

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL090825\
 Data File : VL042914.D
 Acq On : 08 Sep 2025 21:45
 Operator : SY/MD
 Sample : Q3052-04DUP
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1DUP

Quant Time: Sep 09 01:00:29 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 09 00:52:26 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.781	49	131415	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.946	114	322981	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	272303	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.368	95	204384	10.008	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.100%

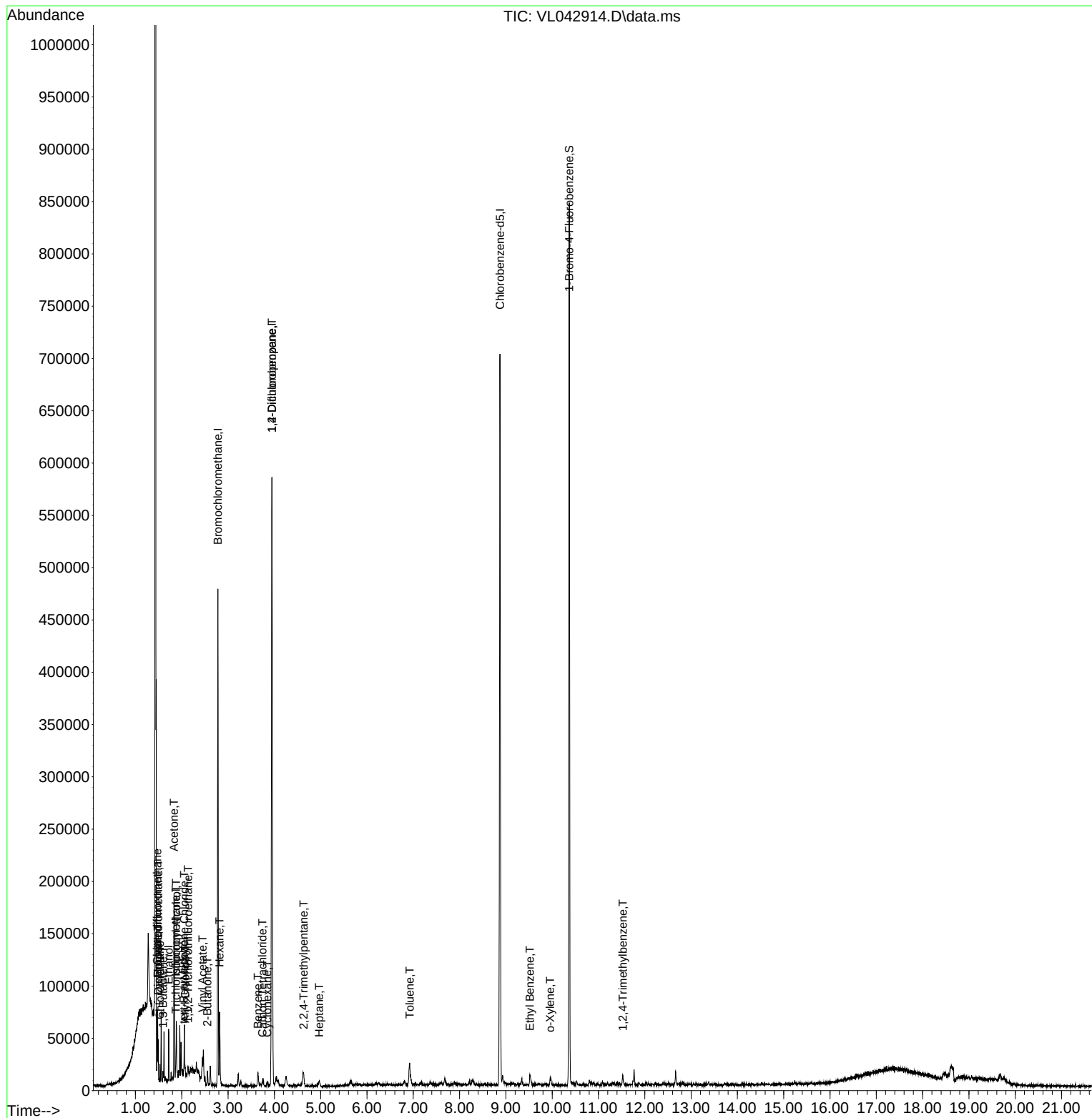
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.493	85	9503	0.493	ppbv	98
3) Chlorodifluoromethane	1.470	51	21749	1.022	ppbv	96
4) Chloromethane	1.528	50	4116	0.530	ppbv	97
9) Propene	1.480	41	7120	0.774	ppbv	98
10) Heptane	4.966	43	791	0.032	ppbv #	26
11) Trichlorofluoromethane	1.871	101	4428	0.233	ppbv	94
12) 1,1,2-Trichlorotrifluo...	2.137	101	1117	0.074	ppbv	95
13) Ethanol	1.716	45	16799	19.983	ppbv	93
15) Acetone	1.833	43	70651	4.064	ppbv	95
16) 1,3-Butadiene	1.596	39	1884	0.239	ppbv #	27
17) tert-Butyl alcohol	2.043	59	856	0.042	ppbv #	71
19) Isopropyl Alcohol	1.881	45	22696	2.186	ppbv #	40
20) Methylene Chloride	2.056	84	6670	0.916	ppbv	91
21) Allyl Chloride	2.072	41	604	0.049	ppbv #	1
23) Vinyl Acetate	2.447	43	9712	0.406	ppbv #	95
26) Hexane	2.816	57	12323	0.635	ppbv #	40
30) Cyclohexane	3.846	84	652	0.038	ppbv #	67
34) 2-Butanone	2.554	43	8271	0.379	ppbv	99
35) Carbon Tetrachloride	3.742	117	695	0.031	ppbv	98
36) Benzene	3.645	78	7688	0.249	ppbv #	87
39) 1,2-Dichloropropane	3.946	63	86087	7.621	ppbv #	27
44) 2,2,4-Trimethylpentane	4.632	57	3563	0.068	ppbv #	43
53) Toluene	6.924	91	5435	0.148	ppbv #	21
58) Ethyl Benzene	9.520	91	4054	0.084	ppbv	96
60) o-Xylene	9.957	91	2747	0.073	ppbv	84
74) 1,2,4-Trimethylbenzene	11.526	105	1736	0.040	ppbv #	50

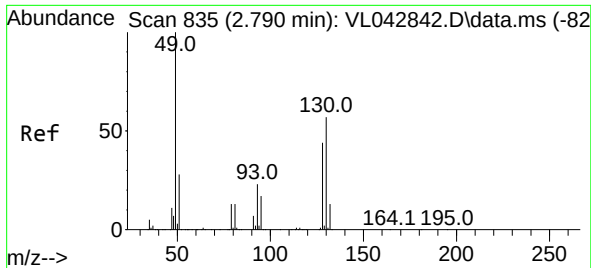
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Sep 09 01:00:29 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL081325AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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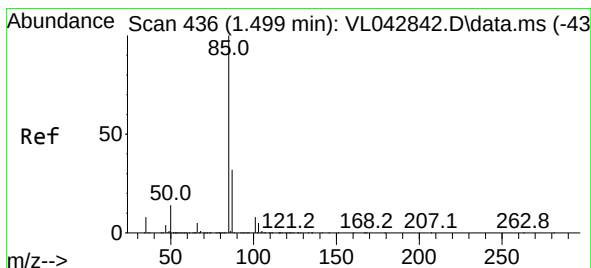
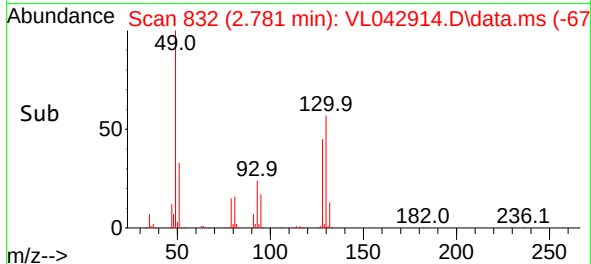
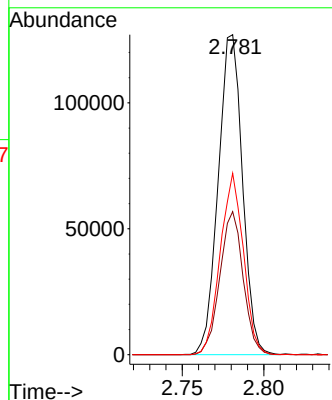
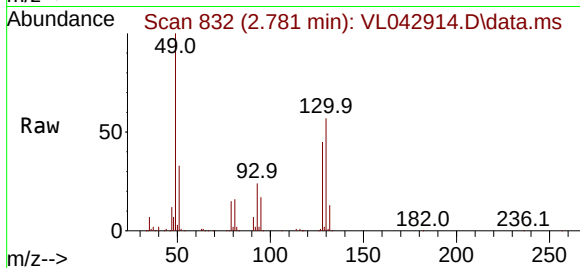




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.781 min Scan# 81
 Delta R.T. 0.004 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

