

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120825\
 Data File : VL043311.D
 Acq On : 08 Dec 2025 13:16
 Operator : SY/MD
 Sample : Q3799-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1DUP

Quant Time: Dec 09 00:11:03 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

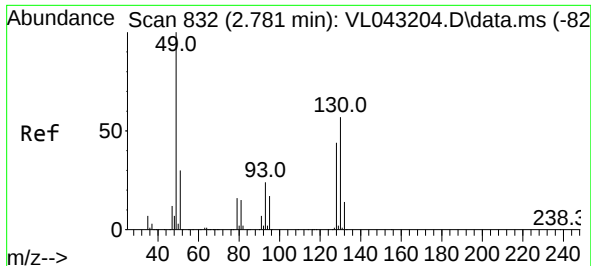
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.784	49	155357	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	397814	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	318793	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.367	95	229577	9.825	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	8883	0.405	ppbv	96
3) Chlorodifluoromethane	1.473	51	9471	0.440	ppbv #	91
4) Chloromethane	1.531	50	17124	2.090	ppbv #	87
7) Chloroethane	1.703	64	162	0.046	ppbv	99
9) Propene	1.486	41	6430	0.703	ppbv #	1
11) Trichlorofluoromethane	1.875	101	4183	0.197	ppbv	90
12) 1,1,2-Trichlorotrifluo...	2.137	101	1148	0.069	ppbv	88
13) Ethanol	1.719	45	12812	3.982	ppbv	99
15) Acetone	1.832	43	103724	4.806	ppbv	95
16) 1,3-Butadiene	1.599	39	3175	0.330	ppbv #	43
17) tert-Butyl alcohol	2.040	59	2973	0.105	ppbv	99
19) Isopropyl Alcohol	1.884	45	9039	0.741	ppbv #	1
20) Methylene Chloride	2.059	84	24089	3.258	ppbv	95
23) Vinyl Acetate	2.451	43	9886	0.379	ppbv #	97
25) Ethyl Acetate	2.823	43	21691	0.466	ppbv #	80
26) Hexane	2.823	57	29316	1.436	ppbv #	41
29) Chloroform	2.846	83	4392	0.151	ppbv	92
34) 2-Butanone	2.557	43	14218	0.506	ppbv	98
35) Carbon Tetrachloride	3.758	117	1347	0.045	ppbv #	77
36) Benzene	3.648	78	6108	0.160	ppbv	94
39) 1,2-Dichloropropane	3.949	63	101486	7.278	ppbv #	24
53) Toluene	6.924	91	4945	0.110	ppbv #	81
60) o-Xylene	9.519	91	2361	0.048	ppbv	94

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

Quant Time: Dec 09 00:11:03 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

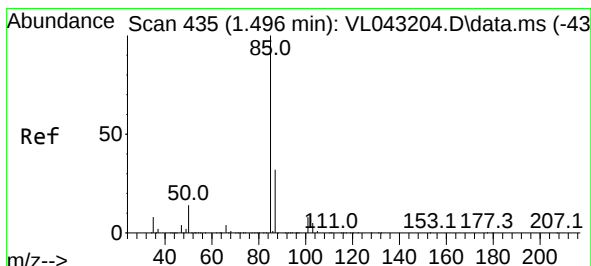
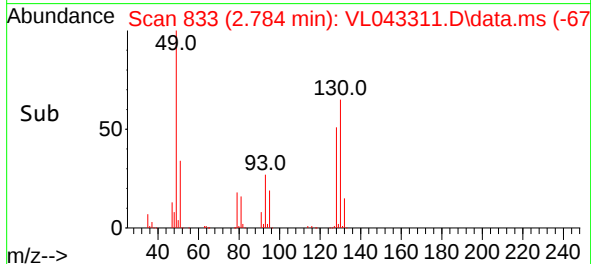
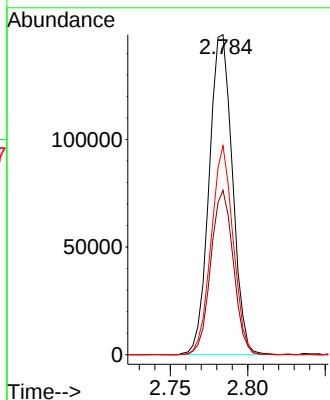
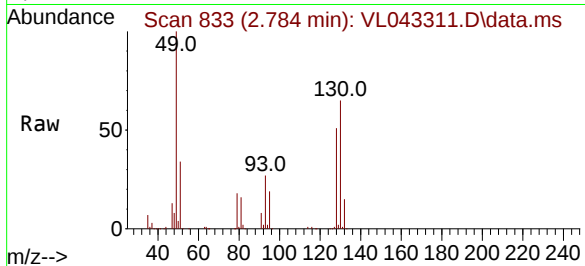




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 811
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

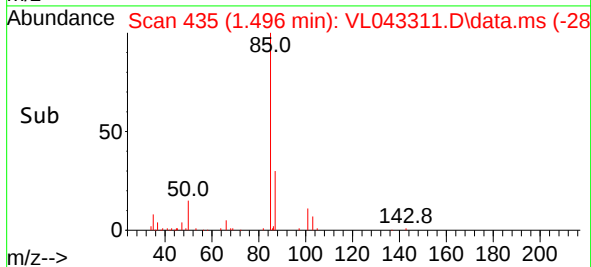
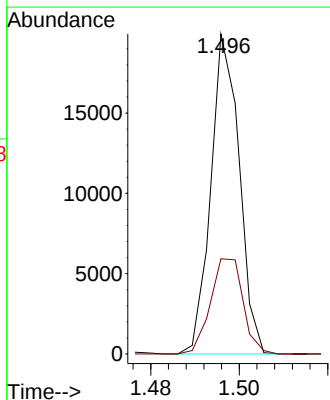
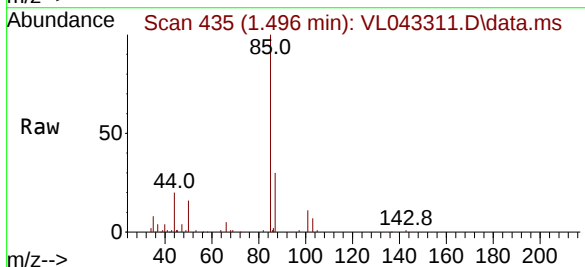
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

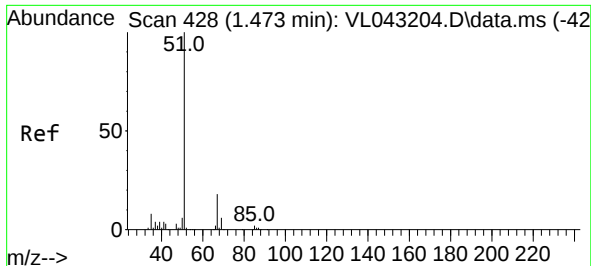
Tgt Ion: 49 Resp: 155357
Ion Ratio Lower Upper
49 100
128 49.7 23.0 69.0
130 61.6 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.405 ppbv
RT: 1.496 min Scan# 435
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 85 Resp: 8883
Ion Ratio Lower Upper
85 100
87 29.8 25.4 38.2

