

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL101525\
 Data File : VL043117.D
 Acq On : 15 Oct 2025 10:50
 Operator : SY/MD
 Sample : Q3247-01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIR

Quant Time: Oct 16 01:15:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-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)

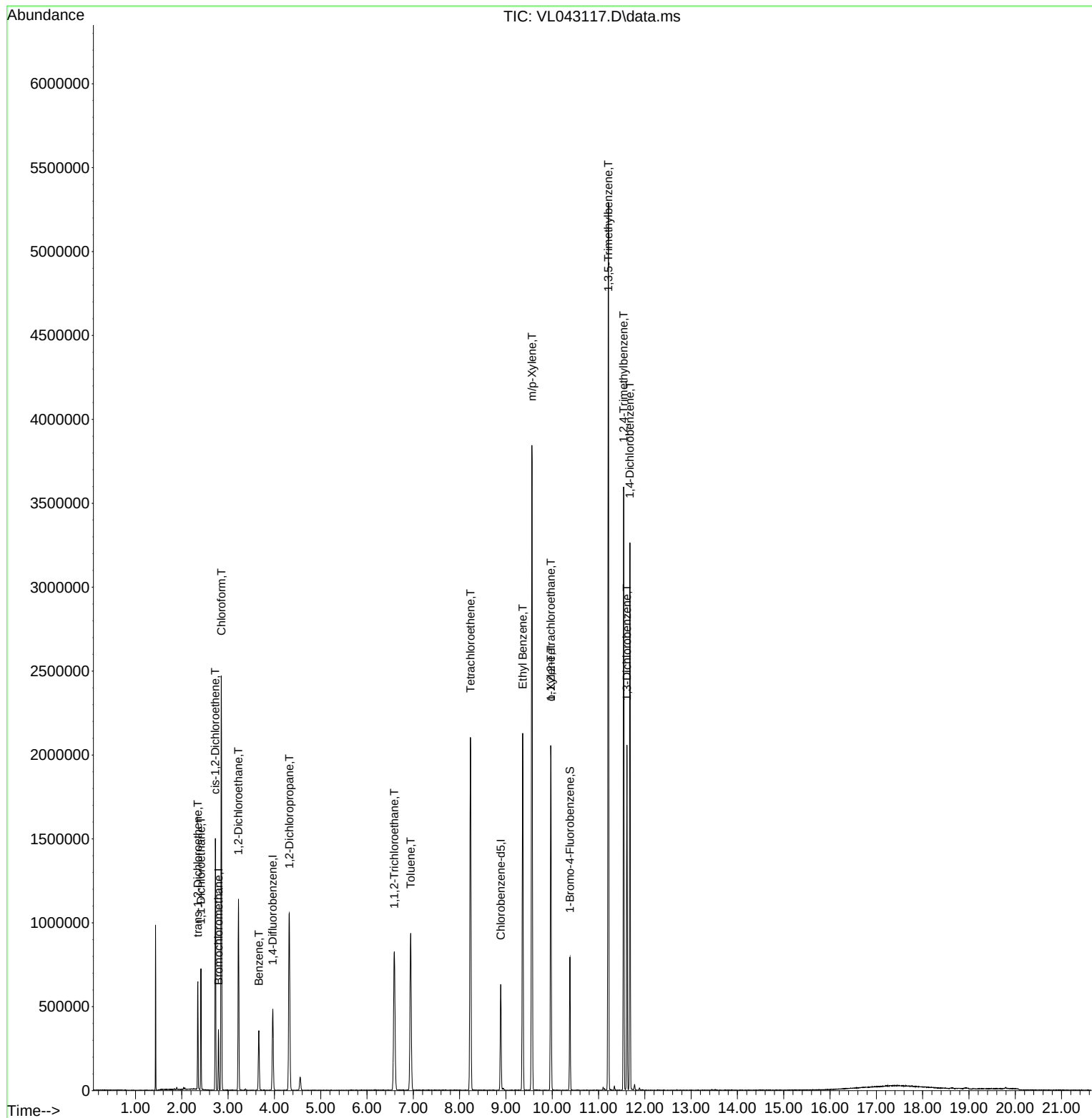
Internal Standards						
1) Bromochloromethane	2.794	49	93140	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	301002	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	265788	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	214126	10.365	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 103.600%	
Target Compounds						
					Qvalue	
22) trans-1,2-Dichloroethene	2.347	96	99446	18.300	ppbv	96
24) 1,1-Dichloroethane	2.415	63	320432	30.520	ppbv	98
29) Chloroform	2.855	83	1039307	50.002	ppbv	98
31) cis-1,2-Dichloroethene	2.726	61	478426	34.926	ppbv	97
36) Benzene	3.664	78	224626	7.923	ppbv	99
37) 1,2-Dichloroethane	3.224	62	652213	39.936	ppbv	97
39) 1,2-Dichloropropane	4.321	63	321440	31.014	ppbv	92
47) 1,1,2-Trichloroethane	6.587	97	293124	26.190	ppbv	96
52) Tetrachloroethene	8.234	164	371165	36.306	ppbv	92
53) Toluene	6.943	91	716914	21.307	ppbv	100
58) Ethyl Benzene	9.364	91	1287080	28.216	ppbv	97
59) m/p-Xylene	9.561	91	1843103	50.659	ppbv	99
60) o-Xylene	9.969	91	467143	13.000	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.969	83	400302	16.637	ppbv	99
73) 1,3,5-Trimethylbenzene	11.212	105	2075108	56.947	ppbv	100
74) 1,2,4-Trimethylbenzene	11.542	105	1418707	34.791	ppbv #	51
75) 1,3-Dichlorobenzene	11.613	146	484752	20.496	ppbv	98
76) 1,4-Dichlorobenzene	11.678	146	771622	32.356	ppbv	98

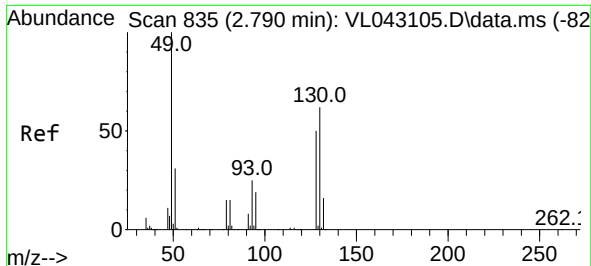
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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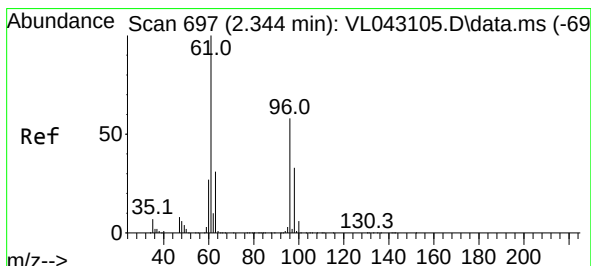
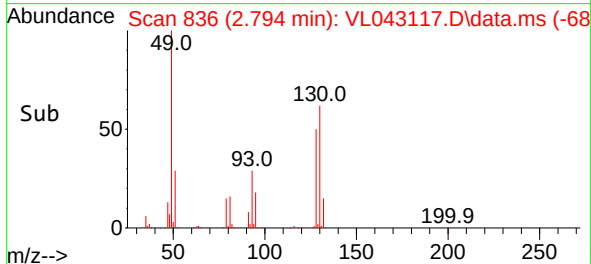
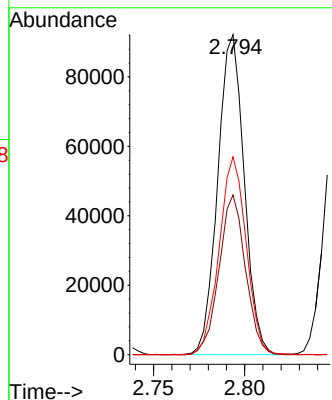
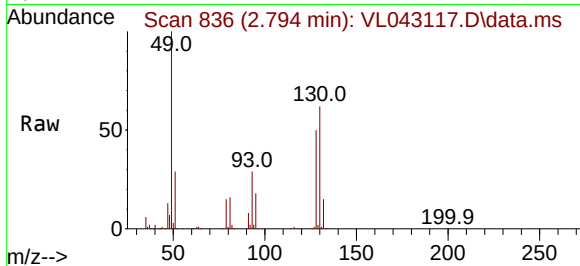