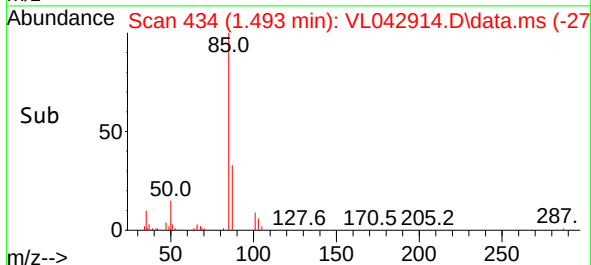
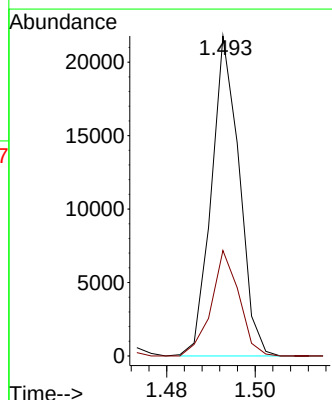
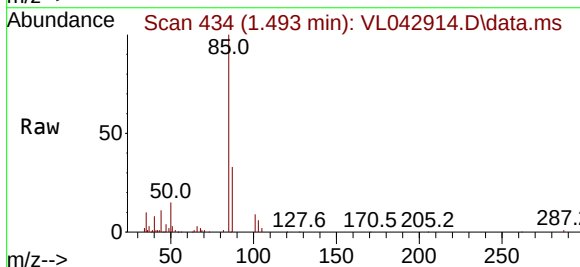
Instrument :
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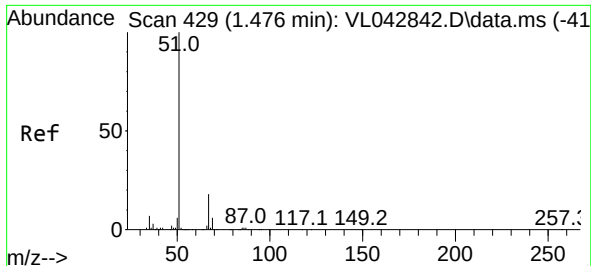
Tgt Ion: 49 Resp: 131415
 Ion Ratio Lower Upper
 49 100
 128 43.0 23.7 71.1
 130 54.1 30.6 91.6



#2
 Dichlorodifluoromethane
 Concen: 0.493 ppbv
 RT: 1.493 min Scan# 434
 Delta R.T. 0.000 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

Tgt Ion: 85 Resp: 9503
 Ion Ratio Lower Upper
 85 100
 87 32.9 25.3 37.9

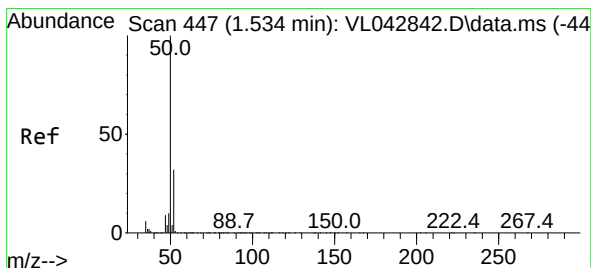
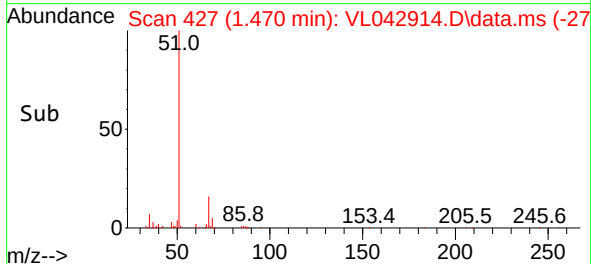
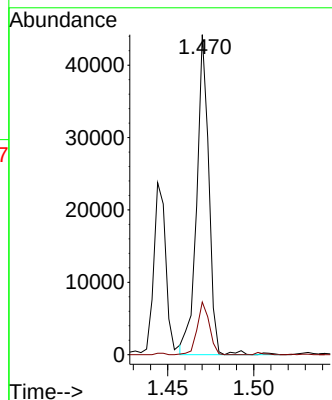
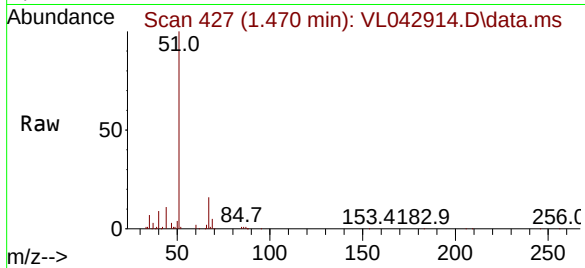




#3
Chlorodifluoromethane
Concen: 1.022 ppbv
RT: 1.470 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

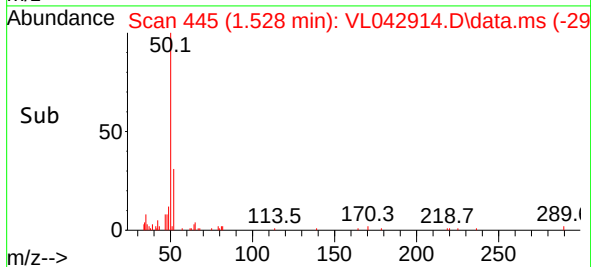
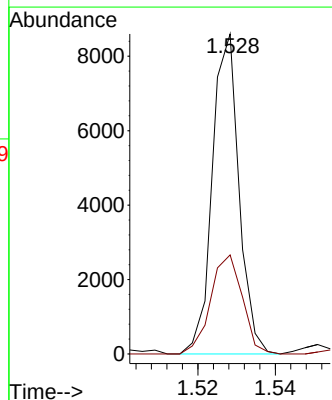
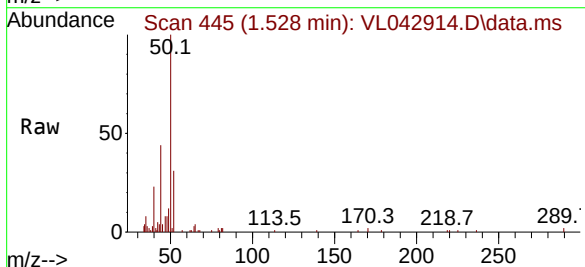
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

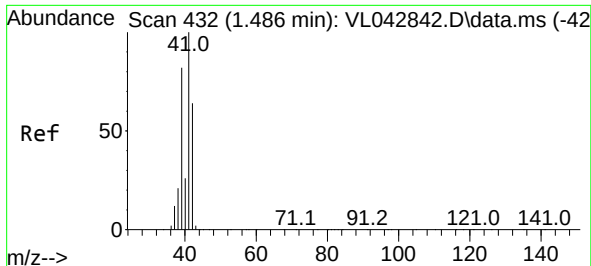
Tgt Ion: 51 Resp: 21749
Ion Ratio Lower Upper
51 100
67 16.8 14.9 22.3



#4
Chloromethane
Concen: 0.530 ppbv
RT: 1.528 min Scan# 445
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 50 Resp: 4116
Ion Ratio Lower Upper
50 100
52 31.0 25.9 38.9





#9

Propene

Concen: 0.774 ppbv

RT: 1.480 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042914.D

Acq: 08 Sep 2025 21:45

Instrument :

MSVOA_L

ClientSampleId :

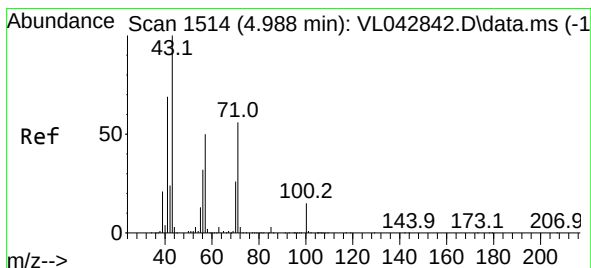
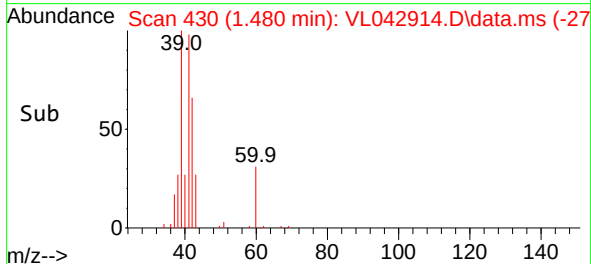
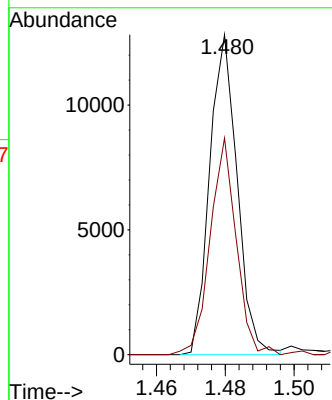
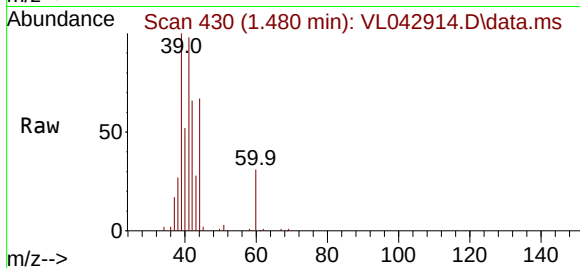
OA1DUP