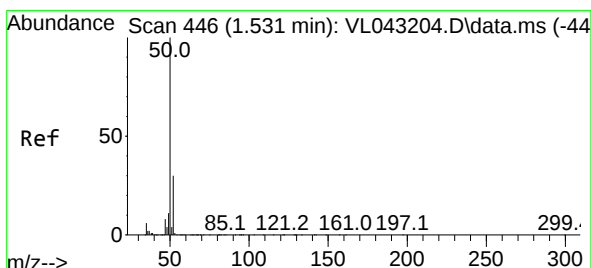
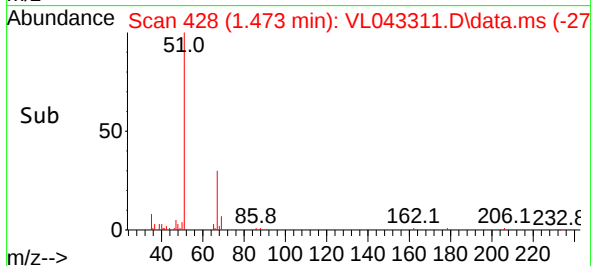
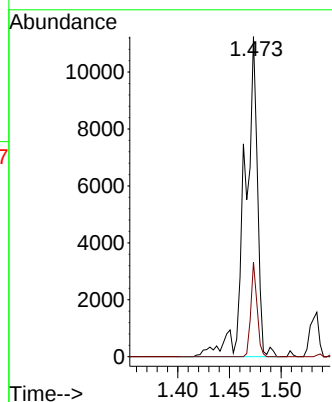
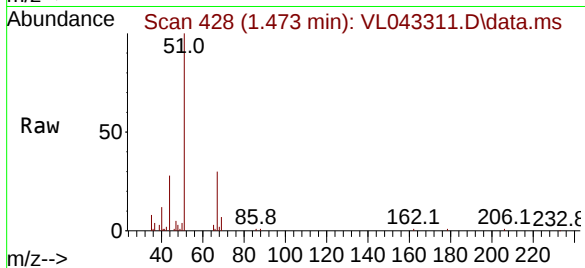




#3
Chlorodifluoromethane
Concen: 0.440 ppbv
RT: 1.473 min Scan# 428
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

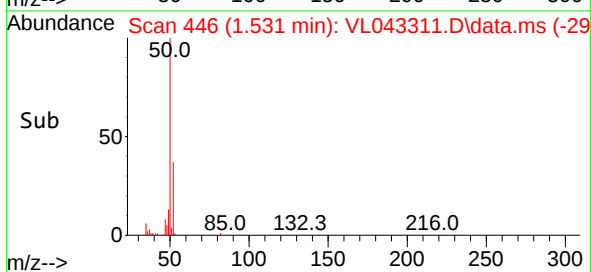
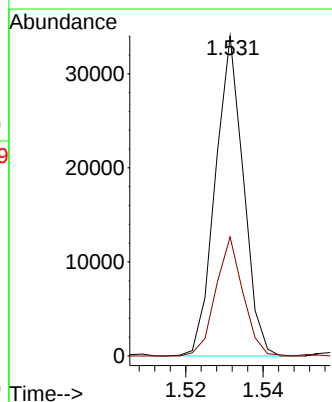
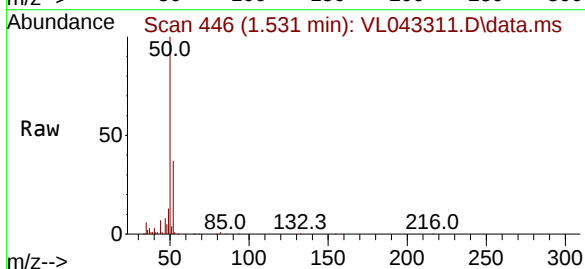
Instrument :
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ClientSampleId :
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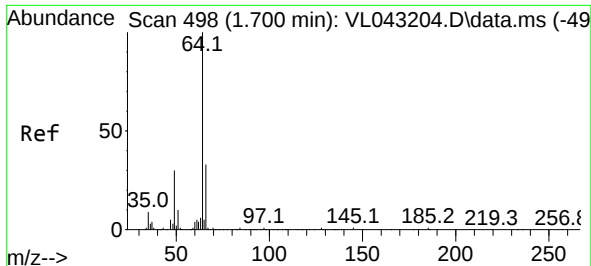
Tgt Ion: 51 Resp: 9471
Ion Ratio Lower Upper
51 100
67 14.6 14.9 22.3#



#4
Chloromethane
Concen: 2.090 ppbv
RT: 1.531 min Scan# 446
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 50 Resp: 17124
Ion Ratio Lower Upper
50 100
52 37.1 24.1 36.1#

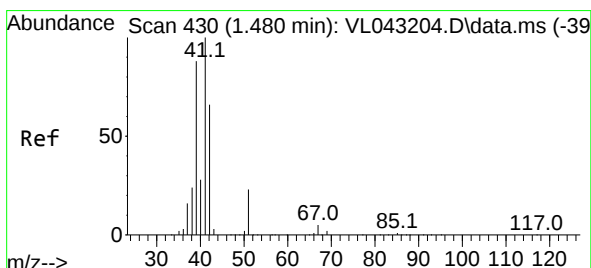
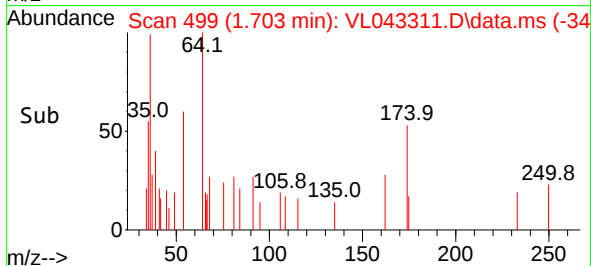
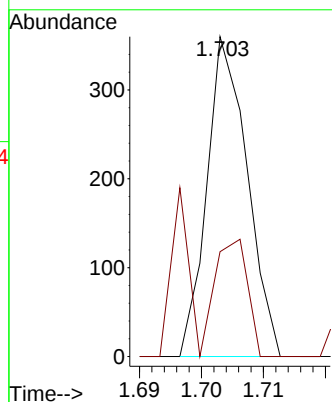
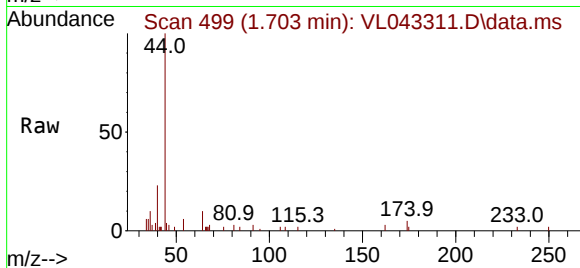




#7
Chloroethane
Concen: 0.046 ppbv
RT: 1.703 min Scan# 499
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

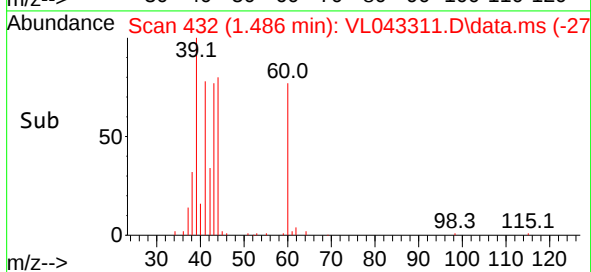
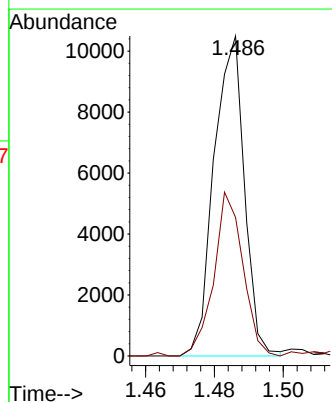
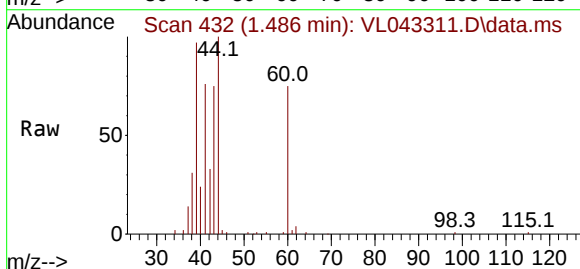
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

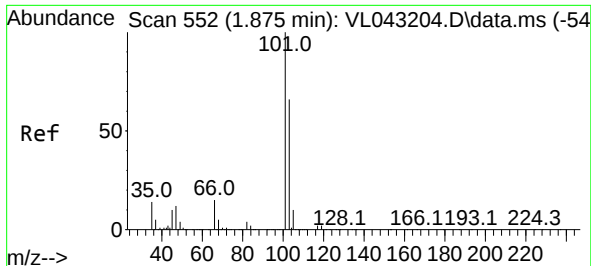
Tgt Ion: 64 Resp: 162
Ion Ratio Lower Upper
64 100
66 32.8 26.8 40.2



