

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL100521\
 Data File : VL037784.D
 Acq On : 5 Oct 2021 21:54
 Operator : SY/AP
 Sample : M4012-12 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 C0P15

Quant Time: Oct 06 04:48:35 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	1283270	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.15	114	3752218	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	3307746	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.38	95	2393830	10.35	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.50%

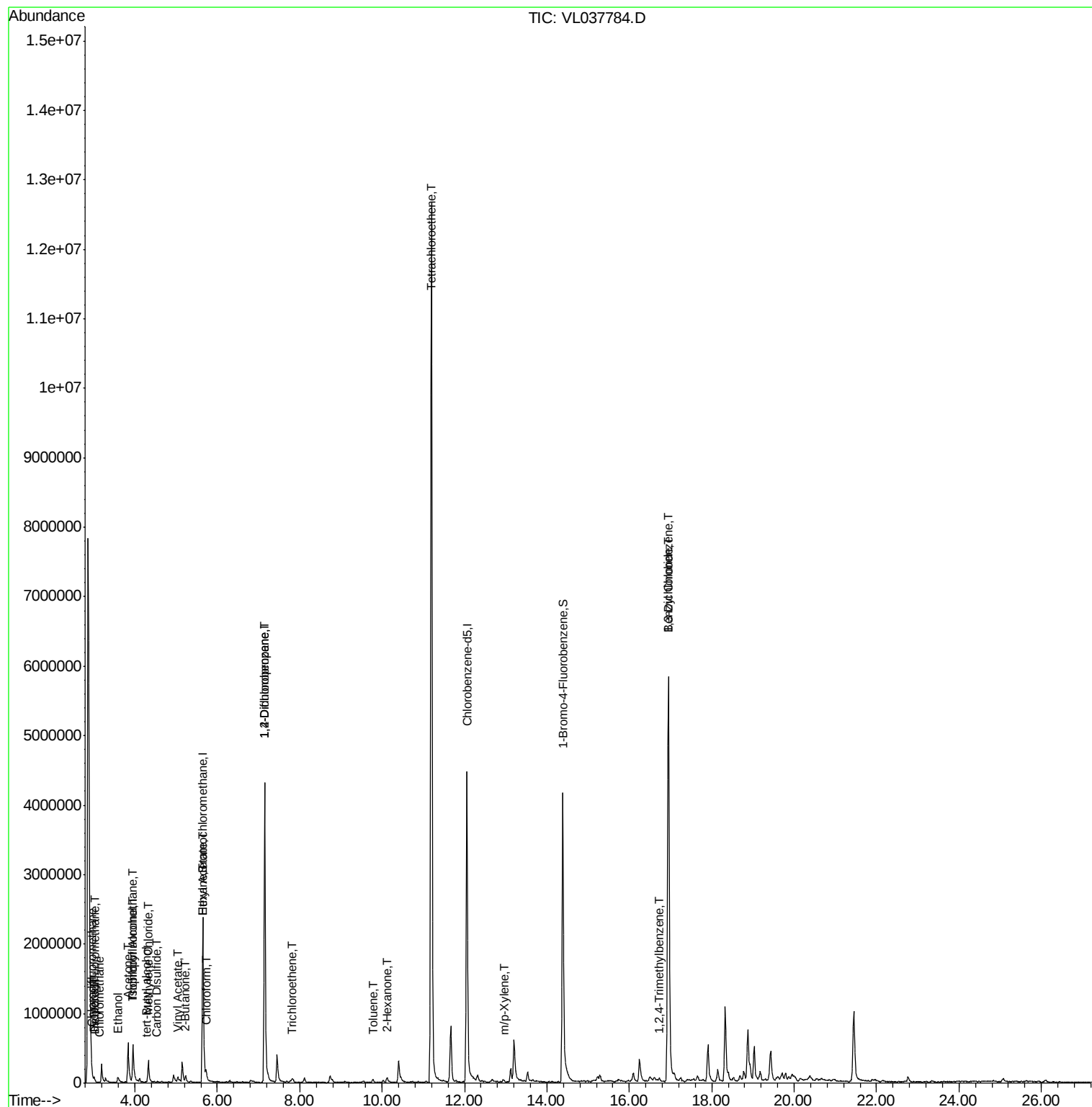
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	11301	0.055	ppbv	90
3) Chlorodifluoromethane	2.97	51	14649	0.059	ppbv #	81
4) Chloromethane	3.13	50	2516	0.028	ppbv #	68
9) Propene	3.00	41	6386	0.070	ppbv #	16
11) Trichlorofluoromethane	3.94	101	7182	0.039	ppbv	97
13) Ethanol	3.60	45	20085	2.707	ppbv #	27
15) Acetone	3.83	43	690824	5.997	ppbv #	87
17) tert-Butyl alcohol	4.28	59	4923	0.041	ppbv #	71
19) Isopropyl Alcohol	3.95	45	721084	10.061	ppbv #	95
20) Methylene Chloride	4.33	84	128625	2.210	ppbv	96
23) Vinyl Acetate	5.04	43	68301	0.396	ppbv #	85
25) Ethyl Acetate	5.66	43	73537	0.227	ppbv #	81
26) Hexane	5.66	57	78040	0.490	ppbv #	52
27) Carbon Disulfide	4.54	76	4354	0.031	ppbv #	1
29) Chloroform	5.73	83	79484	0.349	ppbv	98
34) 2-Butanone	5.23	43	99759	0.659	ppbv #	75
38) Trichloroethene	7.81	130	8967	0.071	ppbv #	81
39) 1,2-Dichloropropane	7.15	63	886993	7.358	ppbv #	29
51) 2-Hexanone	10.12	43	32270	0.367	ppbv #	21
52) Tetrachloroethene	11.20	164	3828741	30.706	ppbv	96
53) Toluene	9.77	91	21006	0.059	ppbv #	38
59) m/p-Xylene	12.96	91	8202	0.022	ppbv #	30
66) Benzyl Chloride	16.94	91	1135	0.051	ppbv #	81
74) 1,2,4-Trimethylbenzene	16.73	105	15849	0.040	ppbv #	70
75) 1,3-Dichlorobenzene	16.95	146	18260	0.074	ppbv #	23

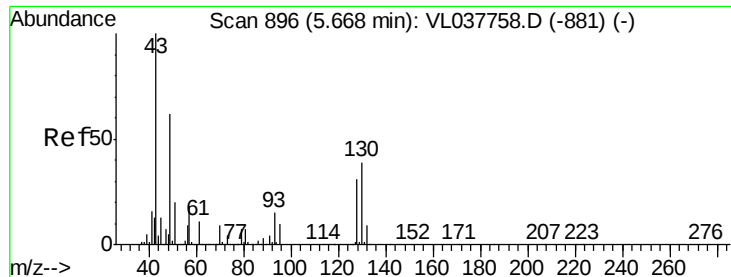
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Oct 04 17:43:54 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 889

Delta R.T. -0.02 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :
MSVOA_L
ClientSampleId :
C0P15

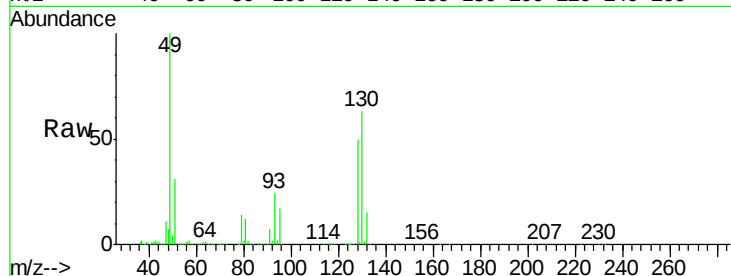
Tgt Ion: 49 Resp: 1283270

Ion Ratio Lower Upper

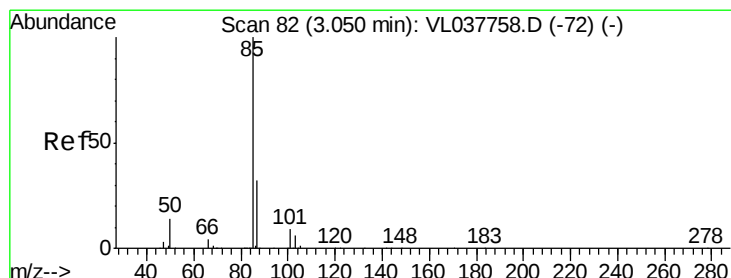
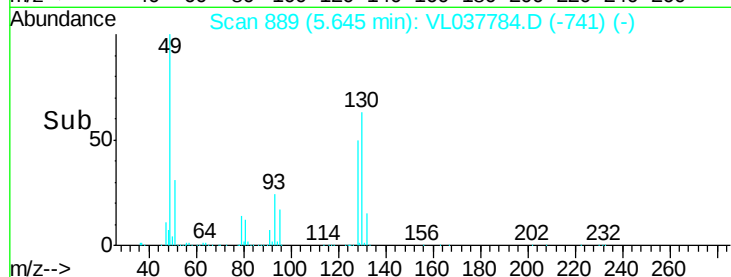
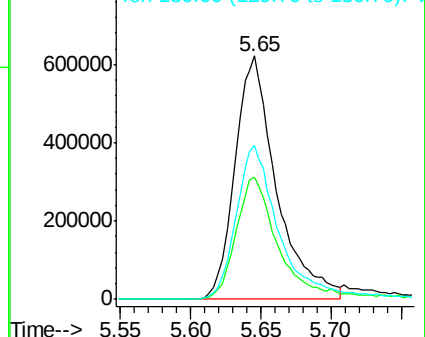
49 100

128 52.7 27.1 81.3

130 67.5 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



#2

Dichlorodifluoromethane

Concen: 0.055 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL037784.D

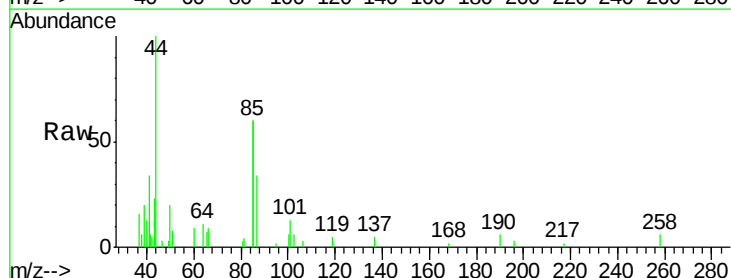
Acq: 5 Oct 2021 21:54

Tgt Ion: 85 Resp: 11301

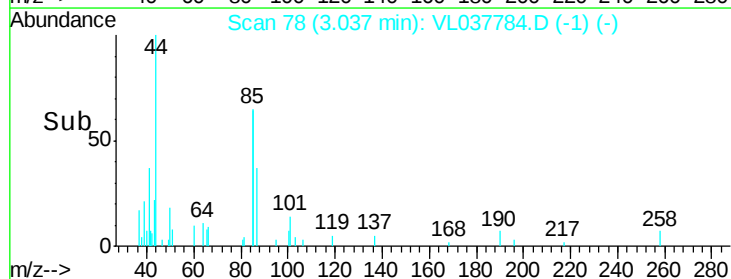
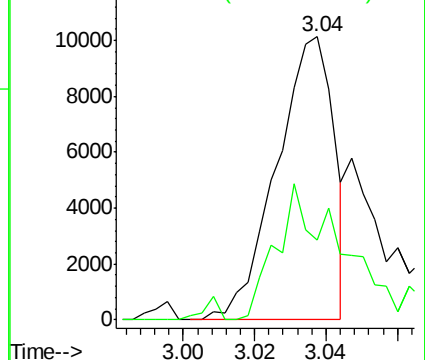
Ion Ratio Lower Upper

