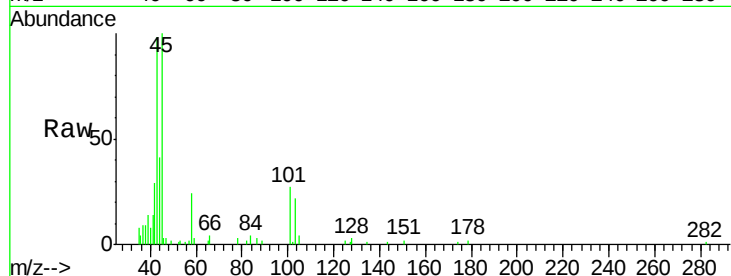
C0P18

Tgt Ion: 45 Resp: 16514

Ion Ratio Lower Upper

45 100

58 0.0 1.1 1.7#



#20

Methylene Chloride

Concen: 1.507 ppbv

RT: 4.33 min Scan# 481

Delta R.T. -0.01 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Tgt Ion: 84 Resp: 82745

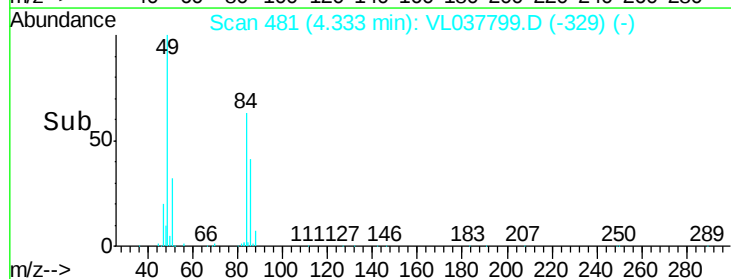
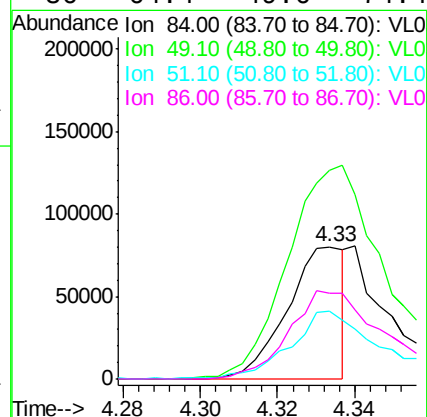
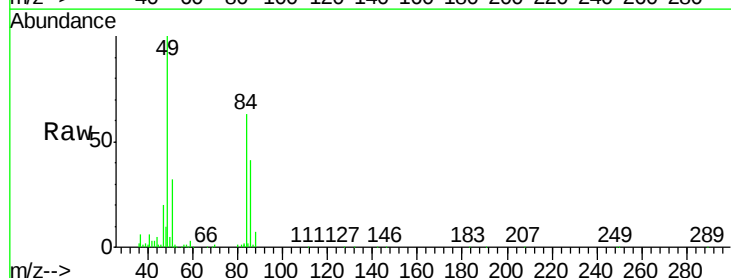
Ion Ratio Lower Upper

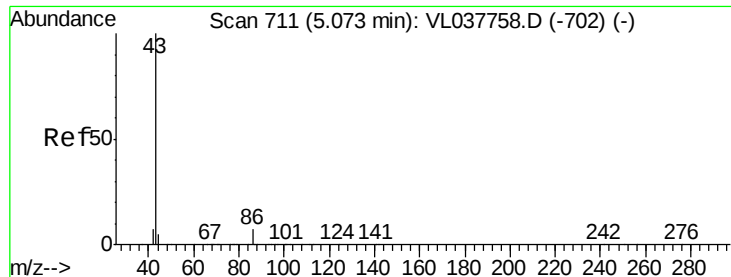
84 100

49 157.6 120.7 181.1

51 50.4 36.2 54.4

86 64.4 49.6 74.4





#23

Vinyl Acetate

Concen: 0.054 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

C0P18

Tgt Ion: 43 Resp: 8840

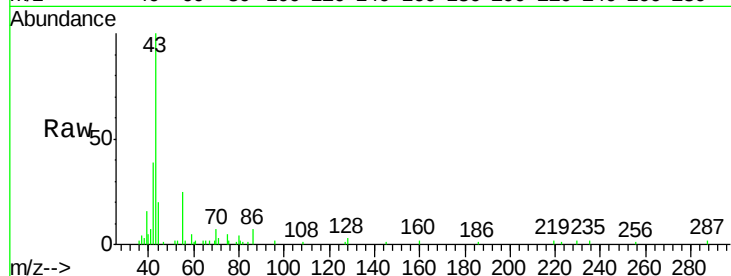
Ion Ratio Lower Upper

43 100

86 2.0 5.0 7.4#

42 32.1 7.4 11.0#

44 0.0 3.8 5.6#

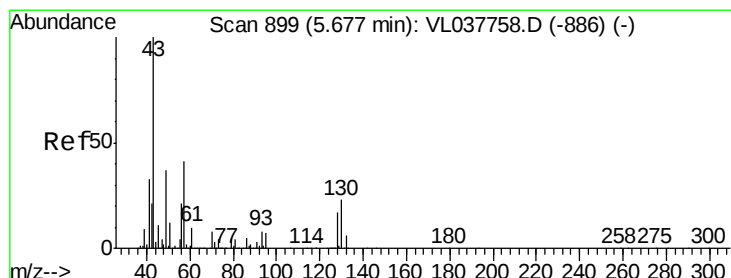
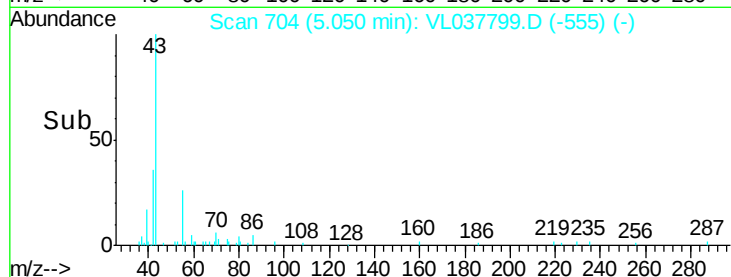
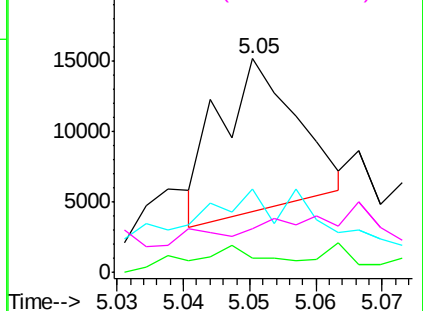


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.605 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.00 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Tgt Ion: 43 Resp: 184502

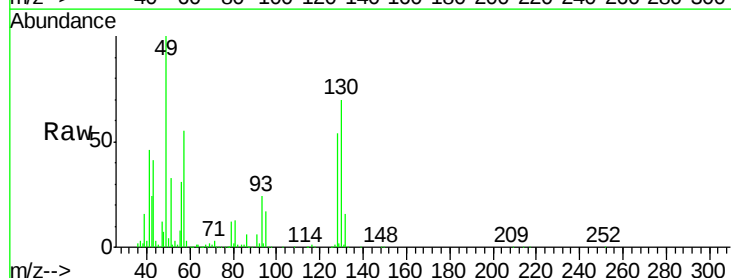
Ion Ratio Lower Upper

43 100

45 3.1 8.1 12.1#

61 1.8 7.5 11.3#

70 2.5 5.9 8.9#

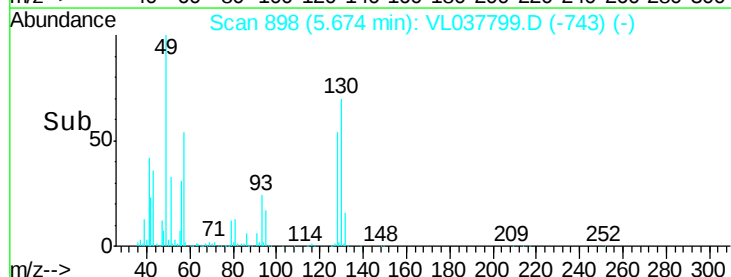
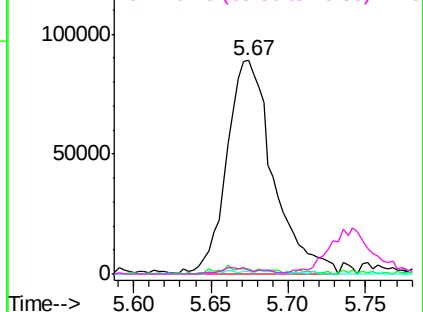


