

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042524\
 Data File : VL041172.D
 Acq On : 25 Apr 2024 15:55
 Operator : SY/MD
 Sample : P2253-03DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

Quant Time: Apr 26 03:14:19 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL040424AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 26 03:09:28 2024
 Response via : Initial Calibration

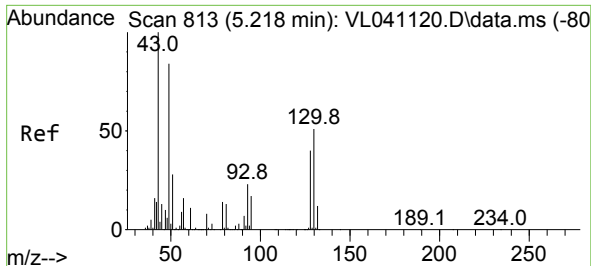
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.179	49	1157834	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.635	114	3085209	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.442	117	2721429	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.751	95	2116839	9.673	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.700%
Target Compounds						
					Qvalue	
4) Chloromethane	2.812	50	40672	0.603	ppbv #	84
9) Propene	2.873	41	154365	2.721	ppbv	95
10) Heptane	7.561	43	37078	0.275	ppbv	98
11) Trichlorofluoromethane	3.562	101	40007	0.223	ppbv	99
12) 1,1,2-Trichlorotrifluo...	4.060	101	4300	0.033	ppbv #	1
13) Ethanol	3.237	45	386459	28.640	ppbv	98
15) Acetone	3.465	43	532627	4.248	ppbv #	84
16) 1,3-Butadiene	2.967	39	23911	0.389	ppbv #	61
17) tert-Butyl alcohol	3.886	59	4915	0.043	ppbv #	71
19) Isopropyl Alcohol	3.578	45	236637	3.107	ppbv	99
20) Methylene Chloride	3.928	84	3053959	59.063	ppbv	96
21) Allyl Chloride	3.925	41	105526	1.381	ppbv #	46
23) Vinyl Acetate	4.600	43	54374	0.425	ppbv #	1
25) Ethyl Acetate	5.201	43	2261423	9.605	ppbv #	77
26) Hexane	5.201	57	3189289	30.189	ppbv #	39
27) Carbon Disulfide	4.115	76	11622	0.090	ppbv #	52
30) Cyclohexane	6.587	84	23734	0.276	ppbv #	78
34) 2-Butanone	4.787	43	22662	0.174	ppbv #	58
35) Carbon Tetrachloride	6.478	117	7596	0.043	ppbv #	54
36) Benzene	6.352	78	145923	0.644	ppbv	93
39) 1,2-Dichloropropane	6.635	63	751313	8.410	ppbv #	24
41) Tetrahydrofuran	5.201	42	1165534	13.408	ppbv #	51
44) 2,2,4-Trimethylpentane	7.311	57	192590	0.513	ppbv #	90
52) Tetrachloroethene	10.593	164	2176	0.030	ppbv #	24
53) Toluene	9.201	91	288982	1.211	ppbv	99
58) Ethyl Benzene	12.066	91	34940	0.117	ppbv	97
59) m/p-Xylene	12.343	91	47605	0.177	ppbv #	32
60) o-Xylene	13.034	91	16419	0.064	ppbv #	31
73) 1,3,5-Trimethylbenzene	15.326	105	12109	0.048	ppbv	96
74) 1,2,4-Trimethylbenzene	16.082	105	77561	0.270	ppbv #	69

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

Quant Time: Apr 26 03:14:19 2024
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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Apr 26 03:09:28 2024
Response via : Initial Calibration

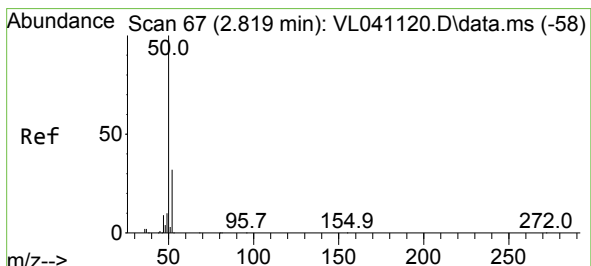
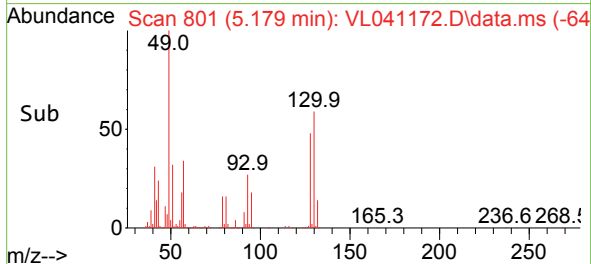
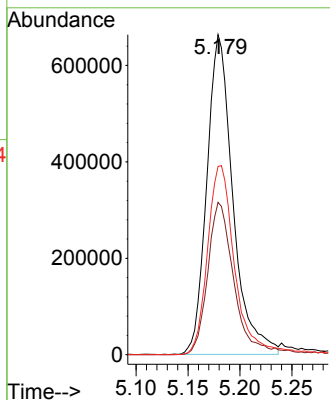
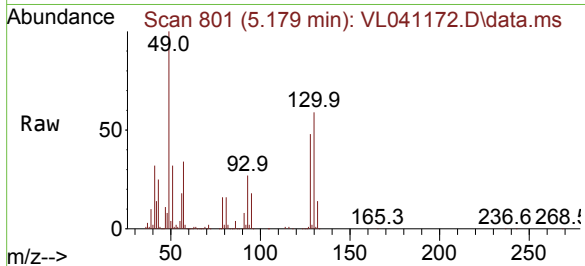




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.179 min Scan# 80
Delta R.T. -0.000 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

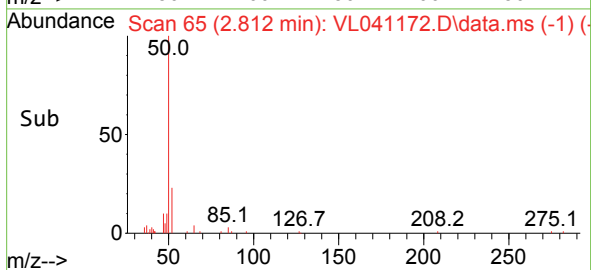
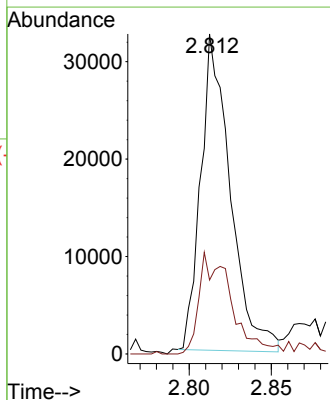
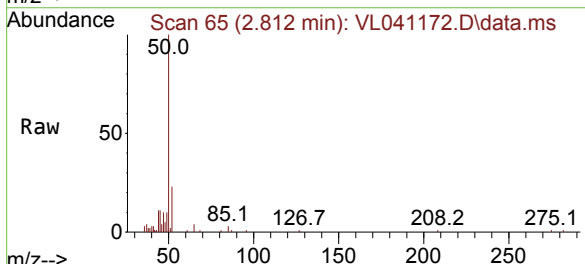
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

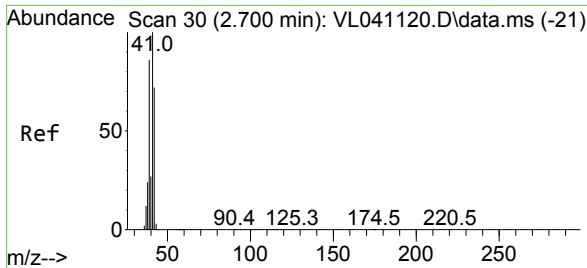
Tgt Ion: 49 Resp: 1157834
Ion Ratio Lower Upper
49 100
128 49.3 23.6 71.0
130 63.7 30.1 90.5



#4
Chloromethane
Concen: 0.603 ppbv
RT: 2.812 min Scan# 65
Delta R.T. 0.003 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Tgt Ion: 50 Resp: 40672
Ion Ratio Lower Upper
50 100
52 23.5 26.0 39.0

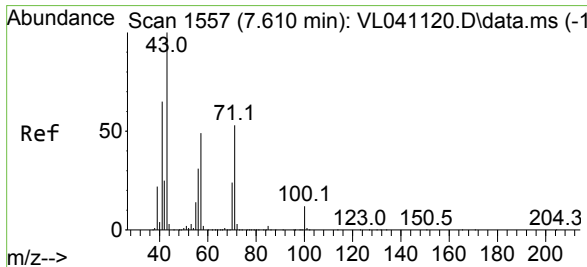
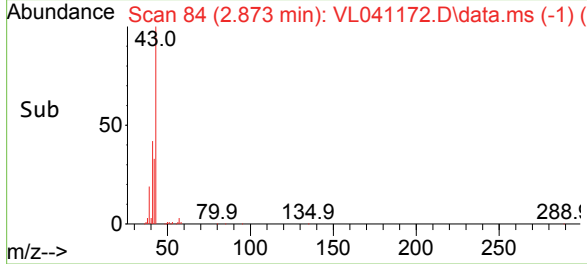
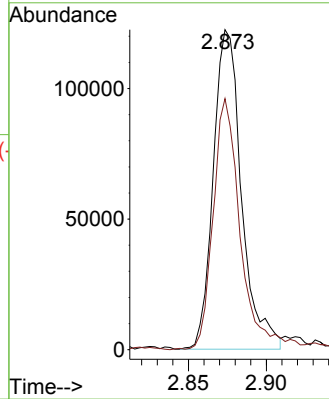
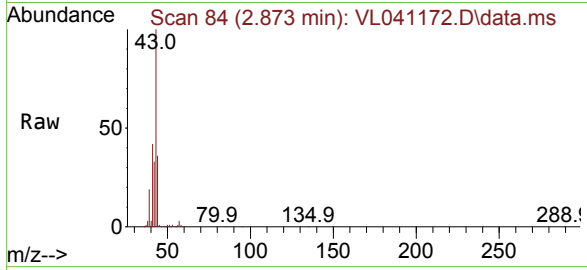




#9
Propene
Concen: 2.721 ppbv
RT: 2.873 min Scan# 84
Delta R.T. 0.180 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