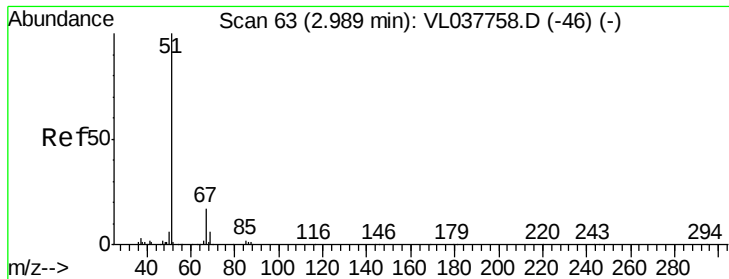
85 100

87 26.8 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.059 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.02 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

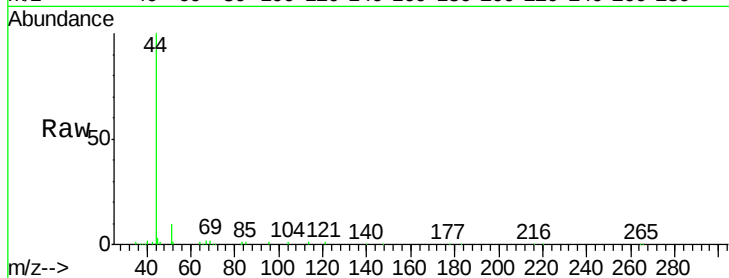
C0P15

Tgt Ion: 51 Resp: 14649

Ion Ratio Lower Upper

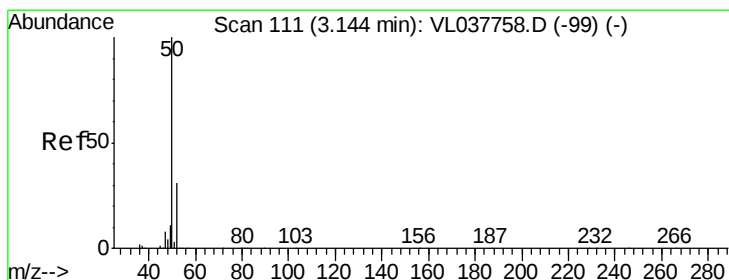
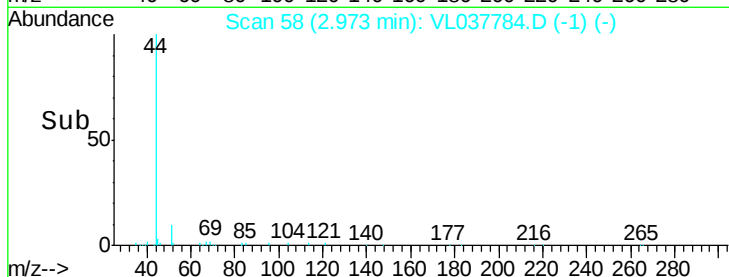
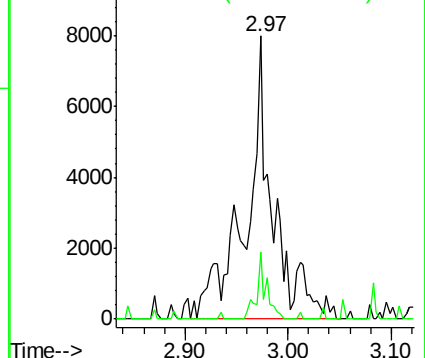
51 100

67 8.9 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: 0.028 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL037784.D

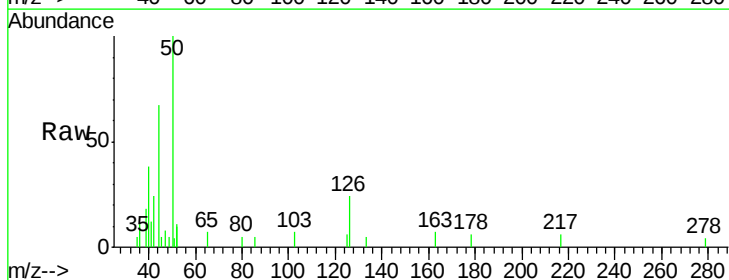
Acq: 5 Oct 2021 21:54

Tgt Ion: 50 Resp: 2516

Ion Ratio Lower Upper

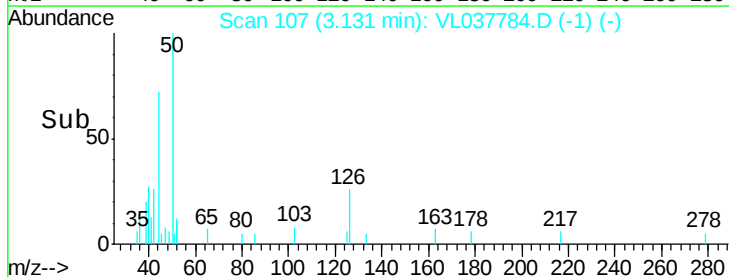
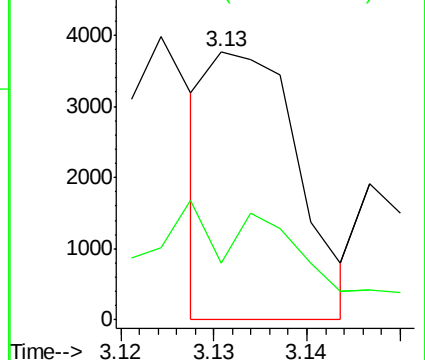
50 100

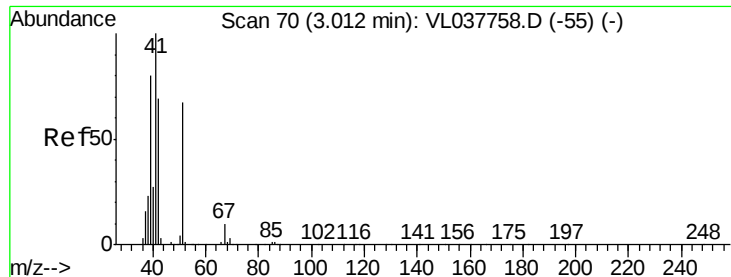
52 13.1 24.4 36.6#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.070 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

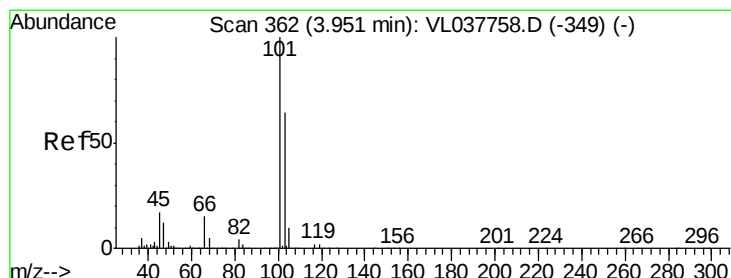
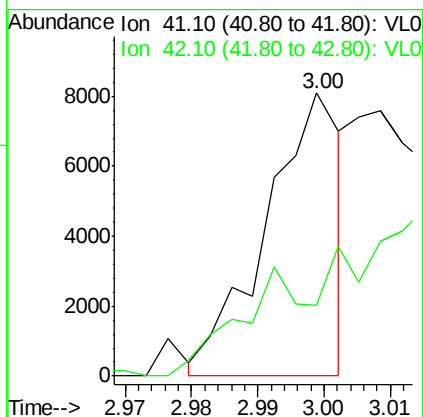
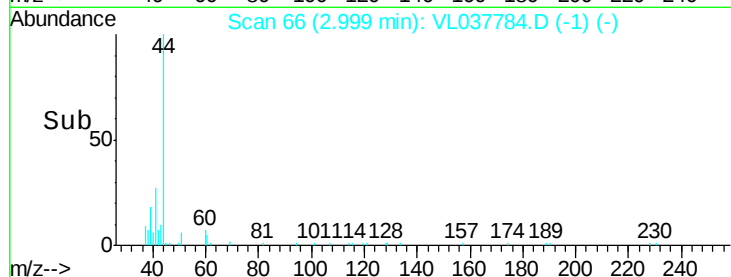
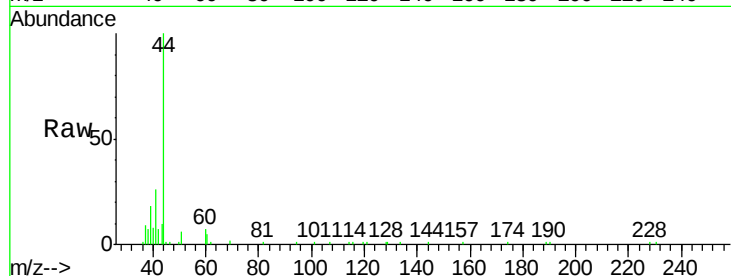
C0P15

Tgt Ion: 41 Resp: 6386

Ion Ratio Lower Upper

41 100

42 0.0 54.2 81.2#



#11

Trichlorofluoromethane

Concen: 0.039 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL037784.D

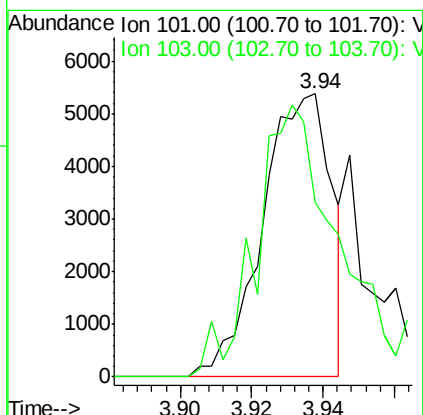
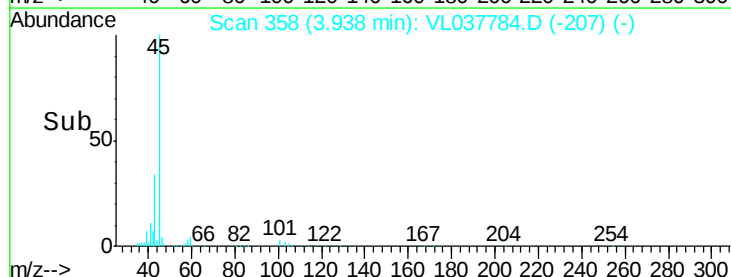
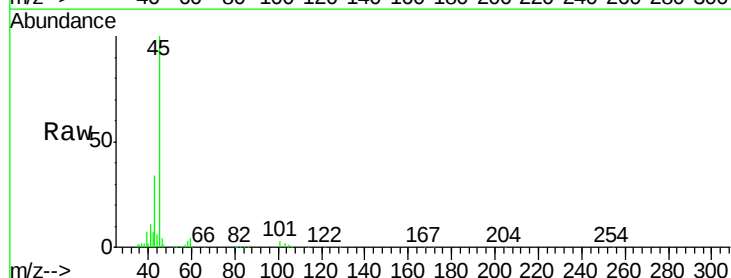
Acq: 5 Oct 2021 21:54

