

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL100925\
 Data File : VL043085.D
 Acq On : 09 Oct 2025 13:18
 Operator : SY/MD
 Sample : Q3320-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

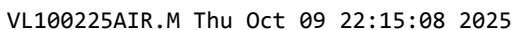
Quant Time: Oct 09 22:14:57 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Oct 03 08:23:34 2025
 Response via : Initial Calibration

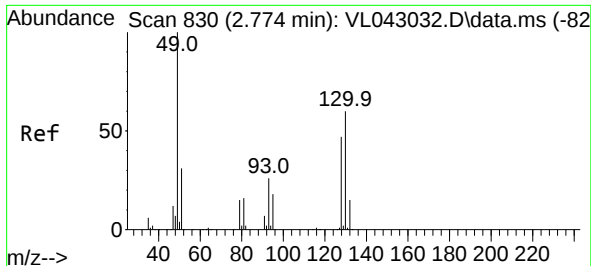
Compound		R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards							
1) Bromochloromethane		2.780	49	200129	10.000	ppbv	0.00
33) 1,4-Difluorobenzene		3.946	114	528770	10.000	ppbv	0.00
55) Chlorobenzene-d5		8.869	117	446168	10.000	ppbv	0.00
System Monitoring Compounds							
68) 1-Bromo-4-Fluorobenzene		10.364	95	339557	10.565	ppbv	0.00
Spiked Amount		10.000	Range	65 - 135	Recovery	= 105.600%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane		1.495	85	13995	0.415	ppbv	98
3) Chlorodifluoromethane		1.463	51	43798	1.342	ppbv #	70
4) Chloromethane		1.531	50	5235	0.425	ppbv	93
9) Propene		1.486	41	8018	0.609	ppbv #	80
11) Trichlorofluoromethane		1.874	101	7179	0.207	ppbv	88
12) 1,1,2-Trichlorotrifluo...		2.133	101	1566	0.057	ppbv	87
13) Ethanol		1.716	45	77612	161.519	ppbv	88
15) Acetone		1.832	43	87022	3.106	ppbv	100
16) 1,3-Butadiene		1.618	39	2527	0.219	ppbv #	44
17) tert-Butyl alcohol		2.039	59	1213	0.041	ppbv #	72
19) Isopropyl Alcohol		1.881	45	9896	0.737	ppbv #	1
20) Methylene Chloride		2.055	84	8920	0.729	ppbv	88
23) Vinyl Acetate		2.447	43	3901	0.656	ppbv #	63
25) Ethyl Acetate		2.822	43	9817	0.140	ppbv #	90
26) Hexane		2.819	57	8808	0.326	ppbv #	44
29) Chloroform		2.842	83	6591	0.143	ppbv	99
34) 2-Butanone		2.554	43	7944	0.221	ppbv	96
35) Carbon Tetrachloride		3.751	117	2383	0.055	ppbv #	79
36) Benzene		3.648	78	2789	0.055	ppbv #	88
39) 1,2-Dichloropropane		3.946	63	135317	7.226	ppbv #	22
53) Toluene		6.914	91	4341	0.085	ppbv	91
79) Naphthalene		13.507	128	1014	0.252	ppbv #	81
80) Naphthalene,2-methyl-		14.461	142	432	0.677	ppbv	93

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

Quant Time: Oct 09 22:14:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Oct 03 08:23:34 2025
Response via : Initial Calibration

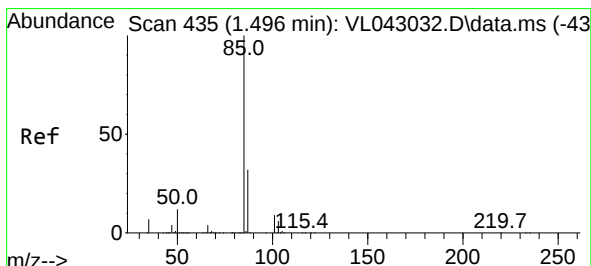
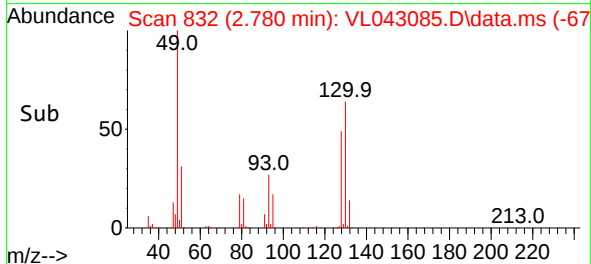
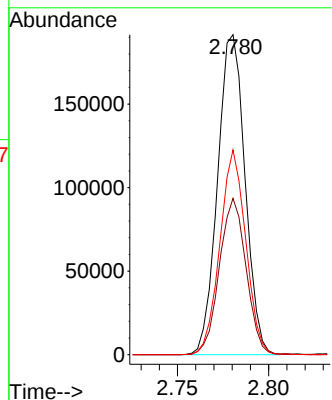
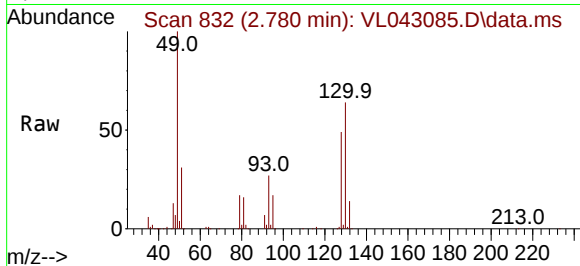




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.780 min Scan# 830
Delta R.T. 0.006 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

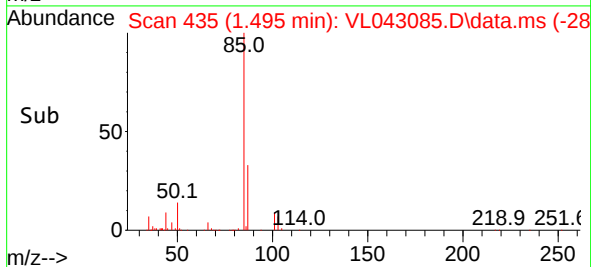
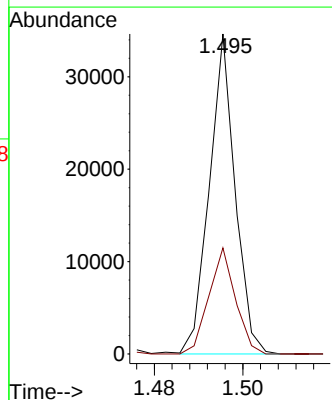
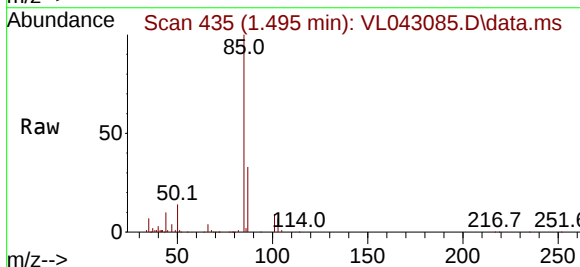
Instrument :
MSVOA_L
ClientSampleId :
IA2

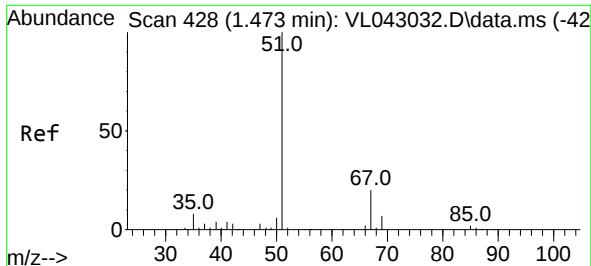
Tgt Ion: 49 Resp: 200129
Ion Ratio Lower Upper
49 100
128 47.6 24.1 72.2
130 60.4 31.4 94.3



#2
Dichlorodifluoromethane
Concen: 0.415 ppbv
RT: 1.495 min Scan# 435
Delta R.T. -0.000 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 85 Resp: 13995
Ion Ratio Lower Upper
85 100
87 33.1 25.8 38.6

