

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072425\
 Data File : VL042768.D
 Acq On : 24 Jul 2025 16:53
 Operator : SY/MD
 Sample : Q2671-02DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

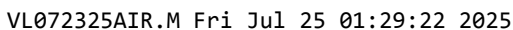
Quant Time: Jul 25 01:29:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Jul 24 05:24:41 2025
 Response via : Initial Calibration

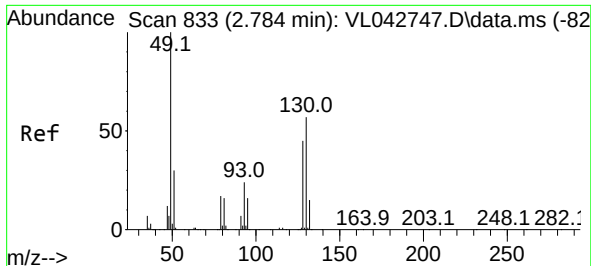
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.794	49	151863	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	412621	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	353060	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.384	95	275055	9.837	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.400%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.467	51	256562	9.809	ppbv #	58
4) Chloromethane	1.535	50	733	0.090	ppbv	89
6) Bromomethane	1.664	94	65	0.021	ppbv #	1
7) Chloroethane	1.467	64	12515	4.036	ppbv	98
9) Propene	1.561	41	181741	19.118	ppbv	100
10) Heptane	4.991	43	724	0.028	ppbv	87
11) Trichlorofluoromethane	1.884	101	452	0.022	ppbv	88
13) Ethanol	1.726	45	96968	138.940	ppbv	90
15) Acetone	1.839	43	50277	2.398	ppbv	97
16) 1,3-Butadiene	1.625	39	30741	3.437	ppbv #	20
17) tert-Butyl alcohol	2.053	59	790	0.042	ppbv #	72
19) Isopropyl Alcohol	1.891	45	27840	2.498	ppbv	93
20) Methylene Chloride	2.069	84	2128	0.322	ppbv #	70
21) Allyl Chloride	1.965	41	1315	0.102	ppbv #	18
23) Vinyl Acetate	2.473	43	599	0.024	ppbv #	26
25) Ethyl Acetate	2.836	43	15169	0.327	ppbv #	93
26) Hexane	2.833	57	13749	0.675	ppbv #	52
34) 2-Butanone	2.567	43	2156	0.074	ppbv #	75
37) 1,2-Dichloroethane	3.224	62	646	0.027	ppbv #	81
39) 1,2-Dichloropropane	3.965	63	104484	7.238	ppbv #	21
53) Toluene	6.950	91	1931	0.046	ppbv #	21
79) Naphthalene	13.530	128	108	0.437	ppbv #	69
80) Naphthalene,2-methyl-	14.578	142	36	1.130	ppbv #	1
81) 1,2,4-Trichlorobenzene	13.468	180	28	0.436	ppbv #	12

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

Quant Time: Jul 25 01:29:12 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Jul 24 05:24:41 2025
Response via : Initial Calibration

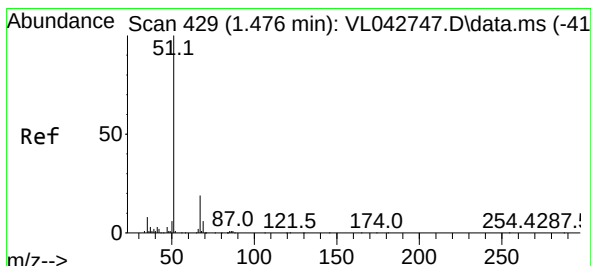
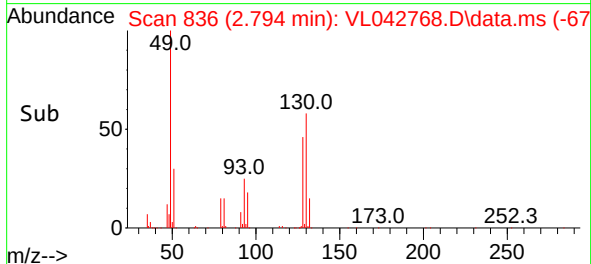
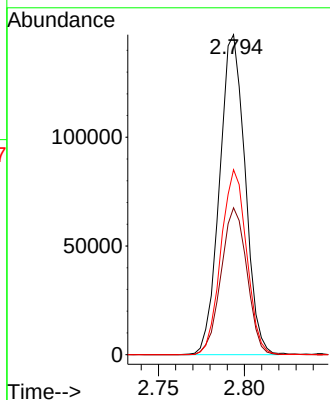
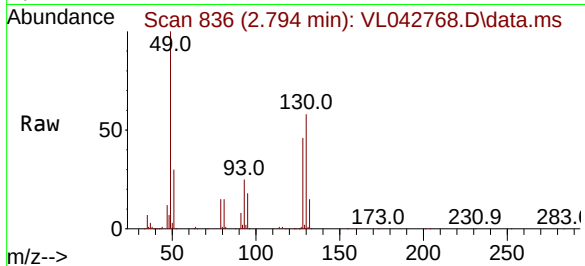




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.794 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

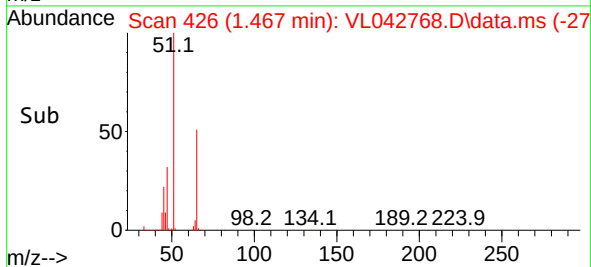
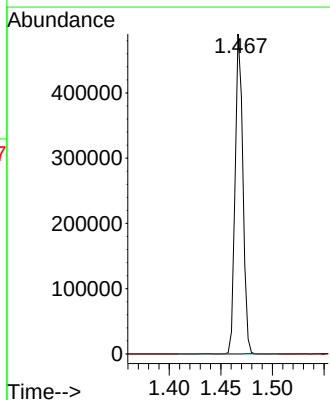
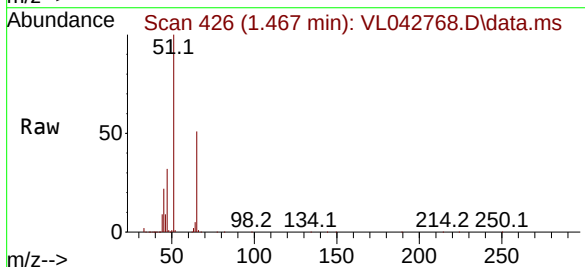
Instrument :
MSVOA_L
ClientSampleId :

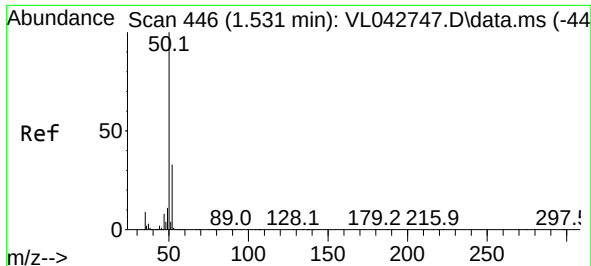
Tgt Ion: 49 Resp: 151863
Ion Ratio Lower Upper
49 100
128 46.5 23.6 71.0
130 57.9 30.3 90.8



#3
Chlorodifluoromethane
Concen: 9.809 ppbv
RT: 1.467 min Scan# 426
Delta R.T. -0.010 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 51 Resp: 256562
Ion Ratio Lower Upper
51 100
67 0.1 15.0 22.6#