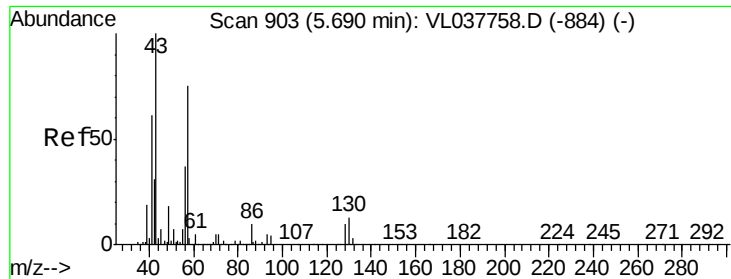
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 1.481 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

C0P18

Tgt Ion: 57 Resp: 222282

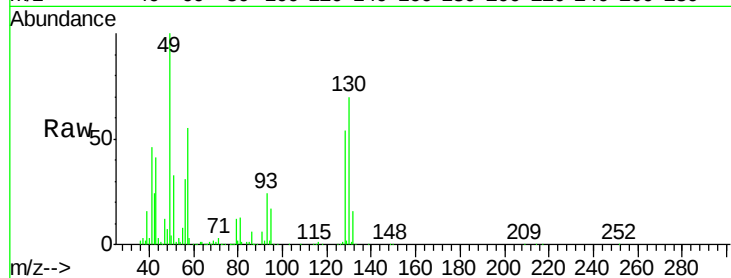
Ion Ratio Lower Upper

57 100

41 96.4 69.6 104.4

43 83.9 171.4 257.0#

56 58.7 42.0 63.0

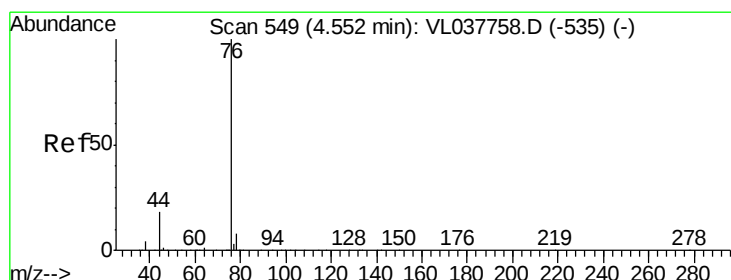
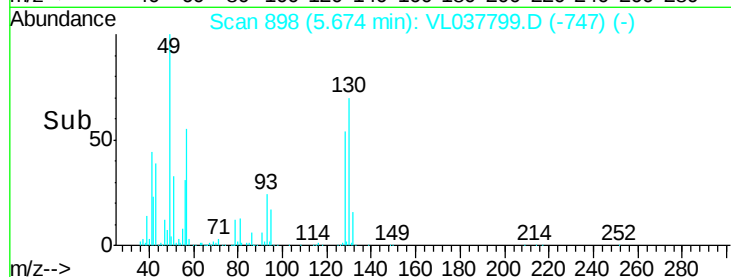
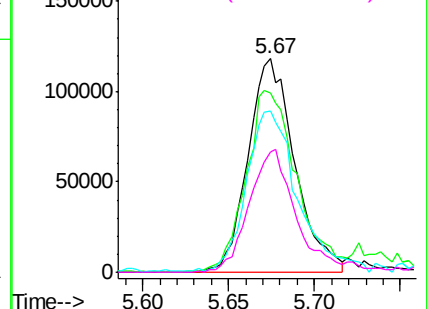


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.133 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.01 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

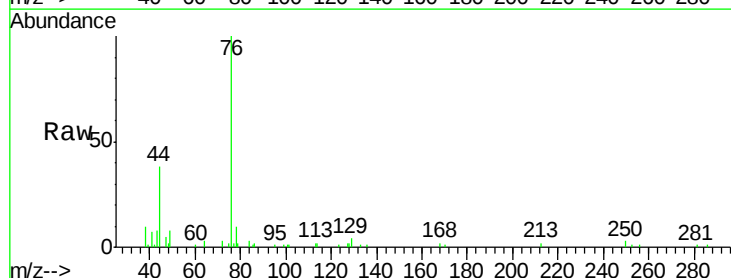
Tgt Ion: 76 Resp: 17742

Ion Ratio Lower Upper

76 100

44 50.6 14.3 21.5#

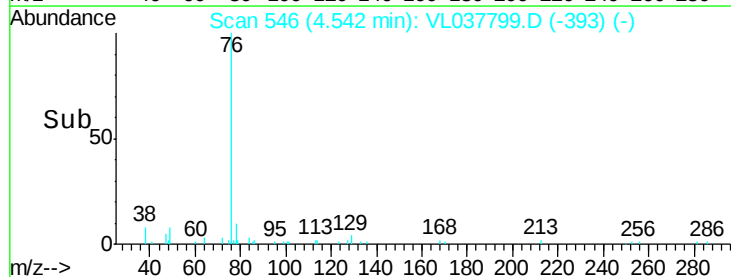
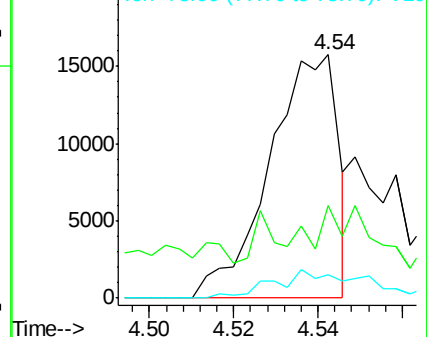
78 16.1 7.8 11.6#

