

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL110625\
 Data File : VL043163.D
 Acq On : 06 Nov 2025 12:44
 Operator : SY/MD
 Sample : Q3557-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 141-AA-1

Quant Time: Nov 07 00:21:14 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Oct 15 02:12:58 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.787	49	114655	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	343053	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	295343	10.000	ppbv	0.00

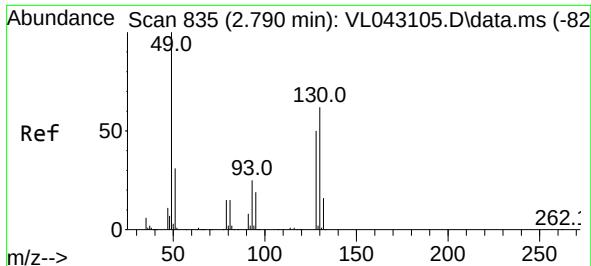
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	233984	10.193	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.900%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.499	85	8126	0.499	ppbv	98
3) Chlorodifluoromethane	1.476	51	8052	0.457	ppbv #	87
4) Chloromethane	1.534	50	3050	0.472	ppbv	91
9) Propene	1.489	41	2649	0.339	ppbv	92
11) Trichlorofluoromethane	1.881	101	4157	0.261	ppbv	95
12) 1,1,2-Trichlorotrifluo...	2.140	101	1008	0.079	ppbv	90
13) Ethanol	1.722	45	7183	2.483	ppbv #	38
15) Acetone	1.835	43	40561	2.625	ppbv	99
16) 1,3-Butadiene	1.602	39	497	0.067	ppbv #	35
19) Isopropyl Alcohol	1.887	45	8851	0.920	ppbv #	1
20) Methylene Chloride	2.062	84	4671	0.765	ppbv	95
23) Vinyl Acetate	2.454	43	3139	0.139	ppbv #	84
25) Ethyl Acetate	2.826	43	10701	0.279	ppbv #	82
26) Hexane	2.826	57	13632	0.772	ppbv #	42
29) Chloroform	2.849	83	815	0.032	ppbv #	77
34) 2-Butanone	2.560	43	5042	0.219	ppbv	99
35) Carbon Tetrachloride	3.765	117	964	0.039	ppbv #	89
36) Benzene	3.661	78	1338	0.041	ppbv #	73
39) 1,2-Dichloropropane	3.959	63	87782	7.431	ppbv #	25
44) 2,2,4-Trimethylpentane	4.638	57	1800	0.033	ppbv #	50
53) Toluene	6.936	91	2020	0.053	ppbv #	20

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

Quant Time: Nov 07 00:21:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Oct 15 02:12:58 2025
Response via : Initial Calibration

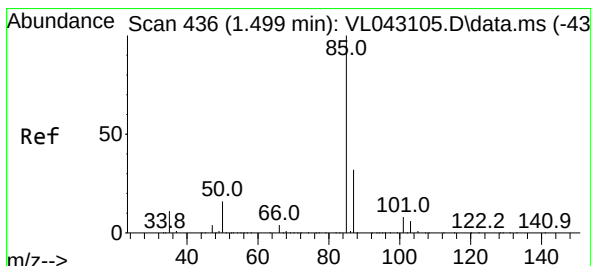
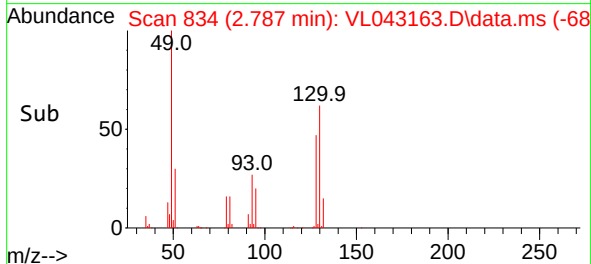
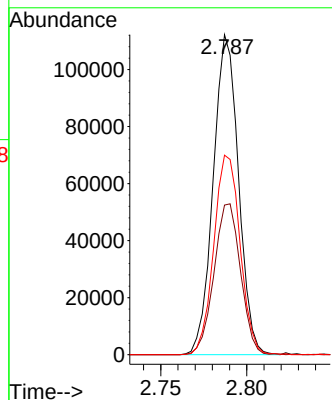
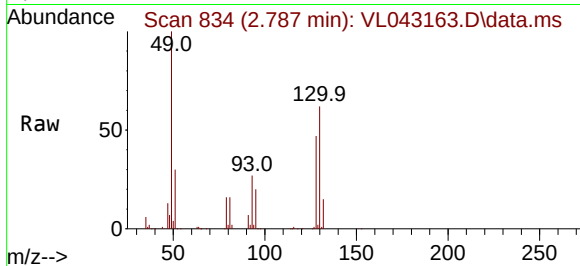




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 835
Delta R.T. -0.003 min
Lab File: VL043163.D
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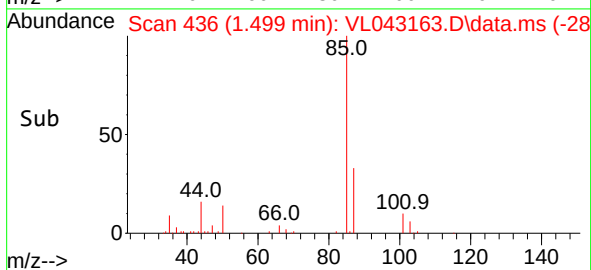
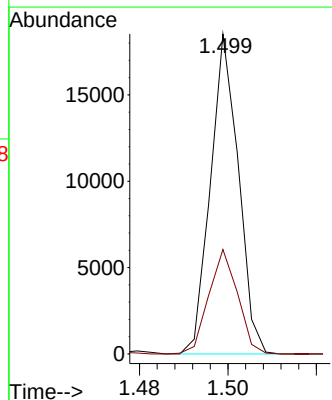
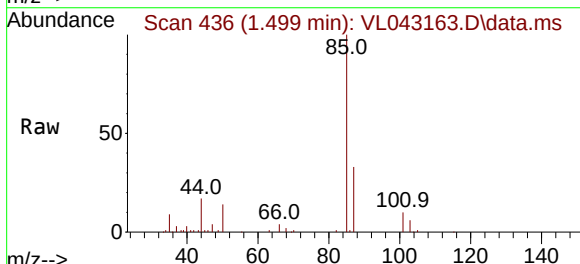
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

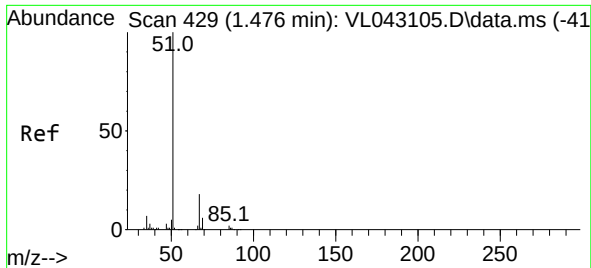
Tgt Ion: 49 Resp: 114655
Ion Ratio Lower Upper
49 100
128 49.6 24.4 73.4
130 64.9 31.0 93.0



#2
Dichlorodifluoromethane
Concen: 0.499 ppbv
RT: 1.499 min Scan# 436
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 85 Resp: 8126
Ion Ratio Lower Upper
85 100
87 32.7 25.3 37.9

