

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL050624\
 Data File : VL041227.D
 Acq On : 6 May 2024 20:58
 Operator : SY/MD
 Sample : P2353-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: May 07 05:28:13 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue May 07 05:19:44 2024
 Response via : Initial Calibration

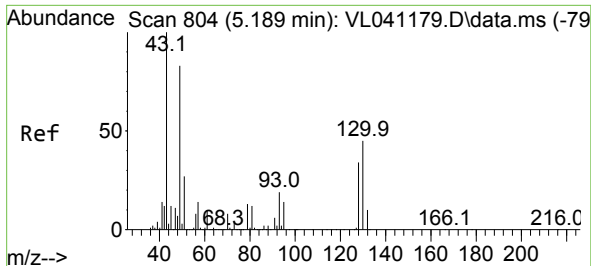
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.201	49	857065	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.661	114	2235407	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.471	117	2004989	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.777	95	1497984	9.896	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.748	85	47542	0.410	ppbv	98
3) Chlorodifluoromethane	2.690	51	44438	0.341	ppbv	94
4) Chloromethane	2.832	50	74706	1.463	ppbv	96
6) Bromomethane	3.137	94	4756	0.254	ppbv #	78
7) Chloroethane	3.211	64	2952	0.163	ppbv #	79
9) Propene	2.709	41	79877	1.568	ppbv	92
11) Trichlorofluoromethane	3.574	101	27463	0.233	ppbv	100
13) Ethanol	3.256	45	146773	12.853	ppbv	94
15) Acetone	3.481	43	930217	9.196	ppbv	98
16) 1,3-Butadiene	2.983	39	29507	0.578	ppbv #	28
17) tert-Butyl alcohol	3.906	59	11149	0.102	ppbv #	48
19) Isopropyl Alcohol	3.600	45	33510	0.505	ppbv #	1
20) Methylene Chloride	3.947	84	52344	1.488	ppbv	93
21) Allyl Chloride	3.967	41	8555	0.130	ppbv #	25
23) Vinyl Acetate	4.619	43	23127	0.208	ppbv #	1
25) Ethyl Acetate	5.224	43	213379	1.057	ppbv #	79
26) Hexane	5.221	57	284751	3.160	ppbv #	42
29) Chloroform	5.282	83	102976	0.828	ppbv	94
30) Cyclohexane	6.613	84	17669	0.248	ppbv #	80
34) 2-Butanone	4.803	43	82552	0.726	ppbv	97
35) Carbon Tetrachloride	6.500	117	13157	0.105	ppbv #	80
36) Benzene	6.378	78	38935	0.208	ppbv	97
39) 1,2-Dichloropropane	6.661	63	565805	7.826	ppbv #	24
41) Tetrahydrofuran	5.828	42	7081	0.086	ppbv #	39
42) Bromodichloromethane	7.253	83	18490	0.132	ppbv	86
44) 2,2,4-Trimethylpentane	7.333	57	10857	0.034	ppbv #	1
53) Toluene	9.224	91	10565	0.049	ppbv #	58

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

Quant Time: May 07 05:28:13 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue May 07 05:19:44 2024
Response via : Initial Calibration

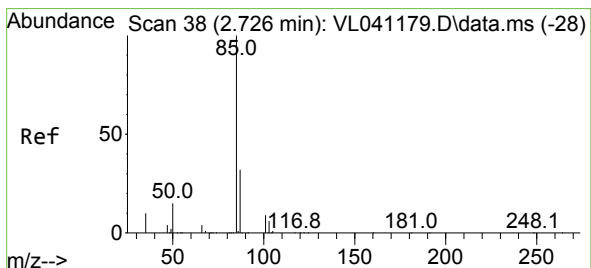
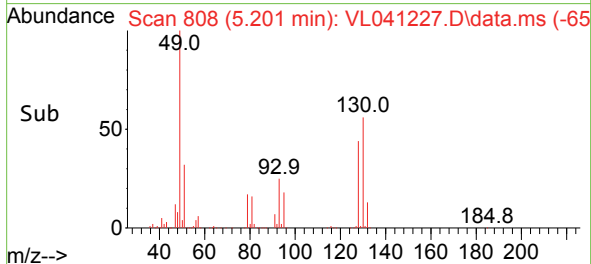
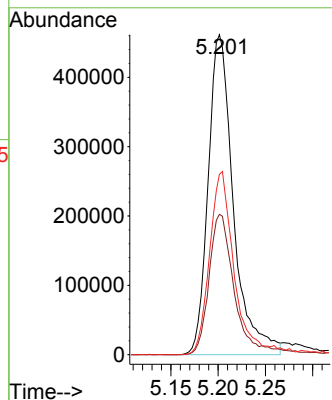
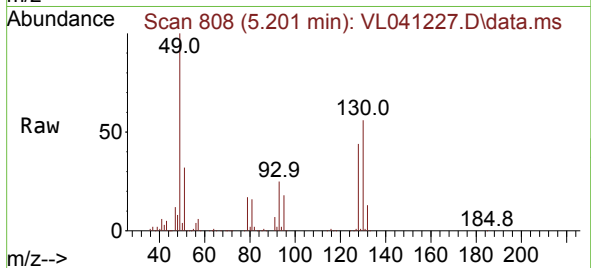




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.201 min Scan# 80
 Delta R.T. 0.006 min
 Lab File: VL041227.D
 Acq: 6 May 2024 20:58

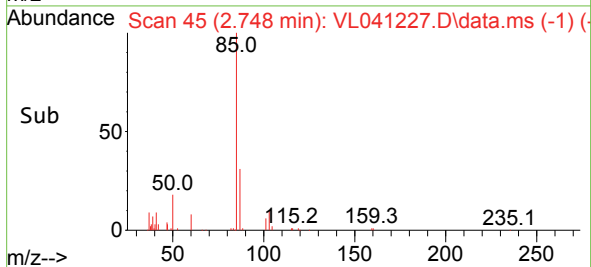
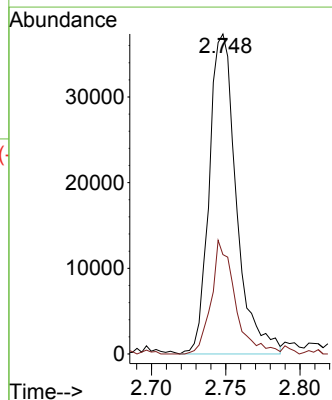
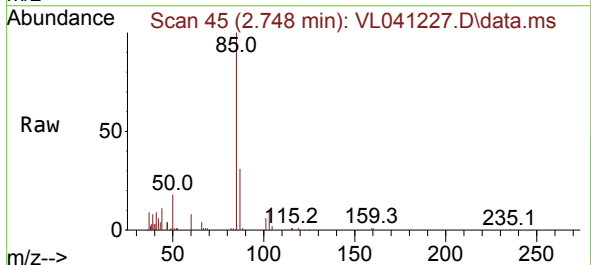
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

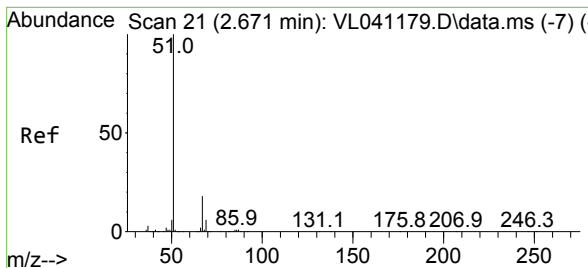
Tgt Ion: 49 Resp: 857065
 Ion Ratio Lower Upper
 49 100
 128 45.6 21.5 64.5
 130 57.6 27.2 81.6



#2
 Dichlorodifluoromethane
 Concen: 0.410 ppbv
 RT: 2.748 min Scan# 45
 Delta R.T. 0.010 min
 Lab File: VL041227.D
 Acq: 6 May 2024 20:58

Tgt Ion: 85 Resp: 47542
 Ion Ratio Lower Upper
 85 100
 87 31.0 25.7 38.5





#3

Chlorodifluoromethane

Concen: 0.341 ppbv

RT: 2.690 min Scan# 21

Delta R.T. 0.006 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

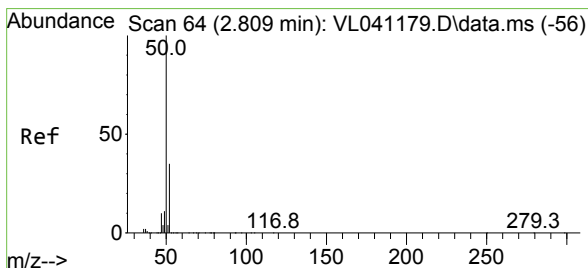
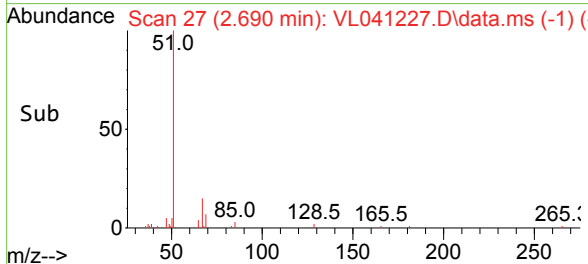
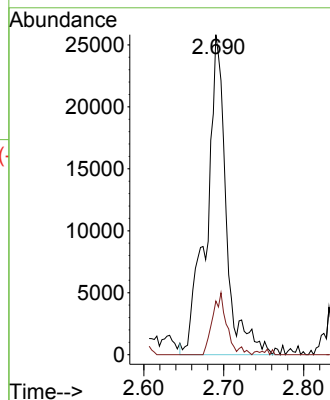
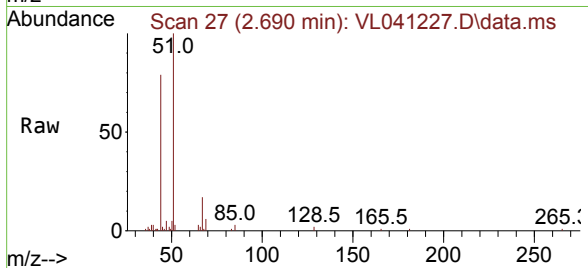
OA1