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.794 min Scan# 81
Delta R.T. 0.004 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

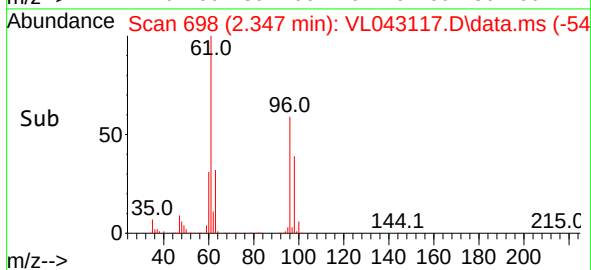
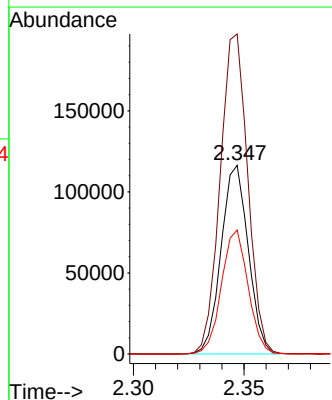
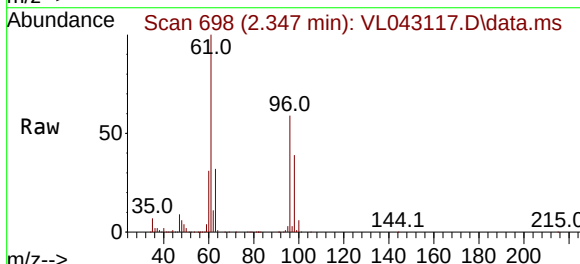
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIR

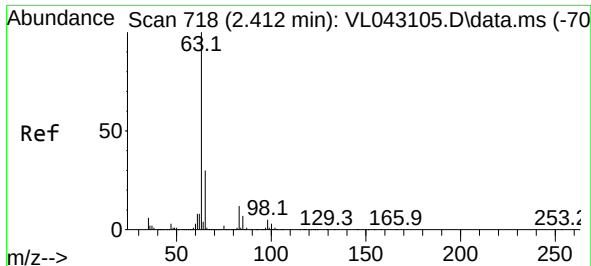
Tgt Ion: 49 Resp: 93140
Ion Ratio Lower Upper
49 100
128 49.7 24.4 73.4
130 63.3 31.0 93.0



#22
trans-1,2-Dichloroethene
Concen: 18.300 ppbv
RT: 2.347 min Scan# 698
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion: 96 Resp: 99446
Ion Ratio Lower Upper
96 100
61 169.6 137.0 205.6
98 65.7 45.5 68.3

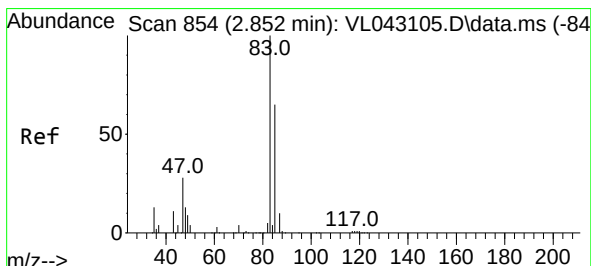
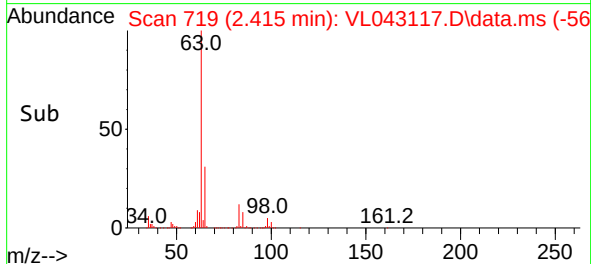
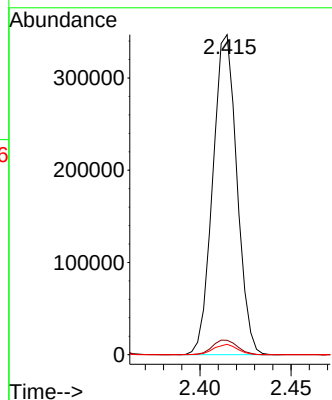
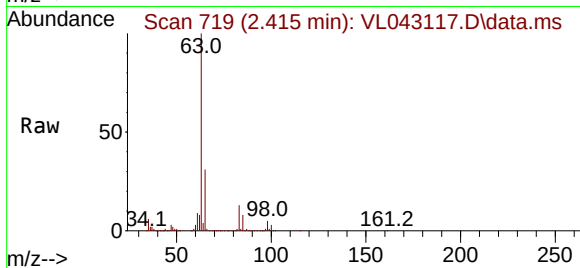




#24
1,1-Dichloroethane
Concen: 30.520 ppbv
RT: 2.415 min Scan# 718
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

