

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041923\
 Data File : VL040384.D
 Acq On : 19 Apr 2023 17:54
 Operator : SY/MD
 Sample : 02332-07 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-15-20230413DL

Quant Time: Apr 20 05:12:20 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

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

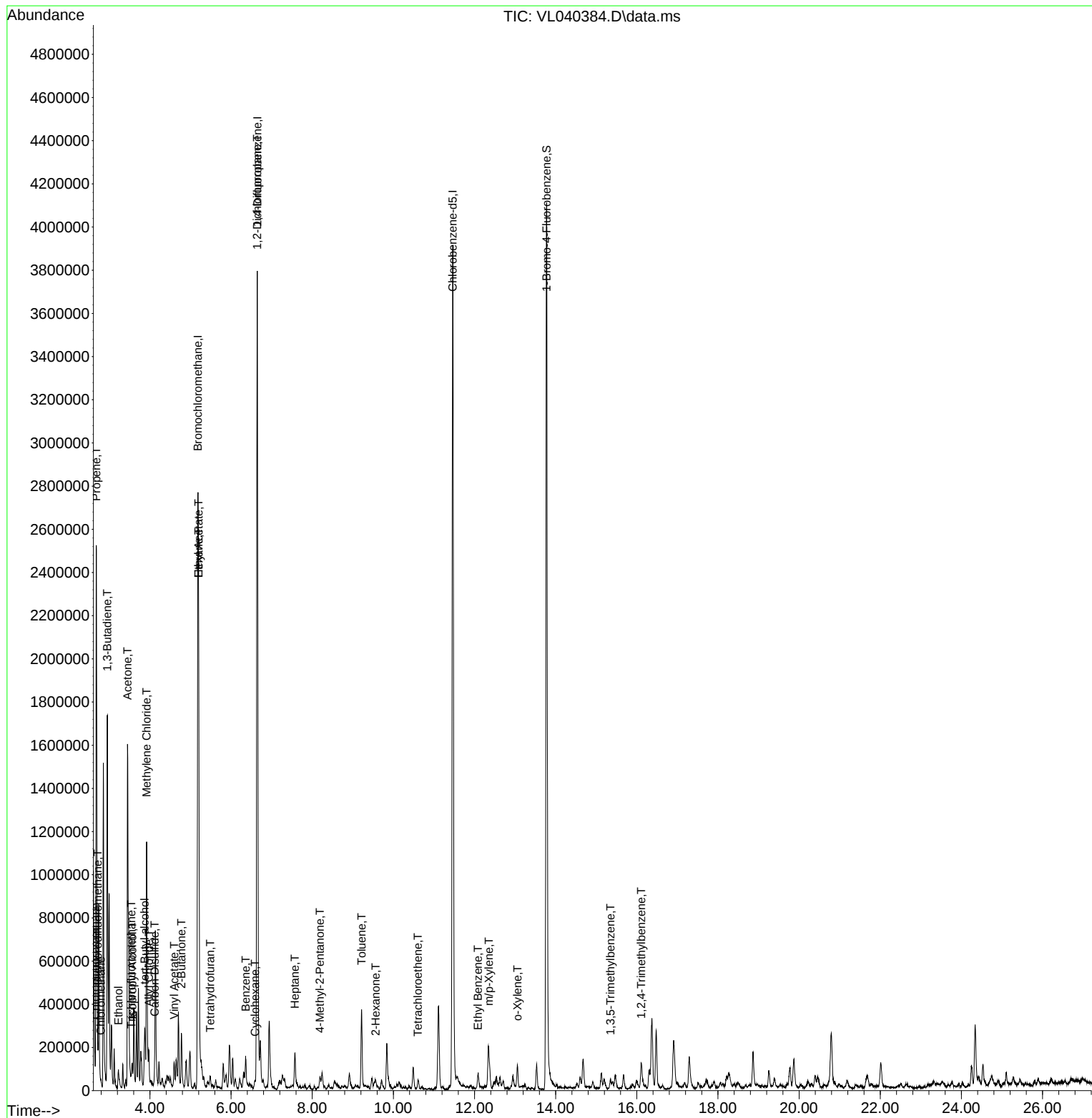
Internal Standards						
1) Bromochloromethane	5.182	49	1086211	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2779714	10.000	ppbv	-0.01
55) Chlorobenzene-d5	11.465	117	2530835	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.776	95	2067043	9.877	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.709	85	29072	0.148	ppbv #	73
3) Chlorodifluoromethane	2.655	51	19723	0.139	ppbv #	86
4) Chloromethane	2.790	50	7525	0.084	ppbv	98
9) Propene	2.677	41	911167	16.249	ppbv	94
10) Heptane	7.574	43	62837	0.493	ppbv	91
11) Trichlorofluoromethane	3.542	101	17029	0.086	ppbv	97
13) Ethanol	3.224	45	83952	17.934	ppbv	92
15) Acetone	3.449	43	1659685	10.788	ppbv #	79
16) 1,3-Butadiene	2.947	39	505134	7.934	ppbv #	28
17) tert-Butyl alcohol	3.870	59	179097	1.268	ppbv	95
19) Isopropyl Alcohol	3.565	45	55143	0.786	ppbv #	1
20) Methylene Chloride	3.918	84	369310	6.013	ppbv	98
21) Allyl Chloride	3.973	41	14380	0.164	ppbv #	1
23) Vinyl Acetate	4.600	43	38452	0.982	ppbv #	27
25) Ethyl Acetate	5.201	43	427007	1.649	ppbv #	76
26) Hexane	5.201	57	628458	5.759	ppbv #	37
27) Carbon Disulfide	4.114	76	43286	0.306	ppbv #	80
30) Cyclohexane	6.593	84	4112	0.049	ppbv #	1
34) 2-Butanone	4.777	43	276944	1.848	ppbv	96
36) Benzene	6.359	78	107305	0.473	ppbv	99
39) 1,2-Dichloropropane	6.642	63	700697	7.852	ppbv #	24
41) Tetrahydrofuran	5.484	42	5985	0.073	ppbv #	36
50) 4-Methyl-2-Pentanone	8.188	43	35947	0.158	ppbv	96
51) 2-Hexanone	9.561	43	26420	0.157	ppbv #	87
52) Tetrachloroethene	10.603	164	2907	0.041	ppbv #	88
53) Toluene	9.217	91	278618	1.159	ppbv	98
58) Ethyl Benzene	12.085	91	36297	0.117	ppbv #	88
59) m/p-Xylene	12.352	91	95145	0.332	ppbv #	19
60) o-Xylene	13.056	91	83086	0.302	ppbv	98
73) 1,3,5-Trimethylbenzene	15.352	105	13057	0.047	ppbv #	65
74) 1,2,4-Trimethylbenzene	16.104	105	56080	0.175	ppbv #	69