#9
Propene
Concen: 0.703 ppbv
RT: 1.486 min Scan# 432
Delta R.T. 0.006 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 41 Resp: 6430
Ion Ratio Lower Upper
41 100
42 50.0 3.7 5.5#

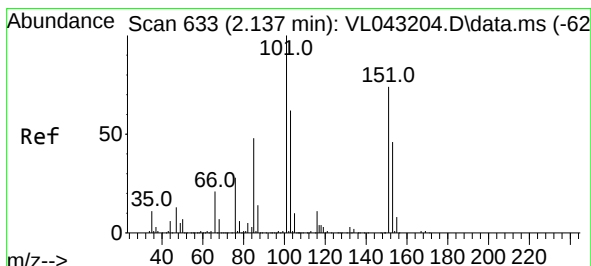
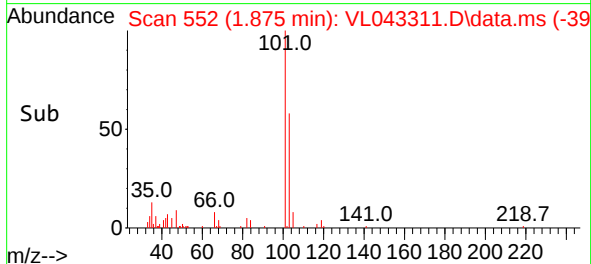
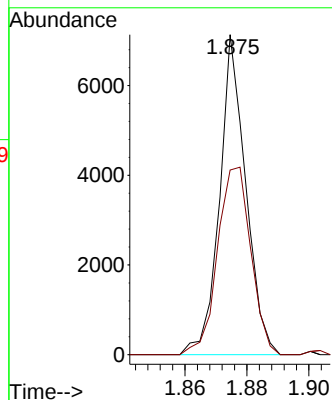
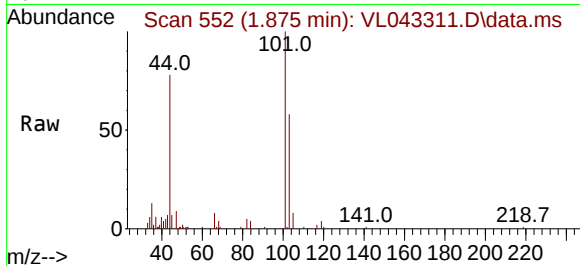




#11
 Trichlorofluoromethane
 Concen: 0.197 ppbv
 RT: 1.875 min Scan# 511
 Delta R.T. 0.000 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

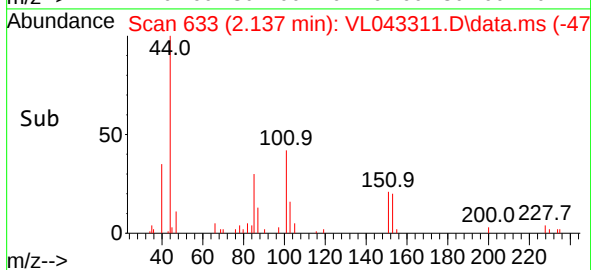
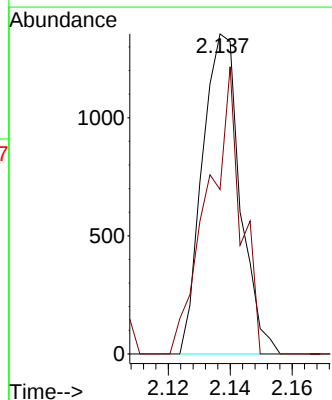
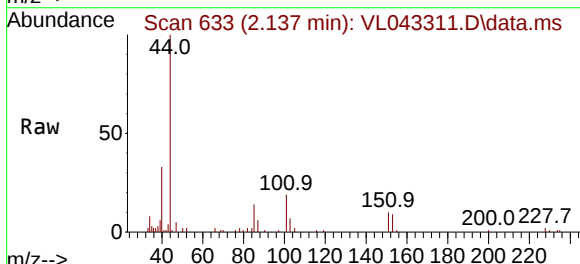
Instrument :
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 ClientSampleId :
 AA-1DUP

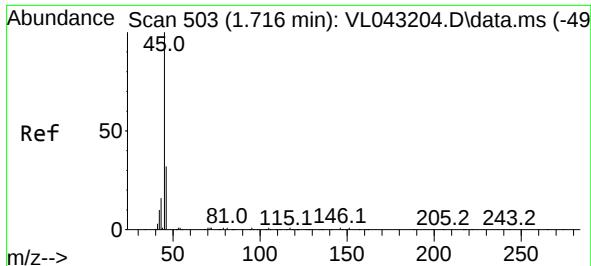
Tgt Ion:101 Resp: 4183
 Ion Ratio Lower Upper
 101 100
 103 57.7 52.6 79.0



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.069 ppbv
 RT: 2.137 min Scan# 633
 Delta R.T. 0.000 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

Tgt Ion:101 Resp: 1148
 Ion Ratio Lower Upper
 101 100
 151 84.3 59.2 88.8

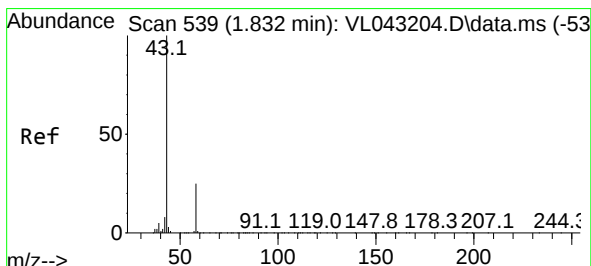
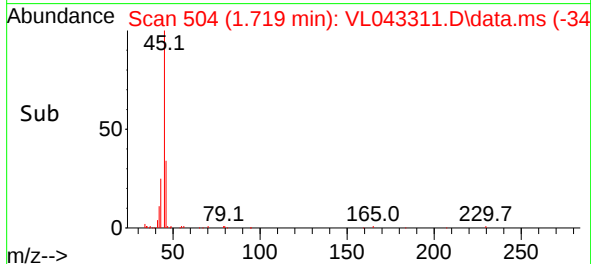
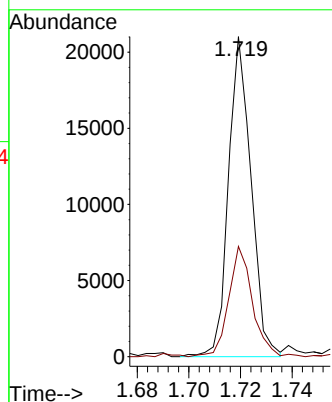
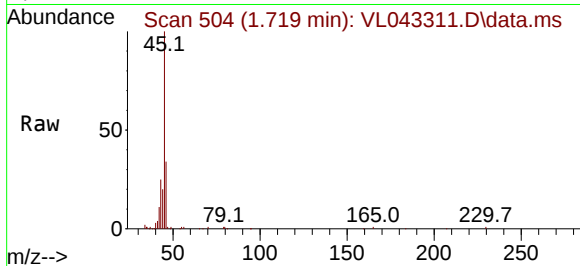




#13
 Ethanol
 Concen: 3.982 ppbv
 RT: 1.719 min Scan# 503
 Delta R.T. 0.003 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