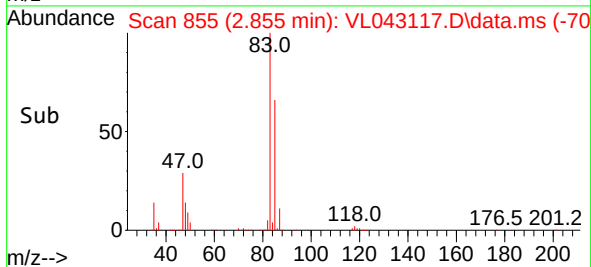
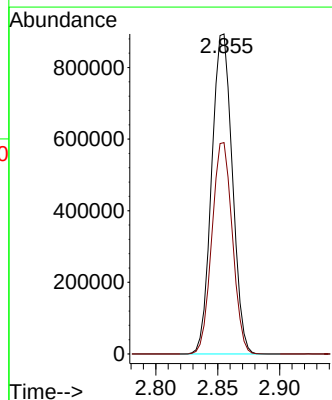
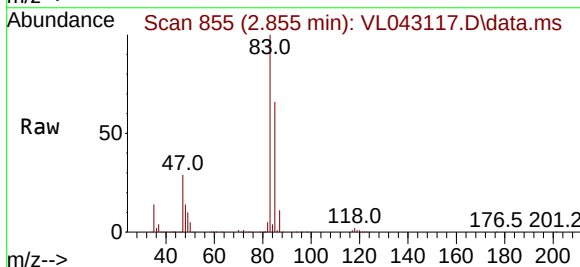
Instrument :
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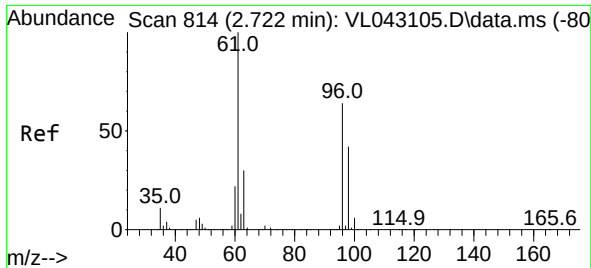
Tgt Ion: 63 Resp: 320432
Ion Ratio Lower Upper
63 100
98 4.5 2.6 7.8
100 3.2 1.5 4.4



#29
Chloroform
Concen: 50.002 ppbv
RT: 2.855 min Scan# 855
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion: 83 Resp: 1039307
Ion Ratio Lower Upper
83 100
85 66.1 51.8 77.6

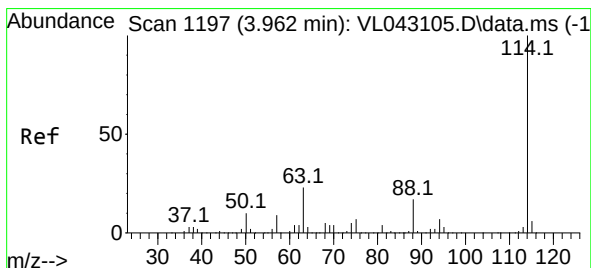
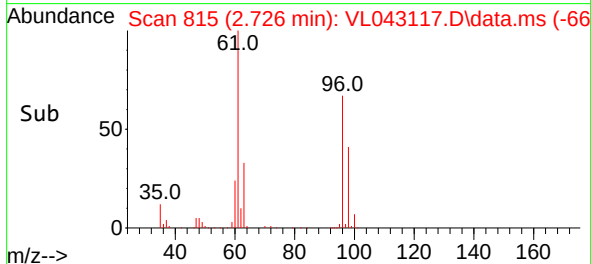
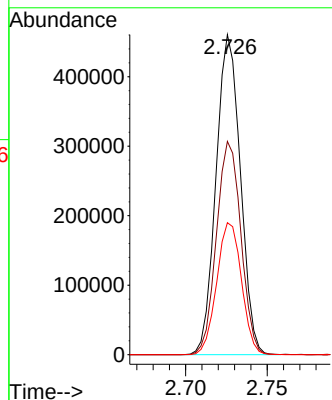
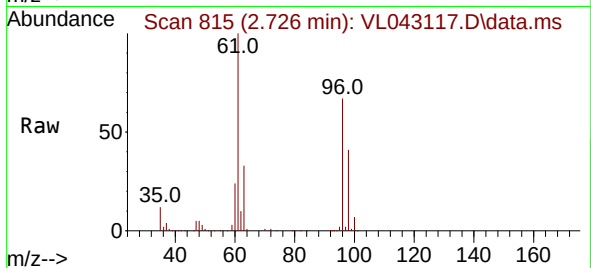




#31
 cis-1,2-Dichloroethene
 Concen: 34.926 ppbv
 RT: 2.726 min Scan# 814
 Delta R.T. 0.003 min
 Lab File: VL043117.D
 Acq: 15 Oct 2025 10:50

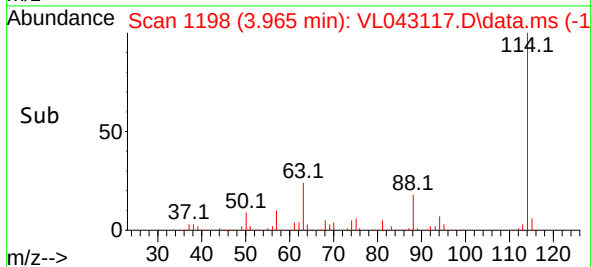
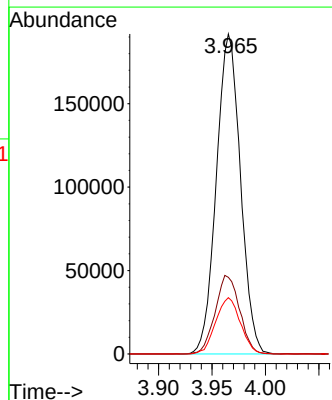
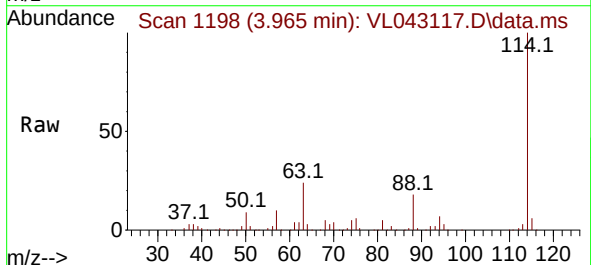
Instrument :
 MSVOA_L
 ClientSampleId :
 RR-VOAS-AIR

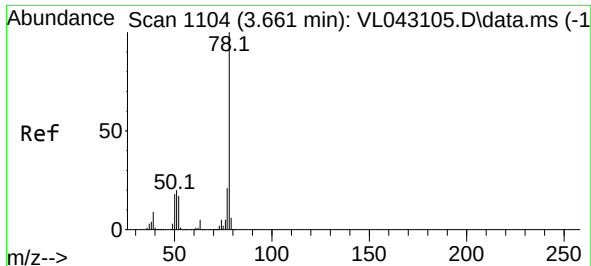
Tgt Ion: 61 Resp: 478426
 Ion Ratio Lower Upper
 61 100
 96 66.7 51.0 76.6
 98 41.2 33.5 50.3



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.965 min Scan# 1198
 Delta R.T. 0.003 min
 Lab File: VL043117.D
 Acq: 15 Oct 2025 10:50

Tgt Ion: 114 Resp: 301002
 Ion Ratio Lower Upper
 114 100
 63 24.9 19.3 28.9
 88 18.0 13.9 20.9