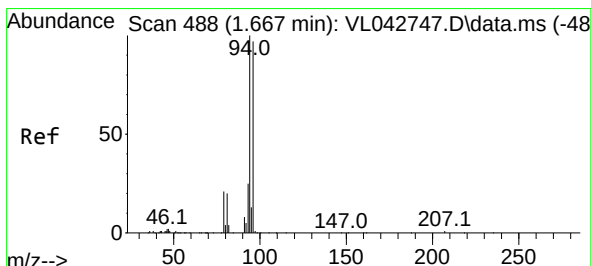
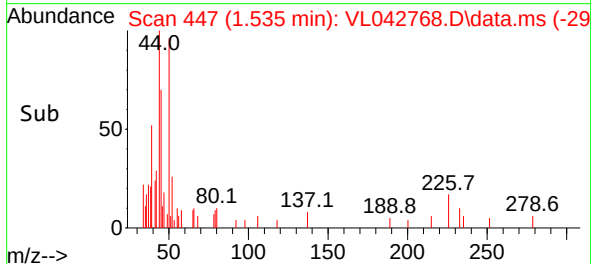
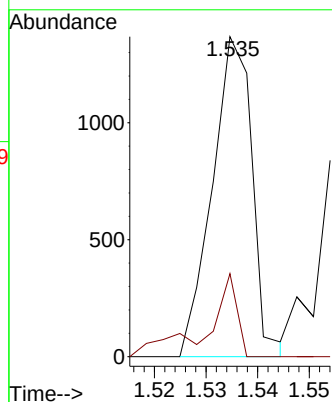
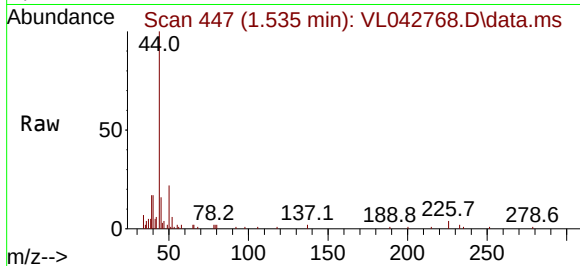




#4
Chloromethane
Concen: 0.090 ppbv
RT: 1.535 min Scan# 446
Delta R.T. 0.003 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

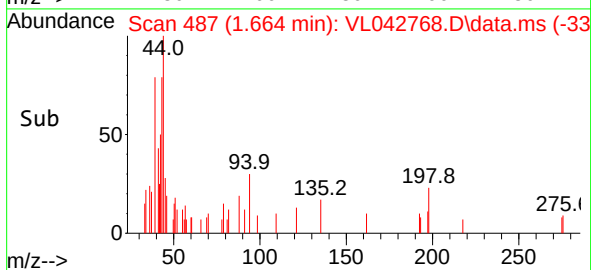
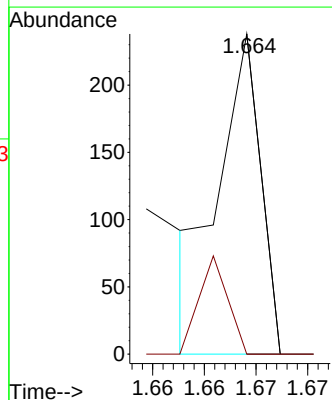
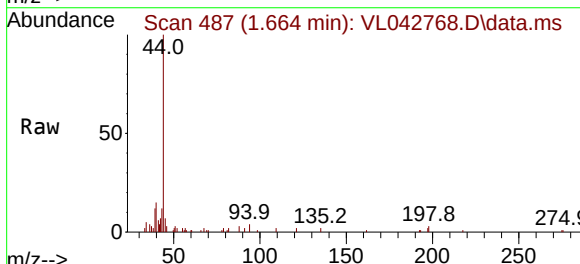
Instrument :
MSVOA_L
ClientSampleId :

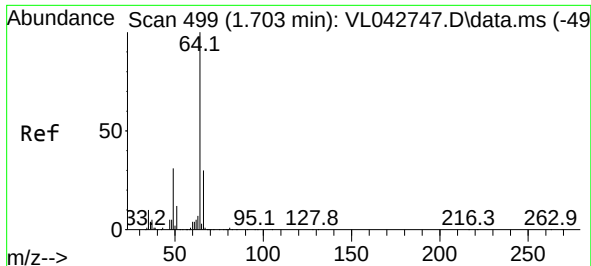
Tgt Ion: 50 Resp: 733
Ion Ratio Lower Upper
50 100
52 27.2 26.6 40.0



#6
Bromomethane
Concen: 0.021 ppbv
RT: 1.664 min Scan# 487
Delta R.T. -0.003 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 94 Resp: 65
Ion Ratio Lower Upper
94 100
96 0.0 77.6 116.4#

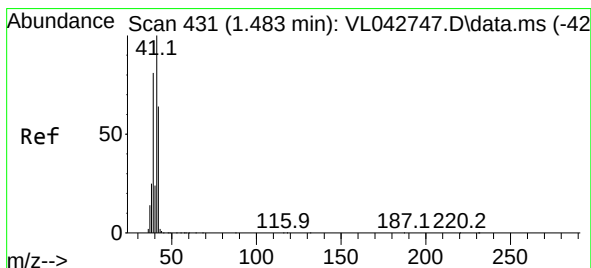
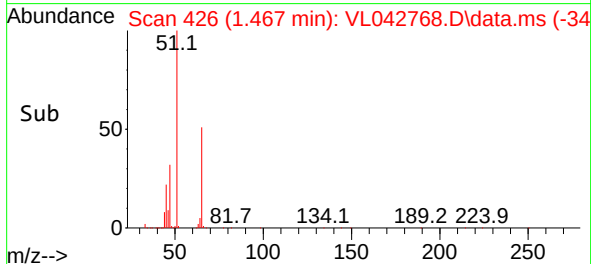
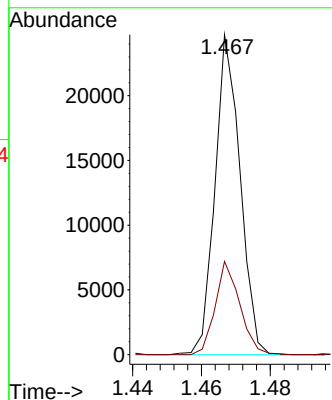
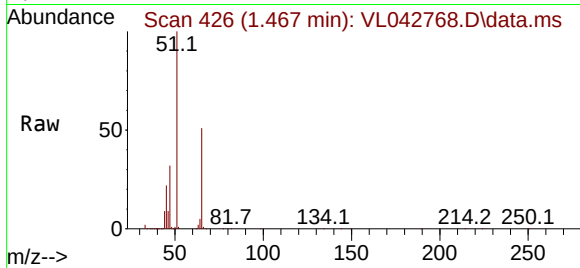




#7
Chloroethane
Concen: 4.036 ppbv
RT: 1.467 min Scan# 41
Delta R.T. -0.236 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

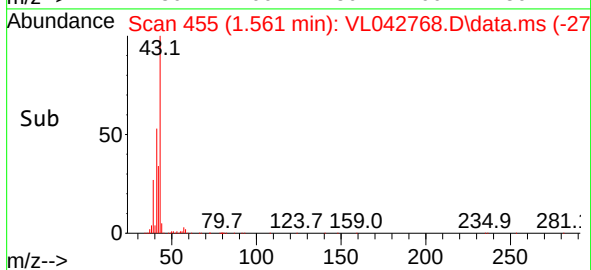
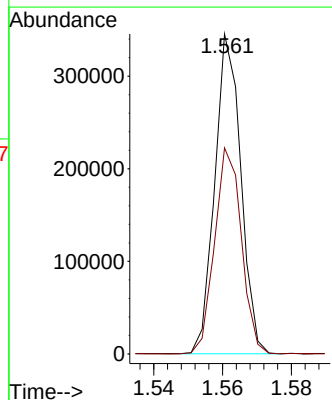
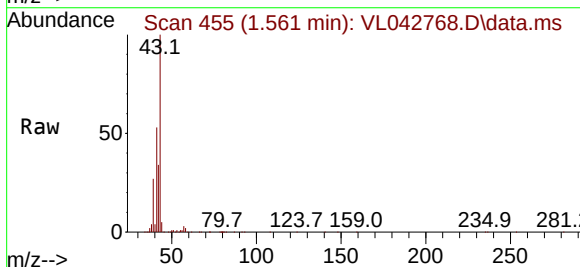
Instrument :
MSVOA_L
ClientSampleId :

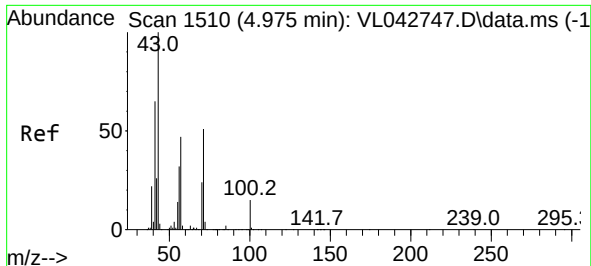
Tgt Ion: 64 Resp: 12515
Ion Ratio Lower Upper
64 100
66 29.1 24.1 36.1



#9
Propene
Concen: 19.118 ppbv
RT: 1.561 min Scan# 455
Delta R.T. 0.078 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 41 Resp: 181741
Ion Ratio Lower Upper
41 100
42 66.4 53.2 79.8