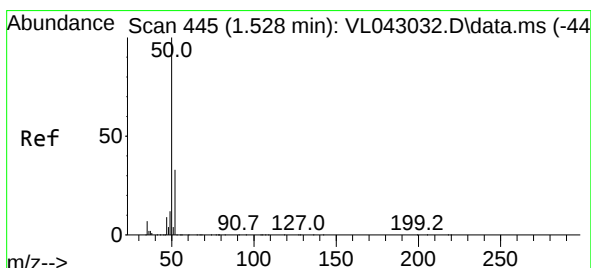
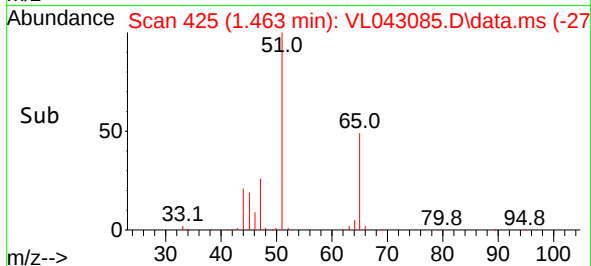
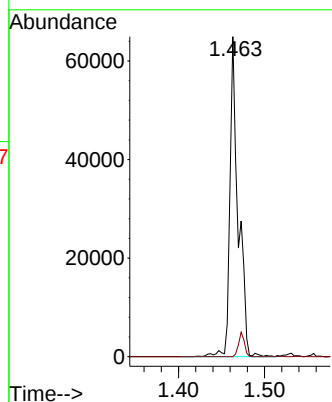
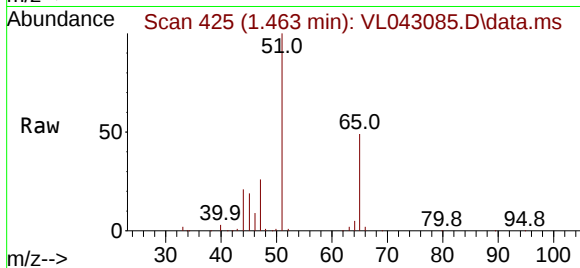




#3
Chlorodifluoromethane
Concen: 1.342 ppbv
RT: 1.463 min Scan# 41
Delta R.T. -0.010 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

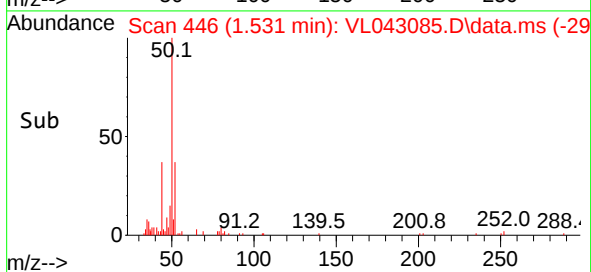
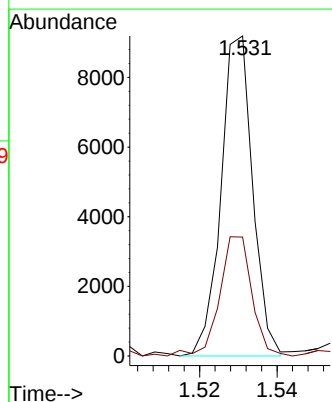
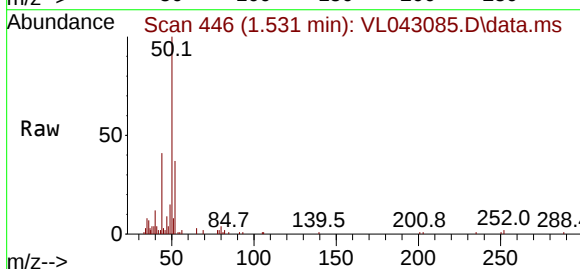
Instrument :
MSVOA_L
ClientSampleId :
IA2

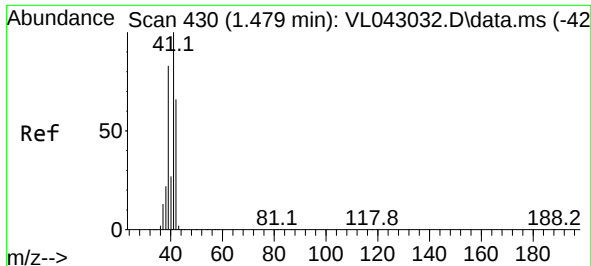
Tgt Ion: 51 Resp: 43798
Ion Ratio Lower Upper
51 100
67 5.4 15.1 22.7#



#4
Chloromethane
Concen: 0.425 ppbv
RT: 1.531 min Scan# 446
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 50 Resp: 5235
Ion Ratio Lower Upper
50 100
52 36.8 26.2 39.2





#9

Propene

Concen: 0.609 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043085.D

Acq: 09 Oct 2025 13:18

Instrument :

MSVOA_L

ClientSampleId :

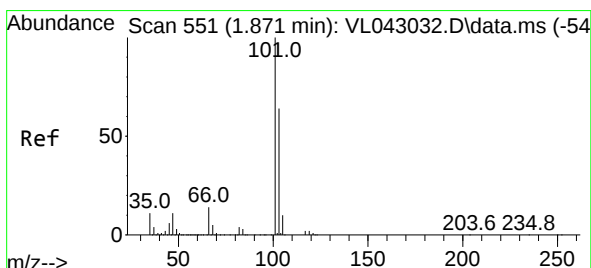
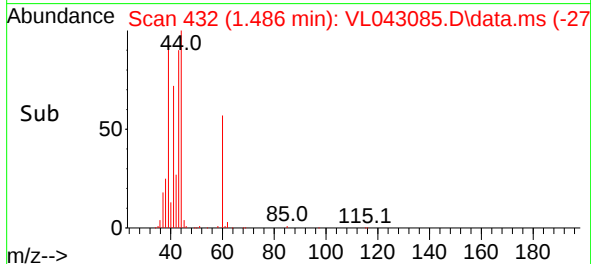
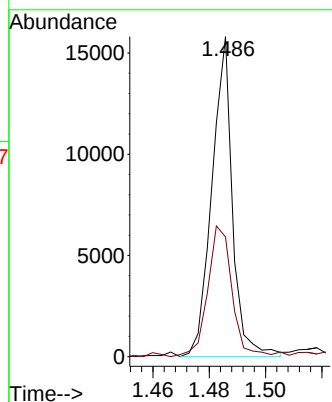
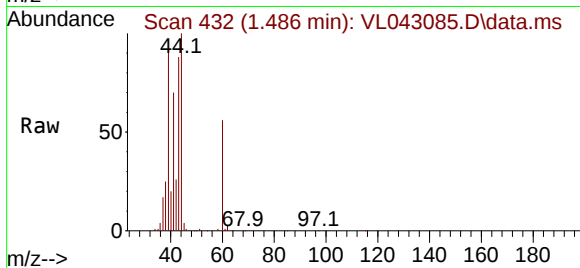
IA2

Tgt Ion: 41 Resp: 8018

Ion Ratio Lower Upper

41 100

42 50.5 53.3 79.9#



#11

Trichlorofluoromethane

Concen: 0.207 ppbv

RT: 1.874 min Scan# 552

Delta R.T. 0.003 min

Lab File: VL043085.D

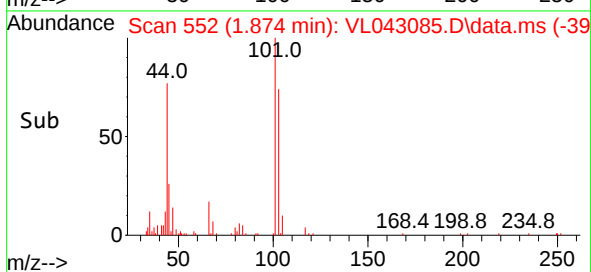
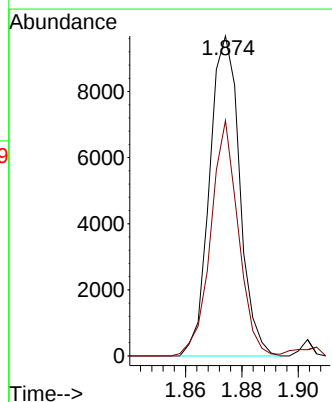
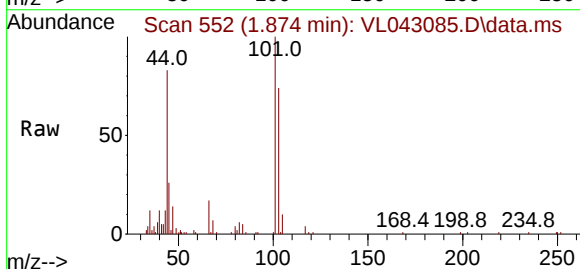
Acq: 09 Oct 2025 13:18