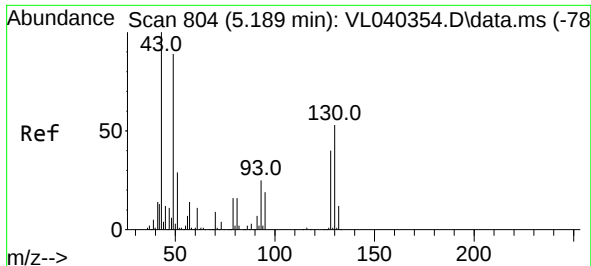
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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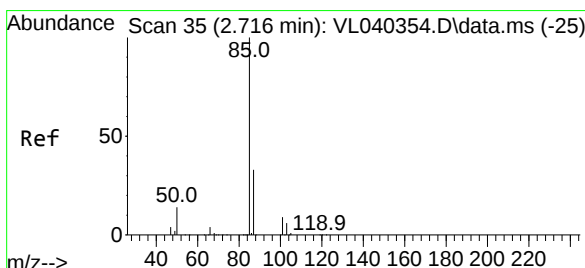
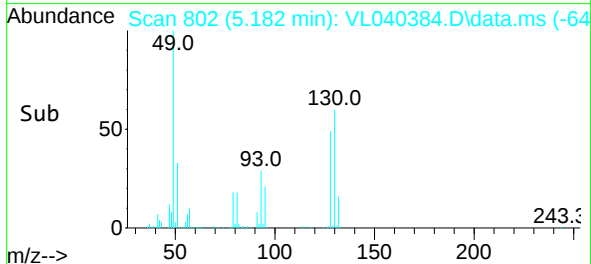
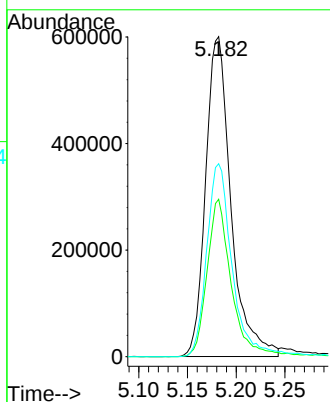
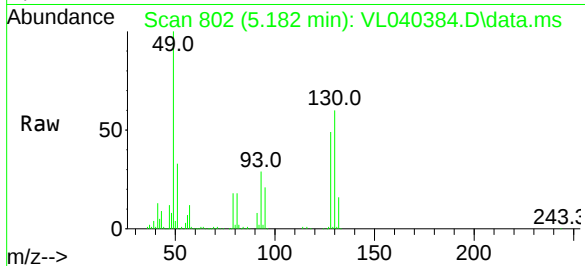