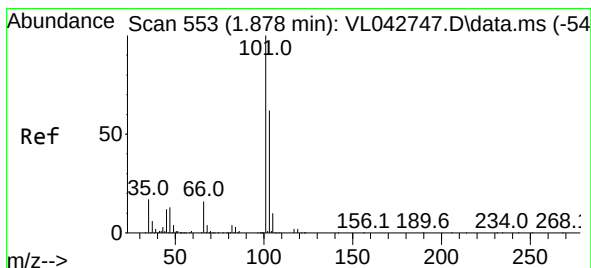
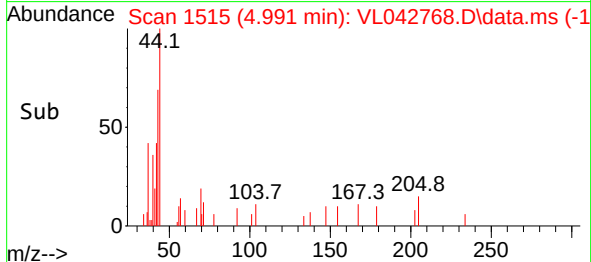
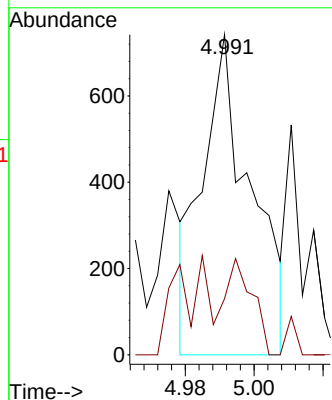
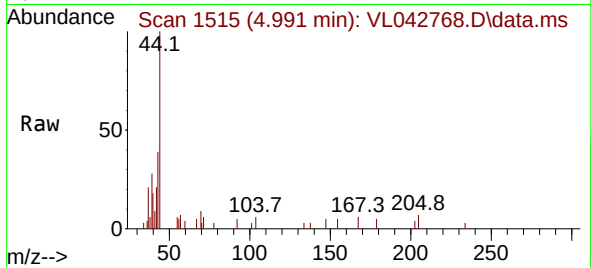




#10
Heptane
Concen: 0.028 ppbv
RT: 4.991 min Scan# 11
Delta R.T. 0.016 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

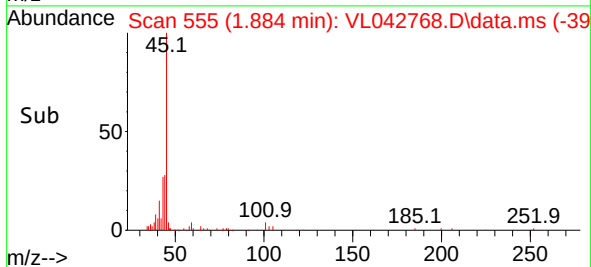
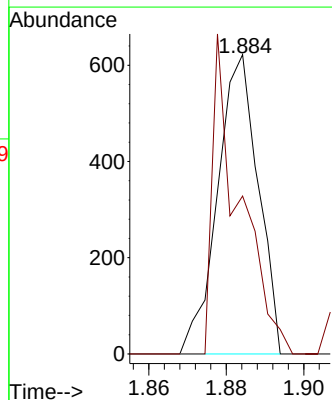
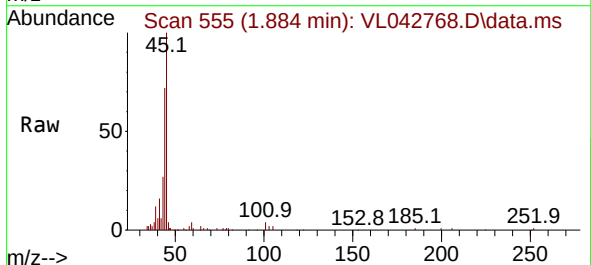
Instrument :
MSVOA_L
ClientSampleId :

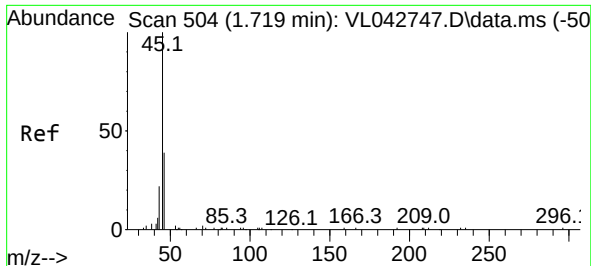
Tgt Ion: 43 Resp: 724
Ion Ratio Lower Upper
43 100
57 40.7 39.9 59.9



#11
Trichlorofluoromethane
Concen: 0.022 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.007 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 101 Resp: 452
Ion Ratio Lower Upper
101 100
103 52.7 49.6 74.4





#13

Ethanol

Concen: 138.940 ppbv

RT: 1.726 min Scan# 504

Delta R.T. 0.007 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

Instrument :

MSVOA_L

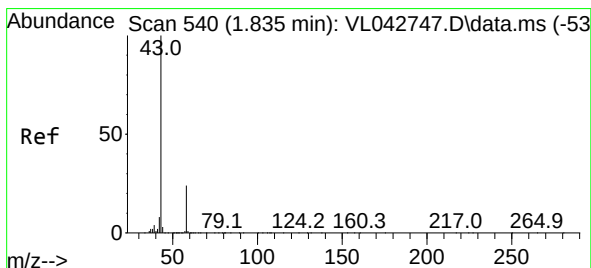
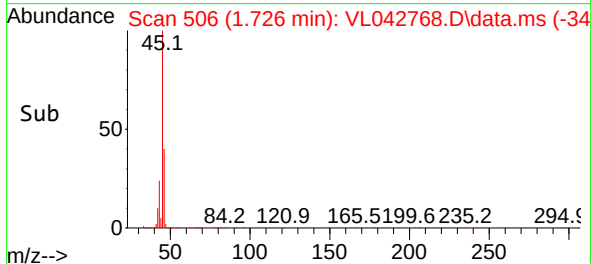
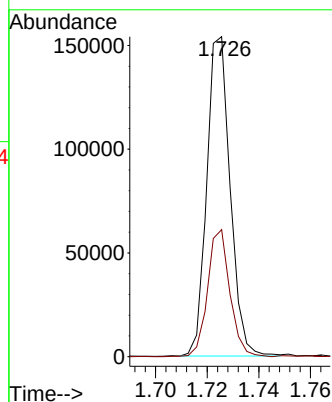
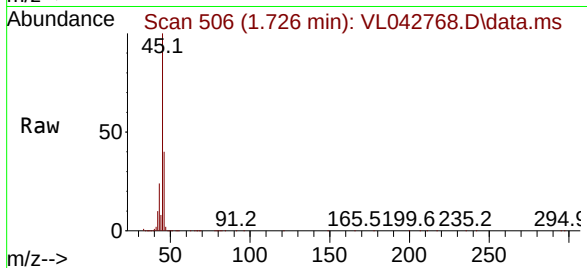
ClientSampleId :

Tgt Ion: 45 Resp: 96968

Ion Ratio Lower Upper

45 100

46 38.4 17.8 71.4



#15

Acetone

Concen: 2.398 ppbv

RT: 1.839 min Scan# 541

Delta R.T. 0.003 min

Lab File: VL042768.D

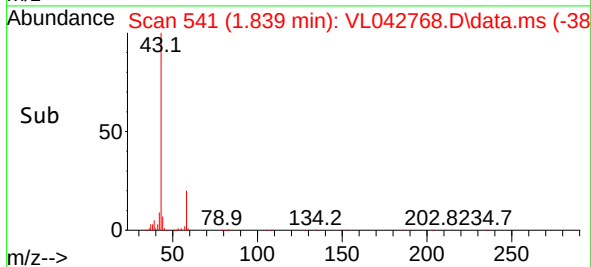
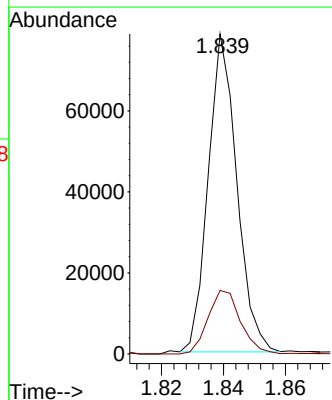
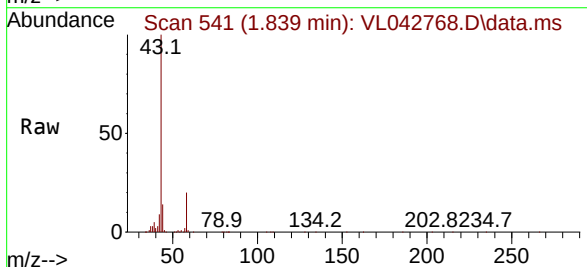
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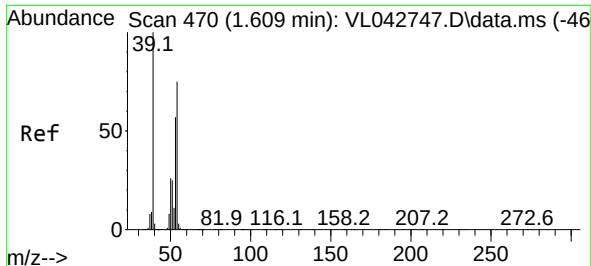
Tgt Ion: 43 Resp: 50277