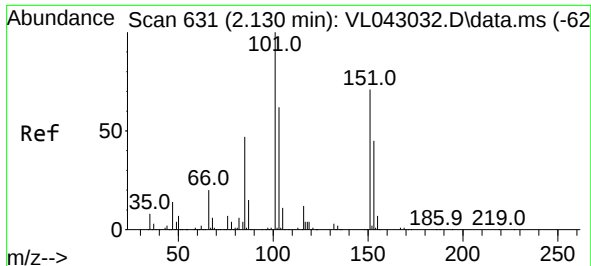
Tgt Ion:101 Resp: 7179

Ion Ratio Lower Upper

101 100

103 73.0 51.1 76.7

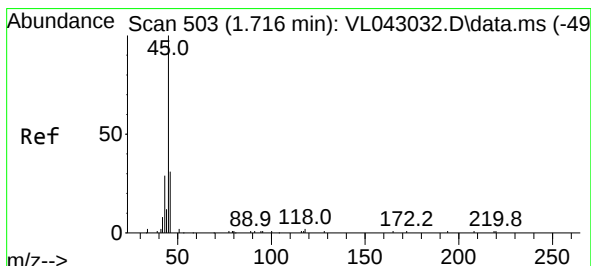
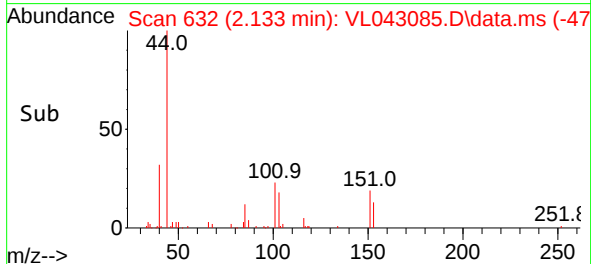
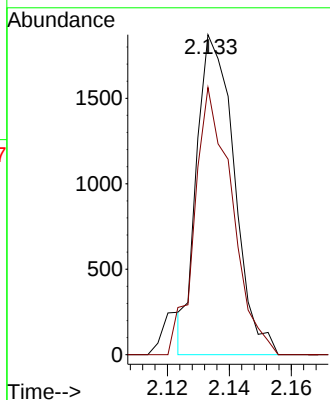
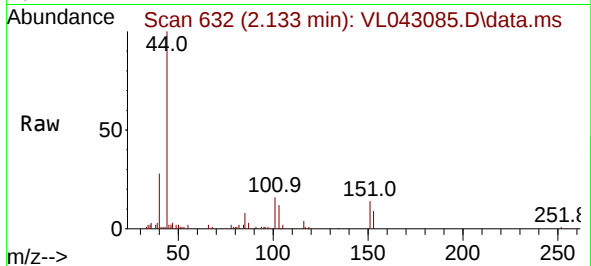




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.057 ppbv
RT: 2.133 min Scan# 61
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

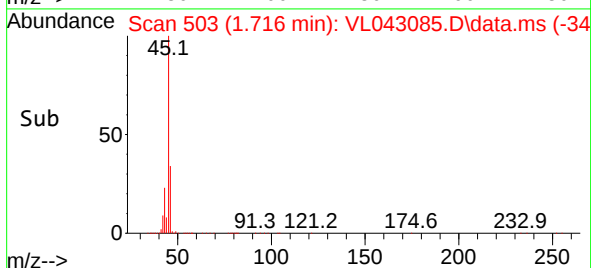
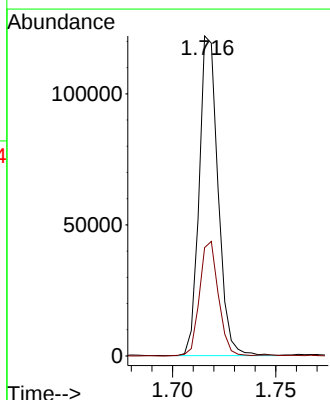
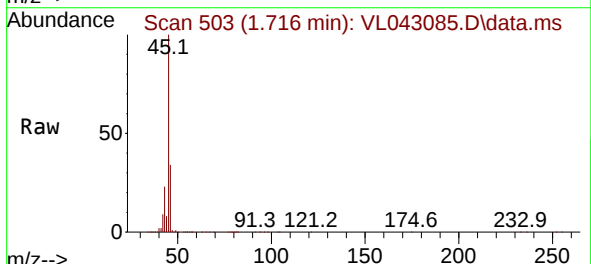
Instrument :
MSVOA_L
ClientSampleId :
IA2

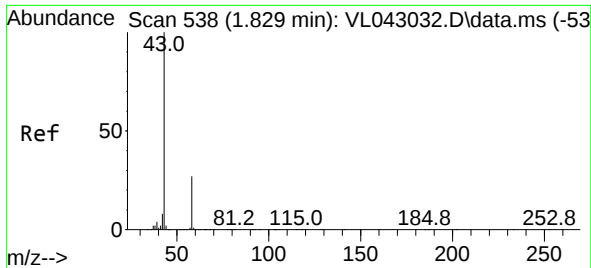
Tgt Ion:101 Resp: 1566
Ion Ratio Lower Upper
101 100
151 83.5 58.1 87.1



#13
Ethanol
Concen: 161.519 ppbv
RT: 1.716 min Scan# 503
Delta R.T. -0.000 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 45 Resp: 77612
Ion Ratio Lower Upper
45 100
46 36.6 17.8 71.4

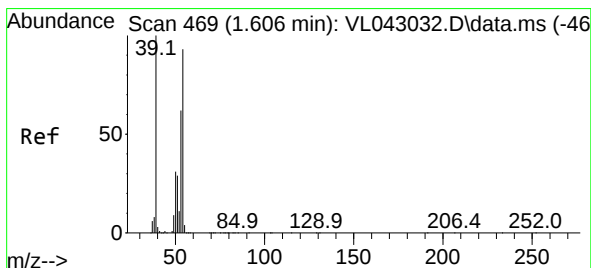
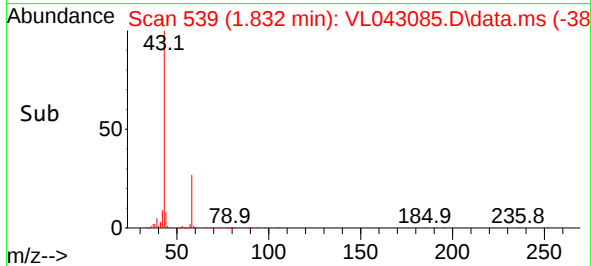
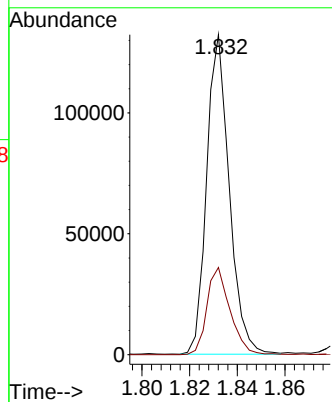
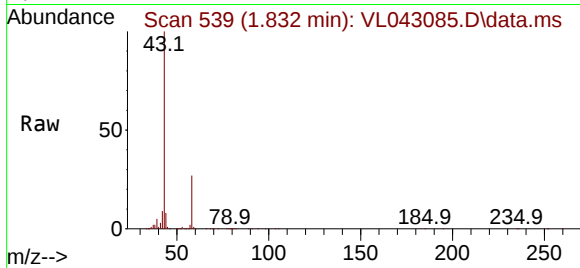




#15
Acetone
Concen: 3.106 ppbv
RT: 1.832 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