Tgt Ion: 41 Resp: 7120

Ion Ratio Lower Upper

41 100

42 64.8 53.0 79.4



#10

Heptane

Concen: 0.032 ppbv

RT: 4.966 min Scan# 1507

Delta R.T. 0.007 min

Lab File: VL042914.D

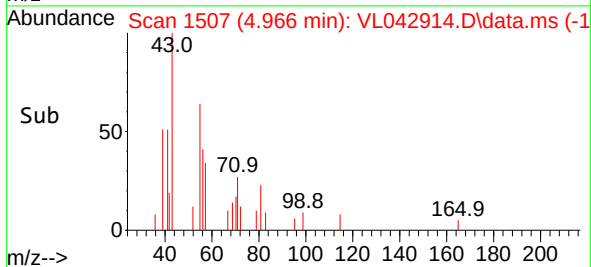
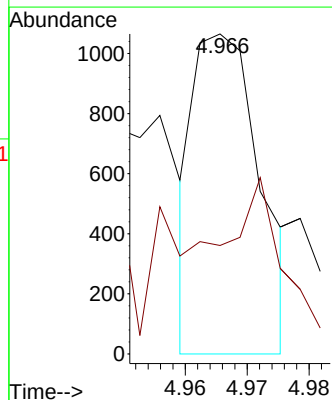
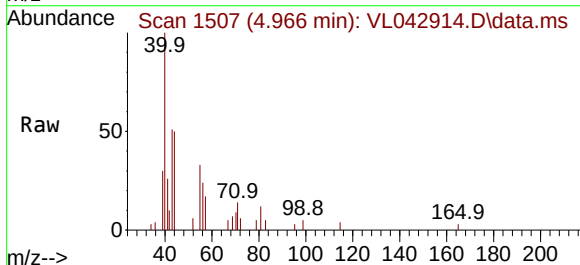
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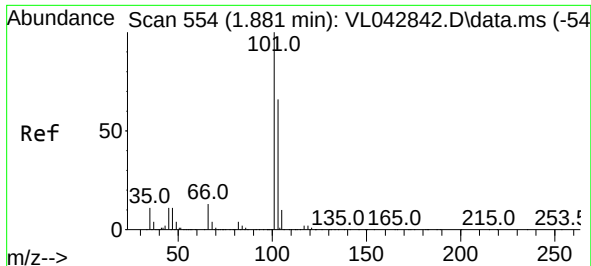
Tgt Ion: 43 Resp: 791

Ion Ratio Lower Upper

43 100

57 0.0 41.4 62.0#

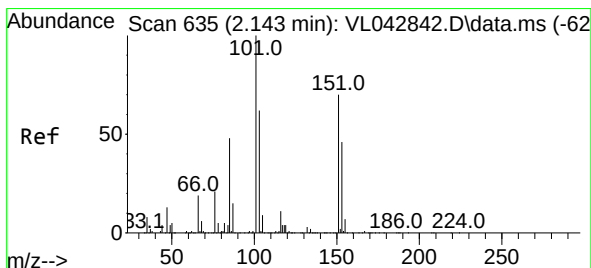
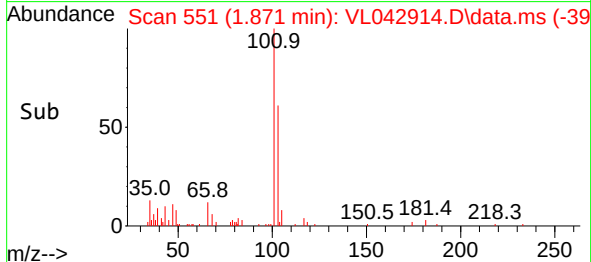
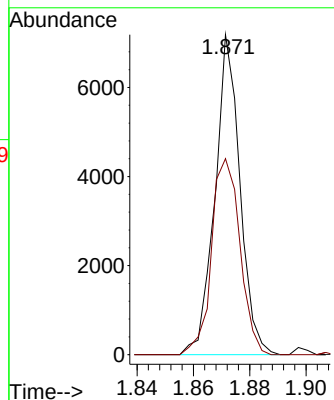
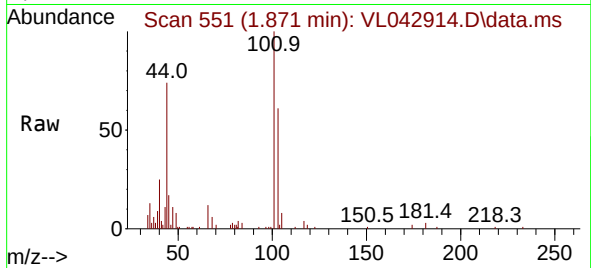




#11
 Trichlorofluoromethane
 Concen: 0.233 ppbv
 RT: 1.871 min Scan# 511
 Delta R.T. 0.000 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

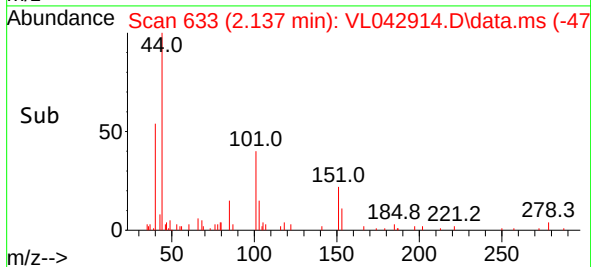
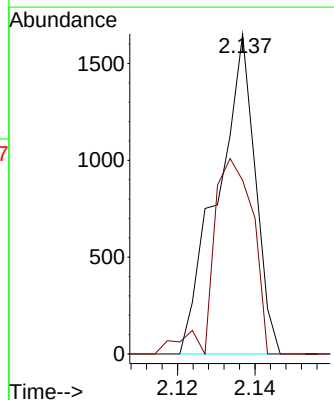
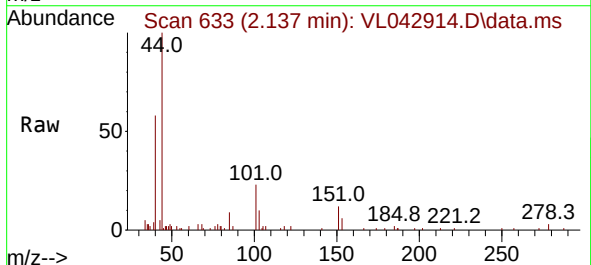
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1DUP

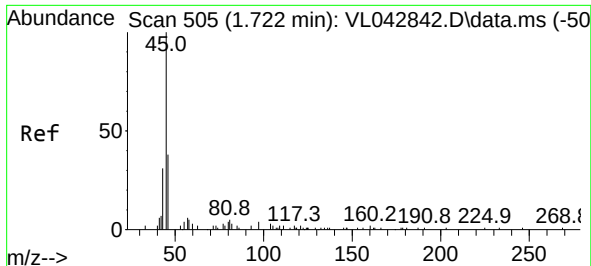
Tgt Ion:101 Resp: 4428
 Ion Ratio Lower Upper
 101 100
 103 61.2 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.074 ppbv
 RT: 2.137 min Scan# 633
 Delta R.T. 0.003 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

Tgt Ion:101 Resp: 1117
 Ion Ratio Lower Upper
 101 100
 151 66.0 56.4 84.6

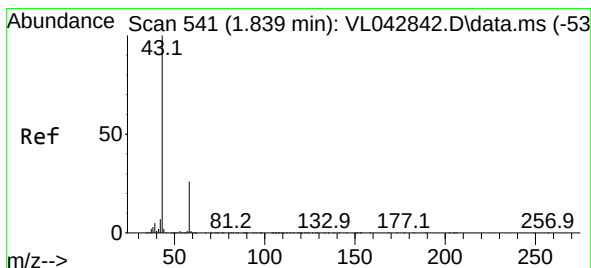
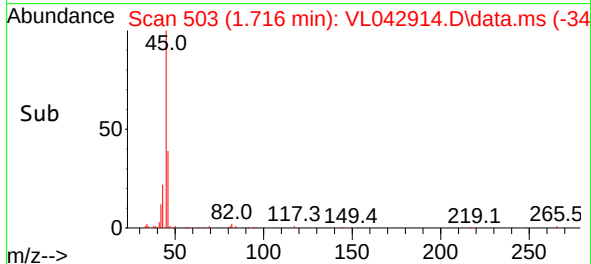
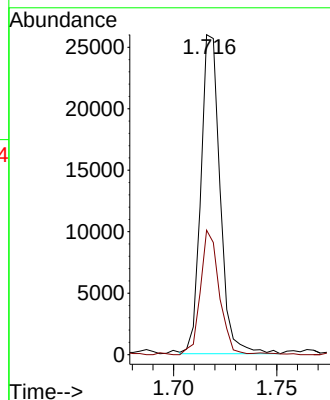
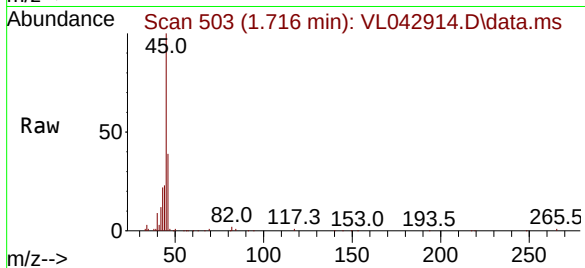




#13
Ethanol
Concen: 19.983 ppbv
RT: 1.716 min Scan# 505
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

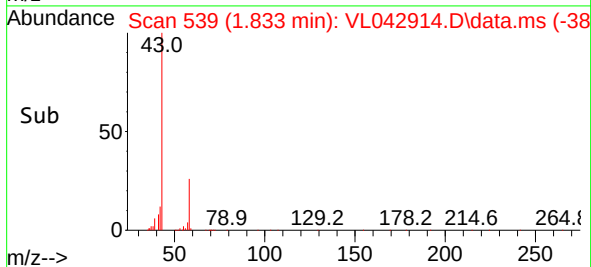
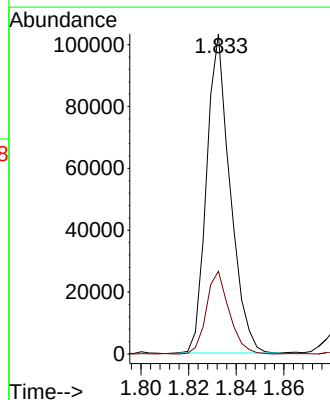
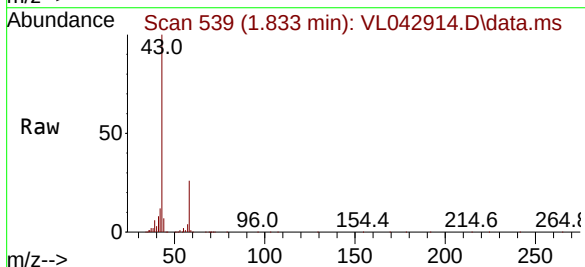
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