Ion Ratio Lower Upper

43 100

58 23.1 19.8 29.8





#16

1,3-Butadiene

Concen: 3.437 ppbv

RT: 1.625 min Scan# 41

Delta R.T. 0.016 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

Instrument :

MSVOA_L

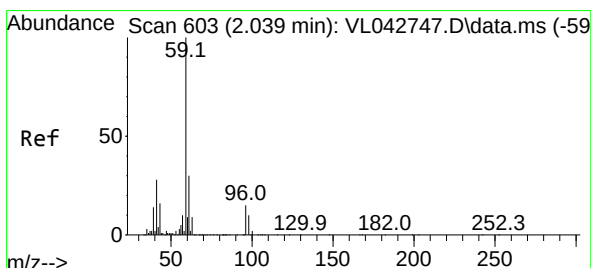
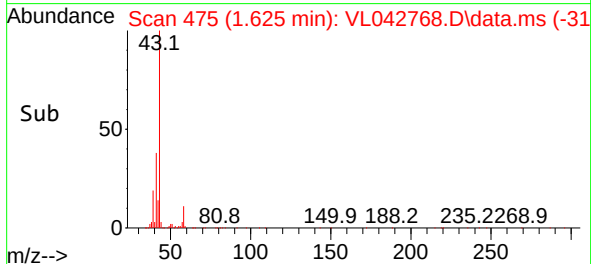
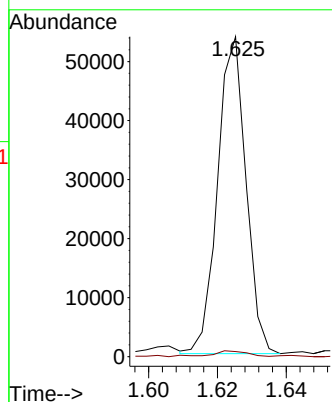
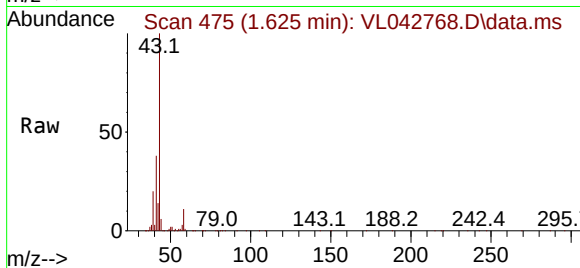
ClientSampleId :

Tgt Ion: 39 Resp: 30741

Ion Ratio Lower Upper

39 100

54 3.3 54.5 81.7#



#17

tert-Butyl alcohol

Concen: 0.042 ppbv

RT: 2.053 min Scan# 607

Delta R.T. 0.013 min

Lab File: VL042768.D

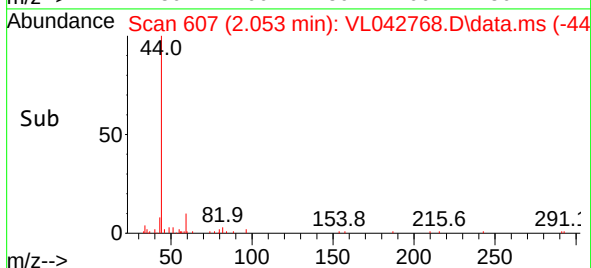
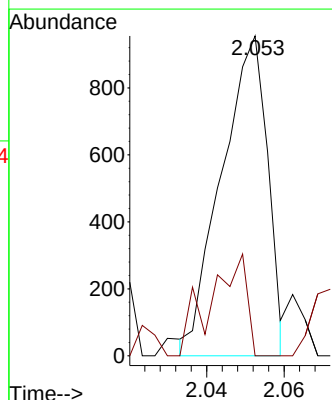
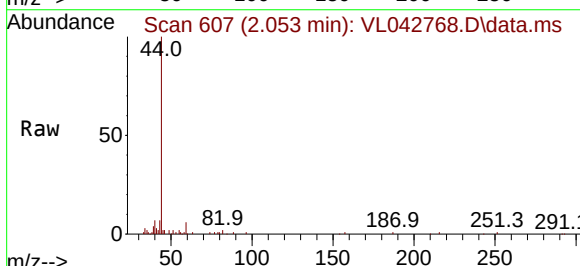
Acq: 24 Jul 2025 16:53

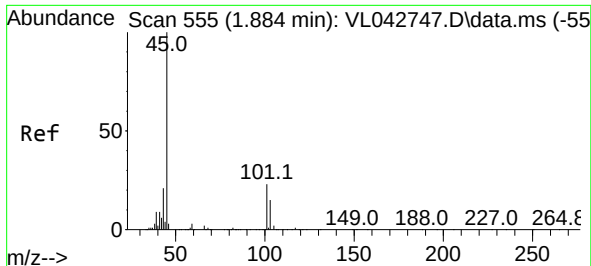
Tgt Ion: 59 Resp: 790

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#

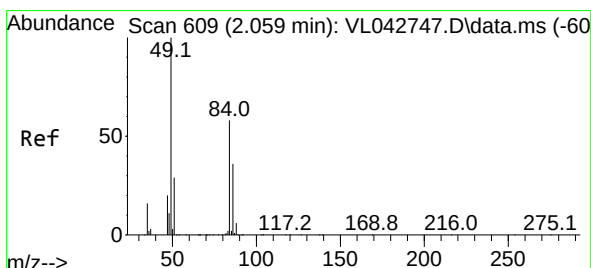
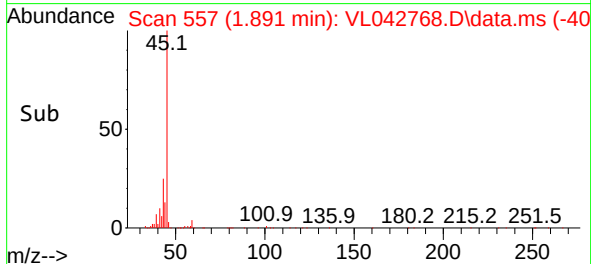
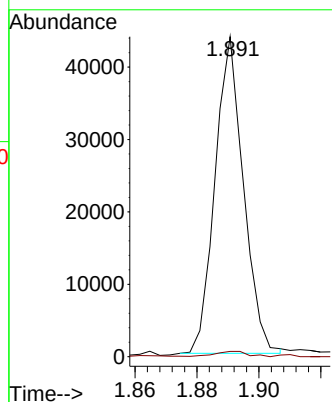
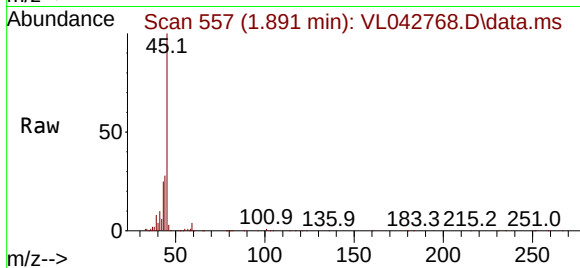




#19
Isopropyl Alcohol
Concen: 2.498 ppbv
RT: 1.891 min Scan# 511
Delta R.T. 0.007 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