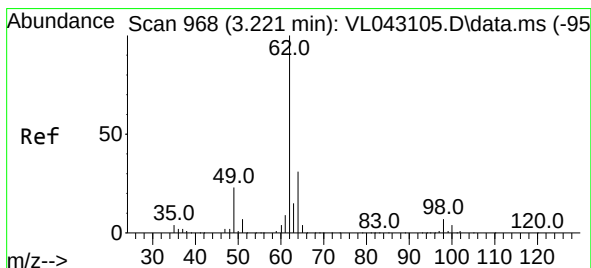
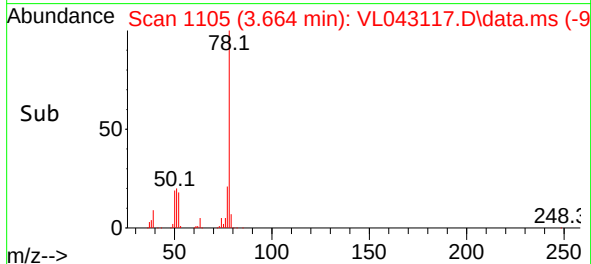
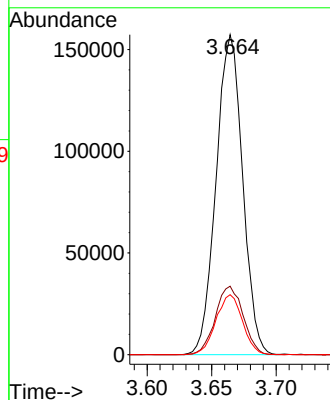
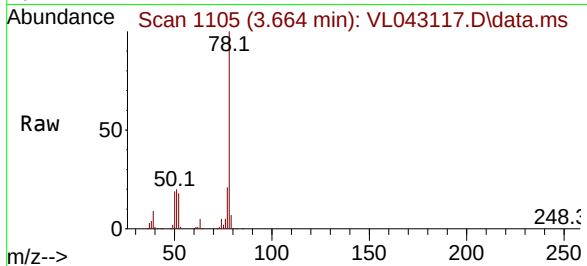




#36
Benzene
Concen: 7.923 ppbv
RT: 3.664 min Scan# 1104
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

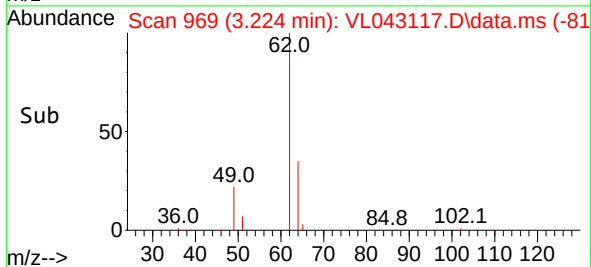
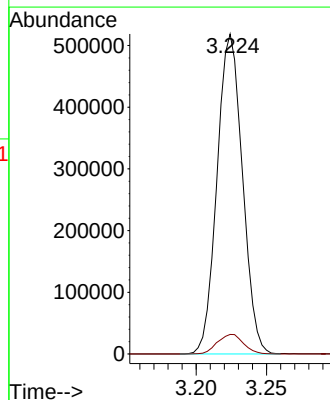
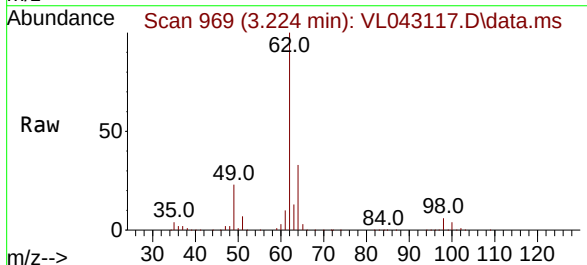
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIR

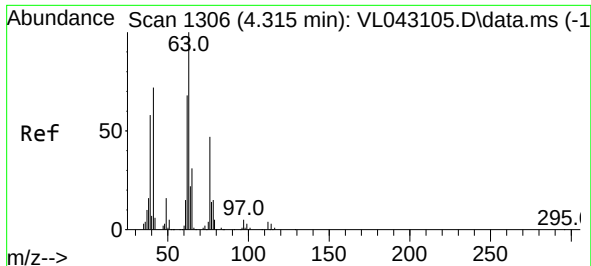
Tgt Ion: 78 Resp: 224626
Ion Ratio Lower Upper
78 100
77 21.3 17.0 25.6
50 18.7 14.6 22.0



#37
1,2-Dichloroethane
Concen: 39.936 ppbv
RT: 3.224 min Scan# 969
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion: 62 Resp: 652213
Ion Ratio Lower Upper
62 100
98 6.3 5.8 8.6





#39

1,2-Dichloropropane

Concen: 31.014 ppbv

RT: 4.321 min Scan# 11

Delta R.T. 0.006 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIR

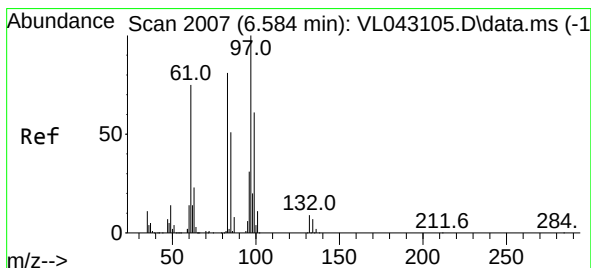
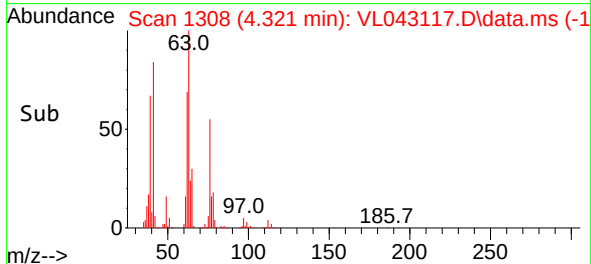
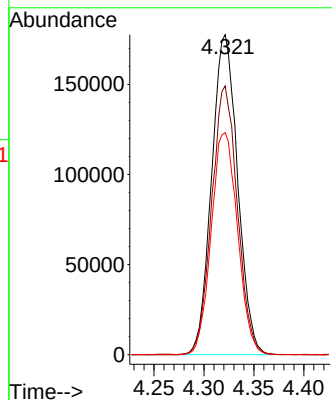
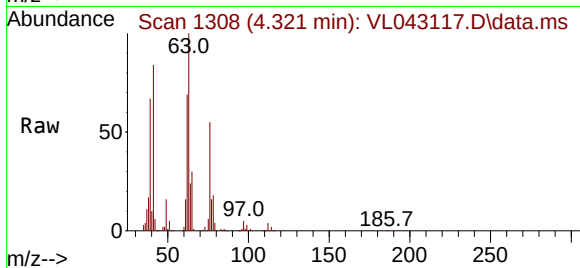
Tgt Ion: 63 Resp: 321440

Ion Ratio Lower Upper

63 100

41 84.0 58.0 87.0

62 69.3 54.7 82.1



#47

1,1,2-Trichloroethane

Concen: 26.190 ppbv

RT: 6.587 min Scan# 2008

Delta R.T. 0.003 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Tgt Ion: 97 Resp: 293124