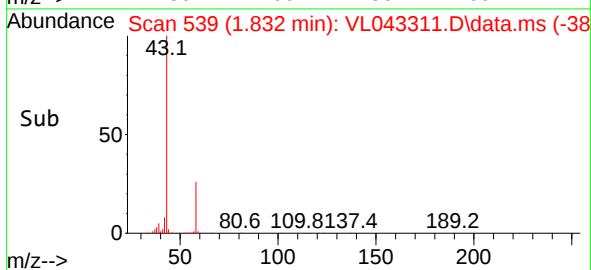
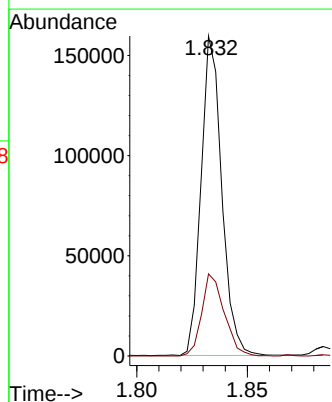
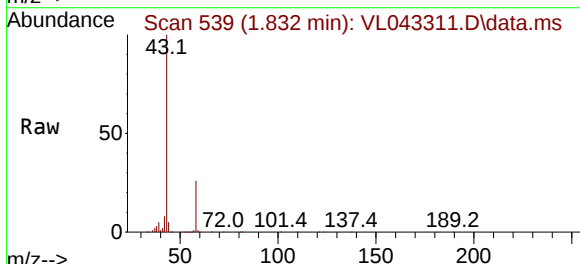
Instrument :
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 AA-1DUP

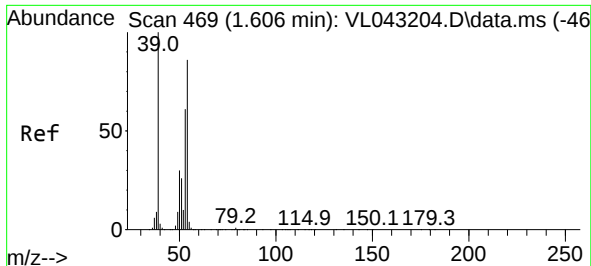
Tgt Ion: 45 Resp: 12812
 Ion Ratio Lower Upper
 45 100
 46 38.2 15.0 59.8



#15
 Acetone
 Concen: 4.806 ppbv
 RT: 1.832 min Scan# 539
 Delta R.T. 0.000 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

Tgt Ion: 43 Resp: 103724
 Ion Ratio Lower Upper
 43 100
 58 28.4 20.7 31.1

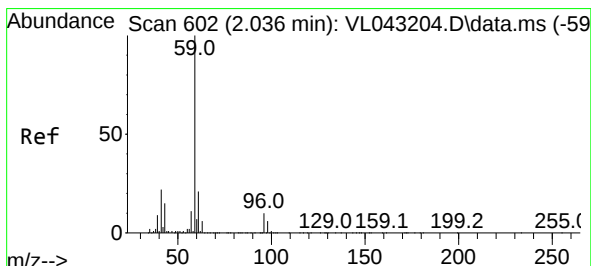
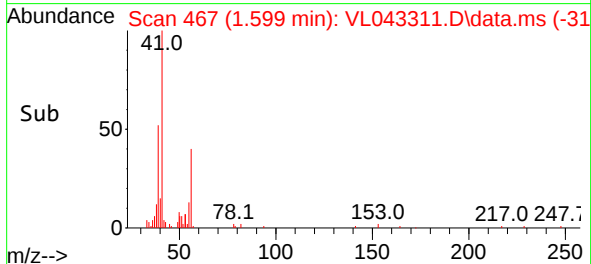
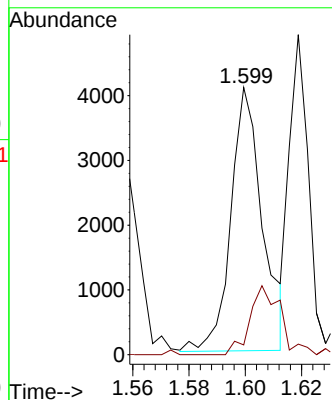
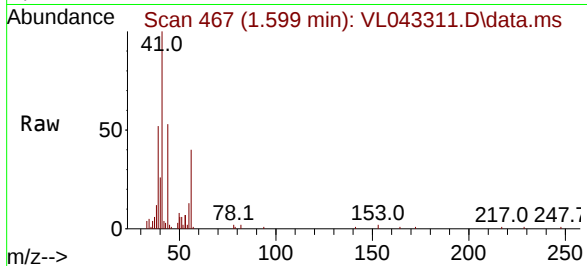




#16
1,3-Butadiene
Concen: 0.330 ppbv
RT: 1.599 min Scan# 467
Delta R.T. -0.006 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

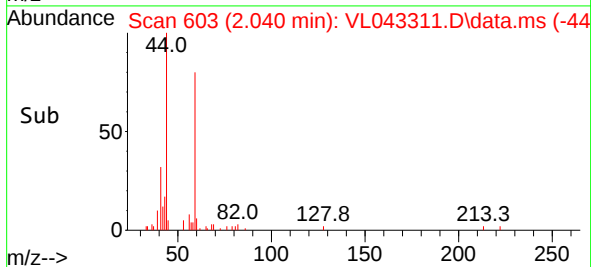
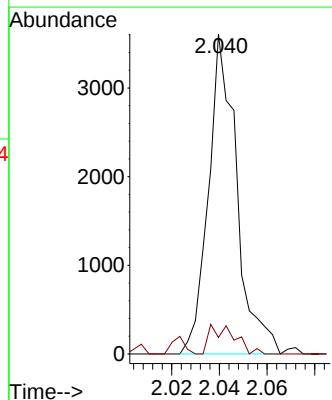
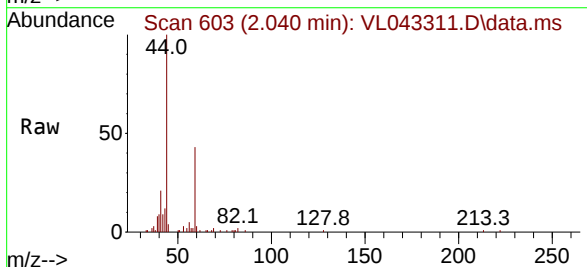
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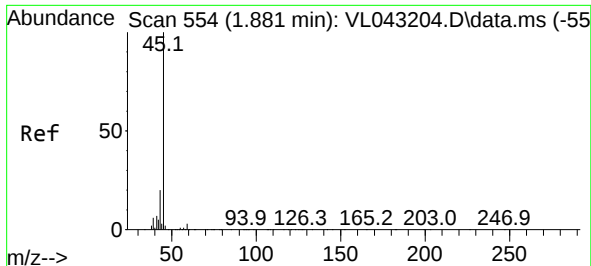
Tgt Ion: 39 Resp: 3175
Ion Ratio Lower Upper
39 100
54 26.3 59.4 89.2#



#17
tert-Butyl alcohol
Concen: 0.105 ppbv
RT: 2.040 min Scan# 603
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 59 Resp: 2973
Ion Ratio Lower Upper
59 100
57 11.7 9.0 13.4

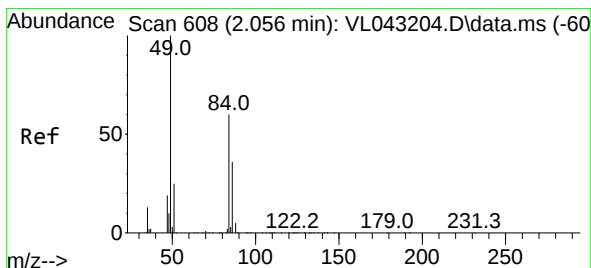
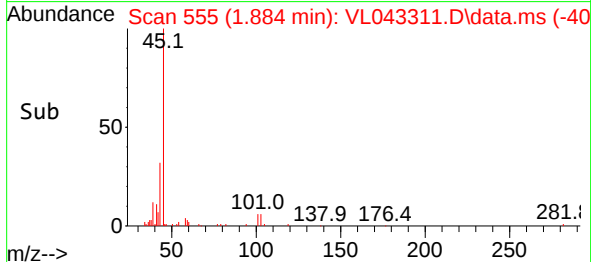
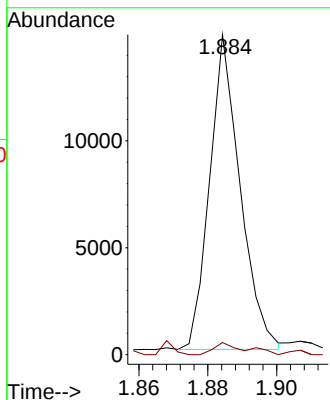
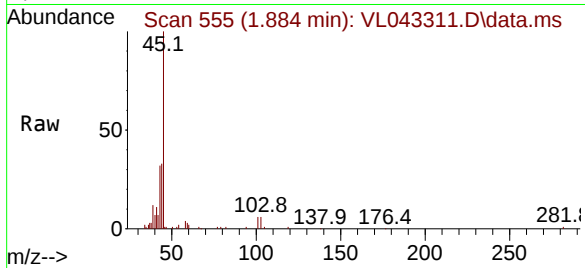