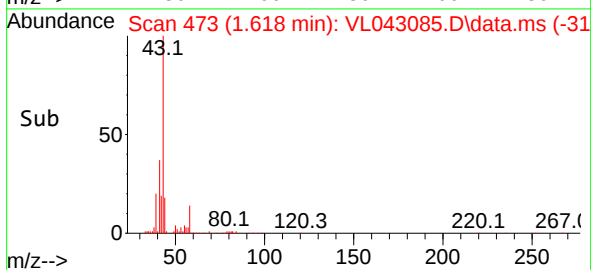
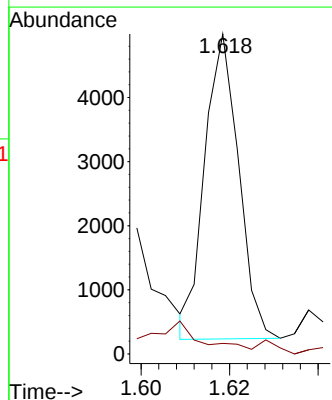
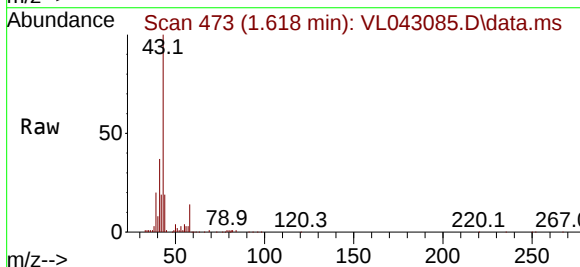
Instrument :
MSVOA_L
ClientSampleId :
IA2

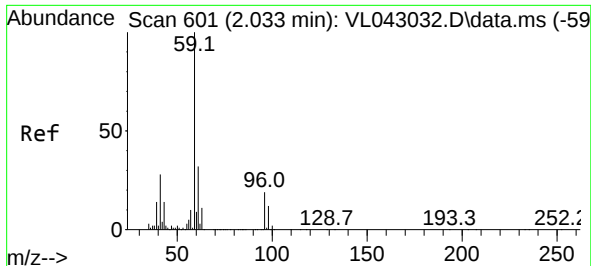
Tgt Ion: 43 Resp: 87022
Ion Ratio Lower Upper
43 100
58 28.0 22.2 33.4



#16
1,3-Butadiene
Concen: 0.219 ppbv
RT: 1.618 min Scan# 473
Delta R.T. 0.013 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 39 Resp: 2527
Ion Ratio Lower Upper
39 100
54 28.9 61.4 92.2#





#17

tert-Butyl alcohol

Concen: 0.041 ppbv

RT: 2.039 min Scan# 601

Delta R.T. 0.006 min

Lab File: VL043085.D

Acq: 09 Oct 2025 13:18

Instrument :

MSVOA_L

ClientSampleId :

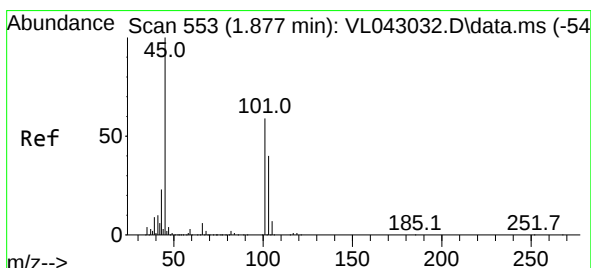
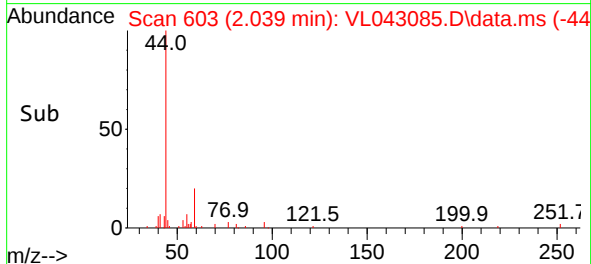
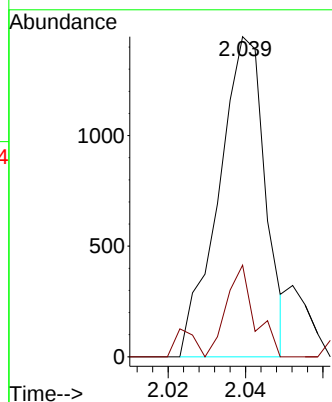
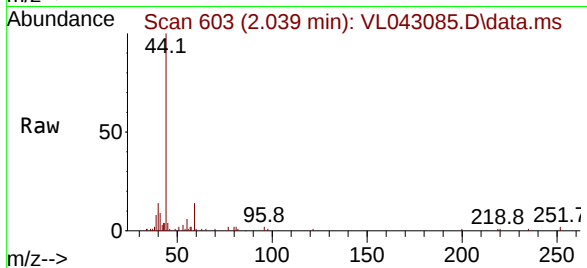
IA2

Tgt Ion: 59 Resp: 1213

Ion Ratio Lower Upper

59 100

57 20.9 8.5 12.7#



#19

Isopropyl Alcohol

Concen: 0.737 ppbv

RT: 1.881 min Scan# 554

Delta R.T. 0.003 min

Lab File: VL043085.D

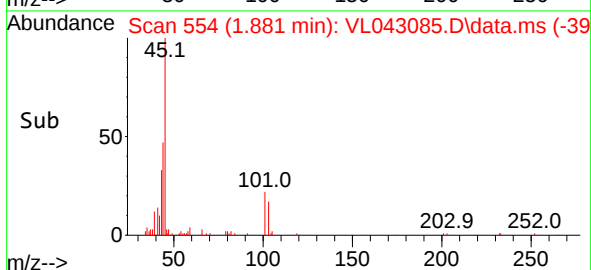
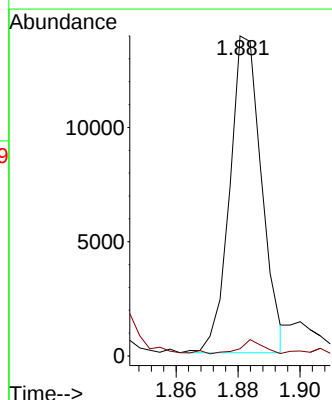
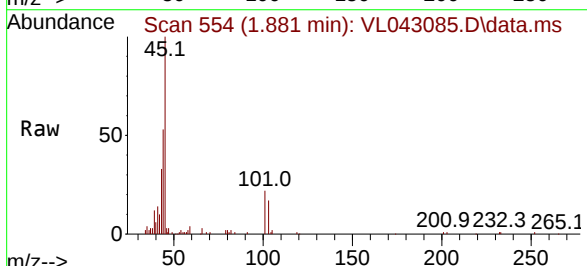
Acq: 09 Oct 2025 13:18

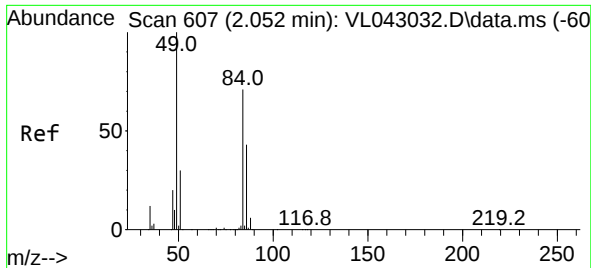
Tgt Ion: 45 Resp: 9896

Ion Ratio Lower Upper

45 100

58 247.6 42.3 63.5#



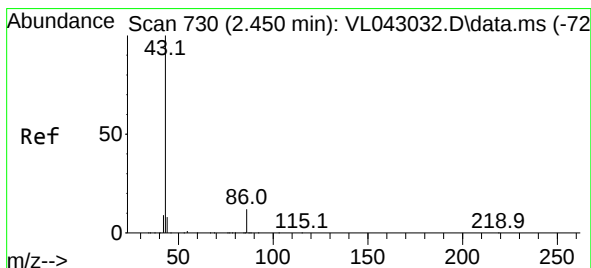
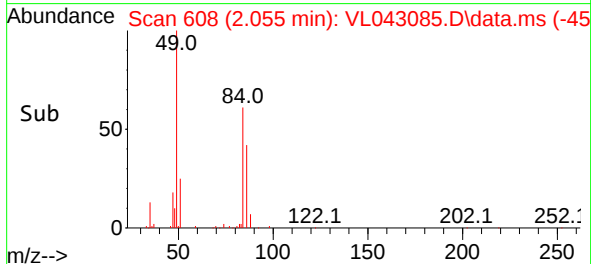
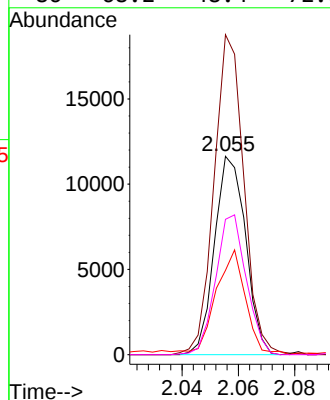
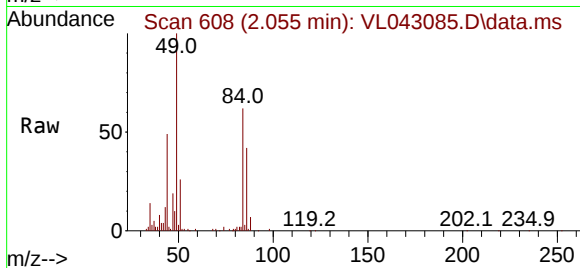


