

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040425\
 Data File : VL042226.D
 Acq On : 04 Apr 2025 16:24
 Operator : SY/MD
 Sample : Q1691-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

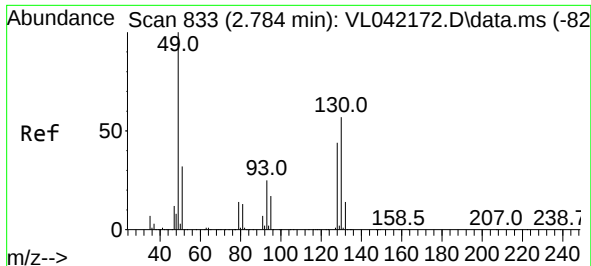
Quant Time: Apr 05 02:05:17 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	2.784	49	194580	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	518092	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	453107	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	364662	9.800	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	11891	0.414	ppbv	91
3) Chlorodifluoromethane	1.473	51	12401	0.423	ppbv	98
4) Chloromethane	1.531	50	6382	0.544	ppbv	94
6) Bromomethane	1.664	94	381	0.072	ppbv #	39
7) Chloroethane	1.703	64	220	0.047	ppbv	97
9) Propene	1.483	41	5786	0.430	ppbv	89
11) Trichlorofluoromethane	1.874	101	5744	0.205	ppbv	98
12) 1,1,2-Trichlorotrifluo...	2.140	101	1424	0.062	ppbv	95
13) Ethanol	1.719	45	28404	22.336	ppbv	87
15) Acetone	1.835	43	122167	4.489	ppbv	91
16) 1,3-Butadiene	1.599	39	2772	0.209	ppbv #	63
17) tert-Butyl alcohol	2.043	59	3207	0.095	ppbv #	64
19) Isopropyl Alcohol	1.884	45	13718	0.893	ppbv #	1
20) Methylene Chloride	2.059	84	4996	0.493	ppbv	89
21) Allyl Chloride	2.043	41	808	0.042	ppbv #	3
23) Vinyl Acetate	2.454	43	10332	0.877	ppbv #	80
25) Ethyl Acetate	2.823	43	6528	0.092	ppbv #	87
26) Hexane	2.823	57	6248	0.229	ppbv #	41
29) Chloroform	2.842	83	1310	0.033	ppbv #	63
34) 2-Butanone	2.560	43	12639	0.336	ppbv	95
35) Carbon Tetrachloride	3.761	117	1636	0.040	ppbv #	83
36) Benzene	3.648	78	8042	0.157	ppbv #	90
39) 1,2-Dichloropropane	3.955	63	134825	7.208	ppbv #	22
52) Tetrachloroethene	8.221	164	7487	0.368	ppbv	93
53) Toluene	6.933	91	17889	0.294	ppbv	95
58) Ethyl Benzene	9.351	91	3188	0.040	ppbv	95
60) o-Xylene	9.963	91	3063	0.048	ppbv	90
74) 1,2,4-Trimethylbenzene	11.536	105	5766	0.071	ppbv #	60

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

Quant Time: Apr 05 02:05:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Mar 28 02:00:52 2025
Response via : Initial Calibration

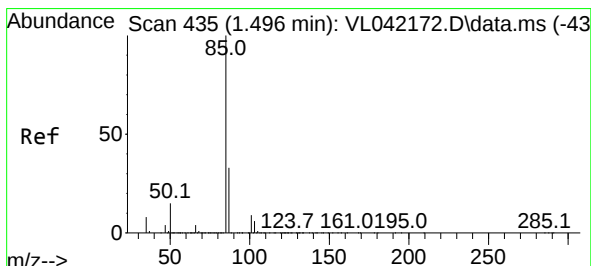
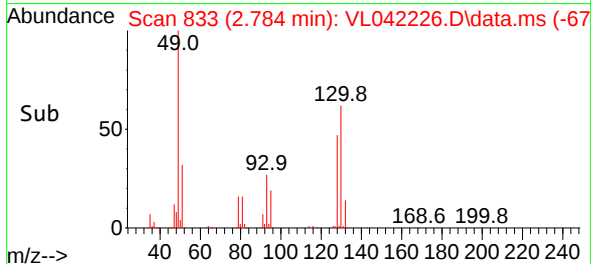
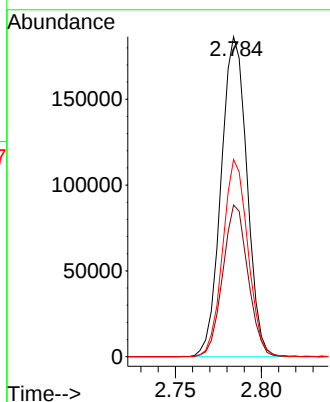
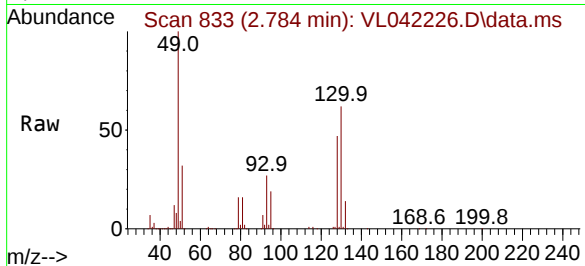




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 833
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

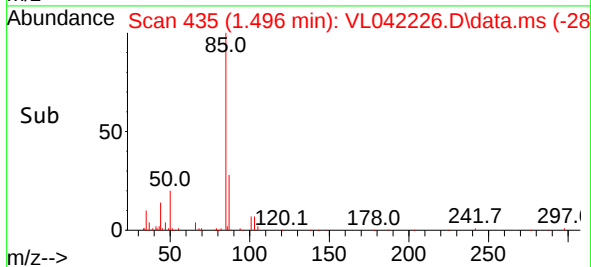
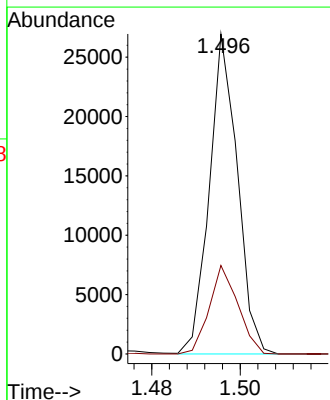
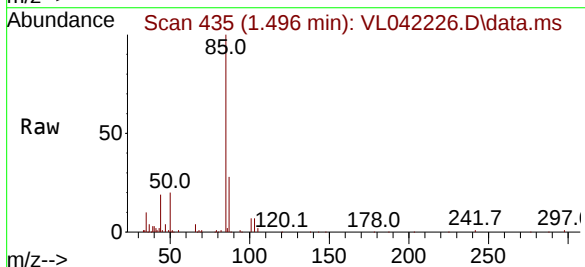
Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 49 Resp: 194580
Ion Ratio Lower Upper
49 100
128 46.4 22.9 68.5
130 60.1 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.414 ppbv
RT: 1.496 min Scan# 435
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 85 Resp: 11891
Ion Ratio Lower Upper
85 100
87 27.7 26.1 39.1

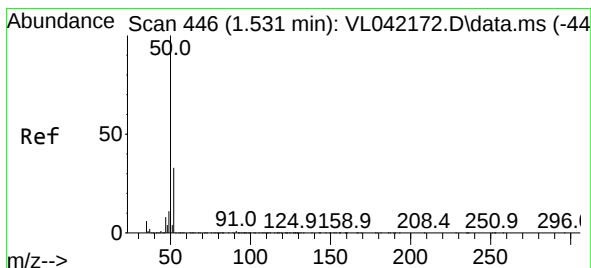
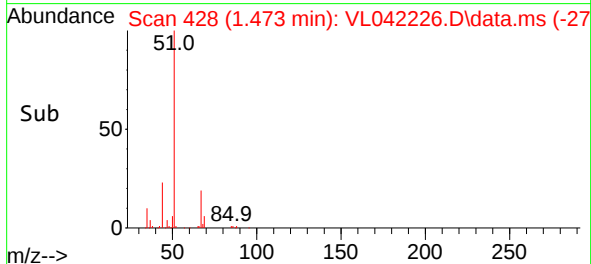
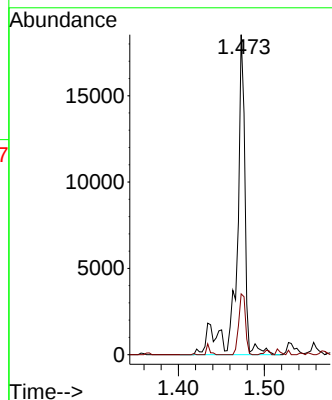
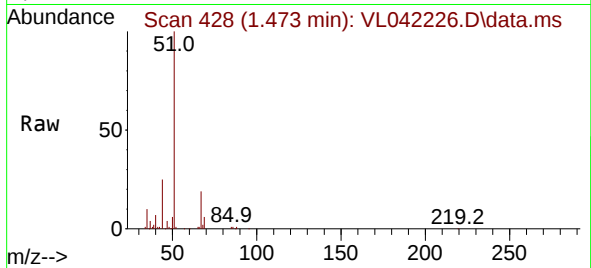




#3
Chlorodifluoromethane
Concen: 0.423 ppbv
RT: 1.473 min Scan# 41
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