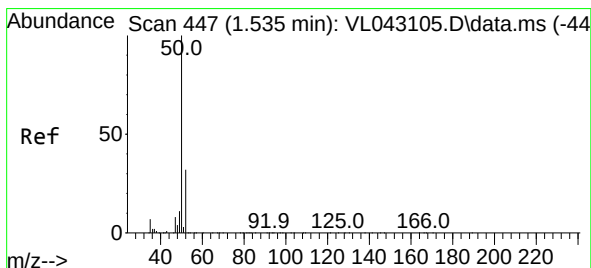
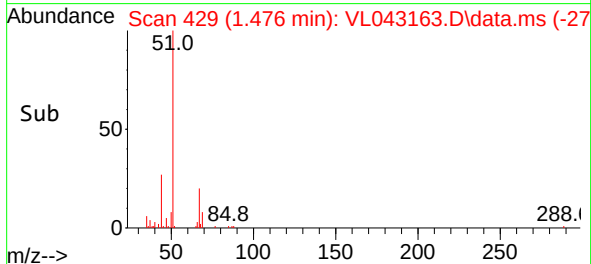
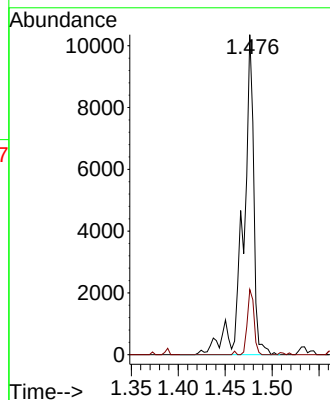
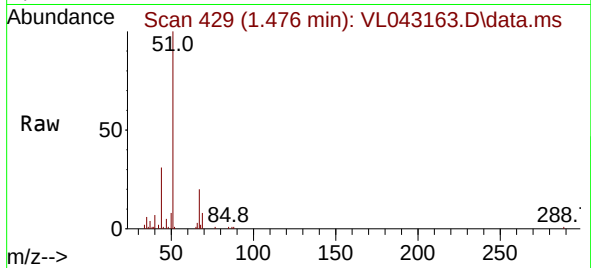




#3
Chlorodifluoromethane
Concen: 0.457 ppbv
RT: 1.476 min Scan# 429
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

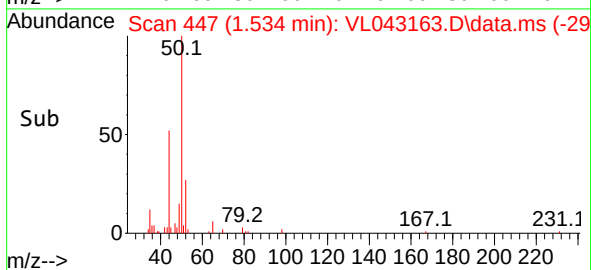
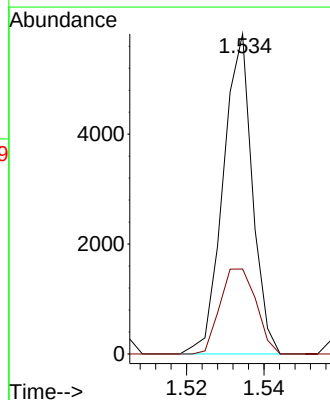
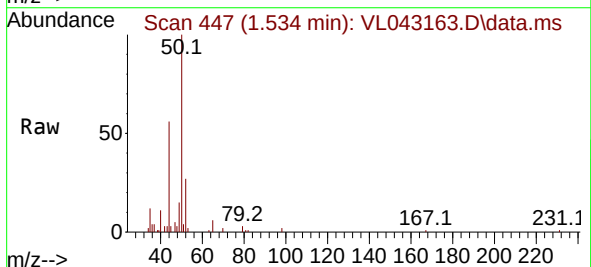
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

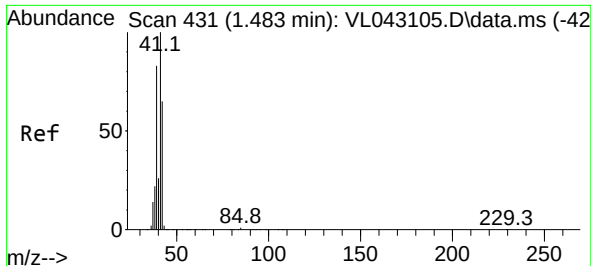
Tgt Ion: 51 Resp: 8052
Ion Ratio Lower Upper
51 100
67 13.2 15.1 22.7#



#4
Chloromethane
Concen: 0.472 ppbv
RT: 1.534 min Scan# 447
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 50 Resp: 3050
Ion Ratio Lower Upper
50 100
52 26.5 25.2 37.8





#9

Propene

Concen: 0.339 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

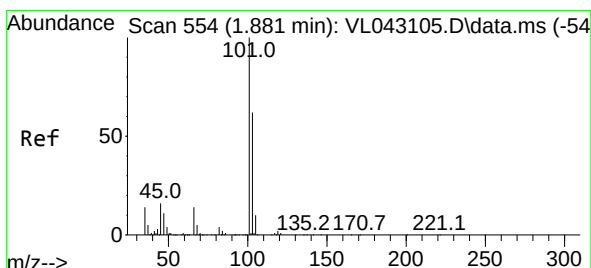
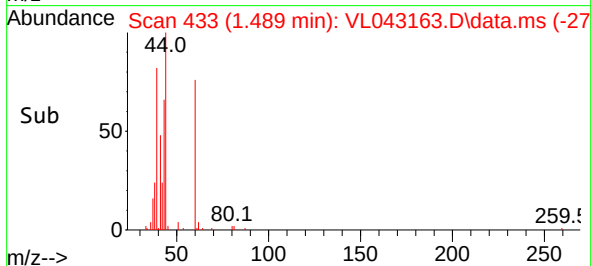
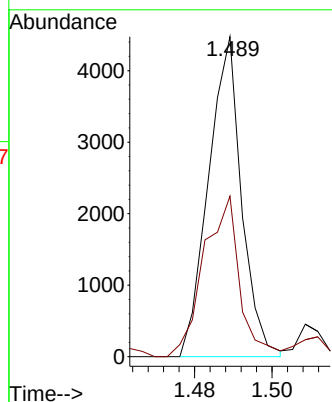
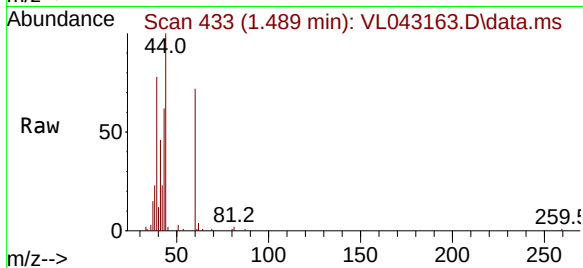
141-AA-1