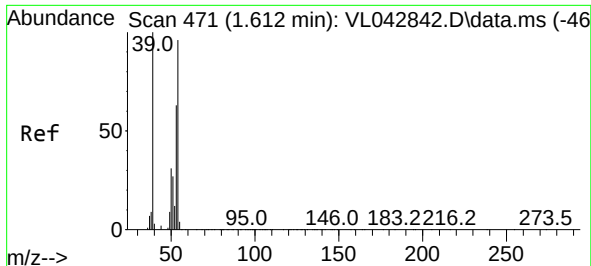
Tgt Ion: 45 Resp: 16799
Ion Ratio Lower Upper
45 100
46 39.5 17.5 69.9



#15
Acetone
Concen: 4.064 ppbv
RT: 1.833 min Scan# 539
Delta R.T. 0.003 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 43 Resp: 70651
Ion Ratio Lower Upper
43 100
58 25.3 22.4 33.6





#16

1,3-Butadiene

Concen: 0.239 ppbv

RT: 1.596 min Scan# 4

Delta R.T. -0.006 min

Lab File: VL042914.D

Acq: 08 Sep 2025 21:45

Instrument :

MSVOA_L

ClientSampleId :

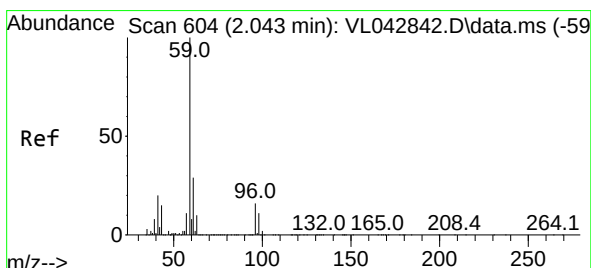
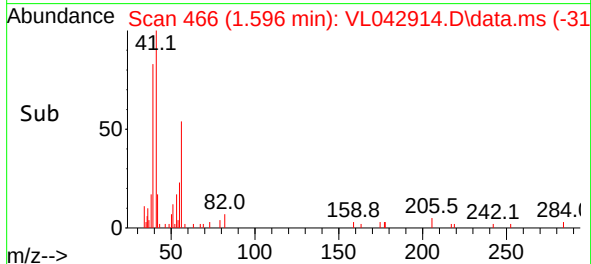
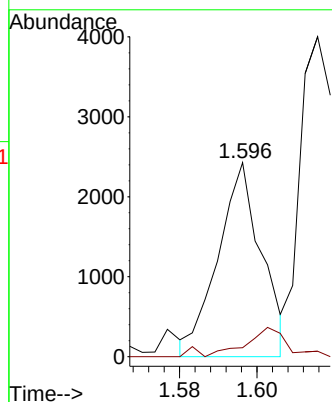
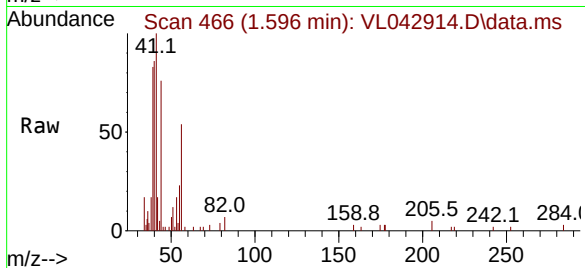
OA1DUP

Tgt Ion: 39 Resp: 1884

Ion Ratio Lower Upper

39 100

54 15.3 63.6 95.4#



#17

tert-Butyl alcohol

Concen: 0.042 ppbv

RT: 2.043 min Scan# 604

Delta R.T. 0.010 min

Lab File: VL042914.D

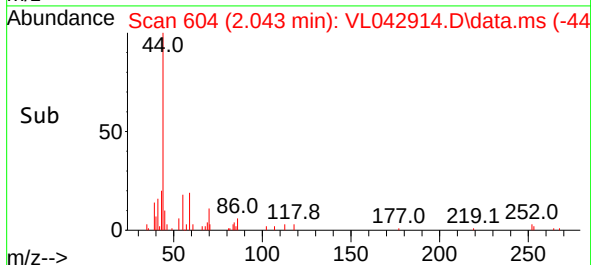
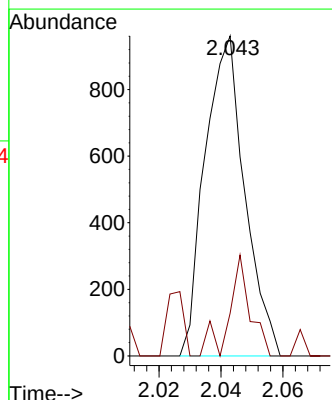
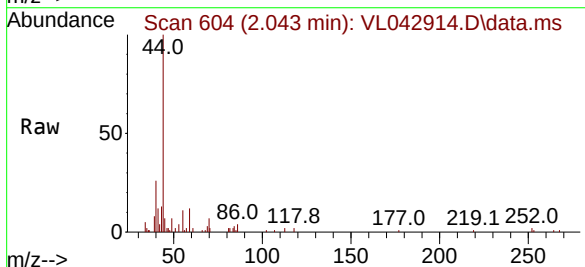
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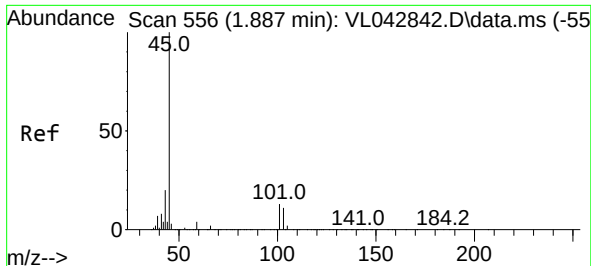
Tgt Ion: 59 Resp: 856

Ion Ratio Lower Upper

59 100

57 0.0 9.0 13.4#

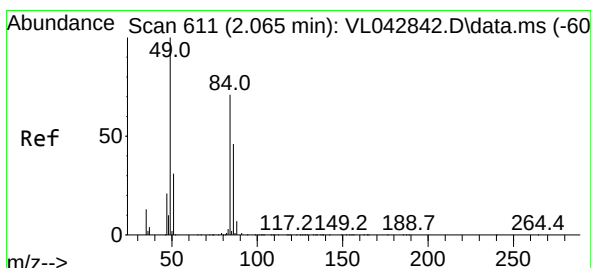
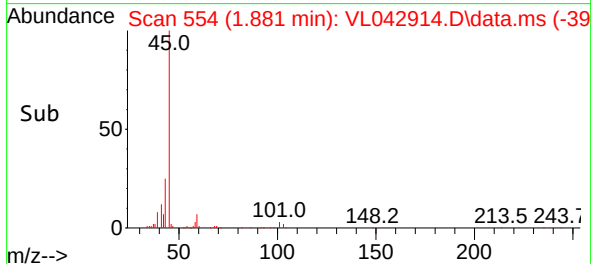
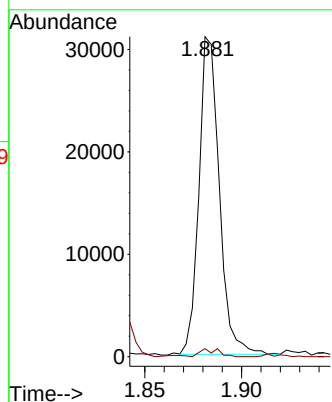
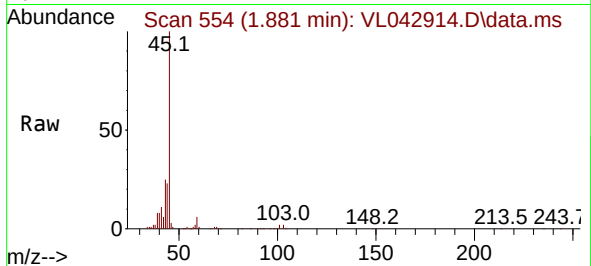




#19
Isopropyl Alcohol
Concen: 2.186 ppbv
RT: 1.881 min Scan# 51
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