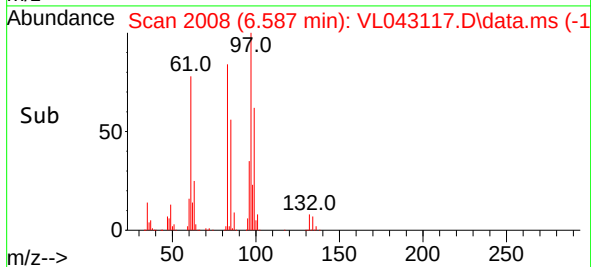
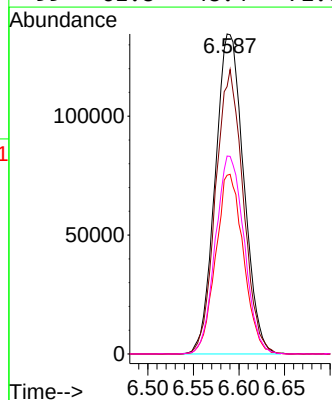
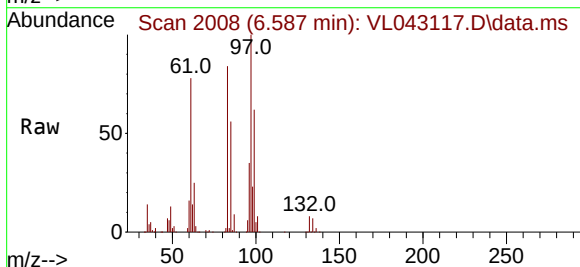
Ion Ratio Lower Upper

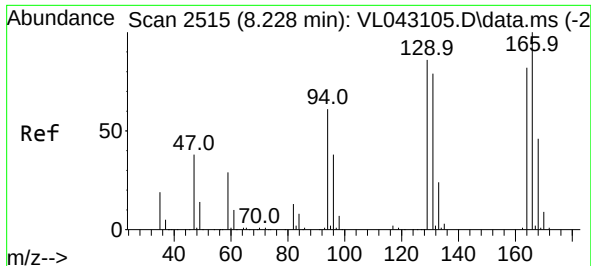
97 100

83 83.5 64.6 96.8

85 55.9 40.6 60.8

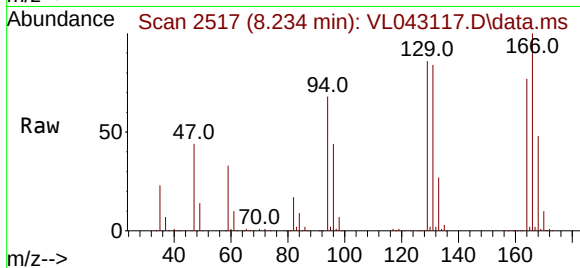
99 61.8 48.4 72.6



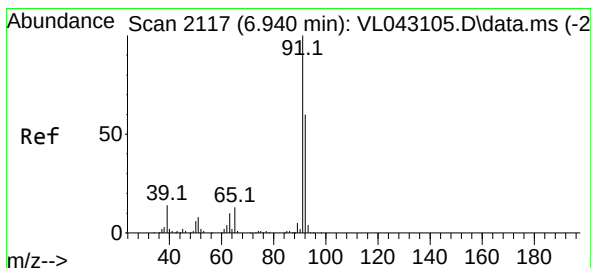
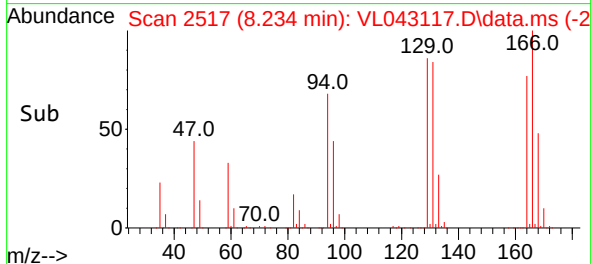
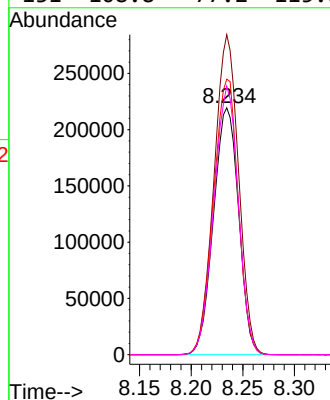


#52
Tetrachloroethene
Concen: 36.306 ppbv
RT: 8.234 min Scan# 2117
Delta R.T. 0.006 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIR

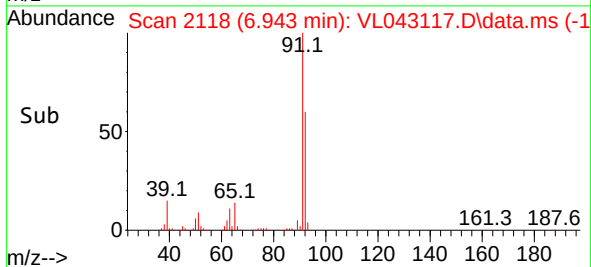
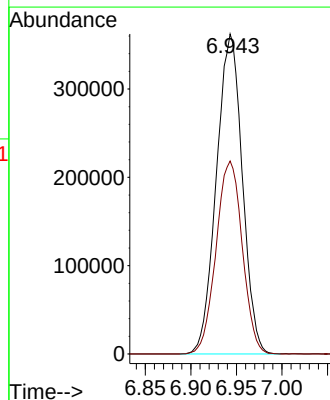
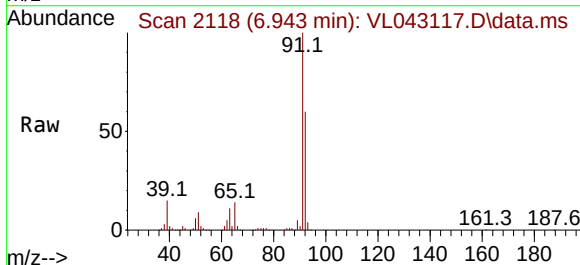


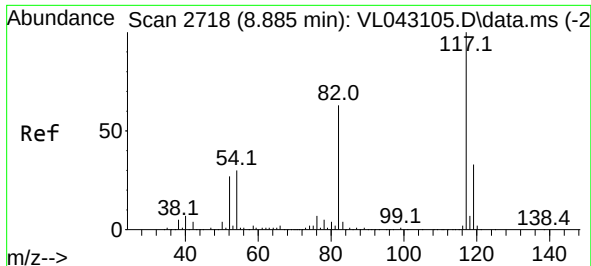
Tgt Ion	Ratio	Lower	Upper
164	100		
166	129.6	97.6	146.4
129	111.6	84.5	126.7
131	108.8	77.2	115.8



#53
Toluene
Concen: 21.307 ppbv
RT: 6.943 min Scan# 2118
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.0	48.8	73.2





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.888 min Scan# 21

Delta R.T. 0.003 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Instrument :

MSVOA_L

ClientSampleId :

