

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072425\
 Data File : VL042760.D
 Acq On : 24 Jul 2025 11:39
 Operator : SY/MD
 Sample : Q2671-04 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 25 01:25:01 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Jul 24 05:24:41 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.784	49	156495	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	430230	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	375286	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	293938	9.890	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.900%

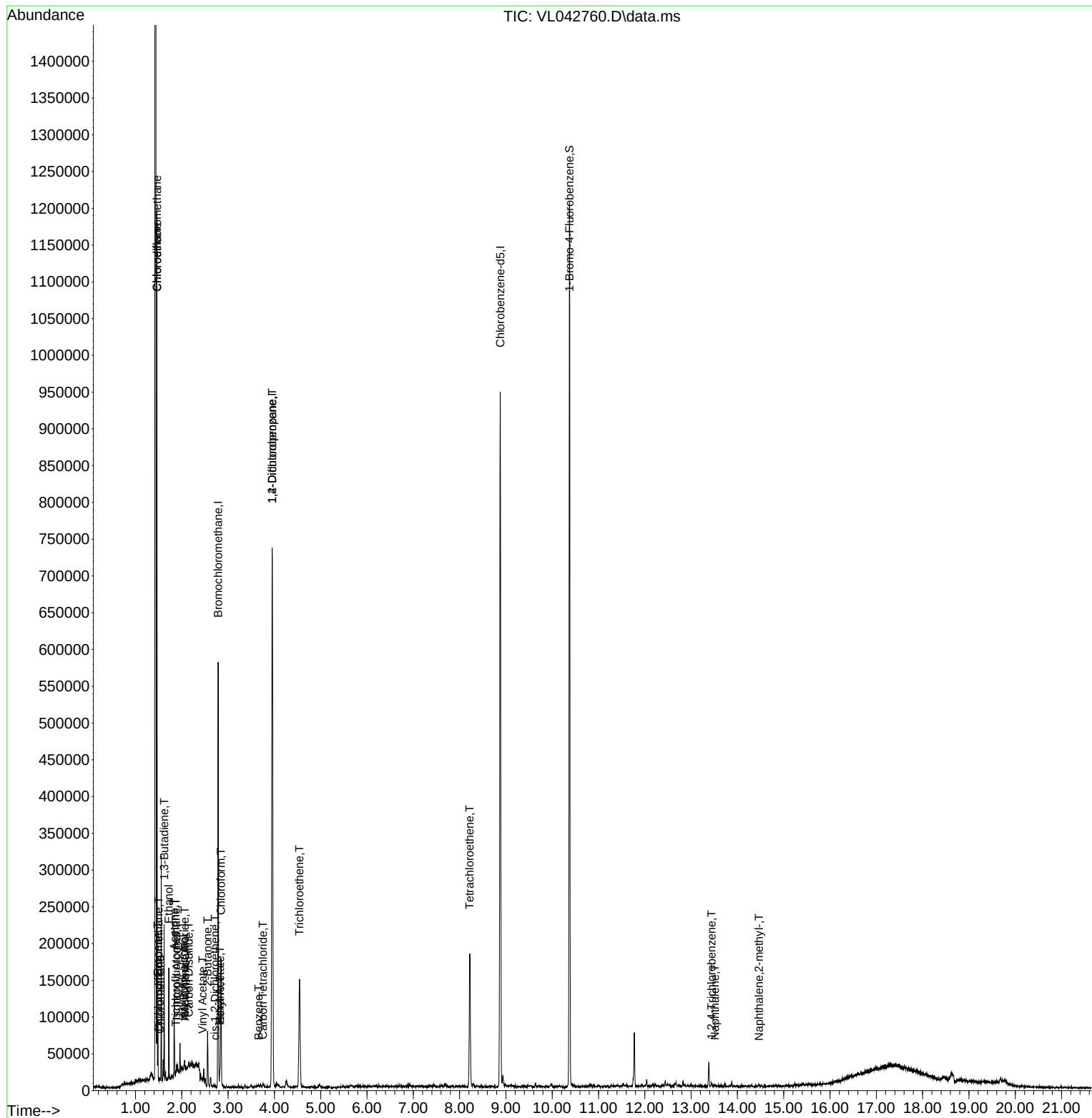
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.496	85	915	0.044	ppbv #	75
3) Chlorodifluoromethane	1.463	51	264280	9.805	ppbv #	58
4) Chloromethane	1.528	50	192	0.023	ppbv #	41
7) Chloroethane	1.463	64	12954	4.054	ppbv	93
9) Propene	1.483	41	7762	0.792	ppbv	86
11) Trichlorofluoromethane	1.874	101	430	0.020	ppbv #	60
13) Ethanol	1.719	45	49390	68.091	ppbv	92
15) Acetone	1.835	43	46128	2.135	ppbv	99
16) 1,3-Butadiene	1.619	39	11068	1.201	ppbv #	22
17) tert-Butyl alcohol	2.046	59	1657	0.085	ppbv #	89
19) Isopropyl Alcohol	1.887	45	4911	0.428	ppbv #	1
20) Methylene Chloride	2.062	84	1440	0.211	ppbv #	64
21) Allyl Chloride	2.075	41	649	0.049	ppbv #	50
23) Vinyl Acetate	2.450	43	941	0.036	ppbv #	12
25) Ethyl Acetate	2.826	43	2972	0.062	ppbv #	68
26) Hexane	2.823	57	4829	0.230	ppbv #	47
27) Carbon Disulfide	2.149	76	3917	0.218	ppbv #	1
29) Chloroform	2.848	83	67233	2.074	ppbv	97
31) cis-1,2-Dichloroethene	2.719	61	654	0.030	ppbv #	80
34) 2-Butanone	2.557	43	44716	1.467	ppbv	99
35) Carbon Tetrachloride	3.751	117	666	0.021	ppbv #	77
36) Benzene	3.658	78	993	0.024	ppbv #	63
38) Trichloroethene	4.541	130	40151	2.050	ppbv	96
39) 1,2-Dichloropropane	3.952	63	109416	7.270	ppbv #	21
52) Tetrachloroethene	8.218	164	31954	1.891	ppbv	94
79) Naphthalene	13.513	128	1334	0.458	ppbv #	88
80) Naphthalene,2-methyl-	14.468	142	944	1.159	ppbv #	90
81) 1,2,4-Trichlorobenzene	13.442	180	333	0.445	ppbv #	1

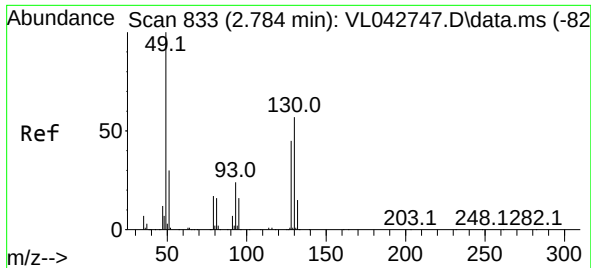
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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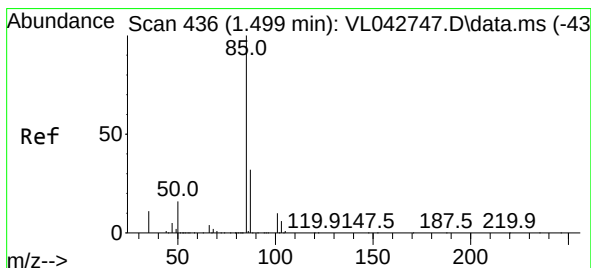
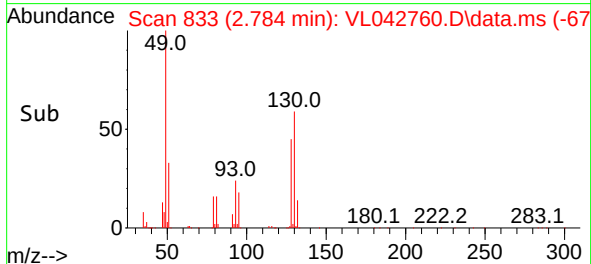
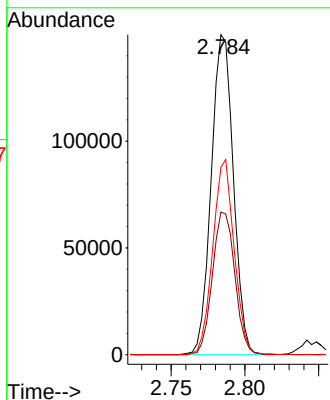
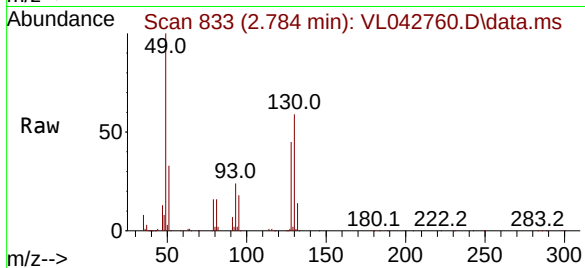




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.784 min Scan# 81
 Delta R.T. -0.000 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

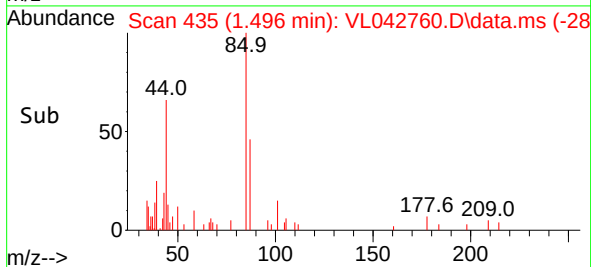
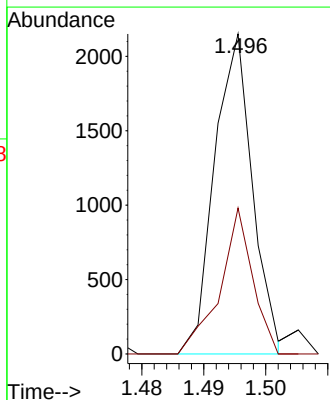
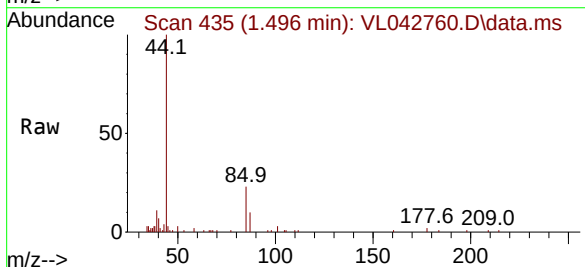
Instrument :
 MSVOA_L
 ClientSampleId :