Tgt Ion: 51 Resp: 44438

Ion Ratio Lower Upper

51 100

67 14.9 14.0 21.0



#4

Chloromethane

Concen: 1.463 ppbv

RT: 2.832 min Scan# 71

Delta R.T. 0.010 min

Lab File: VL041227.D

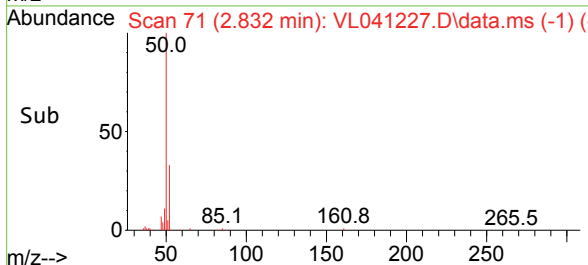
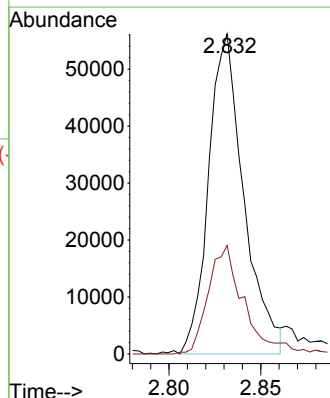
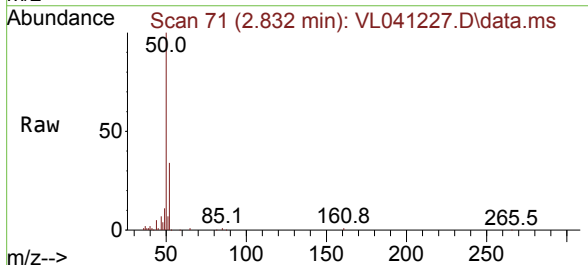
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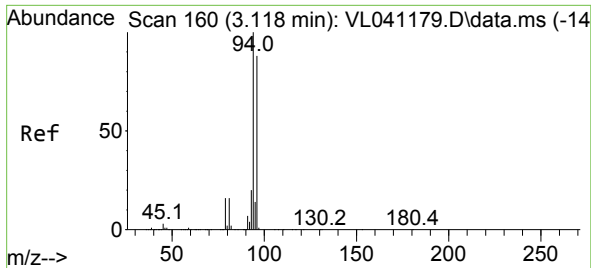
Tgt Ion: 50 Resp: 74706

Ion Ratio Lower Upper

50 100

52 33.3 28.3 42.5

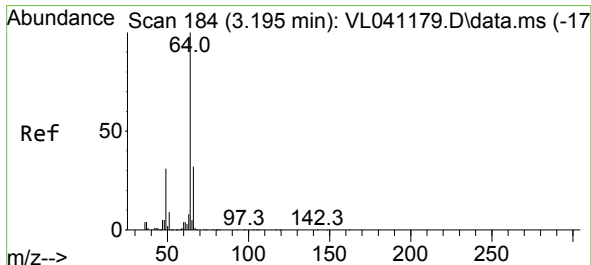
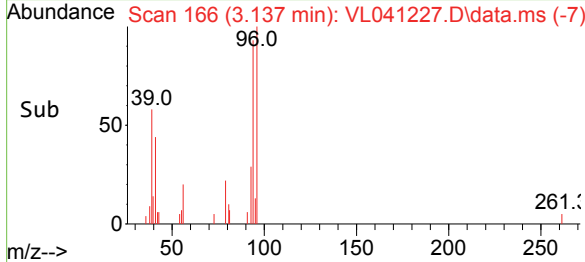
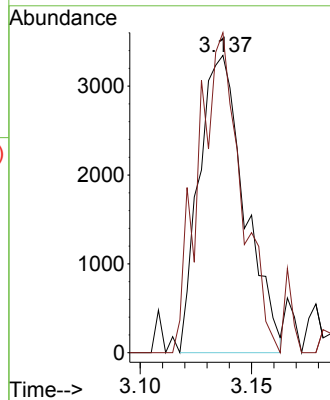
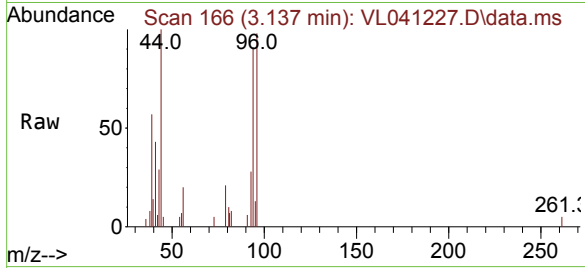




#6
Bromomethane
Concen: 0.254 ppbv
RT: 3.137 min Scan# 166
Delta R.T. 0.010 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

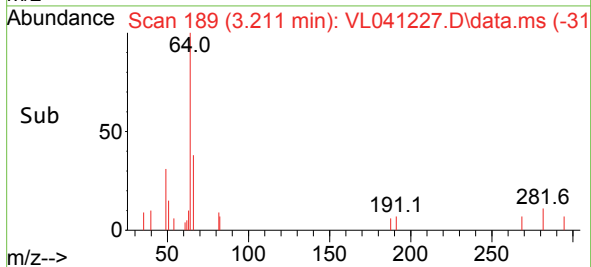
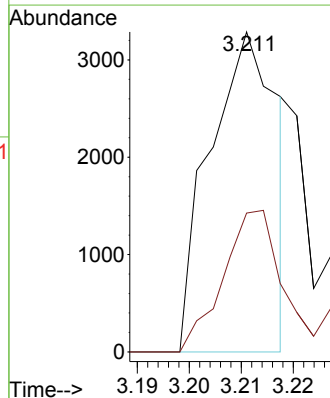
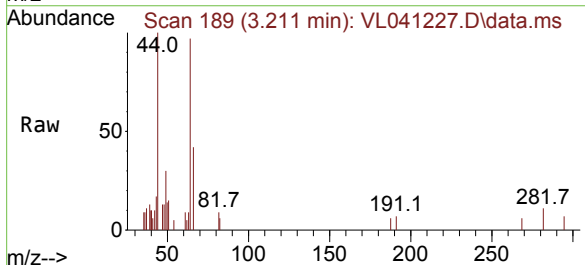
Instrument :
MSVOA_L
ClientSampleId :
OA1

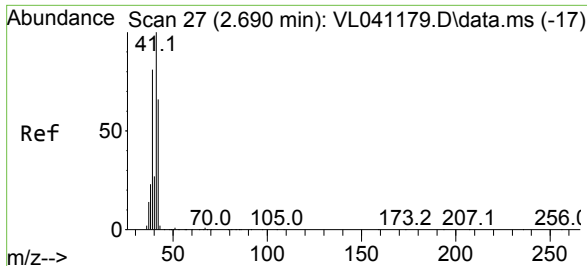
Tgt Ion: 94 Resp: 4756
Ion Ratio Lower Upper
94 100
96 107.7 70.1 105.1#



#7
Chloroethane
Concen: 0.163 ppbv
RT: 3.211 min Scan# 189
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 64 Resp: 2952
Ion Ratio Lower Upper
64 100
66 43.4 25.4 38.2#

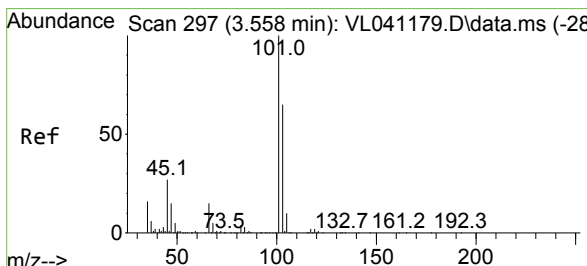
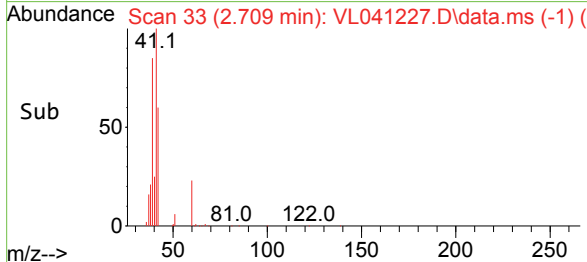
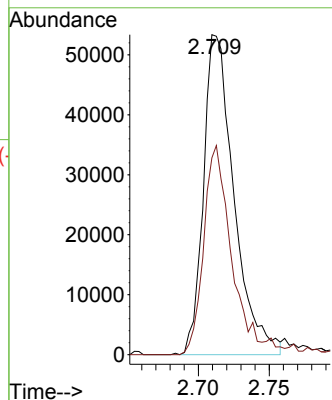
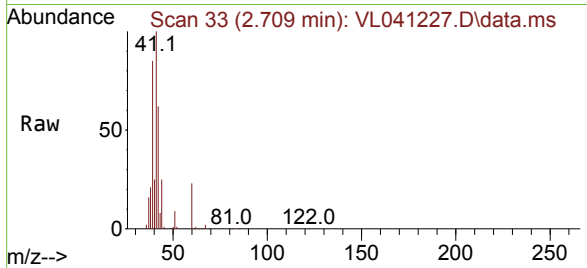