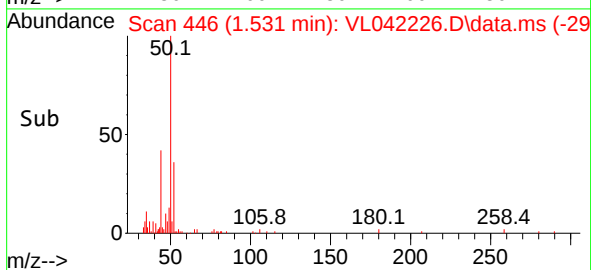
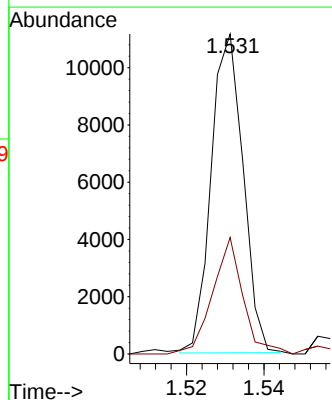
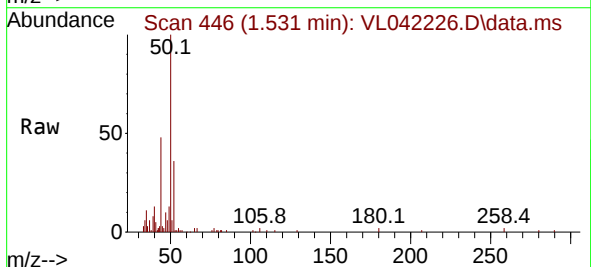
Instrument :
MSVOA_L
ClientSampleId :
OA1

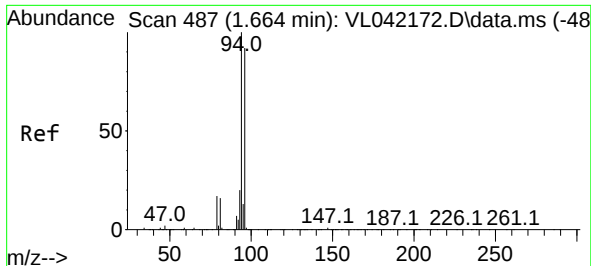
Tgt Ion: 51 Resp: 12401
Ion Ratio Lower Upper
51 100
67 17.7 15.0 22.6



#4
Chloromethane
Concen: 0.544 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 50 Resp: 6382
Ion Ratio Lower Upper
50 100
52 35.7 26.1 39.1

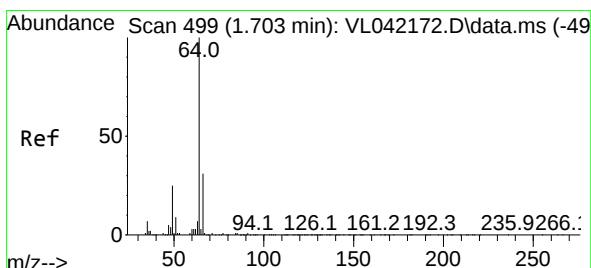
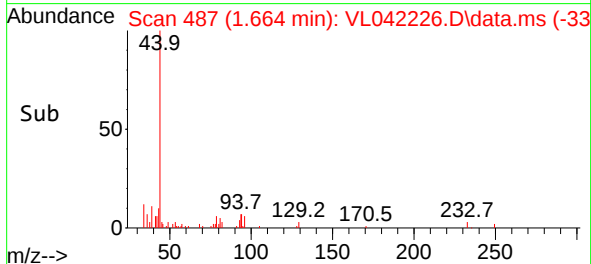
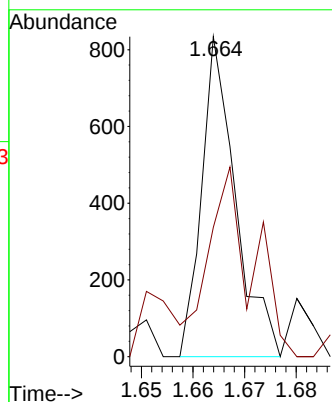
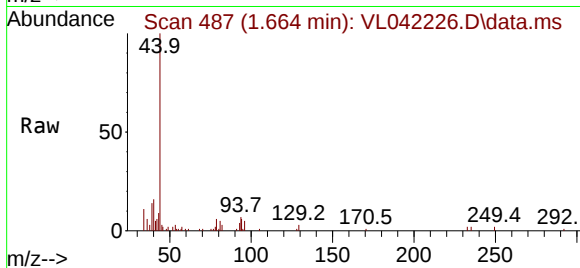




#6
Bromomethane
Concen: 0.072 ppbv
RT: 1.664 min Scan# 487
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

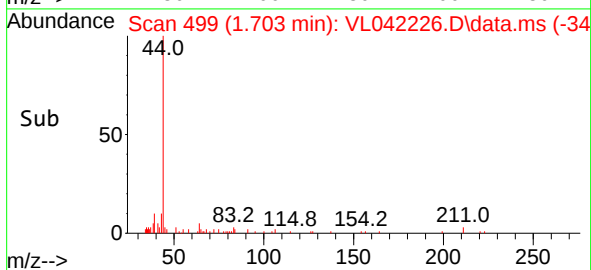
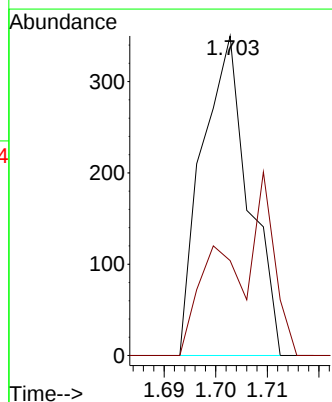
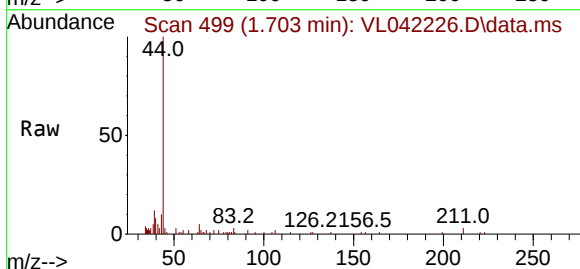
Instrument :
MSVOA_L
ClientSampleId :
OA1

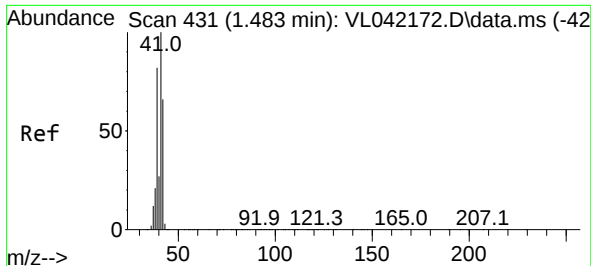
Tgt Ion: 94 Resp: 381
Ion Ratio Lower Upper
94 100
96 33.7 73.1 109.7#



#7
Chloroethane
Concen: 0.047 ppbv
RT: 1.703 min Scan# 499
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 64 Resp: 220
Ion Ratio Lower Upper
64 100
66 29.7 25.2 37.8





#9

Propene

Concen: 0.430 ppbv

RT: 1.483 min Scan# 41

Delta R.T. -0.000 min

Lab File: VL042226.D

Acq: 04 Apr 2025 16:24

Instrument :

MSVOA_L

ClientSampleId :

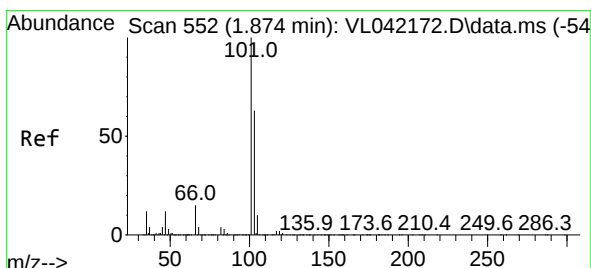
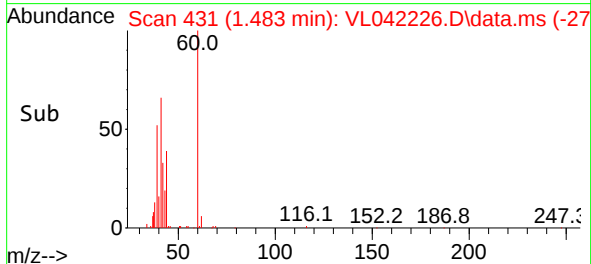
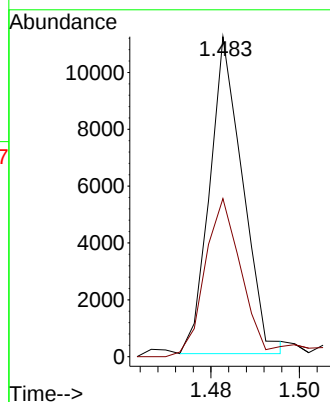
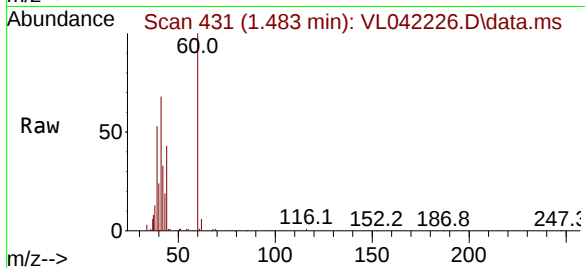
OA1