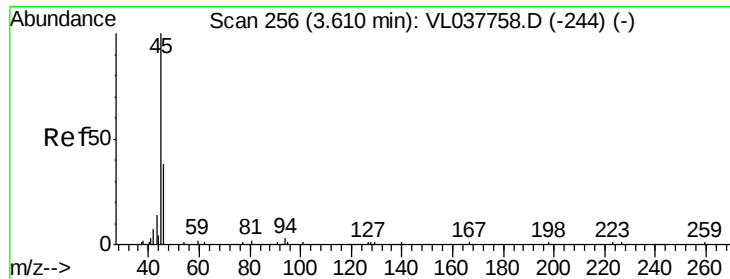
Tgt Ion: 101 Resp: 7182

Ion Ratio Lower Upper

101 100

103 61.9 51.5 77.3

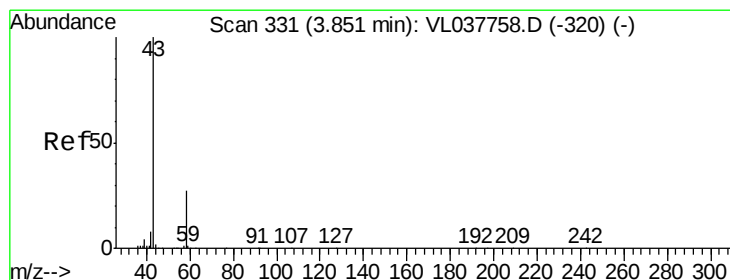
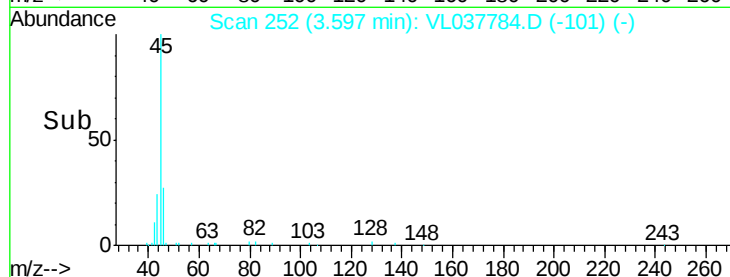
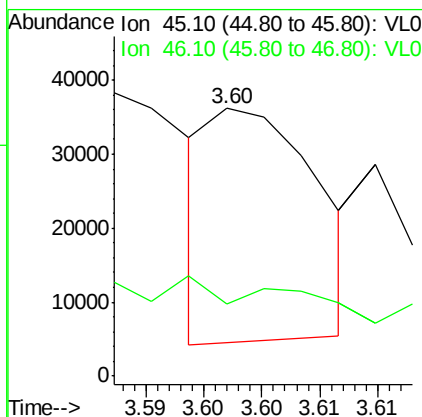
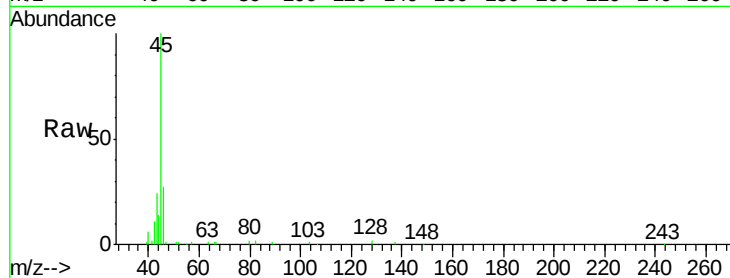




#13
Ethanol
Concen: 2.707 ppbv
RT: 3.60 min Scan# 252
Delta R.T. -0.01 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

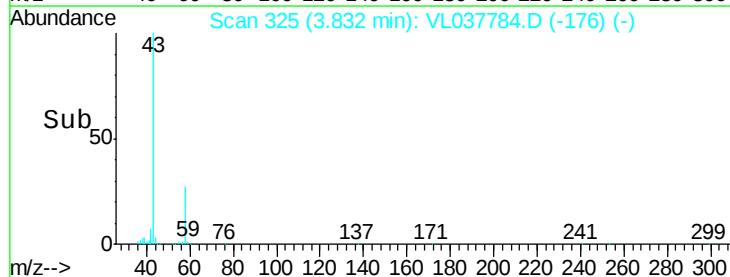
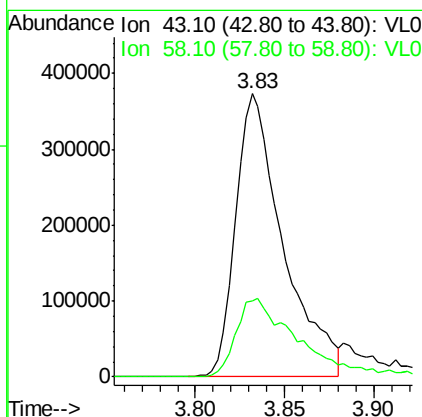
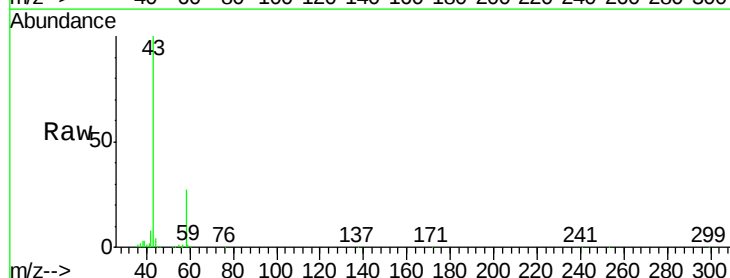
Instrument :
MSVOA_L
ClientSampleId :
C0P15

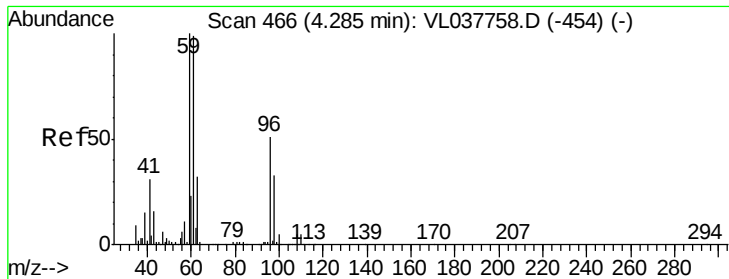
Tgt Ion: 45 Resp: 20085
Ion Ratio Lower Upper
45 100
46 0.0 20.2 81.0#



#15
Acetone
Concen: 5.997 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.02 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

Tgt Ion: 43 Resp: 690824
Ion Ratio Lower Upper
43 100
58 36.0 23.0 34.6#

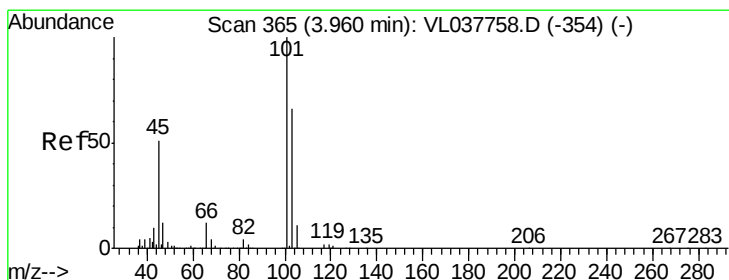
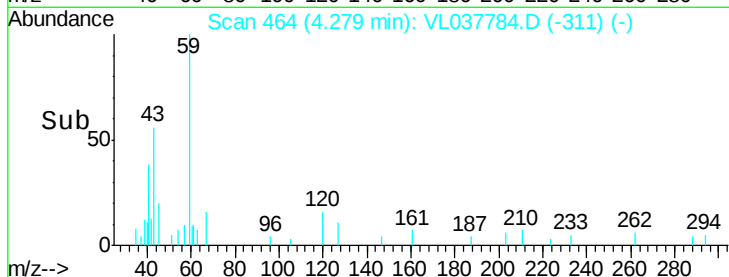
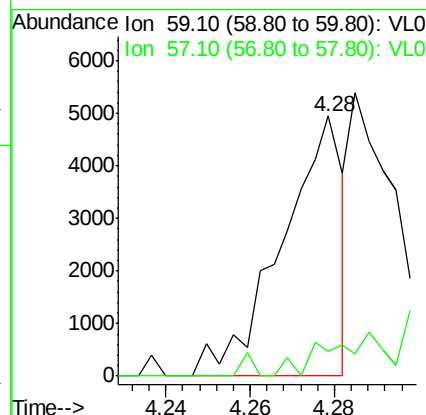
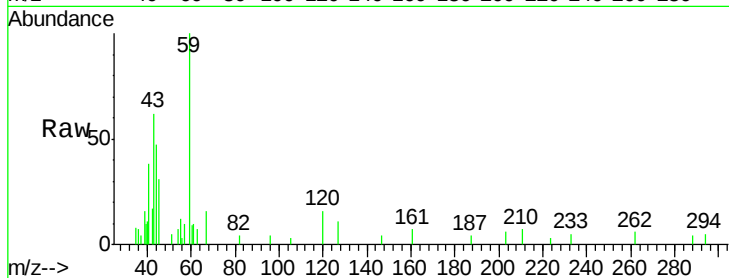




#17
 tert-Butyl alcohol
 Concen: 0.041 ppbv
 RT: 4.28 min Scan# 464
 Delta R.T. -0.01 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

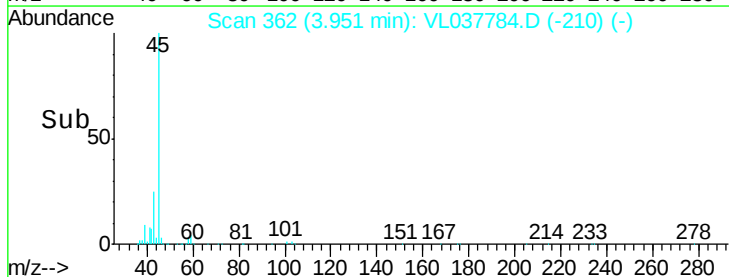
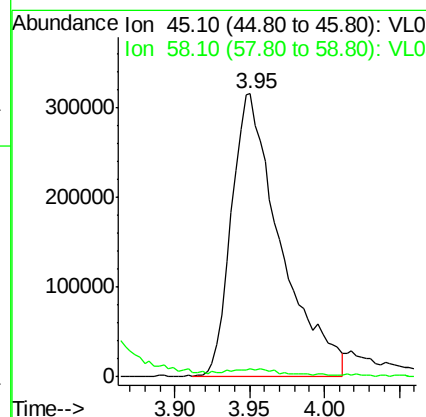
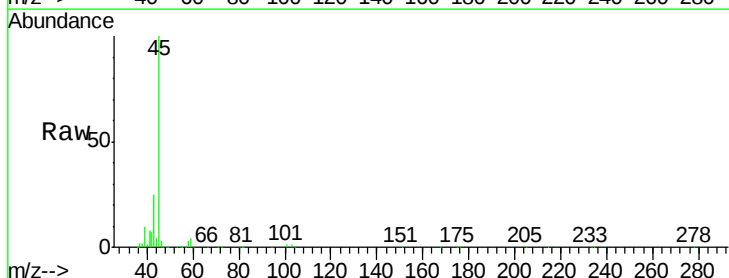
Instrument :
 MSVOA_L
 ClientSampled :
 C0P15