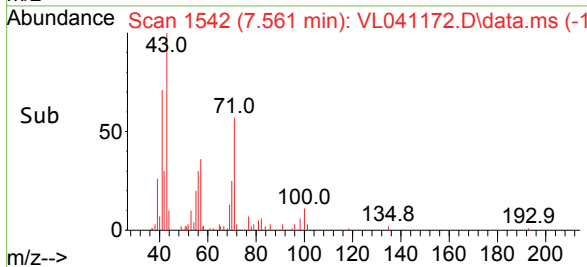
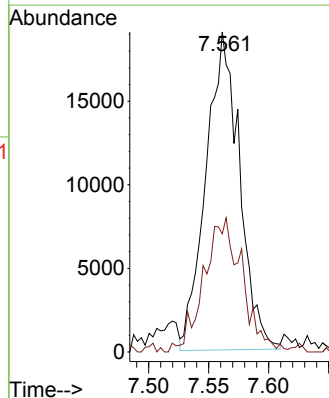
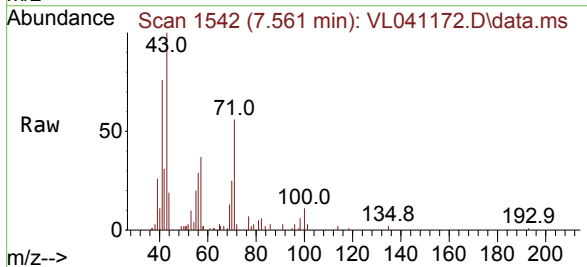
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

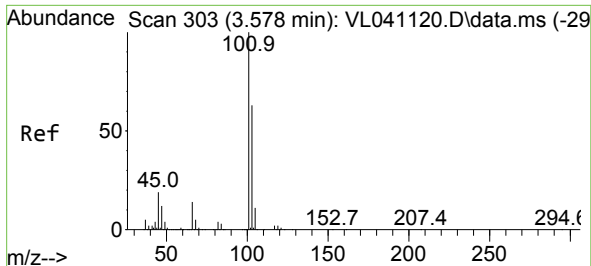
Tgt Ion: 41 Resp: 154365
Ion Ratio Lower Upper
41 100
42 79.2 60.1 90.1



#10
Heptane
Concen: 0.275 ppbv
RT: 7.561 min Scan# 1542
Delta R.T. 0.003 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Tgt Ion: 43 Resp: 37078
Ion Ratio Lower Upper
43 100
57 48.7 39.9 59.9

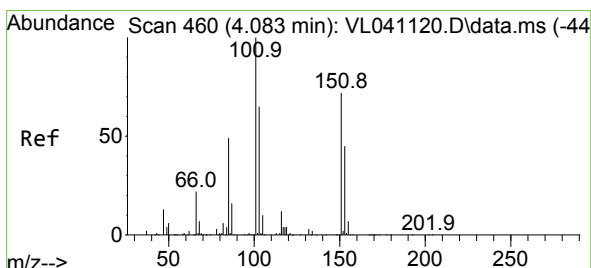
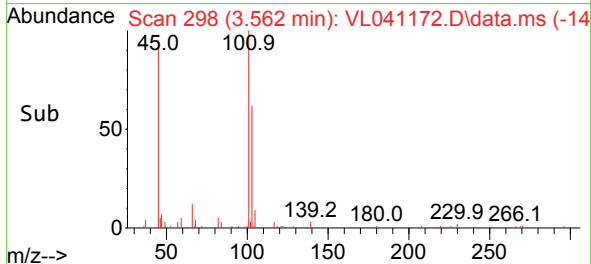
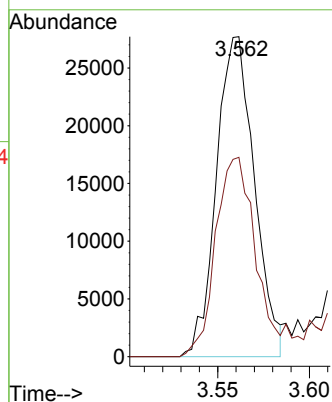
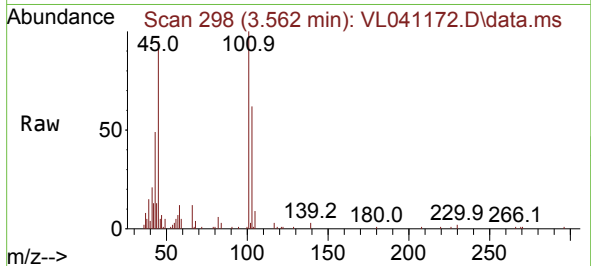




#11
 Trichlorofluoromethane
 Concen: 0.223 ppbv
 RT: 3.562 min Scan# 24
 Delta R.T. 0.006 min
 Lab File: VL041172.D
 Acq: 25 Apr 2024 15:55

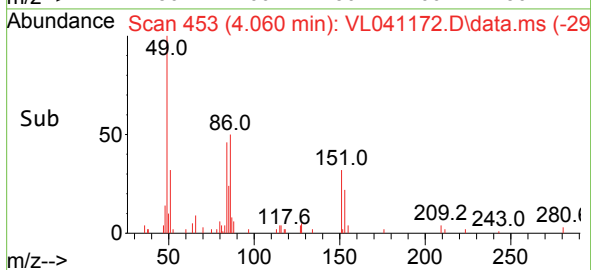
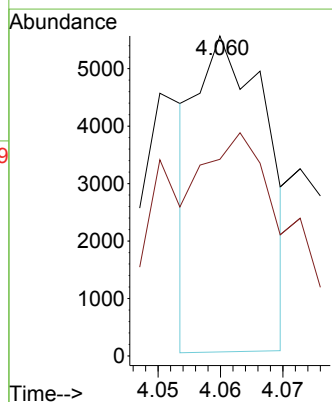
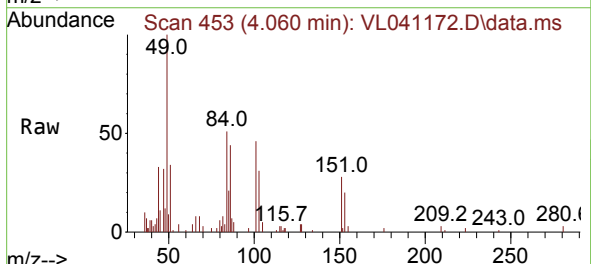
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

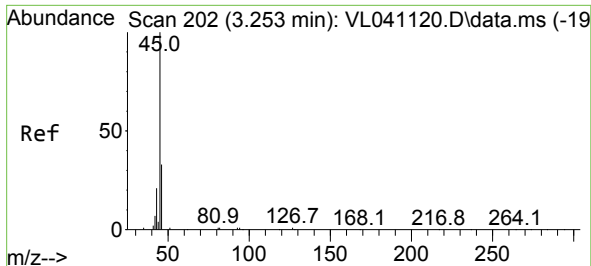
Tgt Ion:101 Resp: 40007
 Ion Ratio Lower Upper
 101 100
 103 62.3 50.6 75.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.033 ppbv
 RT: 4.060 min Scan# 453
 Delta R.T. 0.003 min
 Lab File: VL041172.D
 Acq: 25 Apr 2024 15:55

Tgt Ion:101 Resp: 4300
 Ion Ratio Lower Upper
 101 100
 151 166.4 56.2 84.4#

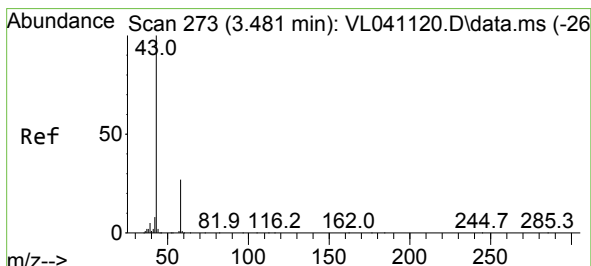
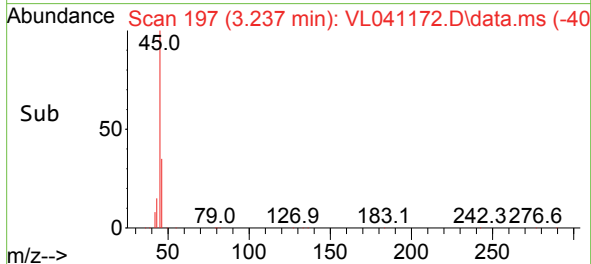
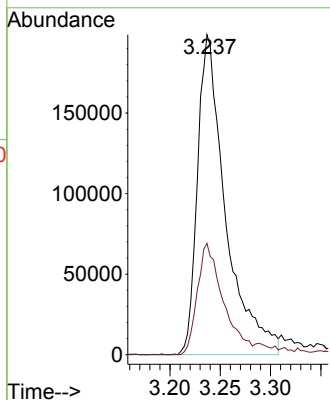
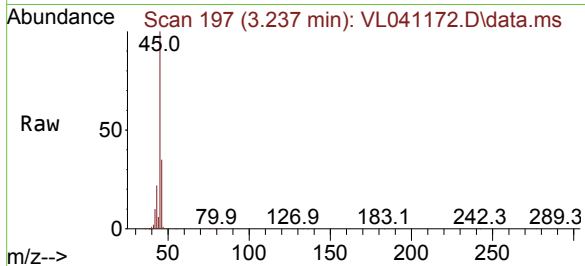




#13
Ethanol
Concen: 28.640 ppbv
RT: 3.237 min Scan# 197
Delta R.T. 0.003 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

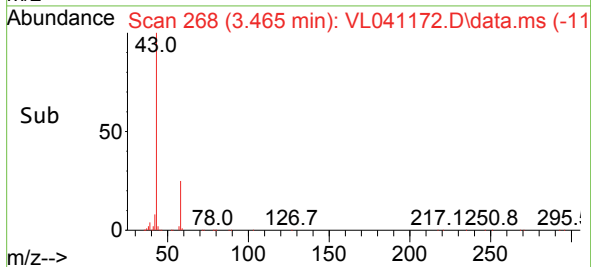
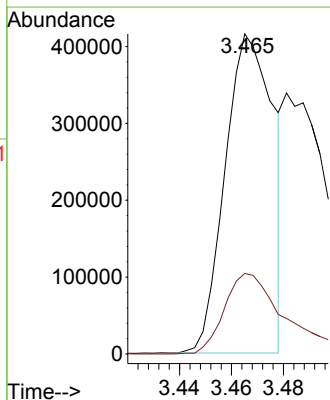
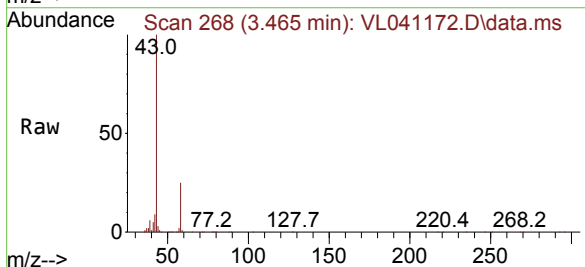
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