#9
Propene
Concen: 1.568 ppbv
RT: 2.709 min Scan# 31
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

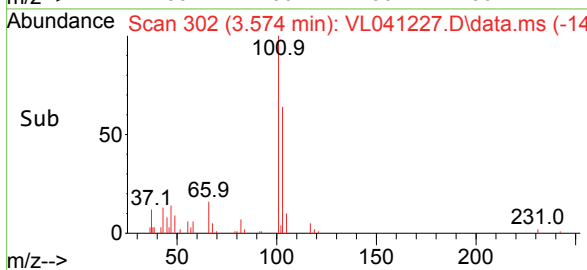
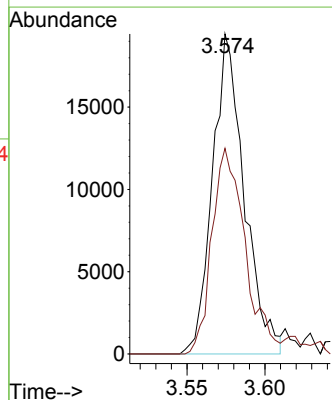
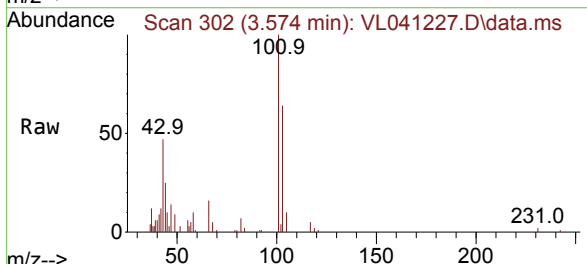
Instrument :
MSVOA_L
ClientSampleId :
OA1

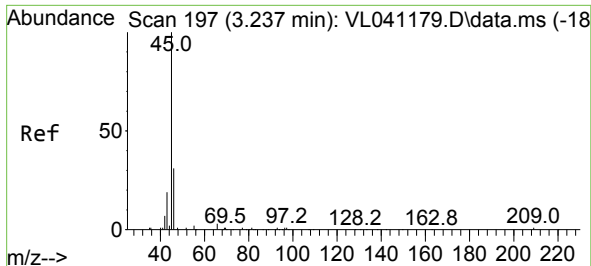
Tgt Ion: 41 Resp: 79877
Ion Ratio Lower Upper
41 100
42 62.9 55.3 82.9



#11
Trichlorofluoromethane
Concen: 0.233 ppbv
RT: 3.574 min Scan# 302
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 101 Resp: 27463
Ion Ratio Lower Upper
101 100
103 64.2 51.6 77.4

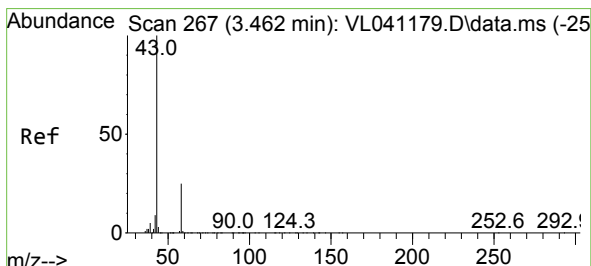
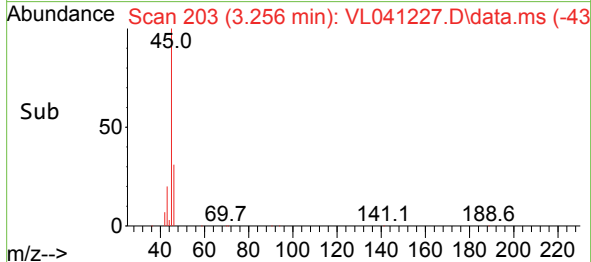
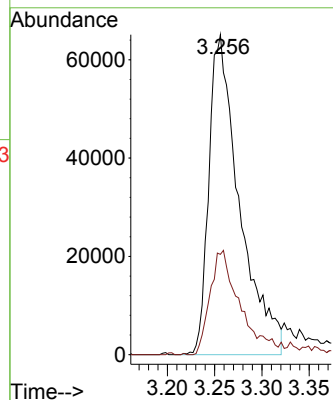
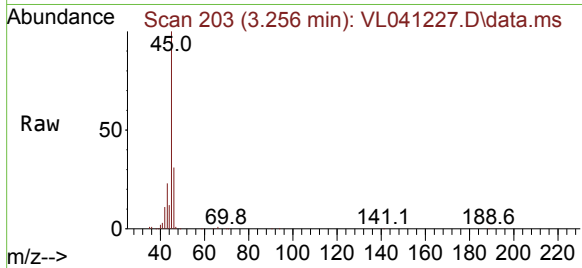




#13
Ethanol
Concen: 12.853 ppbv
RT: 3.256 min Scan# 203
Delta R.T. 0.013 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

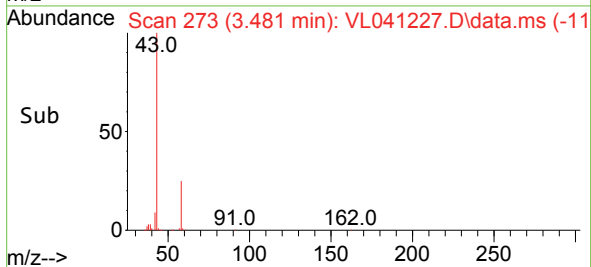
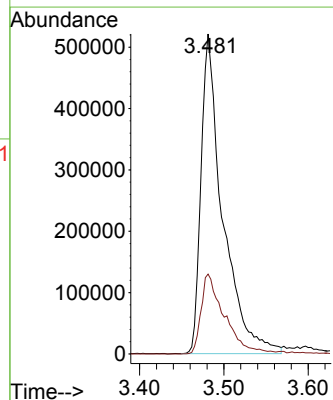
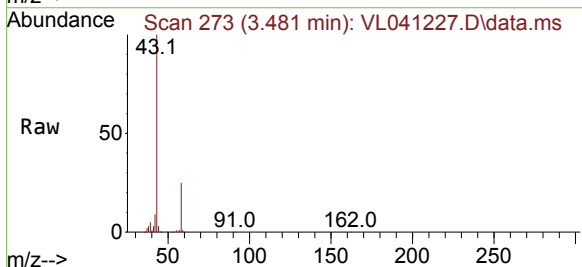
Instrument :
MSVOA_L
ClientSampleId :
OA1

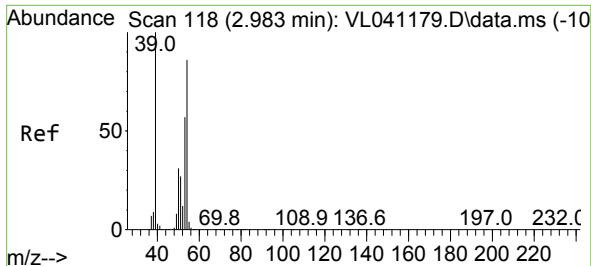
Tgt Ion: 45 Resp: 146773
Ion Ratio Lower Upper
45 100
46 33.3 14.8 59.0



#15
Acetone
Concen: 9.196 ppbv
RT: 3.481 min Scan# 273
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 43 Resp: 930217
Ion Ratio Lower Upper
43 100
58 28.0 21.4 32.0

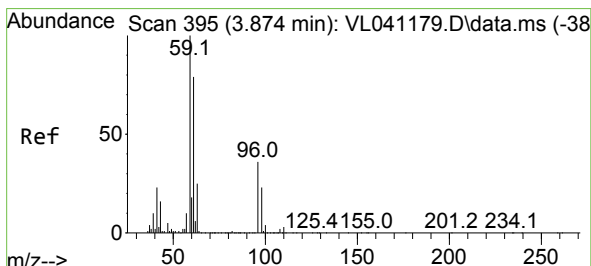
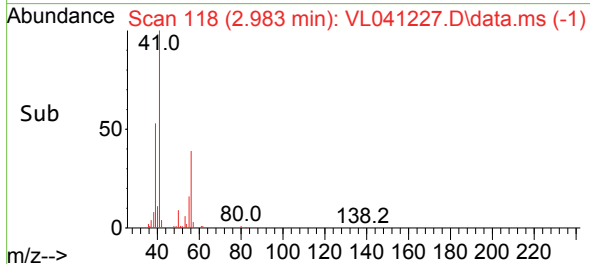
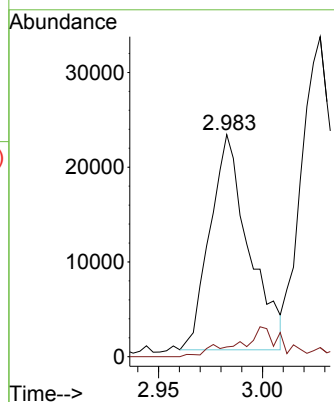
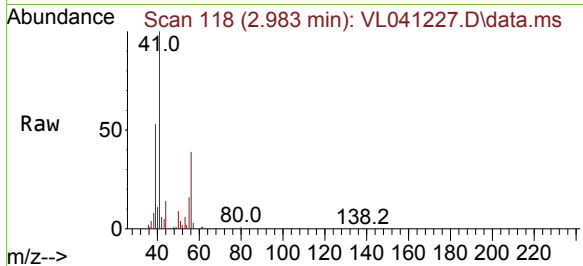