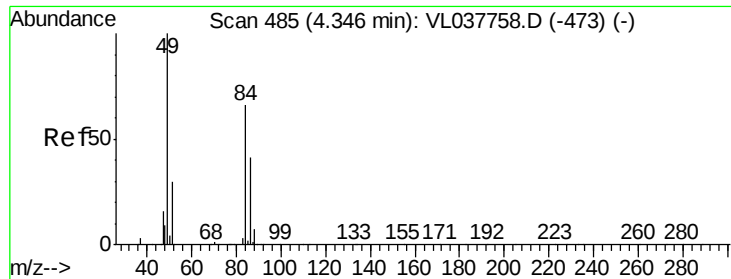
Tgt Ion: 59 Resp: 4923
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.6 13.0#



#19
 Isopropyl Alcohol
 Concen: 10.061 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. -0.01 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

Tgt Ion: 45 Resp: 721084
 Ion Ratio Lower Upper
 45 100
 58 3.2 1.1 1.7#

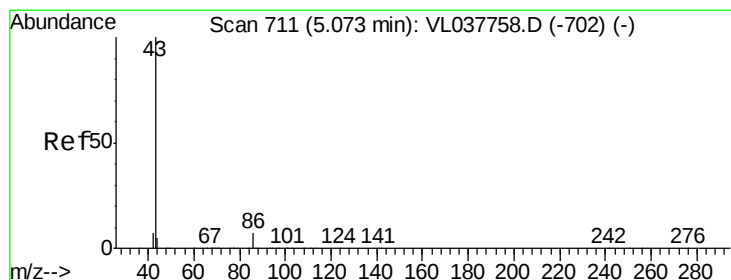
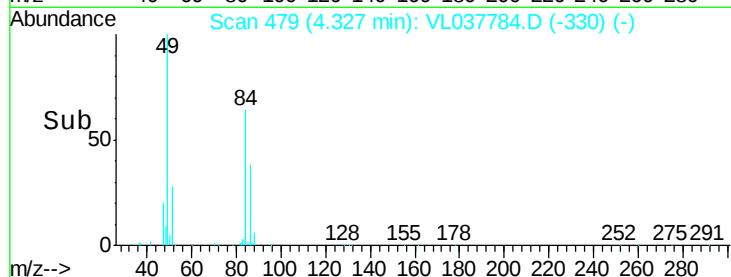
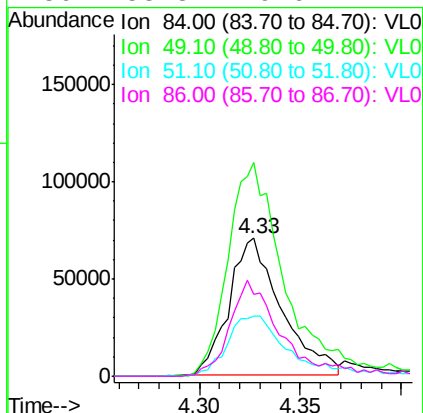
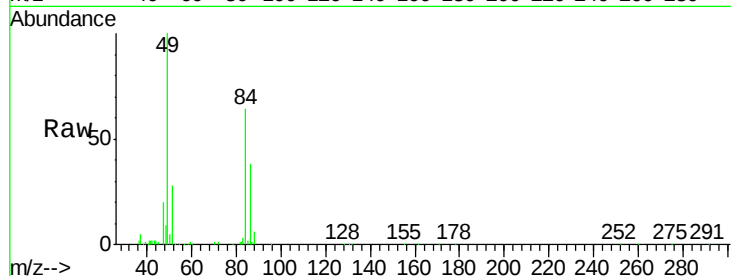




#20
Methylene Chloride
Concen: 2.210 ppbv
RT: 4.33 min Scan# 479
Delta R.T. -0.02 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

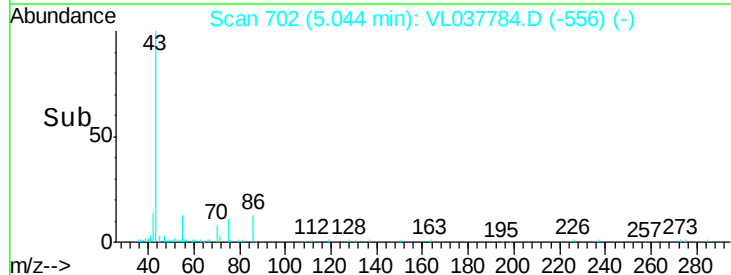
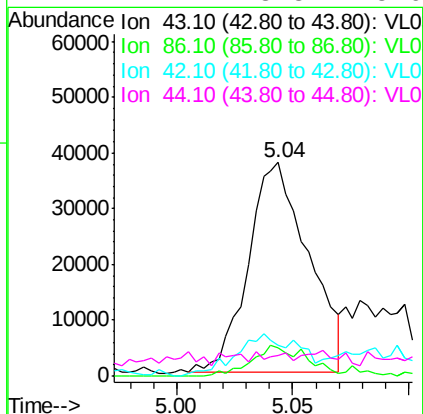
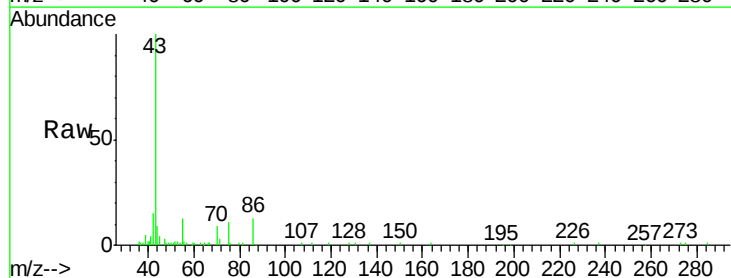
Instrument :
MSVOA_L
ClientSampleId :
C0P15

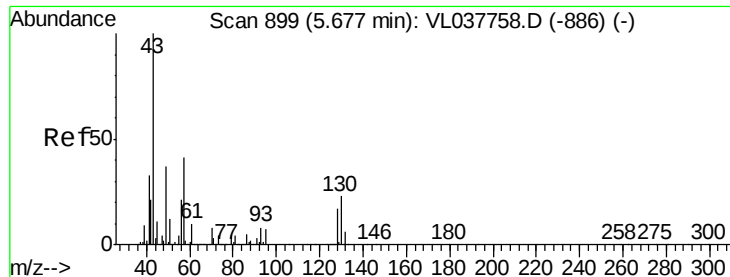
Tgt Ion:	84	Resp:	128625
Ion	Ratio	Lower	Upper
84	100		
49	156.0	120.7	181.1
51	43.3	36.2	54.4
86	58.8	49.6	74.4



#23
Vinyl Acetate
Concen: 0.396 ppbv
RT: 5.04 min Scan# 702
Delta R.T. -0.03 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

Tgt Ion:	43	Resp:	68301
Ion	Ratio	Lower	Upper
43	100		
86	13.6	5.0	7.4#
42	13.8	7.4	11.0#
44	1.4	3.8	5.6#





#25

Ethyl Acetate

Concen: 0.227 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

C0P15

Tgt Ion: 43 Resp: 73537

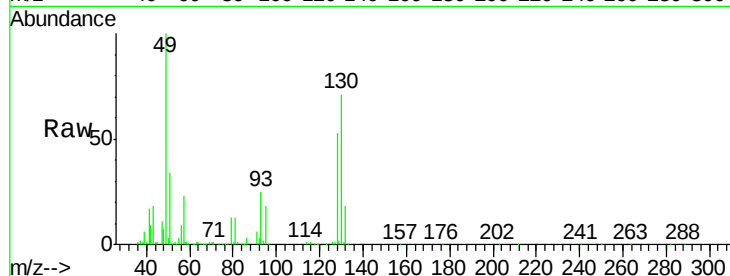
Ion Ratio Lower Upper

43 100

45 0.0 8.1 12.1#

61 3.7 7.5 11.3#

70 3.8 5.9 8.9#

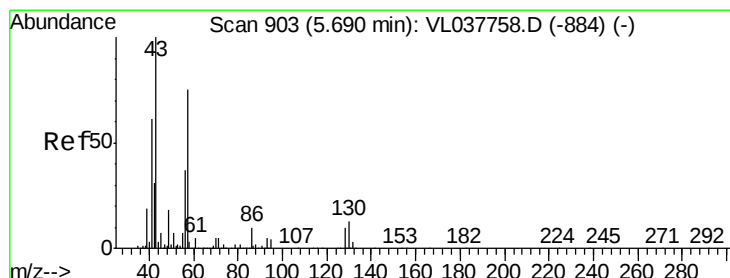
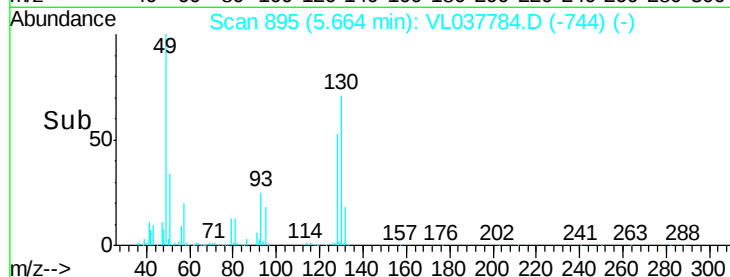
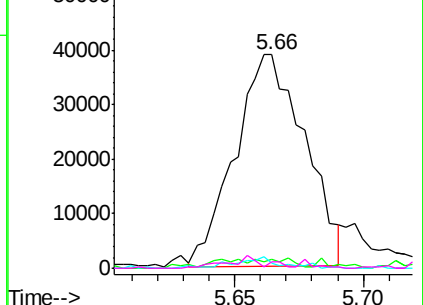


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.490 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.03 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Tgt Ion: 57 Resp: 78040