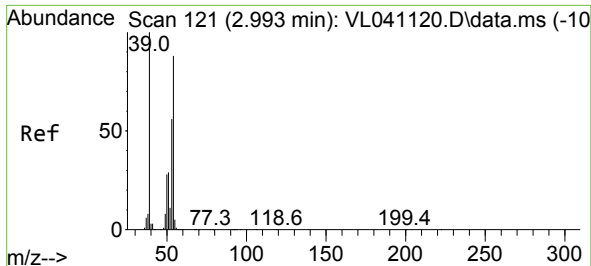
Tgt Ion: 45 Resp: 386459
Ion Ratio Lower Upper
45 100
46 36.5 15.0 59.8



#15
Acetone
Concen: 4.248 ppbv
RT: 3.465 min Scan# 268
Delta R.T. 0.006 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Tgt Ion: 43 Resp: 532627
Ion Ratio Lower Upper
43 100
58 34.5 21.1 31.7#





#16

1,3-Butadiene

Concen: 0.389 ppbv

RT: 2.967 min Scan# 113

Delta R.T. -0.016 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

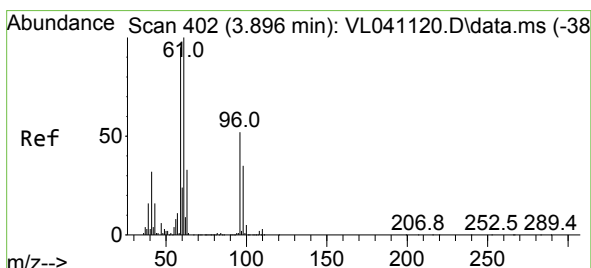
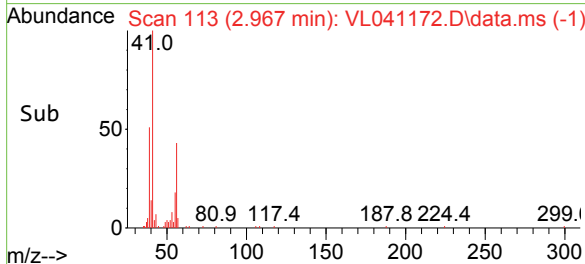
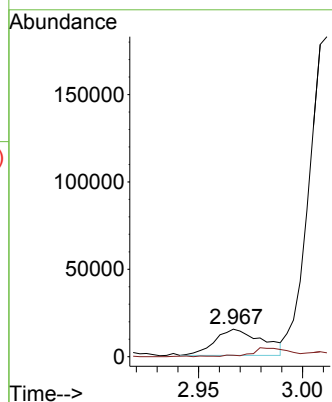
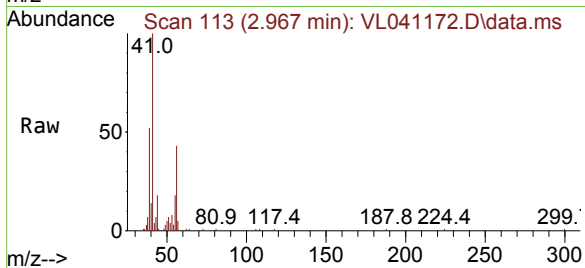
IA1DUP

Tgt Ion: 39 Resp: 23911

Ion Ratio Lower Upper

39 100

54 45.4 63.5 95.3#



#17

tert-Butyl alcohol

Concen: 0.043 ppbv

RT: 3.886 min Scan# 399

Delta R.T. 0.019 min

Lab File: VL041172.D

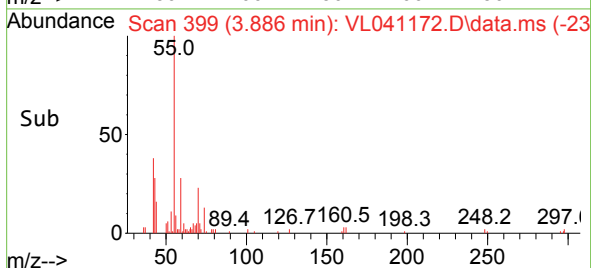
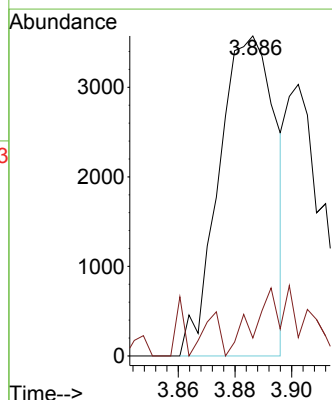
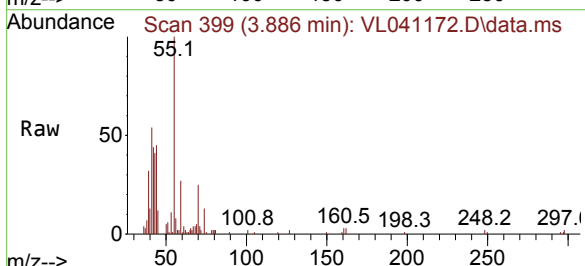
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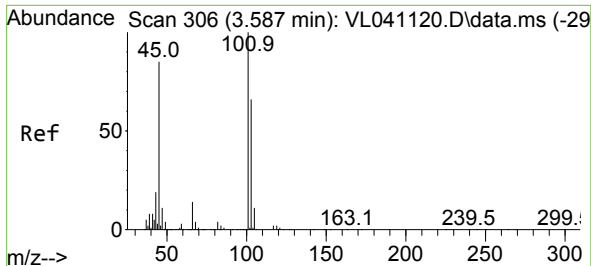
Tgt Ion: 59 Resp: 4915

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 3.107 ppbv

RT: 3.578 min Scan# 306

Delta R.T. 0.010 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

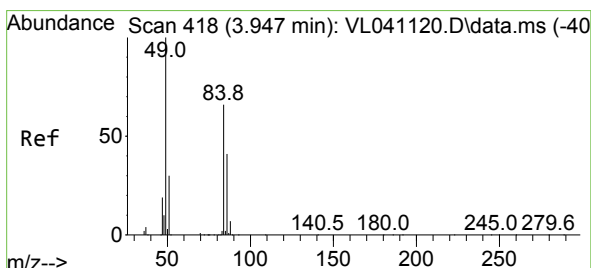
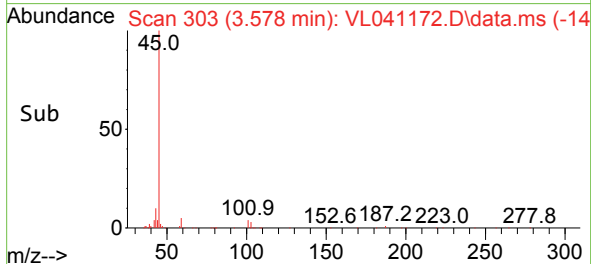
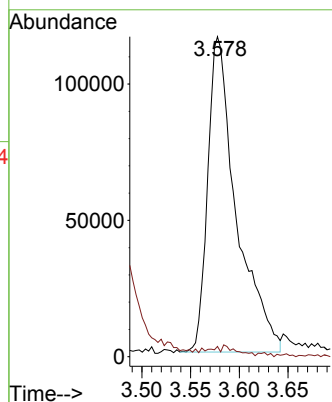
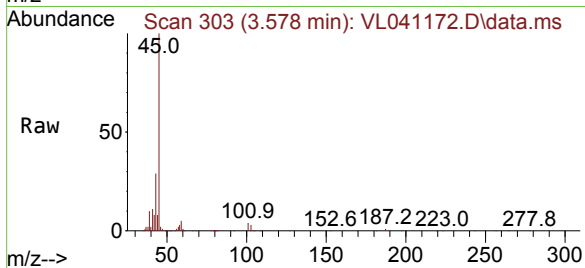
IA1DUP

Tgt Ion: 45 Resp: 236637

Ion Ratio Lower Upper

45 100

58 3.1 2.8 4.2



#20

Methylene Chloride

Concen: 59.063 ppbv

RT: 3.928 min Scan# 412

Delta R.T. 0.003 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Tgt Ion: 84 Resp: 3053959

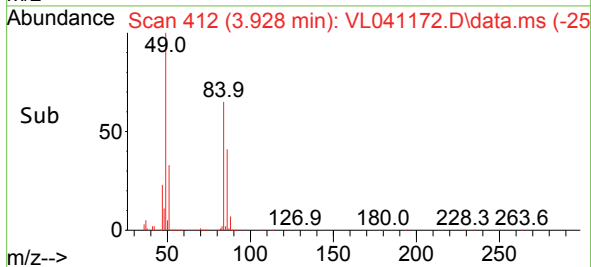
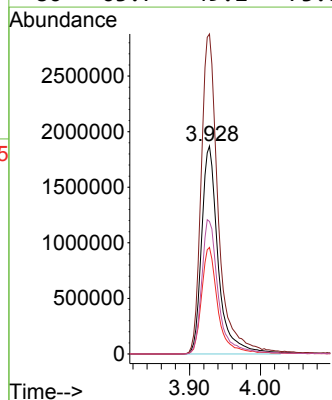
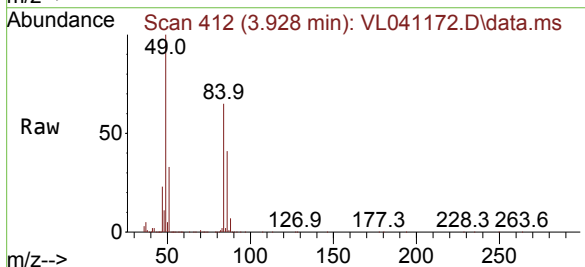
Ion Ratio Lower Upper