Tgt Ion: 41 Resp: 5786

Ion Ratio Lower Upper

41 100

42 60.0 55.4 83.2



#11

Trichlorofluoromethane

Concen: 0.205 ppbv

RT: 1.874 min Scan# 552

Delta R.T. -0.000 min

Lab File: VL042226.D

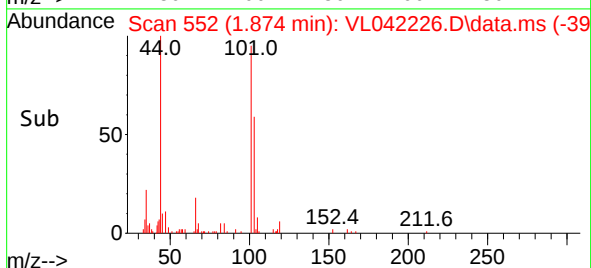
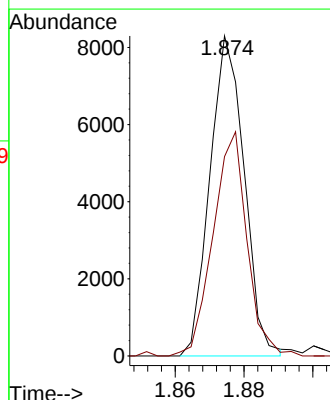
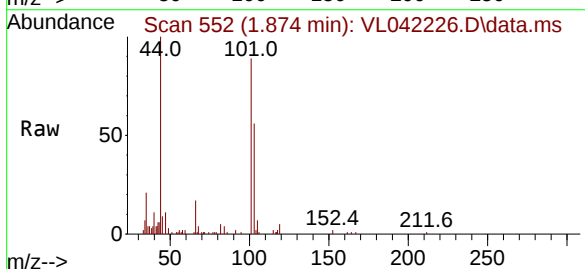
Acq: 04 Apr 2025 16:24

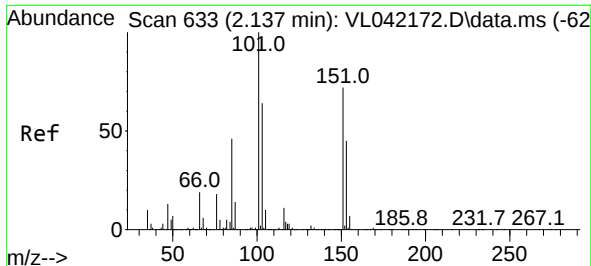
Tgt Ion: 101 Resp: 5744

Ion Ratio Lower Upper

101 100

103 61.1 50.2 75.2

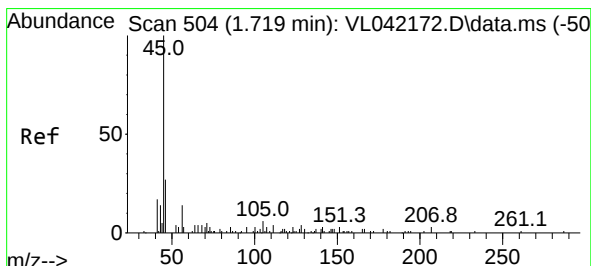
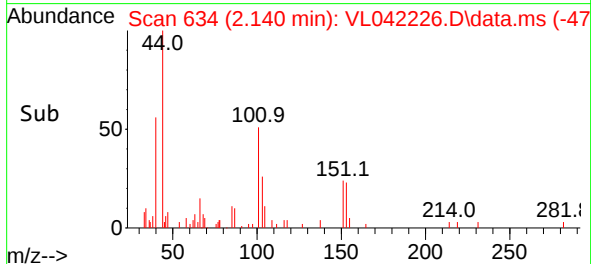
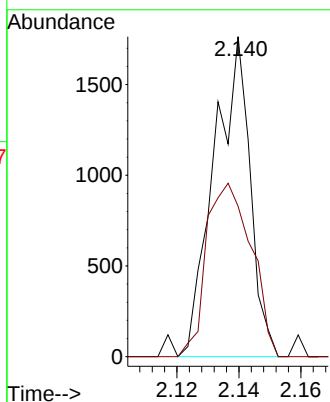
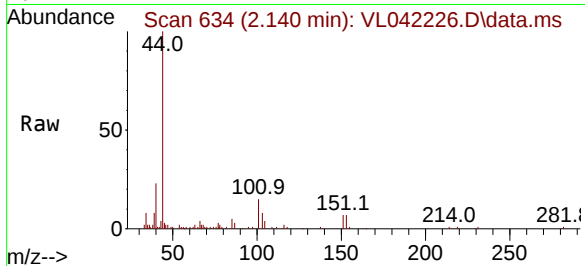




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.062 ppbv
 RT: 2.140 min Scan# 61
 Delta R.T. 0.003 min
 Lab File: VL042226.D
 Acq: 04 Apr 2025 16:24

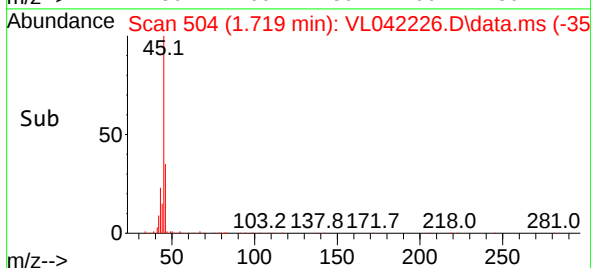
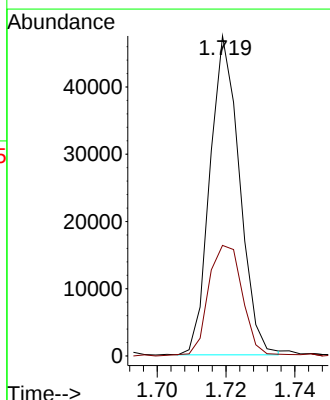
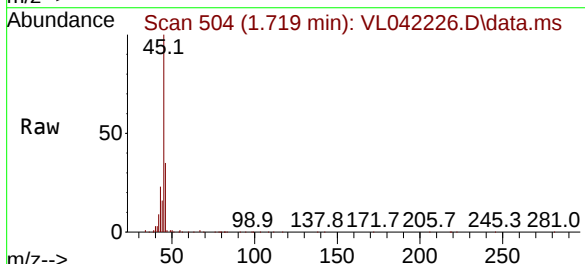
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

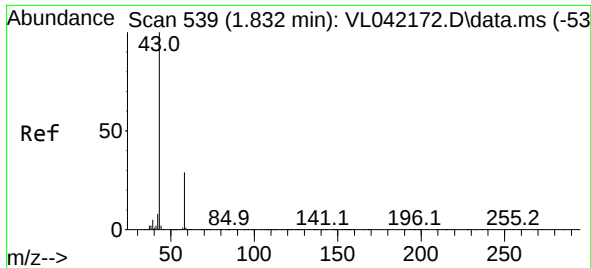
Tgt Ion:101 Resp: 1424
 Ion Ratio Lower Upper
 101 100
 151 67.6 57.1 85.7



#13
 Ethanol
 Concen: 22.336 ppbv
 RT: 1.719 min Scan# 504
 Delta R.T. -0.000 min
 Lab File: VL042226.D
 Acq: 04 Apr 2025 16:24

Tgt Ion: 45 Resp: 28404
 Ion Ratio Lower Upper
 45 100
 46 41.4 20.2 80.8





#15

Acetone

Concen: 4.489 ppbv

RT: 1.835 min Scan# 54

Delta R.T. 0.003 min

Lab File: VL042226.D

Acq: 04 Apr 2025 16:24

Instrument :

MSVOA_L

ClientSampleId :

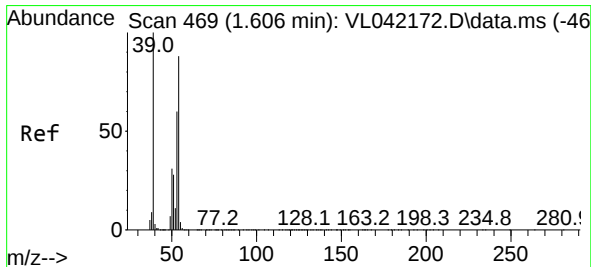
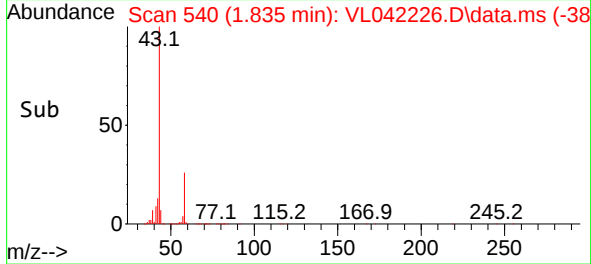
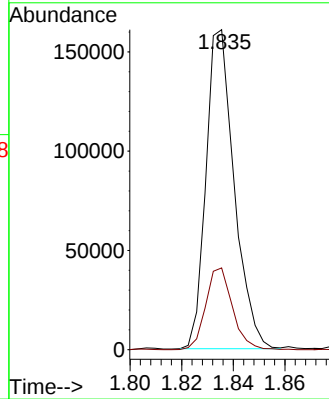
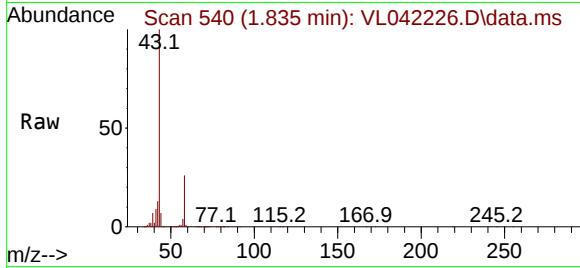
OA1