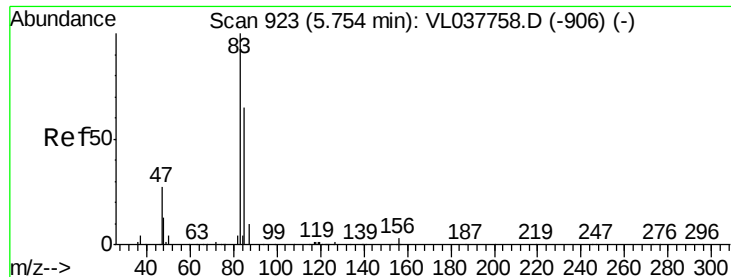


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 19.469 ppbv

RT: 5.74 min Scan# 918

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

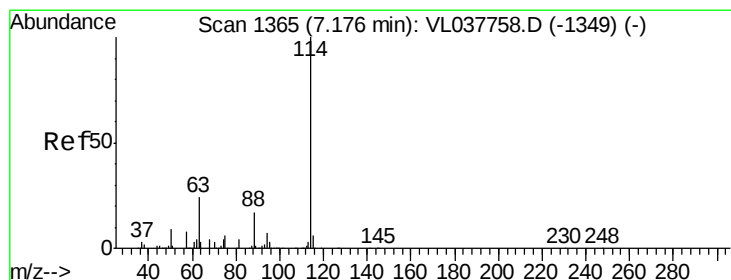
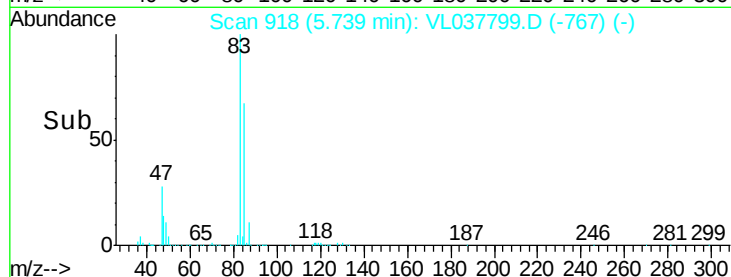
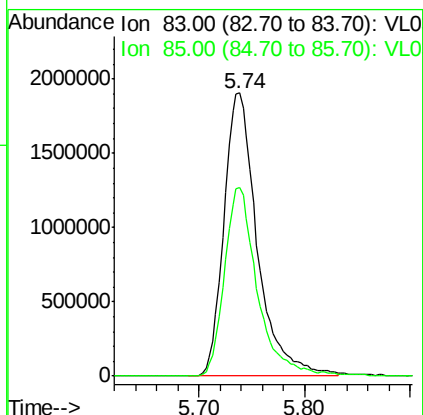
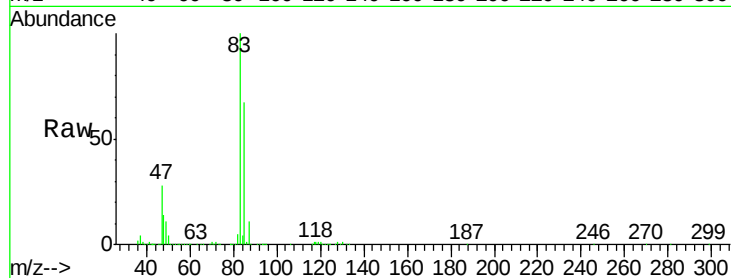
C0P18

Tgt Ion: 83 Resp: 4177294

Ion Ratio Lower Upper

83 100

85 66.5 51.8 77.8



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

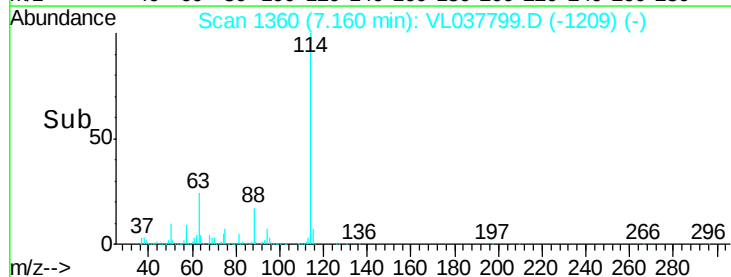
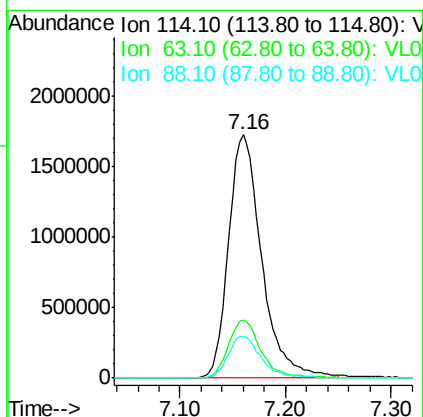
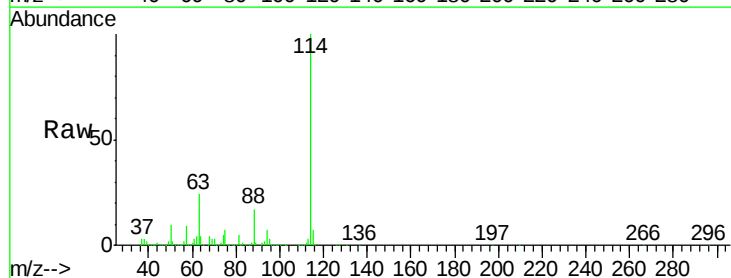
Tgt Ion: 114 Resp: 3757386

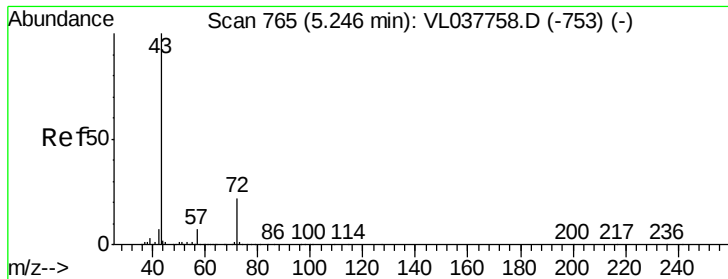
Ion Ratio Lower Upper

114 100

63 24.0 19.4 29.2

88 17.6 14.4 21.6

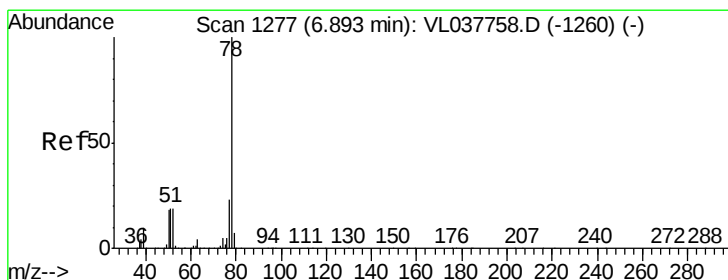
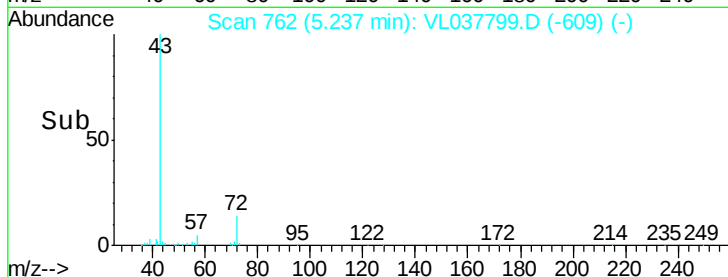
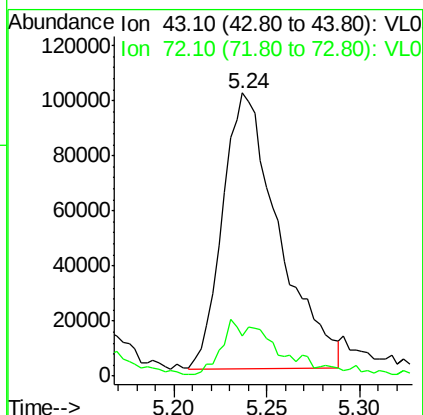
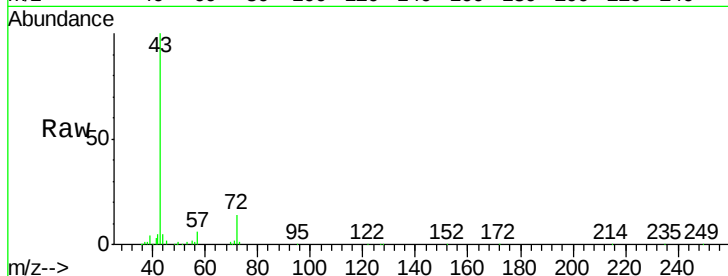




#34
2-Butanone
Concen: 1.395 ppbv
RT: 5.24 min Scan# 762
Delta R.T. -0.01 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