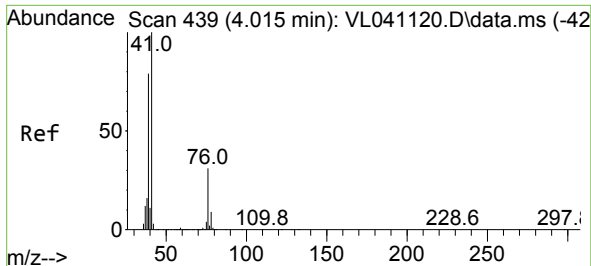
84 100

49 154.0 120.7 181.1

51 51.3 36.6 54.8

86 63.7 49.2 73.8





#21

Allyl Chloride

Concen: 1.381 ppbv

RT: 3.925 min Scan# 41

Delta R.T. -0.061 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

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IA1DUP

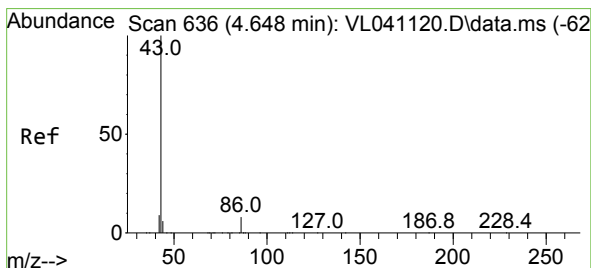
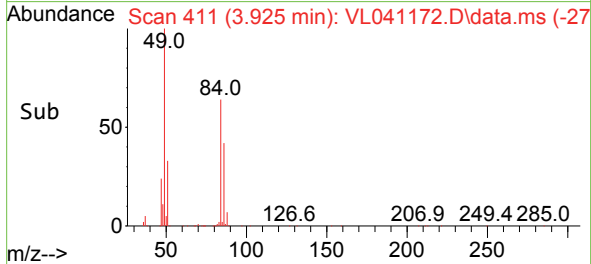
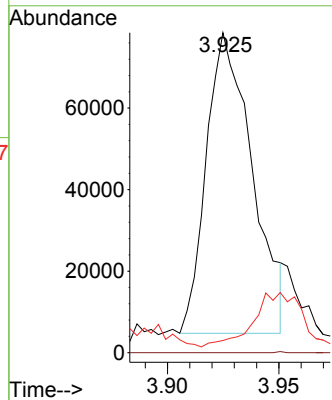
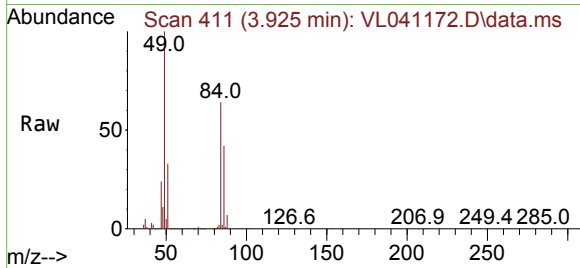
Tgt Ion: 41 Resp: 105526

Ion Ratio Lower Upper

41 100

76 11.5 25.7 38.5#

39 27.3 65.7 98.5#



#23

Vinyl Acetate

Concen: 0.425 ppbv

RT: 4.600 min Scan# 621

Delta R.T. -0.013 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Tgt Ion: 43 Resp: 54374

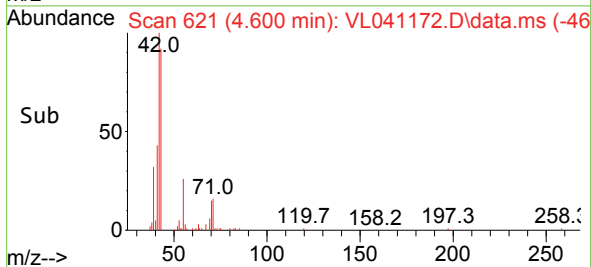
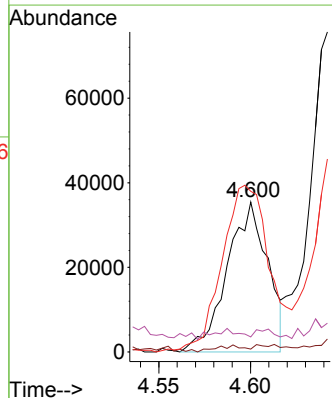
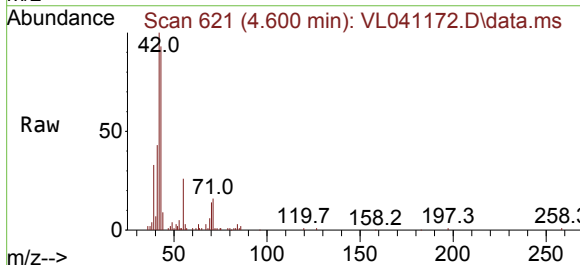
Ion Ratio Lower Upper

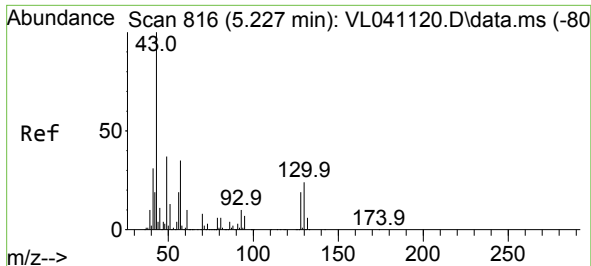
43 100

86 0.1 6.2 9.4#

42 105.3 7.7 11.5#

44 0.0 4.9 7.3#



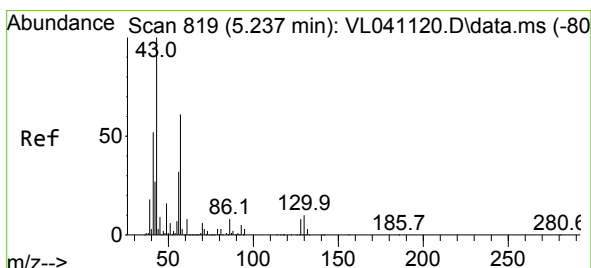
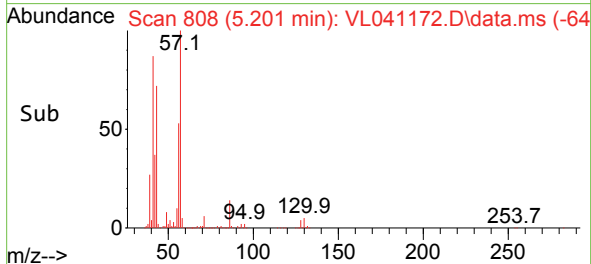
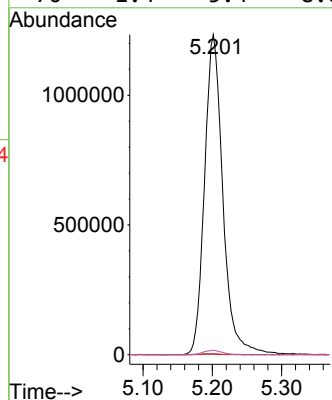
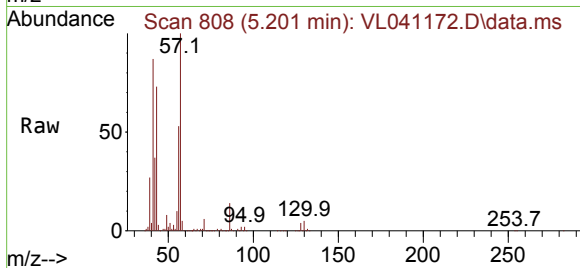


#25
Ethyl Acetate
Concen: 9.605 ppbv
RT: 5.201 min Scan# 808
Delta R.T. 0.013 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

Tgt Ion: 43 Resp: 2261423

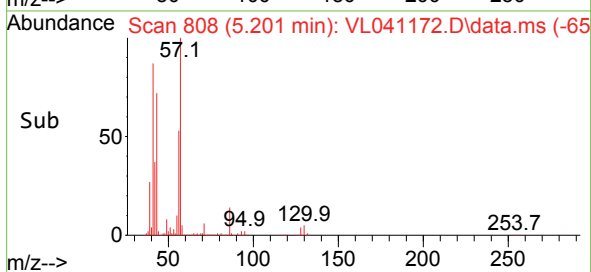
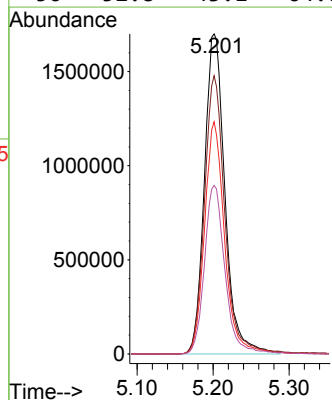
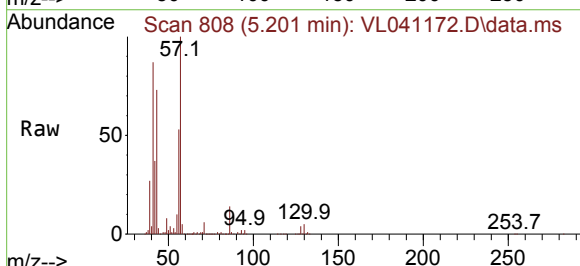
Ion	Ratio	Lower	Upper
43	100		
45	0.3	8.0	12.0#
61	0.3	7.8	11.6#
70	1.4	5.4	8.0#

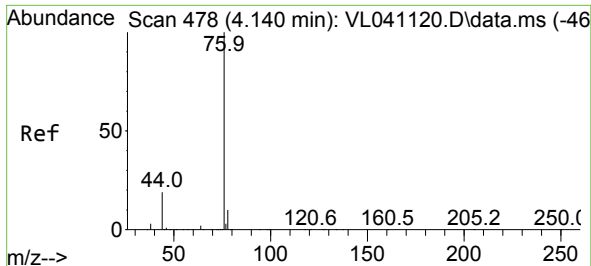


#26
Hexane
Concen: 30.189 ppbv
RT: 5.201 min Scan# 808
Delta R.T. 0.006 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Tgt Ion: 57 Resp: 3189289