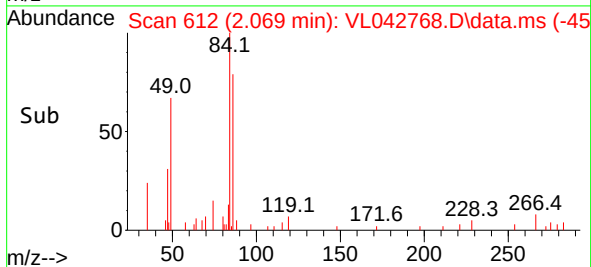
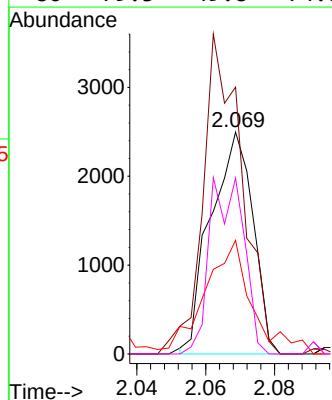
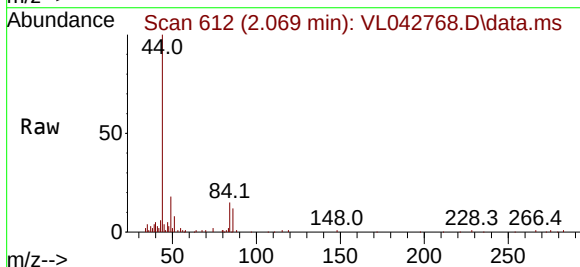
Instrument :
MSVOA_L
ClientSampleId :

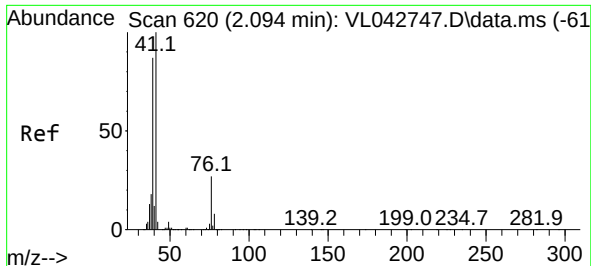
Tgt Ion: 45 Resp: 27840
Ion Ratio Lower Upper
45 100
58 41.7 30.0 45.0



#20
Methylene Chloride
Concen: 0.322 ppbv
RT: 2.069 min Scan# 612
Delta R.T. 0.010 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 84 Resp: 2128
Ion Ratio Lower Upper
84 100
49 120.3 138.6 208.0#
51 41.1 40.6 61.0
86 79.3 49.8 74.8#

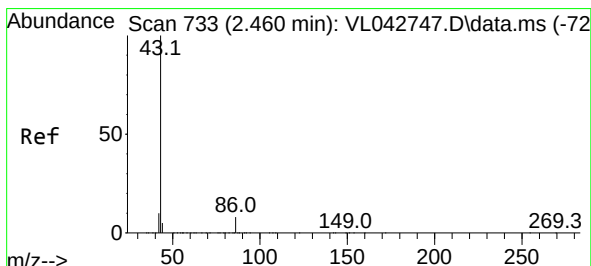
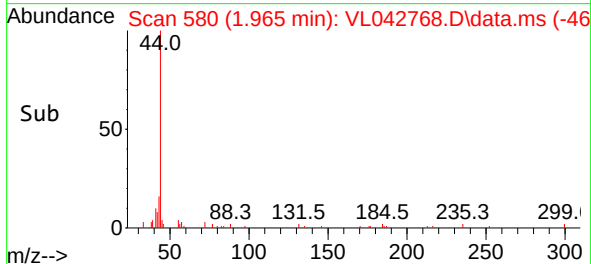
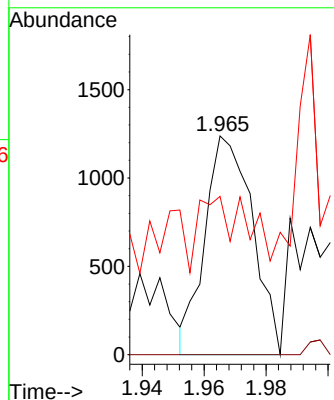
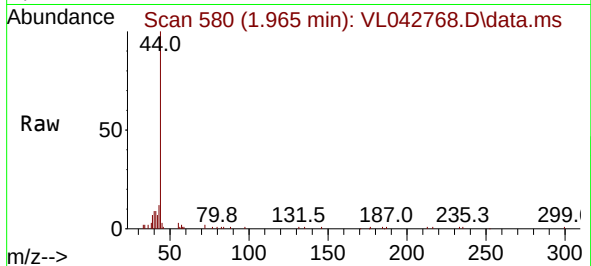




#21
 Allyl Chloride
 Concen: 0.102 ppbv
 RT: 1.965 min Scan# 51
 Delta R.T. -0.129 min
 Lab File: VL042768.D
 Acq: 24 Jul 2025 16:53

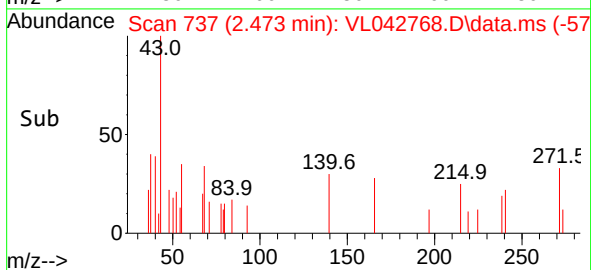
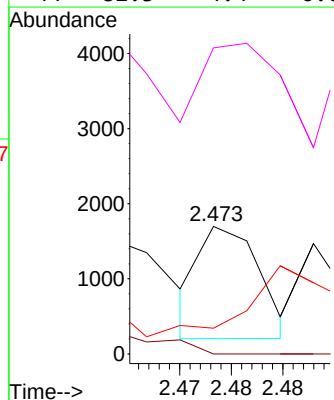
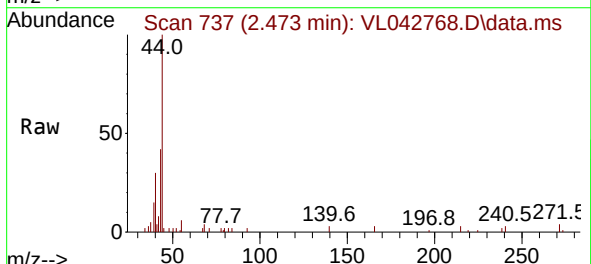
Instrument :
 MSVOA_L
 ClientSampleId :

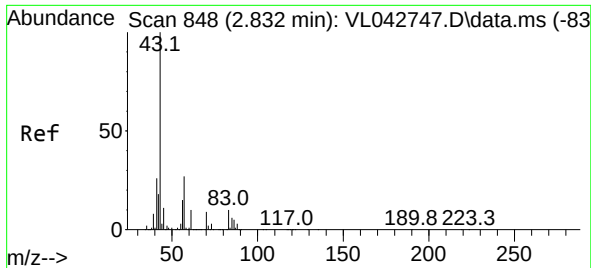
Tgt Ion: 41 Resp: 1315
 Ion Ratio Lower Upper
 41 100
 76 2.3 21.1 31.7#
 39 0.0 68.3 102.5#



#23
 Vinyl Acetate
 Concen: 0.024 ppbv
 RT: 2.473 min Scan# 737
 Delta R.T. 0.013 min
 Lab File: VL042768.D
 Acq: 24 Jul 2025 16:53

Tgt Ion: 43 Resp: 599
 Ion Ratio Lower Upper
 43 100
 86 0.0 6.1 9.1#
 42 0.0 7.8 11.8#
 44 82.3 4.4 6.6#

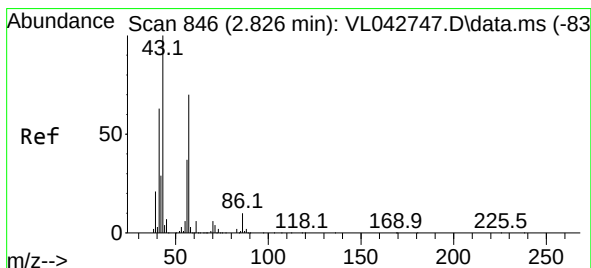
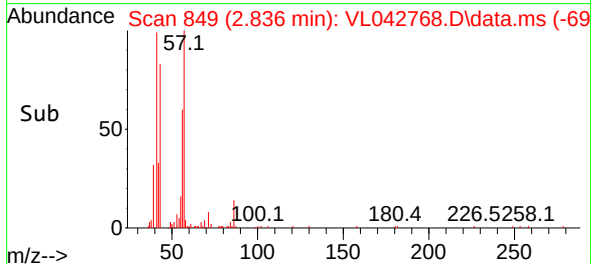
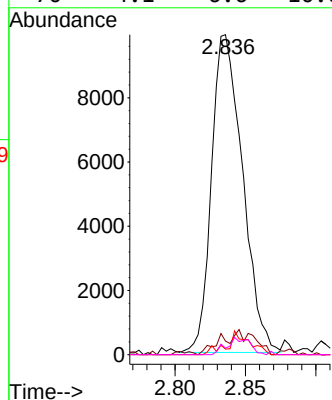
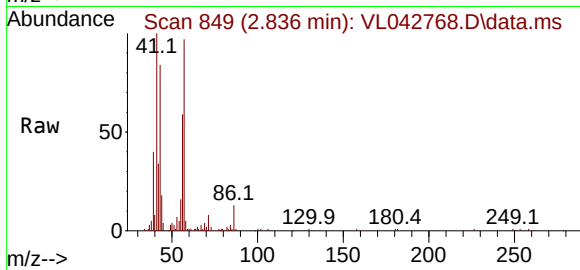