#16
1,3-Butadiene
Concen: 0.578 ppbv
RT: 2.983 min Scan# 118
Delta R.T. -0.010 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

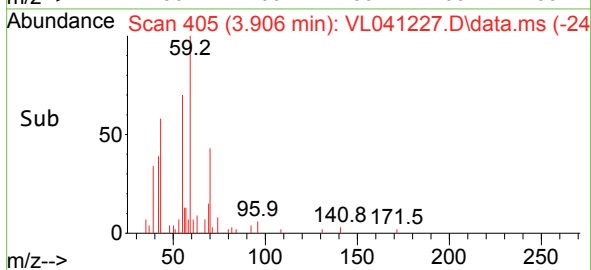
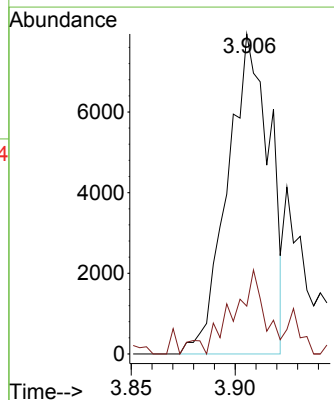
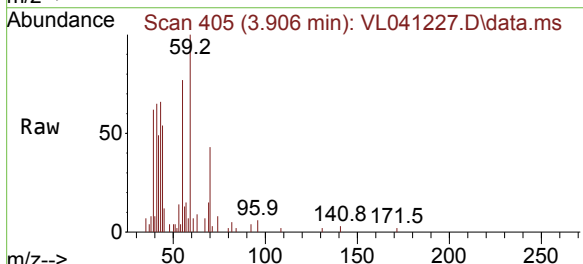
Instrument :
MSVOA_L
ClientSampleId :
OA1

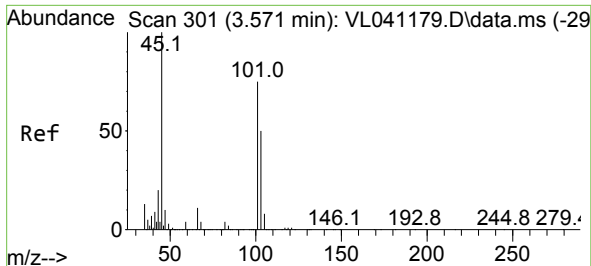
Tgt Ion: 39 Resp: 29507
Ion Ratio Lower Upper
39 100
54 14.8 62.2 93.4#



#17
tert-Butyl alcohol
Concen: 0.102 ppbv
RT: 3.906 min Scan# 405
Delta R.T. 0.023 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 59 Resp: 11149
Ion Ratio Lower Upper
59 100
57 29.8 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 0.505 ppbv

RT: 3.600 min Scan# 310

Delta R.T. 0.019 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

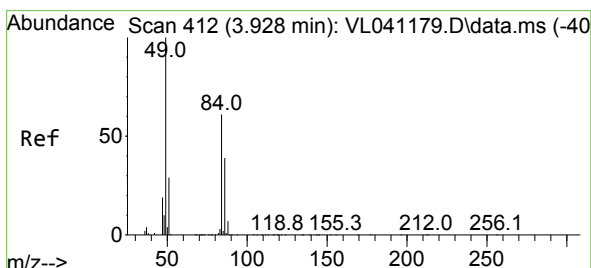
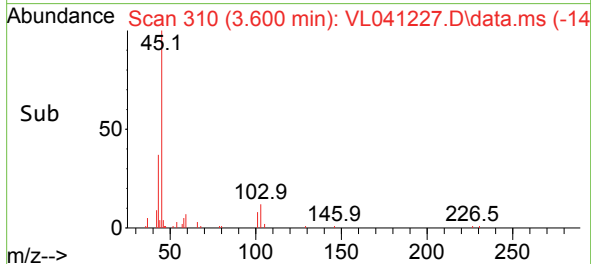
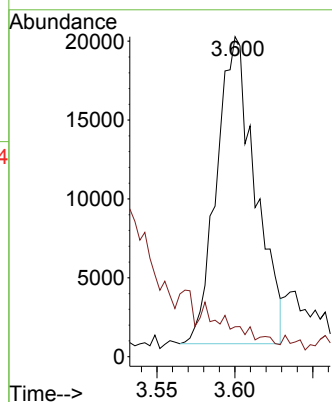
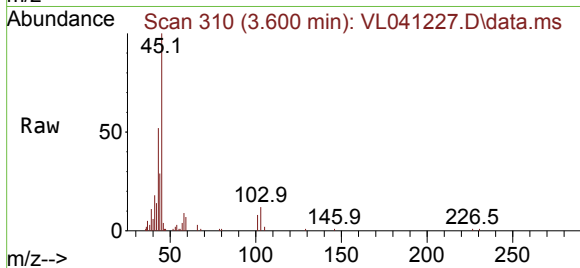
OA1

Tgt Ion: 45 Resp: 33510

Ion Ratio Lower Upper

45 100

58 776.5 26.8 40.2#



#20

Methylene Chloride

Concen: 1.488 ppbv

RT: 3.947 min Scan# 418

Delta R.T. 0.010 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Tgt Ion: 84 Resp: 52344

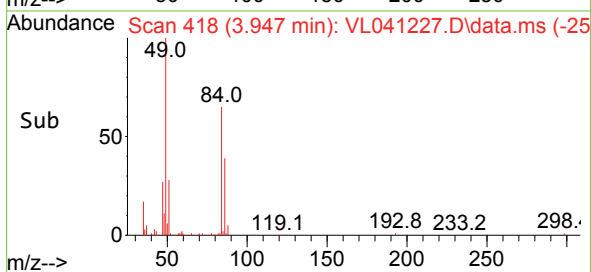
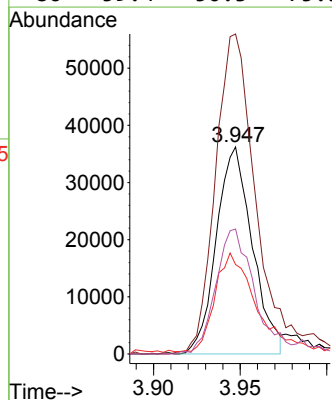
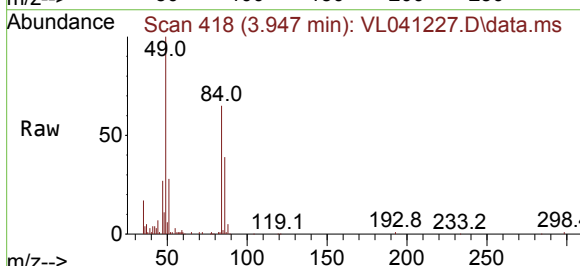
Ion Ratio Lower Upper

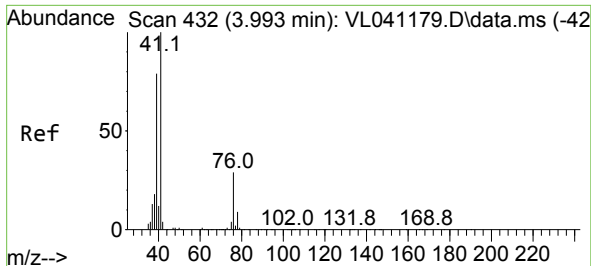
84 100

49 153.4 130.4 195.6

51 42.0 38.0 57.0

86 59.4 50.3 75.5





#21

Allyl Chloride

Concen: 0.130 ppbv

RT: 3.967 min Scan# 41

Delta R.T. -0.035 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

OA1

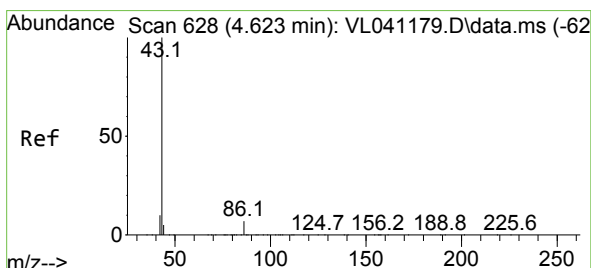
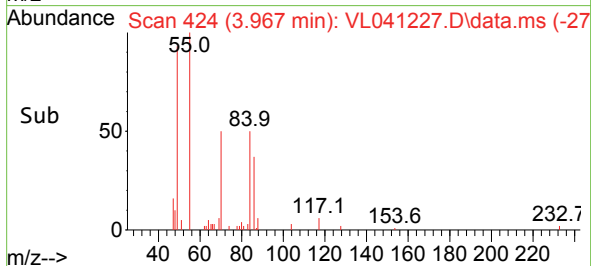
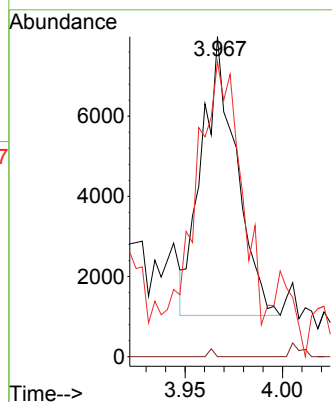
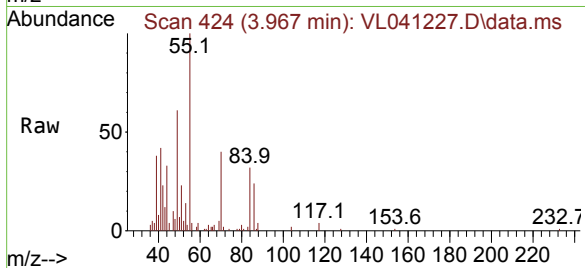
Tgt Ion: 41 Resp: 8555