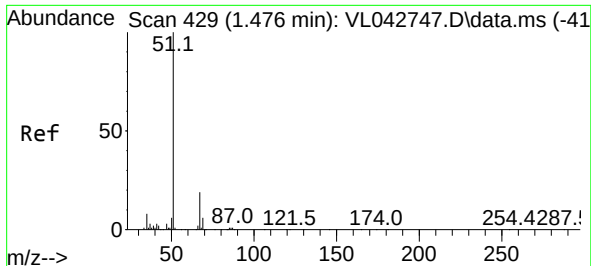
Tgt Ion: 49 Resp: 156495
 Ion Ratio Lower Upper
 49 100
 128 45.2 23.6 71.0
 130 58.9 30.3 90.8



#2
 Dichlorodifluoromethane
 Concen: 0.044 ppbv
 RT: 1.496 min Scan# 435
 Delta R.T. -0.003 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

Tgt Ion: 85 Resp: 915
 Ion Ratio Lower Upper
 85 100
 87 45.6 25.4 38.2#

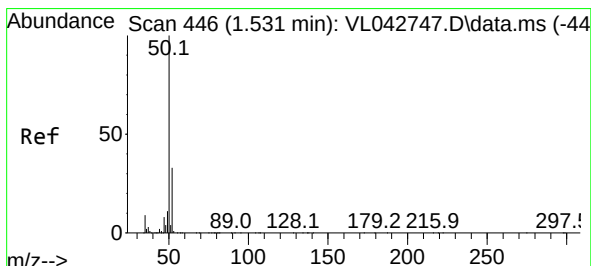
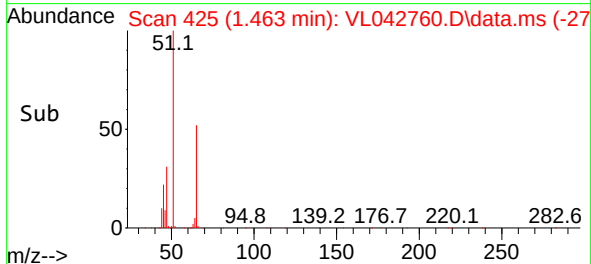
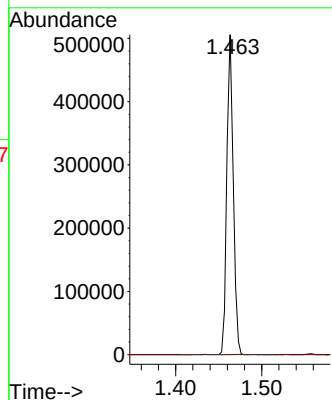
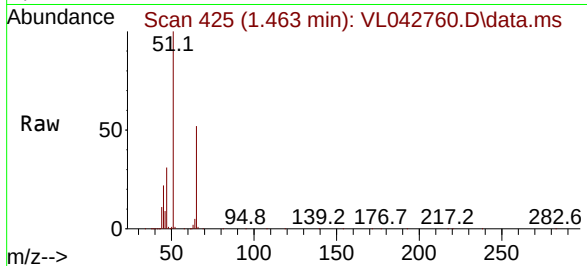




#3
Chlorodifluoromethane
Concen: 9.805 ppbv
RT: 1.463 min Scan# 41
Delta R.T. -0.013 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

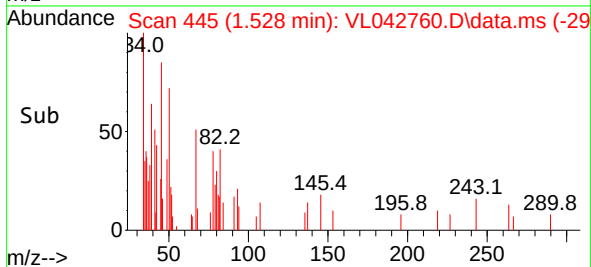
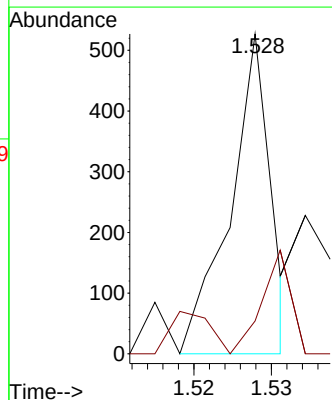
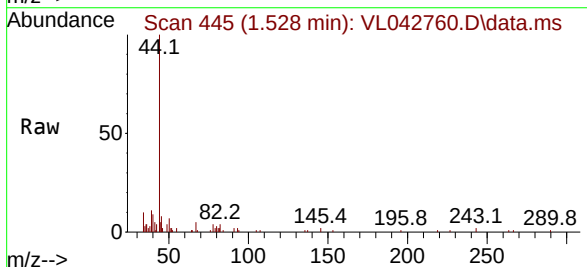
Instrument :
MSVOA_L
ClientSampleId :

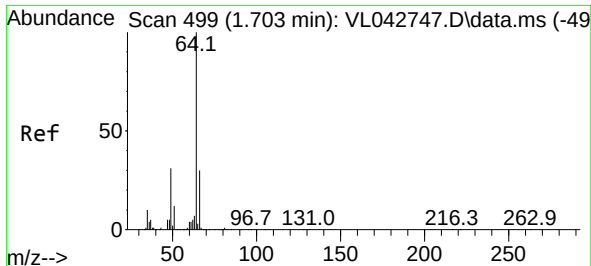
Tgt Ion: 51 Resp: 264280
Ion Ratio Lower Upper
51 100
67 0.1 15.0 22.6#



#4
Chloromethane
Concen: 0.023 ppbv
RT: 1.528 min Scan# 445
Delta R.T. -0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 50 Resp: 192
Ion Ratio Lower Upper
50 100
52 0.0 26.6 40.0#

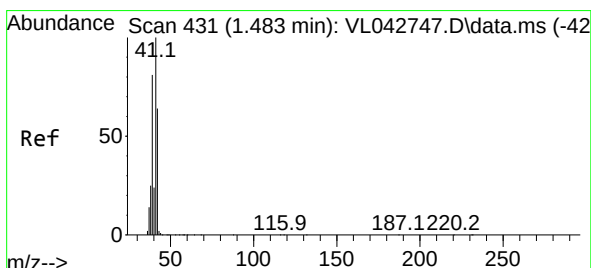
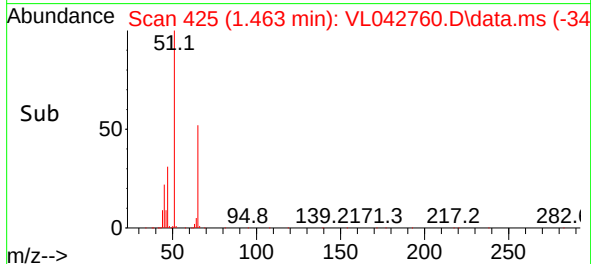
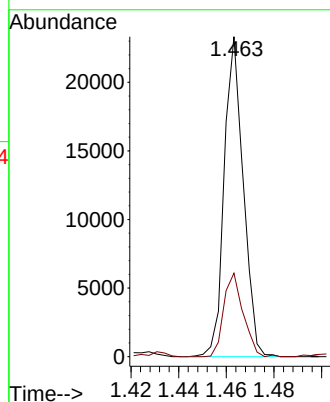
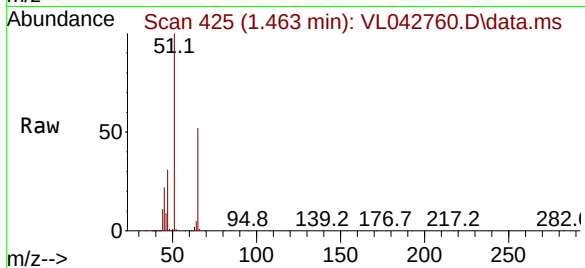




#7
Chloroethane
Concen: 4.054 ppbv
RT: 1.463 min Scan# 41
Delta R.T. -0.240 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

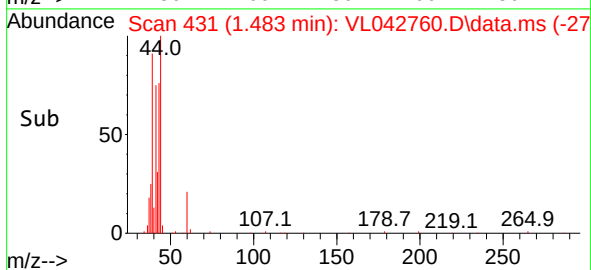
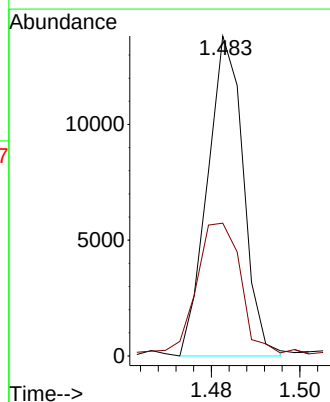
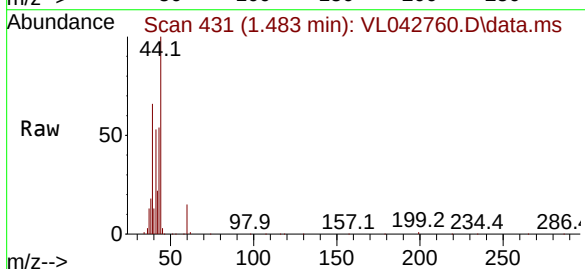
Instrument :
MSVOA_1
ClientSampleId :