#25
Ethyl Acetate
Concen: 0.327 ppbv
RT: 2.836 min Scan# 848
Delta R.T. 0.003 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

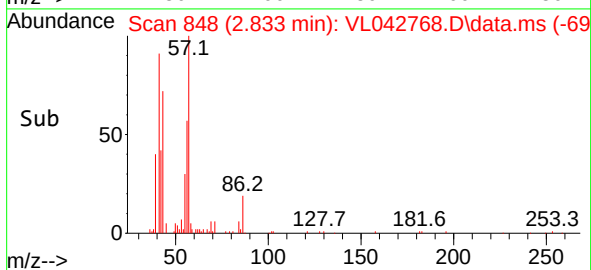
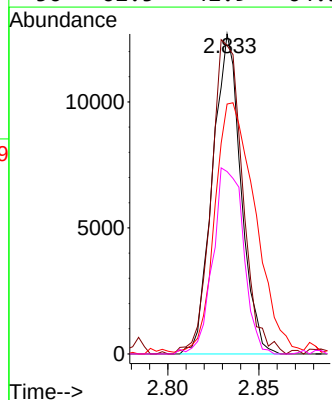
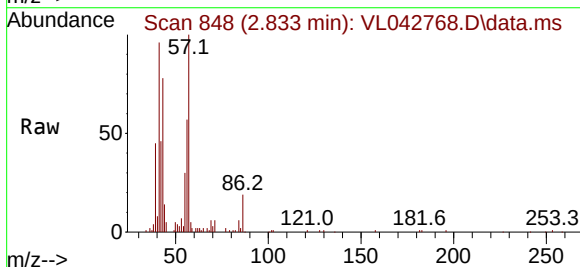
Instrument :
MSVOA_L
ClientSampleId :

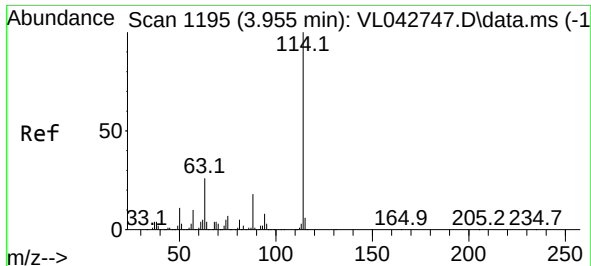
Tgt Ion: 43	Resp: 15169
Ion Ratio	Lower Upper
43 100	
45 9.5	7.8 11.6
61 5.3	6.7 10.1#
70 4.1	6.6 10.0#



#26
Hexane
Concen: 0.675 ppbv
RT: 2.833 min Scan# 848
Delta R.T. 0.007 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 57	Resp: 13749
Ion Ratio	Lower Upper
57 100	
41 109.3	75.4 113.2
43 115.8	185.0 277.6#
56 62.5	42.9 64.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.965 min Scan# 1195

Delta R.T. 0.010 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :

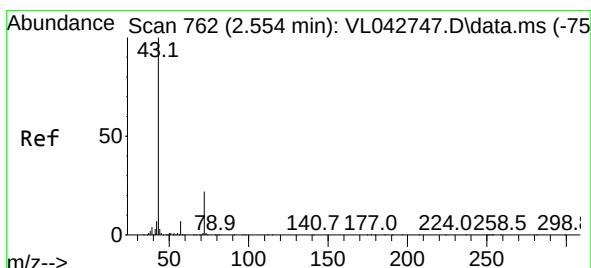
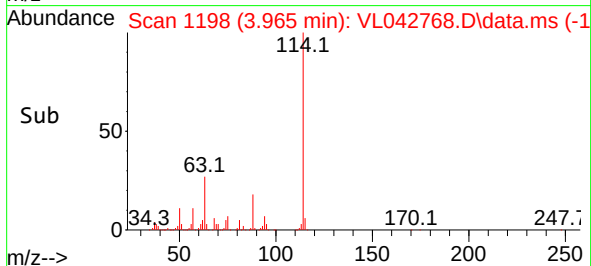
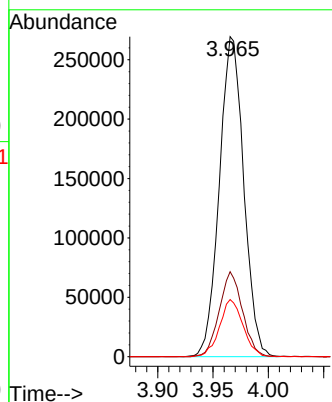
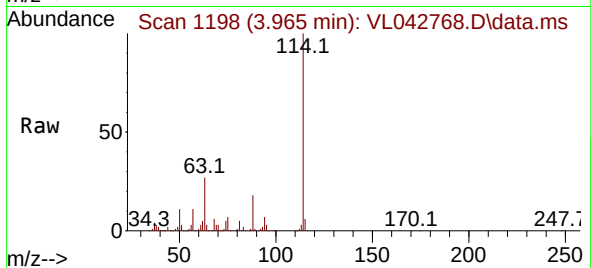
Tgt Ion:114 Resp: 412621

Ion Ratio Lower Upper

114 100

63 25.4 20.5 30.7

88 17.2 14.0 21.0



#34

2-Butanone

Concen: 0.074 ppbv

RT: 2.567 min Scan# 766

Delta R.T. 0.013 min

Lab File: VL042768.D

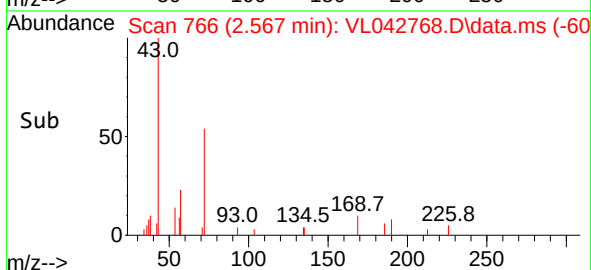
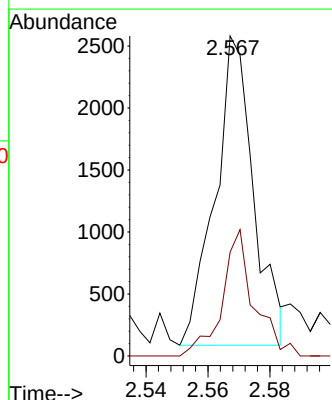
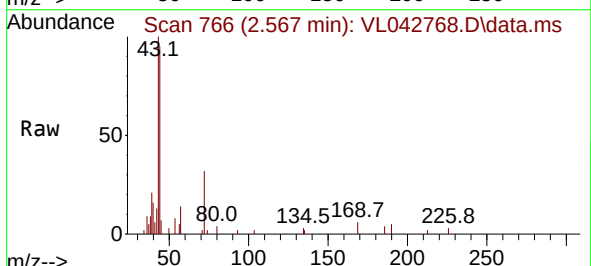
Acq: 24 Jul 2025 16:53

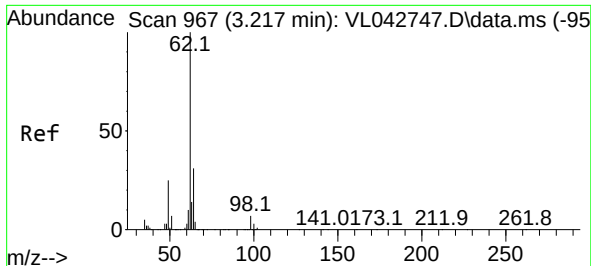
Tgt Ion: 43 Resp: 2156

Ion Ratio Lower Upper

43 100

72 33.7 17.4 26.0#





#37

1,2-Dichloroethane

Concen: 0.027 ppbv

RT: 3.224 min Scan# 9

Delta R.T. 0.007 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

Instrument :