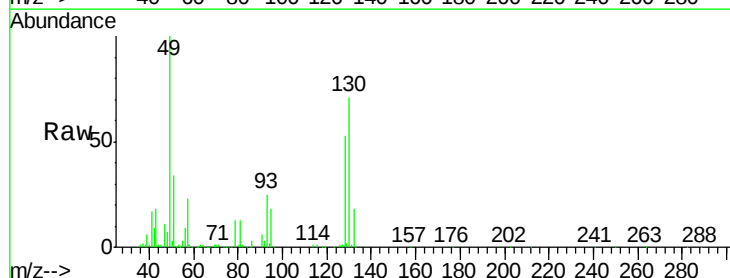
Ion Ratio Lower Upper

57 100

41 109.7 69.6 104.4#

43 109.1 171.4 257.0#

56 61.9 42.0 63.0

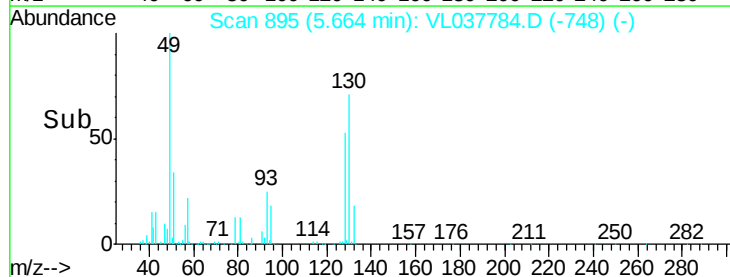
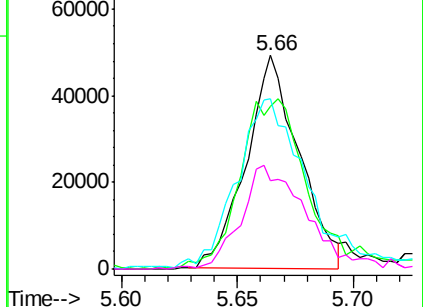


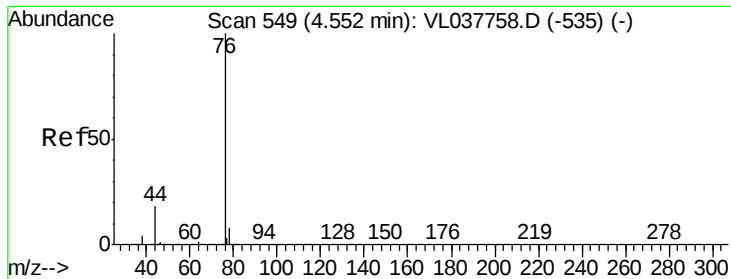
Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.031 ppbv

RT: 4.54 min Scan# 544

Delta R.T. -0.02 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

C0P15

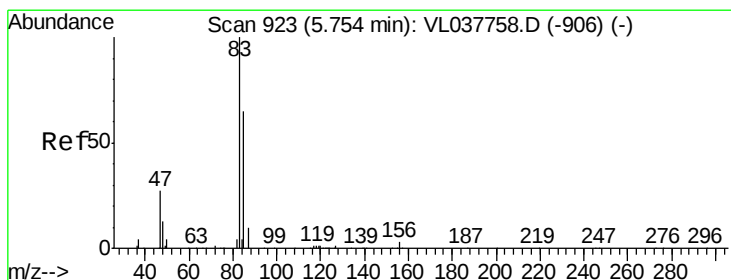
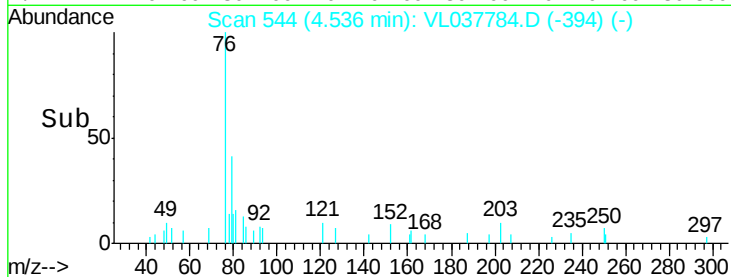
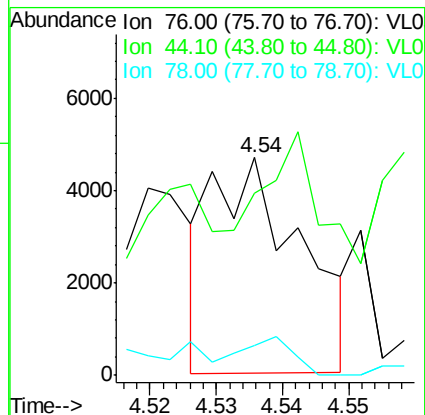
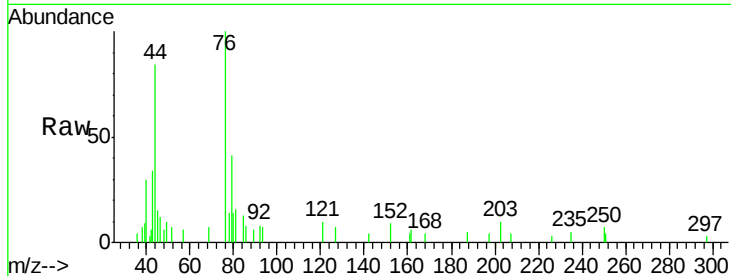
Tgt Ion: 76 Resp: 4354

Ion Ratio Lower Upper

76 100

44 100.9 14.3 21.5#

78 29.6 7.8 11.6#



#29

Chloroform

Concen: 0.349 ppbv

RT: 5.73 min Scan# 914

Delta R.T. -0.03 min

Lab File: VL037784.D

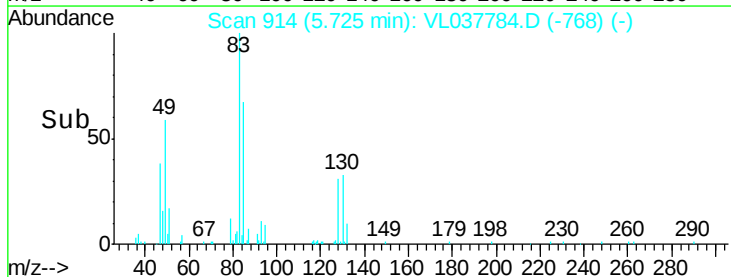
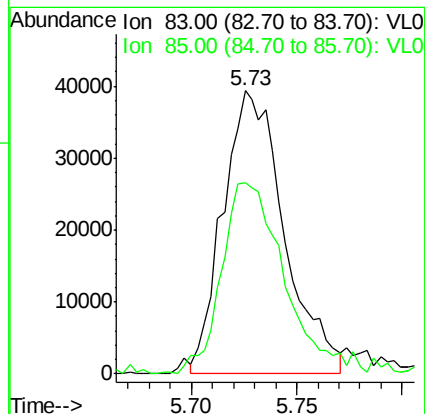
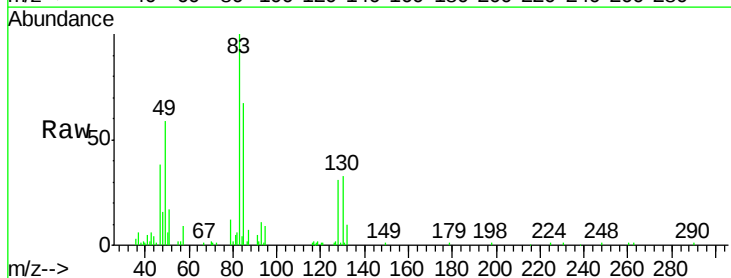
Acq: 5 Oct 2021 21:54

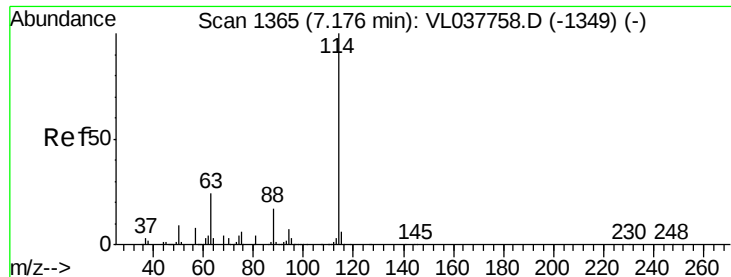
Tgt Ion: 83 Resp: 79484

Ion Ratio Lower Upper

83 100

85 63.0 51.8 77.8

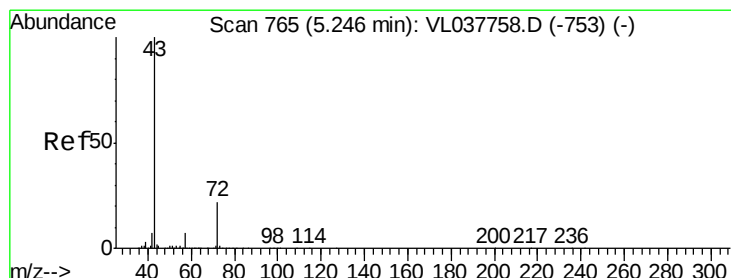
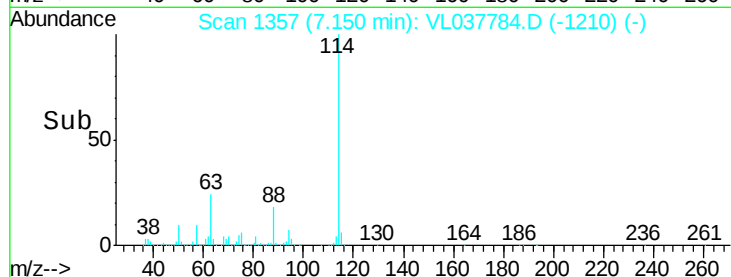
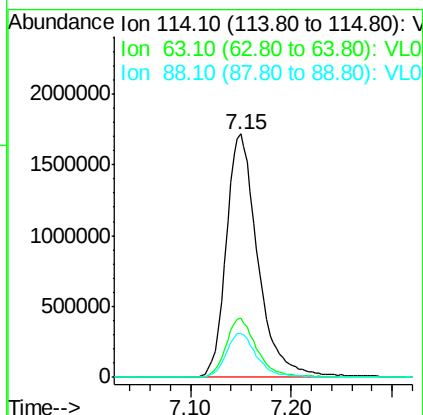
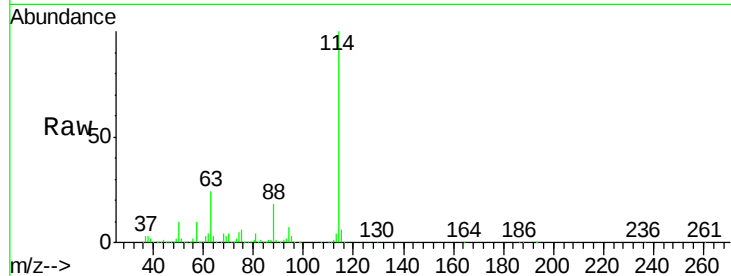




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1357
 Delta R.T. -0.03 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