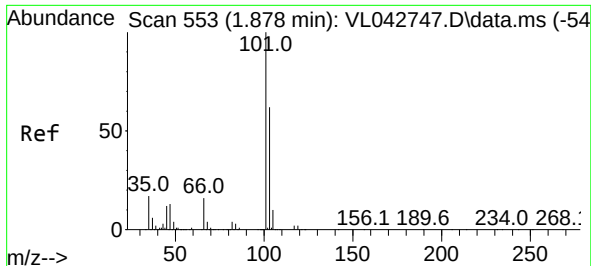
Tgt Ion: 64 Resp: 12954
Ion Ratio Lower Upper
64 100
66 26.1 24.1 36.1



#9
Propene
Concen: 0.792 ppbv
RT: 1.483 min Scan# 431
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 41 Resp: 7762
Ion Ratio Lower Upper
41 100
42 55.5 53.2 79.8

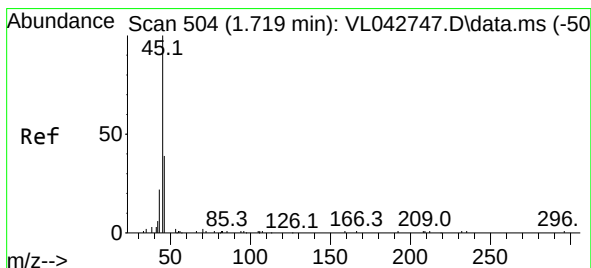
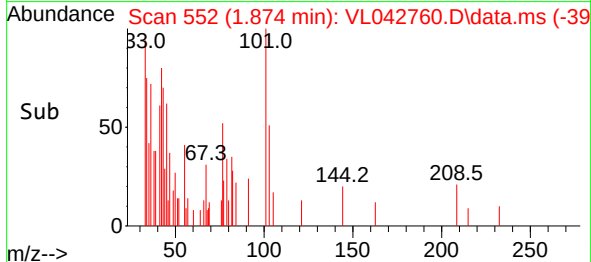
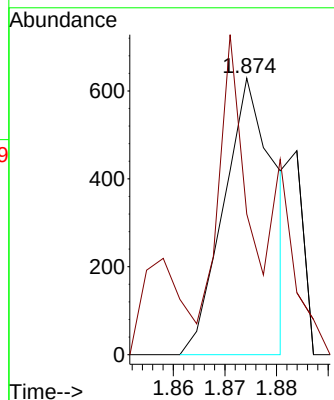
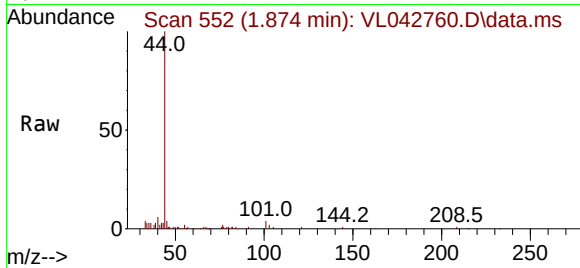




#11
Trichlorofluoromethane
Concen: 0.020 ppbv
RT: 1.874 min Scan# 51
Delta R.T. -0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

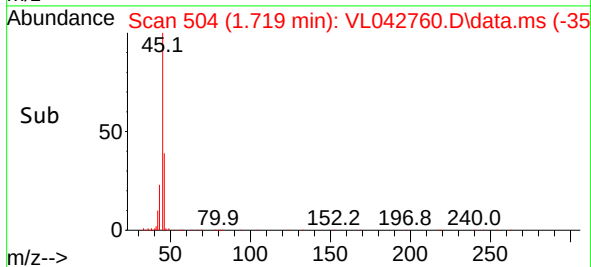
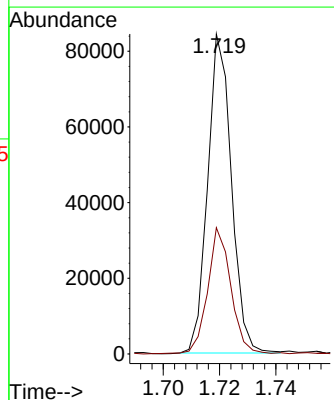
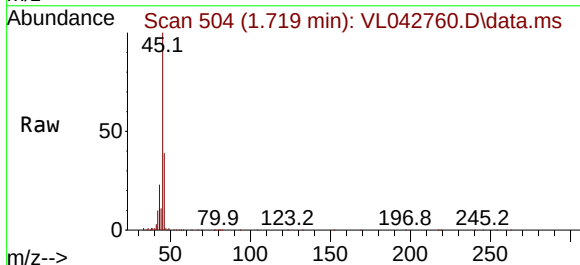
Instrument :
MSVOA_L
ClientSampleId :

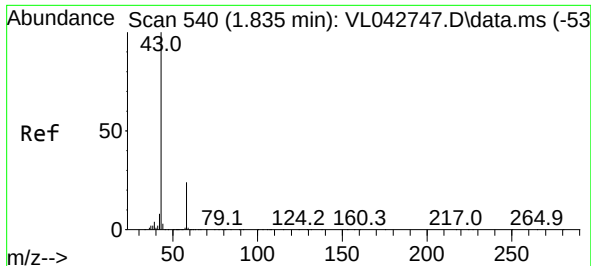
Tgt Ion:101 Resp: 430
Ion Ratio Lower Upper
101 100
103 30.8 49.6 74.4#



#13
Ethanol
Concen: 68.091 ppbv
RT: 1.719 min Scan# 504
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 45 Resp: 49390
Ion Ratio Lower Upper
45 100
46 39.6 17.8 71.4

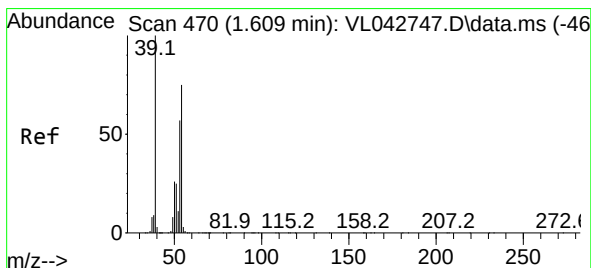
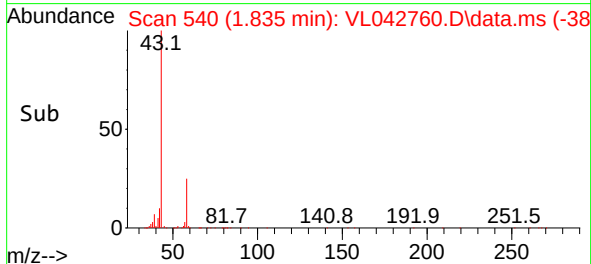
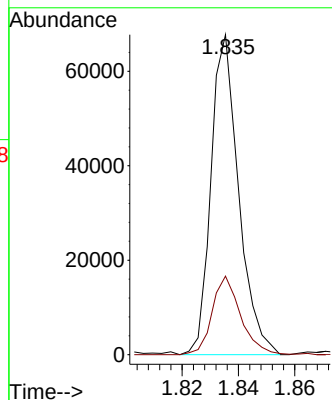
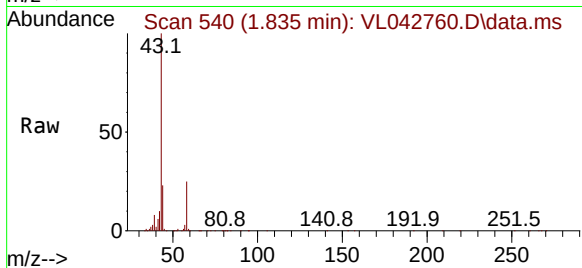




#15
Acetone
Concen: 2.135 ppbv
RT: 1.835 min Scan# 54
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

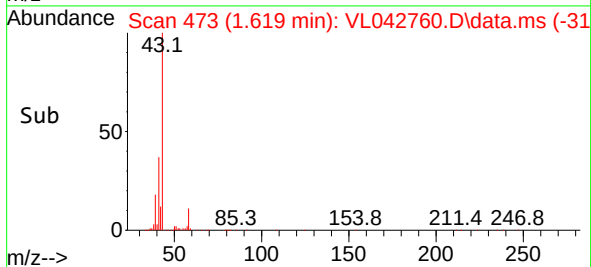
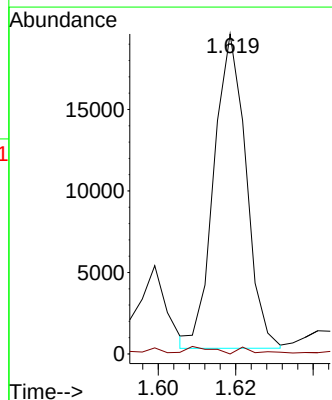
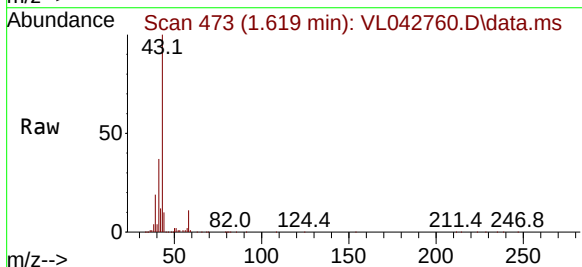
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MSVOA_L
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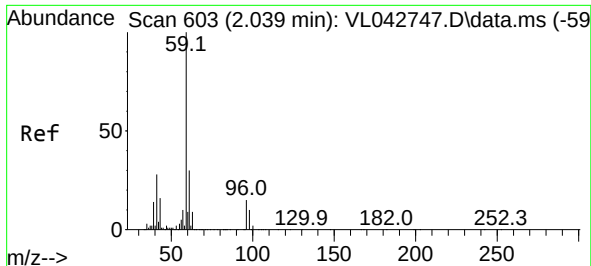
Tgt Ion: 43 Resp: 46128
Ion Ratio Lower Upper
43 100
58 25.4 19.8 29.8



#16
1,3-Butadiene
Concen: 1.201 ppbv
RT: 1.619 min Scan# 473
Delta R.T. 0.010 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 39 Resp: 11068
Ion Ratio Lower Upper
39 100
54 5.1 54.5 81.7#





#17

tert-Butyl alcohol

Concen: 0.085 ppbv

RT: 2.046 min Scan# 603

Delta R.T. 0.006 min

Lab File: VL042760.D

Acq: 24 Jul 2025 11:39

Instrument :