Ion Ratio Lower Upper

41 100

76 1.5 23.7 35.5#

39 155.1 64.7 97.1#



#23

Vinyl Acetate

Concen: 0.208 ppbv

RT: 4.619 min Scan# 627

Delta R.T. -0.010 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Tgt Ion: 43 Resp: 23127

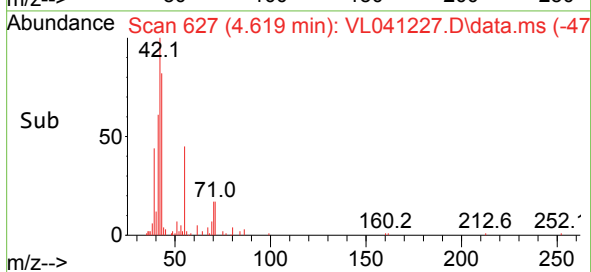
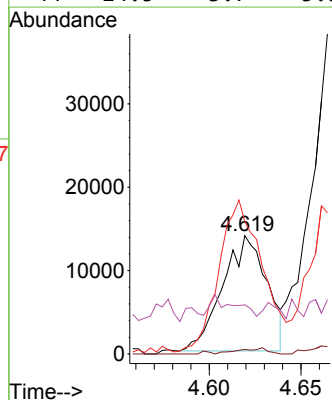
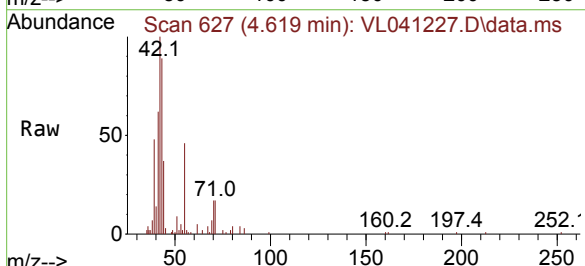
Ion Ratio Lower Upper

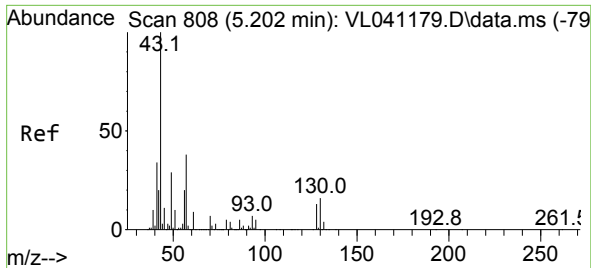
43 100

86 3.9 4.9 7.3#

42 112.3 8.0 12.0#

44 14.5 3.7 5.5#

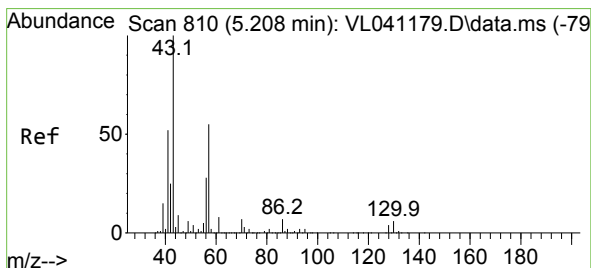
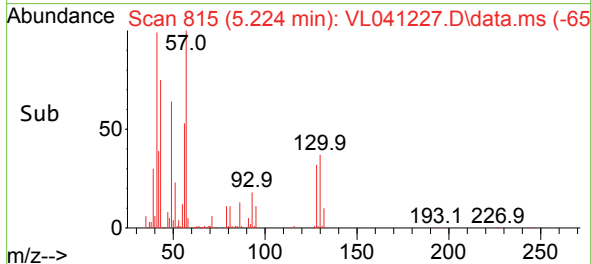
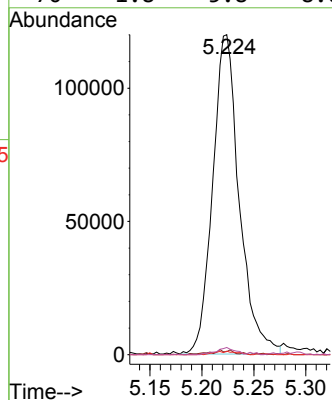
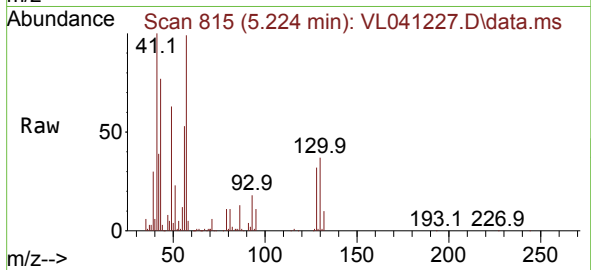




#25
Ethyl Acetate
Concen: 1.057 ppbv
RT: 5.224 min Scan# 815
Delta R.T. 0.019 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

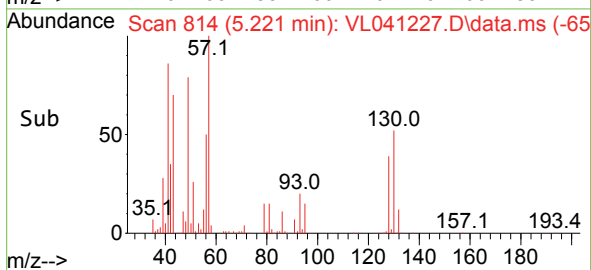
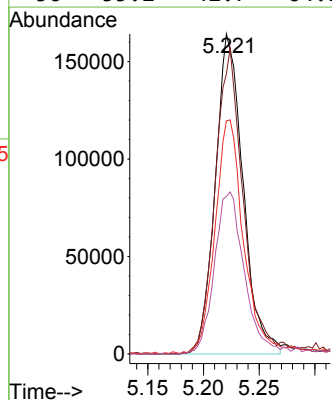
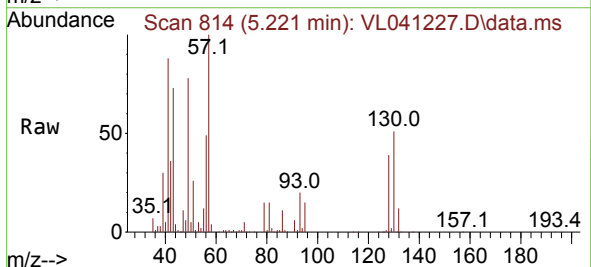
Instrument :
MSVOA_L
ClientSampleId :
OA1

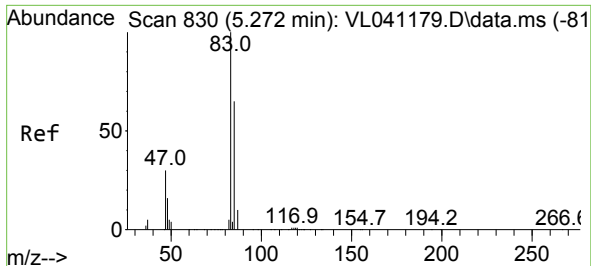
Tgt Ion: 43 Resp: 213379
Ion Ratio Lower Upper
43 100
45 1.6 8.2 12.2#
61 1.1 7.7 11.5#
70 1.8 5.8 8.6#



#26
Hexane
Concen: 3.160 ppbv
RT: 5.221 min Scan# 814
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 57 Resp: 284751
Ion Ratio Lower Upper
57 100
41 98.6 75.8 113.8
43 77.7 187.0 280.4#
56 55.2 42.7 64.1





#29

Chloroform

Concen: 0.828 ppbv

RT: 5.282 min Scan# 81

Delta R.T. 0.003 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

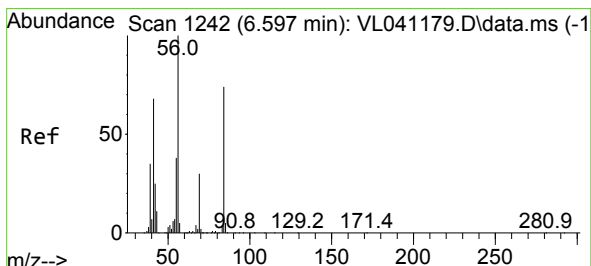
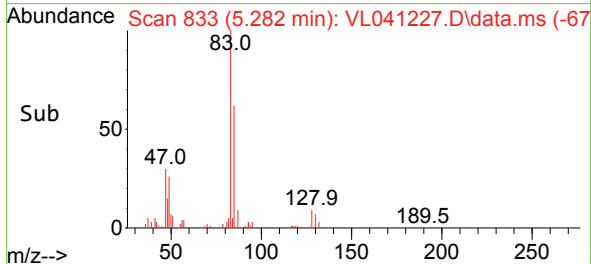
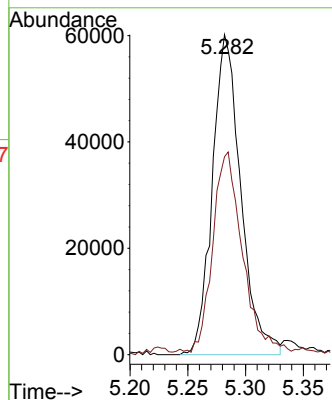
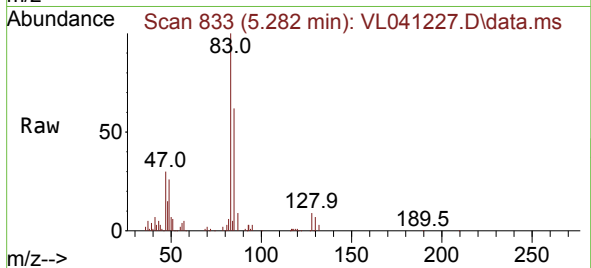
OA1