Tgt Ion: 41 Resp: 2649

Ion Ratio Lower Upper

41 100

42 62.0 55.1 82.7



#11

Trichlorofluoromethane

Concen: 0.261 ppbv

RT: 1.881 min Scan# 554

Delta R.T. -0.000 min

Lab File: VL043163.D

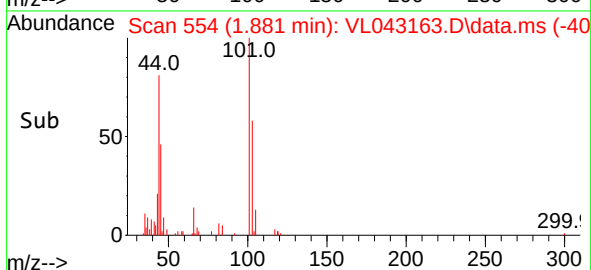
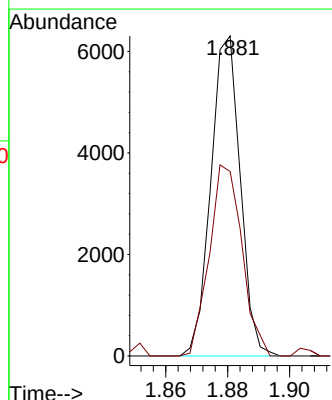
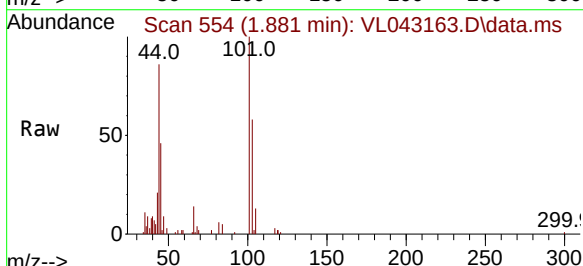
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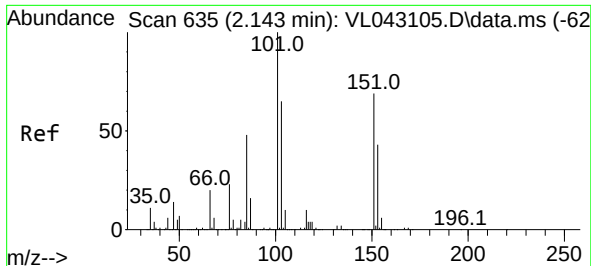
Tgt Ion: 101 Resp: 4157

Ion Ratio Lower Upper

101 100

103 57.6 49.3 73.9





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.079 ppbv

RT: 2.140 min Scan# 61

Delta R.T. -0.003 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

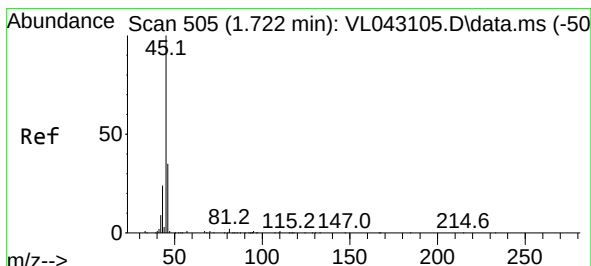
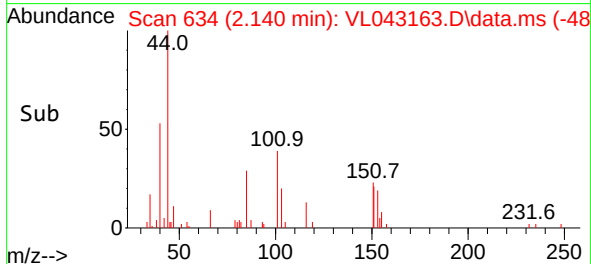
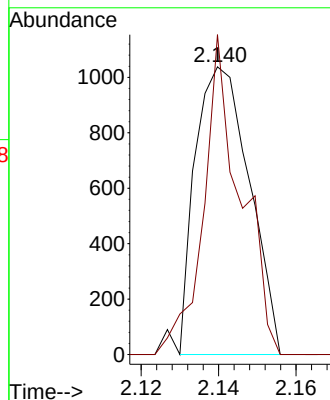
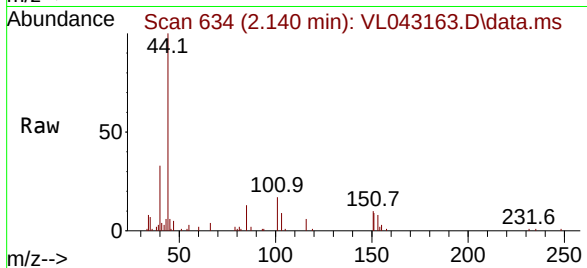
141-AA-1

Tgt Ion:101 Resp: 1008

Ion Ratio Lower Upper

101 100

151 76.4 54.7 82.1



#13

Ethanol

Concen: 2.483 ppbv

RT: 1.722 min Scan# 505

Delta R.T. -0.000 min

Lab File: VL043163.D

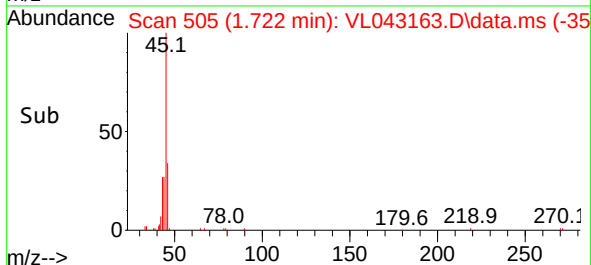
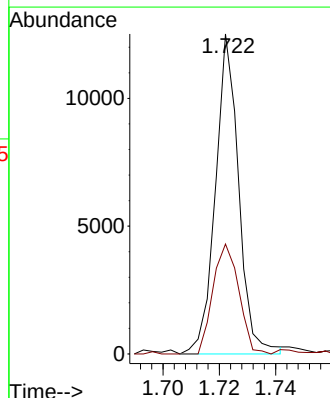
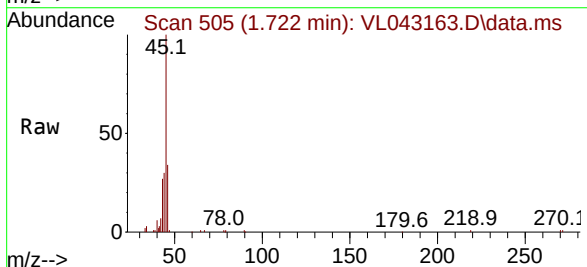
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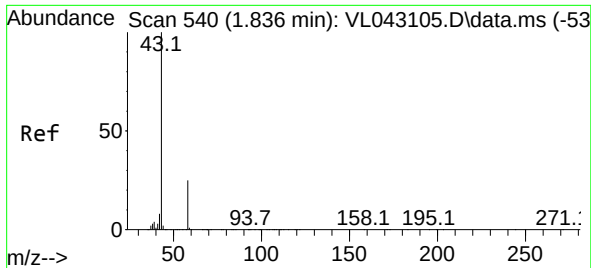
Tgt Ion: 45 Resp: 7183

Ion Ratio Lower Upper

45 100

46 0.0 14.7 58.9#

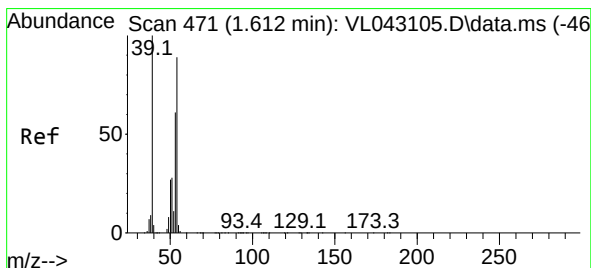
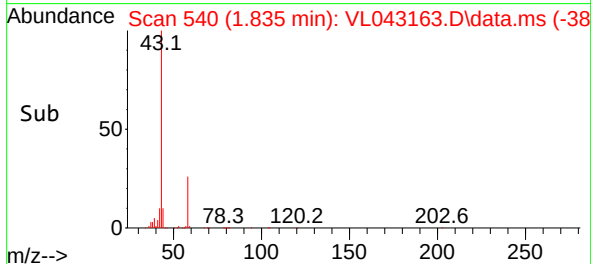
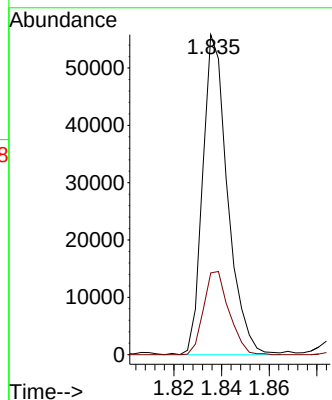
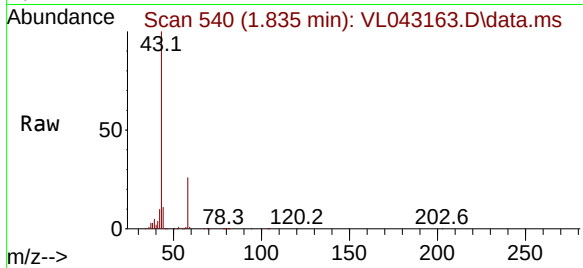