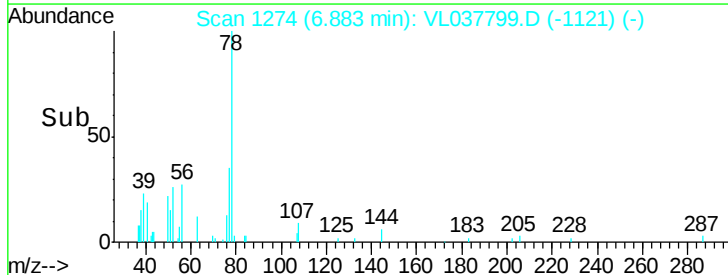
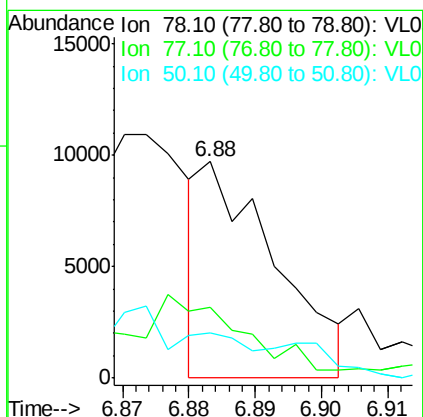
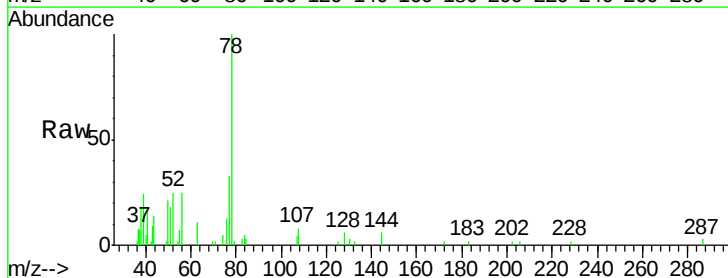
Instrument :
MSVOA_L
ClientSampleId :
C0P18

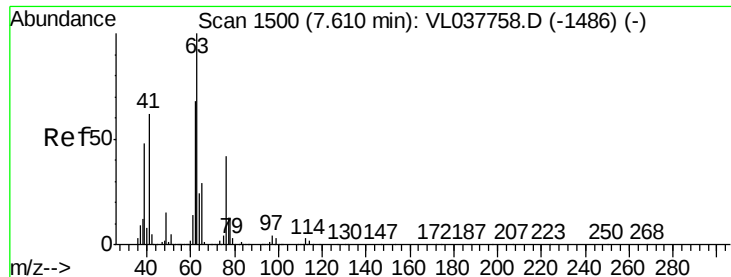
Tgt Ion: 43 Resp: 211540
Ion Ratio Lower Upper
43 100
72 22.7 18.2 27.2



#36
Benzene
Concen: 0.024 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.01 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

Tgt Ion: 78 Resp: 7580
Ion Ratio Lower Upper
78 100
77 39.1 18.8 28.2#
50 20.1 14.7 22.1

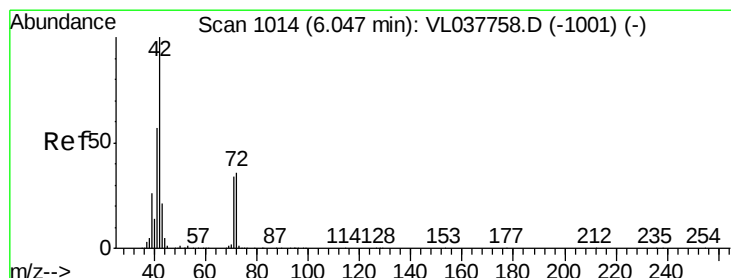
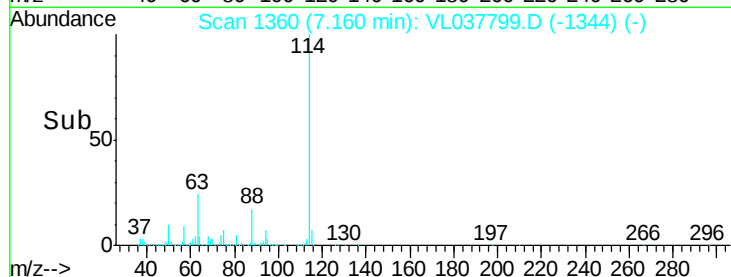
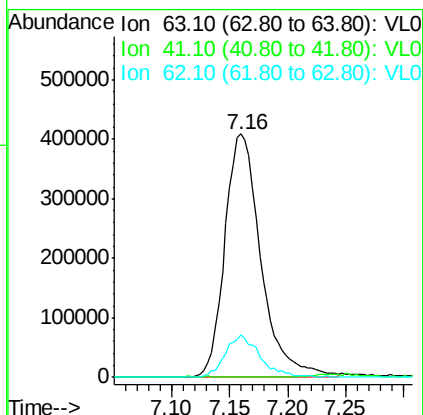
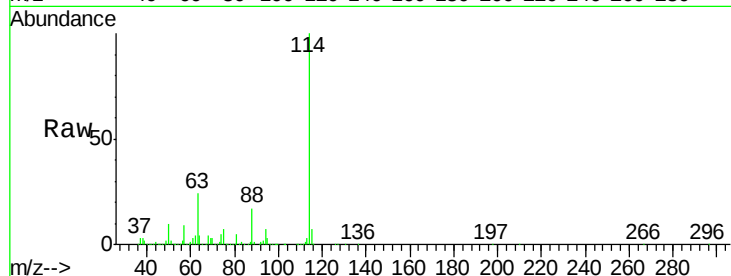




#39
 1,2-Dichloropropane
 Concen: 7.338 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. -0.45 min
 Lab File: VL037799.D
 Acq: 7 Oct 2021 17:07

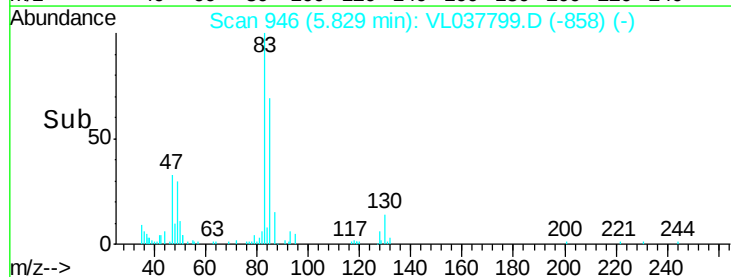
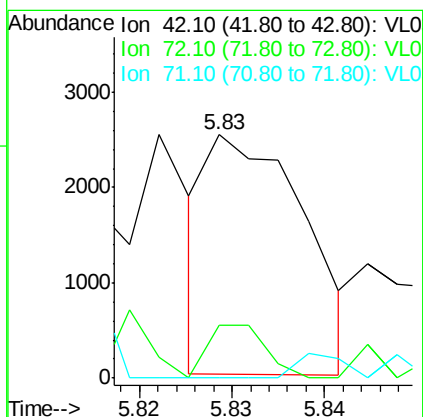
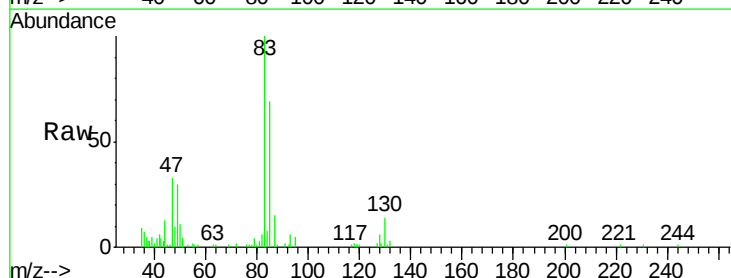
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P18