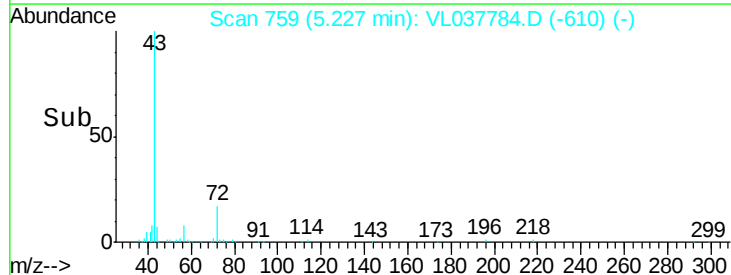
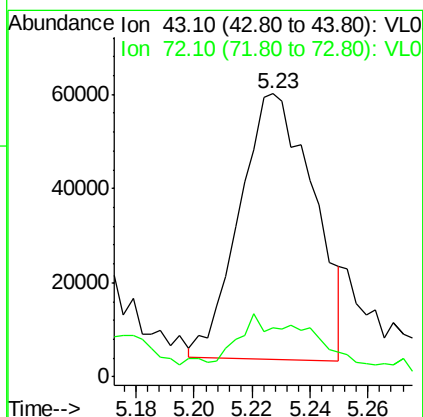
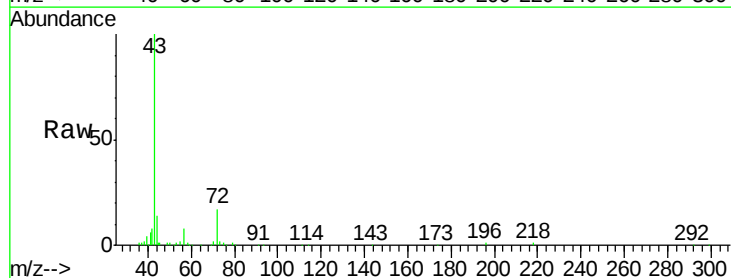
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P15

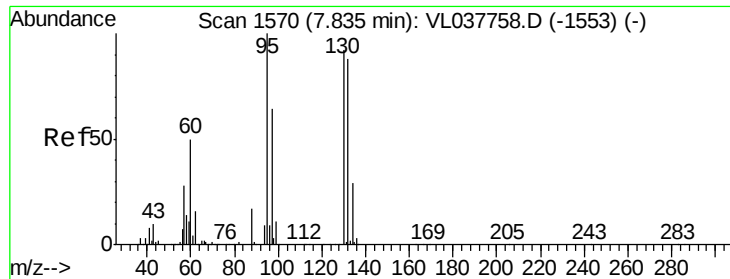
Tgt Ion: 114 Resp: 3752218
 Ion Ratio Lower Upper
 114 100
 63 24.1 19.4 29.2
 88 17.7 14.4 21.6



#34
 2-Butanone
 Concen: 0.659 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. -0.02 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

Tgt Ion: 43 Resp: 99759
 Ion Ratio Lower Upper
 43 100
 72 34.7 18.2 27.2#





#38

Trichloroethene

Concen: 0.071 ppbv

RT: 7.81 min Scan# 1561

Delta R.T. -0.03 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

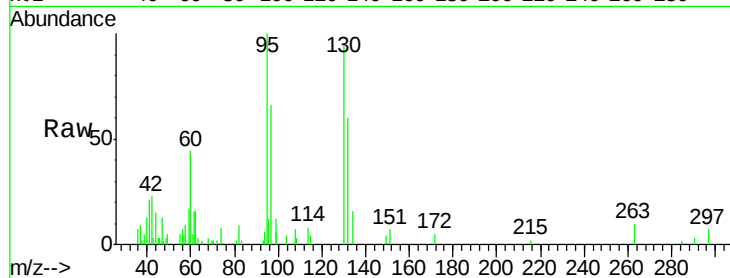
Instrument :

MSVOA_L

ClientSampleId :

C0P15

Tgt Ion:	130	Resp:	8967
Ion	Ratio	Lower	Upper
130	100		
95	104.9	87.4	131.0
132	52.6	76.8	115.2#
97	64.7	55.8	83.8

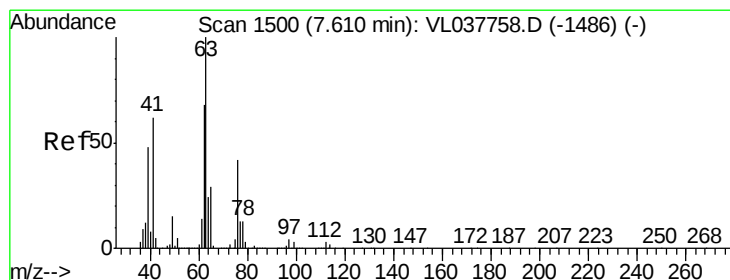
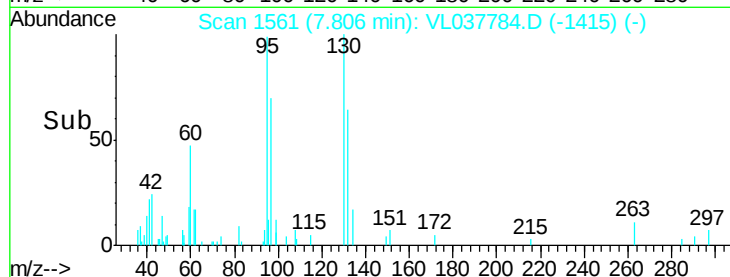
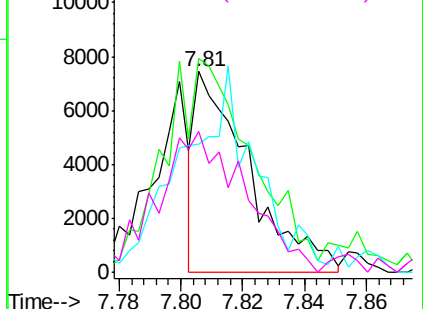


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.358 ppbv

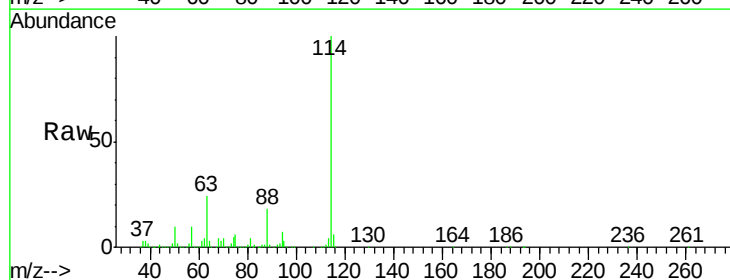
RT: 7.15 min Scan# 1357

Delta R.T. -0.46 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

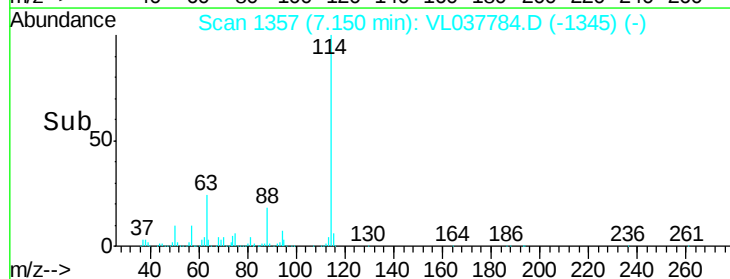
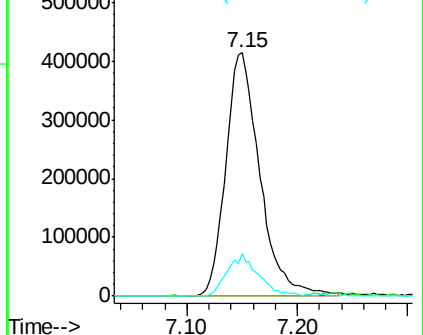
Tgt Ion:	63	Resp:	886993
Ion	Ratio	Lower	Upper
63	100		
41	0.0	49.8	74.6#
62	17.4	54.6	82.0#

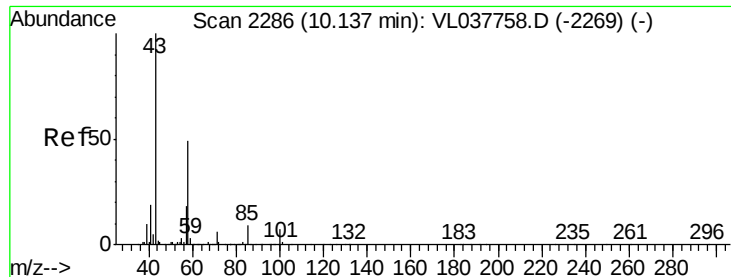


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

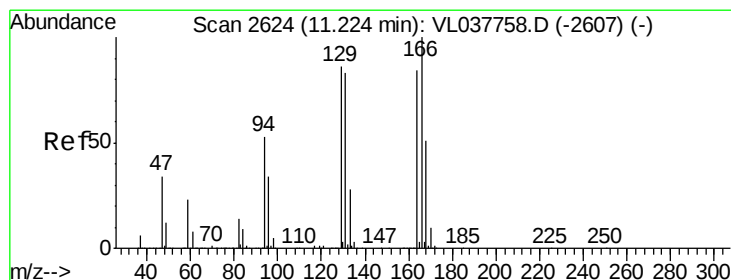
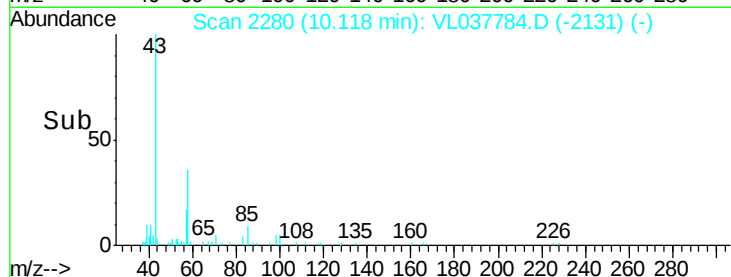
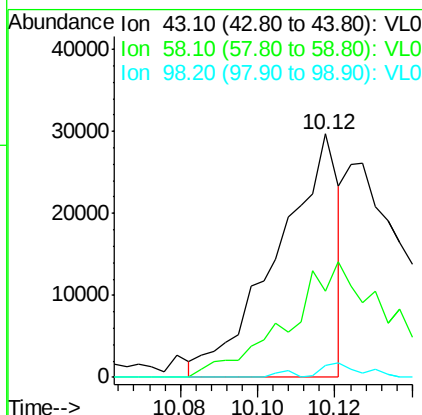
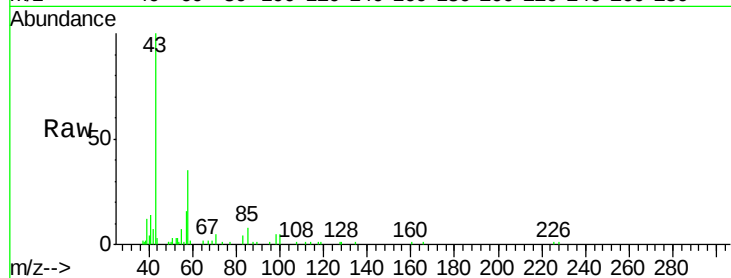




#51
2-Hexanone
Concen: 0.367 ppbv
RT: 10.12 min Scan# 2280
Delta R.T. -0.02 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