MSVOA_L

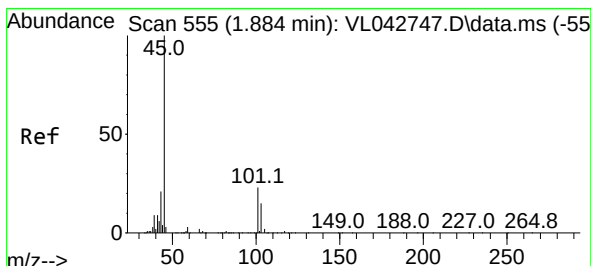
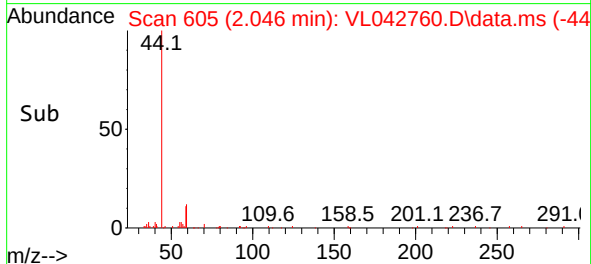
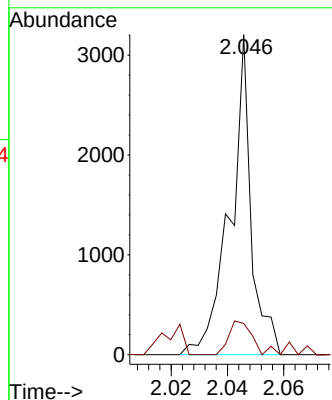
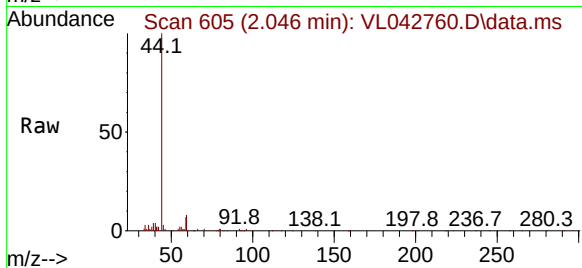
ClientSampleId :

Tgt Ion: 59 Resp: 1657

Ion Ratio Lower Upper

59 100

57 14.5 8.3 12.5#



#19

Isopropyl Alcohol

Concen: 0.428 ppbv

RT: 1.887 min Scan# 556

Delta R.T. 0.003 min

Lab File: VL042760.D

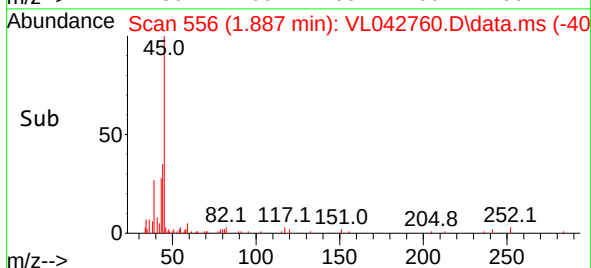
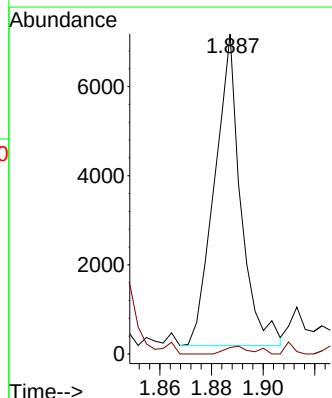
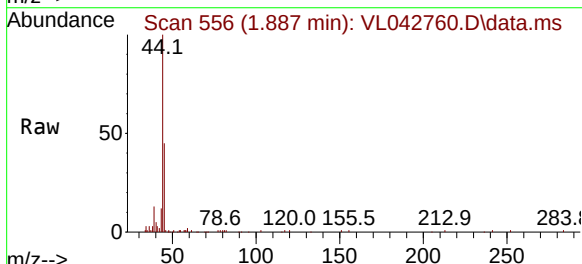
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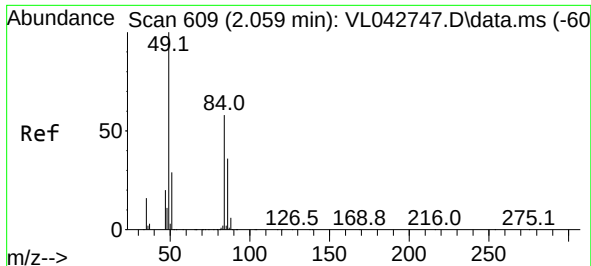
Tgt Ion: 45 Resp: 4911

Ion Ratio Lower Upper

45 100

58 238.7 30.0 45.0#

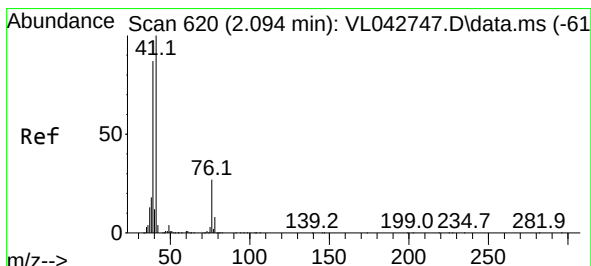
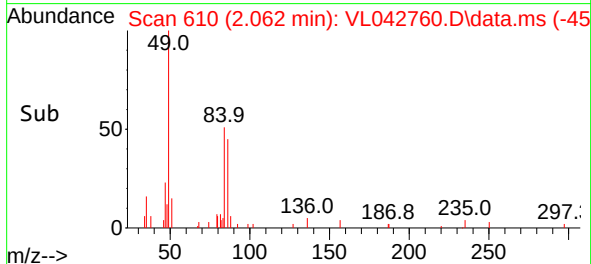
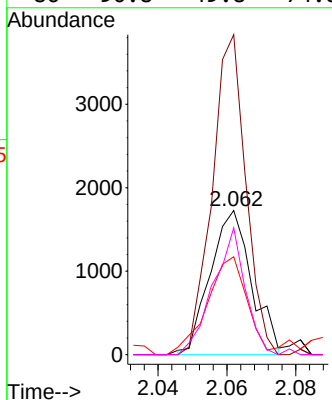
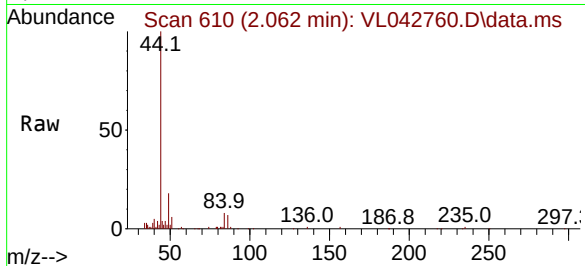




#20
Methylene Chloride
Concen: 0.211 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

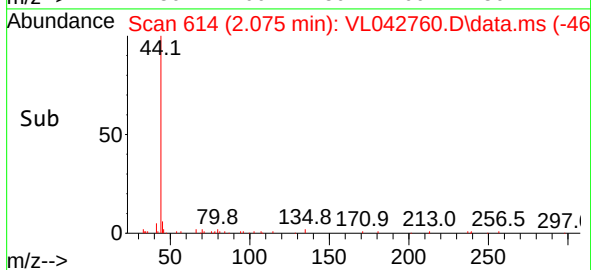
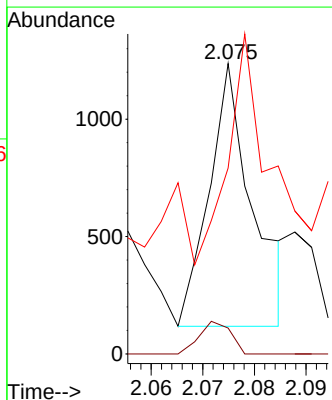
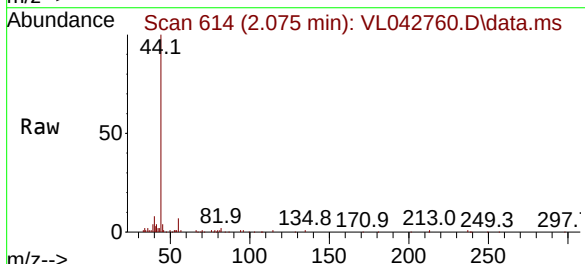
Instrument :
MSVOA_L
ClientSampleId :

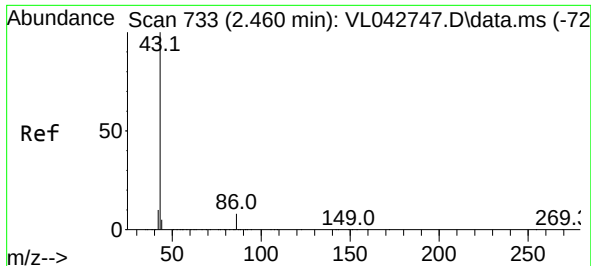
Tgt Ion: 84 Resp: 1440
Ion Ratio Lower Upper
84 100
49 228.8 138.6 208.0#
51 64.9 40.6 61.0#
86 90.8 49.8 74.8#



#21
Allyl Chloride
Concen: 0.049 ppbv
RT: 2.075 min Scan# 614
Delta R.T. -0.020 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

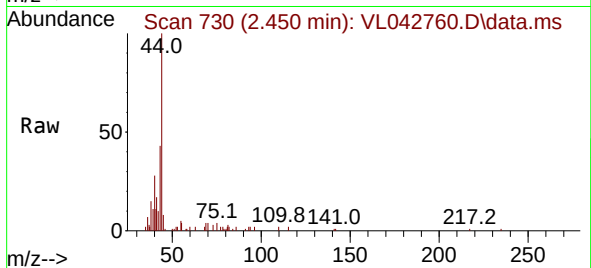
Tgt Ion: 41 Resp: 649
Ion Ratio Lower Upper
41 100
76 0.0 21.1 31.7#
39 130.7 68.3 102.5#