#15
Acetone
Concen: 2.625 ppbv
RT: 1.835 min Scan# 540
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

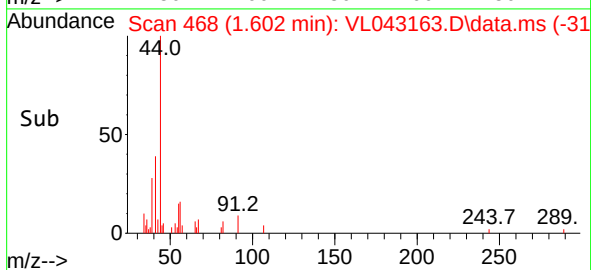
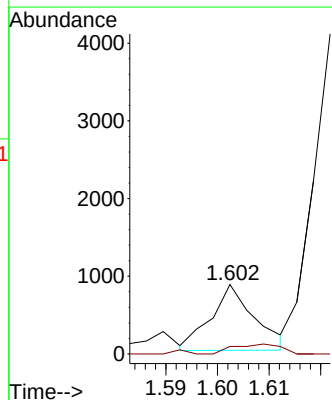
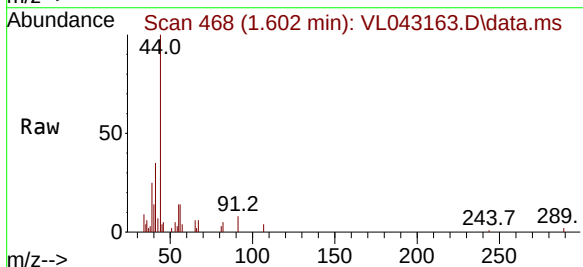
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

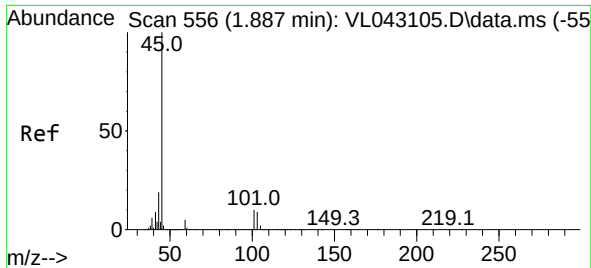
Tgt Ion: 43 Resp: 40561
Ion Ratio Lower Upper
43 100
58 26.6 20.8 31.2



#16
1,3-Butadiene
Concen: 0.067 ppbv
RT: 1.602 min Scan# 468
Delta R.T. -0.010 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 39 Resp: 497
Ion Ratio Lower Upper
39 100
54 18.5 59.0 88.4#

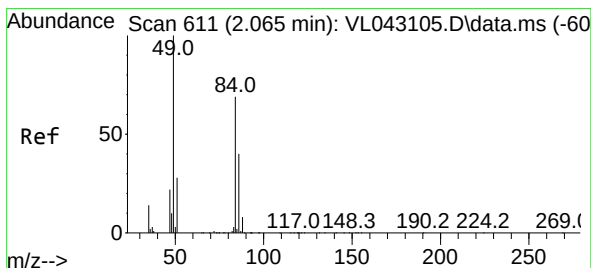
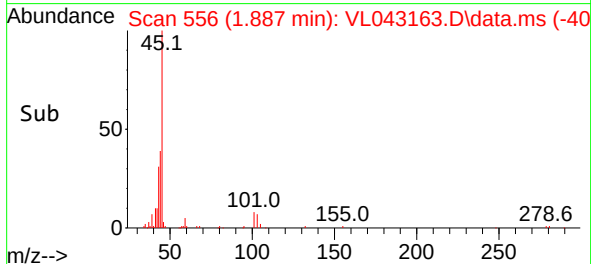
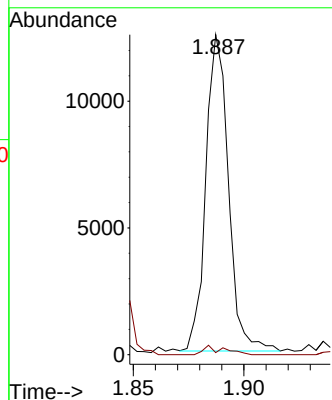
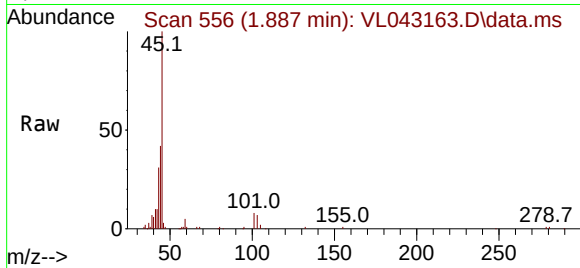




#19
Isopropyl Alcohol
Concen: 0.920 ppbv
RT: 1.887 min Scan# 511
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

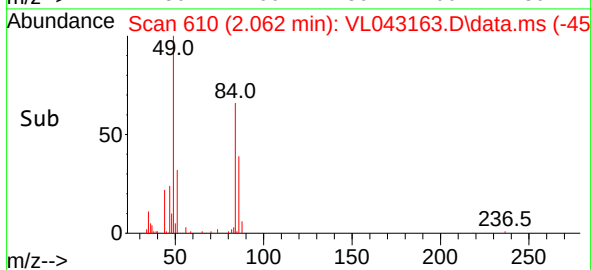
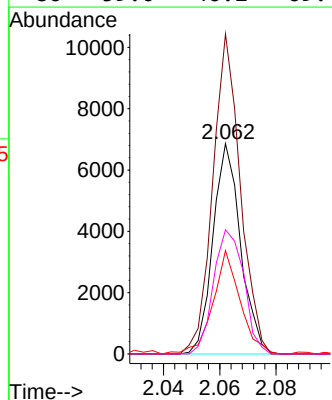
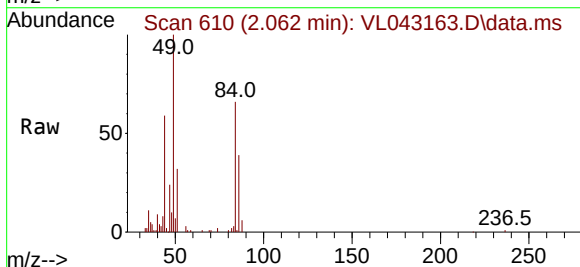
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ClientSampleId :
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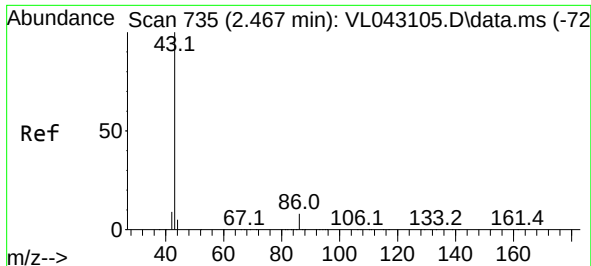
Tgt Ion: 45 Resp: 8851
Ion Ratio Lower Upper
45 100
58 121.8 31.3 46.9#