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.182 min Scan# 80
 Delta R.T. -0.007 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

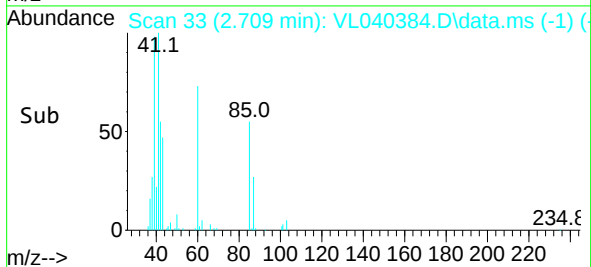
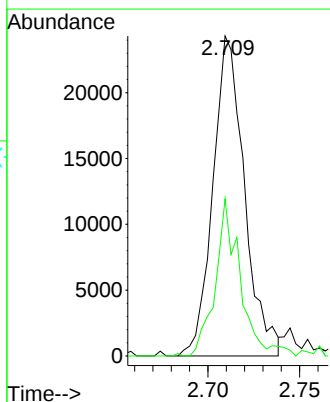
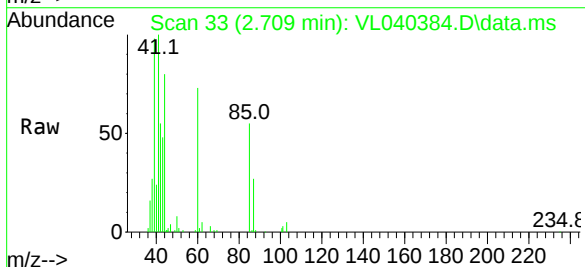
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-15-20230413DL

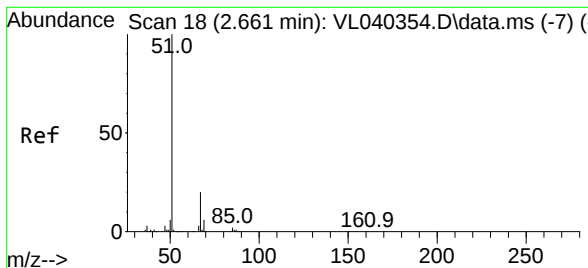
Tgt Ion: 49 Resp: 1086211
 Ion Ratio Lower Upper
 49 100
 128 47.9 23.7 71.1
 130 62.5 29.9 89.8



#2
 Dichlorodifluoromethane
 Concen: 0.148 ppbv
 RT: 2.709 min Scan# 33
 Delta R.T. -0.007 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

Tgt Ion: 85 Resp: 29072
 Ion Ratio Lower Upper
 85 100
 87 48.4 26.6 40.0#





#3

Chlorodifluoromethane

Concen: 0.139 ppbv

RT: 2.655 min Scan# 11

Delta R.T. -0.006 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_L

ClientSampleId :