MSVOA_L

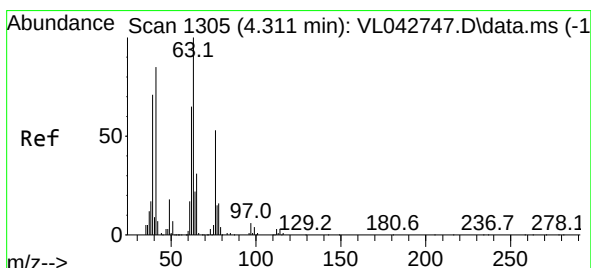
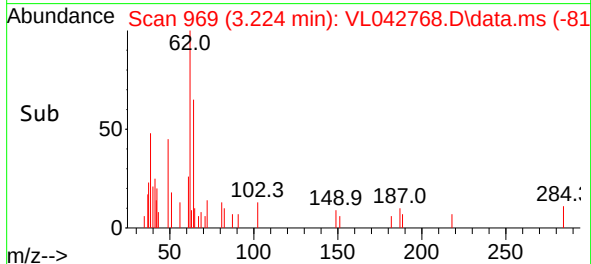
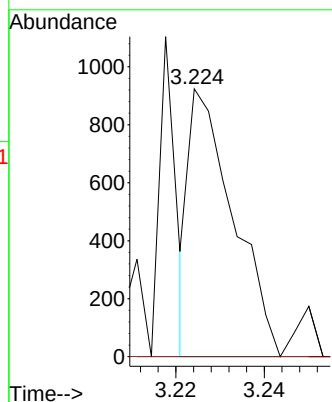
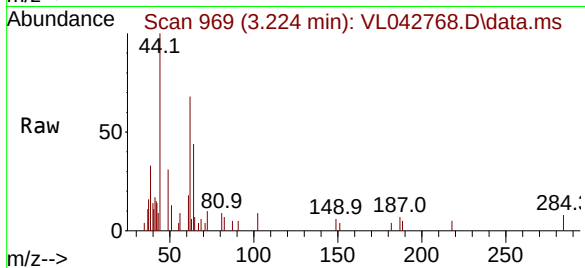
ClientSampleId :

Tgt Ion: 62 Resp: 646

Ion Ratio Lower Upper

62 100

98 0.0 5.2 7.8#



#39

1,2-Dichloropropane

Concen: 7.238 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. -0.346 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

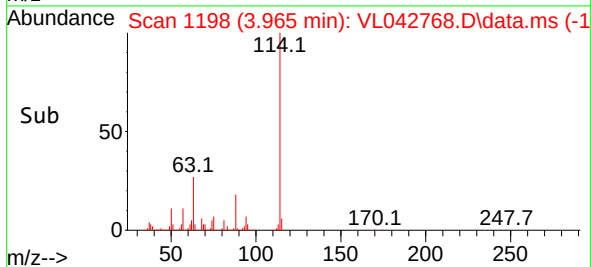
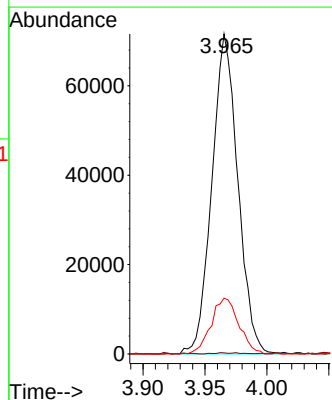
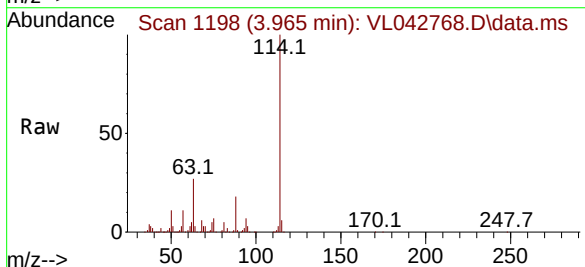
Tgt Ion: 63 Resp: 104484

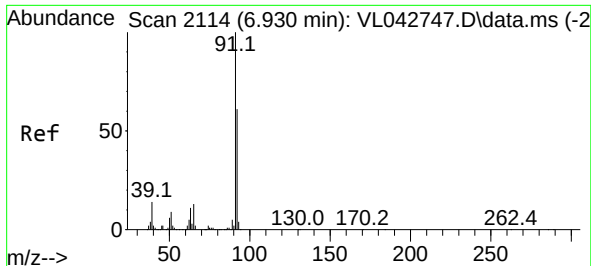
Ion Ratio Lower Upper

63 100

41 0.2 68.2 102.4#

62 17.5 52.0 78.0#

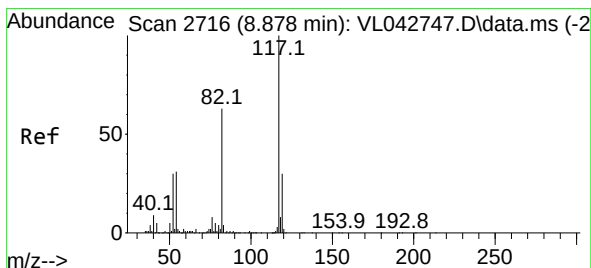
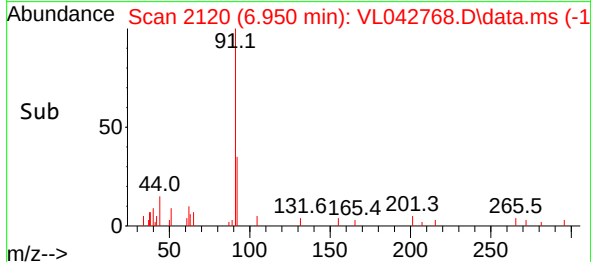
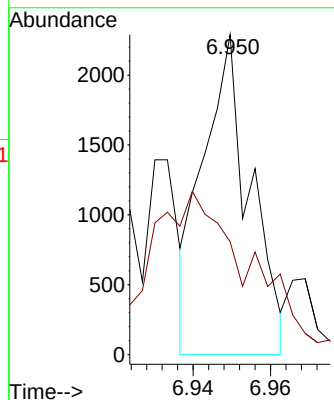
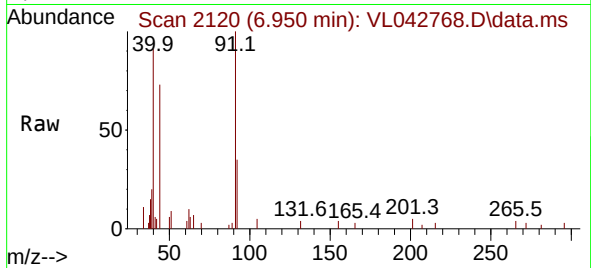




#53
Toluene
Concen: 0.046 ppbv
RT: 6.950 min Scan# 2114
Delta R.T. 0.020 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

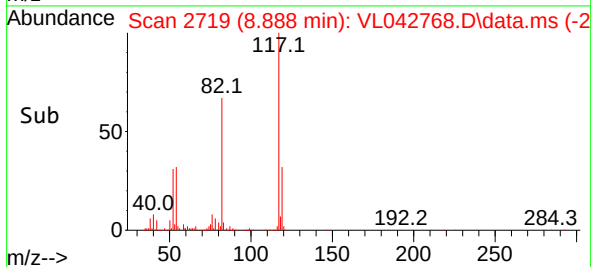
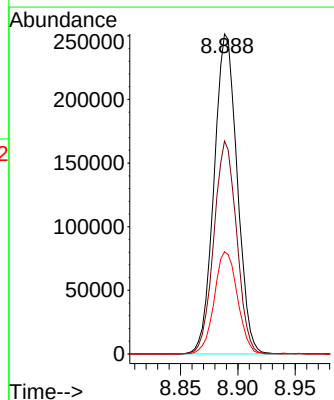
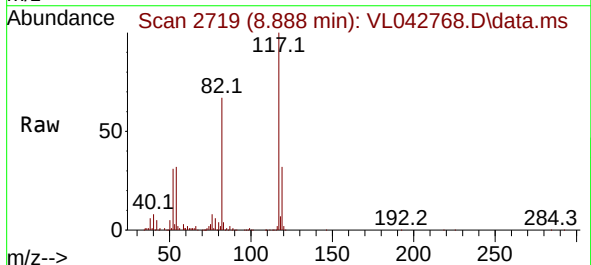
Instrument :
MSVOA_L
ClientSampleId :