#20
Methylene Chloride
Concen: 0.765 ppbv
RT: 2.062 min Scan# 610
Delta R.T. -0.003 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 84 Resp: 4671
Ion Ratio Lower Upper
84 100
49 152.1 116.6 175.0
51 49.1 34.8 52.2
86 59.0 46.2 69.4

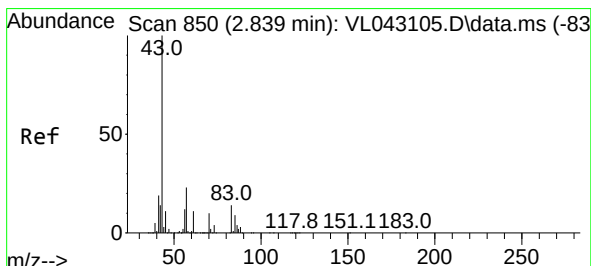
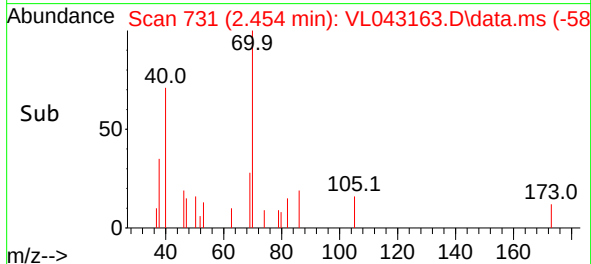
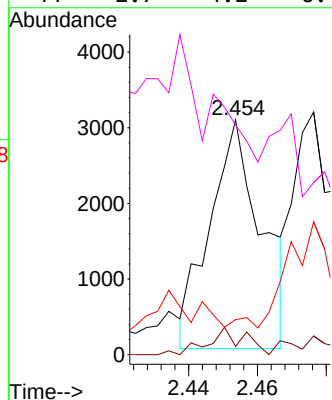
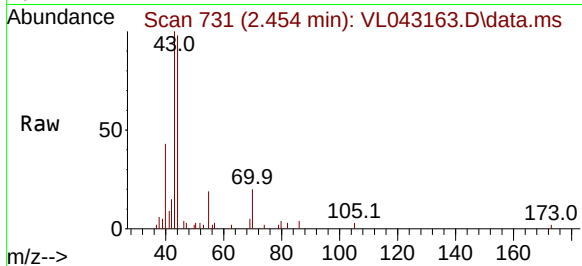




#23
 Vinyl Acetate
 Concen: 0.139 ppbv
 RT: 2.454 min Scan# 71
 Delta R.T. -0.013 min
 Lab File: VL043163.D
 Acq: 06 Nov 2025 12:44

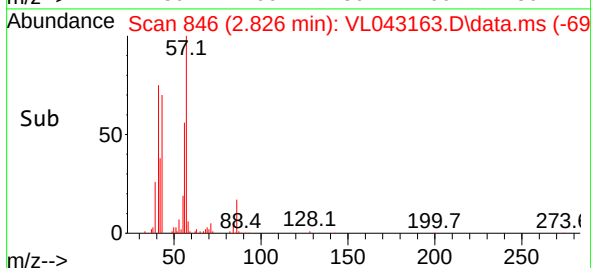
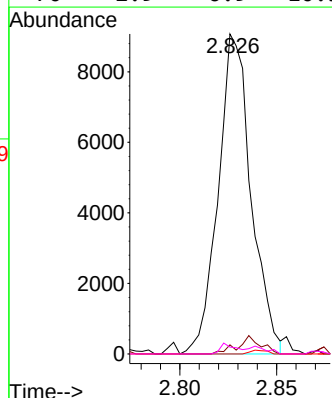
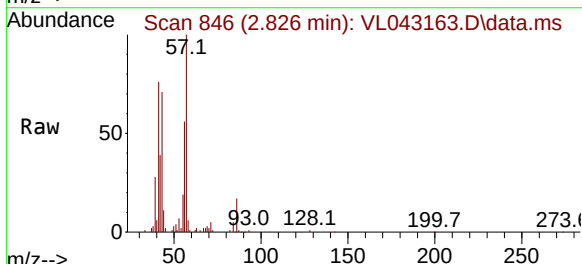
Instrument :
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 141-AA-1

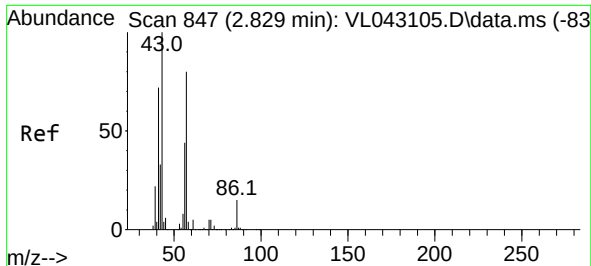
Tgt Ion: 43	Resp: 3139
Ion Ratio	Lower Upper
43 100	
86 4.2	6.2 9.2#
42 0.0	7.6 11.4#
44 2.7	4.2 6.4#



#25
 Ethyl Acetate
 Concen: 0.279 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.013 min
 Lab File: VL043163.D
 Acq: 06 Nov 2025 12:44

Tgt Ion: 43	Resp: 10701
Ion Ratio	Lower Upper
43 100	
45 3.9	7.8 11.8#
61 0.6	7.0 10.6#
70 2.9	6.9 10.3#

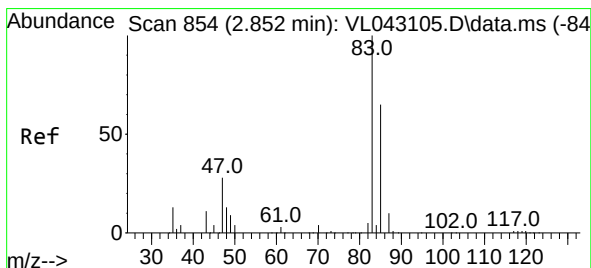
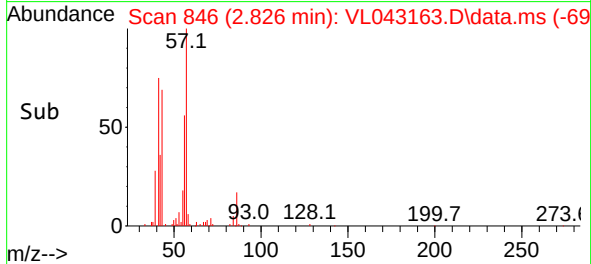
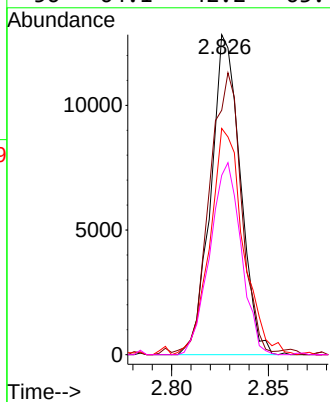
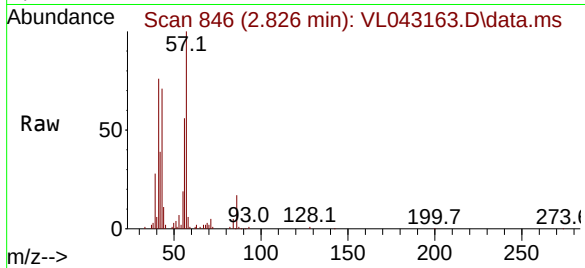