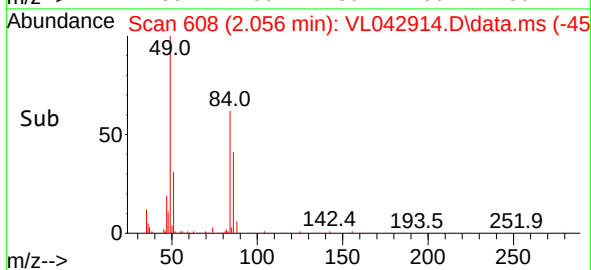
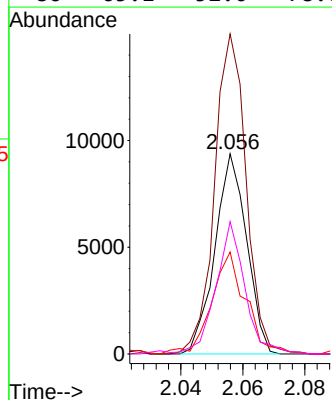
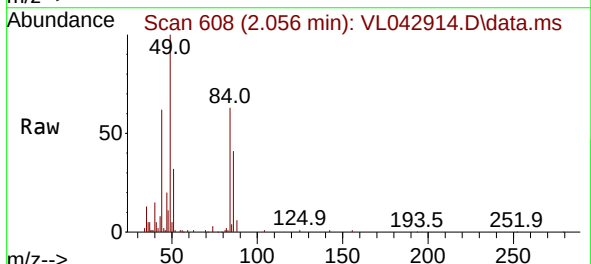
Instrument :
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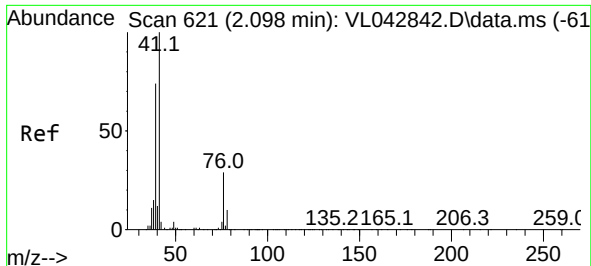
Tgt Ion: 45 Resp: 22696
Ion Ratio Lower Upper
45 100
58 78.6 32.7 49.1#



#20
Methylene Chloride
Concen: 0.916 ppbv
RT: 2.056 min Scan# 608
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 84 Resp: 6670
Ion Ratio Lower Upper
84 100
49 158.8 112.3 168.5
51 48.2 36.0 54.0
86 65.1 52.0 78.0

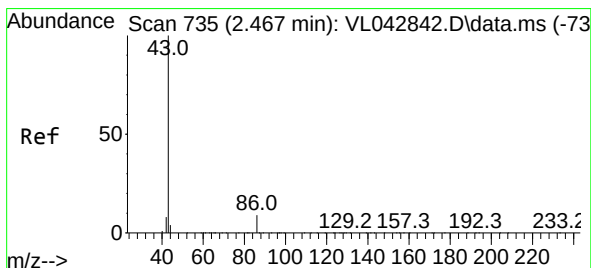
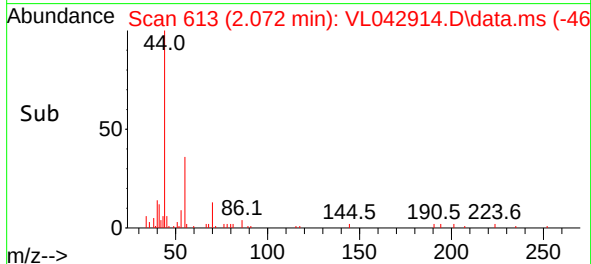
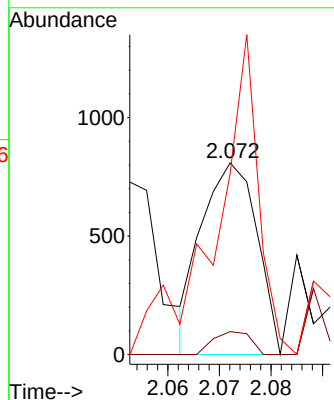
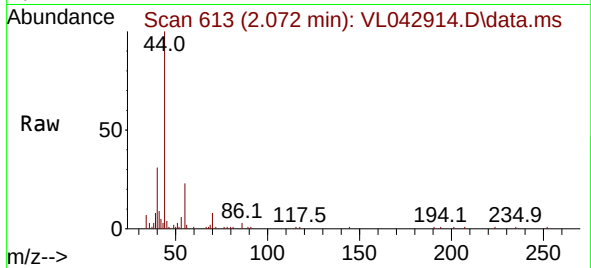




#21
 Allyl Chloride
 Concen: 0.049 ppbv
 RT: 2.072 min Scan# 611
 Delta R.T. -0.016 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

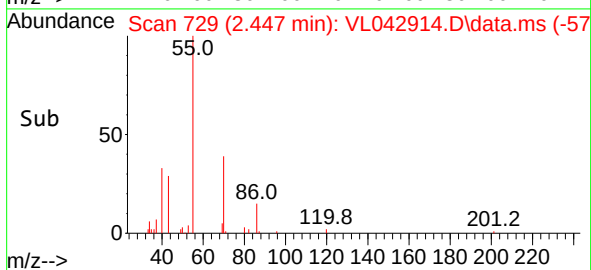
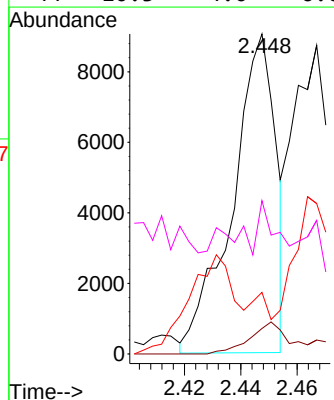
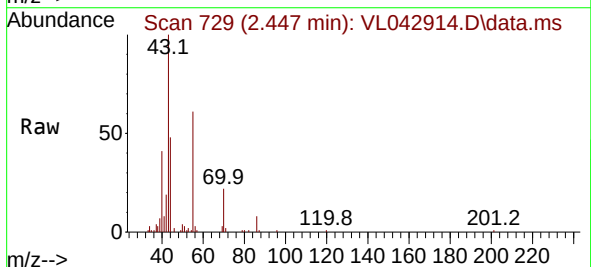
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1DUP

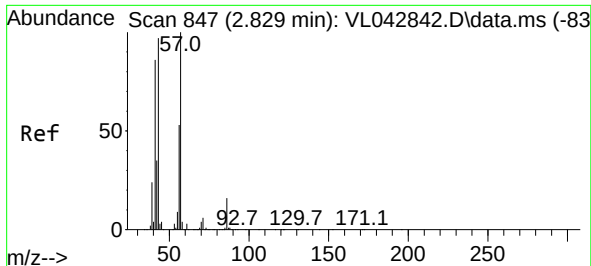
Tgt Ion: 41 Resp: 604
 Ion Ratio Lower Upper
 41 100
 76 18.9 23.9 35.9#
 39 241.1 57.8 86.6#



#23
 Vinyl Acetate
 Concen: 0.406 ppbv
 RT: 2.447 min Scan# 729
 Delta R.T. -0.006 min
 Lab File: VL042914.D
 Acq: 08 Sep 2025 21:45

Tgt Ion: 43 Resp: 9712
 Ion Ratio Lower Upper
 43 100
 86 8.2 6.6 9.8
 42 7.6 7.0 10.6
 44 10.3 4.0 6.0#

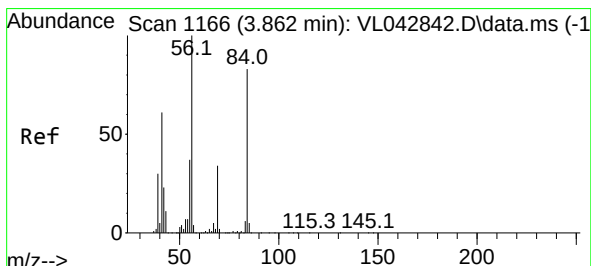
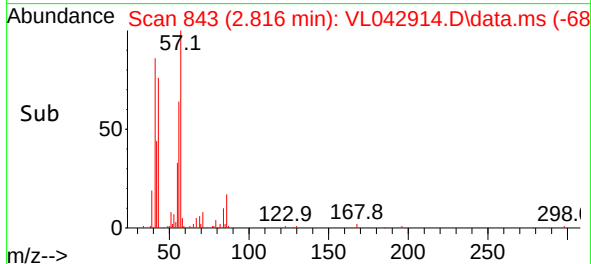
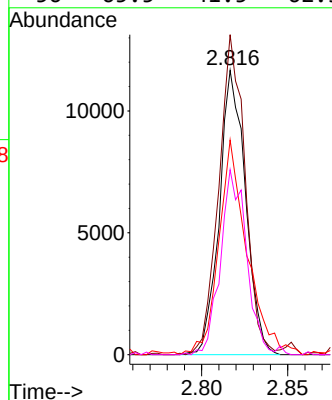
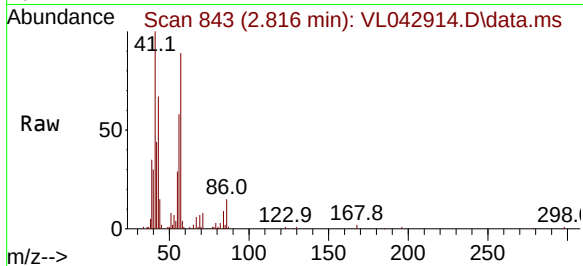




#26
Hexane
Concen: 0.635 ppbv
RT: 2.816 min Scan# 84
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

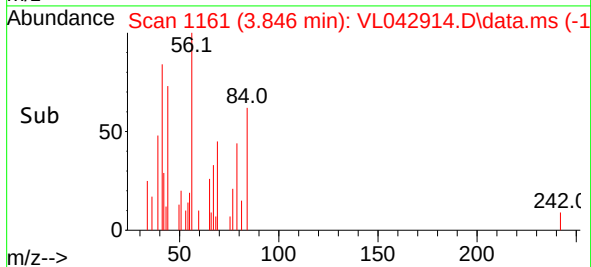
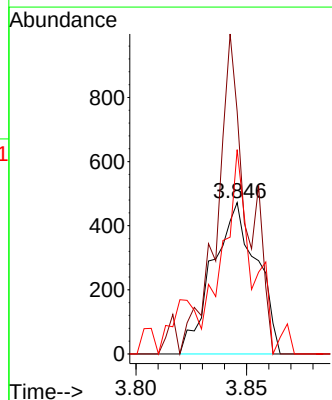
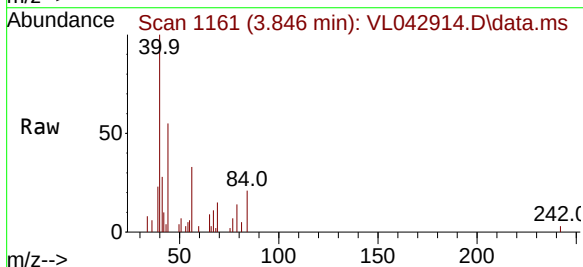
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