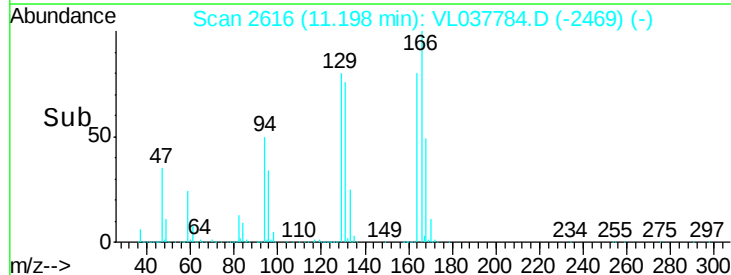
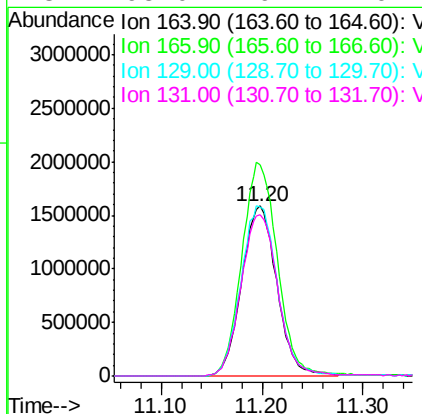
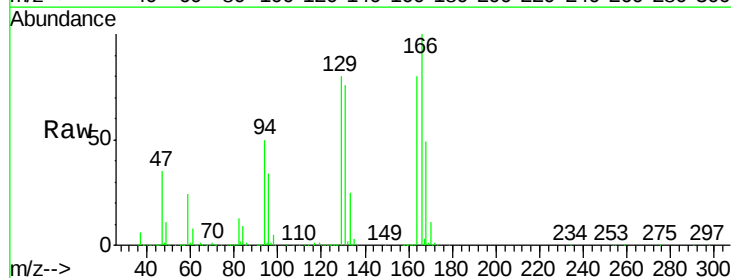
Instrument :
MSVOA_L
ClientSampleId :
C0P15

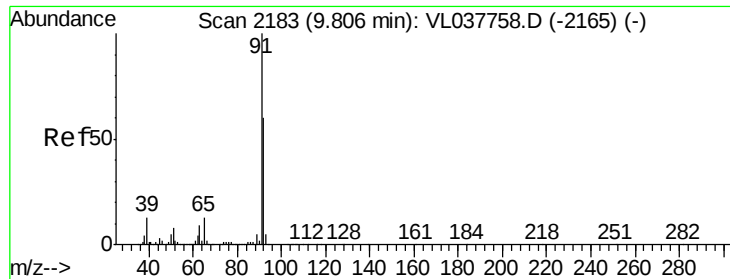
Tgt Ion: 43 Resp: 32270
Ion Ratio Lower Upper
43 100
58 103.7 39.4 59.0#
98 5.0 0.3 0.5#



#52
Tetrachloroethene
Concen: 30.706 ppbv
RT: 11.20 min Scan# 2616
Delta R.T. -0.03 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

Tgt Ion: 164 Resp: 3828741
Ion Ratio Lower Upper
164 100
166 124.7 95.4 143.2
129 99.4 82.2 123.4
131 95.0 79.4 119.2





#53

Toluene

Concen: 0.059 ppbv

RT: 9.77 min Scan# 2173

Delta R.T. -0.03 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampled :

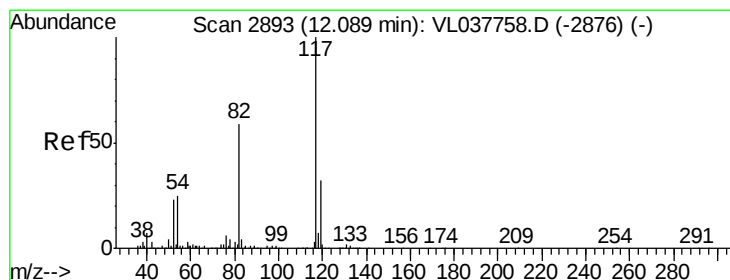
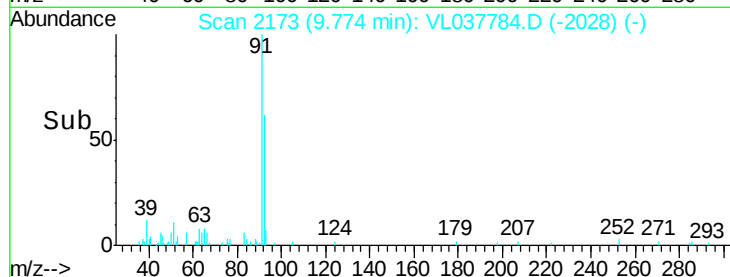
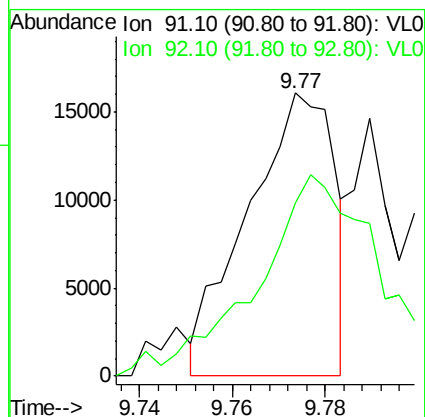
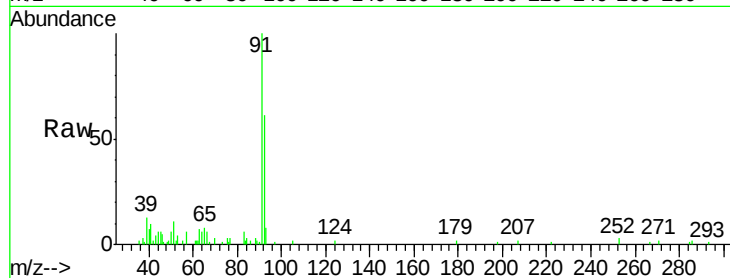
C0P15

Tgt Ion: 91 Resp: 21006

Ion Ratio Lower Upper

91 100

92 107.5 48.4 72.6#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.03 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

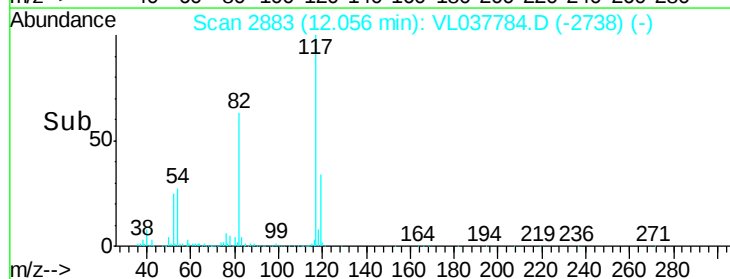
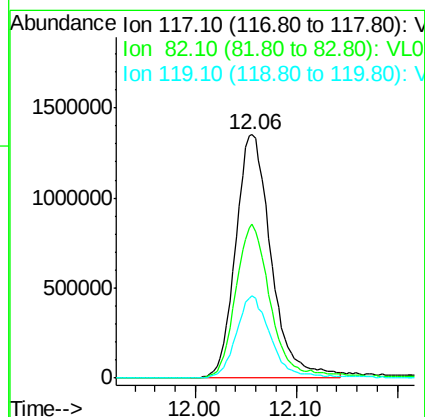
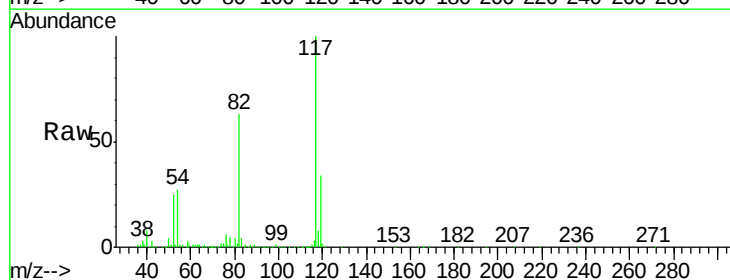
Tgt Ion: 117 Resp: 3307746

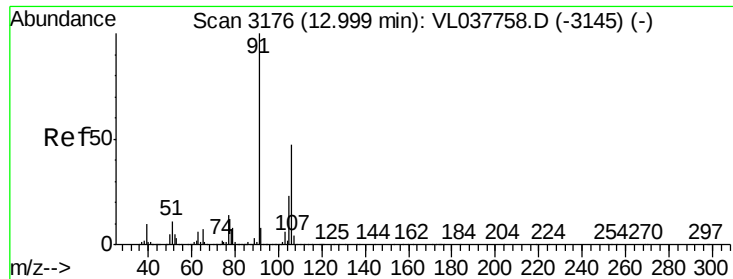
Ion Ratio Lower Upper

117 100

82 63.4 52.2 78.2

119 33.8 26.0 39.0

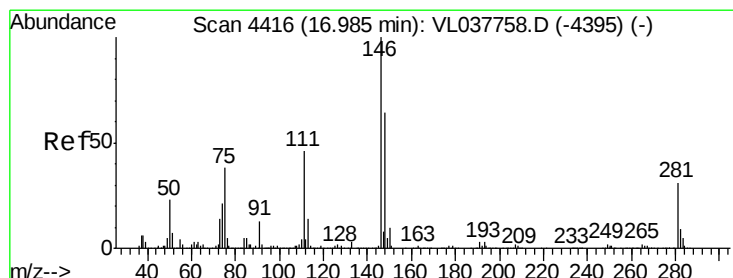
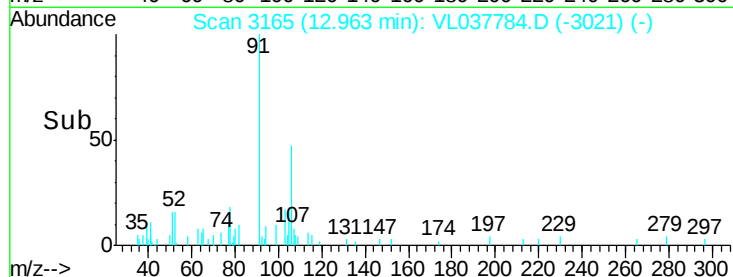
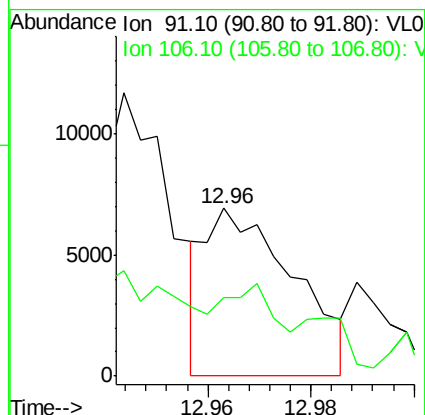
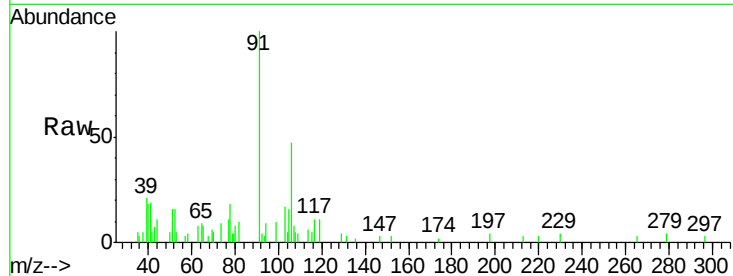