Tgt Ion: 43 Resp: 122167

Ion Ratio Lower Upper

43 100

58 24.4 23.2 34.8



#16

1,3-Butadiene

Concen: 0.209 ppbv

RT: 1.599 min Scan# 467

Delta R.T. -0.007 min

Lab File: VL042226.D

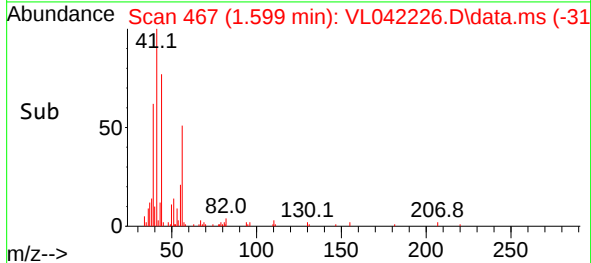
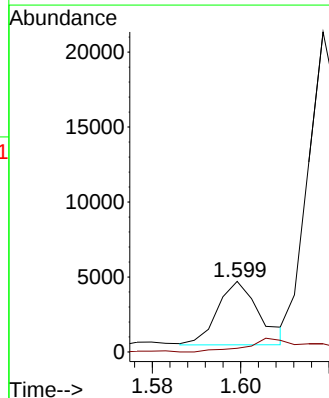
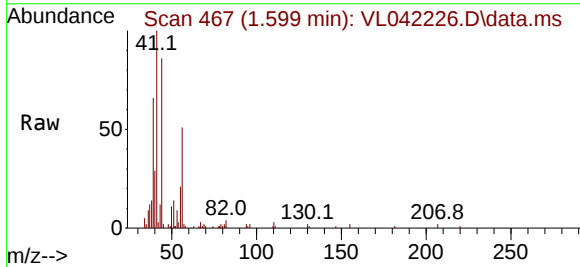
Acq: 04 Apr 2025 16:24

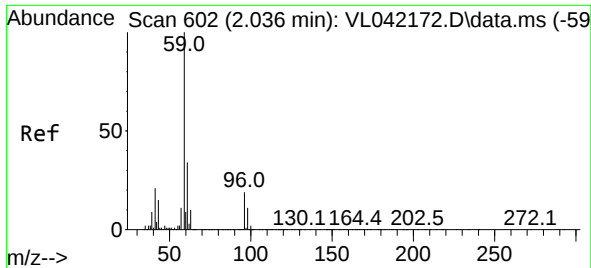
Tgt Ion: 39 Resp: 2772

Ion Ratio Lower Upper

39 100

54 44.2 60.7 91.1#

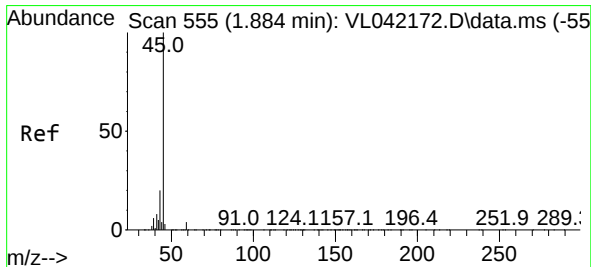
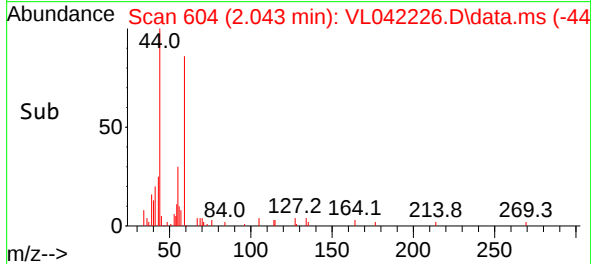
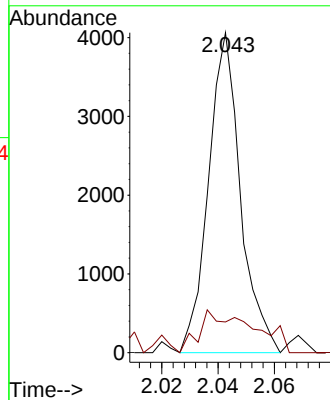
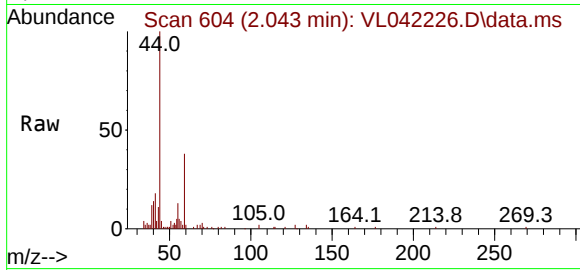




#17
tert-Butyl alcohol
Concen: 0.095 ppbv
RT: 2.043 min Scan# 602
Delta R.T. 0.006 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

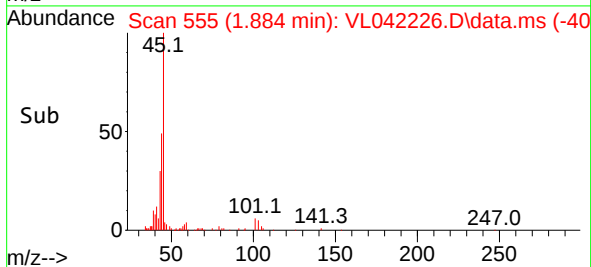
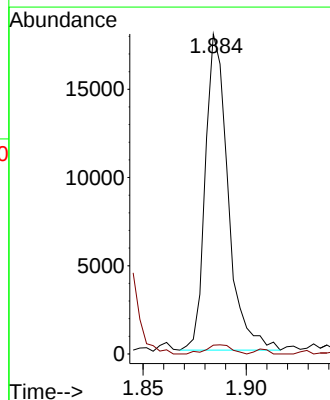
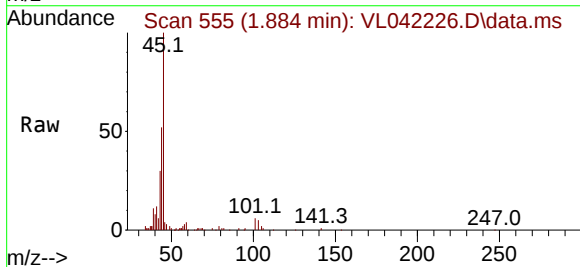
Instrument :
MSVOA_L
ClientSampleId :
OA1

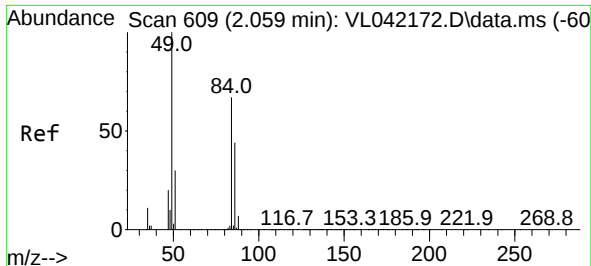
Tgt Ion: 59 Resp: 3207
Ion Ratio Lower Upper
59 100
57 24.8 8.9 13.3#



#19
Isopropyl Alcohol
Concen: 0.893 ppbv
RT: 1.884 min Scan# 555
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 45 Resp: 13718
Ion Ratio Lower Upper
45 100
58 218.5 36.9 55.3#

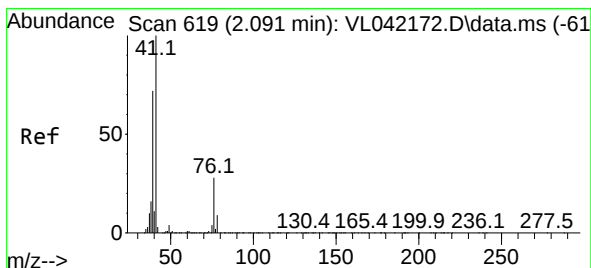
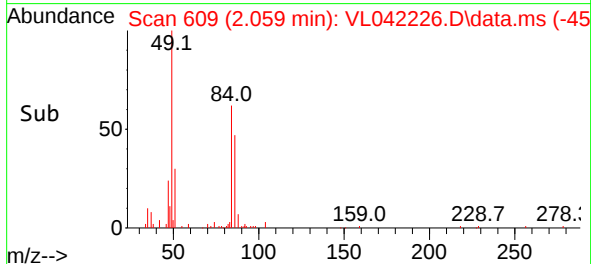
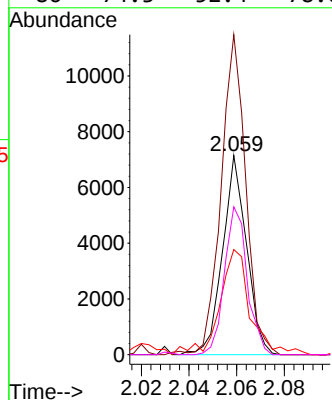
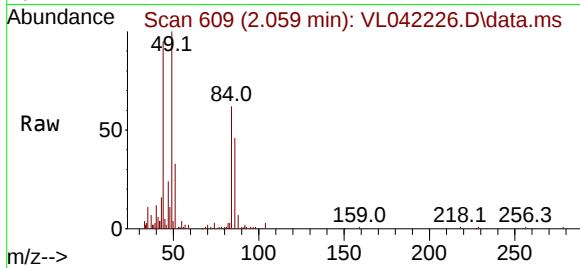




#20
Methylene Chloride
Concen: 0.493 ppbv
RT: 2.059 min Scan# 609
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