RR-VOAS-AIR

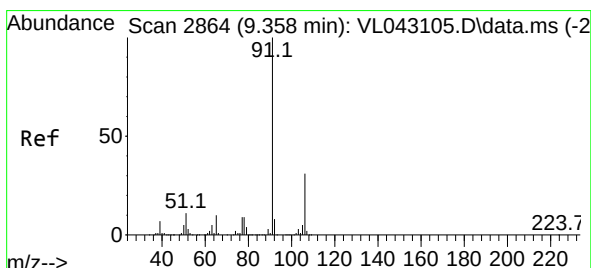
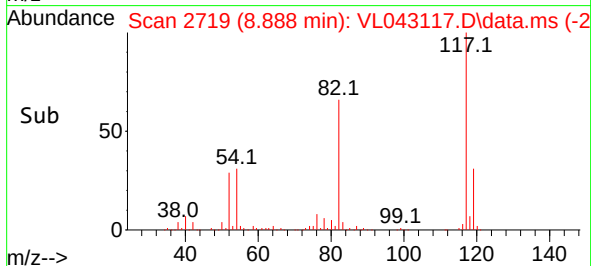
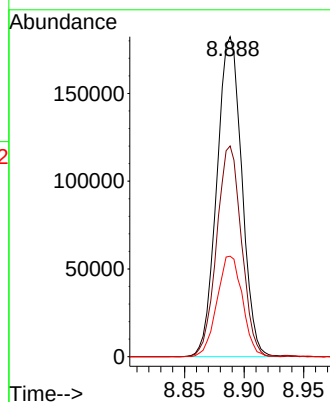
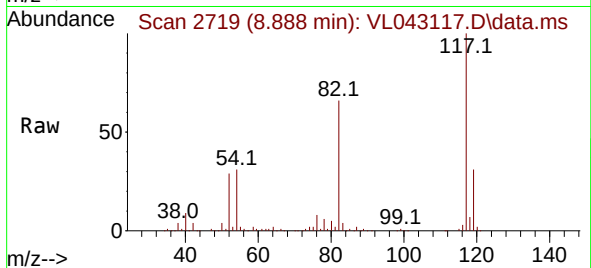
Tgt Ion:117 Resp: 265788

Ion Ratio Lower Upper

117 100

82 65.5 53.8 80.8

119 32.2 25.4 38.0



#58

Ethyl Benzene

Concen: 28.216 ppbv

RT: 9.364 min Scan# 2866

Delta R.T. 0.006 min

Lab File: VL043117.D

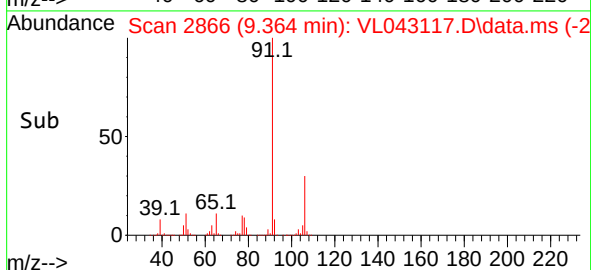
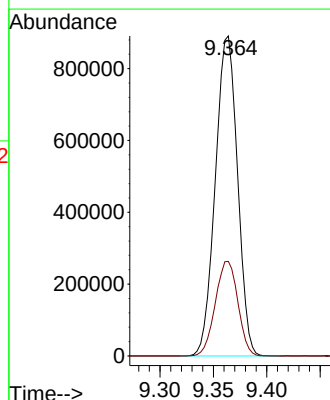
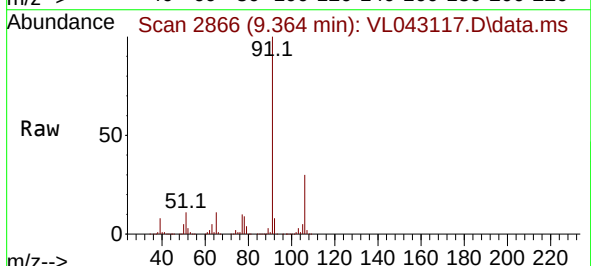
Acq: 15 Oct 2025 10:50

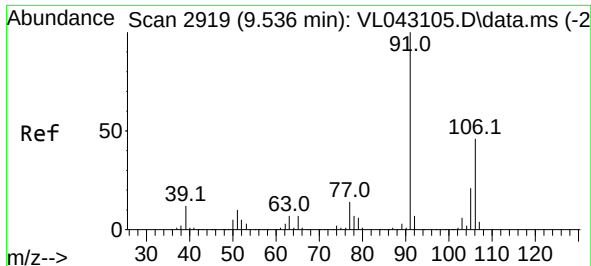
Tgt Ion: 91 Resp: 1287080

Ion Ratio Lower Upper

91 100

106 29.6 24.8 37.2





#59

m/p-Xylene

Concen: 50.659 ppbv

RT: 9.561 min Scan# 2919

Delta R.T. 0.026 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Instrument :

MSVOA_1

ClientSampleId :

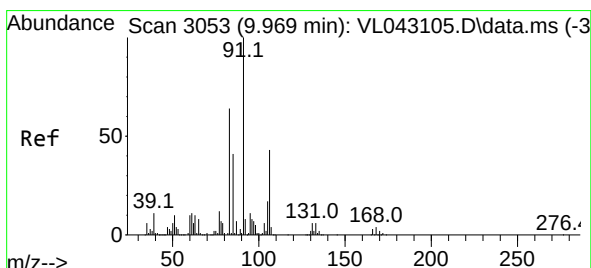
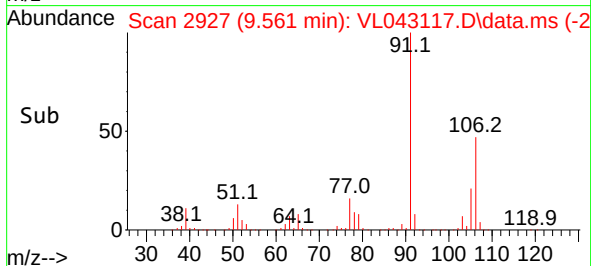
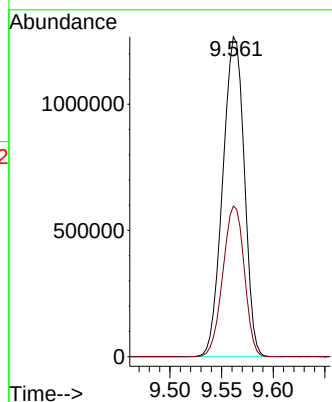
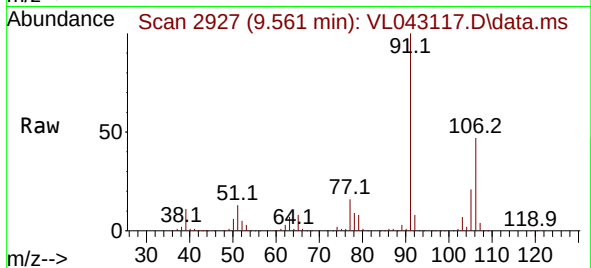
RR-VOAS-AIR