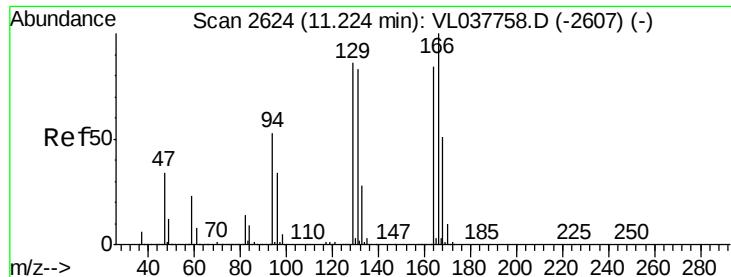
Tgt Ion: 63 Resp: 885822
 Ion Ratio Lower Upper
 63 100
 41 0.0 49.8 74.6#
 62 17.4 54.6 82.0#



#41
 Tetrahydrofuran
 Concen: 0.025 ppbv
 RT: 5.83 min Scan# 946
 Delta R.T. -0.22 min
 Lab File: VL037799.D
 Acq: 7 Oct 2021 17:07

Tgt Ion: 42 Resp: 1834
 Ion Ratio Lower Upper
 42 100
 72 0.0 31.9 47.9#
 71 26.2 30.3 45.5#





#52

Tetrachloroethene

Concen: 1.489 ppbv

RT: 11.21 min Scan# 2619

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

Instrument :

MSVOA_L

ClientSampleId :

C0P18

Tgt Ion:164 Resp: 185874

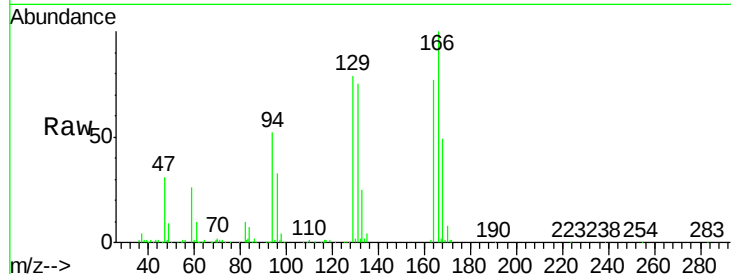
Ion Ratio Lower Upper

164 100

166 129.0 95.4 143.2

129 103.2 82.2 123.4

131 97.5 79.4 119.2

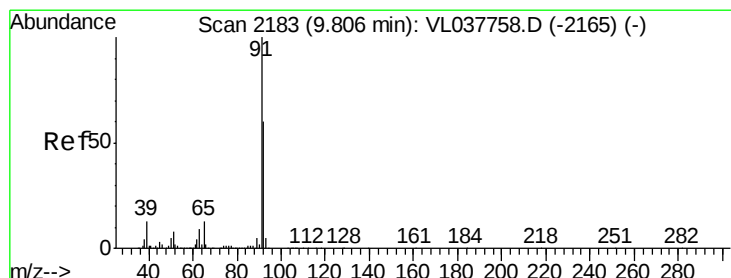
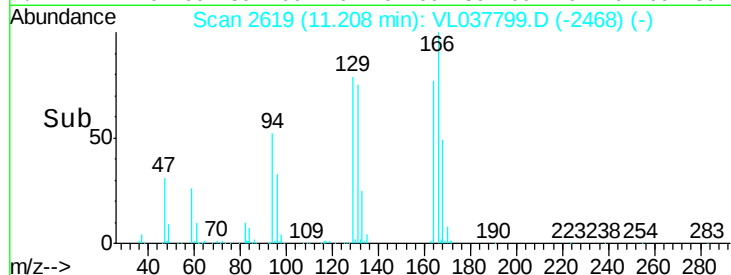
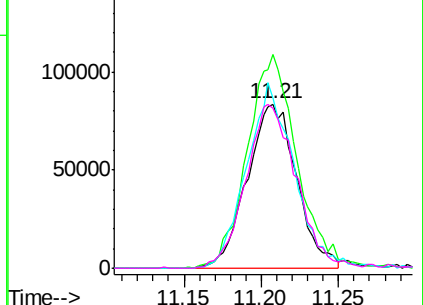


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.217 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.02 min

Lab File: VL037799.D

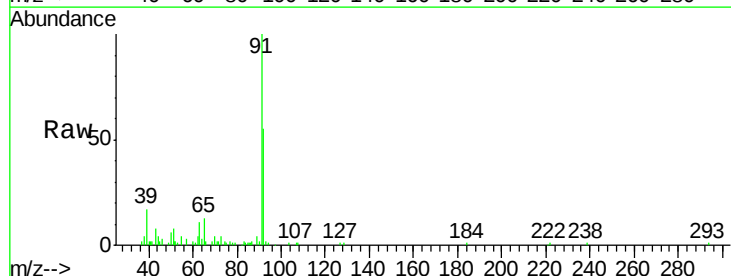
Acq: 7 Oct 2021 17:07

Tgt Ion: 91 Resp: 77160

Ion Ratio Lower Upper

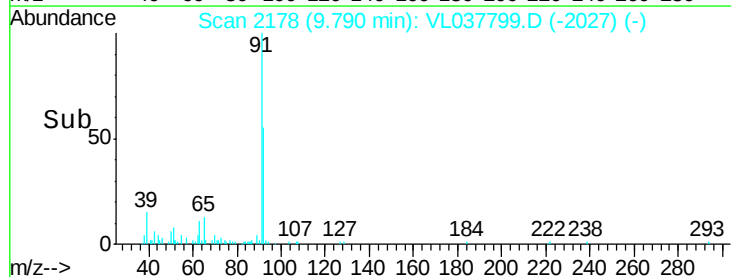
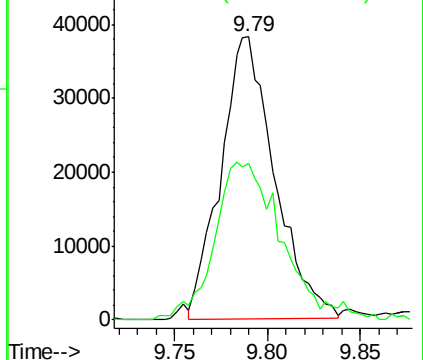
91 100

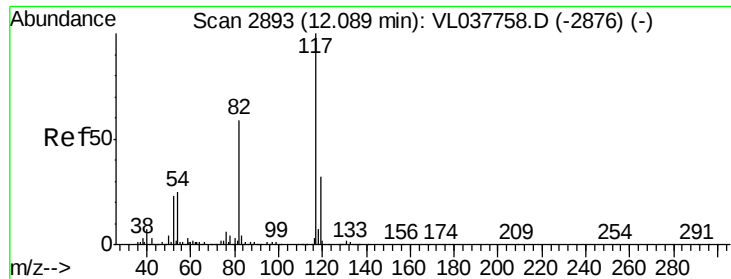
92 69.6 48.4 72.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