Tgt Ion: 83 Resp: 102976

Ion Ratio Lower Upper

83 100

85 60.1 51.7 77.5



#30

Cyclohexane

Concen: 0.248 ppbv

RT: 6.613 min Scan# 1247

Delta R.T. 0.013 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

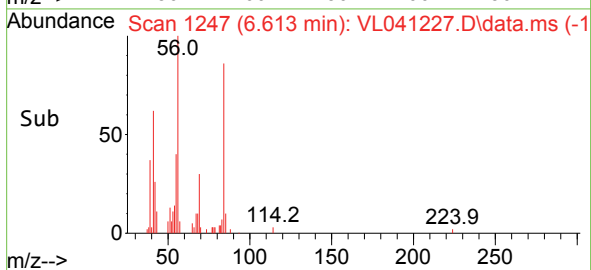
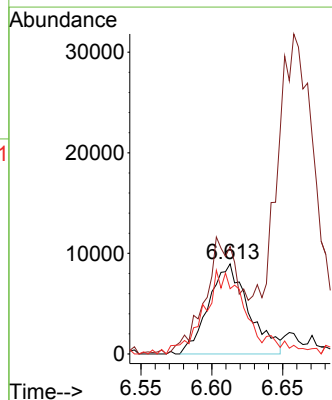
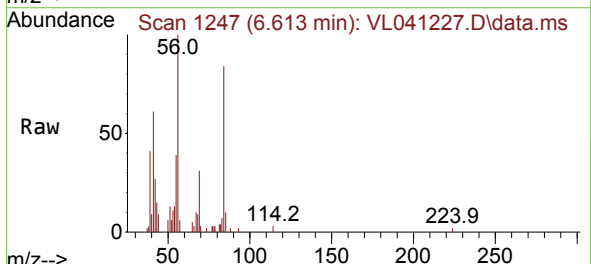
Tgt Ion: 84 Resp: 17669

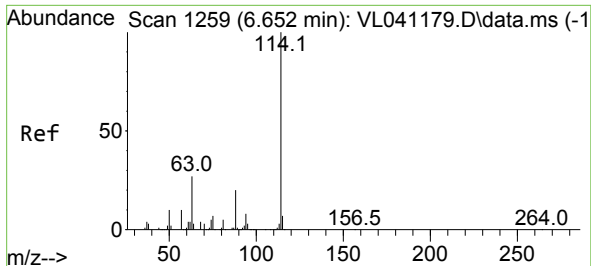
Ion Ratio Lower Upper

84 100

56 113.3 116.8 175.2#

41 101.1 73.8 110.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.661 min Scan# 11

Delta R.T. 0.006 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

OA1

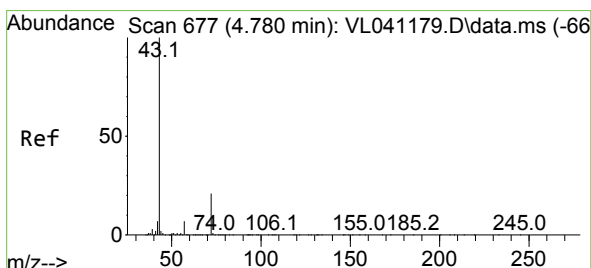
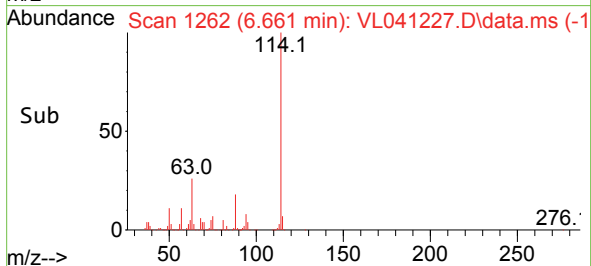
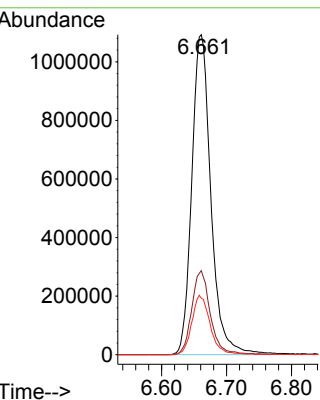
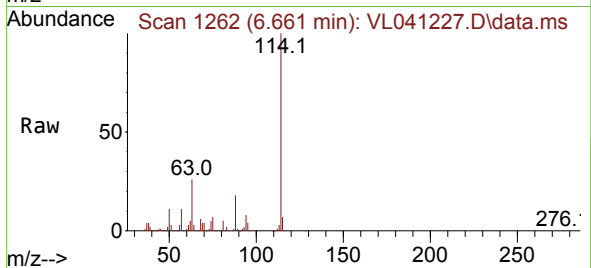
Tgt Ion:114 Resp: 2235407

Ion Ratio Lower Upper

114 100

63 25.8 21.8 32.6

88 18.0 15.2 22.8



#34

2-Butanone

Concen: 0.726 ppbv

RT: 4.803 min Scan# 684

Delta R.T. 0.016 min

Lab File: VL041227.D

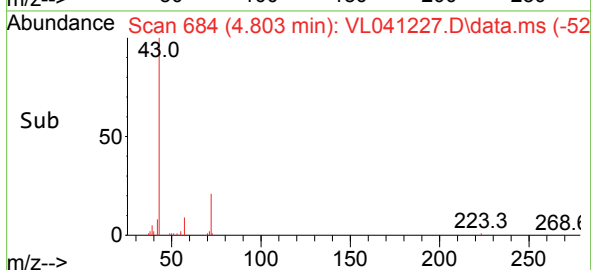
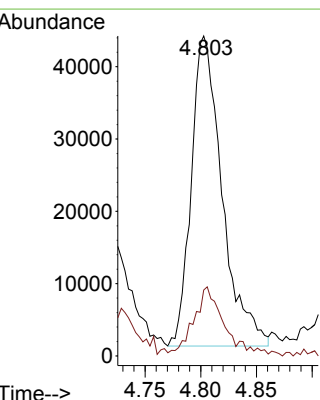
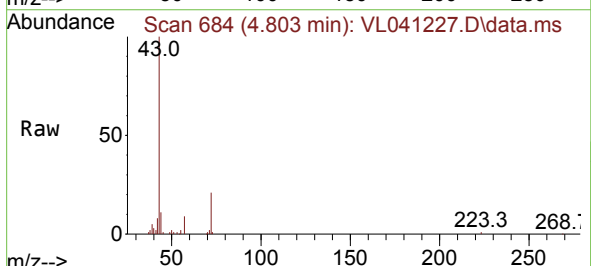
Acq: 6 May 2024 20:58

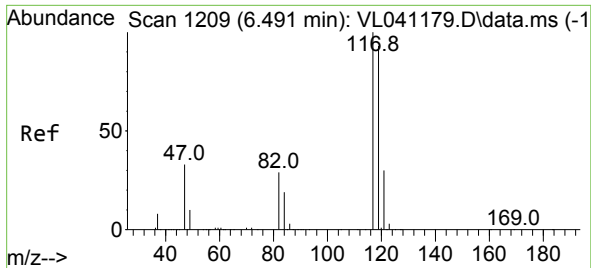
Tgt Ion: 43 Resp: 82552

Ion Ratio Lower Upper

43 100

72 20.4 17.3 25.9

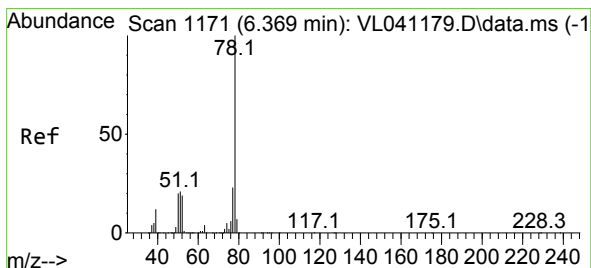
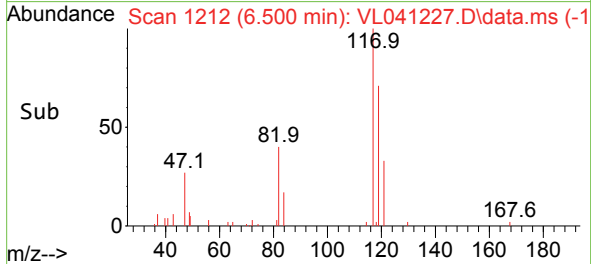
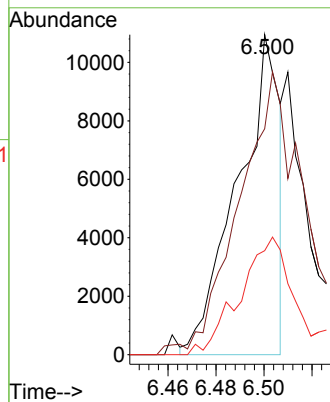
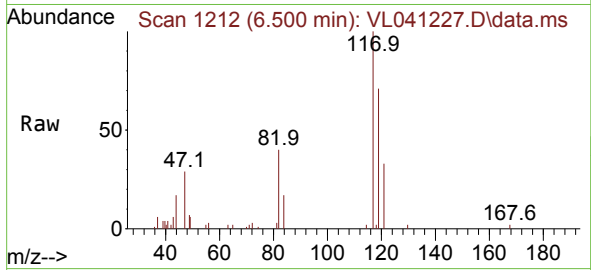