#19
Isopropyl Alcohol
Concen: 0.741 ppbv
RT: 1.884 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

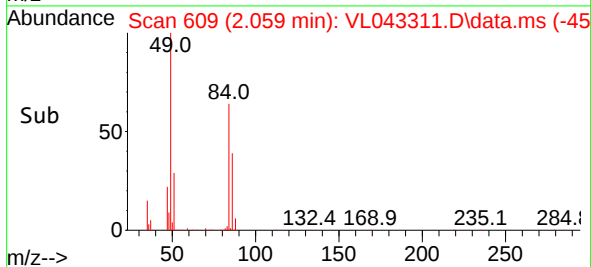
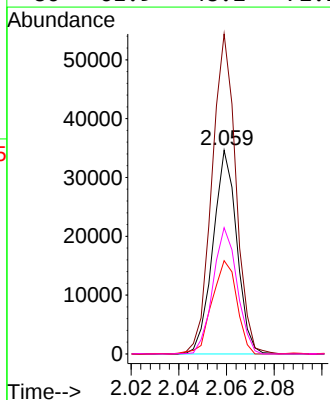
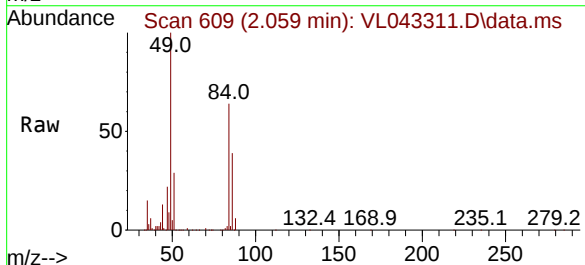
Instrument :
MSVOA_L
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AA-1DUP

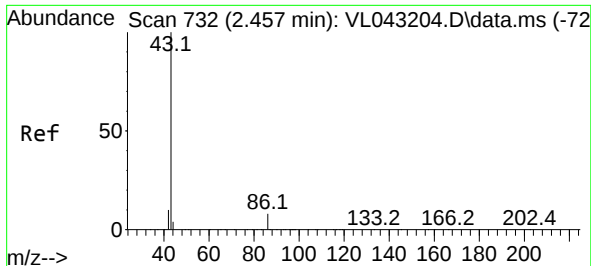
Tgt Ion: 45 Resp: 9039
Ion Ratio Lower Upper
45 100
58 326.3 31.3 46.9#



#20
Methylene Chloride
Concen: 3.258 ppbv
RT: 2.059 min Scan# 609
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 84 Resp: 24089
Ion Ratio Lower Upper
84 100
49 157.1 132.9 199.3
51 45.8 34.8 52.2
86 61.9 48.2 72.2



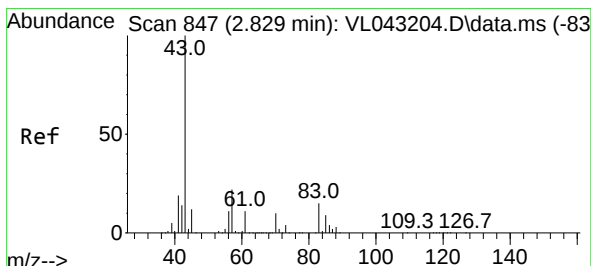
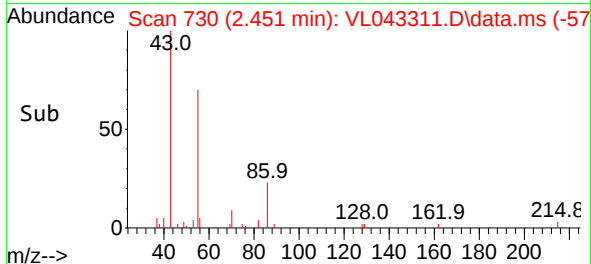
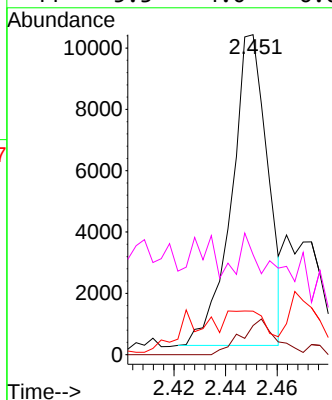
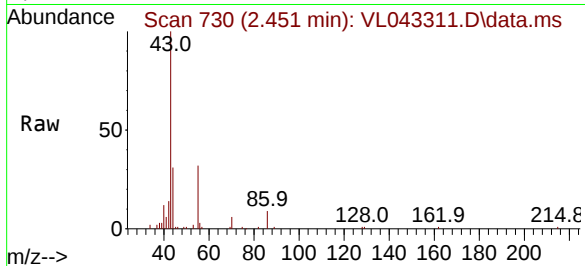


#23
 Vinyl Acetate
 Concen: 0.379 ppbv
 RT: 2.451 min Scan# 71
 Delta R.T. -0.006 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1DUP

Tgt Ion: 43 Resp: 9886

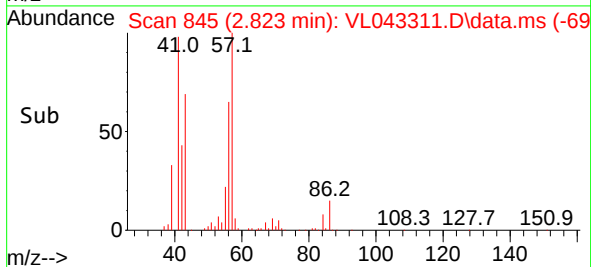
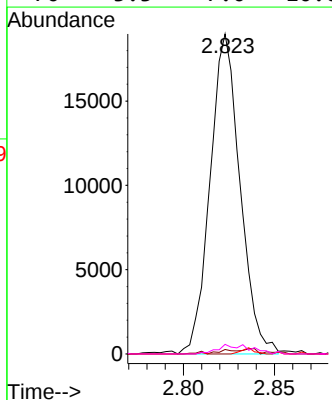
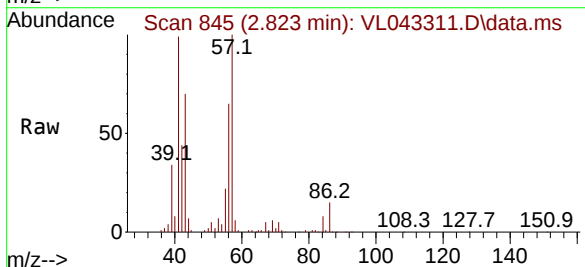
Ion	Ratio	Lower	Upper
43	100		
86	9.4	6.2	9.2#
42	9.0	8.0	12.0
44	5.3	4.0	6.0

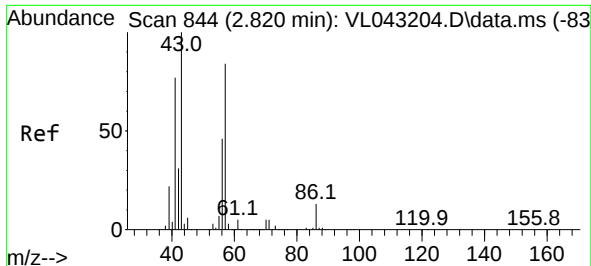


#25
 Ethyl Acetate
 Concen: 0.466 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. -0.006 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

Tgt Ion: 43 Resp: 21691

Ion	Ratio	Lower	Upper
43	100		
45	2.1	8.1	12.1#
61	0.9	7.0	10.4#
70	3.3	7.0	10.6#