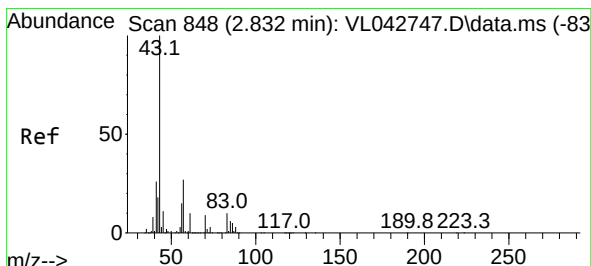
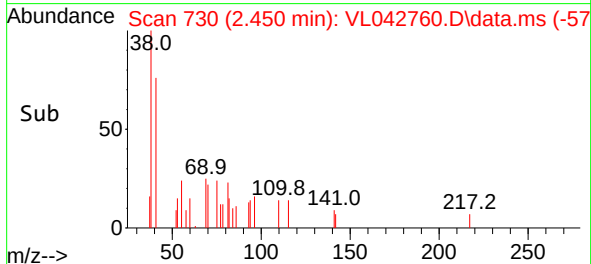
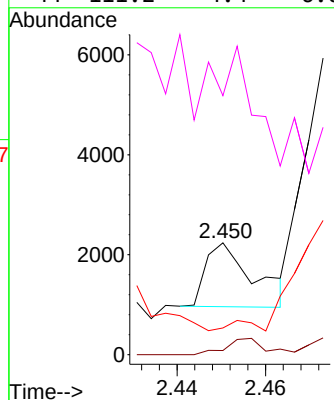


#23
 Vinyl Acetate
 Concen: 0.036 ppbv
 RT: 2.450 min Scan# 71
 Delta R.T. -0.010 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

Instrument :
 MSVOA_L
 ClientSampleId :

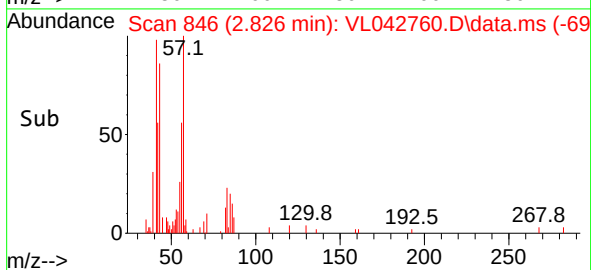
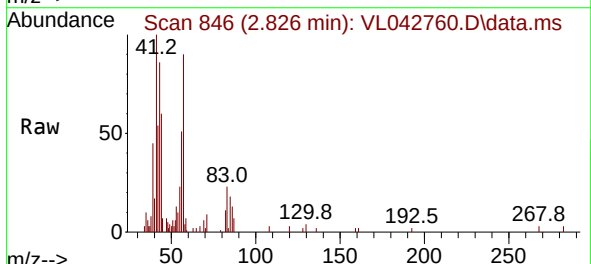
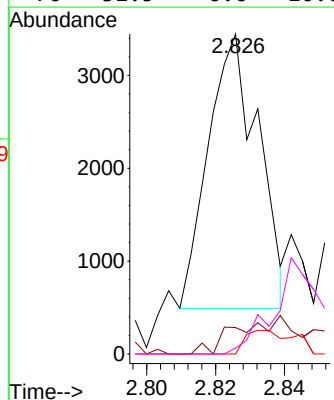


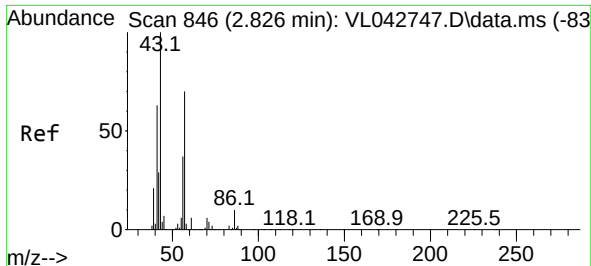
Tgt Ion: 43	Resp: 941
Ion Ratio	Lower Upper
43 100	
86 6.5	6.1 9.1
42 0.0	7.8 11.8#
44 111.2	4.4 6.6#



#25
 Ethyl Acetate
 Concen: 0.062 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.007 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

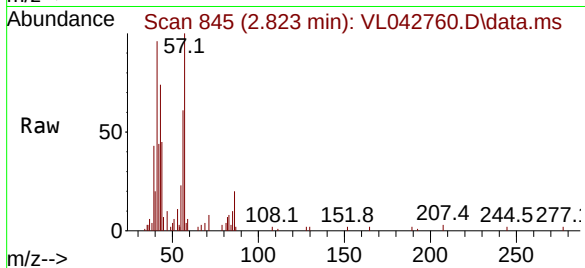
Tgt Ion: 43	Resp: 2972
Ion Ratio	Lower Upper
43 100	
45 21.5	7.8 11.6#
61 8.3	6.7 10.1
70 31.5	6.6 10.0#



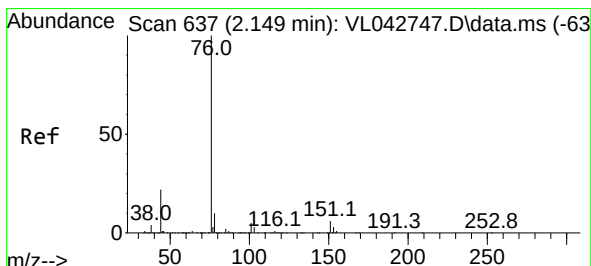
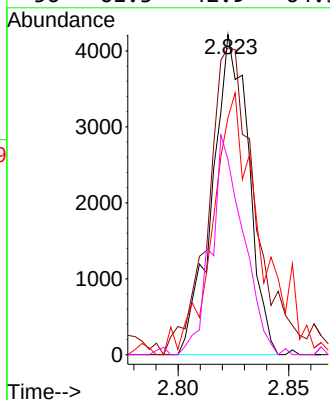
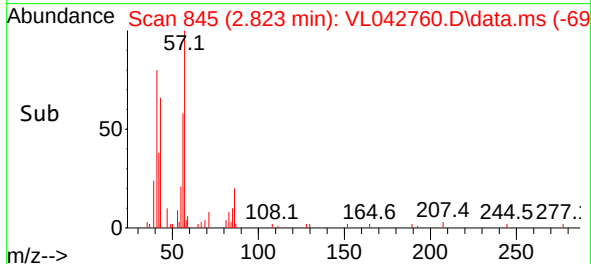


#26
Hexane
Concen: 0.230 ppbv
RT: 2.823 min Scan# 846
Delta R.T. -0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

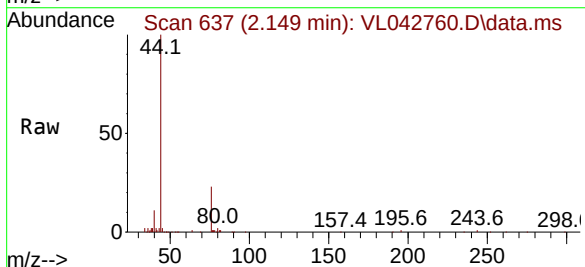
Instrument :
MSVOA_L
ClientSampleId :



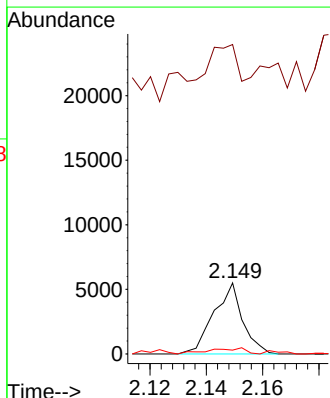
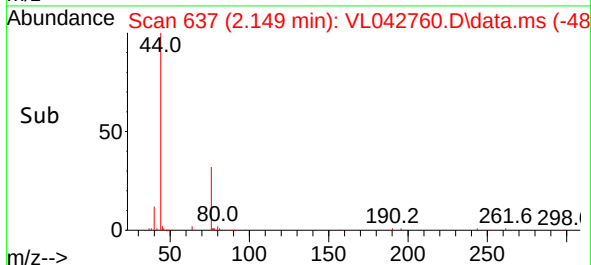
Tgt Ion: 57 Resp: 4829
Ion Ratio Lower Upper
57 100
41 130.1 75.4 113.2#
43 115.8 185.0 277.6#
56 61.3 42.9 64.3

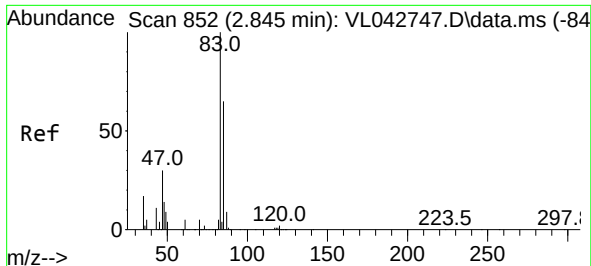


#27
Carbon Disulfide
Concen: 0.218 ppbv
RT: 2.149 min Scan# 637
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39



Tgt Ion: 76 Resp: 3917
Ion Ratio Lower Upper
76 100
44 831.1 19.3 28.9#
78 22.0 9.9 14.9#





#29

Chloroform

Concen: 2.074 ppbv

RT: 2.848 min Scan# 81

Delta R.T. 0.003 min

Lab File: VL042760.D

Acq: 24 Jul 2025 11:39

Instrument :

MSVOA_L

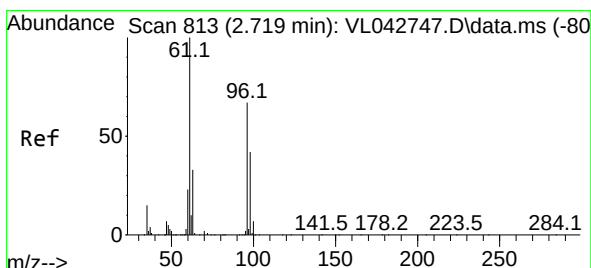
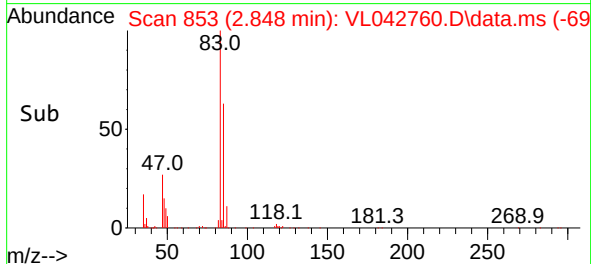
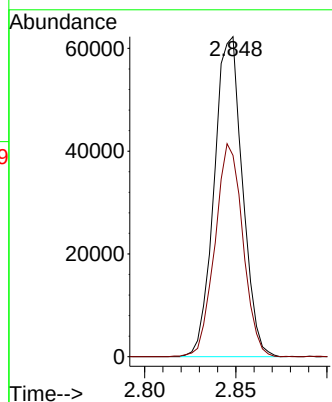
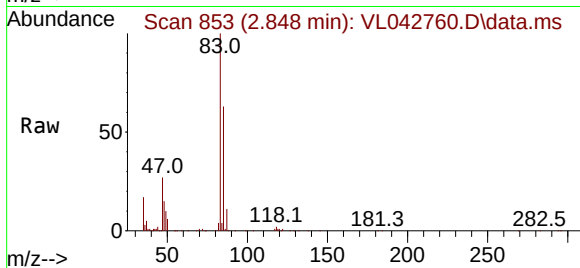
ClientSampleId :