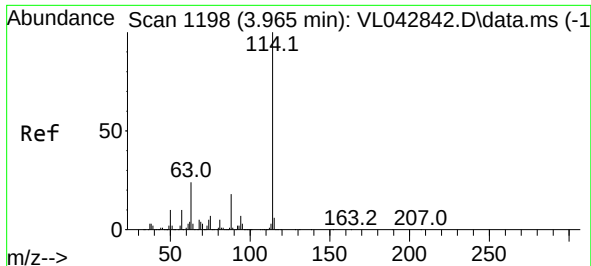
Tgt Ion: 57 Resp: 12323
Ion Ratio Lower Upper
57 100
41 115.2 68.6 103.0#
43 82.9 168.5 252.7#
56 65.5 41.5 62.3#



#30
Cyclohexane
Concen: 0.038 ppbv
RT: 3.846 min Scan# 1161
Delta R.T. 0.004 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 84 Resp: 652
Ion Ratio Lower Upper
84 100
56 150.9 98.8 148.2#
41 117.6 61.3 91.9#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.946 min Scan# 1192

Delta R.T. 0.003 min

Lab File: VL042914.D

Acq: 08 Sep 2025 21:45

Instrument :

MSVOA_L

ClientSampleId :

OA1DUP

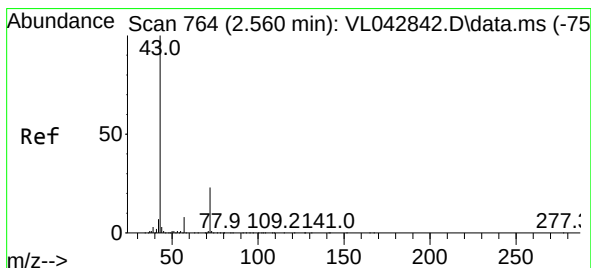
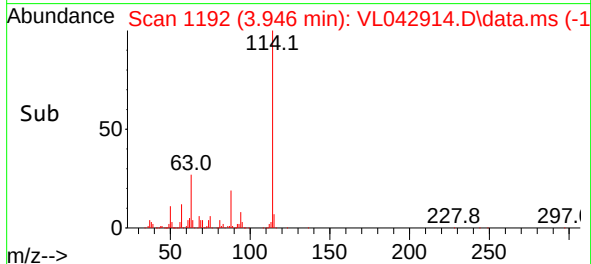
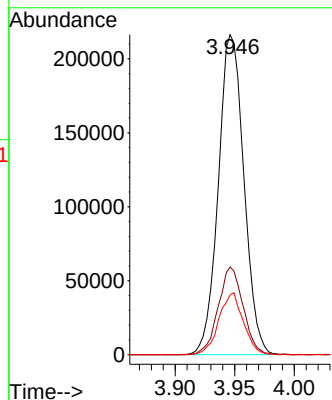
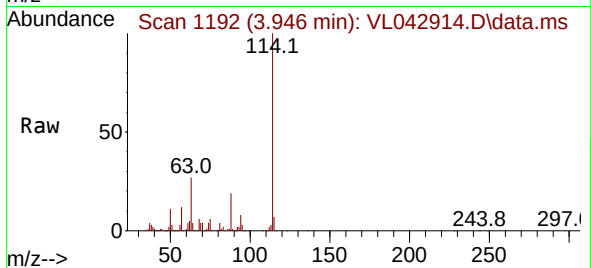
Tgt Ion:114 Resp: 322981

Ion Ratio Lower Upper

114 100

63 26.7 19.7 29.5

88 18.4 14.4 21.6



#34

2-Butanone

Concen: 0.379 ppbv

RT: 2.554 min Scan# 762

Delta R.T. 0.007 min

Lab File: VL042914.D

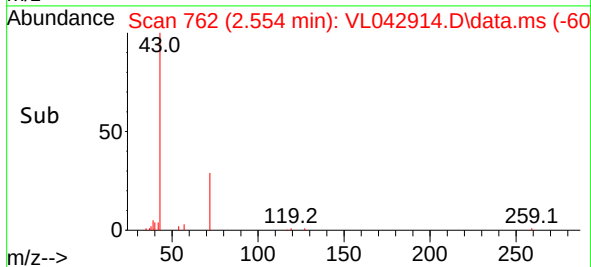
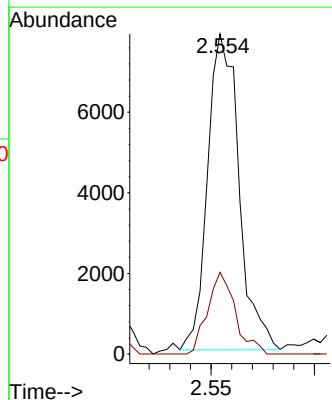
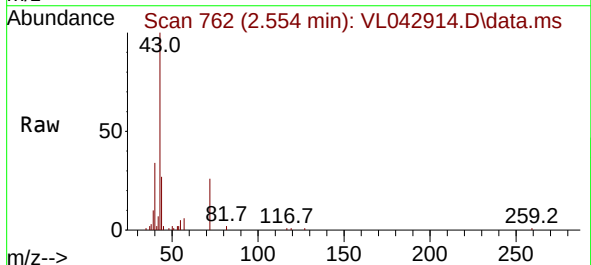
Acq: 08 Sep 2025 21:45

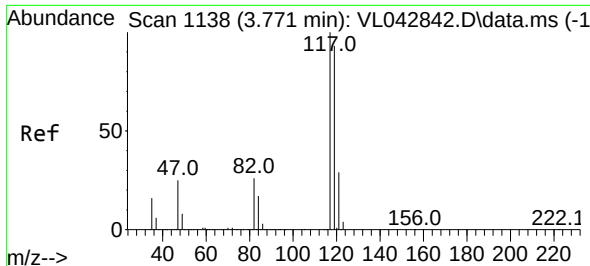
Tgt Ion: 43 Resp: 8271

Ion Ratio Lower Upper

43 100

72 22.8 18.6 28.0

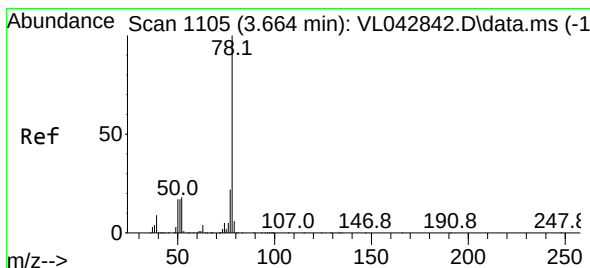
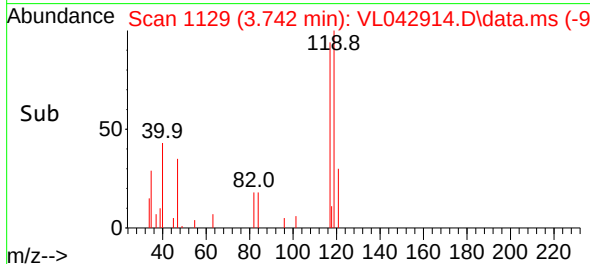
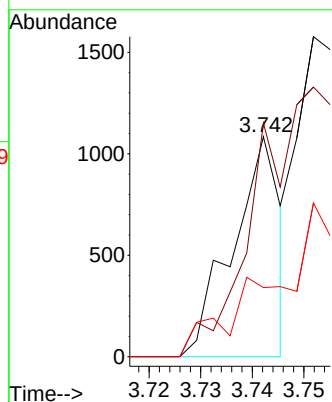
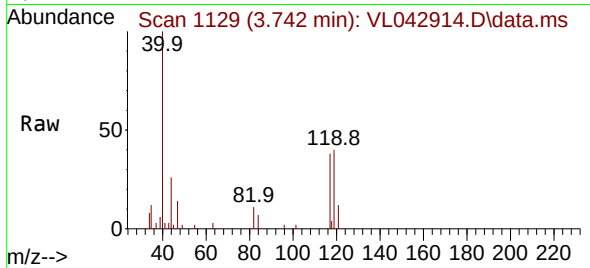




#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 3.742 min Scan# 1138
Delta R.T. -0.006 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