Ion	Ratio	Lower	Upper
57	100		
41	87.6	73.8	110.8
43	71.3	186.2	279.2#
56	52.8	43.1	64.7

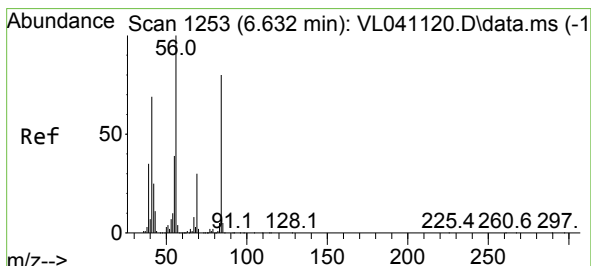
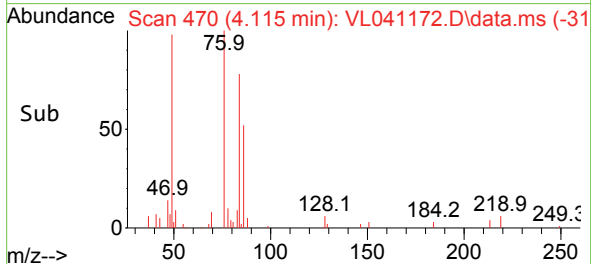
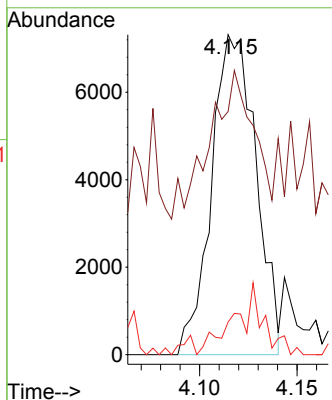
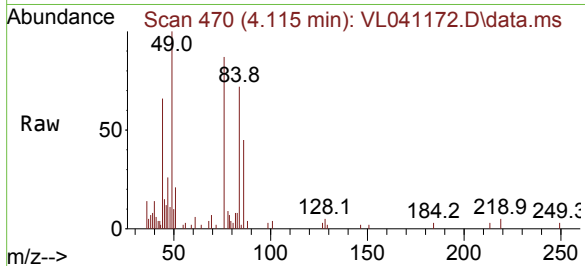




#27
Carbon Disulfide
Concen: 0.090 ppbv
RT: 4.115 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

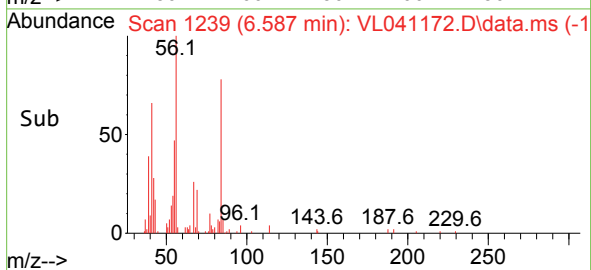
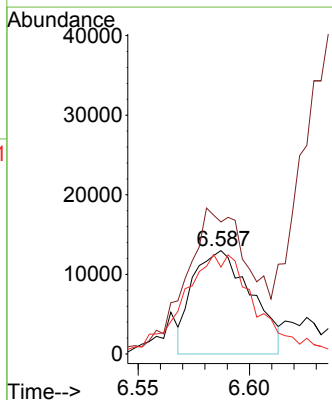
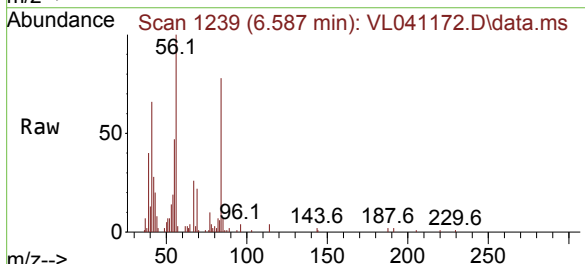
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

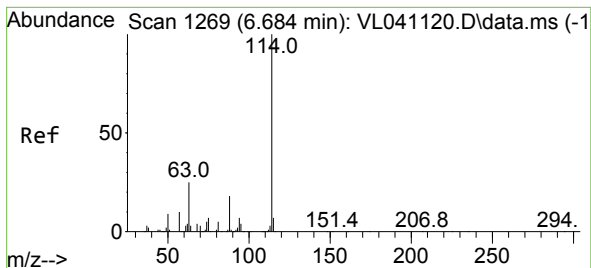
Tgt Ion: 76 Resp: 11622
Ion Ratio Lower Upper
76 100
44 49.9 16.3 24.5#
78 16.2 7.9 11.9#



#30
Cyclohexane
Concen: 0.276 ppbv
RT: 6.587 min Scan# 1239
Delta R.T. 0.006 min
Lab File: VL041172.D
Acq: 25 Apr 2024 15:55

Tgt Ion: 84 Resp: 23734
Ion Ratio Lower Upper
84 100
56 156.5 111.9 167.9
41 121.9 71.0 106.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.635 min Scan# 1

Delta R.T. 0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

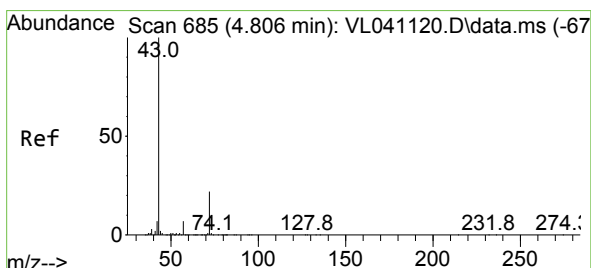
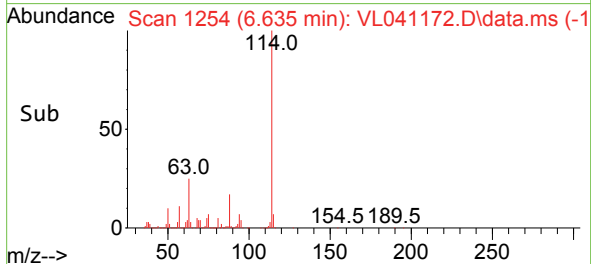
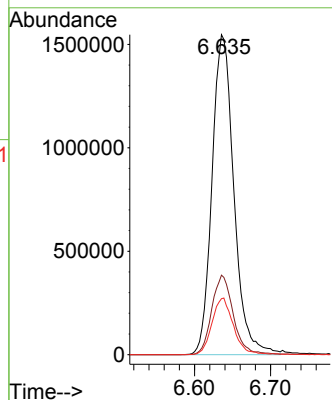
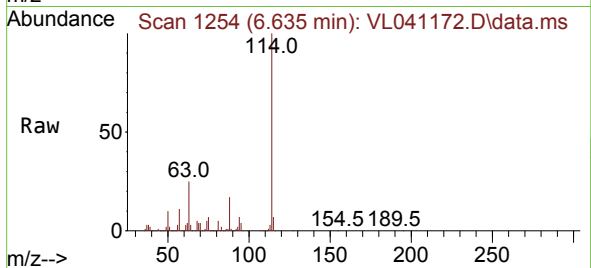
Tgt Ion:114 Resp: 3085209

Ion Ratio Lower Upper

114 100

63 24.6 20.9 31.3

88 17.5 14.5 21.7



#34

2-Butanone

Concen: 0.174 ppbv

RT: 4.787 min Scan# 679

Delta R.T. 0.016 min

Lab File: VL041172.D

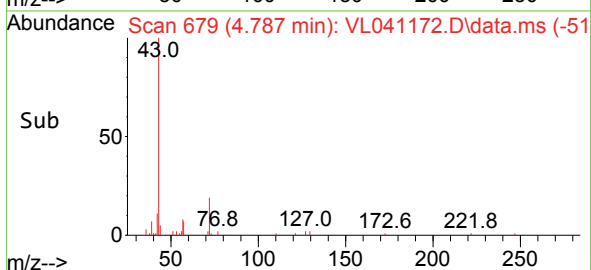
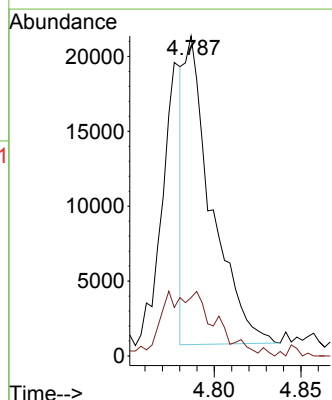
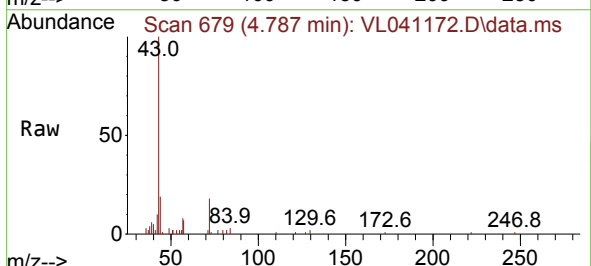
Acq: 25 Apr 2024 15:55

