

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072425\
 Data File : VL042770.D
 Acq On : 24 Jul 2025 18:05
 Operator : SY/MD
 Sample : Q2671-03DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 25 01:30:37 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	2.793	49	153526	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	414561	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	358888	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	280181	9.858	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.600%

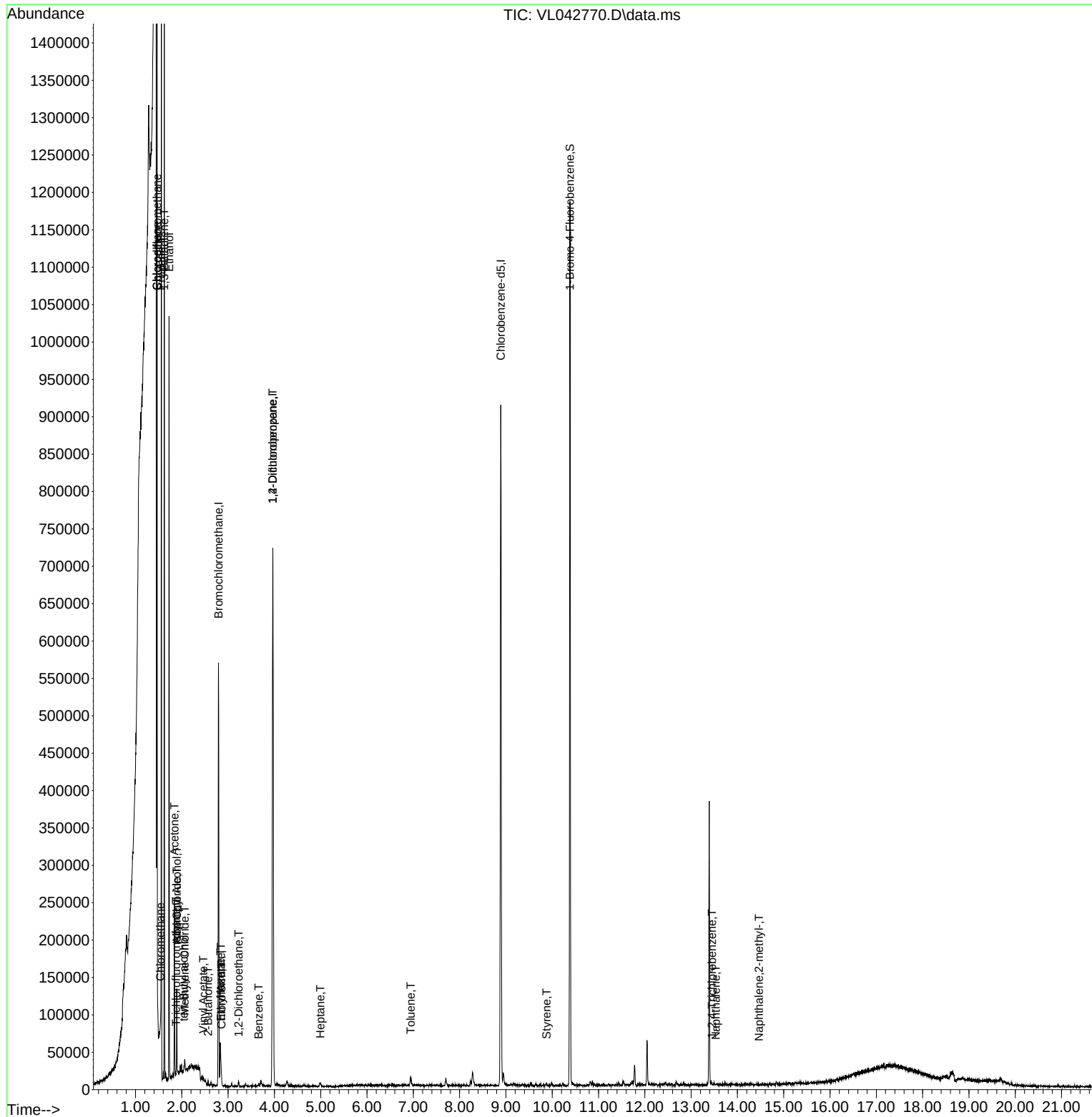
Target Compounds						Qvalue
3) Chlorodifluoromethane	1.463	51	488053	18.457	ppbv #	58
4) Chloromethane	1.534	50	753	0.092	ppbv #	84
7) Chloroethane	1.466	64	20213	6.448	ppbv	98
9) Propene	1.557	41	228800	23.808	ppbv	97
10) Heptane	4.991	43	662	0.026	ppbv #	78
11) Trichlorofluoromethane	1.877	101	508	0.024	ppbv #	74
13) Ethanol	1.725	45	347930	496.065	ppbv	88
15) Acetone	1.839	43	94811	4.472	ppbv	99
16) 1,3-Butadiene	1.622	39	81810	9.047	ppbv #	18
17) tert-Butyl alcohol	2.046	59	1578	0.083	ppbv #	72
19) Isopropyl Alcohol	1.890	45	43059	3.822	ppbv #	70
20) Methylene Chloride	2.065	84	1548	0.232	ppbv #	80
21) Allyl Chloride	1.890	41	4310	0.330	ppbv #	18
23) Vinyl Acetate	2.463	43	1017	0.040	ppbv #	80
25) Ethyl Acetate	2.848	43	21871	0.466	ppbv #	93
26) Hexane	2.832	57	11237	0.546	ppbv	84
29) Chloroform	2.855	83	2959	0.093	ppbv #	71
34) 2-Butanone	2.567	43	3750	0.128	ppbv	96
36) Benzene	3.661	78	912	0.023	ppbv #	61
37) 1,2-Dichloroethane	3.227	62	1943	0.082	ppbv #	81
39) 1,2-Dichloropropane	3.965	63	107291	7.398	ppbv #	22
53) Toluene	6.946	91	2214	0.052	ppbv #	1
61) Styrene	9.875	104	872	0.046	ppbv #	70
79) Naphthalene	13.533	128	131	0.437	ppbv #	69
80) Naphthalene,2-methyl-	14.465	142	40	1.130	ppbv #	35
81) 1,2,4-Trichlorobenzene	13.452	180	51	0.437	ppbv #	18

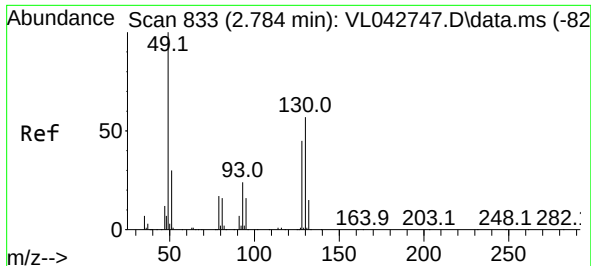
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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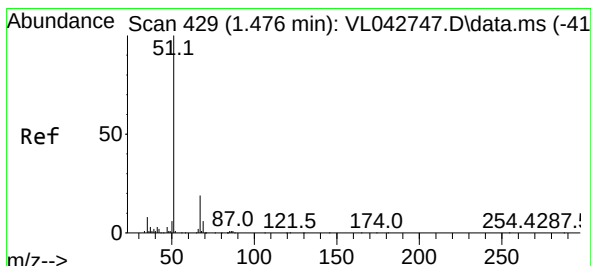
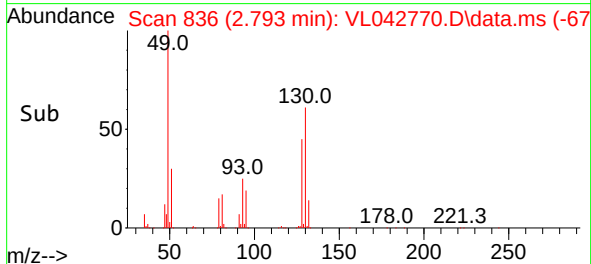
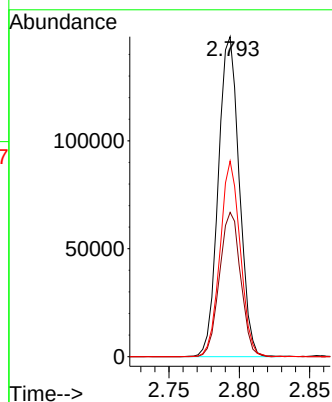
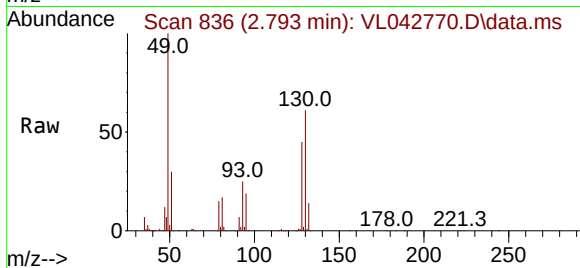




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.793 min Scan# 81
Delta R.T. 0.009 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

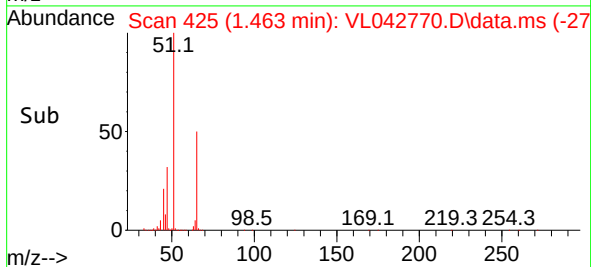
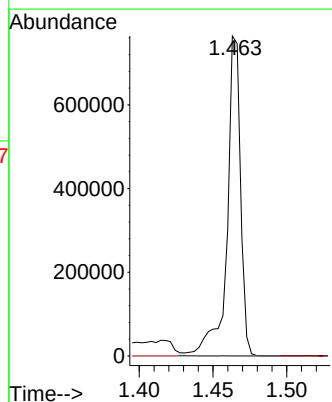
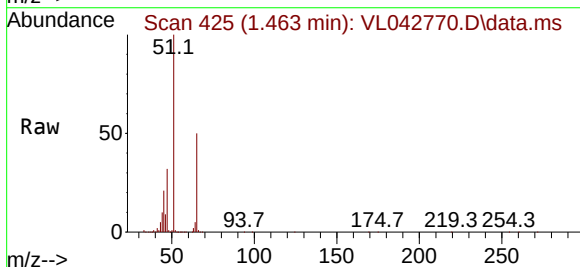
Instrument :
MSVOA_L
ClientSampleId :