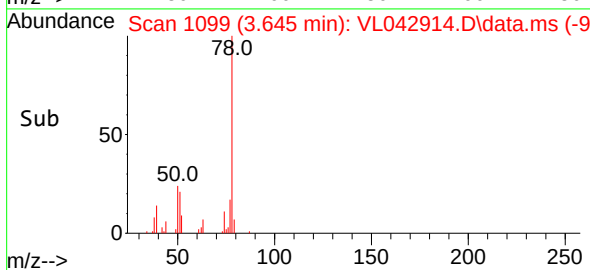
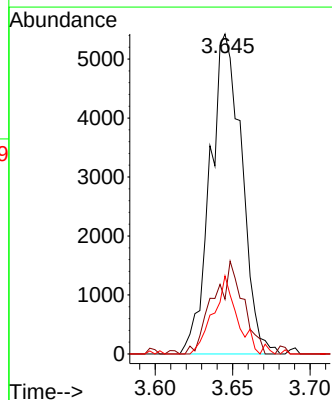
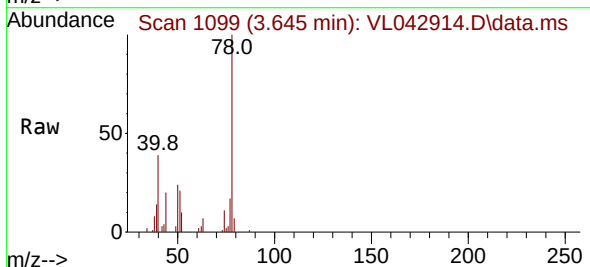
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

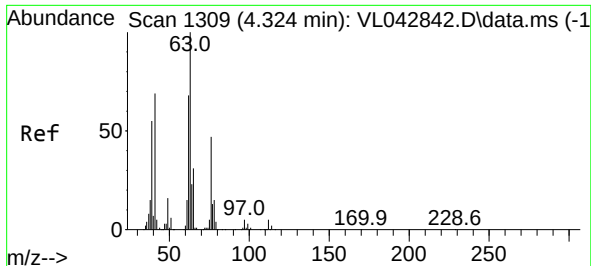
Tgt Ion:117 Resp: 695
Ion Ratio Lower Upper
117 100
119 95.1 74.7 112.1
121 28.2 23.2 34.8



#36
Benzene
Concen: 0.249 ppbv
RT: 3.645 min Scan# 1099
Delta R.T. 0.000 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 78 Resp: 7688
Ion Ratio Lower Upper
78 100
77 17.1 17.7 26.5#
50 24.4 13.9 20.9#





#39

1,2-Dichloropropane

Concen: 7.621 ppbv

RT: 3.946 min Scan# 1192

Delta R.T. -0.353 min

Lab File: VL042914.D

Acq: 08 Sep 2025 21:45

Instrument :

MSVOA_L

ClientSampleId :

OA1DUP

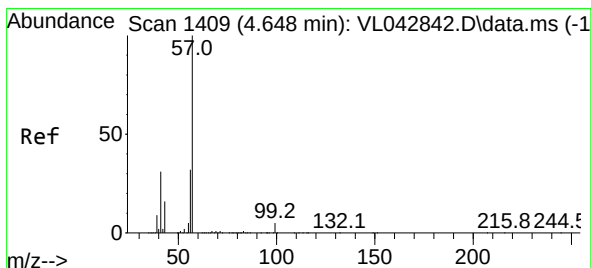
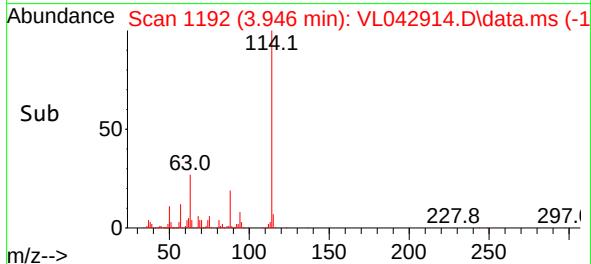
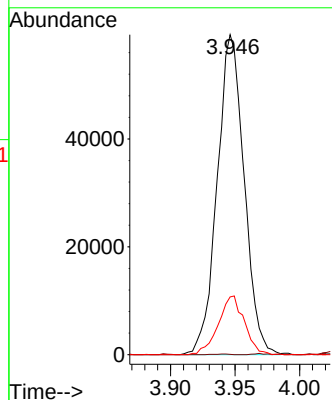
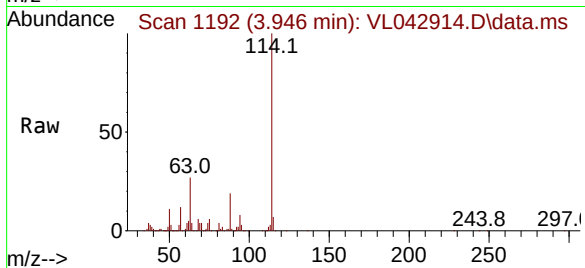
Tgt Ion: 63 Resp: 86087

Ion Ratio Lower Upper

63 100

41 0.5 55.0 82.4#

62 18.1 54.4 81.6#



#44

2,2,4-Trimethylpentane

Concen: 0.068 ppbv

RT: 4.632 min Scan# 1404

Delta R.T. 0.010 min

Lab File: VL042914.D

Acq: 08 Sep 2025 21:45

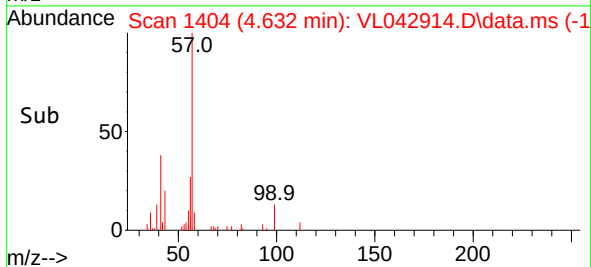
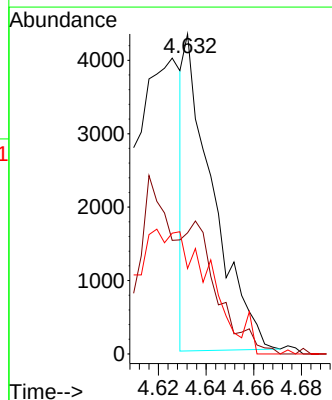
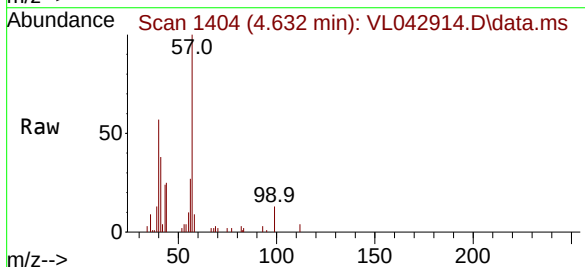
Tgt Ion: 57 Resp: 3563

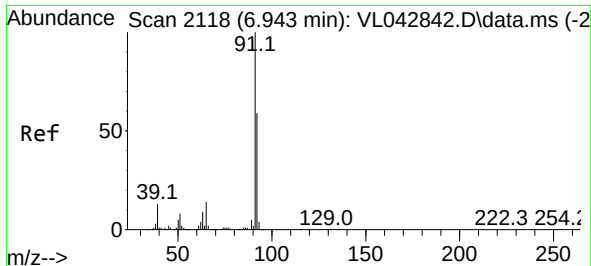
Ion Ratio Lower Upper

57 100

41 0.0 24.8 37.2#

56 0.0 25.5 38.3#

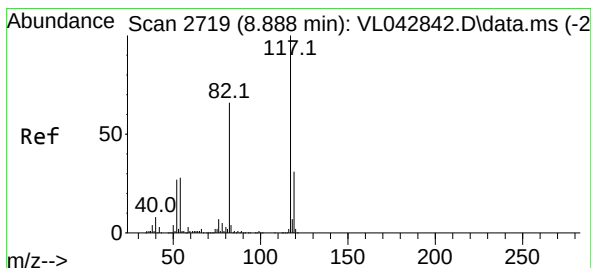
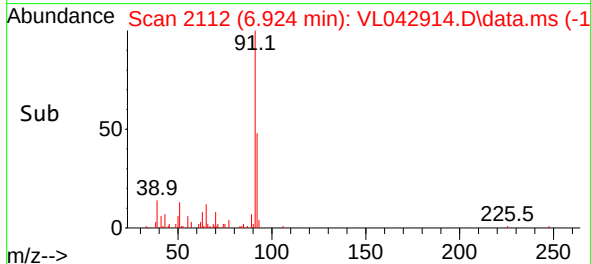
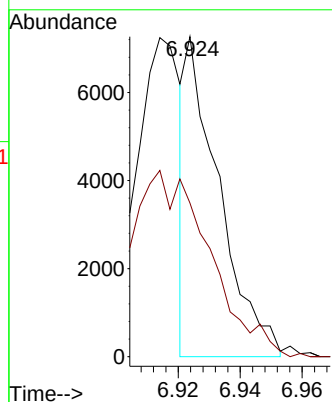
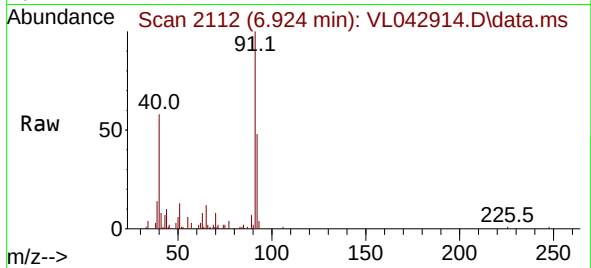




#53
Toluene
Concen: 0.148 ppbv
RT: 6.924 min Scan# 2118
Delta R.T. 0.010 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