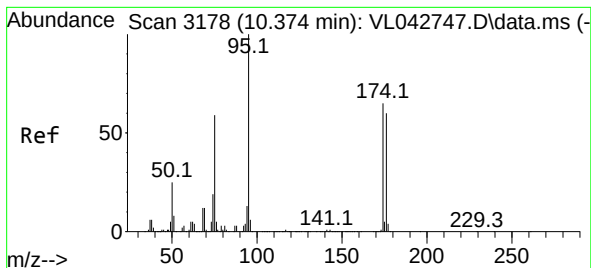
Tgt Ion: 91 Resp: 1931
Ion Ratio Lower Upper
91 100
92 0.0 48.0 72.0#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 2719
Delta R.T. 0.010 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 117 Resp: 353060
Ion Ratio Lower Upper
117 100
82 65.7 53.3 79.9
119 32.0 25.8 38.6

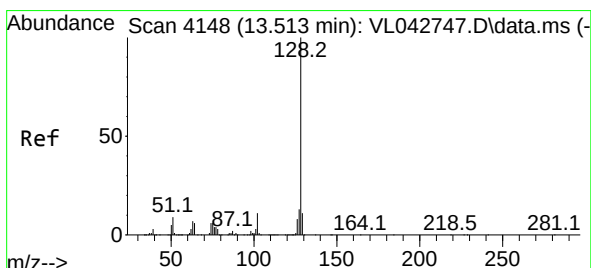
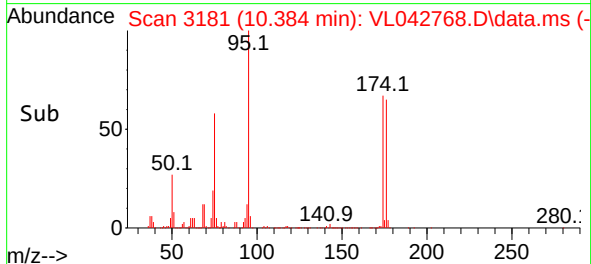
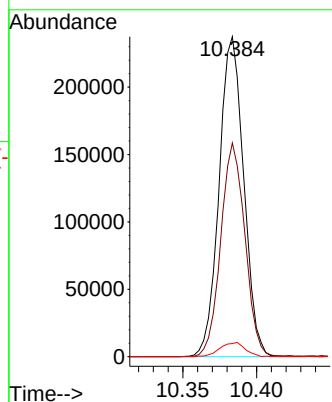
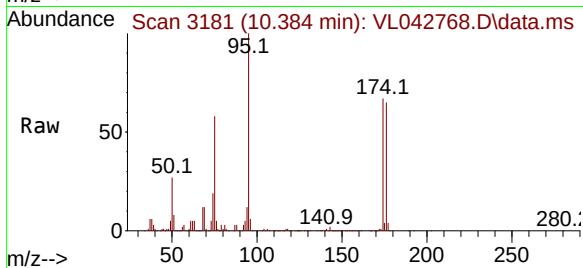




#68
1-Bromo-4-Fluorobenzene
Concen: 9.837 ppbv
RT: 10.384 min Scan# 3178
Delta R.T. 0.010 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

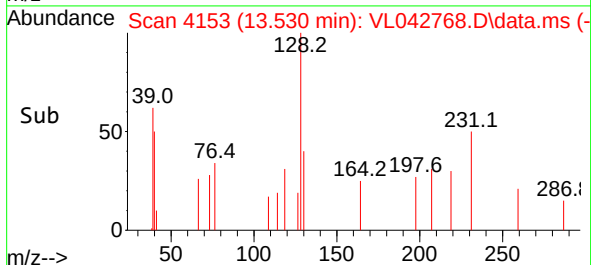
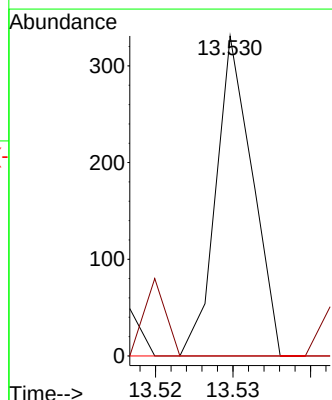
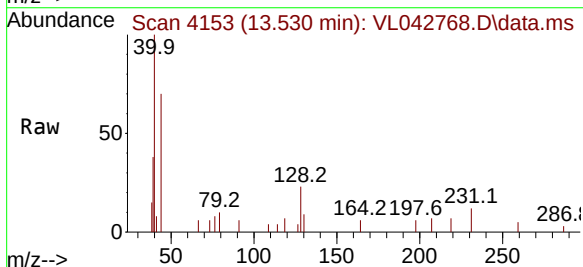
Instrument :
MSVOA_L
ClientSampleId :

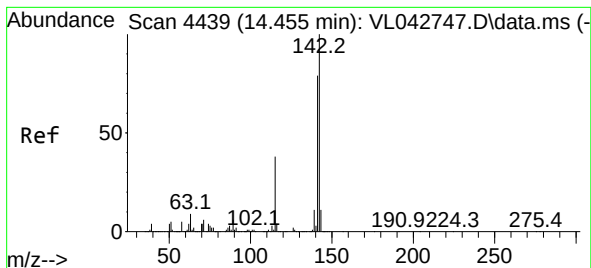
Tgt Ion: 95 Resp: 275055
Ion Ratio Lower Upper
95 100
174 65.7 53.8 80.6
175 4.6 4.0 6.0



#79
Naphthalene
Concen: 0.437 ppbv
RT: 13.530 min Scan# 4153
Delta R.T. 0.016 min
Lab File: VL042768.D
Acq: 24 Jul 2025 16:53

Tgt Ion: 128 Resp: 108
Ion Ratio Lower Upper
128 100
127 0.0 10.5 15.7#
129 0.0 8.6 13.0#





#80

Naphthalene, 2-methyl-

Concen: 1.130 ppbv

RT: 14.578 min Scan# 4439

Delta R.T. 0.123 min

Lab File: VL042768.D

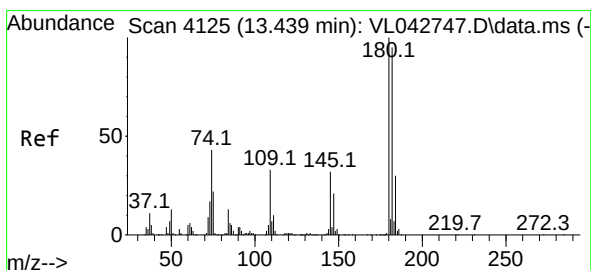
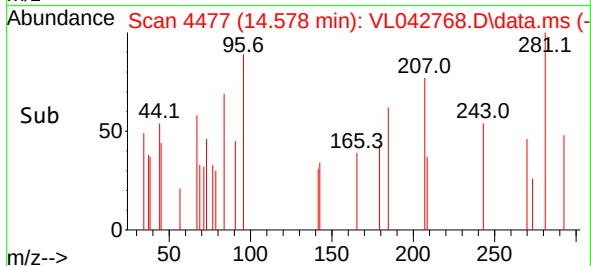
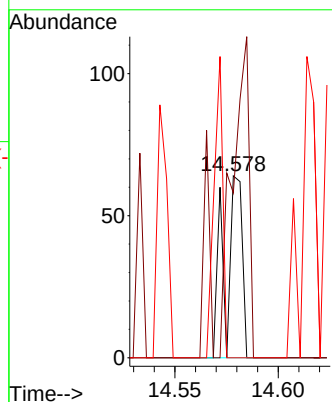
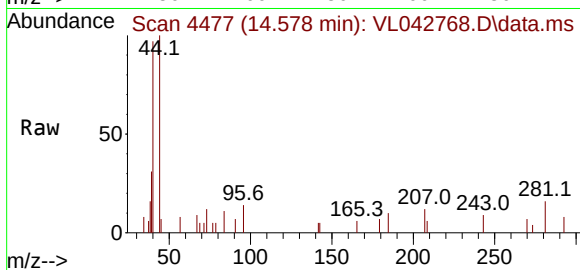
Acq: 24 Jul 2025 16:53

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion:	142	Resp:	36
Ion	Ratio	Lower	Upper
142	100		
141	219.4	65.8	98.8#
115	86.1	31.2	46.8#



#81

1,2,4-Trichlorobenzene

Concen: 0.436 ppbv

RT: 13.468 min Scan# 4134

Delta R.T. 0.029 min

Lab File: VL042768.D

Acq: 24 Jul 2025 16:53

Tgt Ion:	180	Resp:	28
Ion	Ratio	Lower	Upper
180	100		
182	0.0	76.2	114.2#
184	0.0	24.8	37.2#