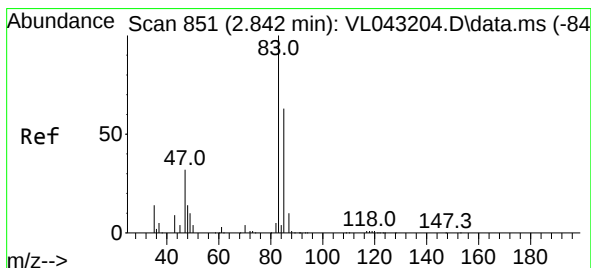
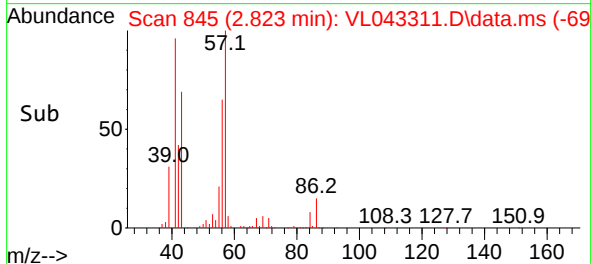
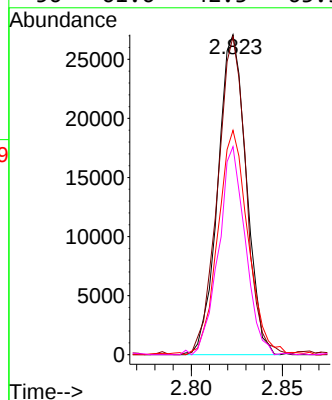
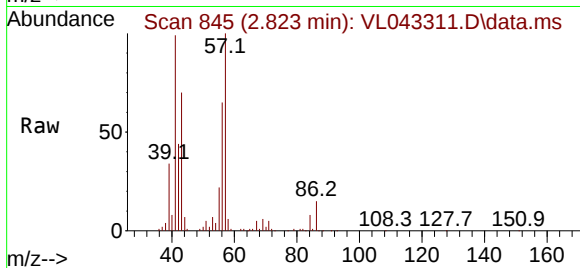




#26
Hexane
Concen: 1.436 ppbv
RT: 2.823 min Scan# 844
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

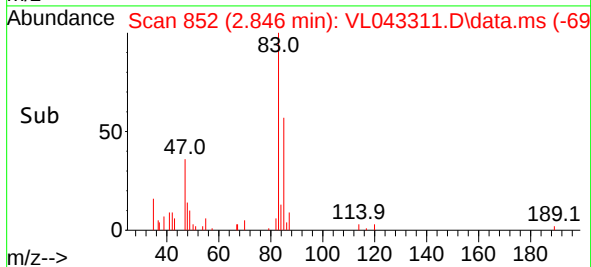
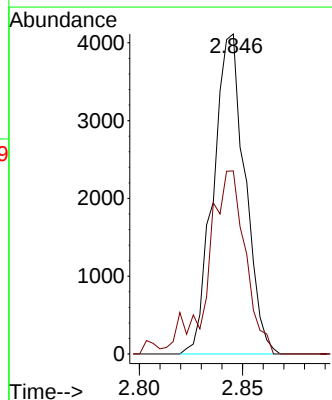
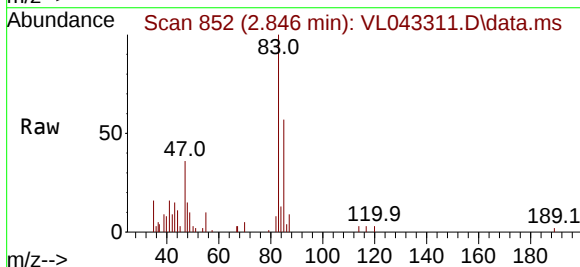
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

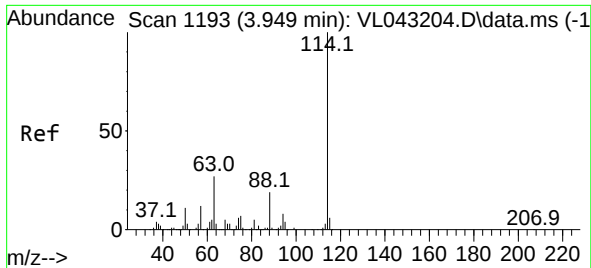
Tgt Ion: 57 Resp: 29316
Ion Ratio Lower Upper
57 100
41 101.3 74.6 111.8
43 75.4 179.0 268.4#
56 61.6 42.3 63.5



#29
Chloroform
Concen: 0.151 ppbv
RT: 2.846 min Scan# 852
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 83 Resp: 4392
Ion Ratio Lower Upper
83 100
85 57.2 50.5 75.7

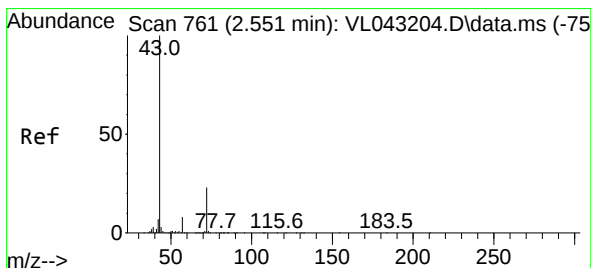
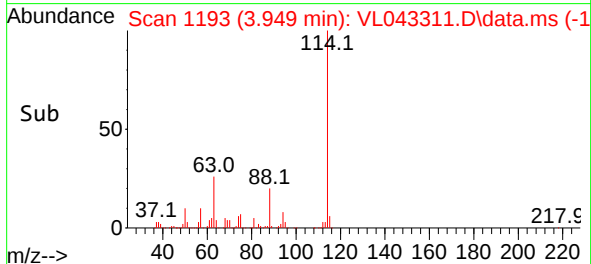
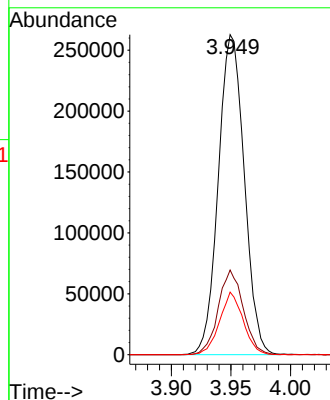
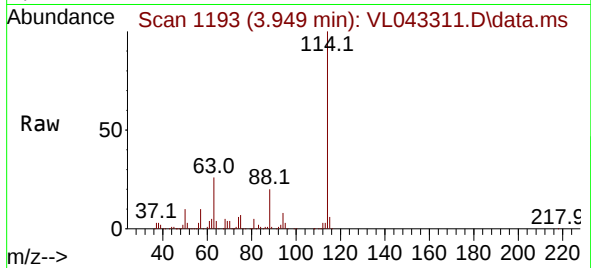




#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.949 min Scan# 1193
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

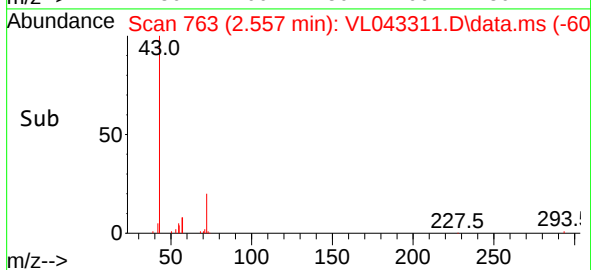
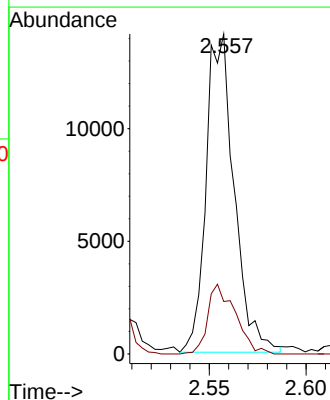
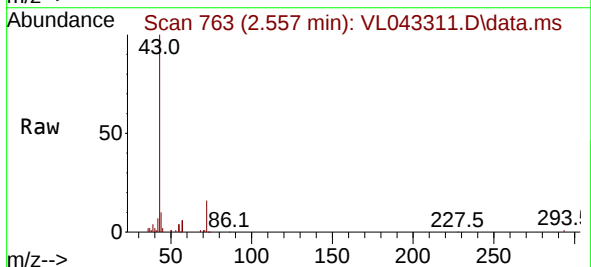
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