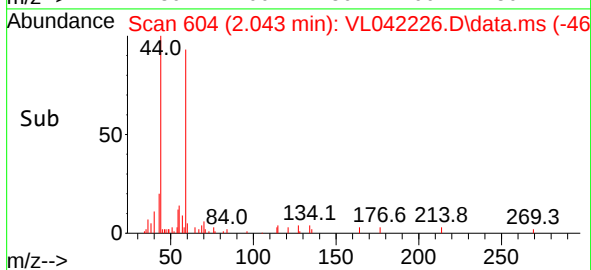
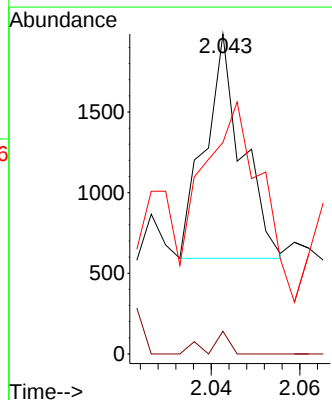
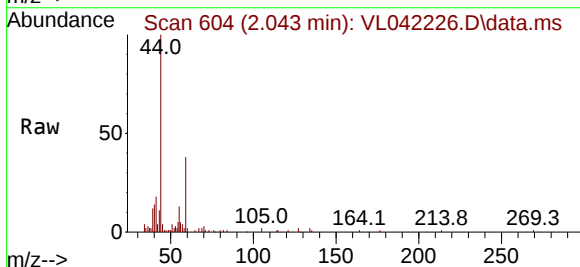
Instrument :
MSVOA_L
ClientSampleId :
OA1

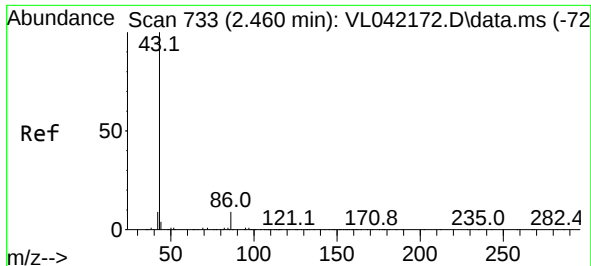
Tgt Ion: 84	Resp:	4996	
Ion	Ratio	Lower	Upper
84	100		
49	167.3	120.2	180.4
51	48.9	37.4	56.0
86	74.3	52.4	78.6



#21
Allyl Chloride
Concen: 0.042 ppbv
RT: 2.043 min Scan# 604
Delta R.T. -0.049 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 41	Resp:	808	
Ion	Ratio	Lower	Upper
41	100		
76	16.7	24.1	36.1#
39	184.5	61.1	91.7#

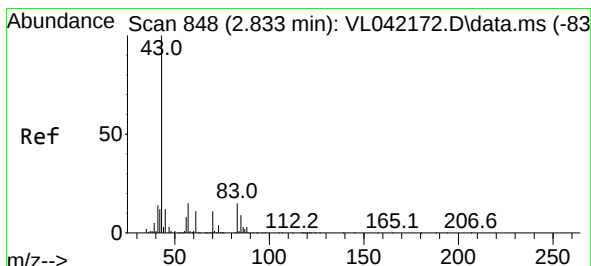
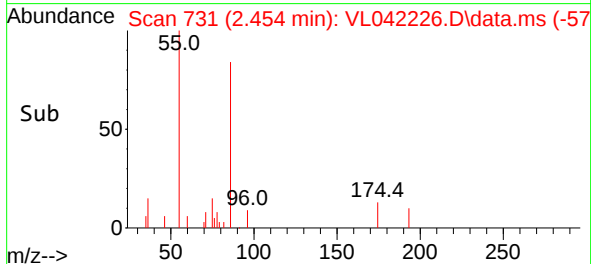
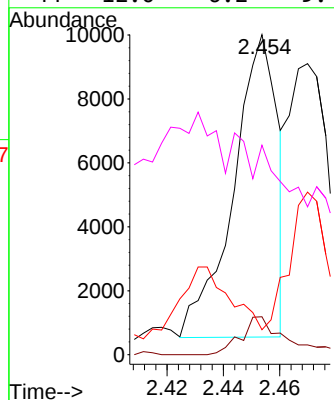
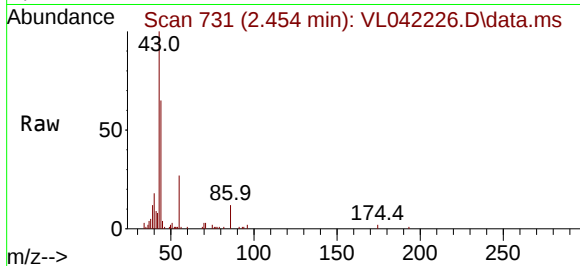




#23
 Vinyl Acetate
 Concen: 0.877 ppbv
 RT: 2.454 min Scan# 71
 Delta R.T. -0.007 min
 Lab File: VL042226.D
 Acq: 04 Apr 2025 16:24

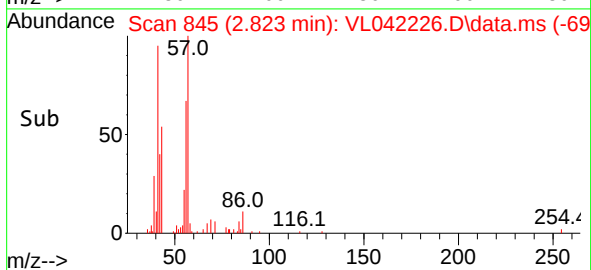
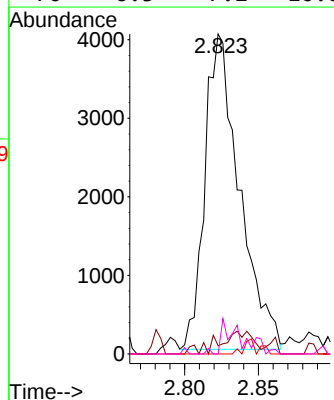
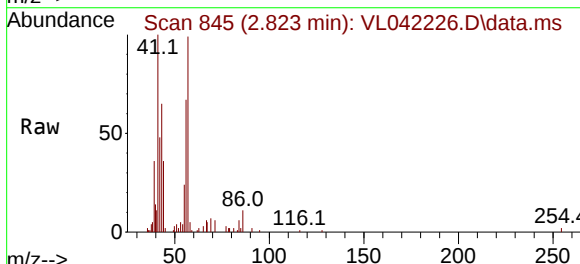
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

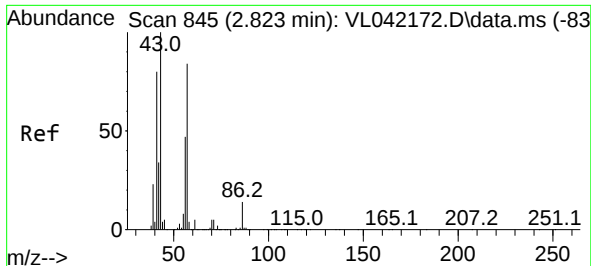
Tgt Ion:	43	Resp:	10332
Ion	Ratio	Lower	Upper
43	100		
86	12.5	5.5	8.3#
42	0.0	8.6	13.0#
44	12.0	6.2	9.4#



#25
 Ethyl Acetate
 Concen: 0.092 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. -0.010 min
 Lab File: VL042226.D
 Acq: 04 Apr 2025 16:24

Tgt Ion:	43	Resp:	6528
Ion	Ratio	Lower	Upper
43	100		
45	7.9	8.2	12.2#
61	0.0	7.3	10.9#
70	6.3	7.2	10.8#

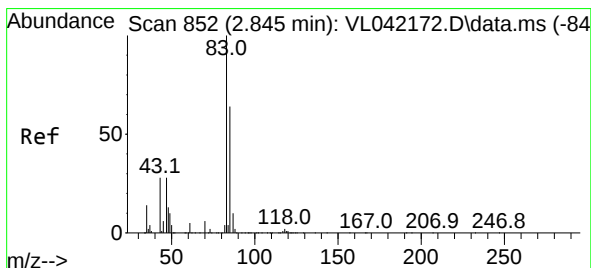
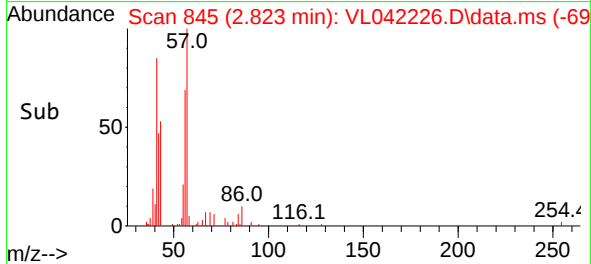
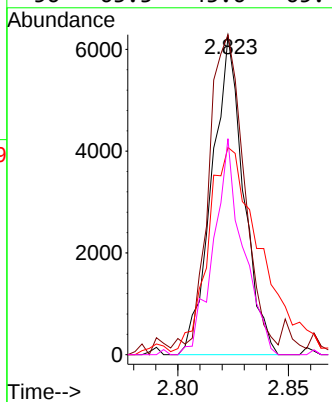
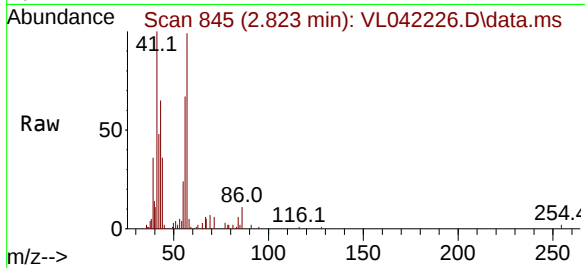