#26
Hexane
Concen: 0.772 ppbv
RT: 2.826 min Scan# 84
Delta R.T. -0.003 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

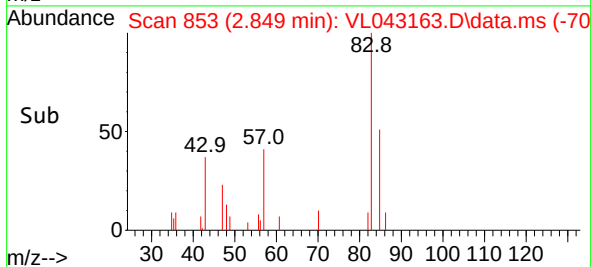
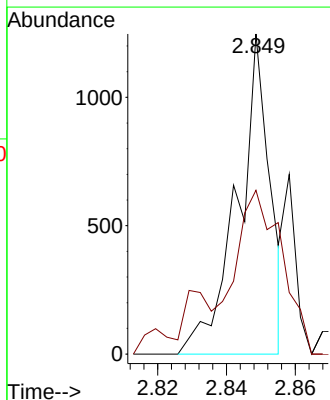
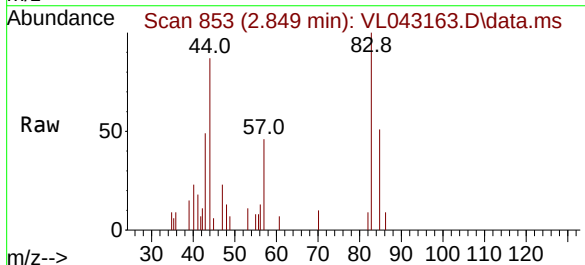
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

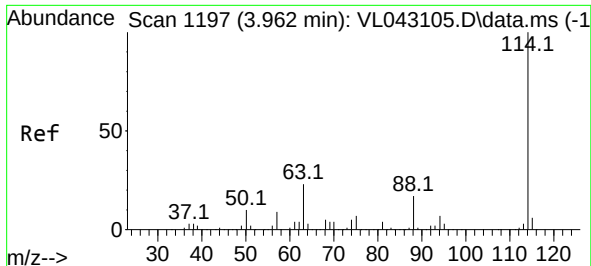
Tgt Ion: 57 Resp: 13632
Ion Ratio Lower Upper
57 100
41 98.1 71.4 107.0
43 80.4 178.5 267.7#
56 64.1 42.2 63.4#



#29
Chloroform
Concen: 0.032 ppbv
RT: 2.849 min Scan# 853
Delta R.T. -0.003 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 83 Resp: 815
Ion Ratio Lower Upper
83 100
85 46.8 51.8 77.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. -0.003 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

Instrument :

MSVOA_1

ClientSampleId :

141-AA-1

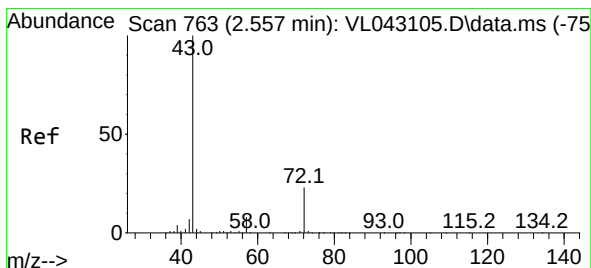
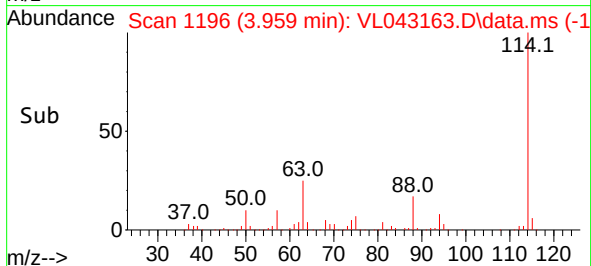
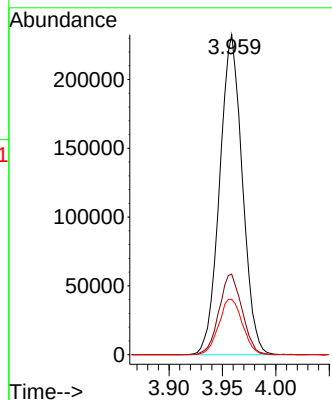
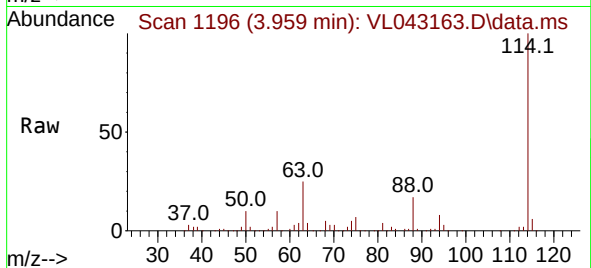
Tgt Ion:114 Resp: 343053

Ion Ratio Lower Upper

114 100

63 25.6 19.3 28.9

88 18.1 13.9 20.9



#34

2-Butanone

Concen: 0.219 ppbv

RT: 2.560 min Scan# 764

Delta R.T. 0.003 min

Lab File: VL043163.D

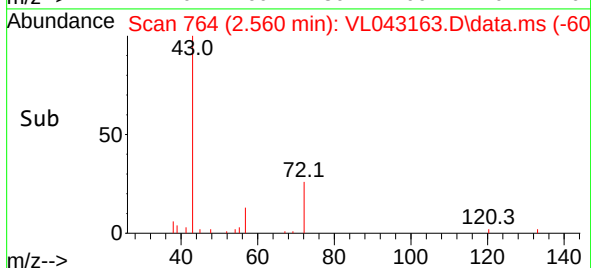
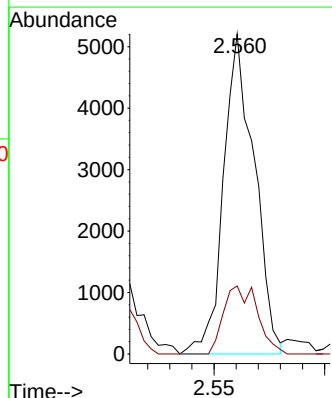
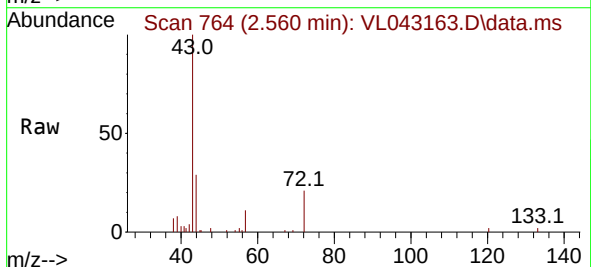
Acq: 06 Nov 2025 12:44