Tgt Ion: 91 Resp: 1843103

Ion Ratio Lower Upper

91 100

106 46.8 38.0 57.0



#60

o-Xylene

Concen: 13.000 ppbv

RT: 9.969 min Scan# 3053

Delta R.T. -0.000 min

Lab File: VL043117.D

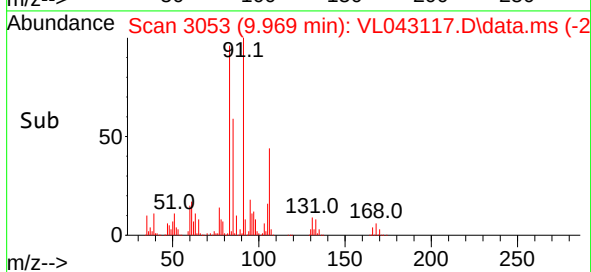
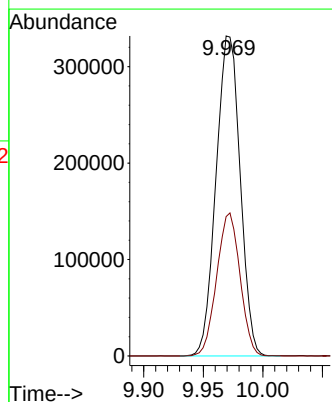
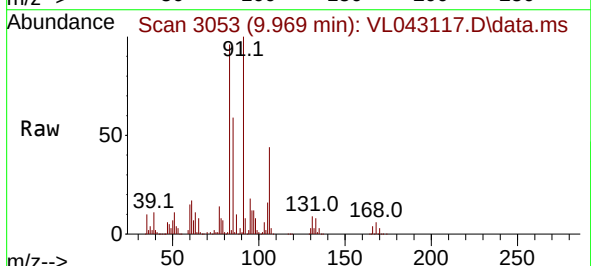
Acq: 15 Oct 2025 10:50

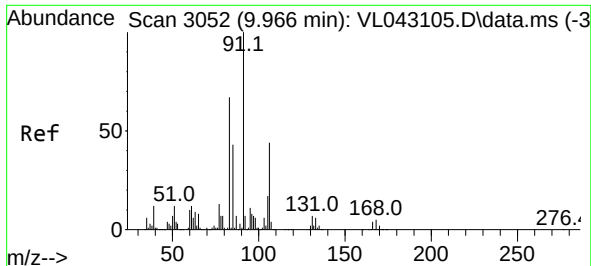
Tgt Ion: 91 Resp: 467143

Ion Ratio Lower Upper

91 100

106 43.2 21.9 65.8

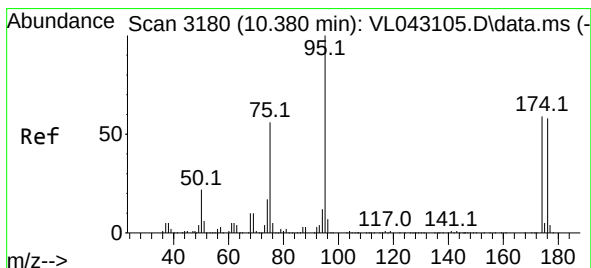
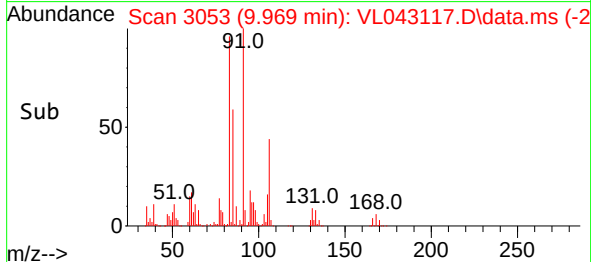
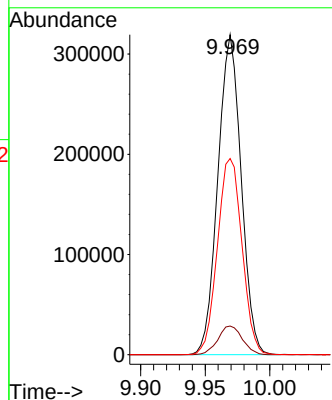
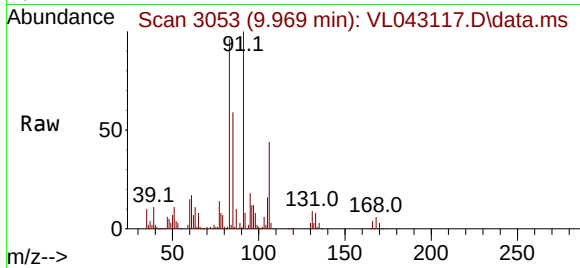




#63
1,1,2,2-Tetrachloroethane
Concen: 16.637 ppbv
RT: 9.969 min Scan# 3052
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

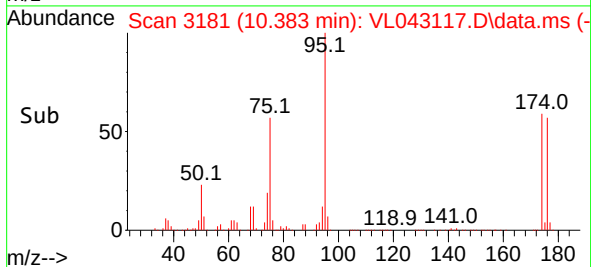
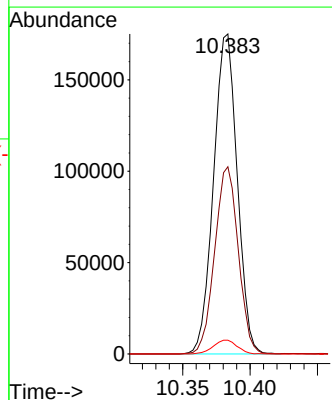
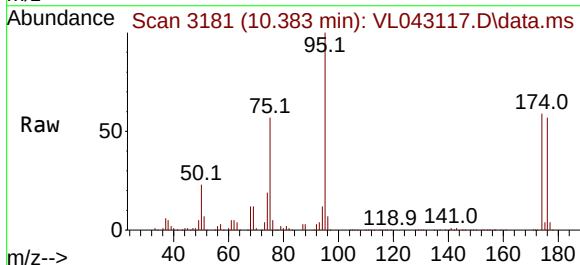
Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIR

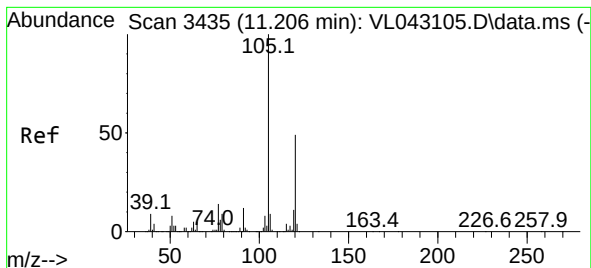
Tgt Ion: 83 Resp: 400302
Ion Ratio Lower Upper
83 100
131 9.4 4.8 14.3
85 64.6 32.0 96.0



#68
1-Bromo-4-Fluorobenzene
Concen: 10.365 ppbv
RT: 10.383 min Scan# 3181
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion: 95 Resp: 214126
Ion Ratio Lower Upper
95 100
174 58.3 48.3 72.5
175 4.4 3.8 5.8





#73

1,3,5-Trimethylbenzene

Concen: 56.947 ppbv

RT: 11.212 min Scan# 3435

Delta R.T. 0.006 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Instrument :

MSVOA_L

ClientSampleId :