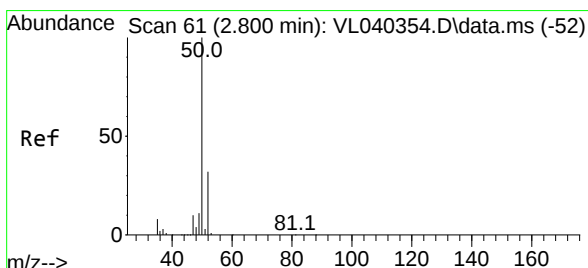
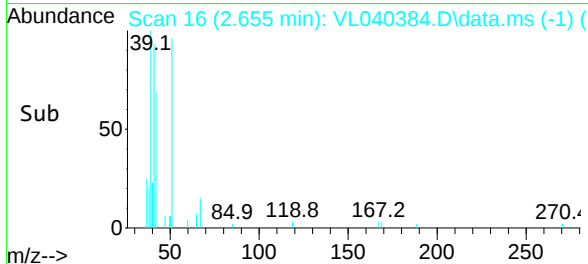
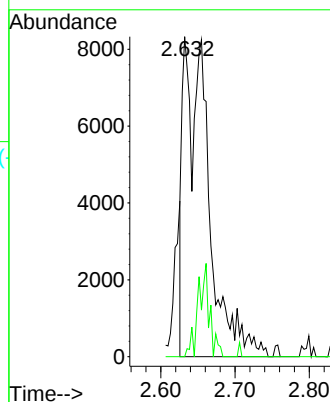
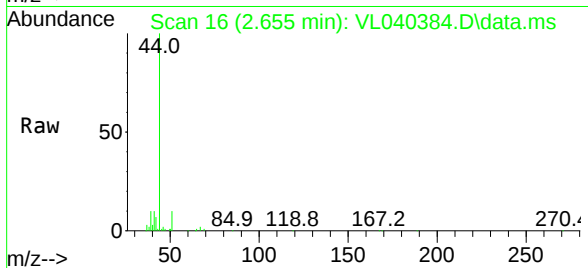
SV-15-20230413DL

Tgt Ion: 51 Resp: 19723

Ion Ratio Lower Upper

51 100

67 12.9 15.5 23.3#



#4

Chloromethane

Concen: 0.084 ppbv

RT: 2.790 min Scan# 58

Delta R.T. -0.010 min

Lab File: VL040384.D

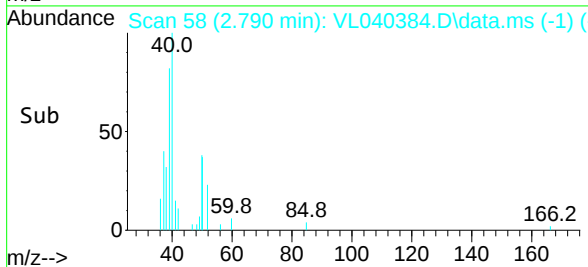
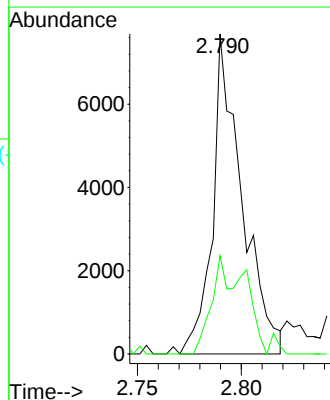
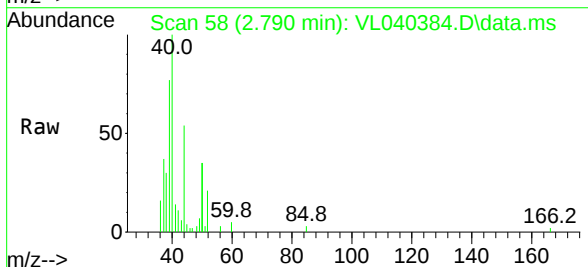
Acq: 19 Apr 2023 17:54

Tgt Ion: 50 Resp: 7525

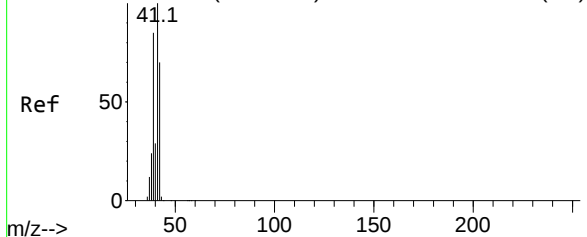
Ion Ratio Lower Upper

50 100

52 30.7 25.3 37.9



Abundance Scan 24 (2.681 min): VL040354.D\data.ms (-15)