Tgt Ion: 83 Resp: 67233

Ion Ratio Lower Upper

83 100

85 62.9 52.2 78.2



#31

cis-1,2-Dichloroethene

Concen: 0.030 ppbv

RT: 2.719 min Scan# 813

Delta R.T. -0.000 min

Lab File: VL042760.D

Acq: 24 Jul 2025 11:39

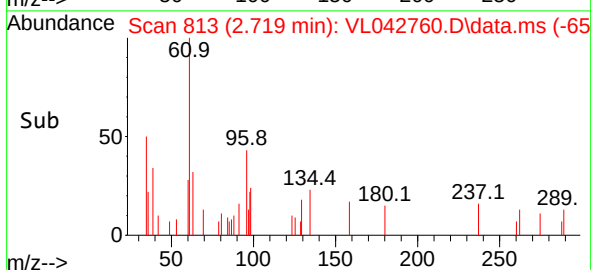
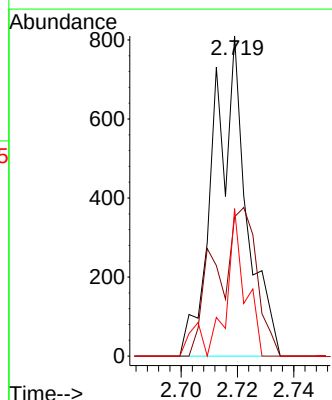
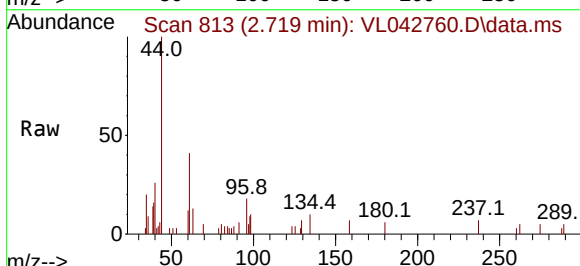
Tgt Ion: 61 Resp: 654

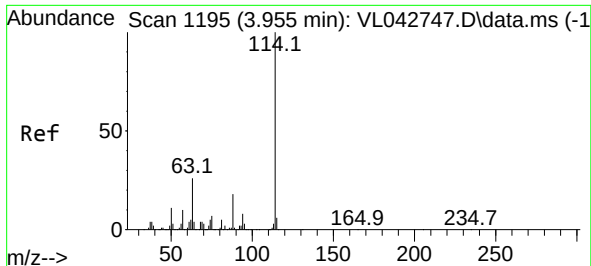
Ion Ratio Lower Upper

61 100

96 43.5 53.5 80.3#

98 46.0 33.6 50.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.003 min

Lab File: VL042760.D

Acq: 24 Jul 2025 11:39

Instrument :

MSVOA_L

ClientSampleId :

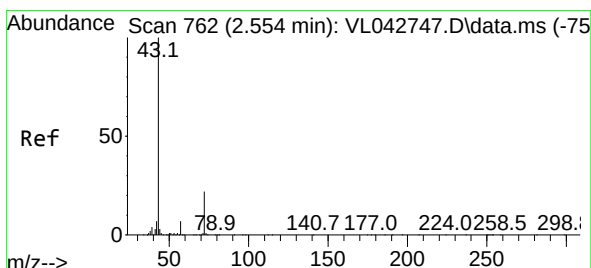
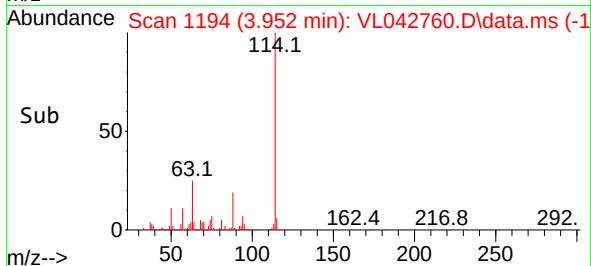
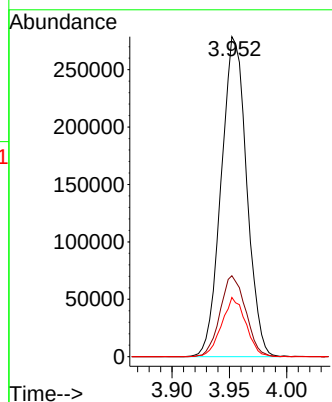
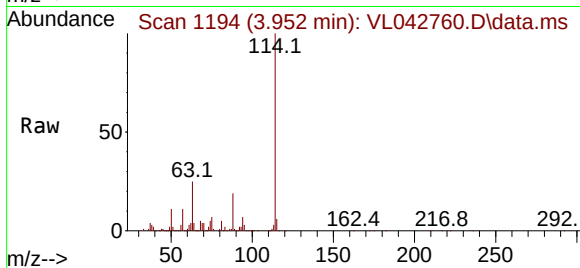
Tgt Ion:114 Resp: 430230

Ion Ratio Lower Upper

114 100

63 25.5 20.5 30.7

88 17.6 14.0 21.0



#34

2-Butanone

Concen: 1.467 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.003 min

Lab File: VL042760.D

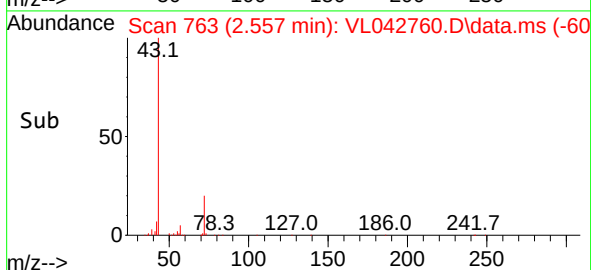
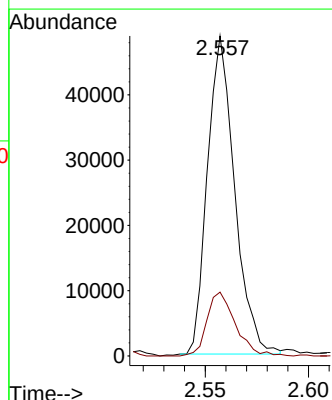
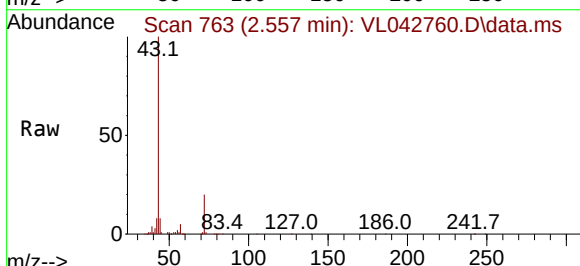
Acq: 24 Jul 2025 11:39

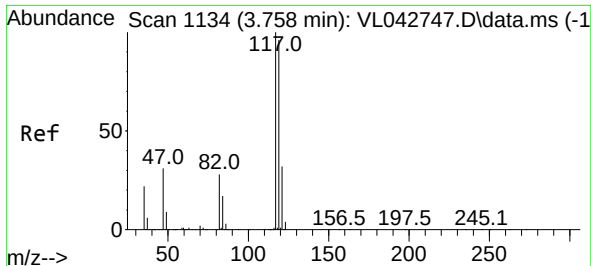
Tgt Ion: 43 Resp: 44716

Ion Ratio Lower Upper

43 100

72 21.1 17.4 26.0

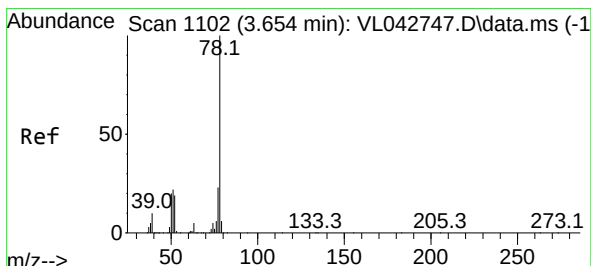
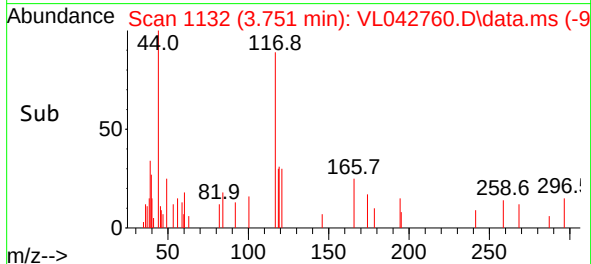
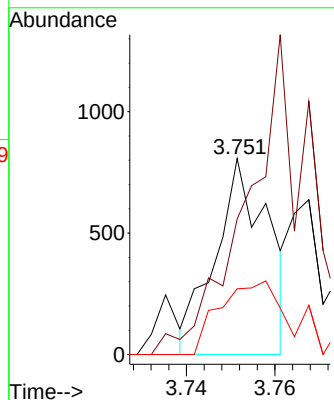
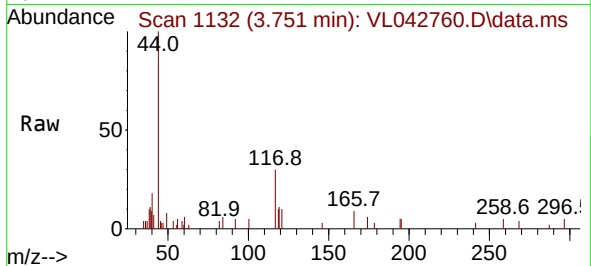