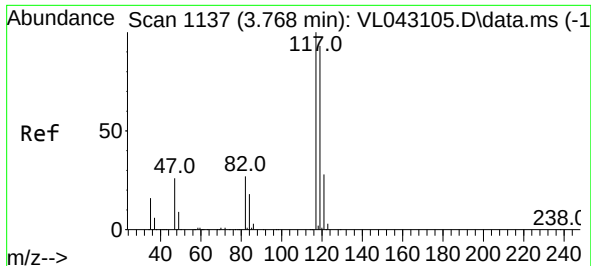
Tgt Ion: 43 Resp: 5042

Ion Ratio Lower Upper

43 100

72 23.3 18.4 27.6

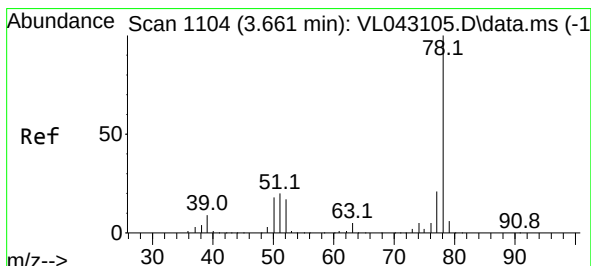
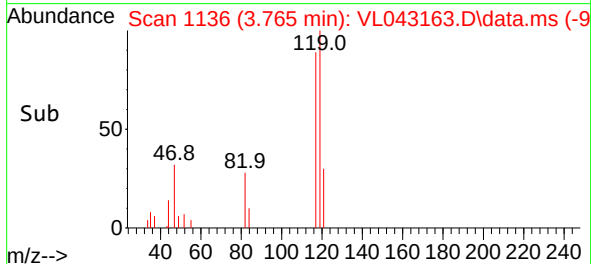
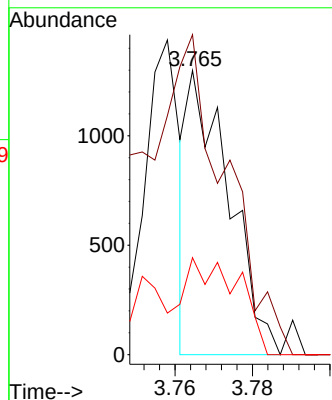
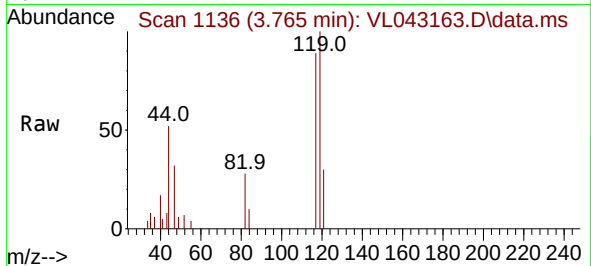




#35
Carbon Tetrachloride
Concen: 0.039 ppbv
RT: 3.765 min Scan# 1136
Delta R.T. -0.003 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

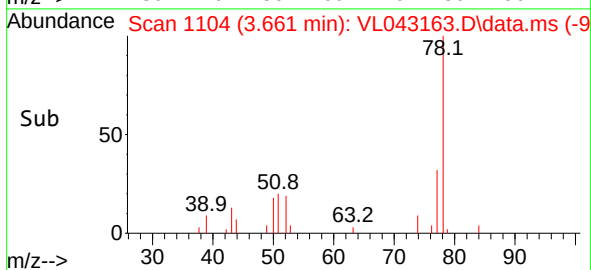
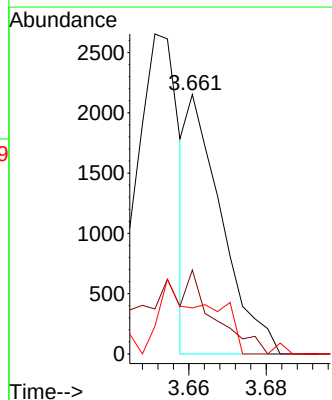
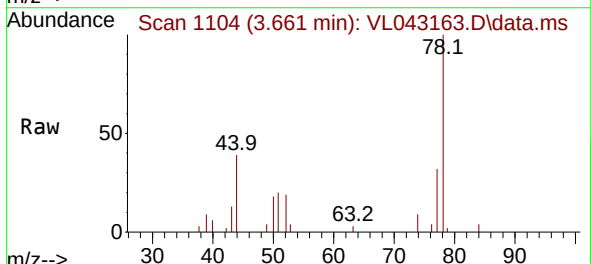
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

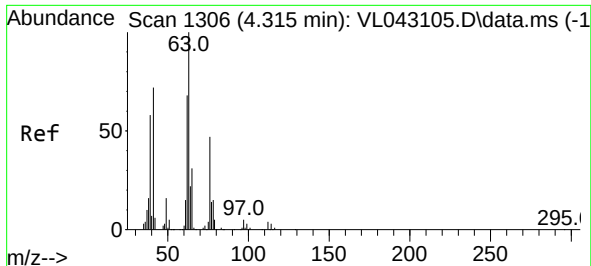
Tgt Ion:117 Resp: 964
Ion Ratio Lower Upper
117 100
119 102.9 74.1 111.1
121 34.1 22.2 33.2#



#36
Benzene
Concen: 0.041 ppbv
RT: 3.661 min Scan# 1104
Delta R.T. -0.000 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 78 Resp: 1338
Ion Ratio Lower Upper
78 100
77 31.6 17.0 25.6#
50 32.9 14.6 22.0#





#39

1,2-Dichloropropane

Concen: 7.431 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. -0.356 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

141-AA-1

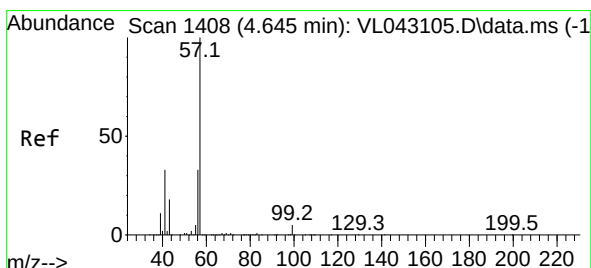
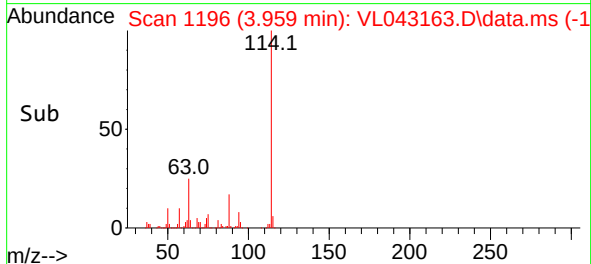
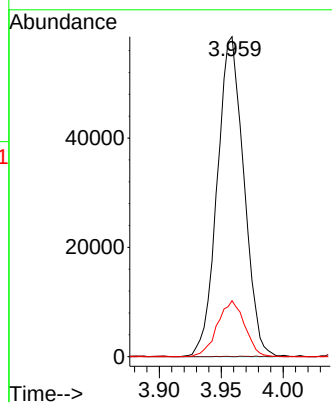
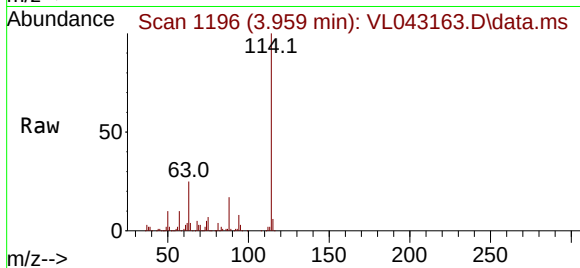
Tgt Ion: 63 Resp: 87782