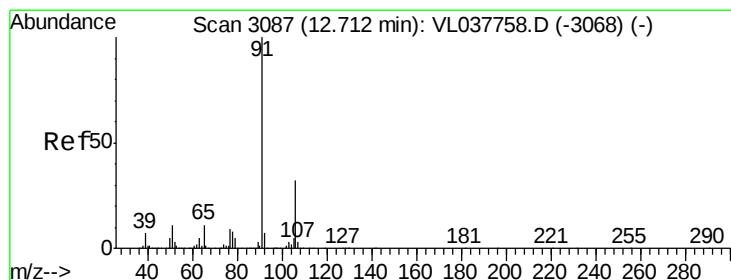
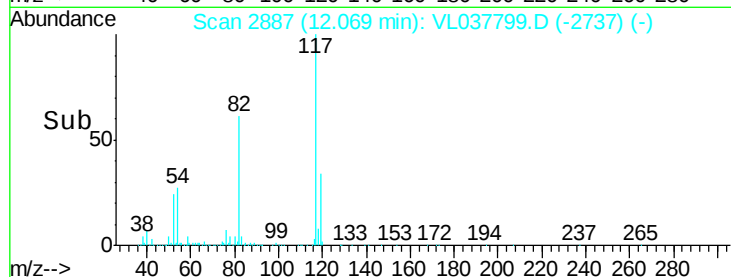
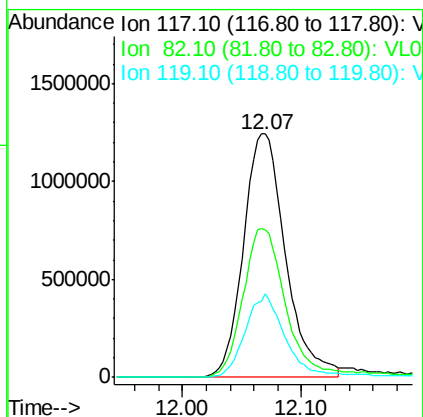
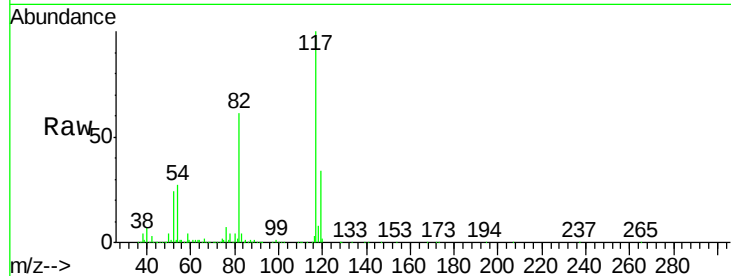




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2887
Delta R.T. -0.02 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

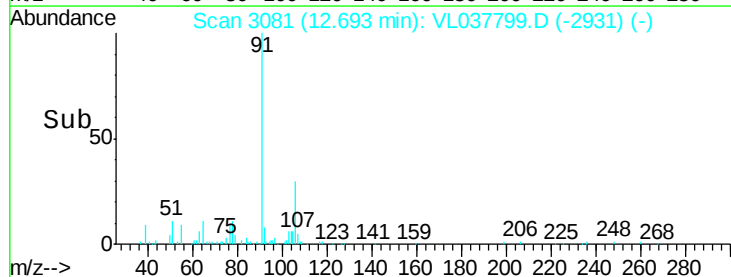
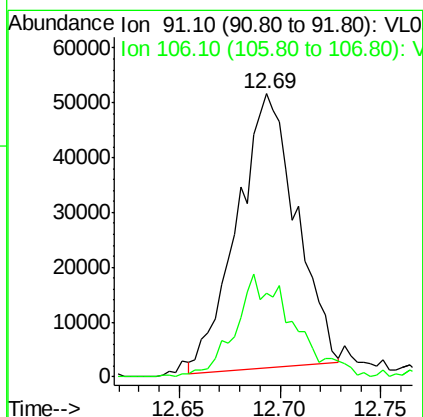
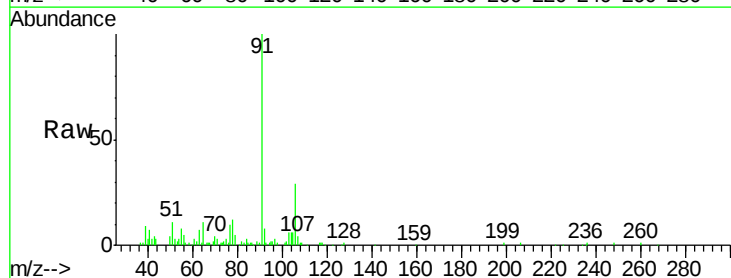
Instrument :
MSVOA_L
ClientSampleId :
C0P18

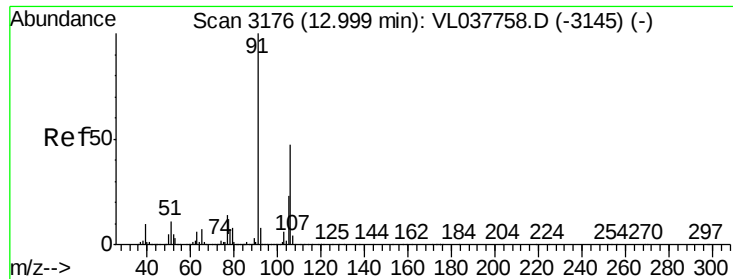
Tgt Ion: 117 Resp: 3043346
Ion Ratio Lower Upper
117 100
82 66.3 52.2 78.2
119 33.8 26.0 39.0



#58
Ethyl Benzene
Concen: 0.250 ppbv
RT: 12.69 min Scan# 3081
Delta R.T. -0.02 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

Tgt Ion: 91 Resp: 102249
Ion Ratio Lower Upper
91 100
106 29.8 25.3 37.9

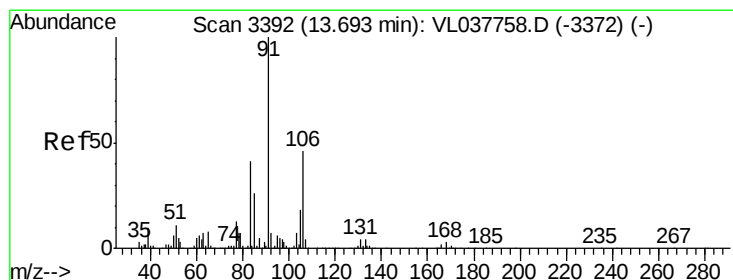
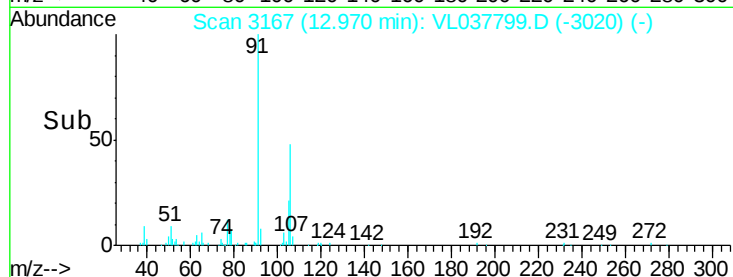
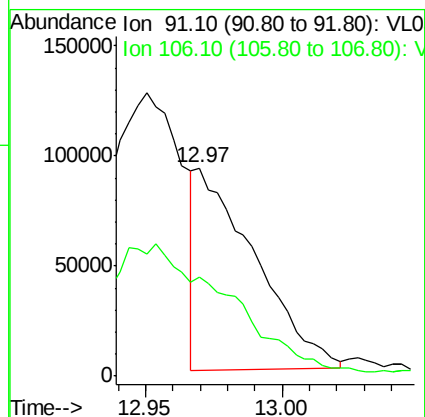
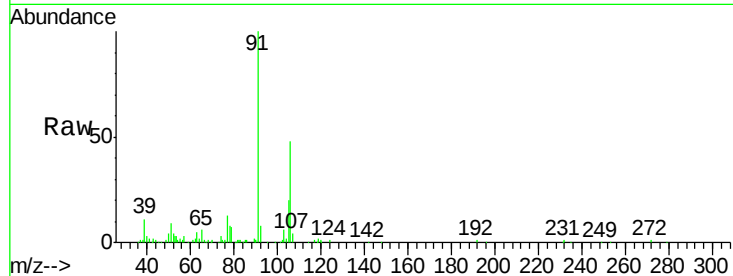