#9

Propene

Concen: 16.249 ppbv

RT: 2.677 min Scan# 21

Delta R.T. -0.004 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_1

ClientSampleId :

SV-15-20230413DL

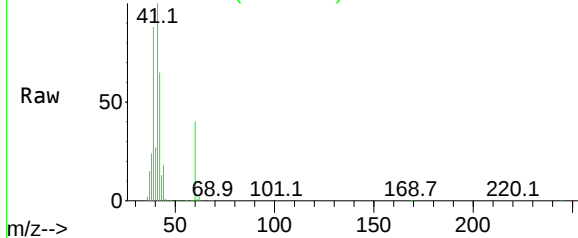
Tgt Ion: 41 Resp: 911167

Ion Ratio Lower Upper

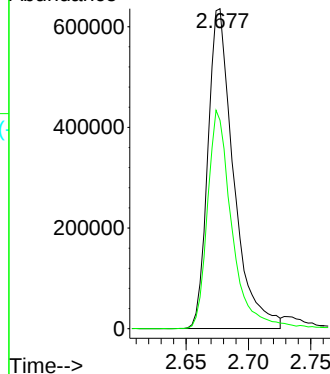
41 100

42 65.4 56.5 84.7

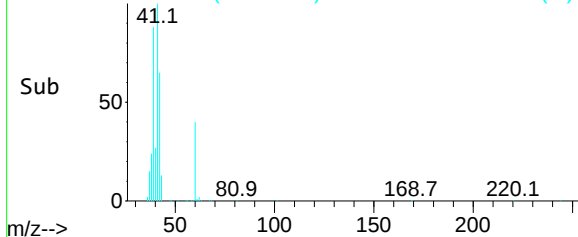
Abundance Scan 23 (2.677 min): VL040384.D\data.ms



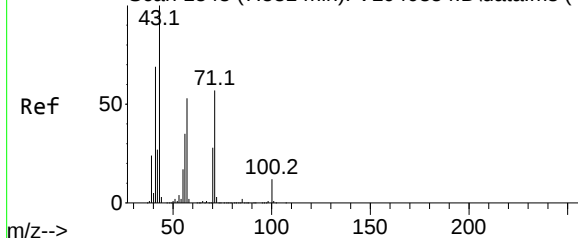
Abundance



Abundance Scan 23 (2.677 min): VL040384.D\data.ms (-1)



Abundance Scan 1548 (7.581 min): VL040354.D\data.ms (-1)



#10

Heptane

Concen: 0.493 ppbv

RT: 7.574 min Scan# 1546

Delta R.T. -0.007 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

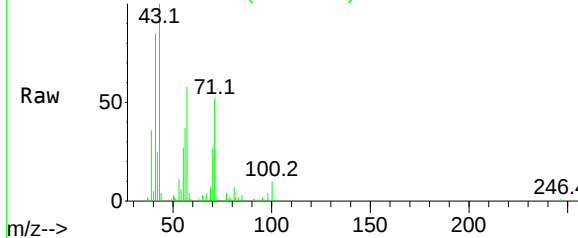
Tgt Ion: 43 Resp: 62837

Ion Ratio Lower Upper

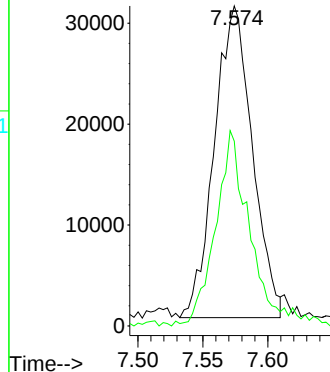
43 100

57 58.9 42.2 63.4

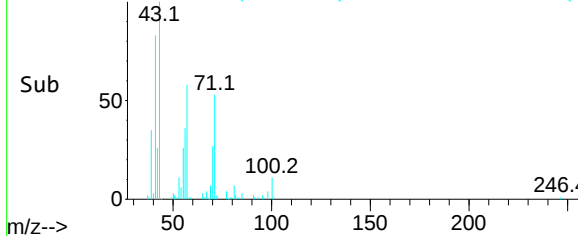
Abundance Scan 1546 (7.574 min): VL040384.D\data.ms