#20
Methylene Chloride
Concen: 0.729 ppbv
RT: 2.055 min Scan# 607
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 84 Resp: 8920

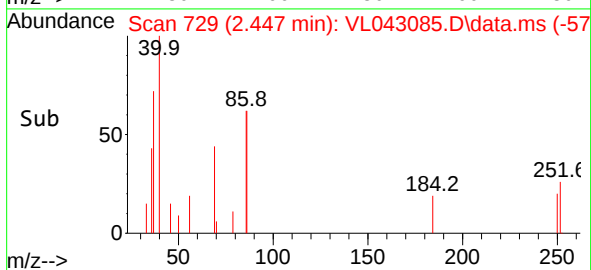
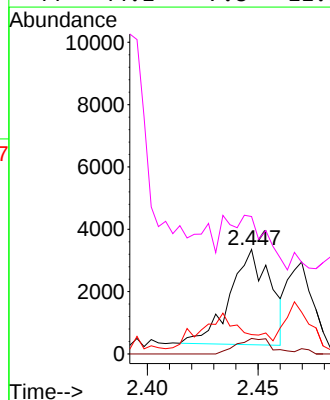
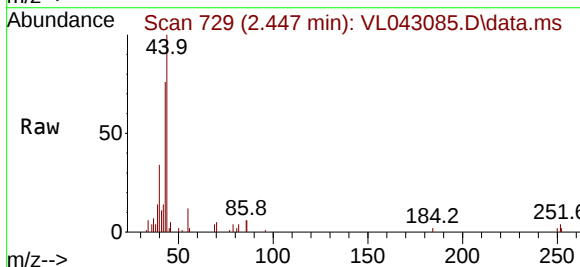
Ion	Ratio	Lower	Upper
84	100		
49	160.2	112.5	168.7
51	40.9	34.2	51.2
86	68.2	48.4	72.6

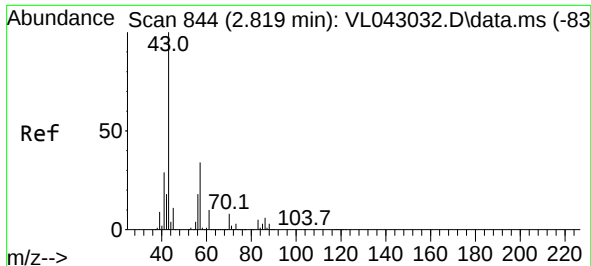


#23
Vinyl Acetate
Concen: 0.656 ppbv
RT: 2.447 min Scan# 729
Delta R.T. -0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 43 Resp: 3901

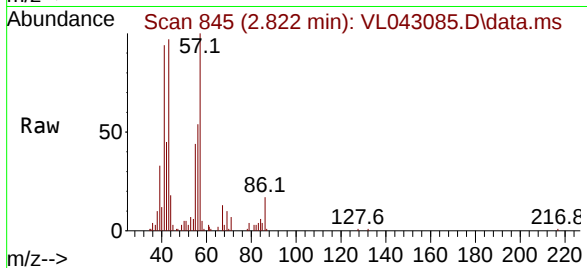
Ion	Ratio	Lower	Upper
43	100		
86	16.6	7.5	11.3#
42	10.1	8.4	12.6
44	44.1	7.8	11.8#



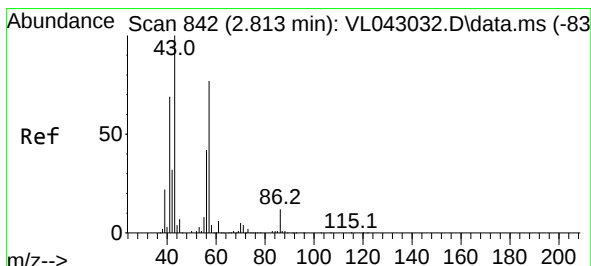
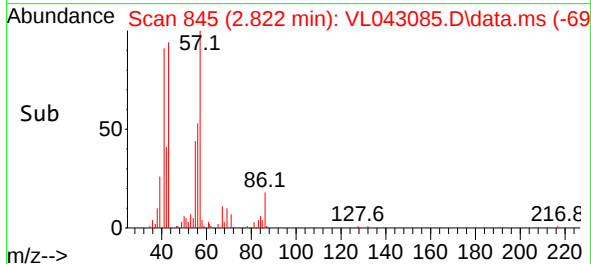
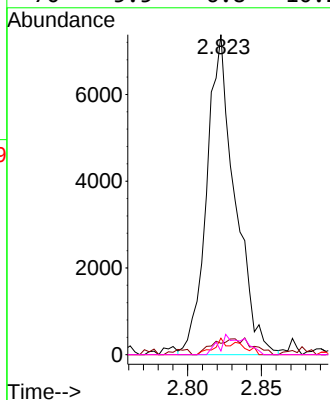


#25
Ethyl Acetate
Concen: 0.140 ppbv
RT: 2.822 min Scan# 845
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Instrument :
MSVOA_L
ClientSampleId :
IA2

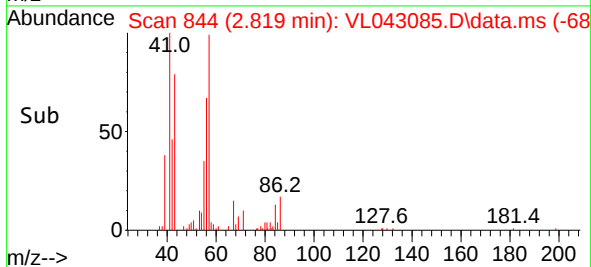
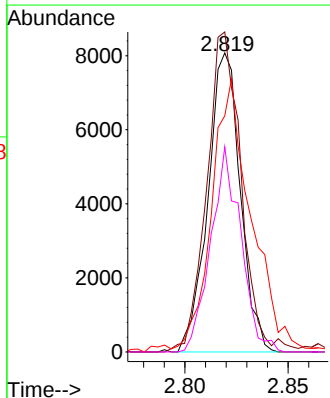
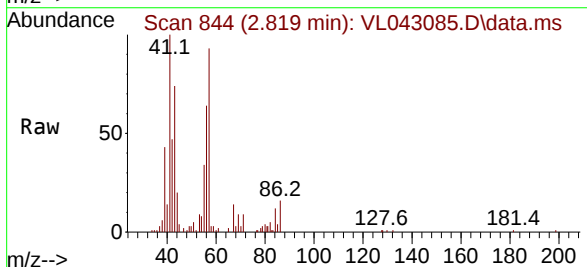


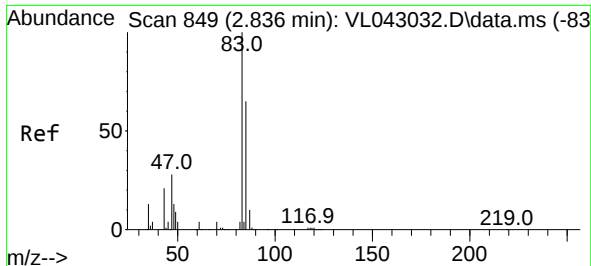
Tgt Ion: 43	Resp: 9817
Ion Ratio	Lower Upper
43 100	
45 7.8	8.3 12.5#
61 4.4	7.5 11.3#
70 5.5	6.8 10.2#