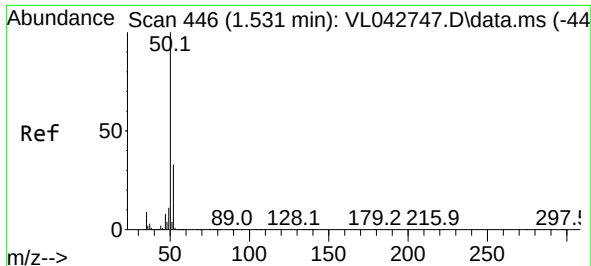
Tgt Ion: 49 Resp: 153526
Ion Ratio Lower Upper
49 100
128 45.7 23.6 71.0
130 58.9 30.3 90.8



#3
Chlorodifluoromethane
Concen: 18.457 ppbv
RT: 1.463 min Scan# 425
Delta R.T. -0.013 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion: 51 Resp: 488053
Ion Ratio Lower Upper
51 100
67 0.0 15.0 22.6#

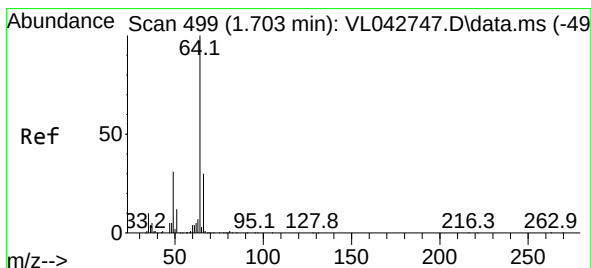
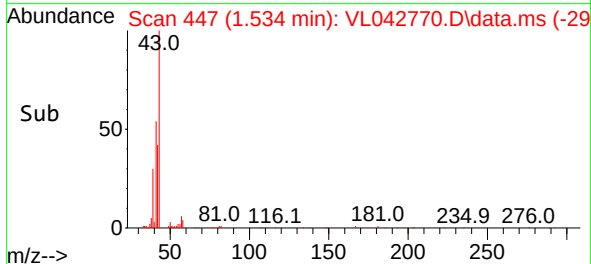
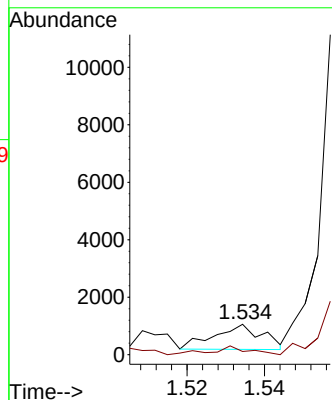
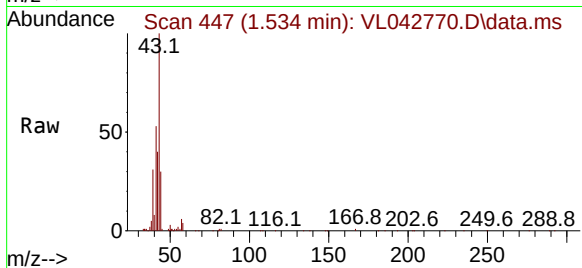




#4
Chloromethane
Concen: 0.092 ppbv
RT: 1.534 min Scan# 446
Delta R.T. 0.003 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

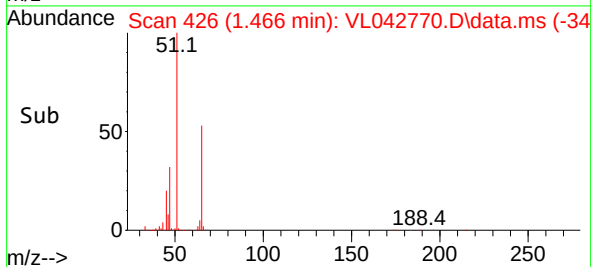
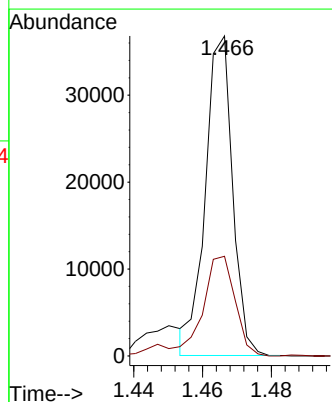
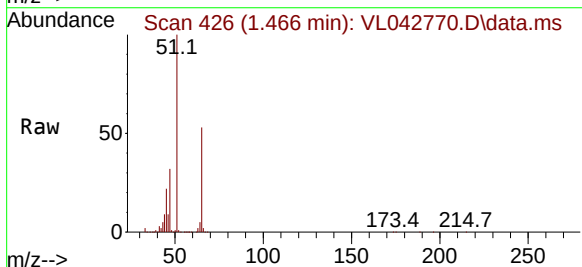
Instrument :
MSVOA_L
ClientSampleId :

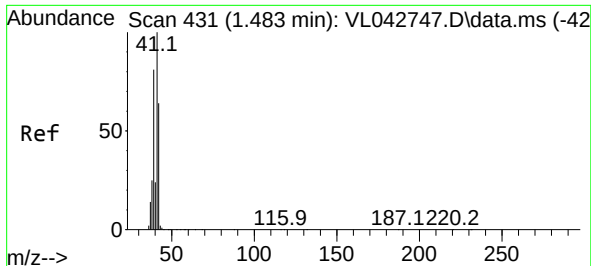
Tgt Ion: 50 Resp: 753
Ion Ratio Lower Upper
50 100
52 42.5 26.6 40.0#



#7
Chloroethane
Concen: 6.448 ppbv
RT: 1.466 min Scan# 426
Delta R.T. -0.236 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion: 64 Resp: 20213
Ion Ratio Lower Upper
64 100
66 31.1 24.1 36.1

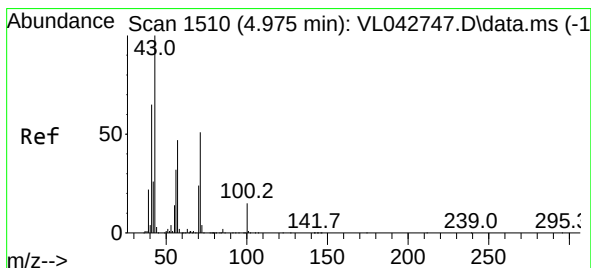
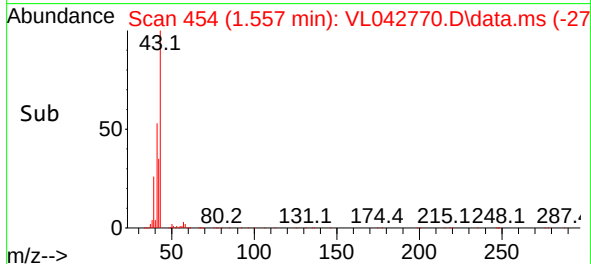
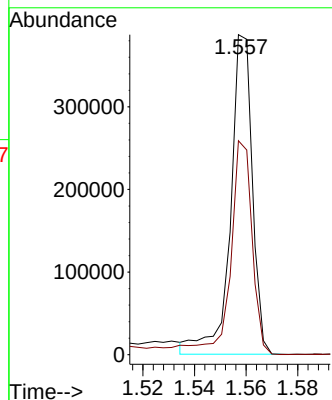
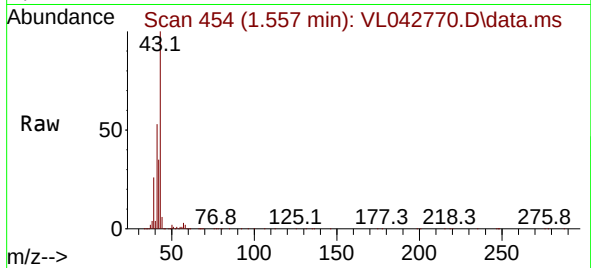




#9
 Propene
 Concen: 23.808 ppbv
 RT: 1.557 min Scan# 41
 Delta R.T. 0.074 min
 Lab File: VL042770.D
 Acq: 24 Jul 2025 18:05

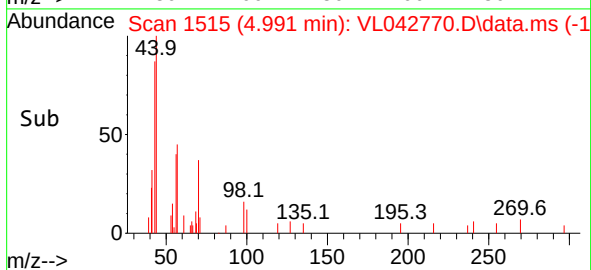
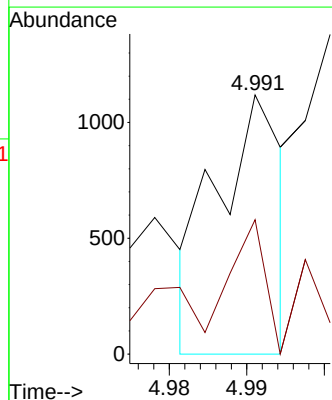
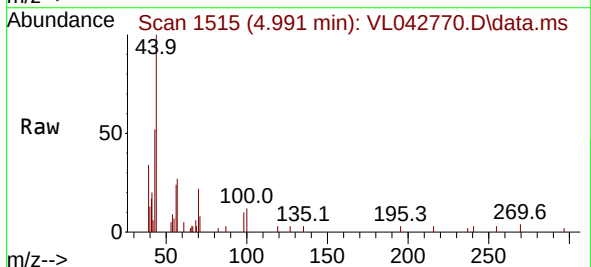
Instrument :
 MSVOA_L
 ClientSampleId :