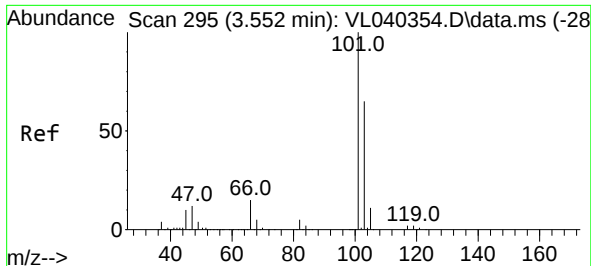


Abundance



Abundance Scan 1546 (7.574 min): VL040384.D\data.ms (-1)

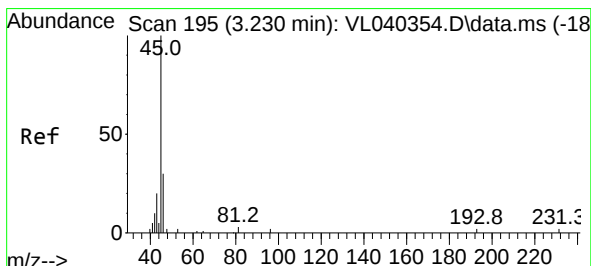
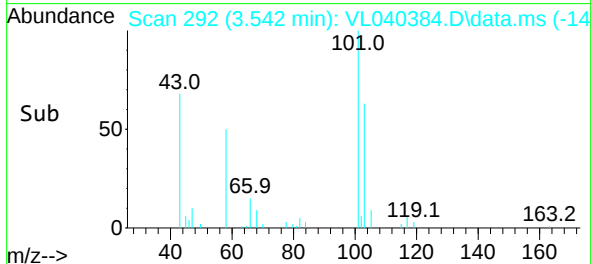
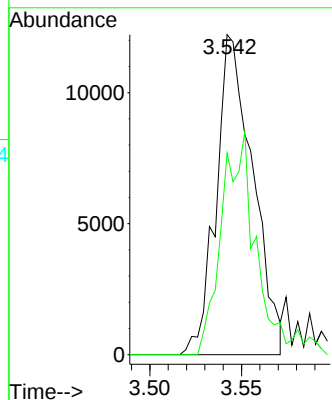
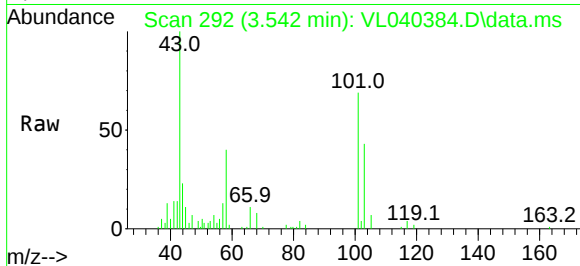




#11
 Trichlorofluoromethane
 Concen: 0.086 ppbv
 RT: 3.542 min Scan# 295
 Delta R.T. -0.010 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

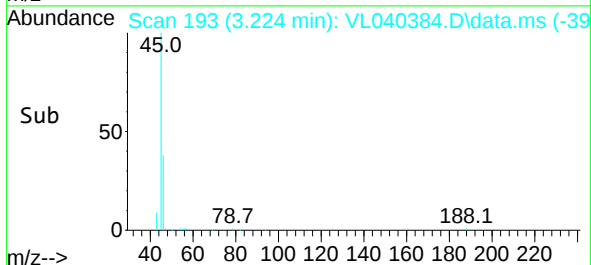
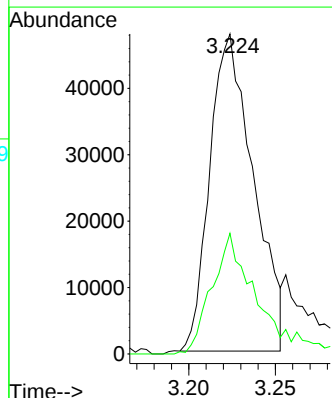
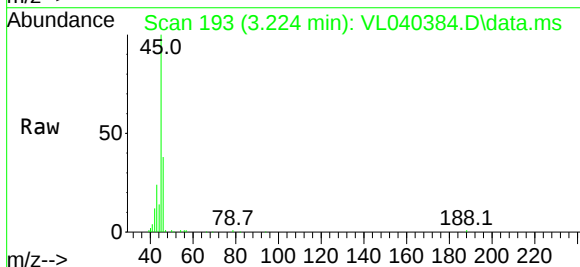
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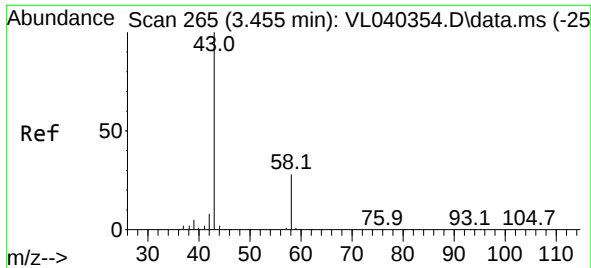
Tgt Ion:101 Resp: 17029
 Ion Ratio Lower Upper
 101 100
 103 63.0 52.2 78.4