#26
Hexane
Concen: 0.229 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

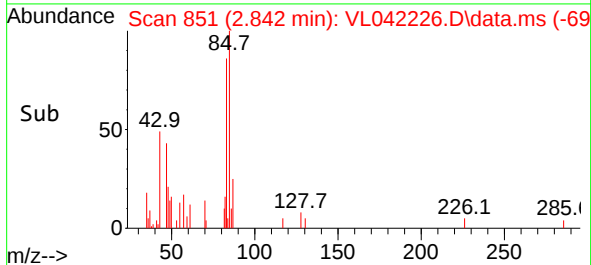
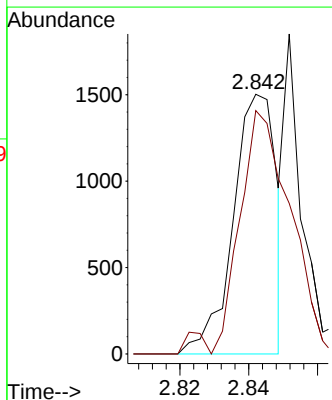
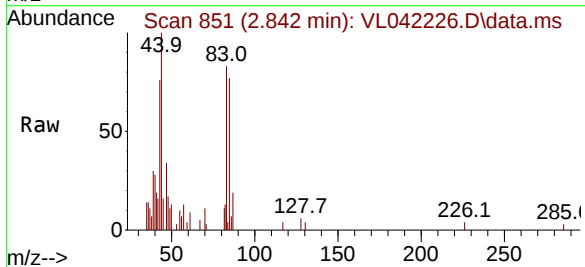
Instrument :
MSVOA_L
ClientSampleId :
OA1

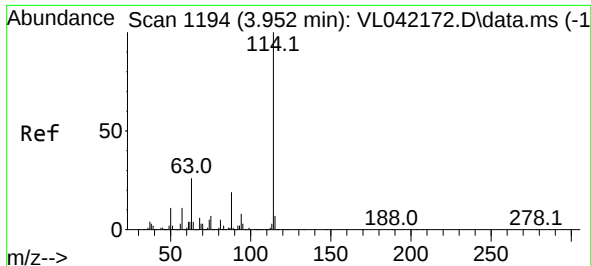
Tgt Ion:	57	Resp:	6248
Ion	Ratio	Lower	Upper
57	100		
41	118.3	76.6	114.8#
43	112.5	207.8	311.8#
56	63.3	43.6	65.4



#29
Chloroform
Concen: 0.033 ppbv
RT: 2.842 min Scan# 851
Delta R.T. -0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion:	83	Resp:	1310
Ion	Ratio	Lower	Upper
83	100		
85	93.7	51.4	77.2#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. 0.003 min

Lab File: VL042226.D

Acq: 04 Apr 2025 16:24

Instrument :

MSVOA_L

ClientSampleId :

OA1

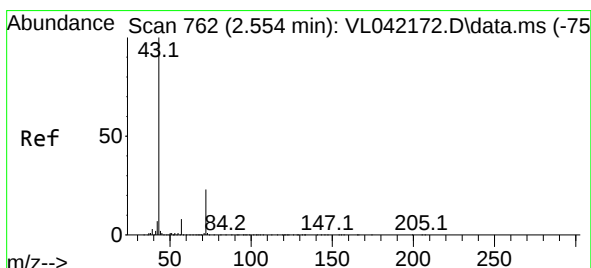
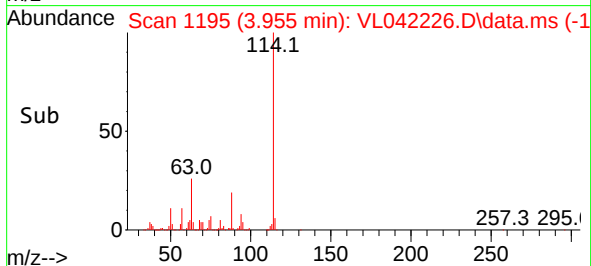
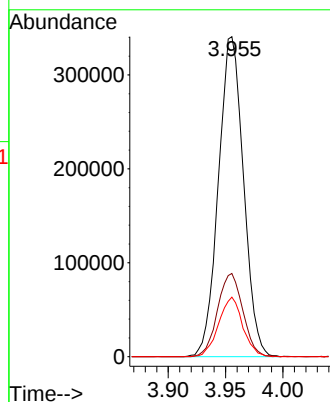
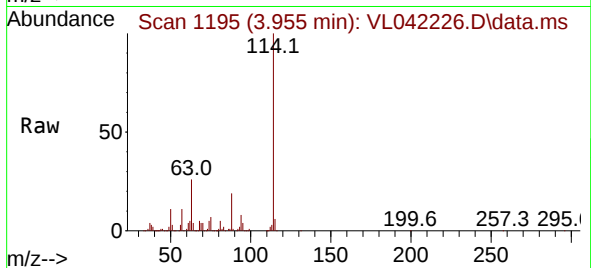
Tgt Ion:114 Resp: 518092

Ion Ratio Lower Upper

114 100

63 26.2 20.7 31.1

88 17.9 15.0 22.4



#34

2-Butanone

Concen: 0.336 ppbv

RT: 2.560 min Scan# 764

Delta R.T. 0.006 min

Lab File: VL042226.D

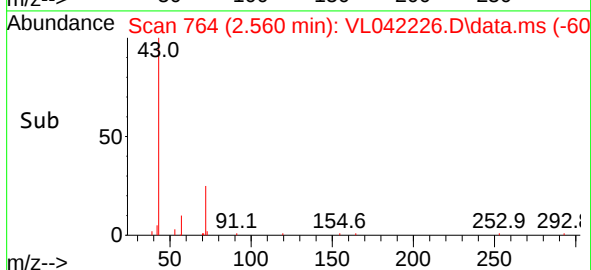
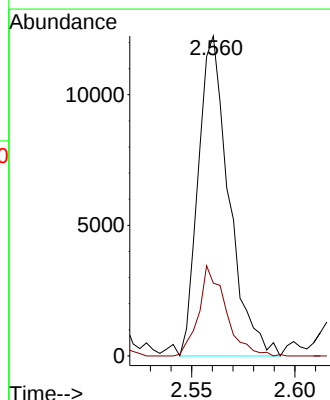
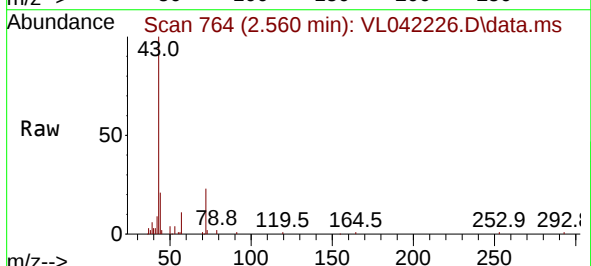
Acq: 04 Apr 2025 16:24

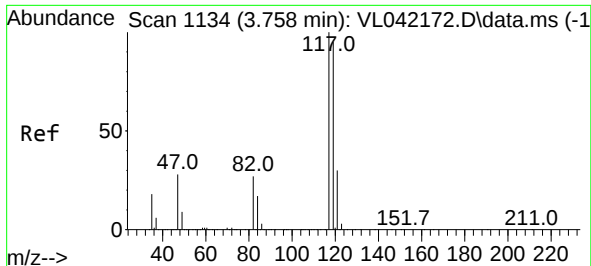
Tgt Ion: 43 Resp: 12639

Ion Ratio Lower Upper

43 100

72 24.9 18.2 27.2

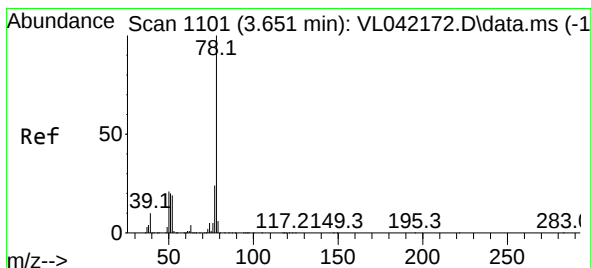
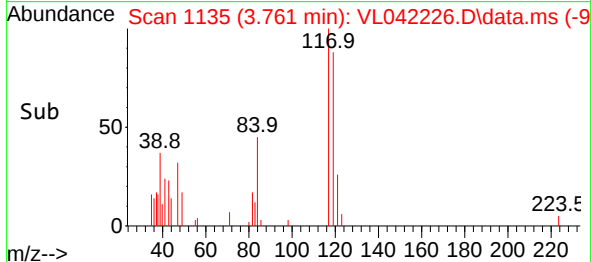
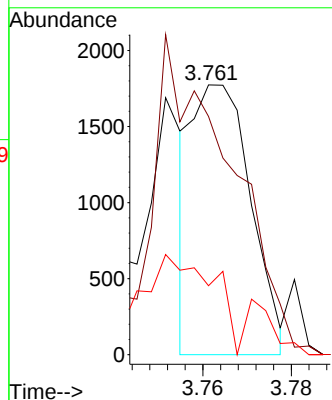
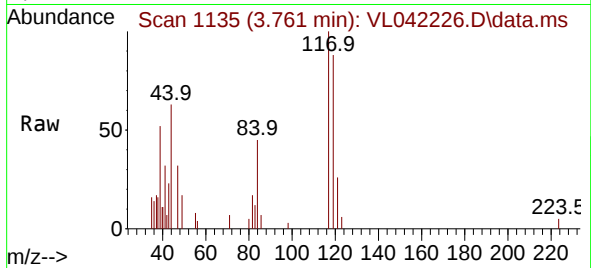




#35
Carbon Tetrachloride
Concen: 0.040 ppbv
RT: 3.761 min Scan# 1135
Delta R.T. 0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