#26
Hexane
Concen: 0.326 ppbv
RT: 2.819 min Scan# 844
Delta R.T. 0.006 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 57	Resp: 8808
Ion Ratio	Lower Upper
57 100	
41 114.7	76.1 114.1#
43 113.0	201.4 302.0#
56 63.7	44.0 66.0





#29

Chloroform

Concen: 0.143 ppbv

RT: 2.842 min Scan# 81

Delta R.T. 0.006 min

Lab File: VL043085.D

Acq: 09 Oct 2025 13:18

Instrument :

MSVOA_L

ClientSampleId :

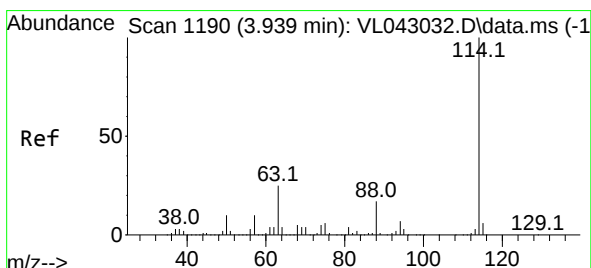
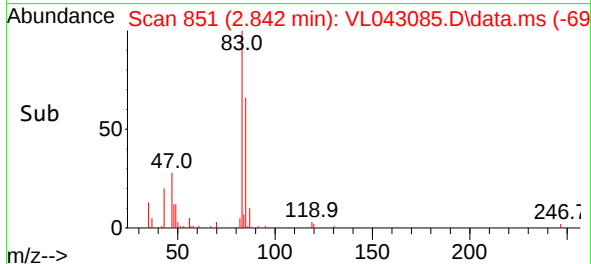
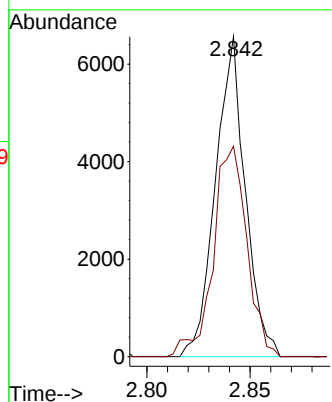
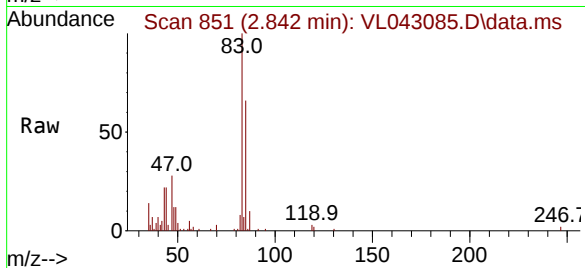
IA2

Tgt Ion: 83 Resp: 6591

Ion Ratio Lower Upper

83 100

85 65.8 52.0 78.0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.946 min Scan# 1192

Delta R.T. 0.006 min

Lab File: VL043085.D

Acq: 09 Oct 2025 13:18

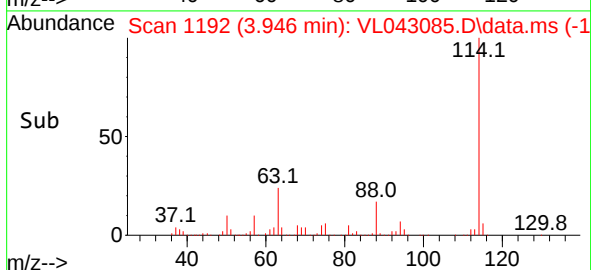
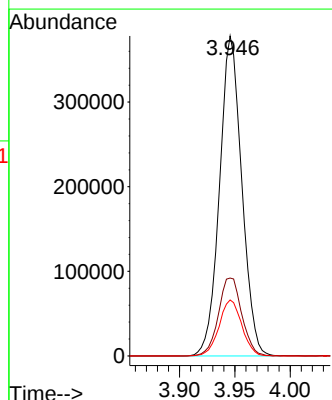
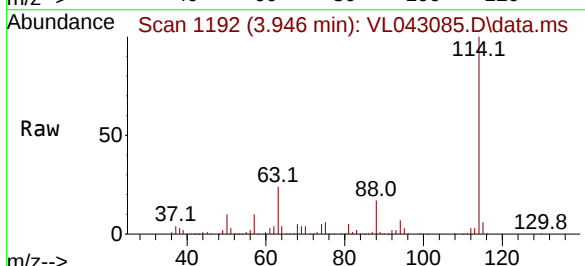
Tgt Ion: 114 Resp: 528770

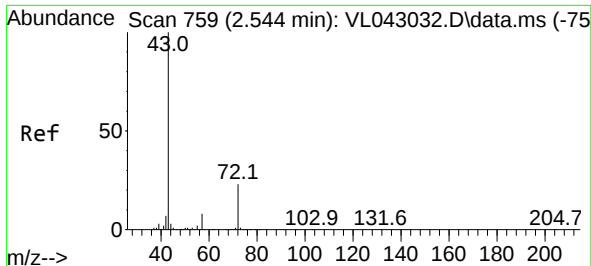
Ion Ratio Lower Upper

114 100

63 25.6 19.4 29.2

88 17.8 13.9 20.9

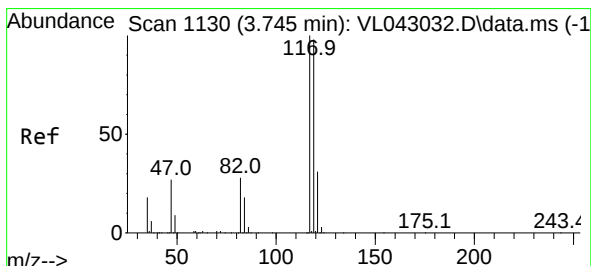
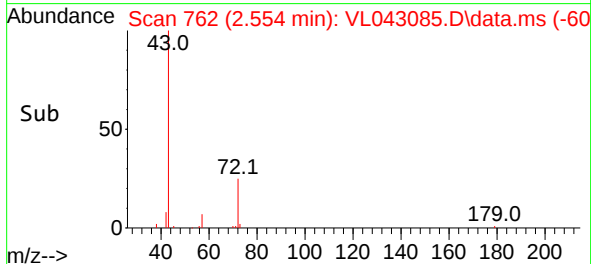
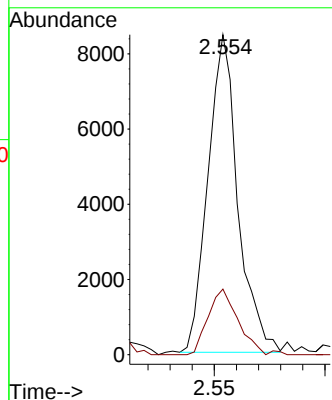
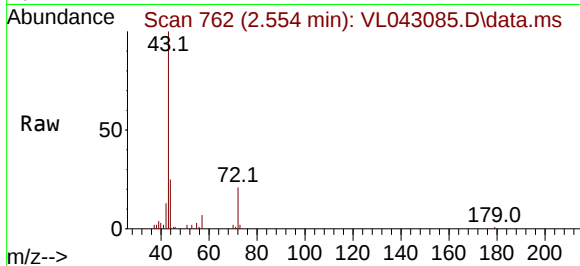




#34
2-Butanone
Concen: 0.221 ppbv
RT: 2.554 min Scan# 71
Delta R.T. 0.010 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

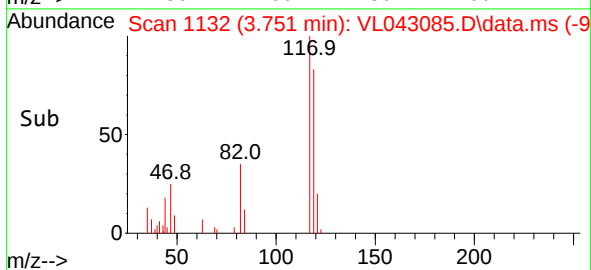
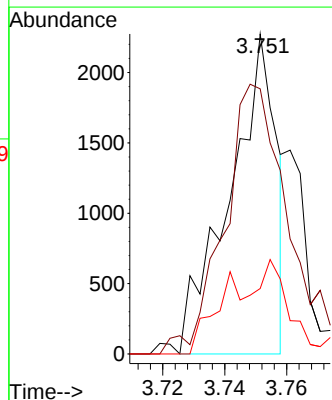
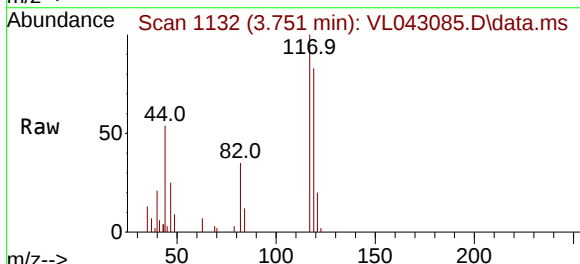
Instrument :
MSVOA_L
ClientSampleId :
IA2