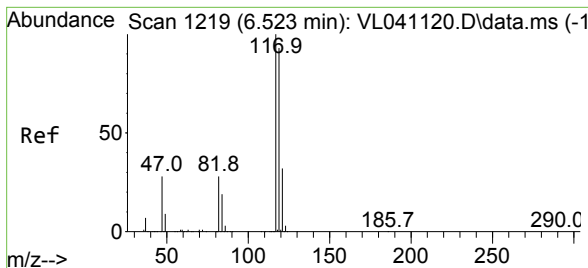
Tgt Ion: 43 Resp: 22662

Ion Ratio Lower Upper

43 100

72 42.2 17.6 26.4#





#35

Carbon Tetrachloride

Concen: 0.043 ppbv

RT: 6.478 min Scan# 1166

Delta R.T. 0.003 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

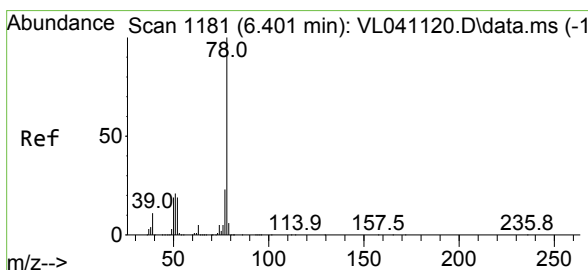
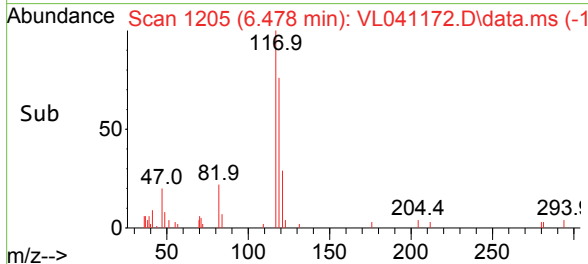
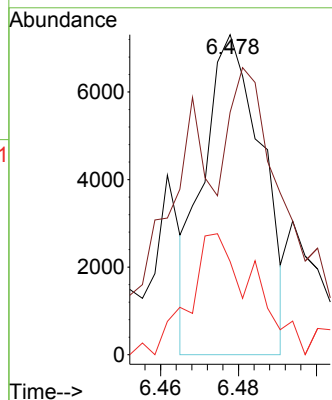
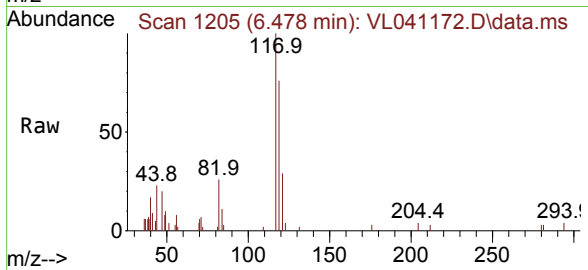
Tgt Ion:117 Resp: 7596

Ion Ratio Lower Upper

117 100

119 35.0 74.2 111.4#

121 29.5 25.4 38.2



#36

Benzene

Concen: 0.644 ppbv

RT: 6.352 min Scan# 1166

Delta R.T. 0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

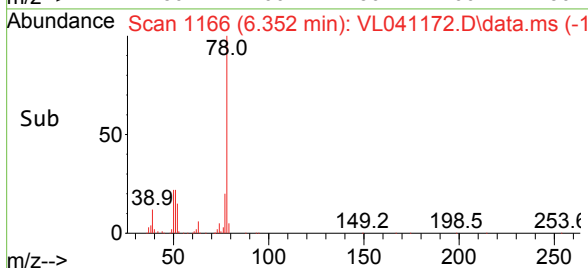
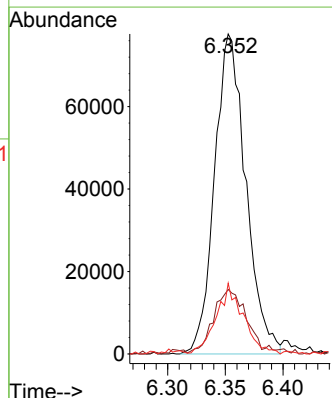
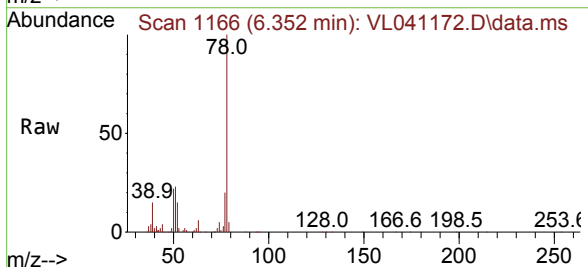
Tgt Ion: 78 Resp: 145923

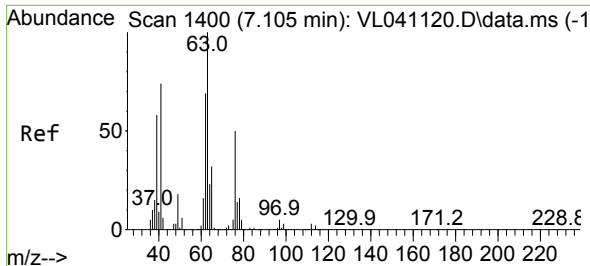
Ion Ratio Lower Upper

78 100

77 19.1 18.2 27.4

50 22.1 15.4 23.2





#39

1,2-Dichloropropane

Concen: 8.410 ppbv

RT: 6.635 min Scan# 11

Delta R.T. -0.421 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

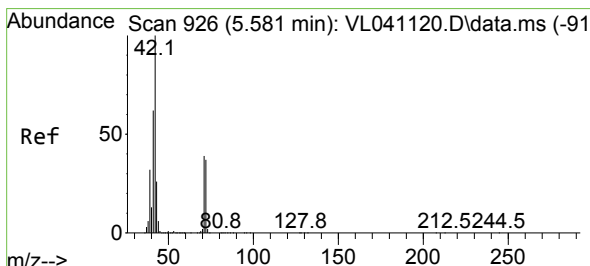
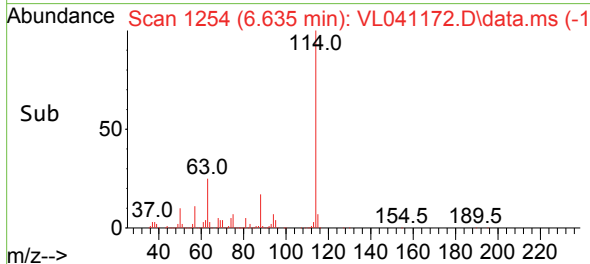
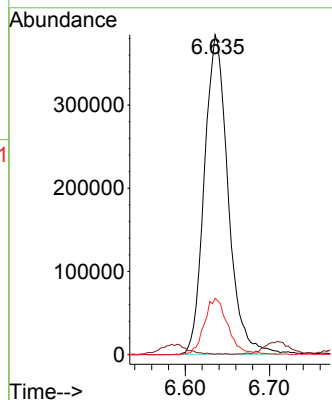
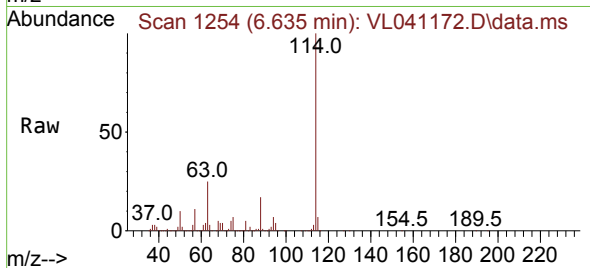
Tgt Ion: 63 Resp: 751313

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

62 17.7 55.5 83.3#



#41

Tetrahydrofuran

Concen: 13.408 ppbv

RT: 5.201 min Scan# 808

Delta R.T. -0.338 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

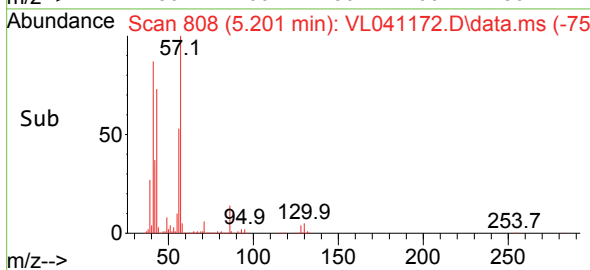
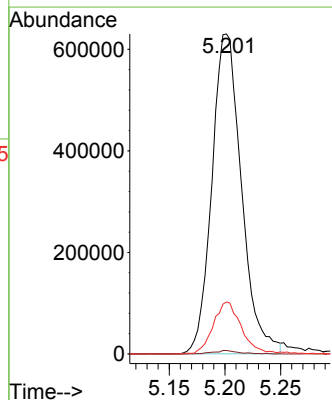
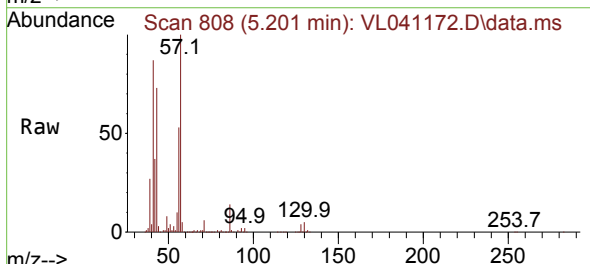
Tgt Ion: 42 Resp: 1165534

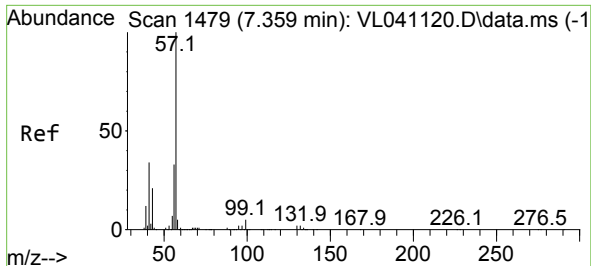
Ion Ratio Lower Upper

42 100

72 1.0 31.2 46.8#

71 15.8 29.9 44.9#

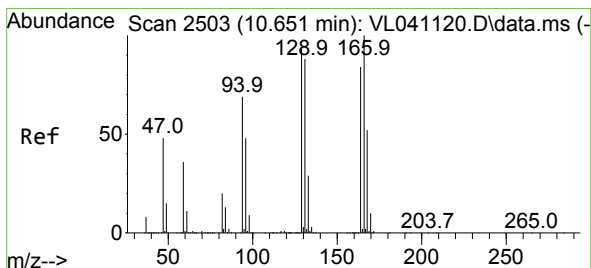
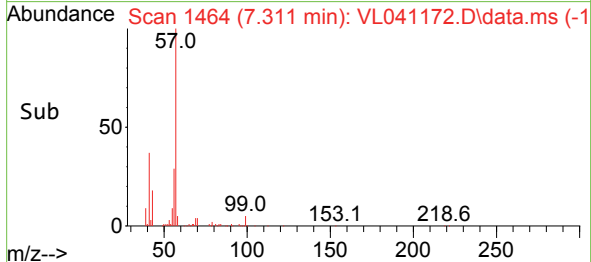
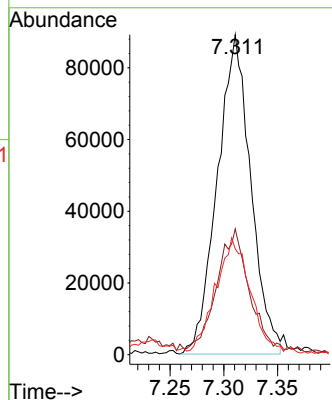
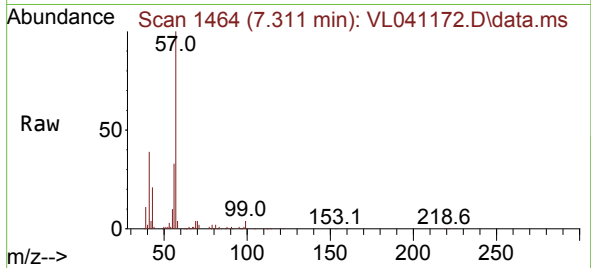