#59
m/p-Xylene
Concen: 0.389 ppbv
RT: 12.97 min Scan# 3167
Delta R.T. -0.03 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

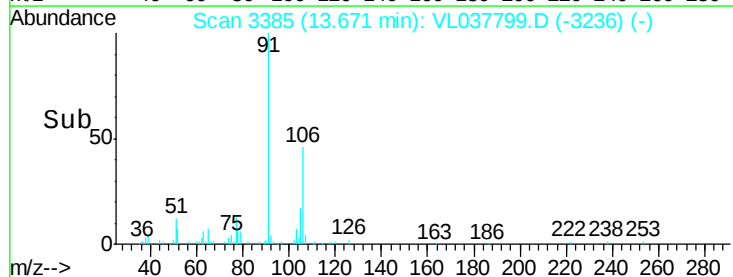
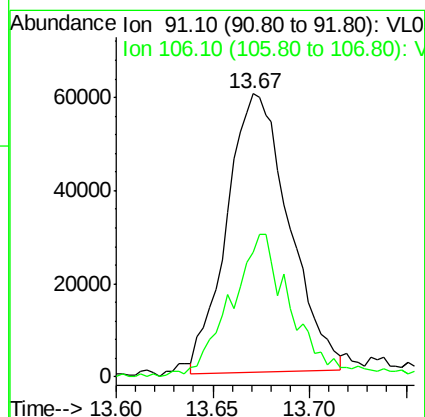
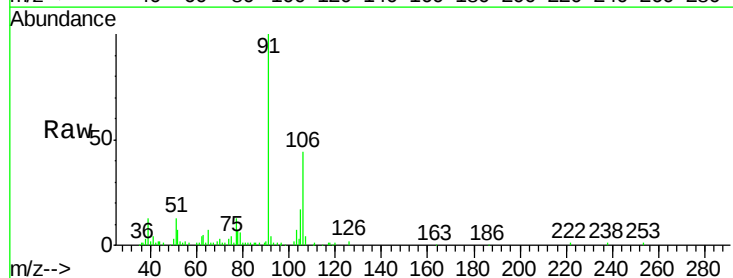
Instrument :
MSVOA_L
ClientSampled :
C0P18

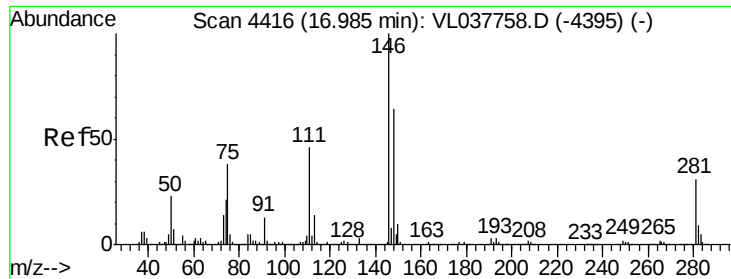
Tgt Ion: 91 Resp: 136553
Ion Ratio Lower Upper
91 100
106 0.0 36.7 55.1#



#60
o-Xylene
Concen: 0.399 ppbv
RT: 13.67 min Scan# 3385
Delta R.T. -0.02 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

Tgt Ion: 91 Resp: 134215
Ion Ratio Lower Upper
91 100
106 51.0 23.5 70.5

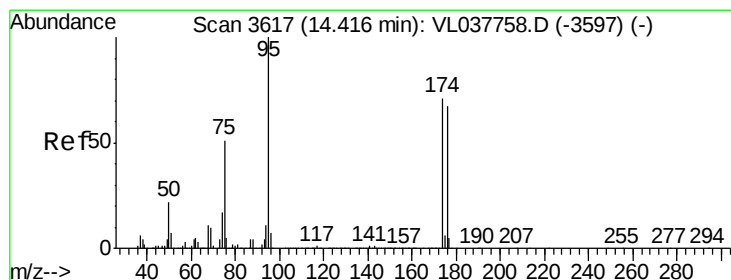
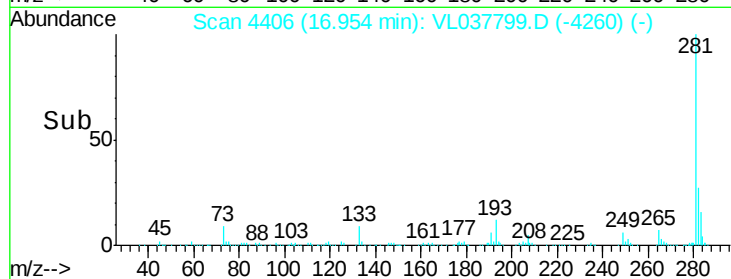
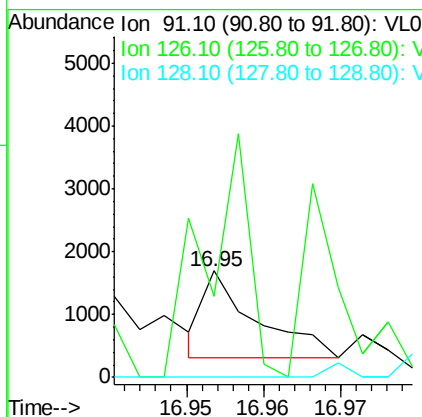
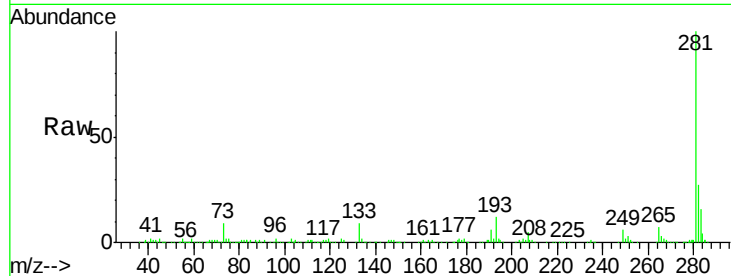




#66
Benzyl Chloride
Concen: 0.032 ppbv
RT: 16.95 min Scan# 4406
Delta R.T. -0.03 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

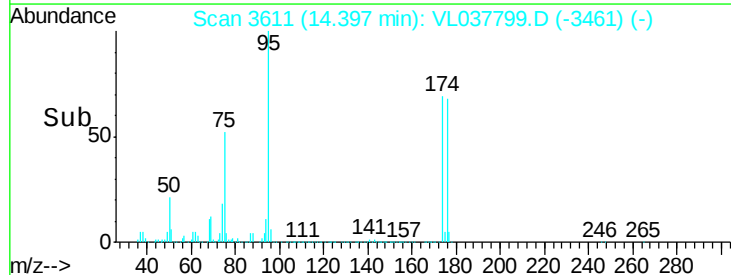
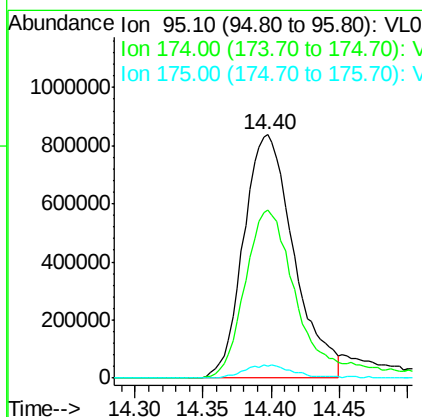
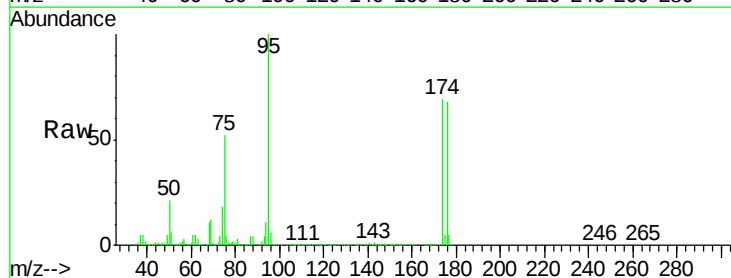
Instrument :
MSVOA_L
ClientSampleId :
C0P18