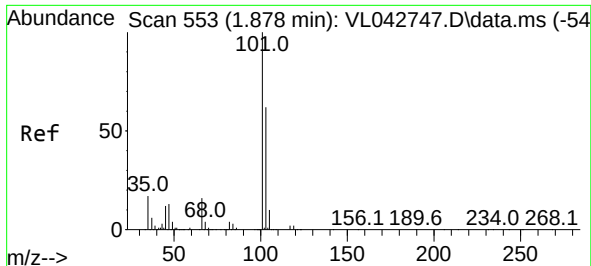
Tgt Ion: 41 Resp: 228800
 Ion Ratio Lower Upper
 41 100
 42 68.8 53.2 79.8



#10
 Heptane
 Concen: 0.026 ppbv
 RT: 4.991 min Scan# 1515
 Delta R.T. 0.016 min
 Lab File: VL042770.D
 Acq: 24 Jul 2025 18:05

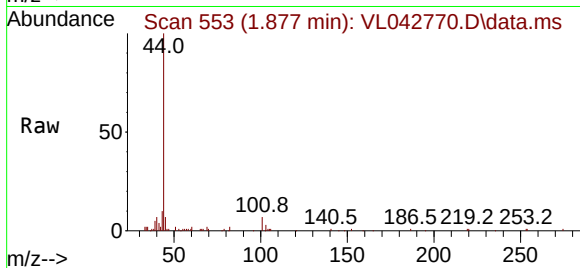
Tgt Ion: 43 Resp: 662
 Ion Ratio Lower Upper
 43 100
 57 64.8 39.9 59.9#



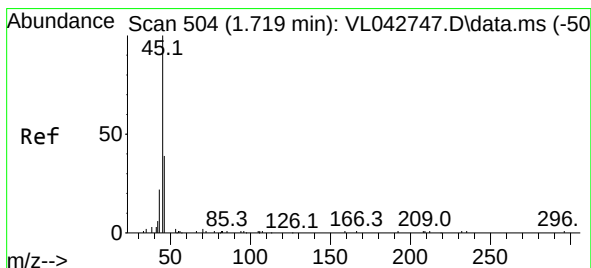
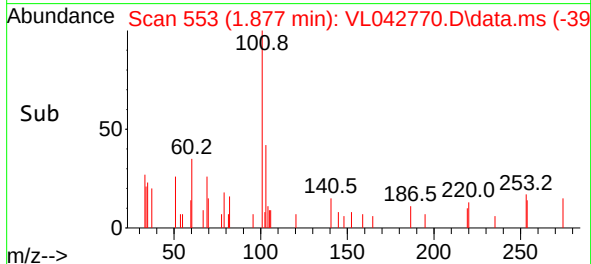
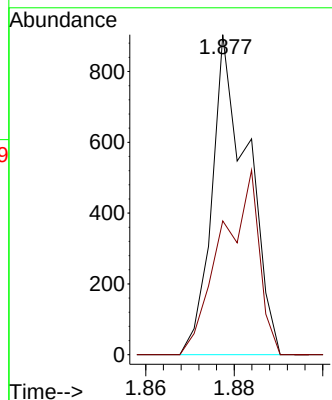


#11
 Trichlorofluoromethane
 Concen: 0.024 ppbv
 RT: 1.877 min Scan# 506
 Delta R.T. -0.000 min
 Lab File: VL042770.D
 Acq: 24 Jul 2025 18:05

Instrument :
 MSVOA_L
 ClientSampleId :

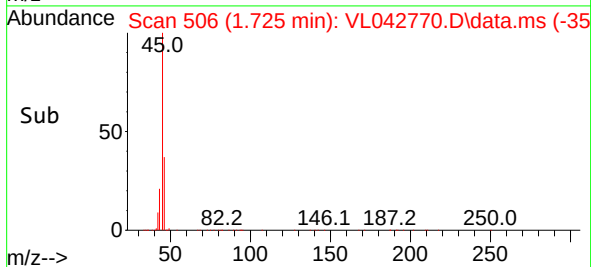
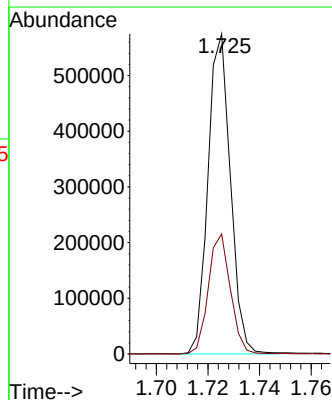
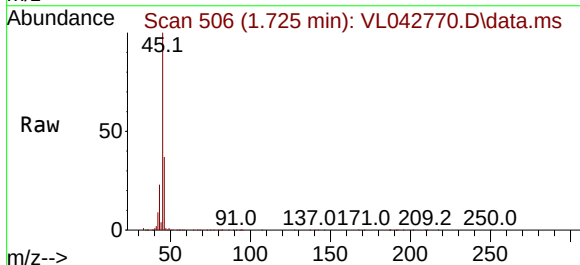


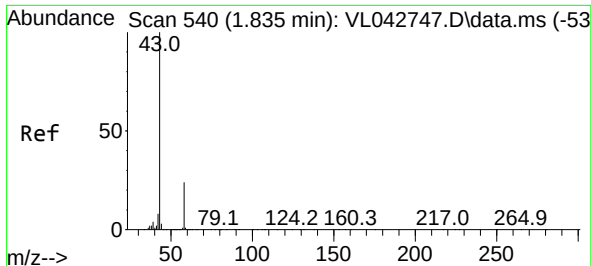
Tgt Ion:101 Resp: 508
 Ion Ratio Lower Upper
 101 100
 103 41.8 49.6 74.4#



#13
 Ethanol
 Concen: 496.065 ppbv
 RT: 1.725 min Scan# 506
 Delta R.T. 0.006 min
 Lab File: VL042770.D
 Acq: 24 Jul 2025 18:05

Tgt Ion: 45 Resp: 347930
 Ion Ratio Lower Upper
 45 100
 46 37.0 17.8 71.4

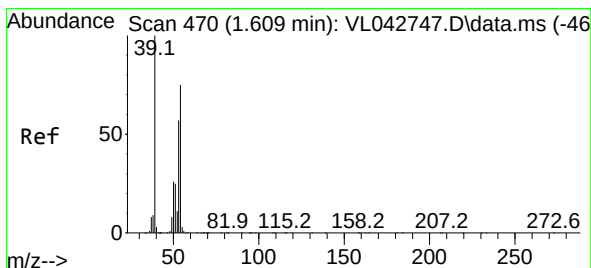
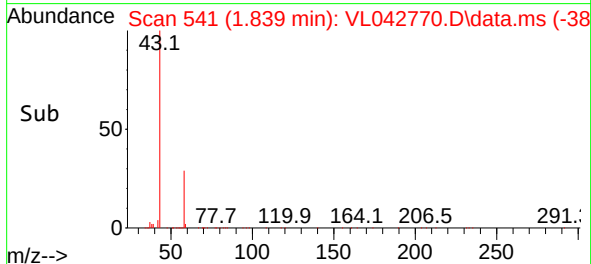
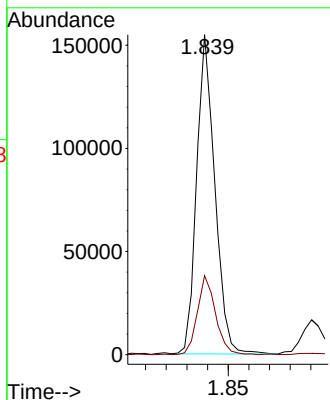
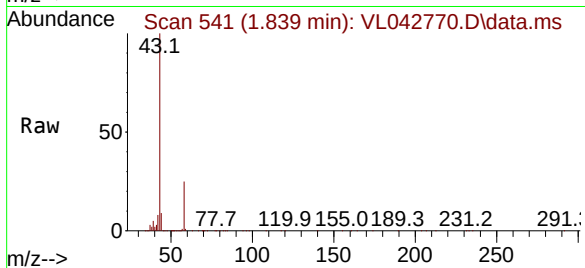




#15
Acetone
Concen: 4.472 ppbv
RT: 1.839 min Scan# 541
Delta R.T. 0.003 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