#44
 2,2,4-Trimethylpentane
 Concen: 0.513 ppbv
 RT: 7.311 min Scan# 1479
 Delta R.T. 0.006 min
 Lab File: VL041172.D
 Acq: 25 Apr 2024 15:55

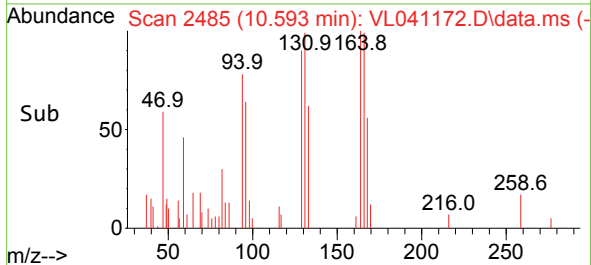
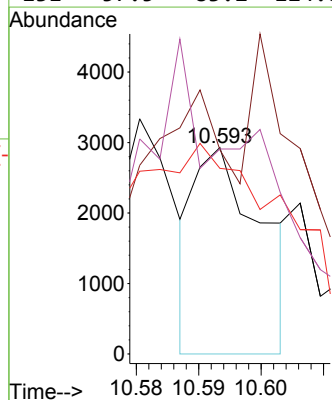
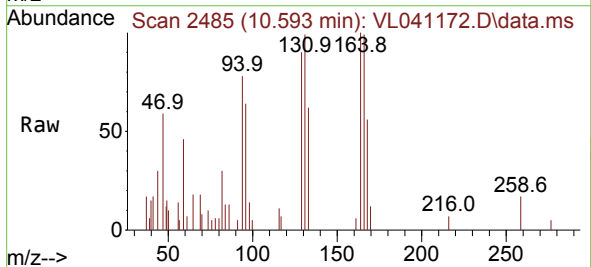
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

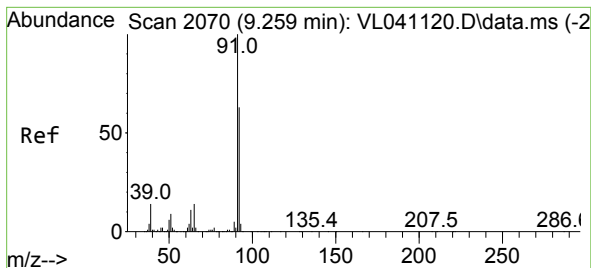
Tgt Ion: 57 Resp: 192590
 Ion Ratio Lower Upper
 57 100
 41 38.9 28.2 42.2
 56 39.8 25.2 37.8#



#52
 Tetrachloroethene
 Concen: 0.030 ppbv
 RT: 10.593 min Scan# 2485
 Delta R.T. 0.003 min
 Lab File: VL041172.D
 Acq: 25 Apr 2024 15:55

Tgt Ion: 164 Resp: 2176
 Ion Ratio Lower Upper
 164 100
 166 0.0 95.0 142.6#
 129 35.3 88.7 133.1#
 131 57.5 83.2 124.8#





#53

Toluene

Concen: 1.211 ppbv

RT: 9.201 min Scan# 2070

Delta R.T. 0.003 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

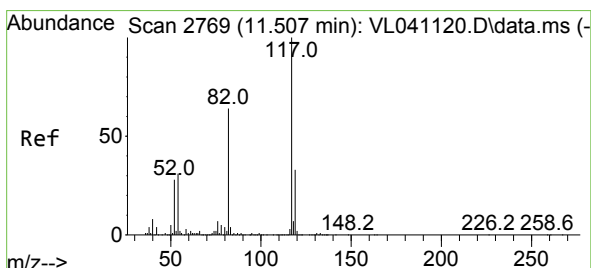
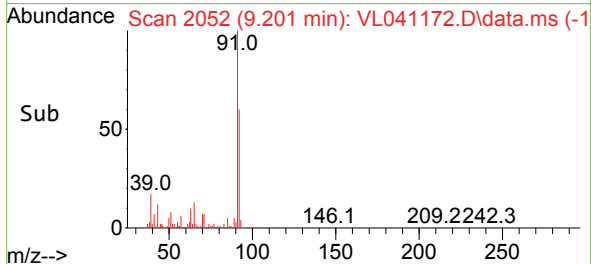
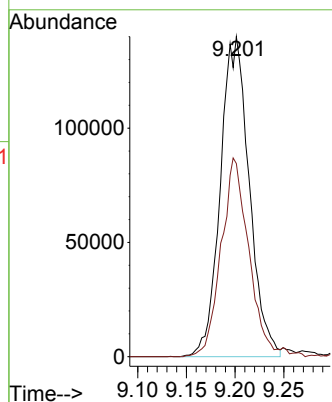
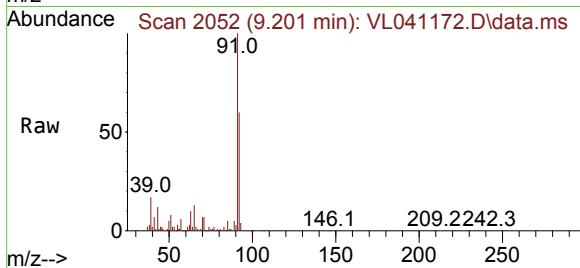
IA1DUP

Tgt Ion: 91 Resp: 288982

Ion Ratio Lower Upper

91 100

92 60.4 49.0 73.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.442 min Scan# 2749

Delta R.T. 0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

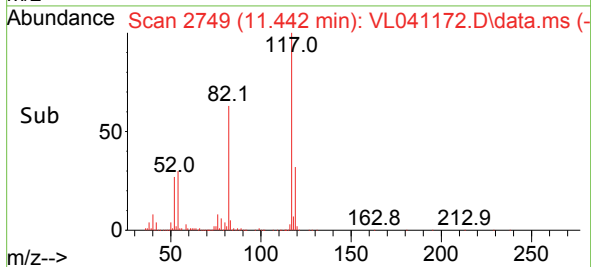
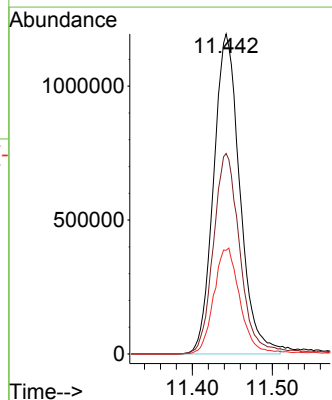
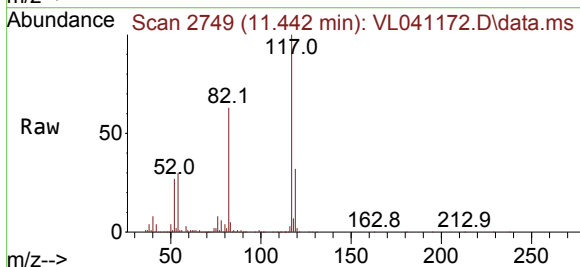
Tgt Ion: 117 Resp: 2721429

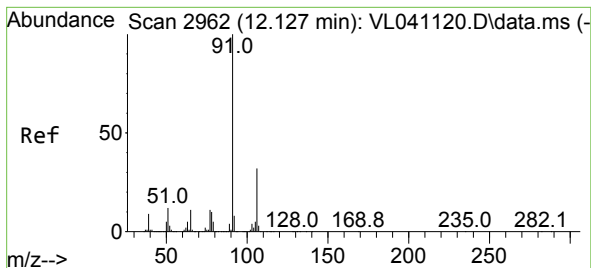
Ion Ratio Lower Upper

117 100

82 65.0 51.0 76.6

119 34.1 25.2 37.8





#58

Ethyl Benzene

Concen: 0.117 ppbv

RT: 12.066 min Scan# 2962

Delta R.T. 0.003 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

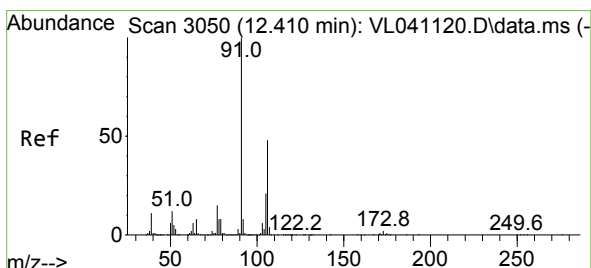
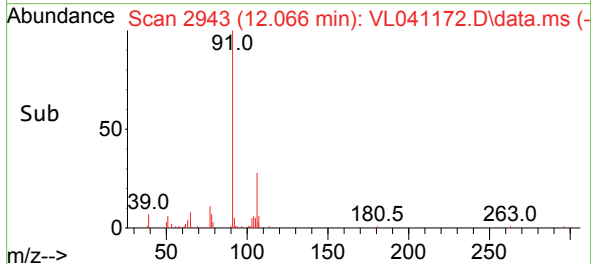
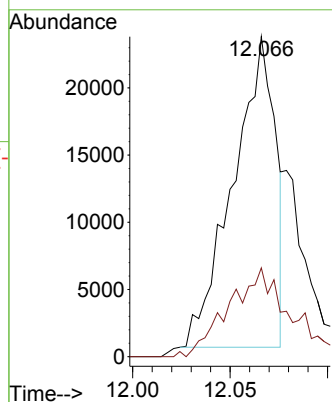
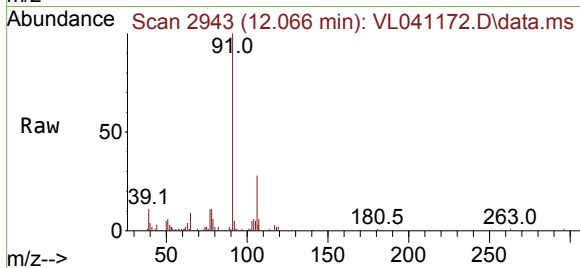
IA1DUP