#59
m/p-Xylene
Concen: 0.022 ppbv
RT: 12.96 min Scan# 3165
Delta R.T. -0.04 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

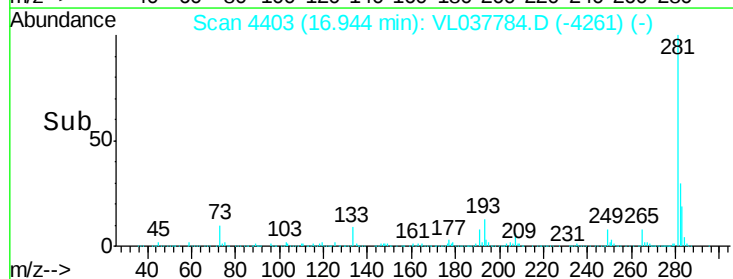
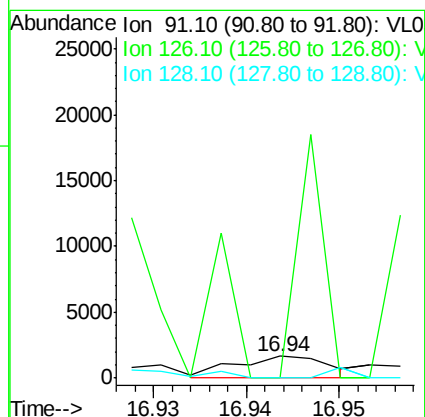
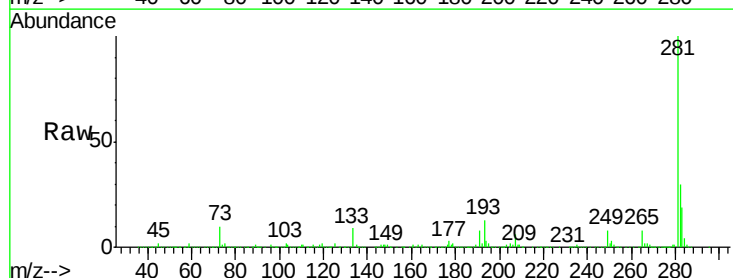
Instrument :
MSVOA_L
ClientSampleId :
C0P15

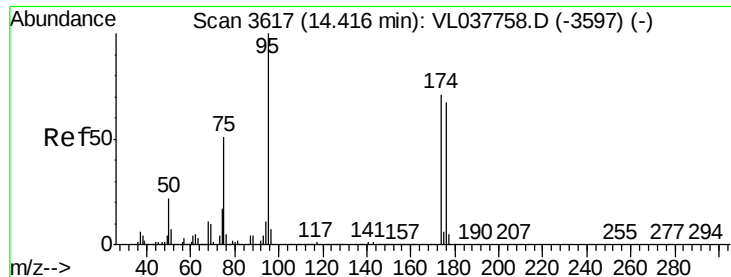
Tgt Ion: 91 Resp: 8202
Ion Ratio Lower Upper
91 100
106 0.0 36.7 55.1#



#66
Benzyl Chloride
Concen: 0.051 ppbv
RT: 16.94 min Scan# 4403
Delta R.T. -0.04 min
Lab File: VL037784.D
Acq: 5 Oct 2021 21:54

Tgt Ion: 91 Resp: 1135
Ion Ratio Lower Upper
91 100
126 0.0 0.0 0.0
128 0.0 5.3 7.9#

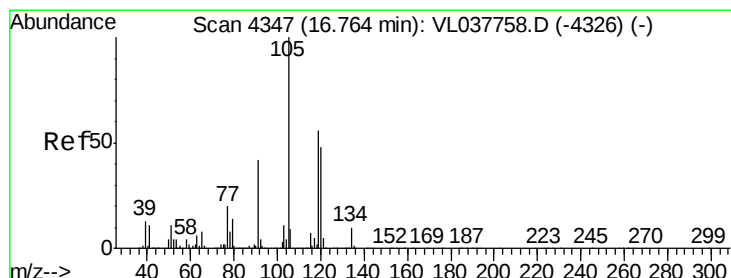
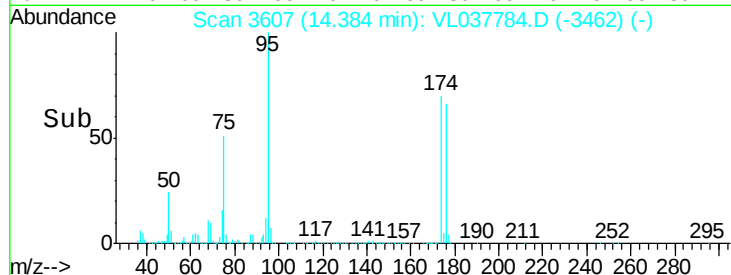
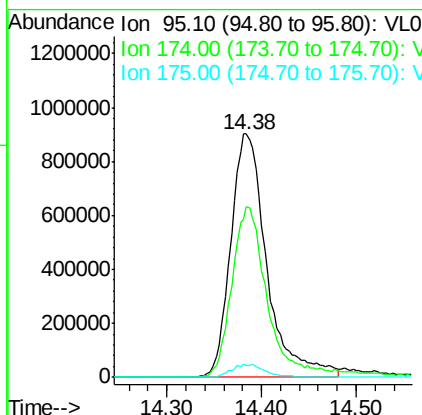
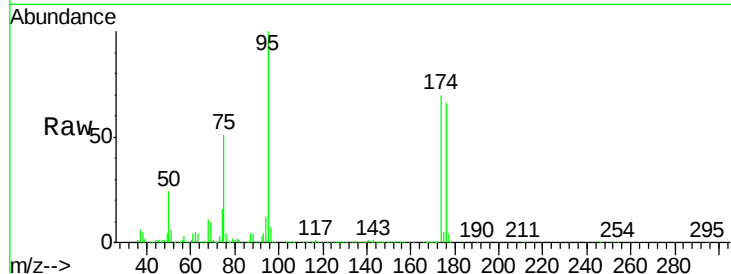




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.349 ppbv
 RT: 14.38 min Scan# 3607
 Delta R.T. -0.03 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

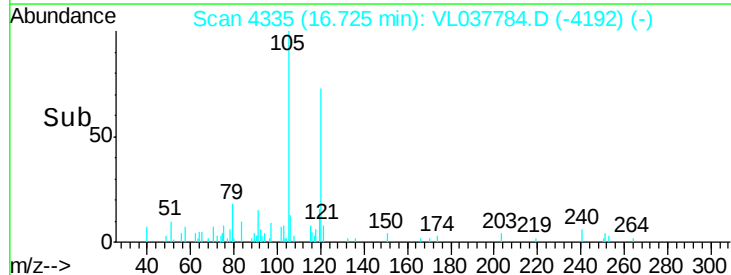
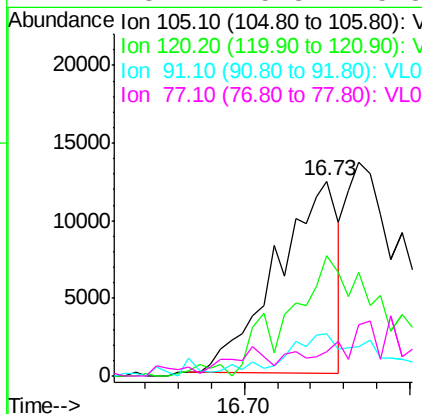
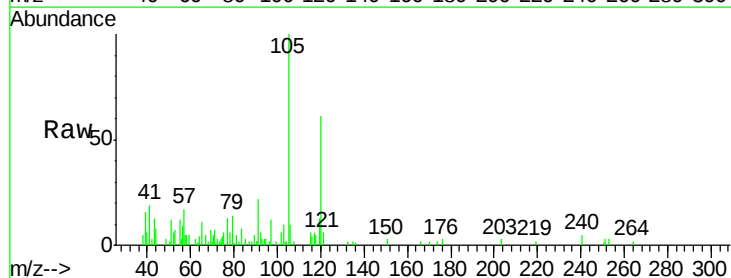
Instrument :
 MSVOA_L
 ClientSampleId :
 C0P15

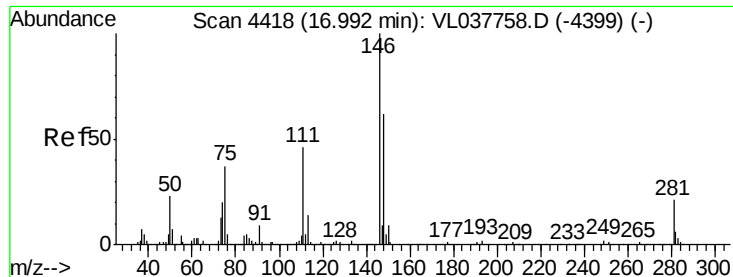
Tgt Ion: 95 Resp: 2393830
 Ion Ratio Lower Upper
 95 100
 174 72.1 57.8 86.6
 175 5.4 4.7 7.1



#74
 1,2,4-Trimethylbenzene
 Concen: 0.040 ppbv
 RT: 16.73 min Scan# 4335
 Delta R.T. -0.04 min
 Lab File: VL037784.D
 Acq: 5 Oct 2021 21:54

Tgt Ion: 105 Resp: 15849
 Ion Ratio Lower Upper
 105 100
 120 60.0 38.4 57.6#
 91 13.0 34.2 51.2#
 77 8.2 15.8 23.8#





#75

1,3-Dichlorobenzene

Concen: 0.074 ppbv

RT: 16.95 min Scan# 4405

Delta R.T. -0.04 min

Lab File: VL037784.D

Acq: 5 Oct 2021 21:54

Instrument :

MSVOA_L

ClientSampleId :

C0P15

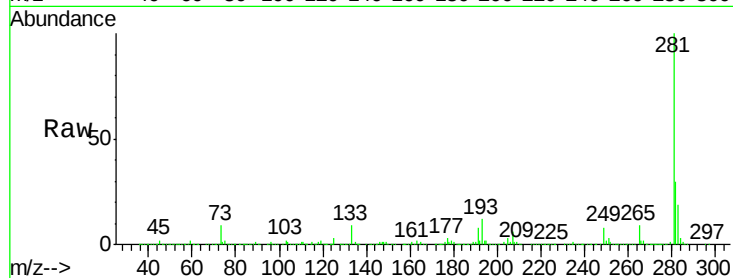
Tgt Ion:146 Resp: 18260

Ion Ratio Lower Upper

146 100

111 0.0 22.8 68.4#

148 0.0 32.8 98.3#



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