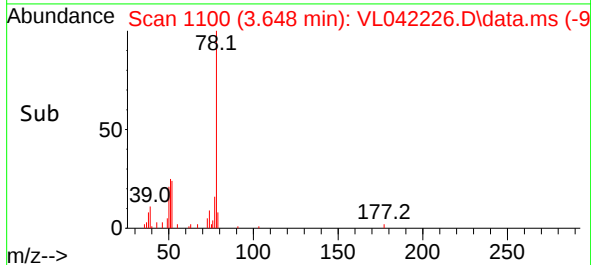
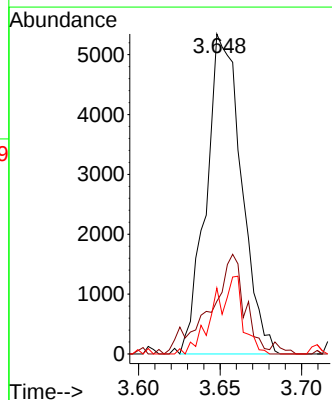
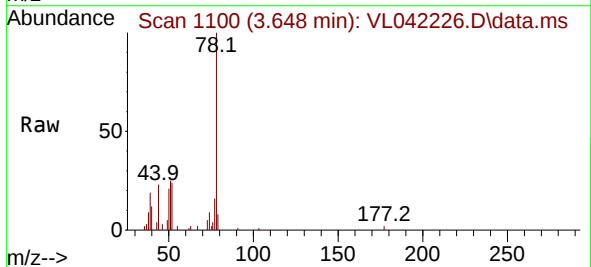
Instrument :
MSVOA_L
ClientSampleId :
OA1

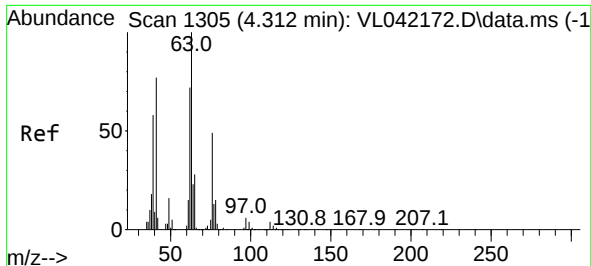
Tgt Ion:117 Resp: 1636
Ion Ratio Lower Upper
117 100
119 77.1 76.2 114.2
121 23.8 24.2 36.4#



#36
Benzene
Concen: 0.157 ppbv
RT: 3.648 min Scan# 1100
Delta R.T. -0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 78 Resp: 8042
Ion Ratio Lower Upper
78 100
77 14.6 19.1 28.7#
50 20.6 16.6 24.8





#39

1,2-Dichloropropane

Concen: 7.208 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.356 min

Lab File: VL042226.D

Acq: 04 Apr 2025 16:24

Instrument :

MSVOA_L

ClientSampleId :

OA1

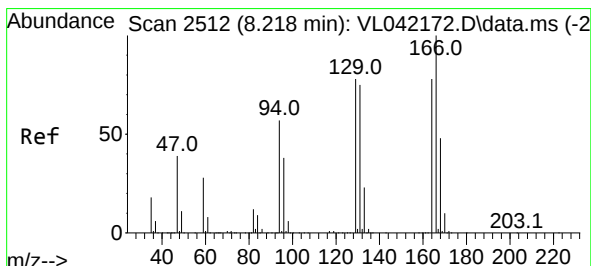
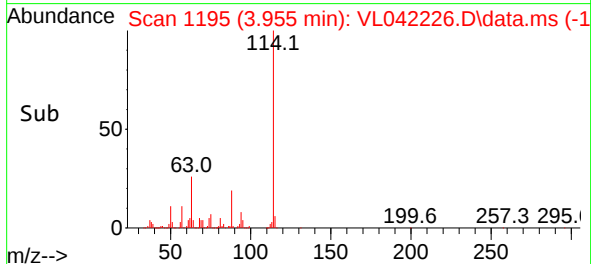
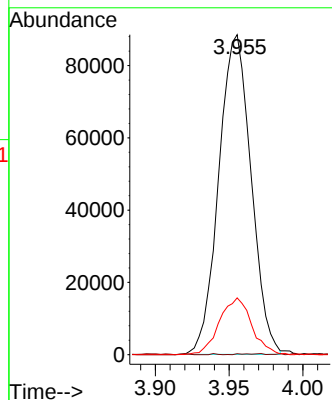
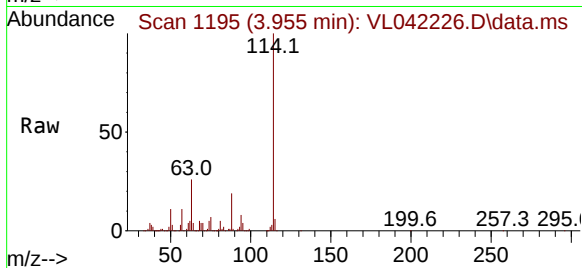
Tgt Ion: 63 Resp: 134825

Ion Ratio Lower Upper

63 100

41 0.1 61.7 92.5#

62 17.7 57.6 86.4#



#52

Tetrachloroethene

Concen: 0.368 ppbv

RT: 8.221 min Scan# 2513

Delta R.T. 0.003 min

Lab File: VL042226.D

Acq: 04 Apr 2025 16:24

Tgt Ion: 164 Resp: 7487

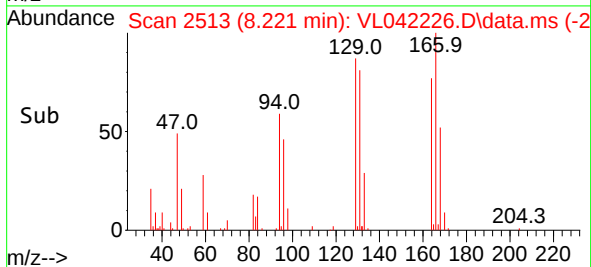
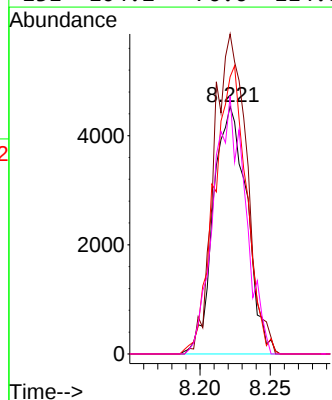
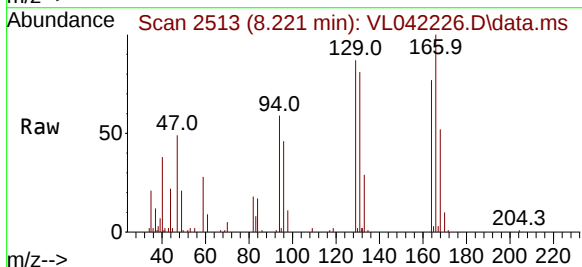
Ion Ratio Lower Upper

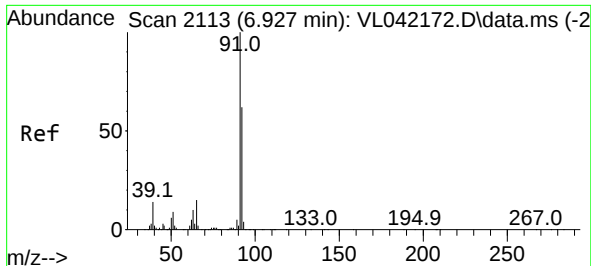
164 100

166 129.3 102.5 153.7

129 111.9 79.8 119.8

131 104.2 76.6 114.8

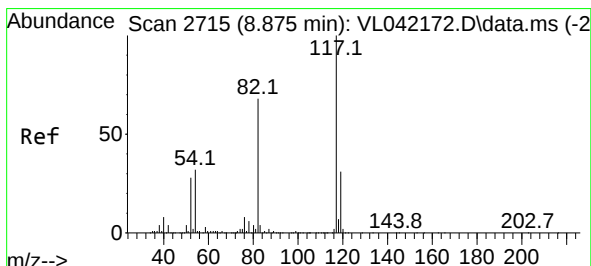
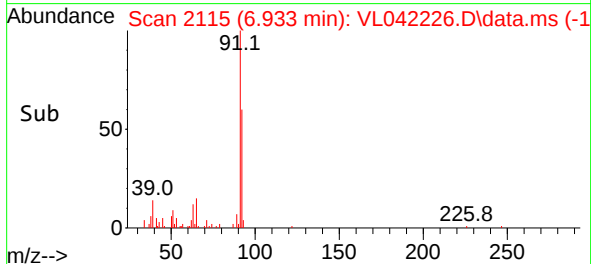
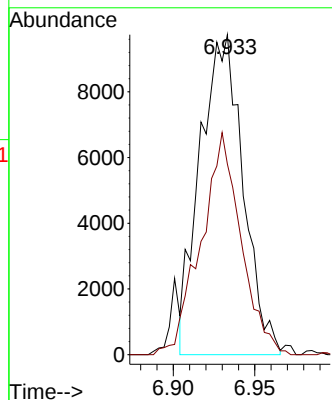
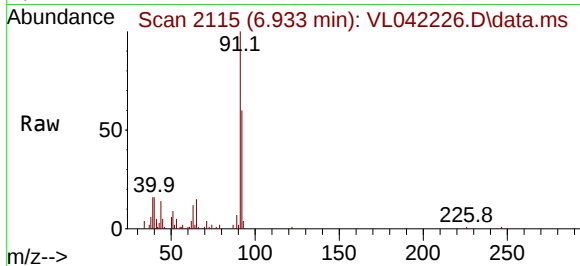




#53
Toluene
Concen: 0.294 ppbv
RT: 6.933 min Scan# 2113
Delta R.T. 0.006 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