Ion Ratio Lower Upper

63 100

41 0.0 58.0 87.0#

62 17.5 54.7 82.1#



#44

2,2,4-Trimethylpentane

Concen: 0.033 ppbv

RT: 4.638 min Scan# 1406

Delta R.T. -0.007 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

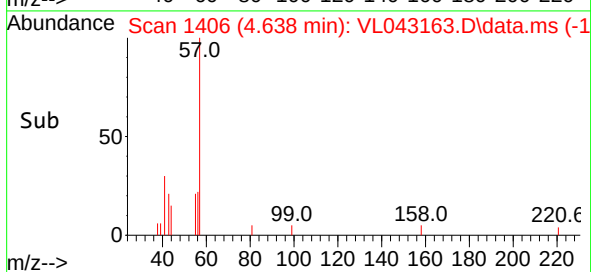
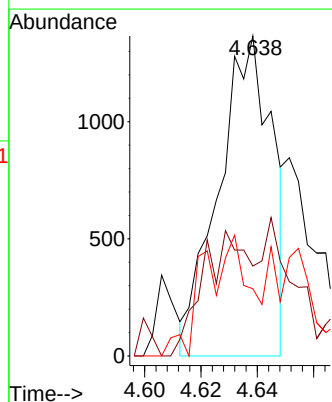
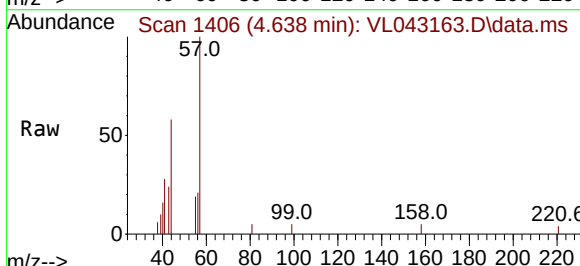
Tgt Ion: 57 Resp: 1800

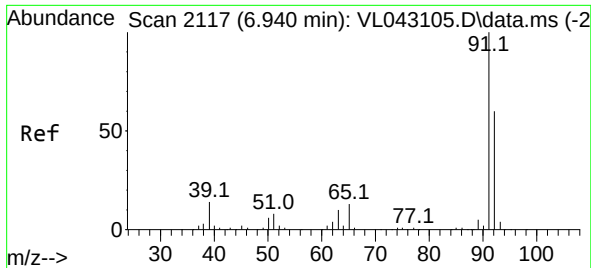
Ion Ratio Lower Upper

57 100

41 0.0 26.3 39.5#

56 55.5 25.9 38.9#

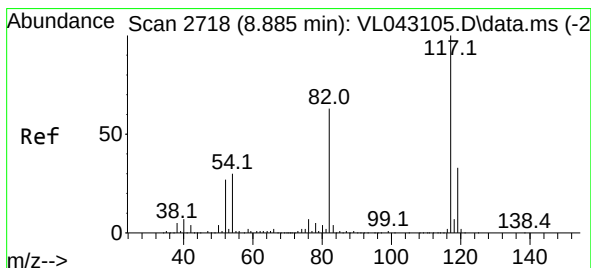
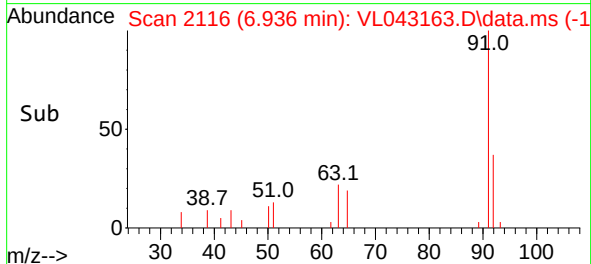
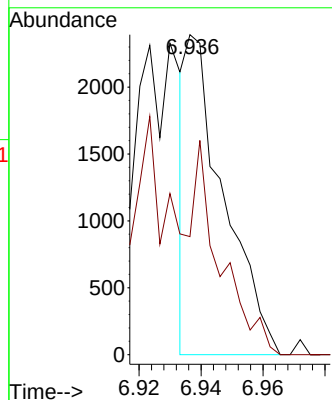
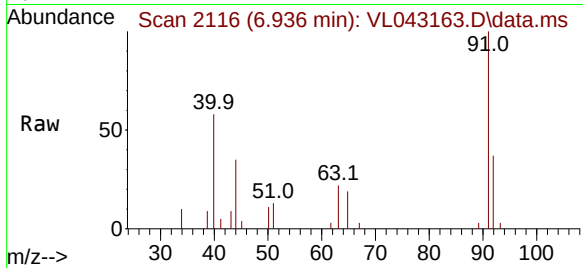




#53
Toluene
Concen: 0.053 ppbv
RT: 6.936 min Scan# 2116
Delta R.T. -0.003 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

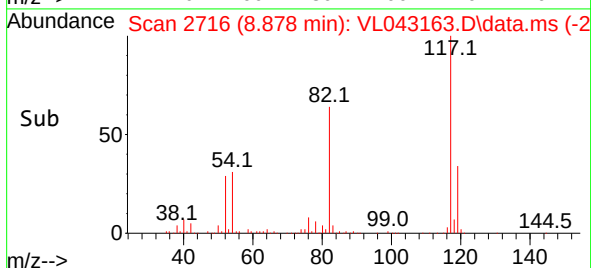
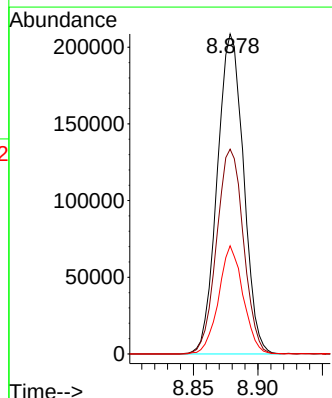
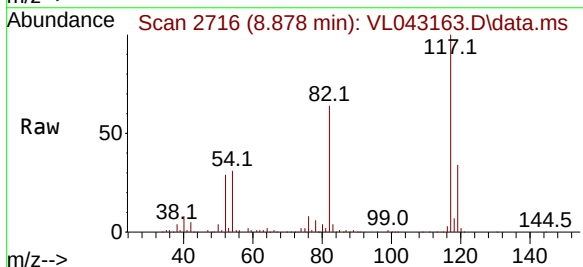
Instrument :
MSVOA_L
ClientSampleId :
141-AA-1

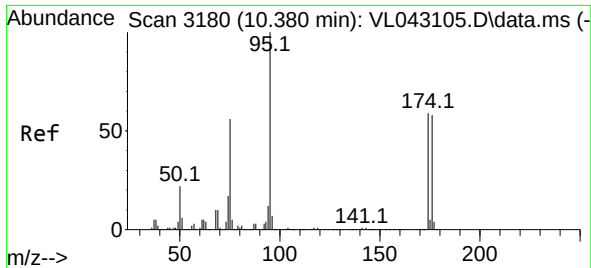
Tgt Ion: 91 Resp: 2020
Ion Ratio Lower Upper
91 100
92 0.0 48.8 73.2#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.878 min Scan# 2716
Delta R.T. -0.007 min
Lab File: VL043163.D
Acq: 06 Nov 2025 12:44

Tgt Ion: 117 Resp: 295343
Ion Ratio Lower Upper
117 100
82 65.3 53.8 80.8
119 31.7 25.4 38.0





#68

1-Bromo-4-Fluorobenzene

Concen: 10.193 ppbv

RT: 10.374 min Scan# 31

Delta R.T. -0.007 min

Lab File: VL043163.D

Acq: 06 Nov 2025 12:44

Instrument :

MSVOA_L

ClientSampleId :

141-AA-1

Tgt Ion: 95 Resp: 233984

Ion Ratio Lower Upper

95 100

174 64.1 48.3 72.5

175 4.6 3.8 5.8