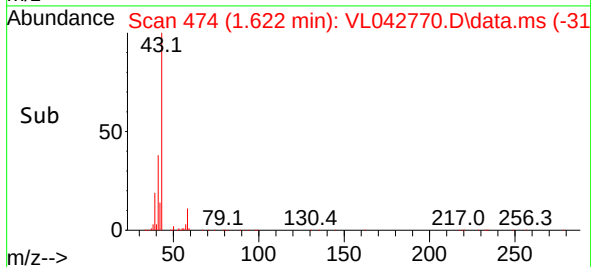
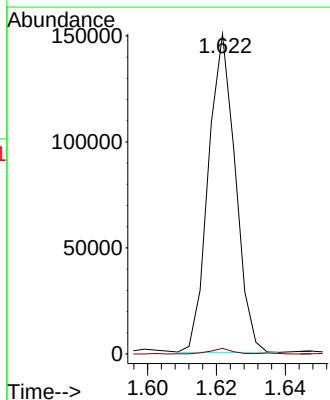
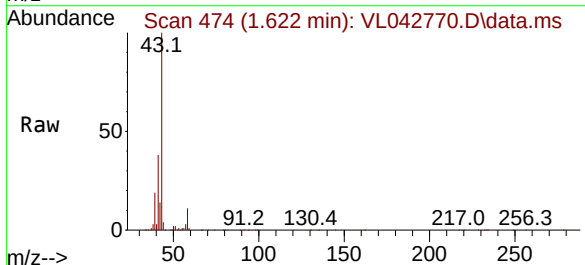
Instrument :
MSVOA_L
ClientSampleId :

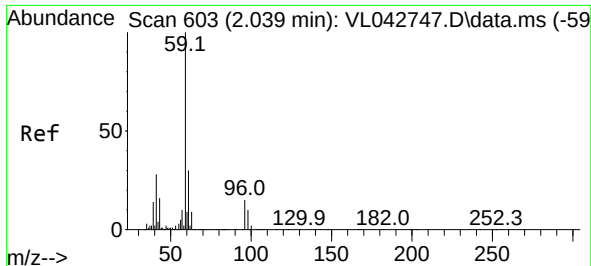
Tgt Ion: 43 Resp: 94811
Ion Ratio Lower Upper
43 100
58 25.1 19.8 29.8



#16
1,3-Butadiene
Concen: 9.047 ppbv
RT: 1.622 min Scan# 474
Delta R.T. 0.013 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion: 39 Resp: 81810
Ion Ratio Lower Upper
39 100
54 1.7 54.5 81.7#





#17

tert-Butyl alcohol

Concen: 0.083 ppbv

RT: 2.046 min Scan# 603

Delta R.T. 0.006 min

Lab File: VL042770.D

Acq: 24 Jul 2025 18:05

Instrument :

MSVOA_L

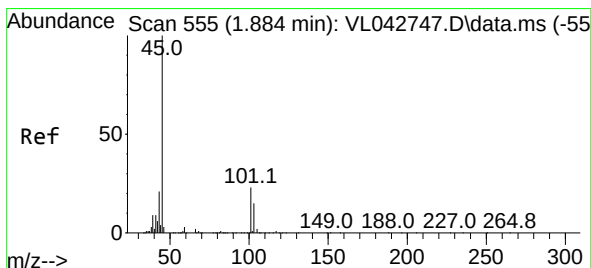
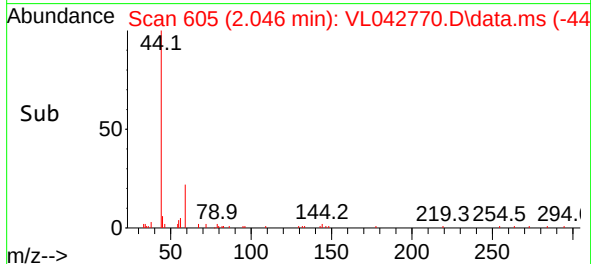
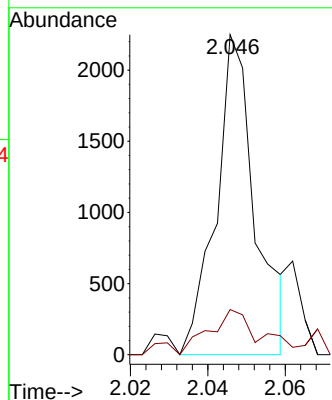
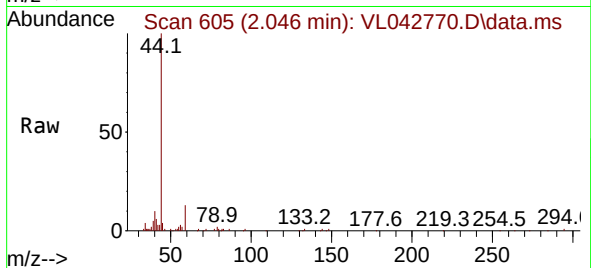
ClientSampleId :

Tgt Ion: 59 Resp: 1578

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#



#19

Isopropyl Alcohol

Concen: 3.822 ppbv

RT: 1.890 min Scan# 557

Delta R.T. 0.006 min

Lab File: VL042770.D

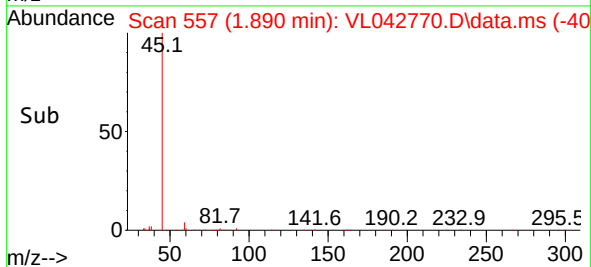
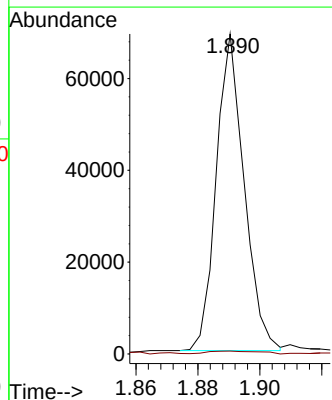
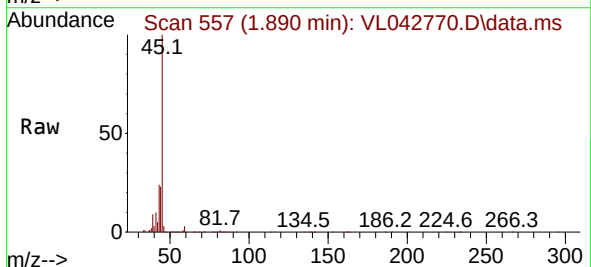
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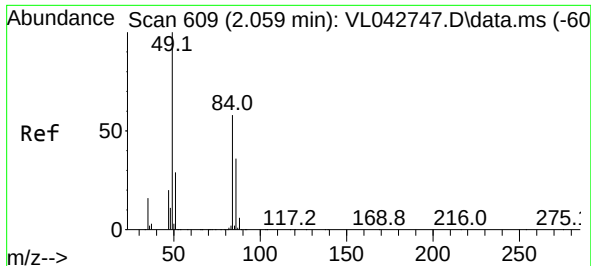
Tgt Ion: 45 Resp: 43059

Ion Ratio Lower Upper

45 100

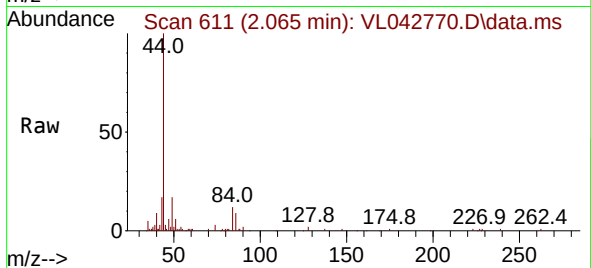
58 55.2 30.0 45.0#



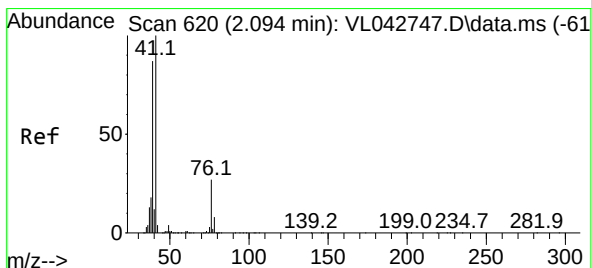
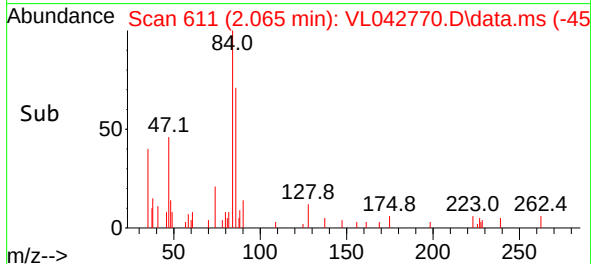
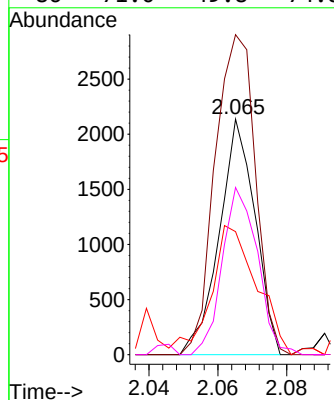


#20
Methylene Chloride
Concen: 0.232 ppbv
RT: 2.065 min Scan# 611
Delta R.T. 0.006 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Instrument :
MSVOA_L
ClientSampleId :

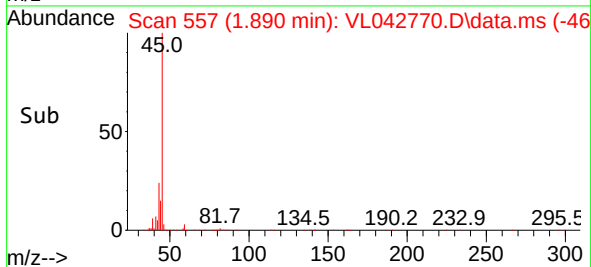
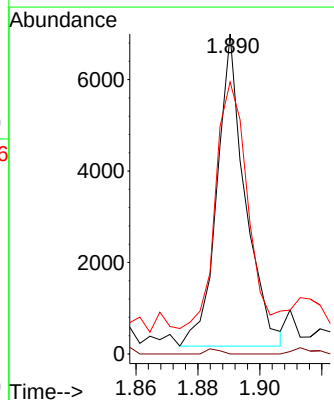
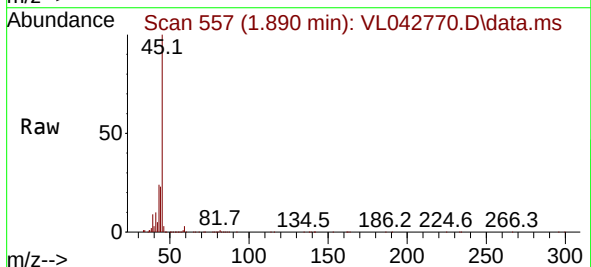