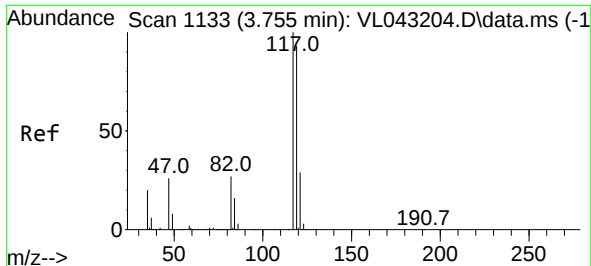
Tgt Ion:114 Resp: 397814
Ion Ratio Lower Upper
114 100
63 25.5 21.0 31.6
88 17.8 14.9 22.3



#34
2-Butanone
Concen: 0.506 ppbv
RT: 2.557 min Scan# 763
Delta R.T. 0.006 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 43 Resp: 14218
Ion Ratio Lower Upper
43 100
72 21.7 18.1 27.1

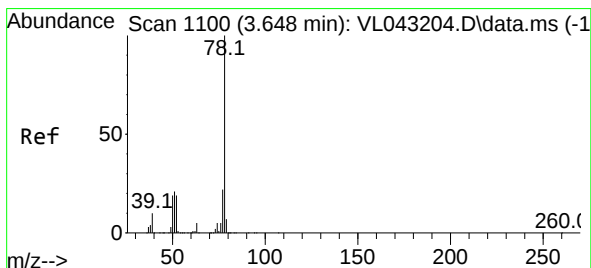
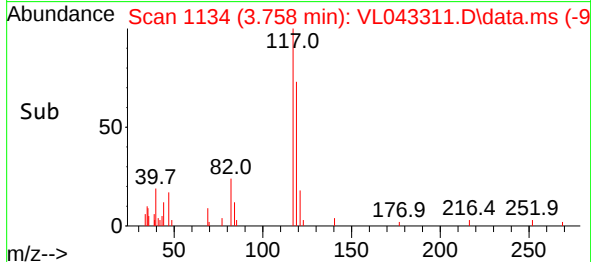
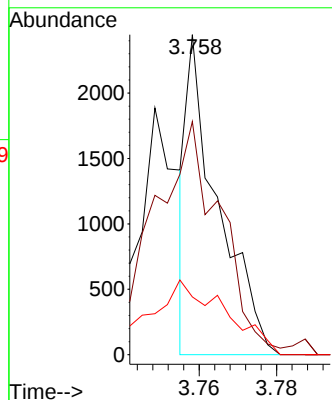
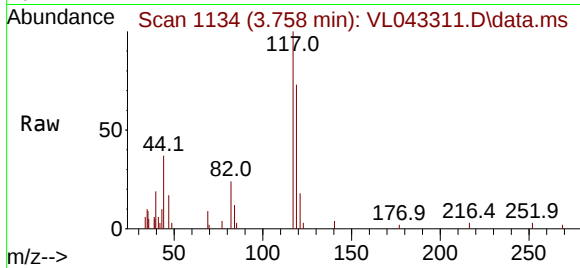




#35
Carbon Tetrachloride
Concen: 0.045 ppbv
RT: 3.758 min Scan# 1133
Delta R.T. 0.003 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

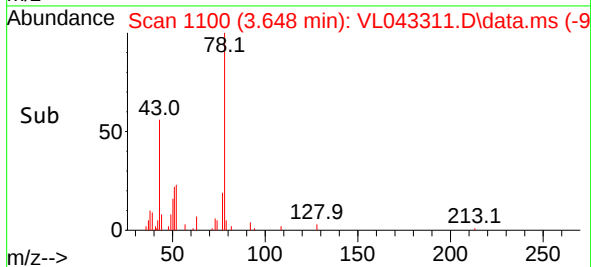
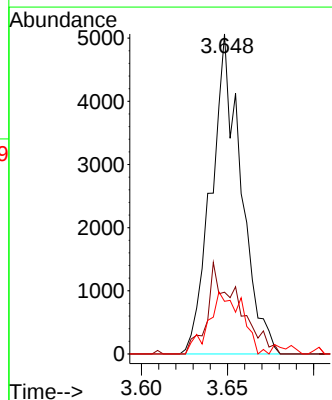
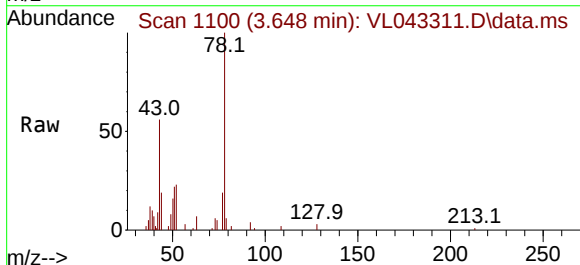
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

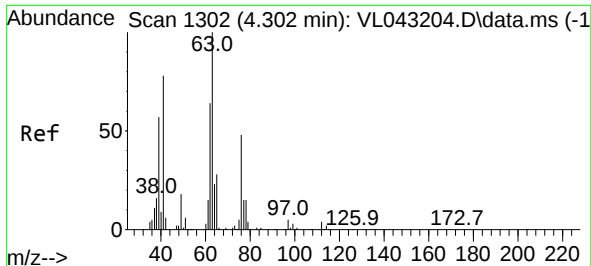
Tgt Ion:117 Resp: 1347
Ion Ratio Lower Upper
117 100
119 70.8 74.6 112.0#
121 18.1 23.2 34.8#



#36
Benzene
Concen: 0.160 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 78 Resp: 6108
Ion Ratio Lower Upper
78 100
77 19.3 17.5 26.3
50 16.5 15.5 23.3





#39

1,2-Dichloropropane

Concen: 7.278 ppbv

RT: 3.949 min Scan# 1119

Delta R.T. -0.353 min

Lab File: VL043311.D

Acq: 08 Dec 2025 13:16

Instrument :

MSVOA_L

ClientSampleId :

AA-1DUP

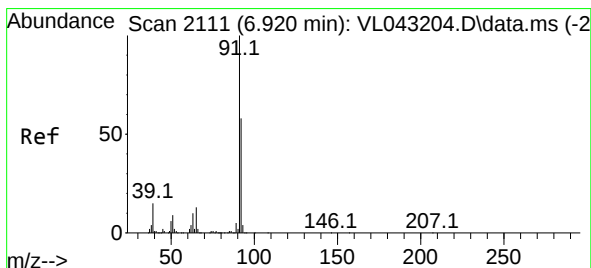
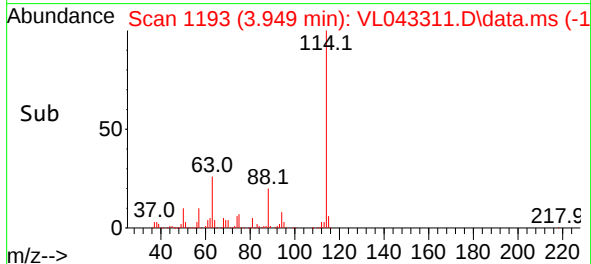
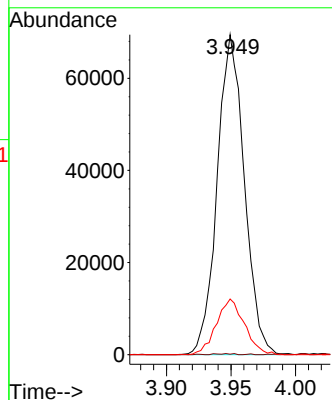
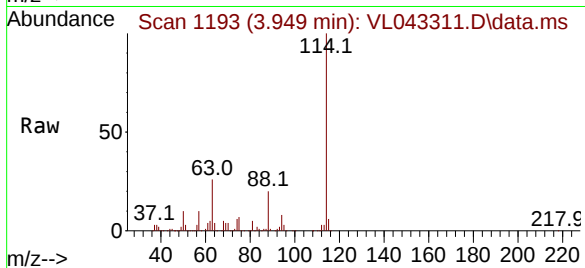
Tgt Ion: 63 Resp: 101486