#35
Carbon Tetrachloride
Concen: 0.021 ppbv
RT: 3.751 min Scan# 1134
Delta R.T. -0.007 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

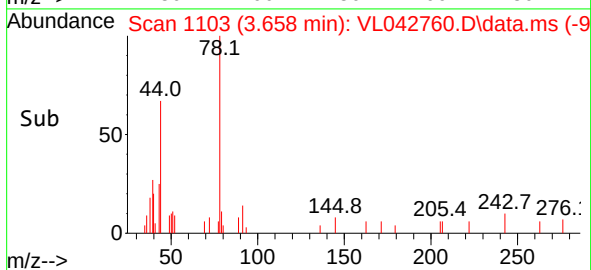
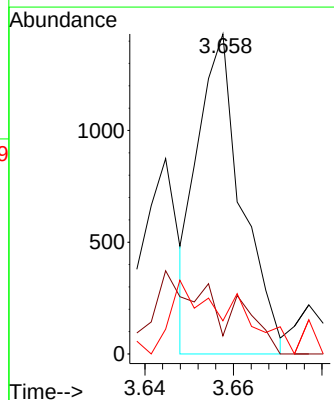
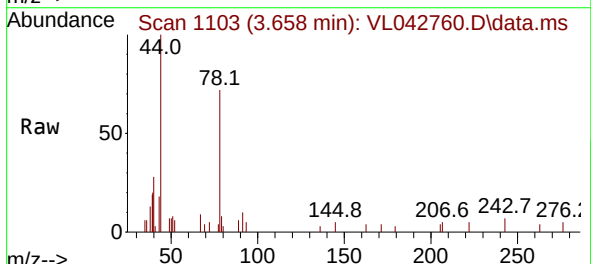
Instrument :
MSVOA_L
ClientSampleId :

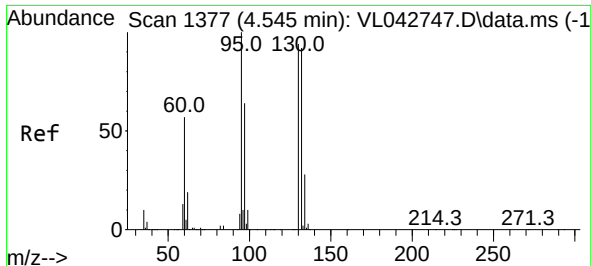
Tgt Ion:117 Resp: 666
Ion Ratio Lower Upper
117 100
119 70.7 77.1 115.7#
121 38.6 25.5 38.3#



#36
Benzene
Concen: 0.024 ppbv
RT: 3.658 min Scan# 1103
Delta R.T. 0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 78 Resp: 993
Ion Ratio Lower Upper
78 100
77 6.0 18.5 27.7#
50 1.9 16.2 24.2#

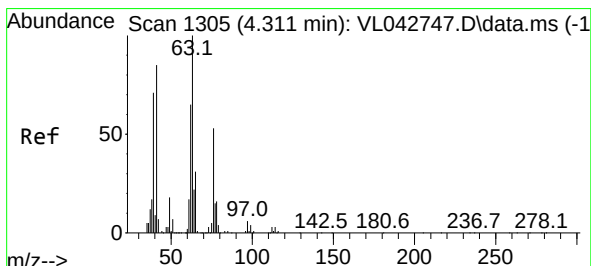
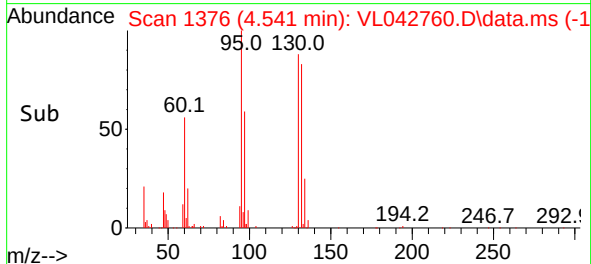
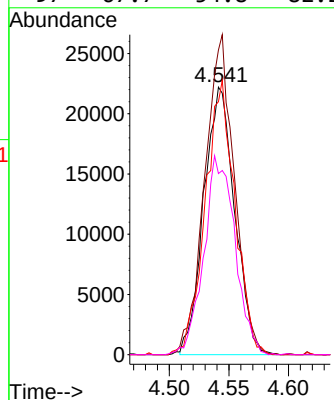
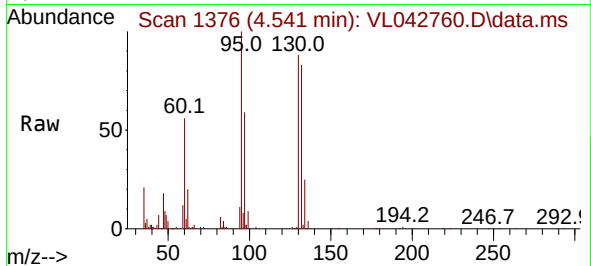




#38
 Trichloroethene
 Concen: 2.050 ppbv
 RT: 4.541 min Scan# 1194
 Delta R.T. -0.003 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

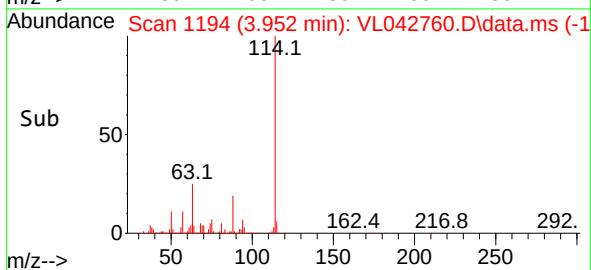
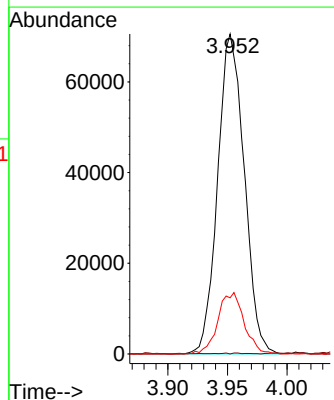
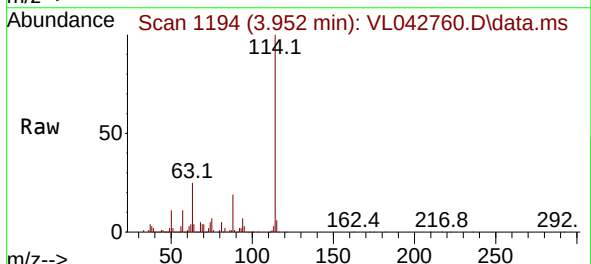
Instrument :
 MSVOA_L
 ClientSampleId :

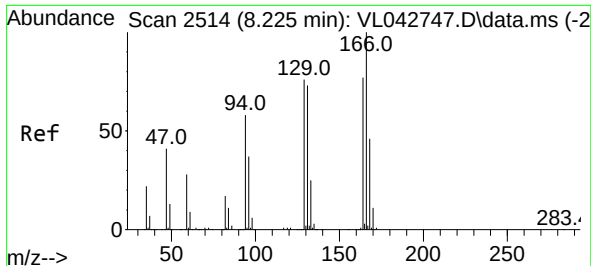
Tgt Ion:130	Resp:	40151
Ion Ratio	Lower	Upper
130	100	
95	113.9	85.4 128.2
132	94.6	78.2 117.2
97	67.7	54.8 82.2



#39
 1,2-Dichloropropane
 Concen: 7.270 ppbv
 RT: 3.952 min Scan# 1194
 Delta R.T. -0.359 min
 Lab File: VL042760.D
 Acq: 24 Jul 2025 11:39

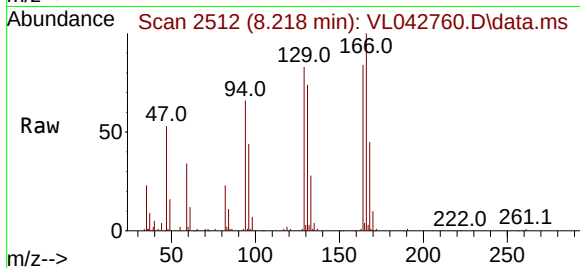
Tgt Ion: 63	Resp:	109416
Ion Ratio	Lower	Upper
63	100	
41	0.0	68.2 102.4#
62	17.5	52.0 78.0#



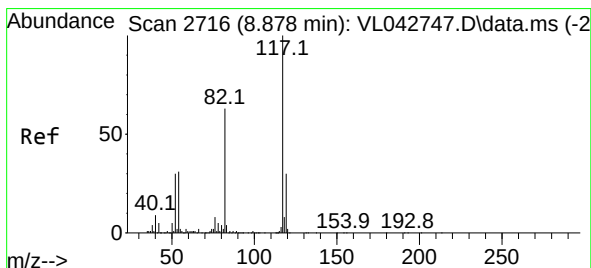
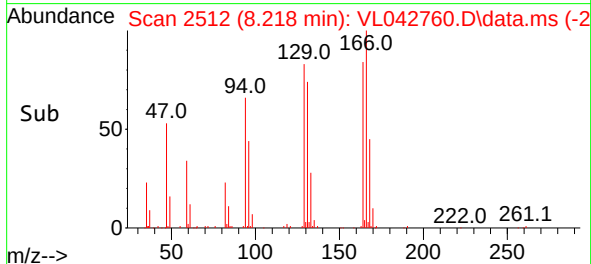
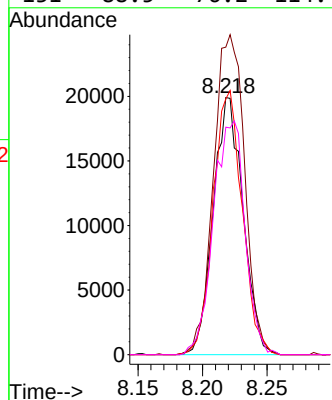


#52
Tetrachloroethene
Concen: 1.891 ppbv
RT: 8.218 min Scan# 21
Delta R.T. -0.007 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Instrument :
MSVOA_L
ClientSampleId :