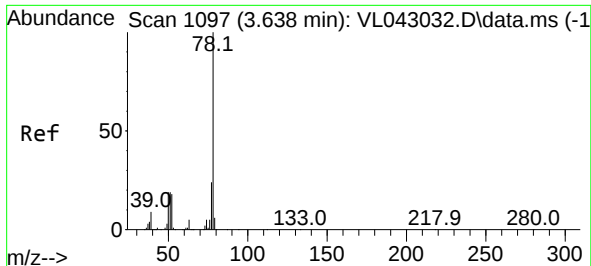
Tgt Ion: 43 Resp: 7944
Ion Ratio Lower Upper
43 100
72 21.0 18.4 27.6



#35
Carbon Tetrachloride
Concen: 0.055 ppbv
RT: 3.751 min Scan# 1132
Delta R.T. 0.006 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 117 Resp: 2383
Ion Ratio Lower Upper
117 100
119 77.1 78.2 117.4#
121 20.4 24.8 37.2#

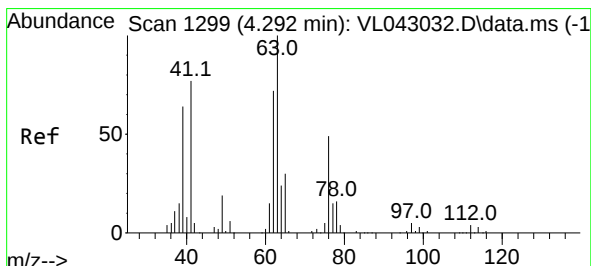
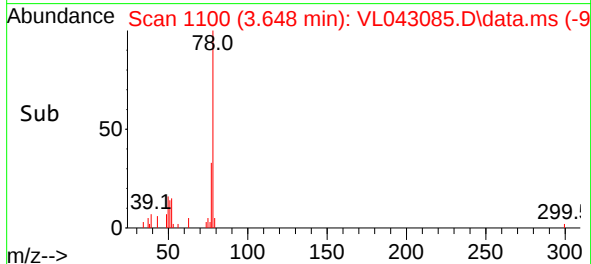
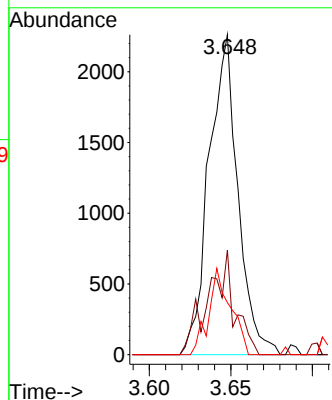
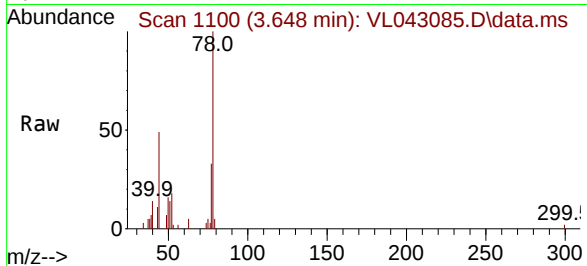




#36
Benzene
Concen: 0.055 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. 0.010 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

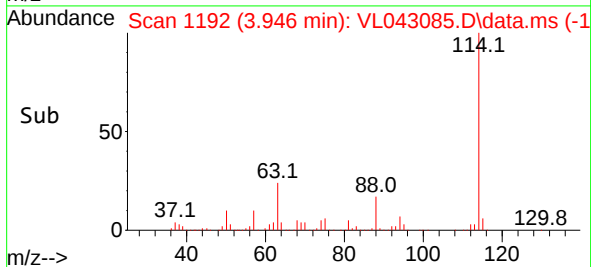
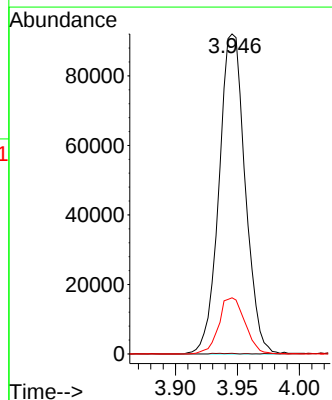
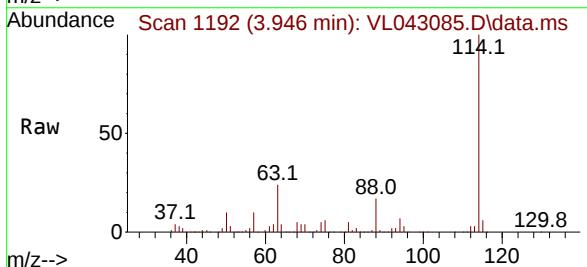
Instrument :
MSVOA_L
ClientSampleId :
IA2

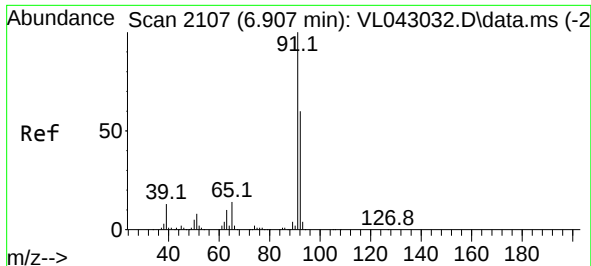
Tgt Ion: 78 Resp: 2789
Ion Ratio Lower Upper
78 100
77 32.7 19.2 28.8#
50 16.3 14.9 22.3



#39
1,2-Dichloropropane
Concen: 7.226 ppbv
RT: 3.946 min Scan# 1192
Delta R.T. -0.346 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 63 Resp: 135317
Ion Ratio Lower Upper
63 100
41 0.3 61.6 92.4#
62 17.5 58.1 87.1#

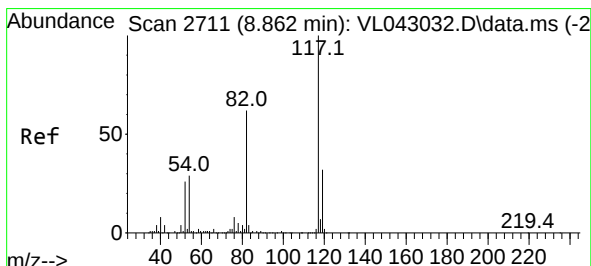
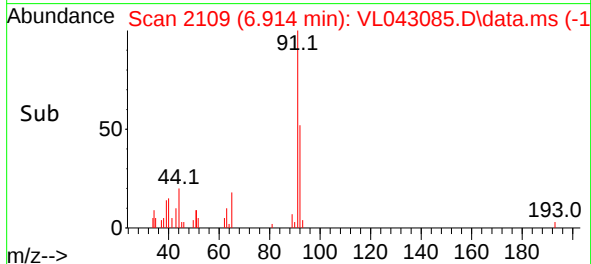
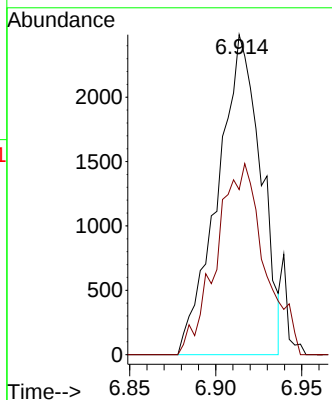
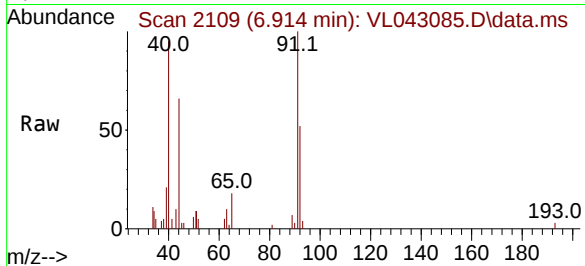