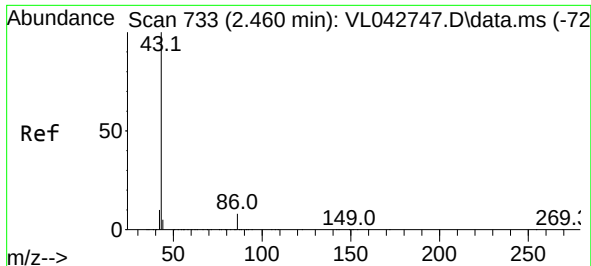
Tgt Ion: 84 Resp: 1548
Ion Ratio Lower Upper
84 100
49 135.9 138.6 208.0#
51 44.9 40.6 61.0
86 71.0 49.8 74.8



#21
Allyl Chloride
Concen: 0.330 ppbv
RT: 1.890 min Scan# 557
Delta R.T. -0.204 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

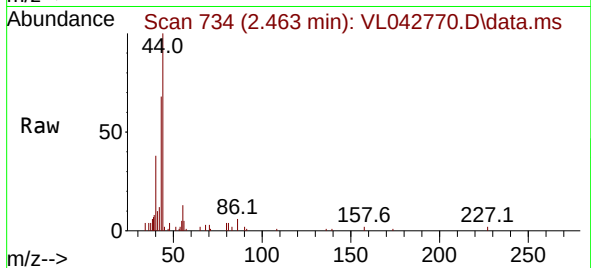
Tgt Ion: 41 Resp: 4310
Ion Ratio Lower Upper
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76 2.7 21.1 31.7#
39 0.0 68.3 102.5#



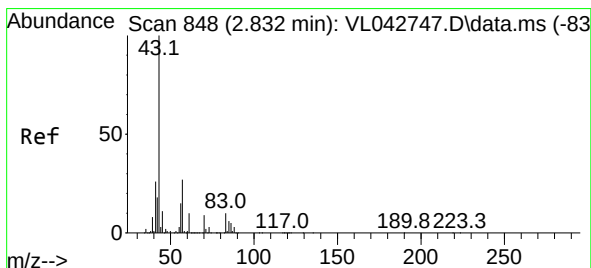
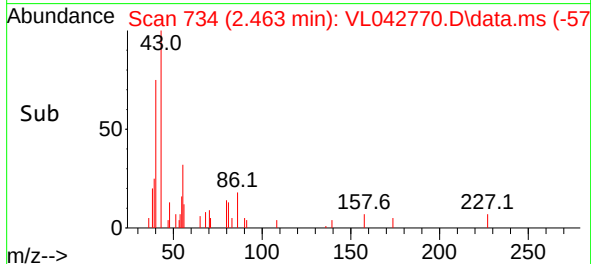
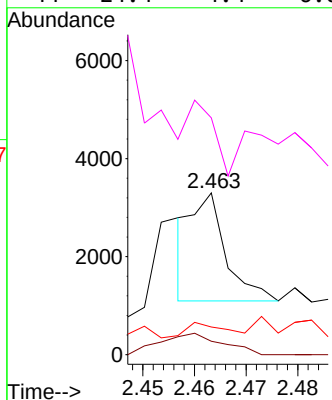


#23
Vinyl Acetate
Concen: 0.040 ppbv
RT: 2.463 min Scan# 71
Delta R.T. 0.003 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Instrument :
MSVOA_L
ClientSampleId :

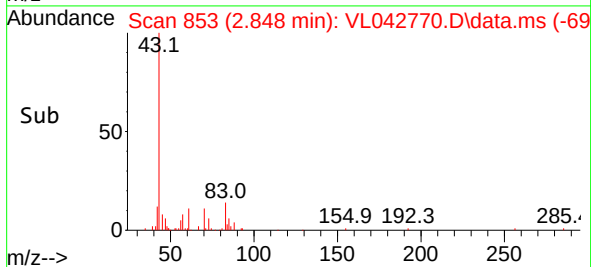
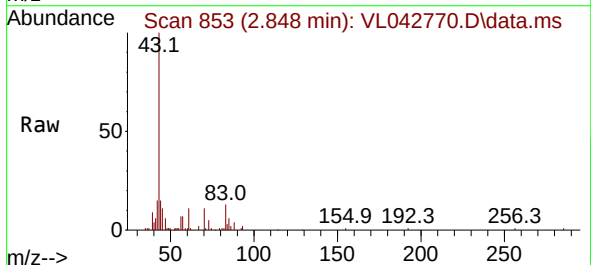
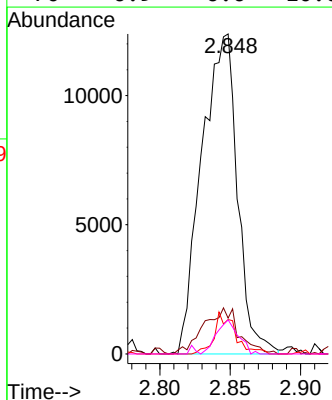


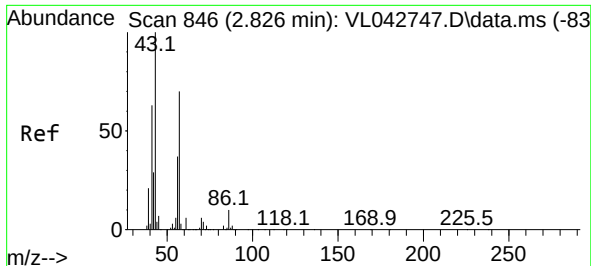
Tgt Ion:	43	Resp:	1017
Ion	Ratio	Lower	Upper
43	100		
86	12.4	6.1	9.1#
42	8.0	7.8	11.8
44	24.4	4.4	6.6#



#25
Ethyl Acetate
Concen: 0.466 ppbv
RT: 2.848 min Scan# 853
Delta R.T. 0.016 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion:	43	Resp:	21871
Ion	Ratio	Lower	Upper
43	100		
45	15.0	7.8	11.6#
61	7.6	6.7	10.1
70	6.9	6.6	10.0

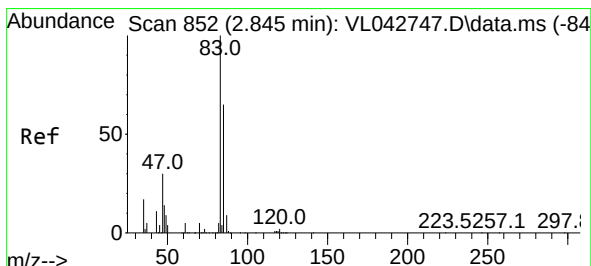
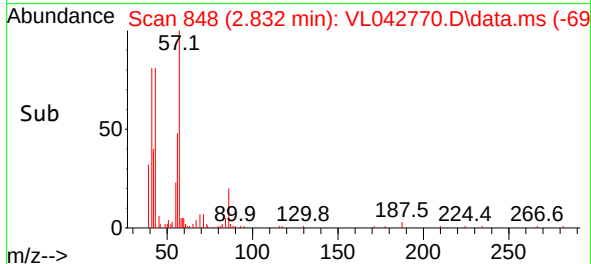
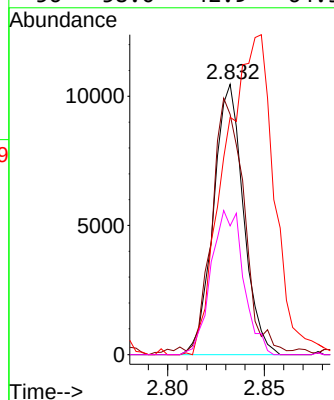
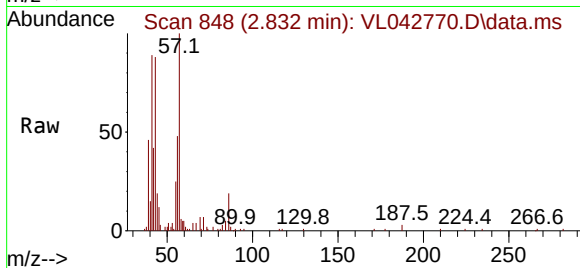




#26
Hexane
Concen: 0.546 ppbv
RT: 2.832 min Scan# 846
Delta R.T. 0.006 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