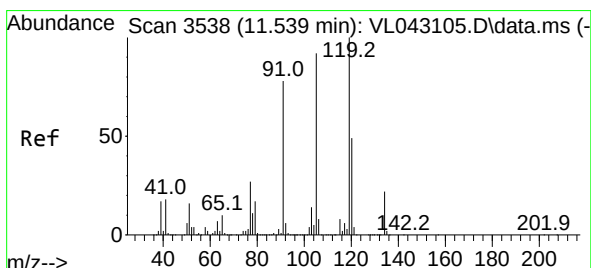
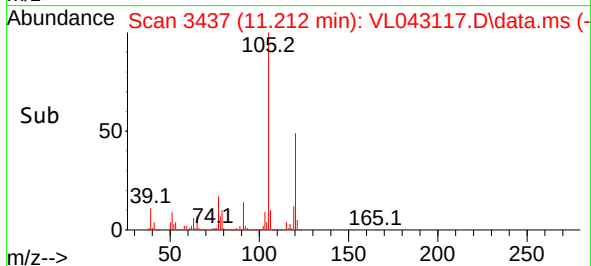
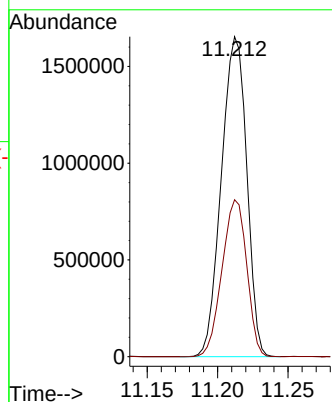
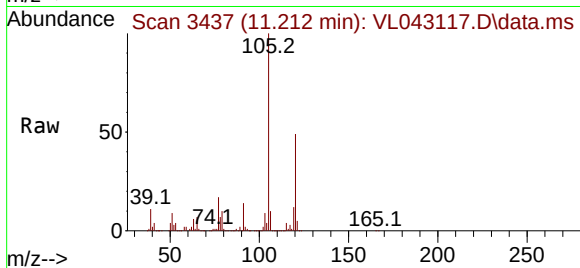
RR-VOAS-AIR

Tgt Ion:105 Resp: 2075108

Ion Ratio Lower Upper

105 100

120 49.1 39.0 58.6



#74

1,2,4-Trimethylbenzene

Concen: 34.791 ppbv

RT: 11.542 min Scan# 3539

Delta R.T. 0.003 min

Lab File: VL043117.D

Acq: 15 Oct 2025 10:50

Tgt Ion:105 Resp: 1418707

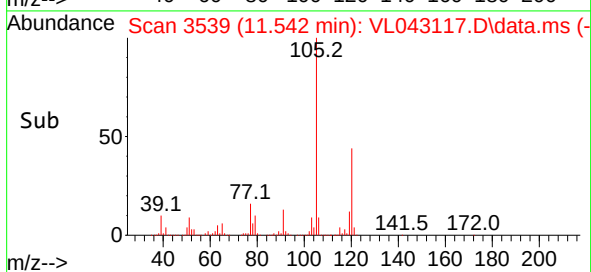
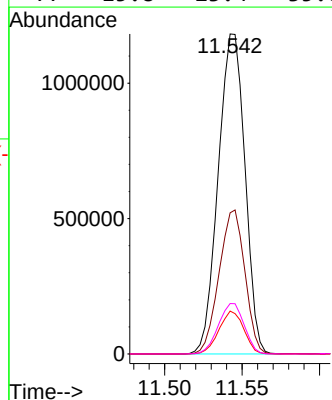
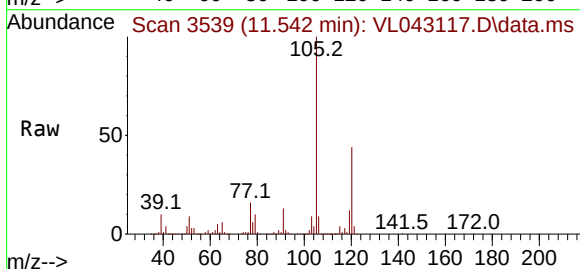
Ion Ratio Lower Upper

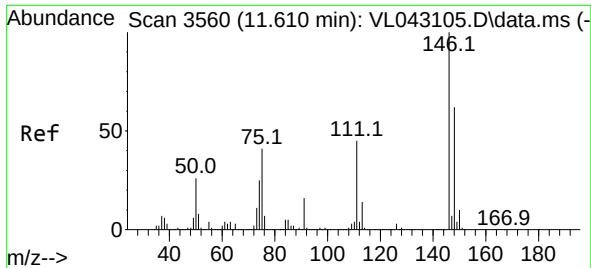
105 100

120 44.1 42.8 64.2

91 13.4 68.3 102.5#

77 15.8 23.4 35.0#

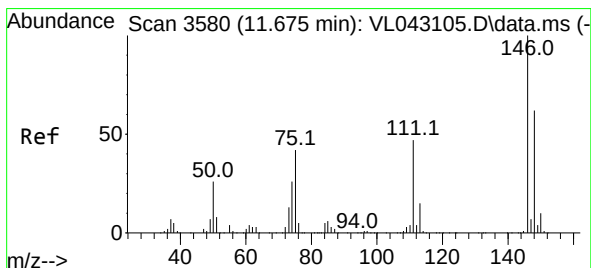
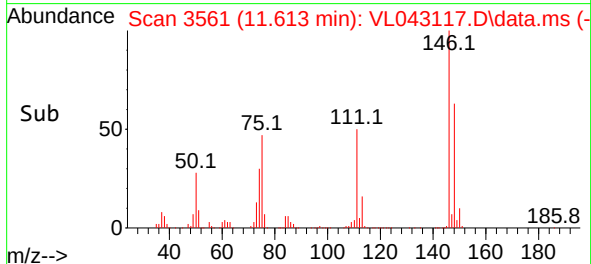
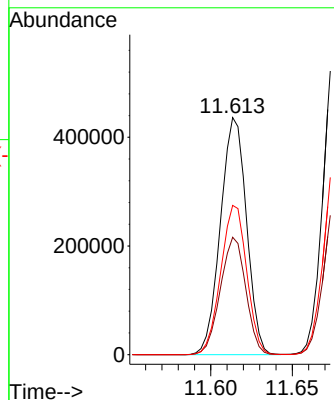
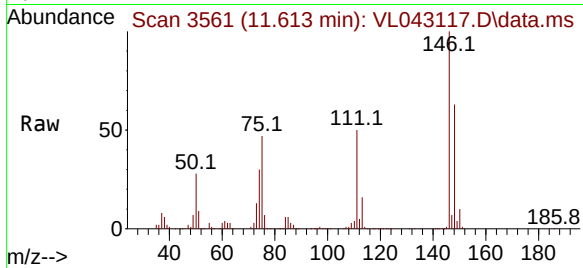




#75
1,3-Dichlorobenzene
Concen: 20.496 ppbv
RT: 11.613 min Scan# 3561
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Instrument :
MSVOA_L
ClientSampleId :
RR-VOAS-AIR

Tgt Ion:146 Resp: 484752
Ion Ratio Lower Upper
146 100
111 48.3 23.3 69.9
148 62.7 31.6 95.0



#76
1,4-Dichlorobenzene
Concen: 32.356 ppbv
RT: 11.678 min Scan# 3581
Delta R.T. 0.003 min
Lab File: VL043117.D
Acq: 15 Oct 2025 10:50

Tgt Ion:146 Resp: 771622
Ion Ratio Lower Upper
146 100
111 47.1 22.4 67.0
148 63.3 31.6 94.7