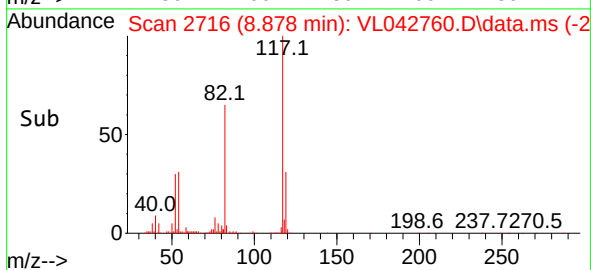
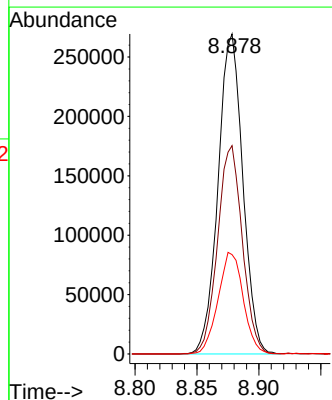
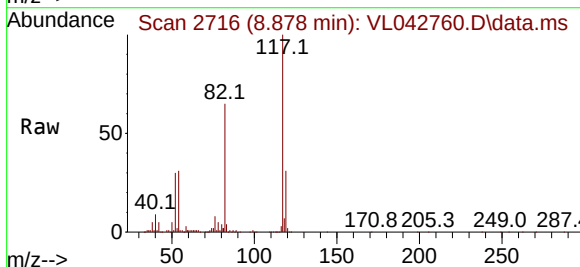


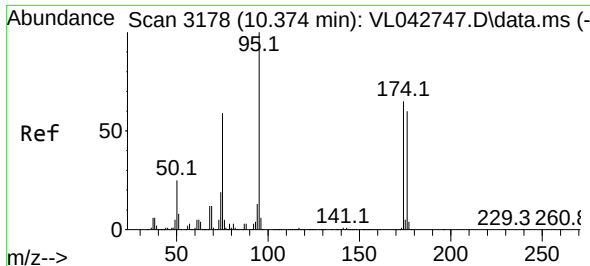
Tgt Ion:	164	Resp:	31954
Ion Ratio	Lower	Upper	
164	100		
166	119.6	104.0	156.0
129	99.4	79.2	118.8
131	88.5	76.2	114.4



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.878 min Scan# 2716
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion:	117	Resp:	375286
Ion Ratio	Lower	Upper	
117	100		
82	65.3	53.3	79.9
119	32.4	25.8	38.6

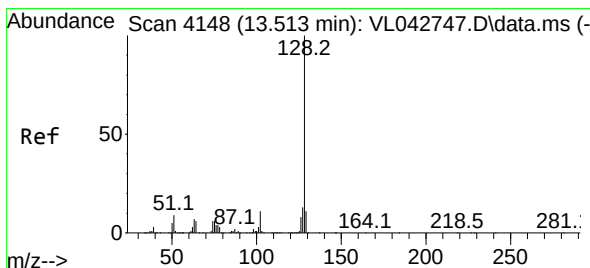
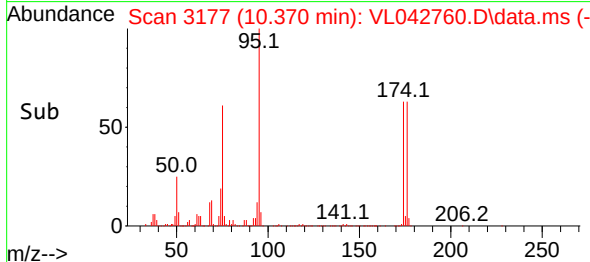
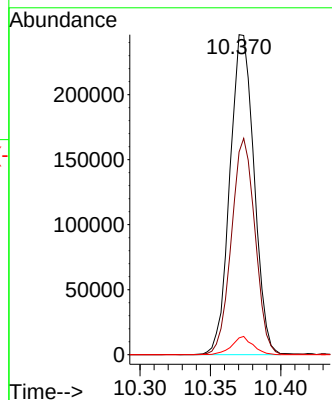
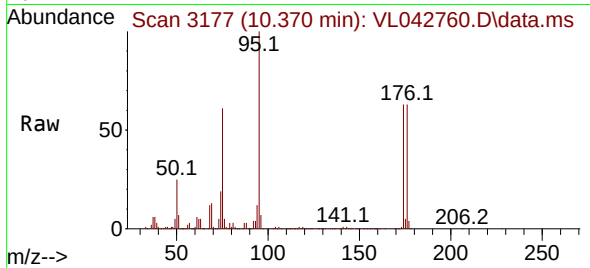




#68
1-Bromo-4-Fluorobenzene
Concen: 9.890 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. -0.003 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

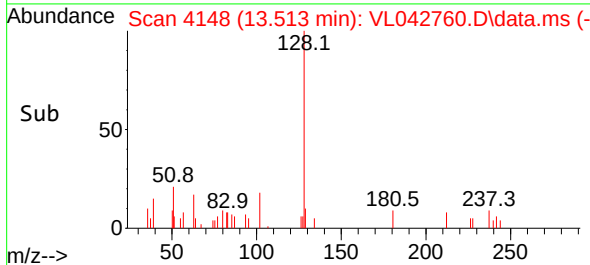
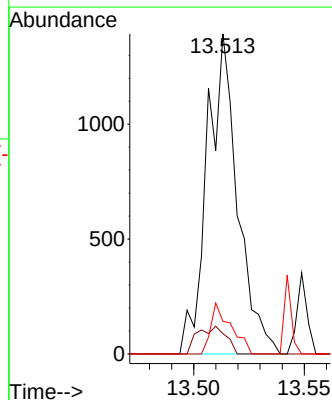
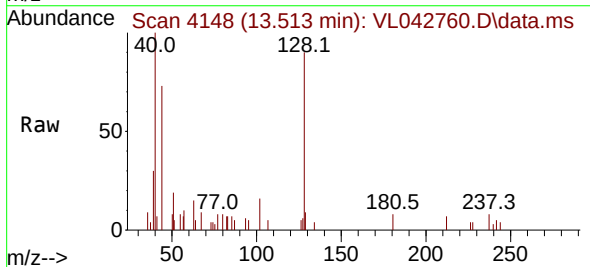
Instrument :
MSVOA_L
ClientSampleId :

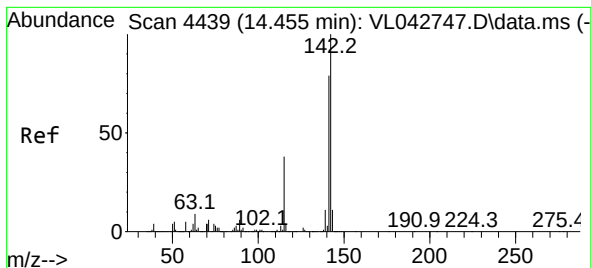
Tgt Ion: 95 Resp: 293938
Ion Ratio Lower Upper
95 100
174 66.0 53.8 80.6
175 5.0 4.0 6.0



#79
Naphthalene
Concen: 0.458 ppbv
RT: 13.513 min Scan# 4148
Delta R.T. -0.000 min
Lab File: VL042760.D
Acq: 24 Jul 2025 11:39

Tgt Ion: 128 Resp: 1334
Ion Ratio Lower Upper
128 100
127 5.7 10.5 15.7#
129 9.3 8.6 13.0





#80

Naphthalene, 2-methyl-

Concen: 1.159 ppbv

RT: 14.468 min Scan# 4443

Delta R.T. 0.013 min

Lab File: VL042760.D

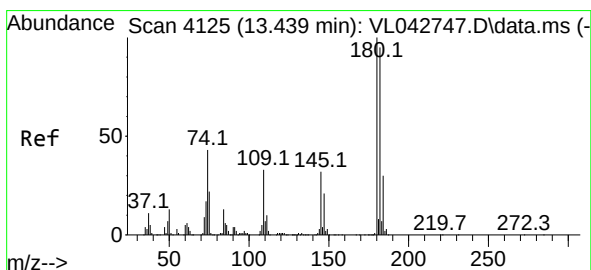
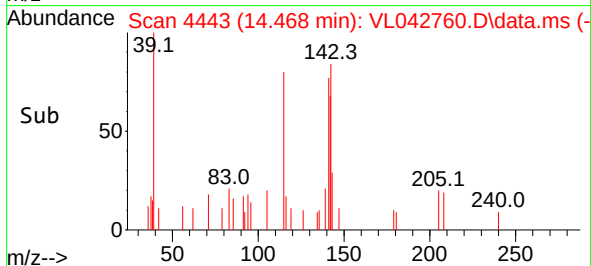
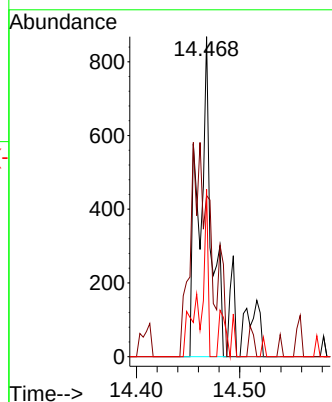
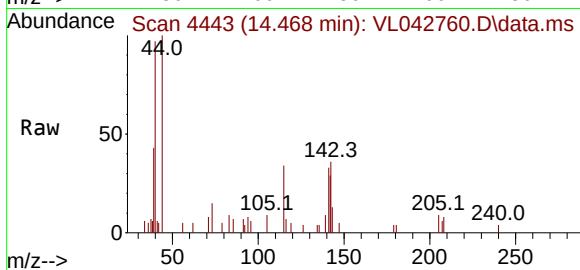
Acq: 24 Jul 2025 11:39

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion:	142	Resp:	944
Ion Ratio	Lower	Upper	
142	100		
141	85.6	65.8	98.8
115	24.2	31.2	46.8#



#81

1,2,4-Trichlorobenzene

Concen: 0.445 ppbv

RT: 13.442 min Scan# 4126

Delta R.T. 0.003 min

Lab File: VL042760.D

Acq: 24 Jul 2025 11:39

Tgt Ion:	180	Resp:	333
Ion Ratio	Lower	Upper	
180	100		
182	219.5	76.2	114.2#
184	87.7	24.8	37.2#