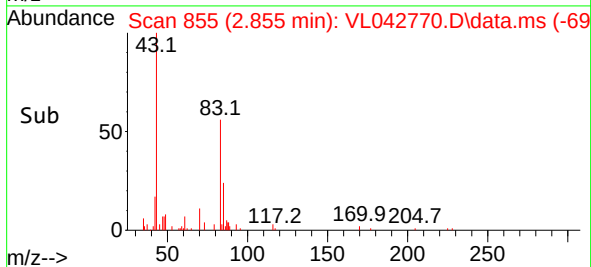
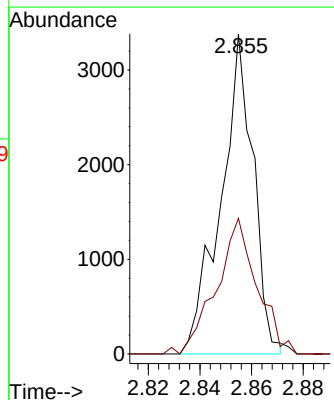
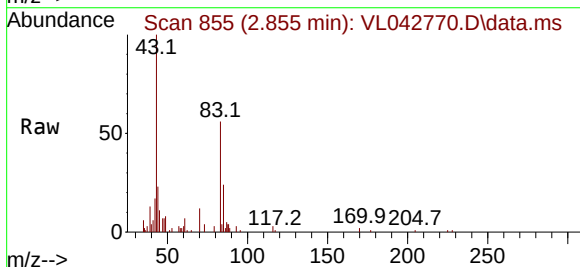
Instrument :
MSVOA_L
ClientSampleId :

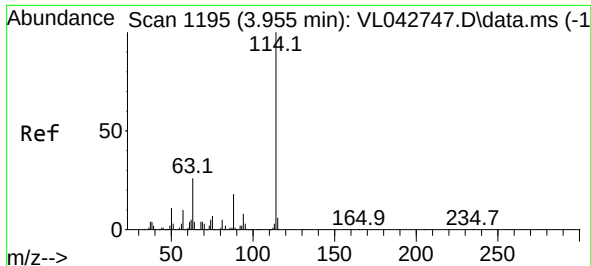
Tgt Ion: 57 Resp: 11237
Ion Ratio Lower Upper
57 100
41 104.7 75.4 113.2
43 196.4 185.0 277.6
56 58.0 42.9 64.3



#29
Chloroform
Concen: 0.093 ppbv
RT: 2.855 min Scan# 855
Delta R.T. 0.010 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion: 83 Resp: 2959
Ion Ratio Lower Upper
83 100
85 42.4 52.2 78.2#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.965 min Scan# 1195

Delta R.T. 0.010 min

Lab File: VL042770.D

Acq: 24 Jul 2025 18:05

Instrument :

MSVOA_L

ClientSampleId :

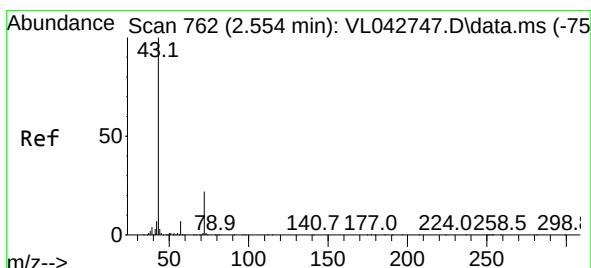
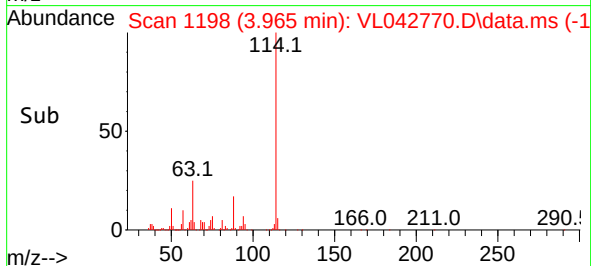
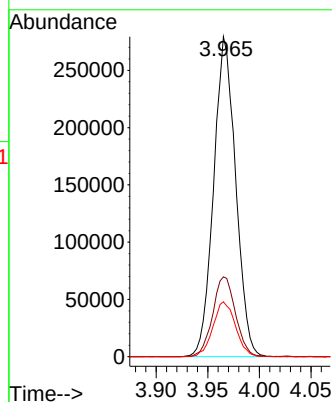
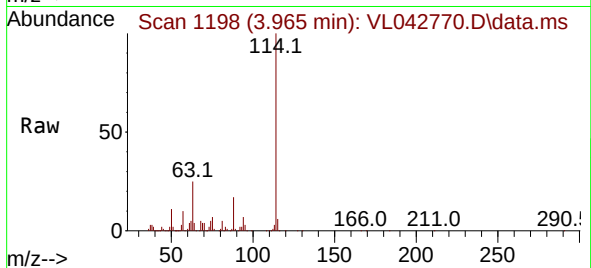
Tgt Ion:114 Resp: 414561

Ion Ratio Lower Upper

114 100

63 26.0 20.5 30.7

88 17.6 14.0 21.0



#34

2-Butanone

Concen: 0.128 ppbv

RT: 2.567 min Scan# 766

Delta R.T. 0.013 min

Lab File: VL042770.D

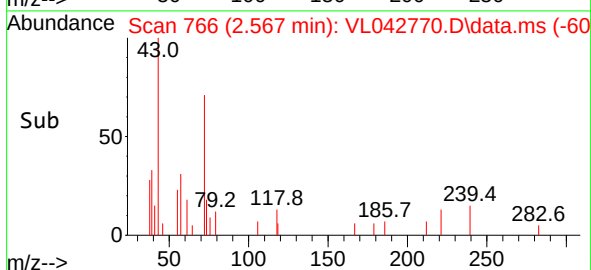
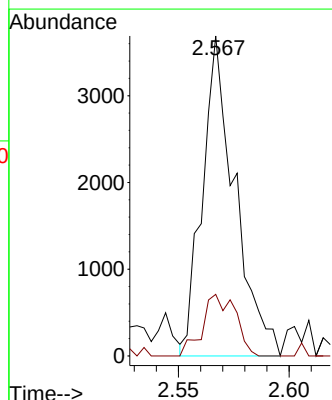
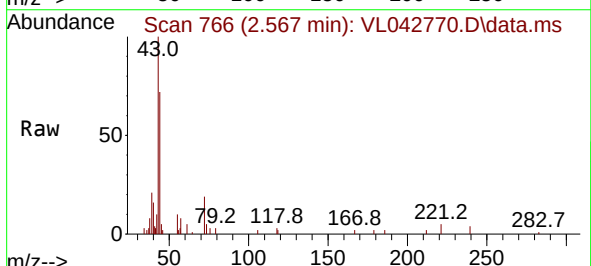
Acq: 24 Jul 2025 18:05

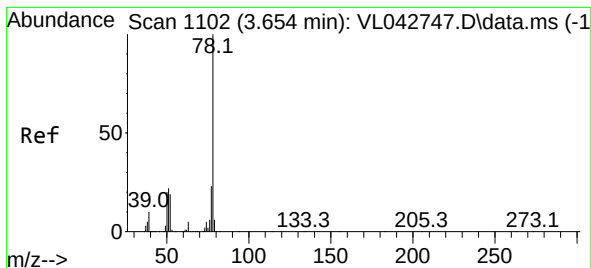
Tgt Ion: 43 Resp: 3750

Ion Ratio Lower Upper

43 100

72 19.7 17.4 26.0





#36

Benzene

Concen: 0.023 ppbv

RT: 3.661 min Scan# 1102

Delta R.T. 0.006 min

Lab File: VL042770.D

Acq: 24 Jul 2025 18:05

Instrument :

MSVOA_L

ClientSampleId :

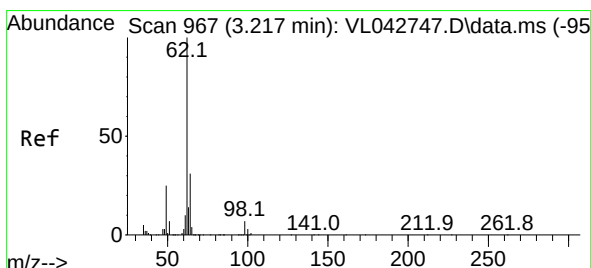
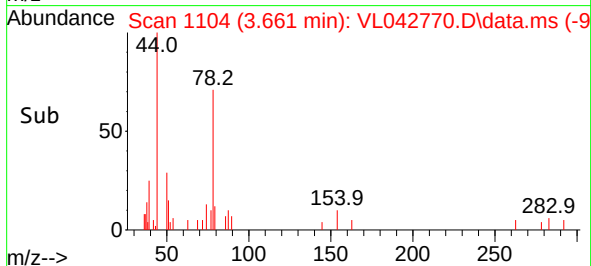
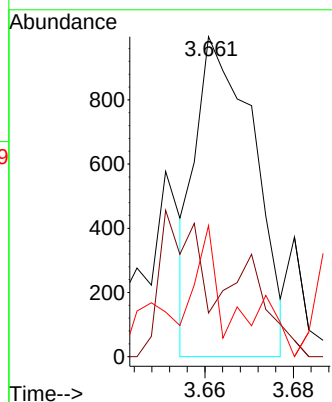
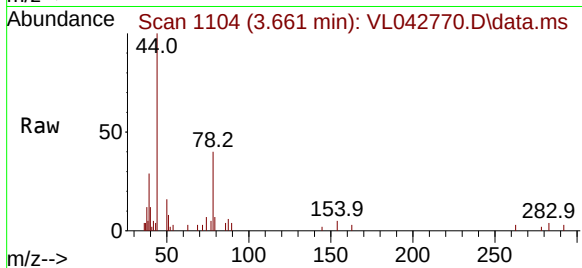
Tgt Ion: 78 Resp: 912

Ion	Ratio	Lower	Upper
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78	100		
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77	4.3	18.5	27.7#
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50	38.0	16.2	24.2#
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#37