#35
Carbon Tetrachloride
Concen: 0.105 ppbv
RT: 6.500 min Scan# 1174
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

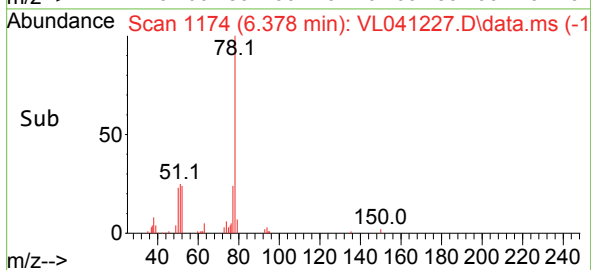
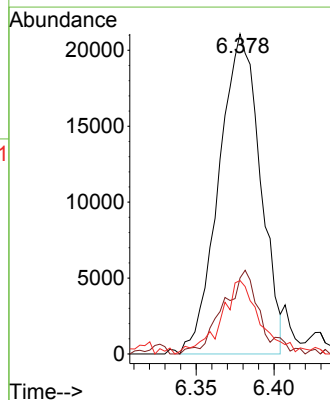
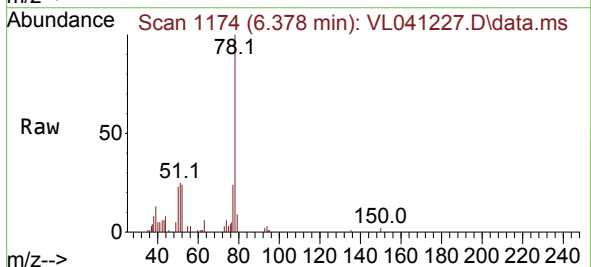
Instrument :
MSVOA_L
ClientSampleId :
OA1

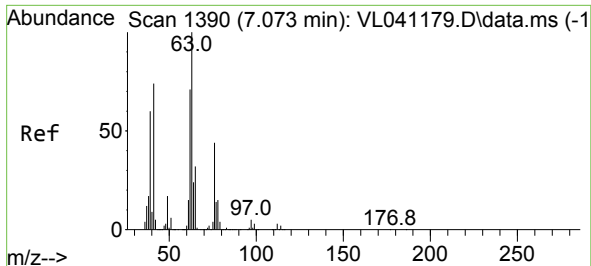
Tgt Ion:117 Resp: 13157
Ion Ratio Lower Upper
117 100
119 68.9 74.3 111.5#
121 33.3 23.8 35.8



#36
Benzene
Concen: 0.208 ppbv
RT: 6.378 min Scan# 1174
Delta R.T. 0.006 min
Lab File: VL041227.D
Acq: 6 May 2024 20:58

Tgt Ion: 78 Resp: 38935
Ion Ratio Lower Upper
78 100
77 23.8 18.3 27.5
50 22.1 15.9 23.9





#39

1,2-Dichloropropane

Concen: 7.826 ppbv

RT: 6.661 min Scan# 11

Delta R.T. -0.412 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

OA1

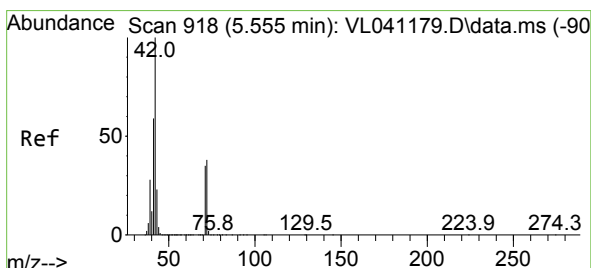
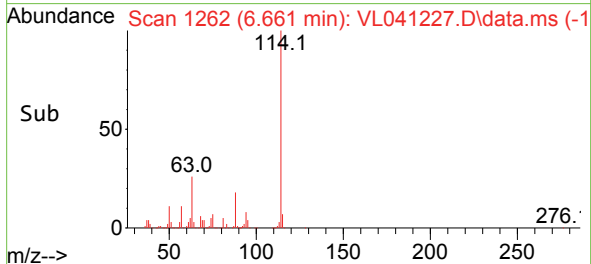
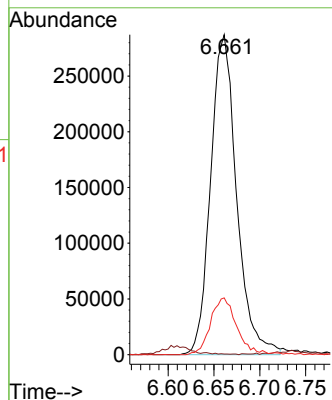
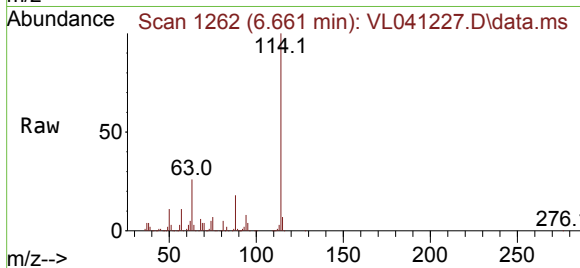
Tgt Ion: 63 Resp: 565805

Ion Ratio Lower Upper

63 100

41 0.0 59.4 89.0#

62 17.8 56.8 85.2#



#41

Tetrahydrofuran

Concen: 0.086 ppbv

RT: 5.828 min Scan# 1003

Delta R.T. 0.270 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

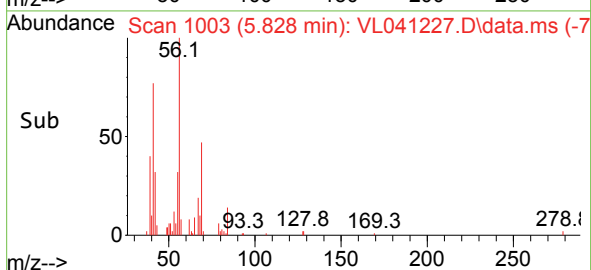
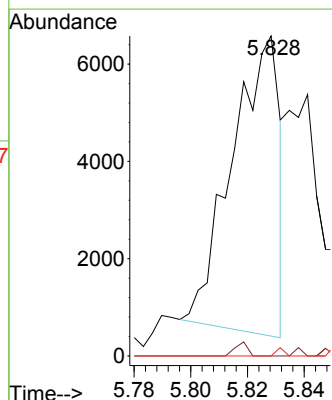
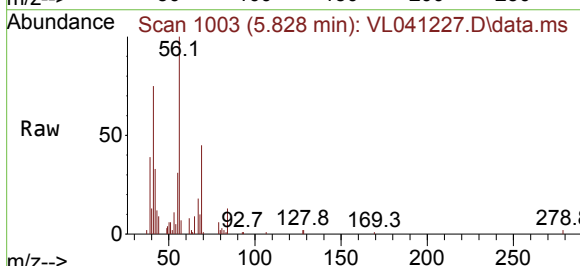
Tgt Ion: 42 Resp: 7081

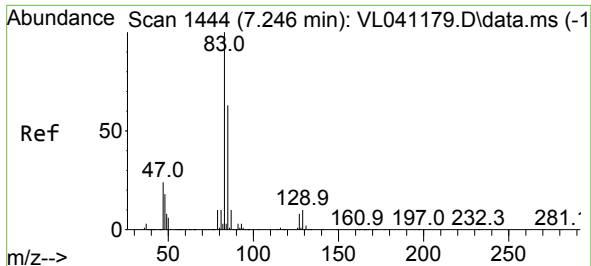
Ion Ratio Lower Upper

42 100

72 1.2 29.4 44.0#

71 0.0 29.1 43.7#

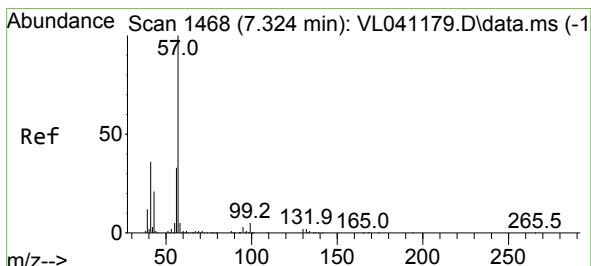
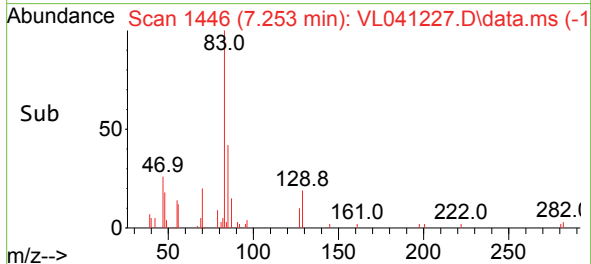
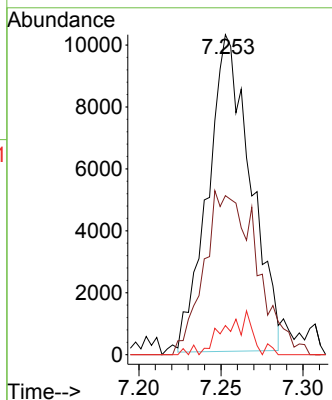
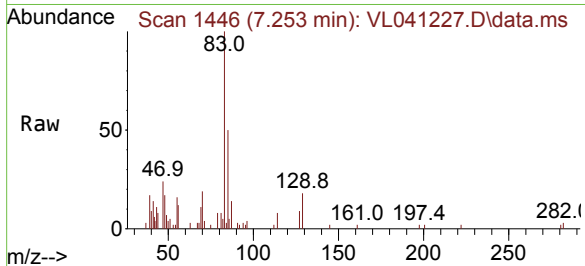