#13
 Ethanol
 Concen: 17.934 ppbv
 RT: 3.224 min Scan# 193
 Delta R.T. -0.006 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

Tgt Ion: 45 Resp: 83952
 Ion Ratio Lower Upper
 45 100
 46 43.0 15.3 61.3

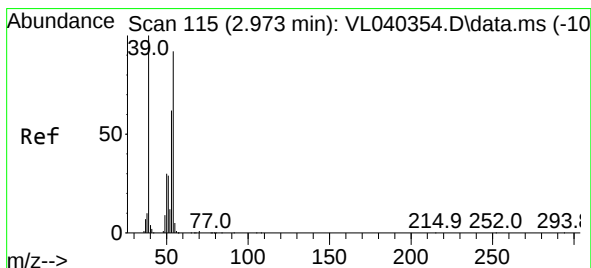
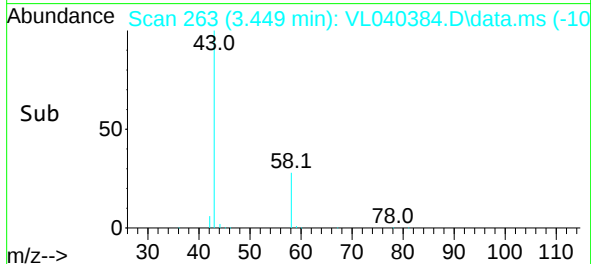
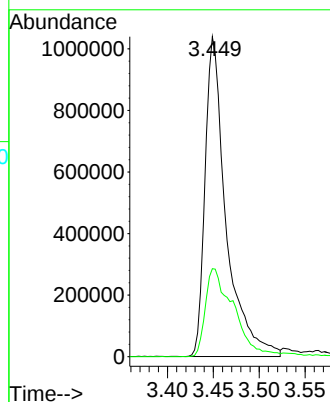
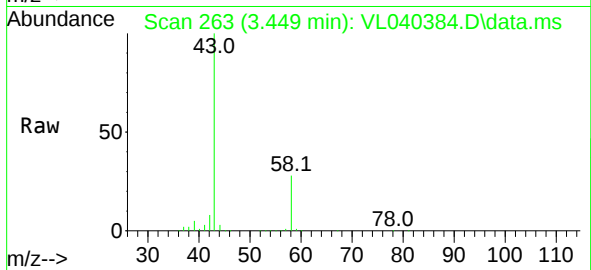




#15
Acetone
Concen: 10.788 ppbv
RT: 3.449 min Scan# 21
Delta R.T. -0.006 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