#53
Toluene
Concen: 0.085 ppbv
RT: 6.914 min Scan# 2109
Delta R.T. 0.006 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

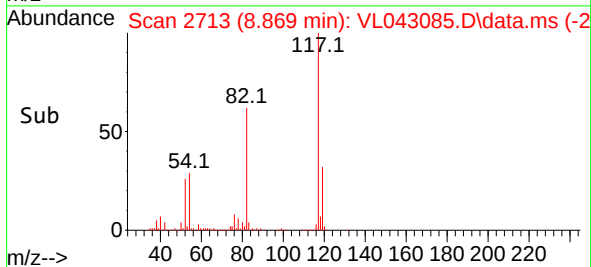
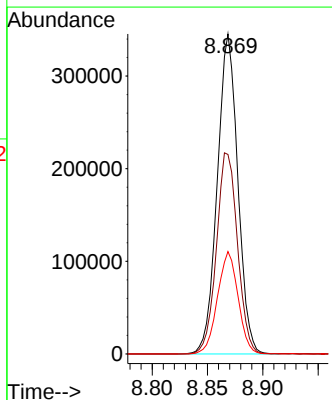
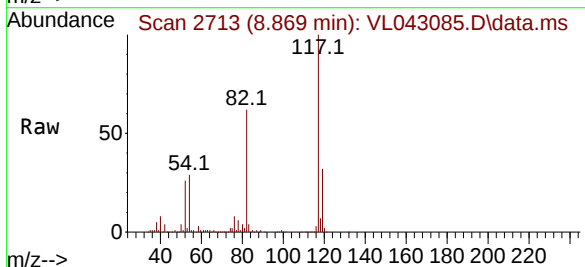
Instrument :
MSVOA_L
ClientSampleId :
IA2

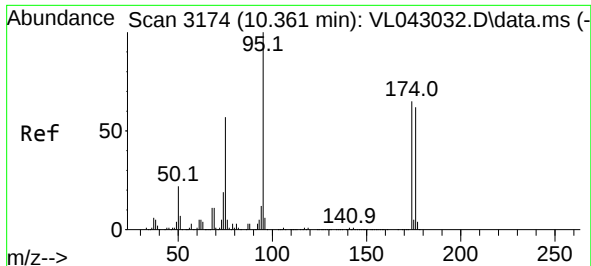
Tgt Ion: 91 Resp: 4341
Ion Ratio Lower Upper
91 100
92 66.3 47.8 71.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.869 min Scan# 2713
Delta R.T. 0.006 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion: 117 Resp: 446168
Ion Ratio Lower Upper
117 100
82 64.6 53.0 79.6
119 32.2 25.4 38.2

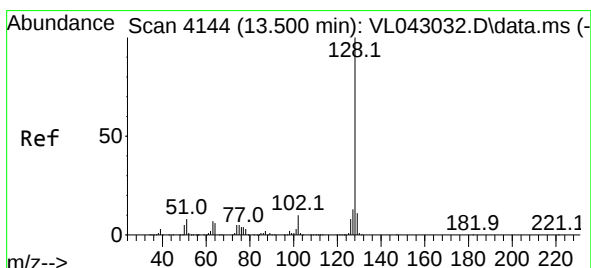
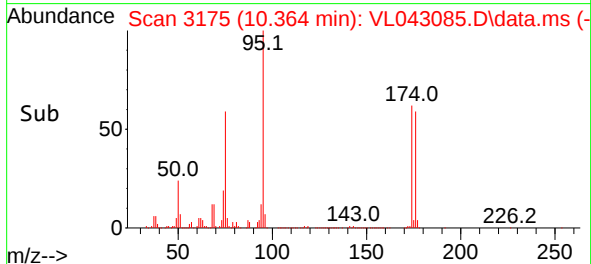
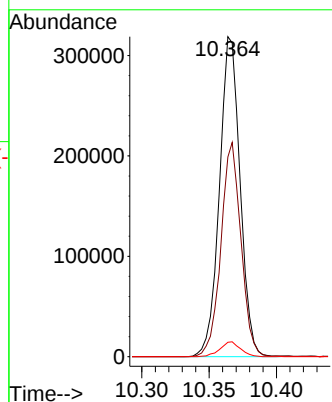
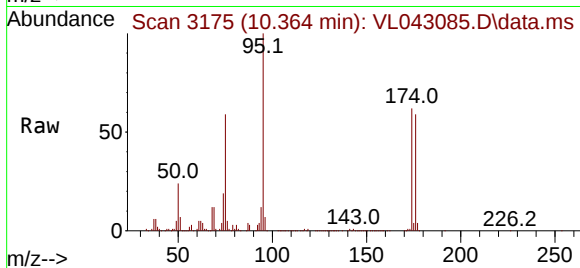




#68
1-Bromo-4-Fluorobenzene
Concen: 10.565 ppbv
RT: 10.364 min Scan# 3175
Delta R.T. 0.003 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

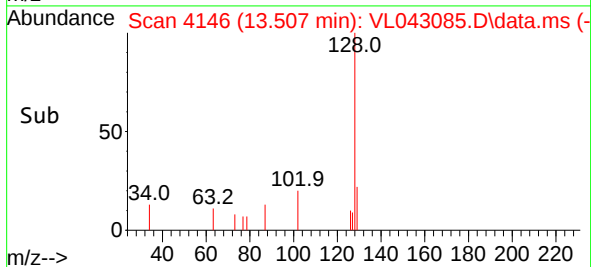
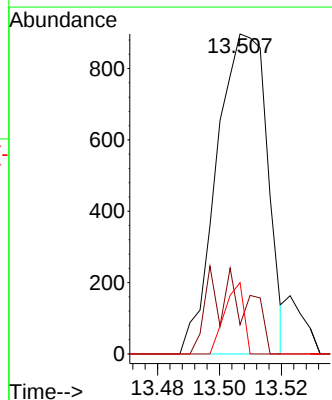
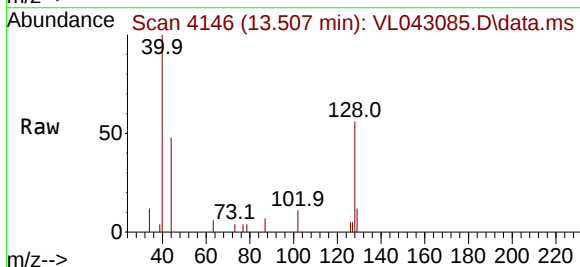
Instrument :
MSVOA_L
ClientSampleId :
IA2

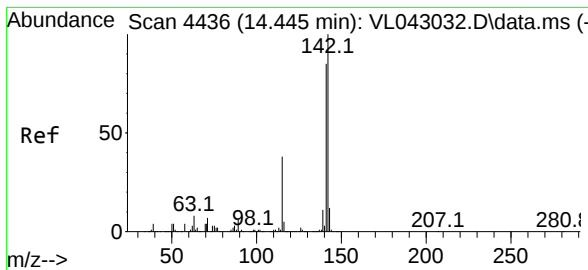
Tgt Ion: 95 Resp: 339557
Ion Ratio Lower Upper
95 100
174 65.4 52.3 78.5
175 4.7 3.8 5.8



#79
Naphthalene
Concen: 0.252 ppbv
RT: 13.507 min Scan# 4146
Delta R.T. 0.007 min
Lab File: VL043085.D
Acq: 09 Oct 2025 13:18

Tgt Ion:128 Resp: 1014
Ion Ratio Lower Upper
128 100
127 9.1 10.6 16.0#
129 22.3 8.8 13.2#





#80
 Naphthalene, 2-methyl-
 Concen: 0.677 ppbv
 RT: 14.461 min Scan# 44
 Delta R.T. 0.016 min
 Lab File: VL043085.D
 Acq: 09 Oct 2025 13:18

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tgt Ion:	142	Resp:	432
Ion	Ratio	Lower	Upper
142	100		
141	90.5	66.6	100.0
115	35.0	30.1	45.1