Ion Ratio Lower Upper

63 100

41 0.0 62.6 93.8#

62 17.4 51.0 76.6#



#53

Toluene

Concen: 0.110 ppbv

RT: 6.924 min Scan# 2112

Delta R.T. 0.003 min

Lab File: VL043311.D

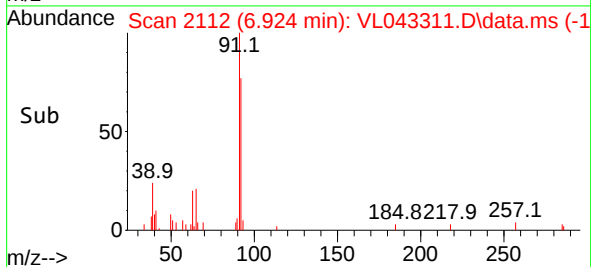
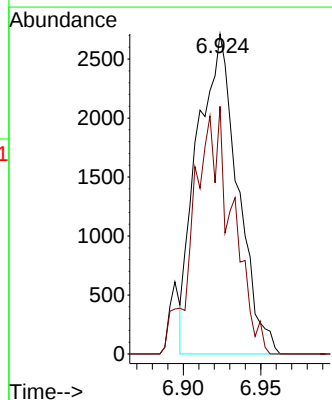
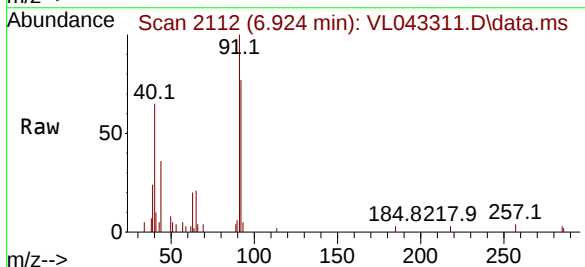
Acq: 08 Dec 2025 13:16

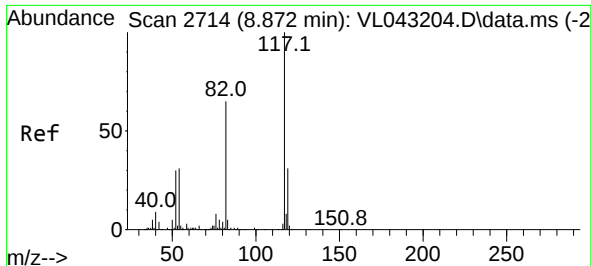
Tgt Ion: 91 Resp: 4945

Ion Ratio Lower Upper

91 100

92 73.7 47.4 71.0#

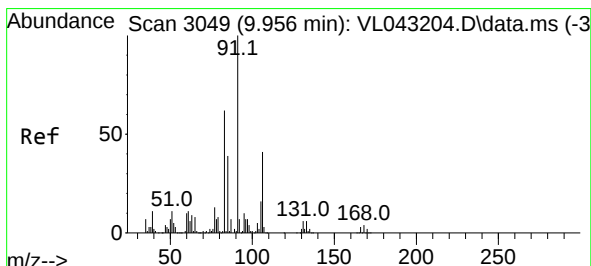
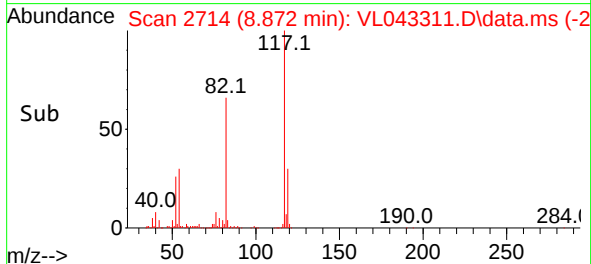
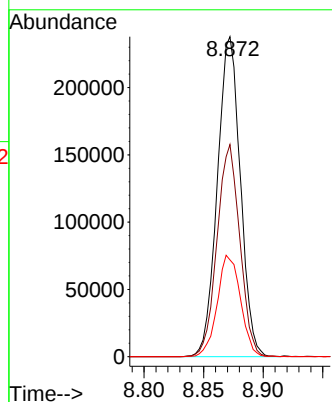
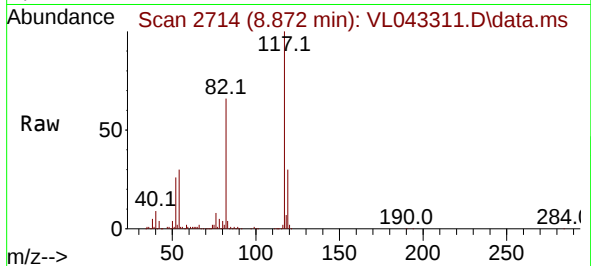




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.872 min Scan# 2117
Delta R.T. 0.000 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

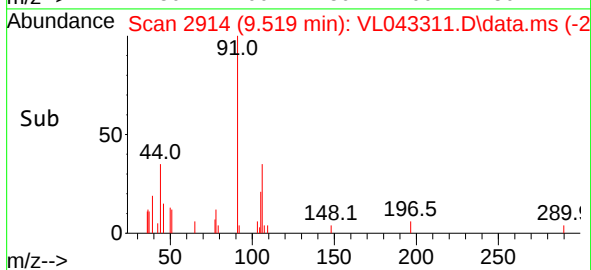
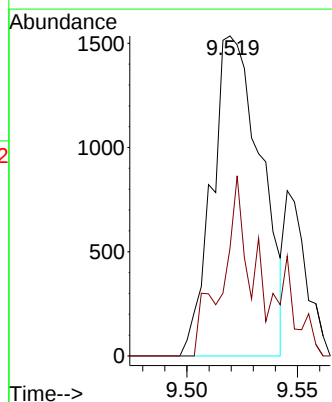
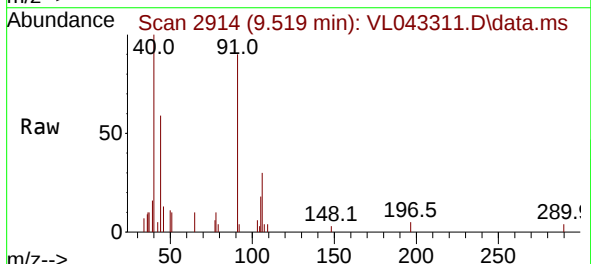
Instrument :
MSVOA_L
ClientSampleId :
AA-1DUP

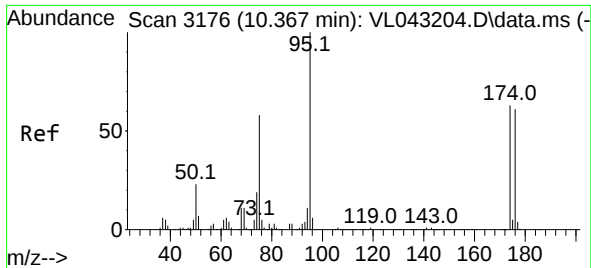
Tgt Ion:117 Resp: 318793
Ion Ratio Lower Upper
117 100
82 65.7 56.1 84.1
119 32.2 25.0 37.6



#60
o-Xylene
Concen: 0.048 ppbv
RT: 9.519 min Scan# 2914
Delta R.T. -0.437 min
Lab File: VL043311.D
Acq: 08 Dec 2025 13:16

Tgt Ion: 91 Resp: 2361
Ion Ratio Lower Upper
91 100
106 45.6 20.9 62.8





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.825 ppbv
 RT: 10.367 min Scan# 31
 Delta R.T. 0.000 min
 Lab File: VL043311.D
 Acq: 08 Dec 2025 13:16

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-1DUP

Tgt Ion: 95 Resp: 229577
 Ion Ratio Lower Upper
 95 100
 174 68.8 50.2 75.2
 175 5.2 4.1 6.1