Tgt Ion: 91 Resp: 34940

Ion Ratio Lower Upper

91 100

106 30.5 25.6 38.4



#59

m/p-Xylene

Concen: 0.177 ppbv

RT: 12.343 min Scan# 3029

Delta R.T. -0.006 min

Lab File: VL041172.D

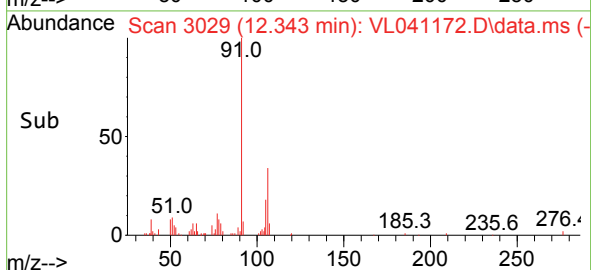
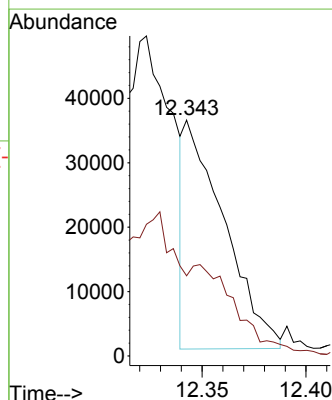
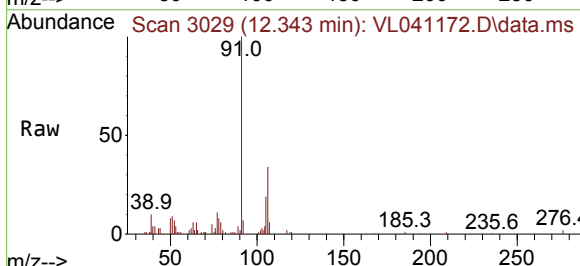
Acq: 25 Apr 2024 15:55

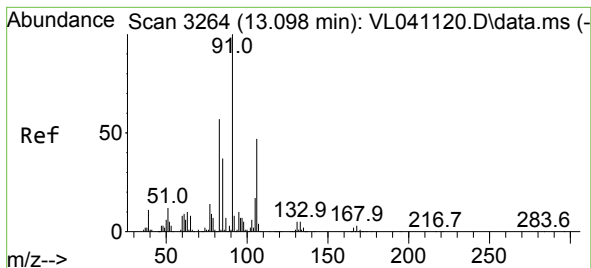
Tgt Ion: 91 Resp: 47605

Ion Ratio Lower Upper

91 100

106 0.0 35.4 53.2#





#60

o-Xylene

Concen: 0.064 ppbv

RT: 13.034 min Scan# 31

Delta R.T. -0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

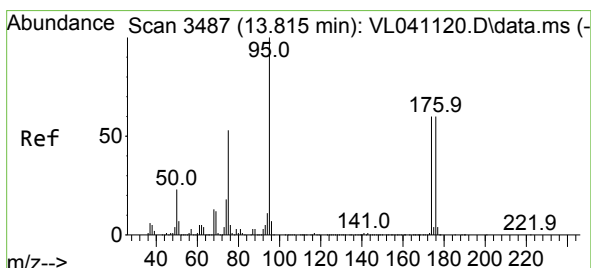
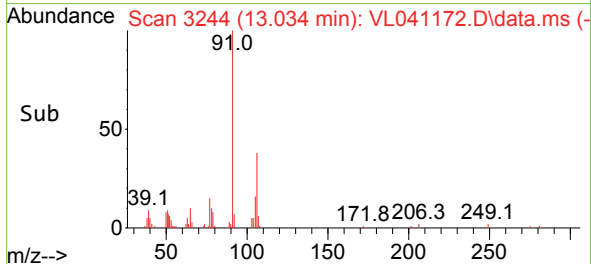
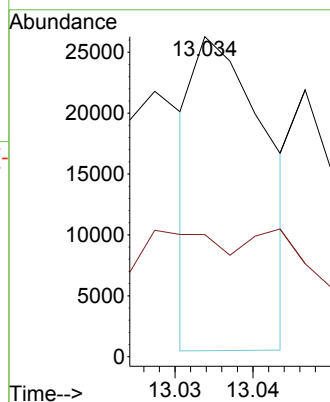
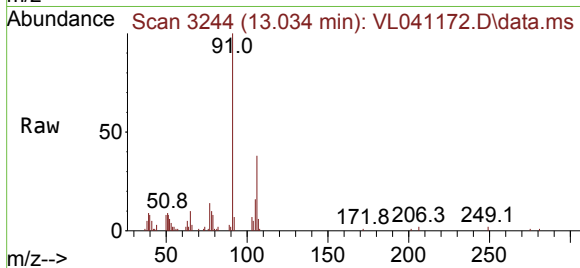
IA1DUP

Tgt Ion: 91 Resp: 16419

Ion Ratio Lower Upper

91 100

106 0.0 22.9 68.5#



#68

1-Bromo-4-Fluorobenzene

Concen: 9.673 ppbv

RT: 13.751 min Scan# 3467

Delta R.T. 0.003 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

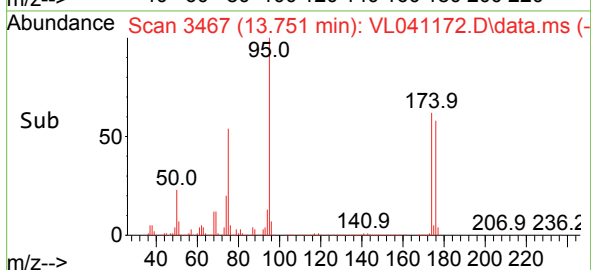
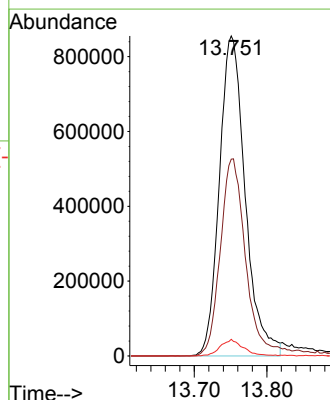
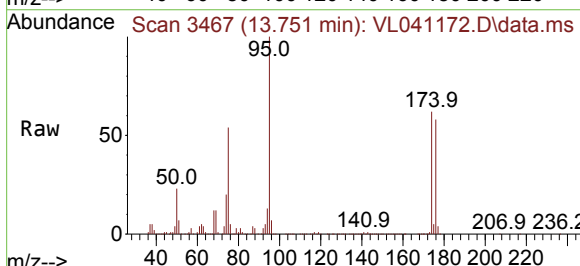
Tgt Ion: 95 Resp: 2116839

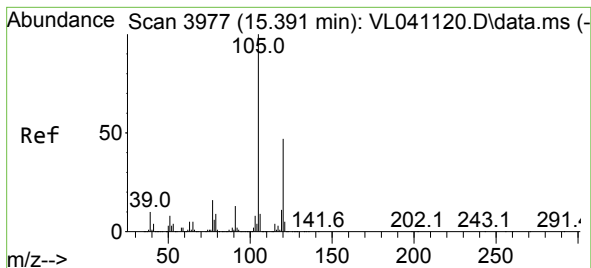
Ion Ratio Lower Upper

95 100

174 62.9 49.3 73.9

175 4.6 3.6 5.4





#73

1,3,5-Trimethylbenzene

Concen: 0.048 ppbv

RT: 15.326 min Scan# 3957

Delta R.T. 0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Instrument :

MSVOA_L

ClientSampleId :

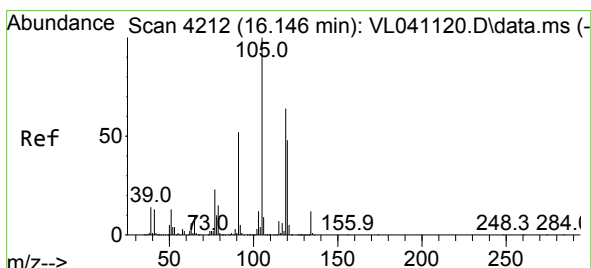
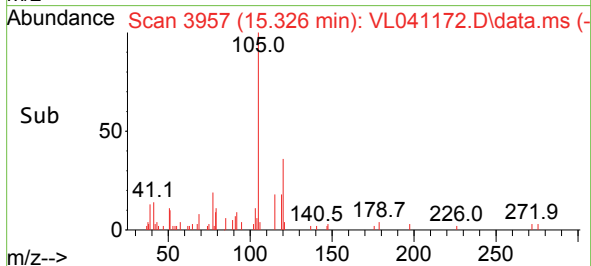
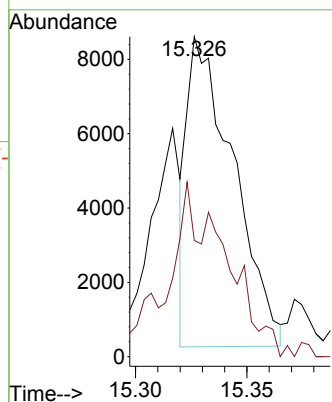
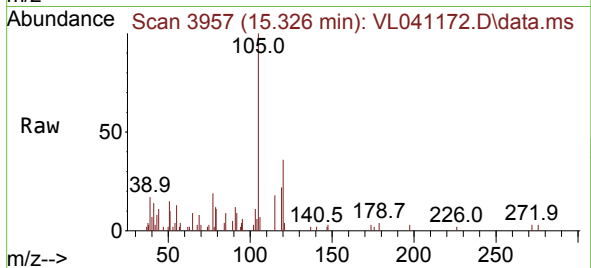
IA1DUP

Tgt Ion:105 Resp: 12109

Ion Ratio Lower Upper

105 100

120 44.9 37.8 56.8



#74

1,2,4-Trimethylbenzene

Concen: 0.270 ppbv

RT: 16.082 min Scan# 4192

Delta R.T. 0.000 min

Lab File: VL041172.D

Acq: 25 Apr 2024 15:55

Tgt Ion:105 Resp: 77561

Ion Ratio Lower Upper

105 100

120 41.6 38.9 58.3

91 13.6 43.0 64.6#

77 16.4 18.6 28.0#