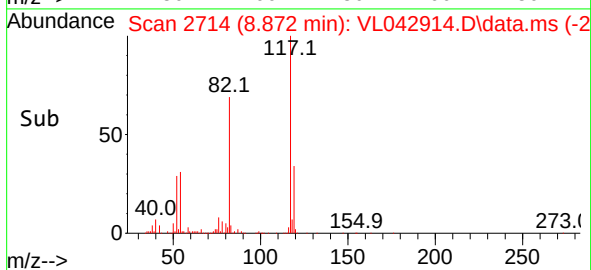
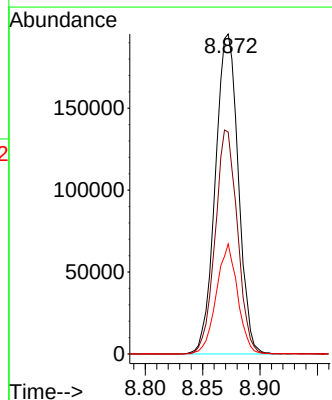
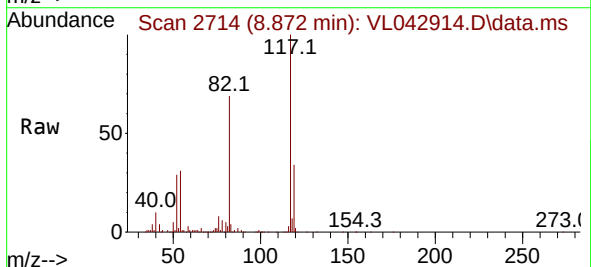
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

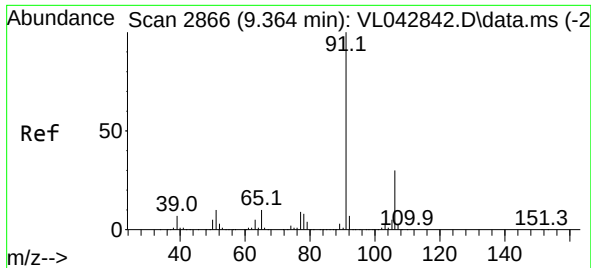
Tgt Ion: 91 Resp: 5435
Ion Ratio Lower Upper
91 100
92 0.0 47.8 71.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.872 min Scan# 2714
Delta R.T. 0.004 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 117 Resp: 272303
Ion Ratio Lower Upper
117 100
82 67.6 54.6 81.8
119 31.9 25.9 38.9

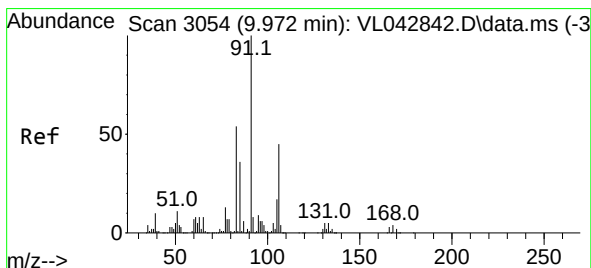
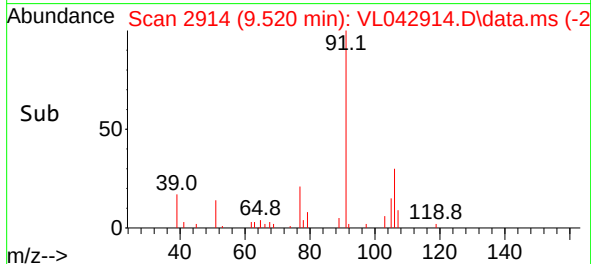
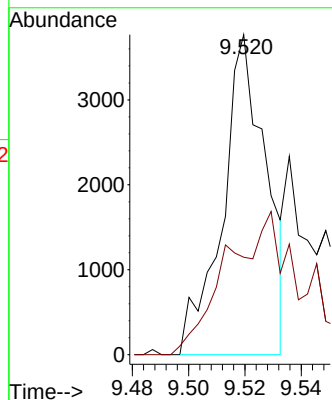
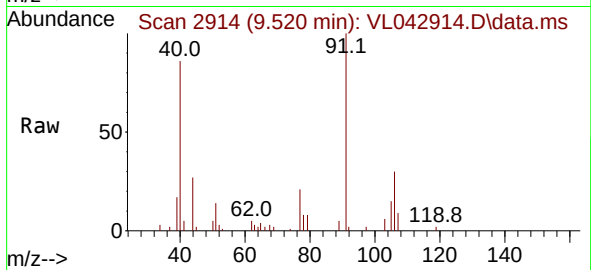




#58
Ethyl Benzene
Concen: 0.084 ppbv
RT: 9.520 min Scan# 2914
Delta R.T. 0.175 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

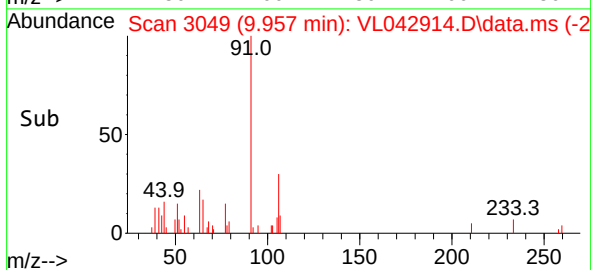
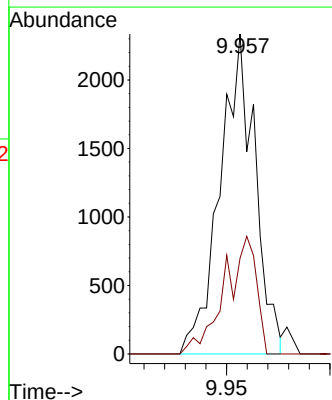
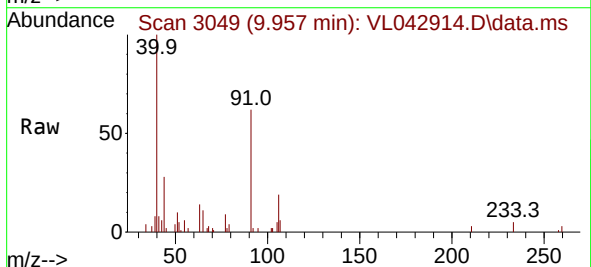
Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

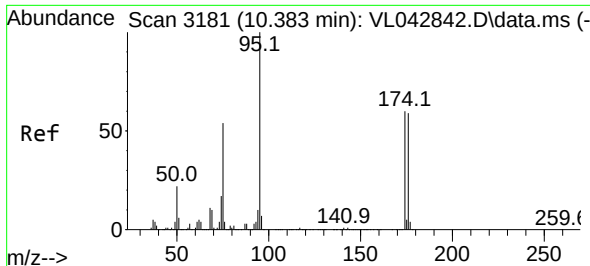
Tgt Ion: 91 Resp: 4054
Ion Ratio Lower Upper
91 100
106 27.8 23.9 35.9



#60
o-Xylene
Concen: 0.073 ppbv
RT: 9.957 min Scan# 3049
Delta R.T. 0.003 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 91 Resp: 2747
Ion Ratio Lower Upper
91 100
106 33.4 21.8 65.4

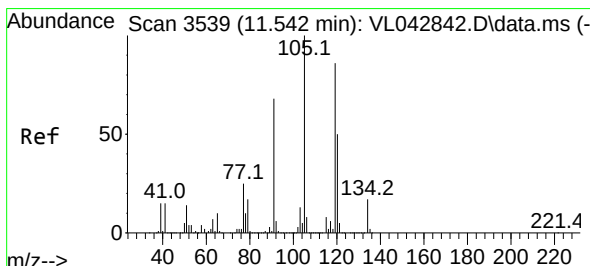
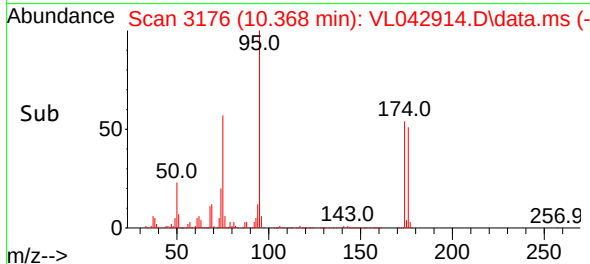
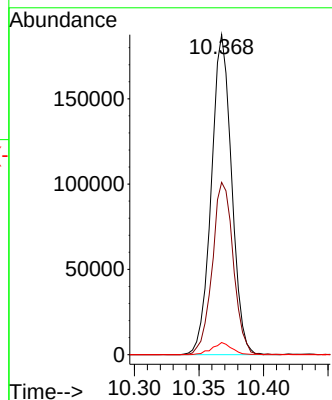
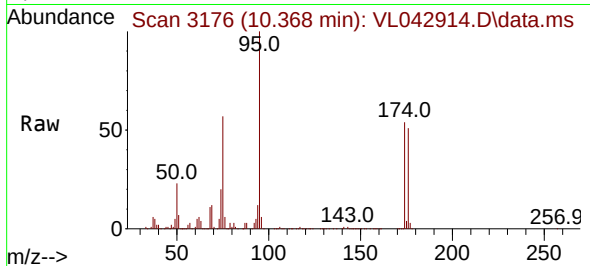




#68
1-Bromo-4-Fluorobenzene
Concen: 10.008 ppbv
RT: 10.368 min Scan# 3181
Delta R.T. 0.003 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Instrument :
MSVOA_L
ClientSampleId :
OA1DUP

Tgt Ion: 95 Resp: 204384
Ion Ratio Lower Upper
95 100
174 56.1 48.4 72.6
175 3.7 3.8 5.8#



#74
1,2,4-Trimethylbenzene
Concen: 0.040 ppbv
RT: 11.526 min Scan# 3534
Delta R.T. -0.003 min
Lab File: VL042914.D
Acq: 08 Sep 2025 21:45

Tgt Ion: 105 Resp: 1736
Ion Ratio Lower Upper
105 100
120 29.6 39.8 59.6#
91 4.4 54.2 81.4#
77 18.2 19.8 29.6#