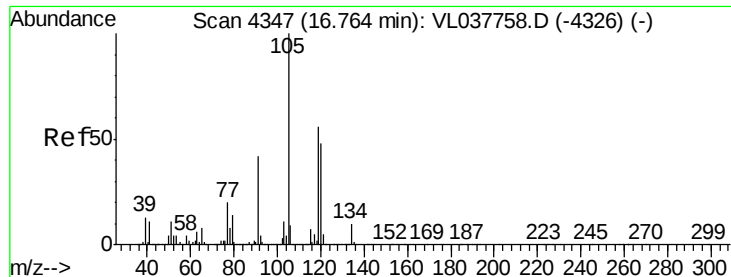
Tgt Ion: 91 Resp: 649
Ion Ratio Lower Upper
91 100
126 588.3 0.0 0.0#
128 0.0 5.3 7.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.098 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. -0.02 min
Lab File: VL037799.D
Acq: 7 Oct 2021 17:07

Tgt Ion: 95 Resp: 2149182
Ion Ratio Lower Upper
95 100
174 75.9 57.8 86.6
175 5.7 4.7 7.1





#74

1,2,4-Trimethylbenzene

Concen: 0.071 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.03 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

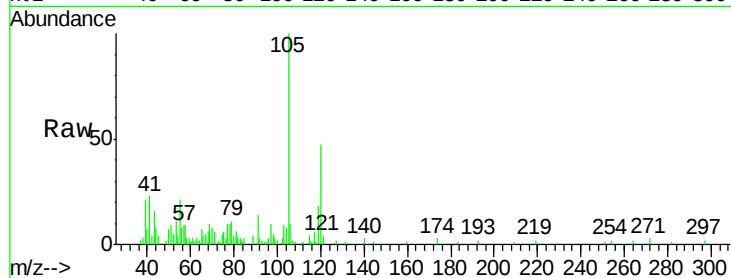
Instrument :

MSVOA_L

ClientSampleId :

C0P18

Tgt Ion:	105	Resp:	25969
Ion	Ratio	Lower	Upper
105	100		
120	47.5	38.4	57.6
91	5.8	34.2	51.2#
77	4.1	15.8	23.8#

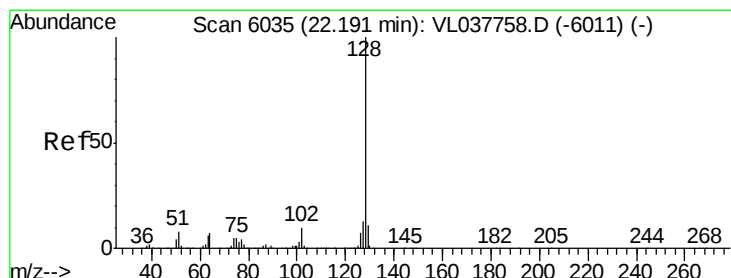
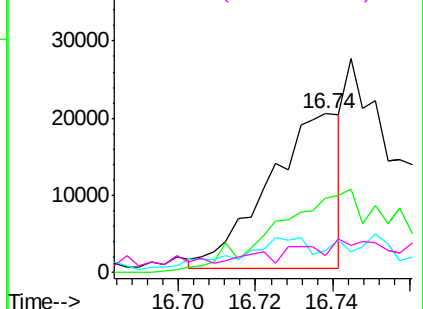
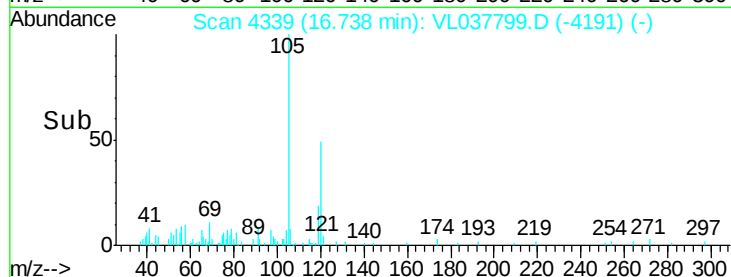


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#79

Naphthalene

Concen: 0.101 ppbv

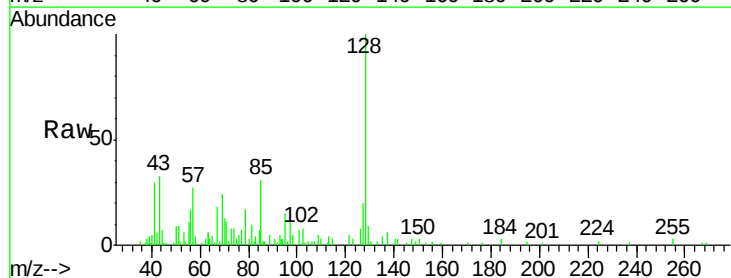
RT: 22.17 min Scan# 6028

Delta R.T. -0.02 min

Lab File: VL037799.D

Acq: 7 Oct 2021 17:07

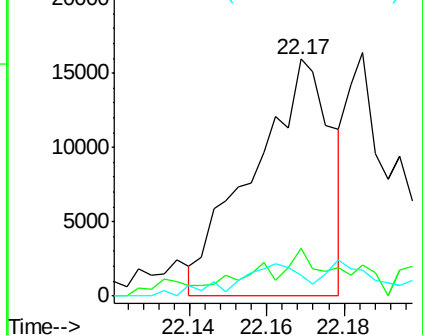
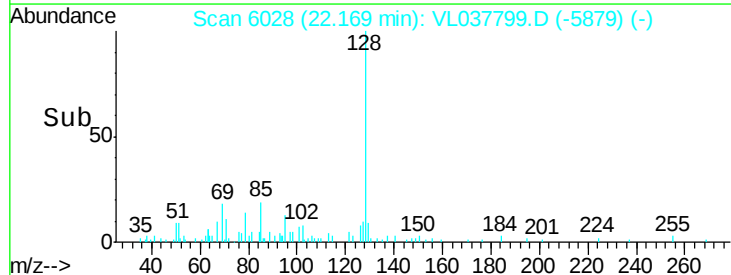
Tgt Ion:	128	Resp:	22457
Ion	Ratio	Lower	Upper
128	100		
127	18.1	10.1	15.1#
129	4.6	9.1	13.7#

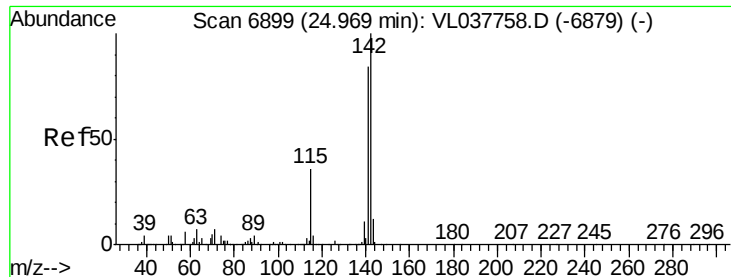


Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V





#80
 Naphthalene, 2-methyl-
 Concen: 0.134 ppbv
 RT: 24.96 min Scan# 6896
 Delta R.T. -0.01 min
 Lab File: VL037799.D
 Acq: 7 Oct 2021 17:07

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P18

Tgt Ion	Ratio	Lower	Upper
142	100		
141	91.5	68.6	102.8
115	43.5	29.0	43.6