#42
 Bromodichloromethane
 Concen: 0.132 ppbv
 RT: 7.253 min Scan# 1446
 Delta R.T. 0.003 min
 Lab File: VL041227.D
 Acq: 6 May 2024 20:58

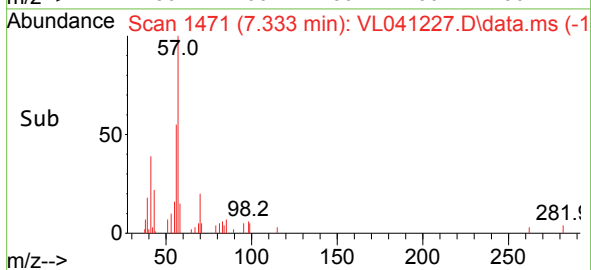
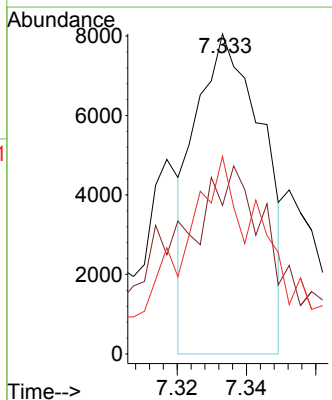
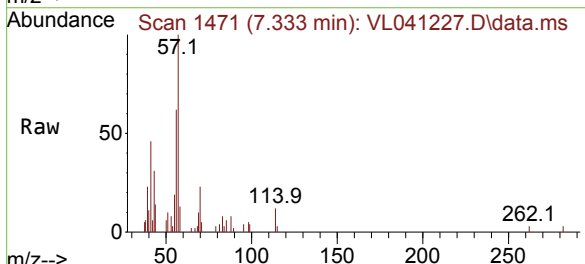
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

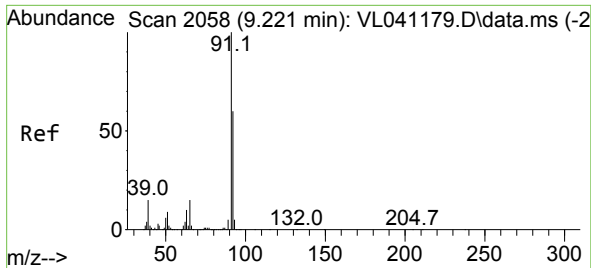
Tgt Ion: 83 Resp: 18490
 Ion Ratio Lower Upper
 83 100
 85 51.1 50.6 75.8
 127 9.3 6.2 9.4



#44
 2,2,4-Trimethylpentane
 Concen: 0.034 ppbv
 RT: 7.333 min Scan# 1471
 Delta R.T. 0.006 min
 Lab File: VL041227.D
 Acq: 6 May 2024 20:58

Tgt Ion: 57 Resp: 10857
 Ion Ratio Lower Upper
 57 100
 41 97.9 29.5 44.3#
 56 98.8 25.3 37.9#





#53

Toluene

Concen: 0.049 ppbv

RT: 9.224 min Scan# 2058

Delta R.T. 0.003 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

Instrument :

MSVOA_L

ClientSampleId :

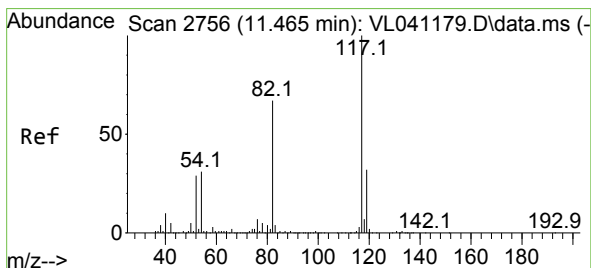
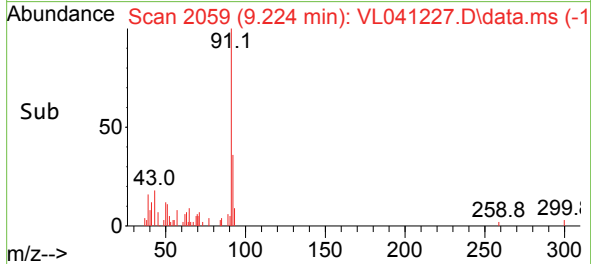
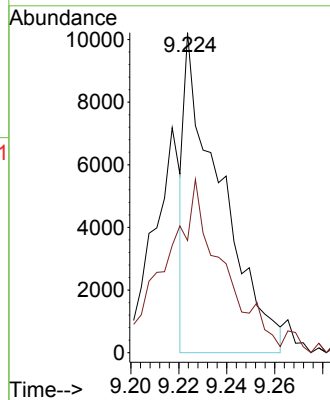
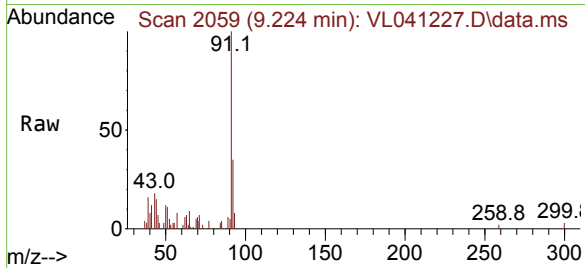
OA1

Tgt Ion: 91 Resp: 10565

Ion Ratio Lower Upper

91 100

92 92.1 48.2 72.4#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.471 min Scan# 2758

Delta R.T. 0.006 min

Lab File: VL041227.D

Acq: 6 May 2024 20:58

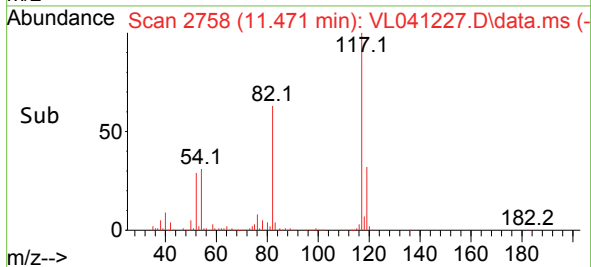
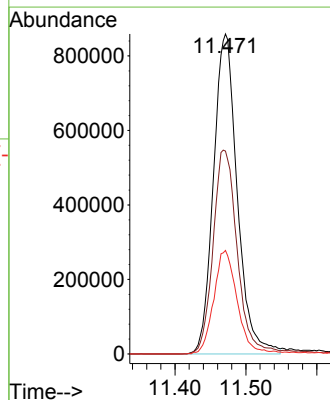
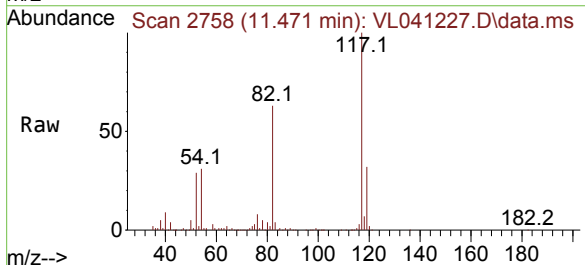
Tgt Ion: 117 Resp: 2004989

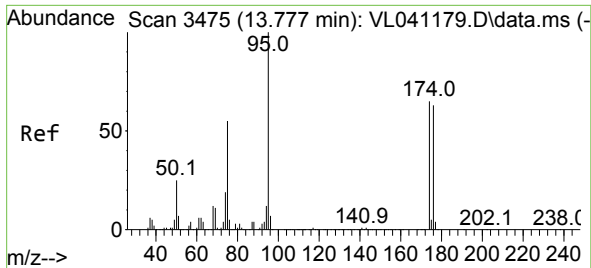
Ion Ratio Lower Upper

117 100

82 65.6 53.6 80.4

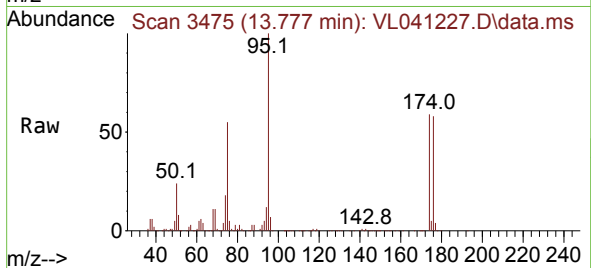
119 33.0 27.2 40.8





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.896 ppbv
 RT: 13.777 min Scan# 34
 Delta R.T. 0.003 min
 Lab File: VL041227.D
 Acq: 6 May 2024 20:58

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1



Tgt Ion: 95 Resp: 1497984

Ion	Ratio	Lower	Upper
95	100		
174	66.7	53.6	80.4
175	5.0	4.2	6.4