1,2-Dichloroethane

Concen: 0.082 ppbv

RT: 3.227 min Scan# 970

Delta R.T. 0.010 min

Lab File: VL042770.D

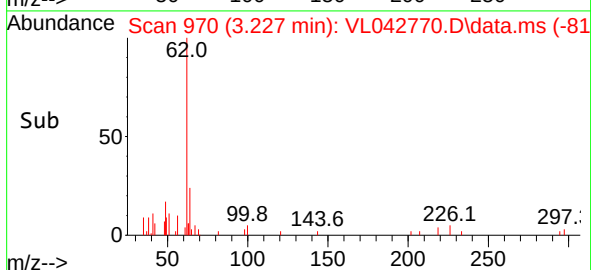
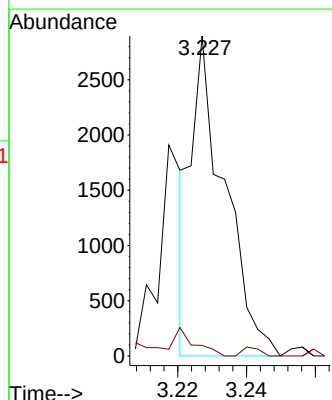
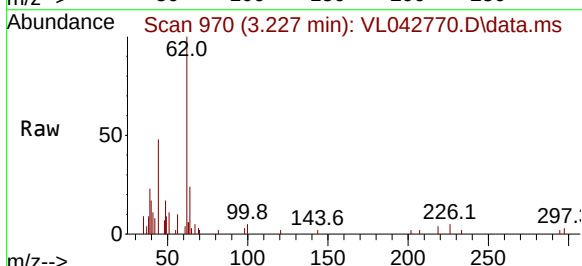
Acq: 24 Jul 2025 18:05

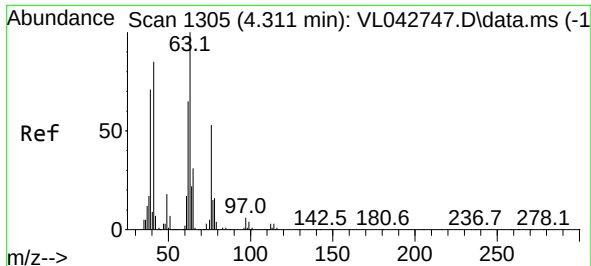
Tgt Ion: 62 Resp: 1943

Ion	Ratio	Lower	Upper
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62	100		
----	-----	--	--

98	0.0	5.2	7.8#
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#39

1,2-Dichloropropane

Concen: 7.398 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. -0.346 min

Lab File: VL042770.D

Acq: 24 Jul 2025 18:05

Instrument :

MSVOA_L

ClientSampleId :

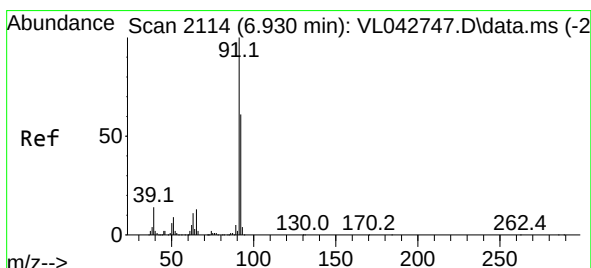
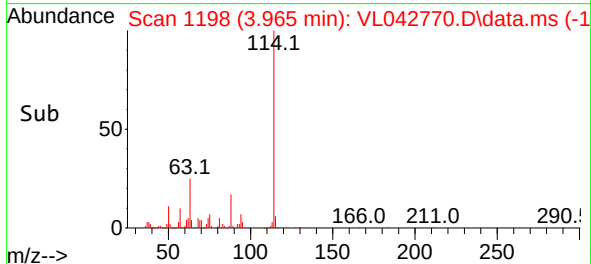
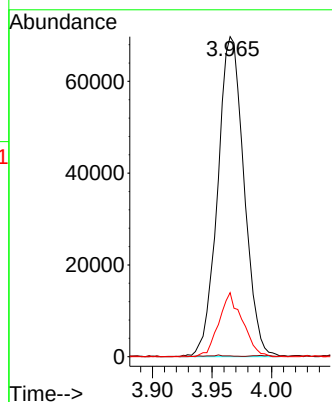
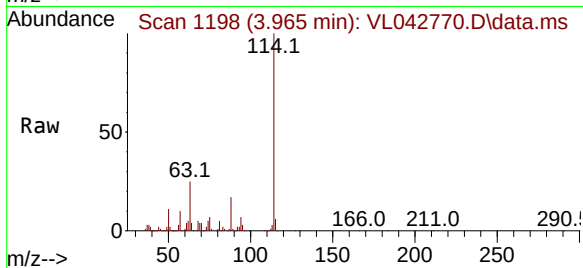
Tgt Ion: 63 Resp: 107291

Ion Ratio Lower Upper

63 100

41 0.1 68.2 102.4#

62 20.0 52.0 78.0#



#53

Toluene

Concen: 0.052 ppbv

RT: 6.946 min Scan# 2119

Delta R.T. 0.016 min

Lab File: VL042770.D

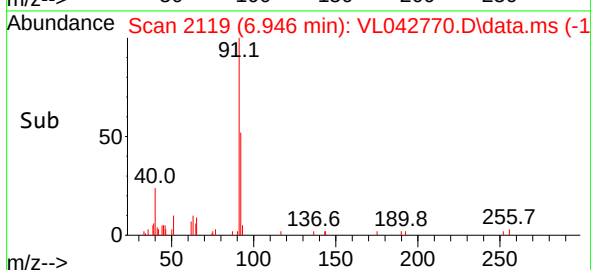
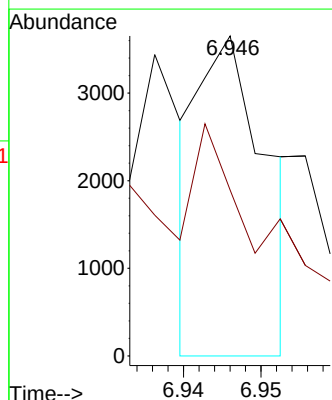
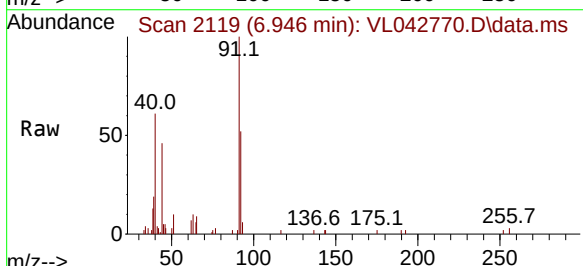
Acq: 24 Jul 2025 18:05

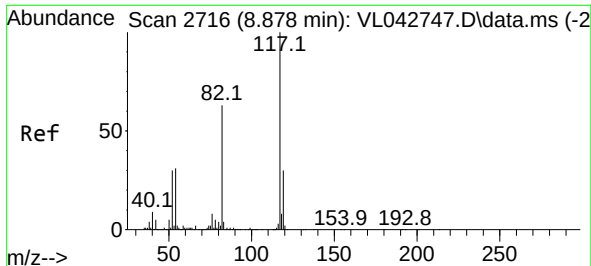
Tgt Ion: 91 Resp: 2214

Ion Ratio Lower Upper

91 100

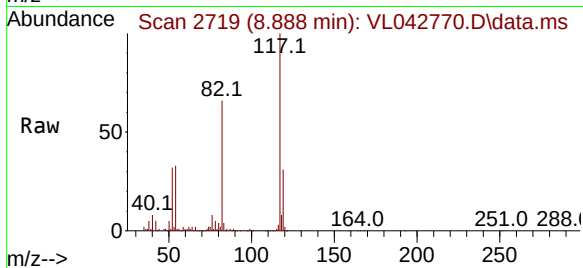
92 183.5 48.0 72.0#



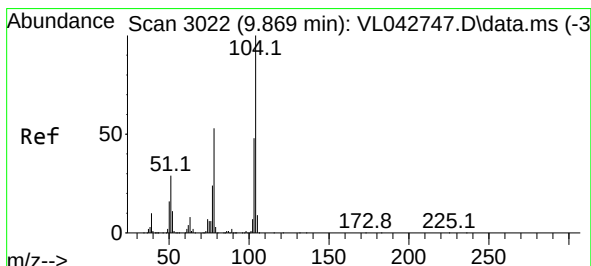
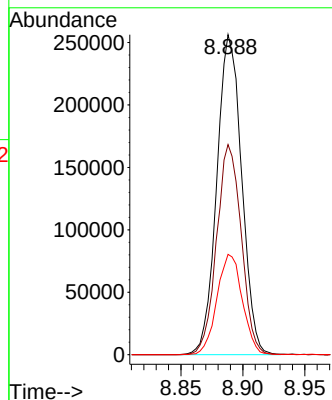
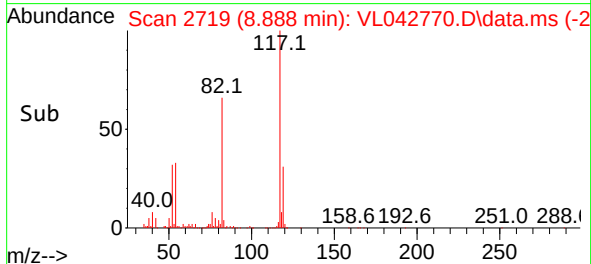


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 21
Delta R.T. 0.010 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

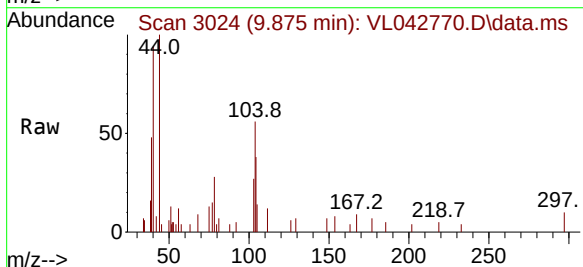
Instrument :
MSVOA_L
ClientSampleId :