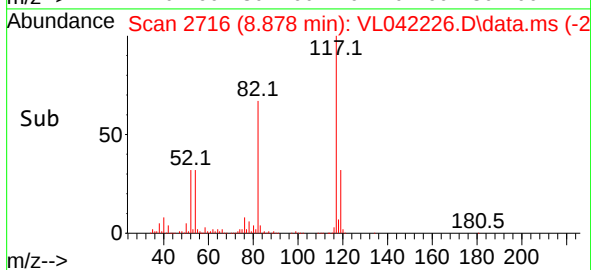
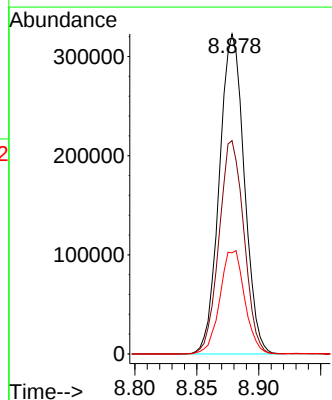
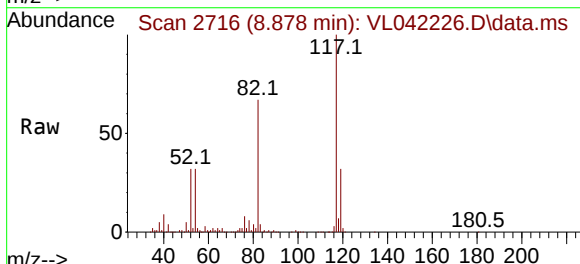
Instrument :
MSVOA_L
ClientSampleId :
OA1

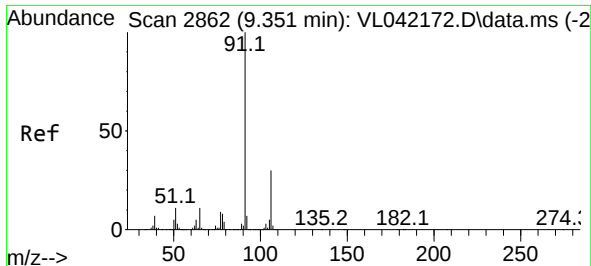
Tgt Ion: 91 Resp: 17889
Ion Ratio Lower Upper
91 100
92 64.4 48.4 72.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.878 min Scan# 2716
Delta R.T. 0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 117 Resp: 453107
Ion Ratio Lower Upper
117 100
82 66.6 55.8 83.6
119 32.3 25.5 38.3

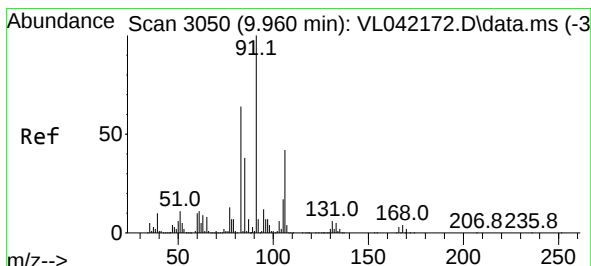
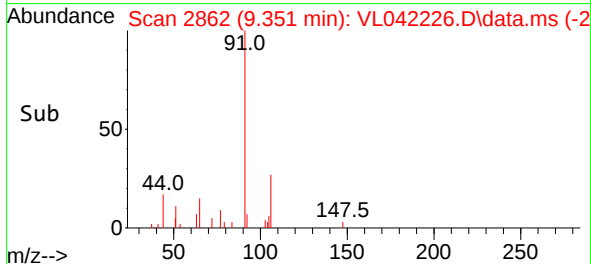
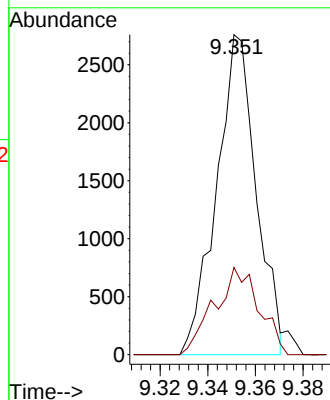
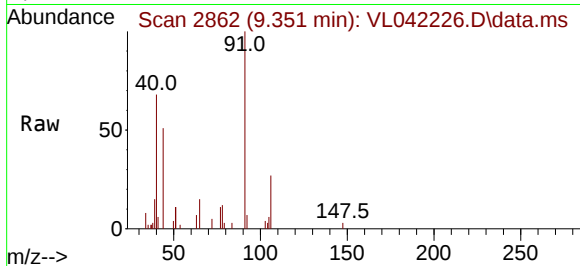




#58
Ethyl Benzene
Concen: 0.040 ppbv
RT: 9.351 min Scan# 2188
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

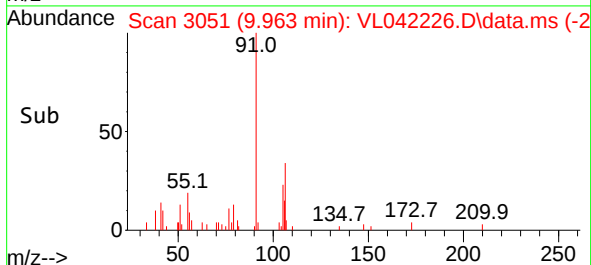
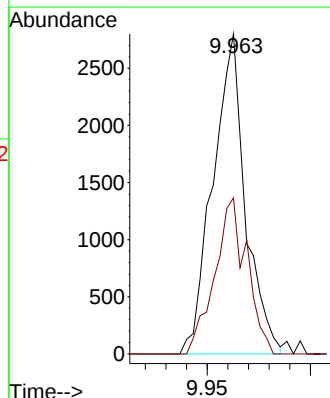
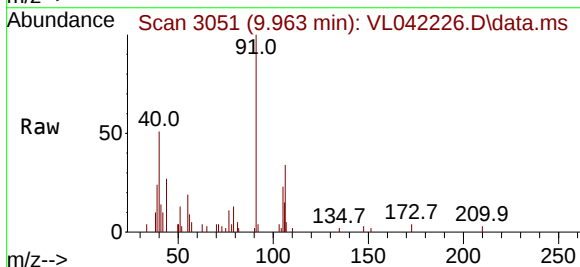
Instrument :
MSVOA_L
ClientSampleId :
OA1

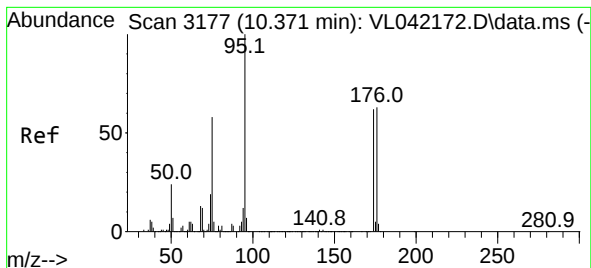
Tgt Ion: 91 Resp: 3188
Ion Ratio Lower Upper
91 100
106 27.2 24.2 36.2



#60
o-Xylene
Concen: 0.048 ppbv
RT: 9.963 min Scan# 3051
Delta R.T. 0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 91 Resp: 3063
Ion Ratio Lower Upper
91 100
106 48.2 20.8 62.5

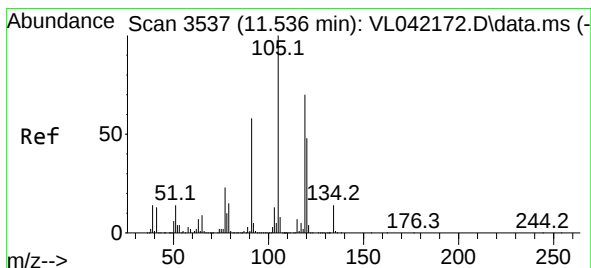
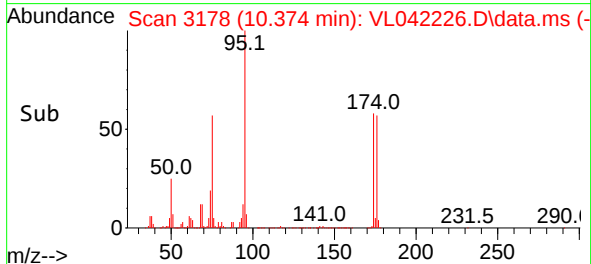
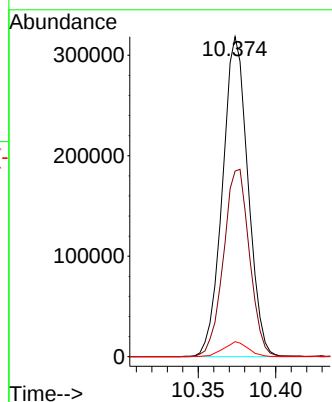
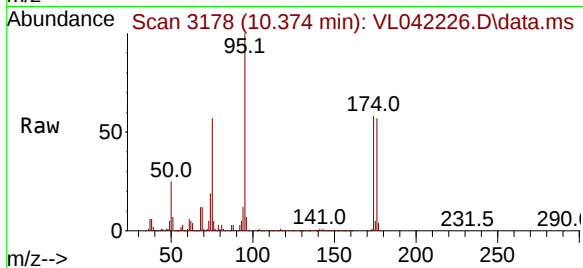




#68
1-Bromo-4-Fluorobenzene
Concen: 9.800 ppbv
RT: 10.374 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 95 Resp: 364662
Ion Ratio Lower Upper
95 100
174 59.7 50.6 76.0
175 4.6 3.8 5.6



#74
1,2,4-Trimethylbenzene
Concen: 0.071 ppbv
RT: 11.536 min Scan# 3537
Delta R.T. -0.000 min
Lab File: VL042226.D
Acq: 04 Apr 2025 16:24

Tgt Ion: 105 Resp: 5766
Ion Ratio Lower Upper
105 100
120 40.1 38.6 58.0
91 7.8 46.2 69.2#
77 8.1 18.6 27.8#