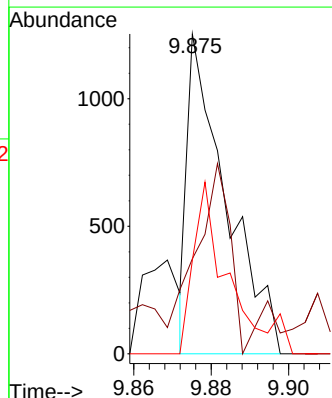
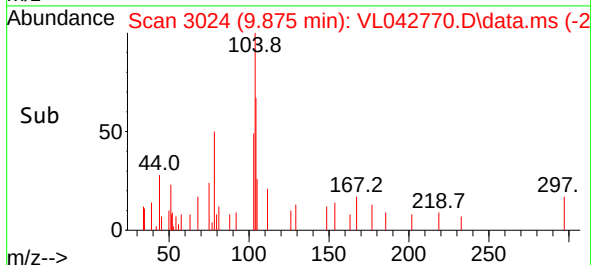
Tgt Ion:117 Resp: 358888
Ion Ratio Lower Upper
117 100
82 65.1 53.3 79.9
119 32.1 25.8 38.6

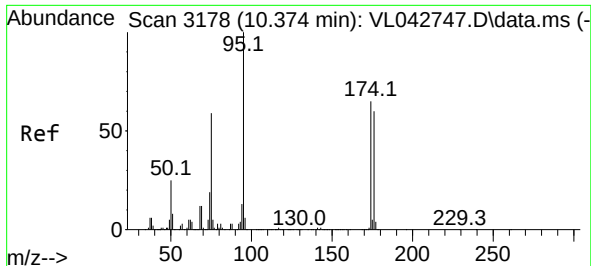


#61
Styrene
Concen: 0.046 ppbv
RT: 9.875 min Scan# 3024
Delta R.T. 0.006 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05



Tgt Ion:104 Resp: 872
Ion Ratio Lower Upper
104 100
78 90.3 41.5 62.3#
103 48.3 37.5 56.3

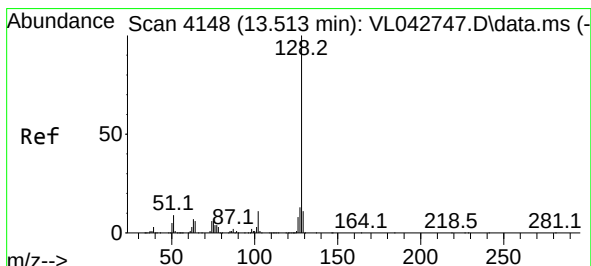
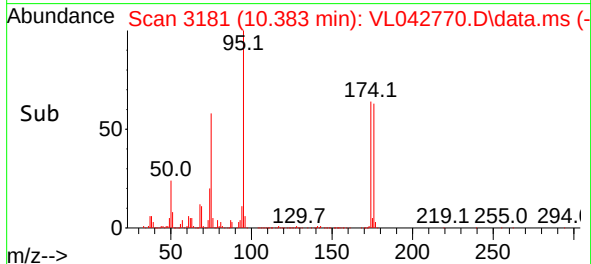
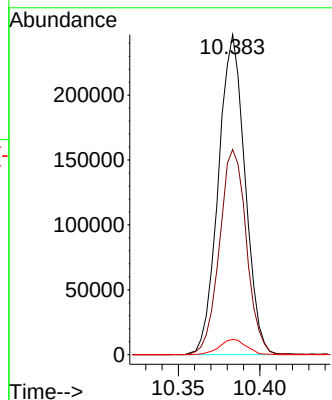
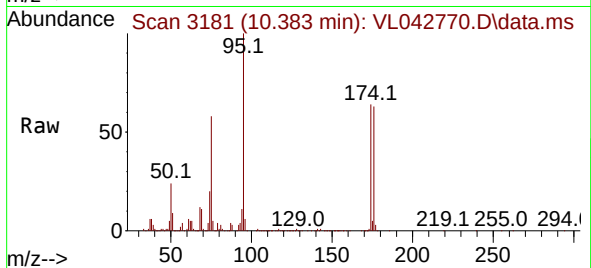




#68
1-Bromo-4-Fluorobenzene
Concen: 9.858 ppbv
RT: 10.383 min Scan# 3178
Delta R.T. 0.010 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

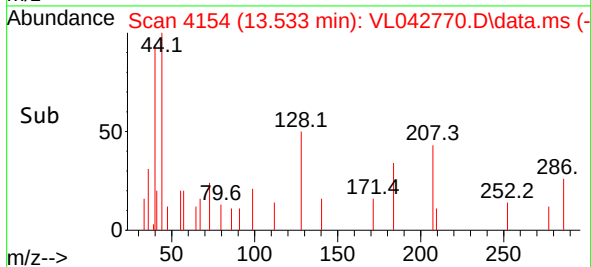
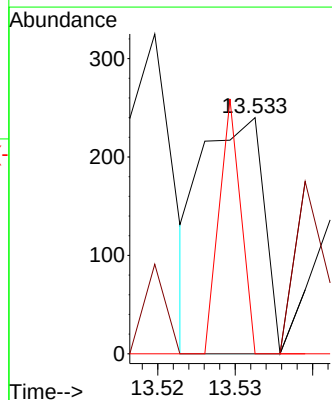
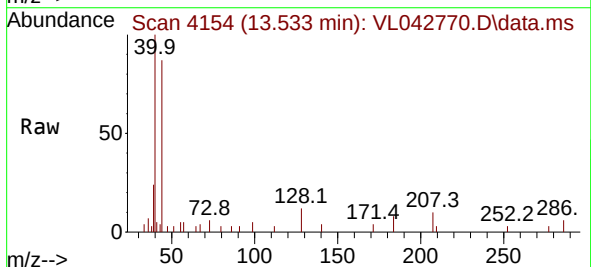
Instrument :
MSVOA_L
ClientSampleId :

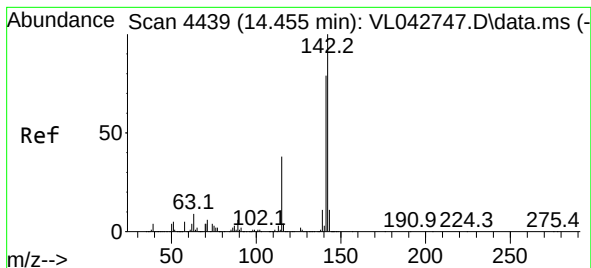
Tgt Ion: 95 Resp: 280181
Ion Ratio Lower Upper
95 100
174 65.2 53.8 80.6
175 4.9 4.0 6.0



#79
Naphthalene
Concen: 0.437 ppbv
RT: 13.533 min Scan# 4154
Delta R.T. 0.019 min
Lab File: VL042770.D
Acq: 24 Jul 2025 18:05

Tgt Ion: 128 Resp: 131
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: 14.465 min Scan# 4439

Delta R.T. 0.010 min

Lab File: VL042770.D

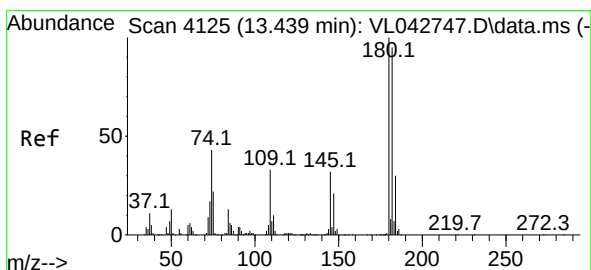
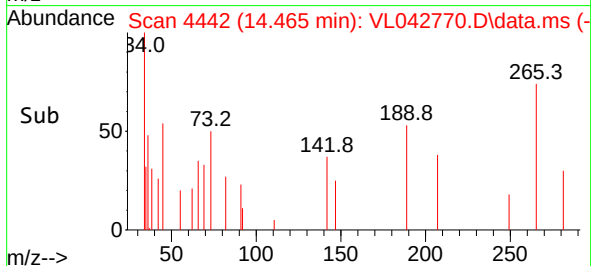
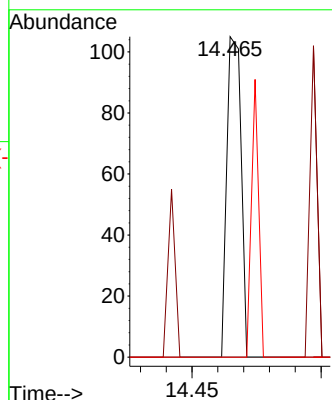
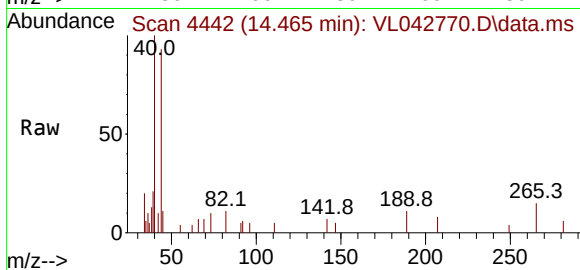
Acq: 24 Jul 2025 18:05

Instrument :

MSVOA_L

ClientSampleId :

Tgt Ion:	142	Resp:	40
Ion	Ratio	Lower	Upper
142	100		
141	0.0	65.8	98.8#
115	45.0	31.2	46.8



#81

1,2,4-Trichlorobenzene

Concen: 0.437 ppbv

RT: 13.452 min Scan# 4129

Delta R.T. 0.013 min

Lab File: VL042770.D

Acq: 24 Jul 2025 18:05

Tgt Ion:	180	Resp:	51
Ion	Ratio	Lower	Upper
180	100		
182	0.0	76.2	114.2#
184	49.0	24.8	37.2#