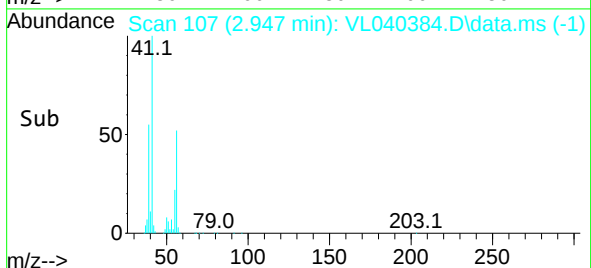
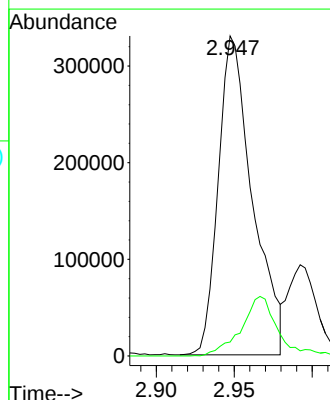
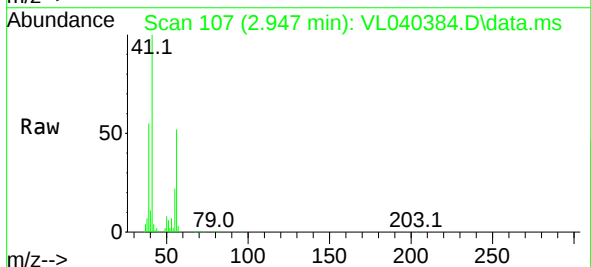
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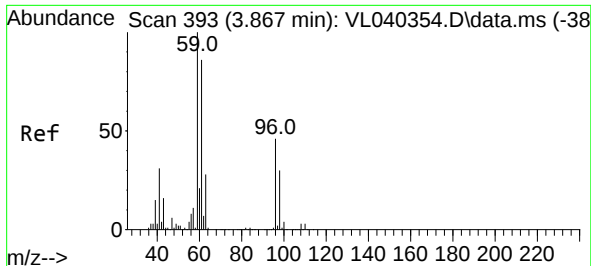
Tgt Ion: 43 Resp: 1659685
Ion Ratio Lower Upper
43 100
58 38.7 22.2 33.2#



#16
1,3-Butadiene
Concen: 7.934 ppbv
RT: 2.947 min Scan# 107
Delta R.T. -0.026 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 39 Resp: 505134
Ion Ratio Lower Upper
39 100
54 19.7 68.8 103.2#

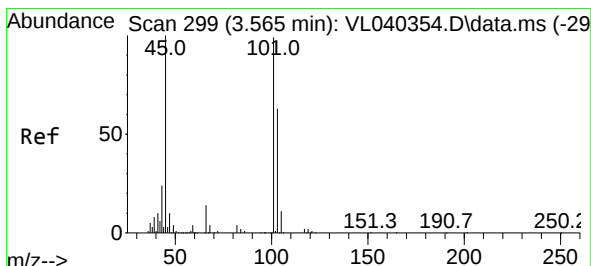
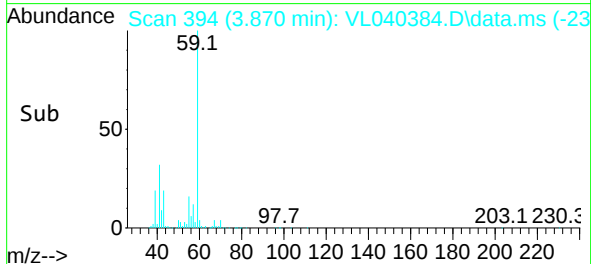
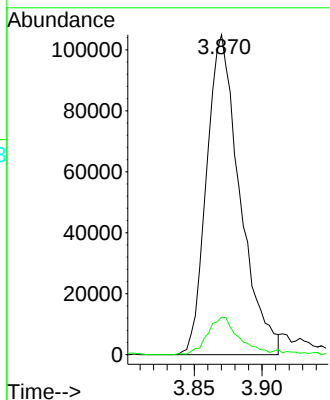
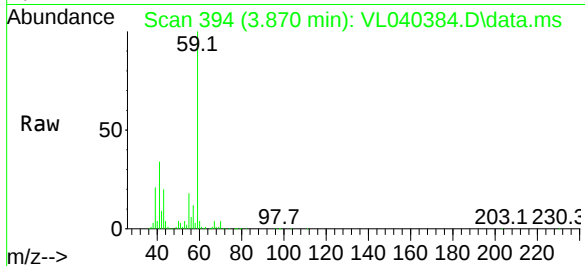




#17
tert-Butyl alcohol
Concen: 1.268 ppbv
RT: 3.870 min Scan# 394
Delta R.T. 0.003 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

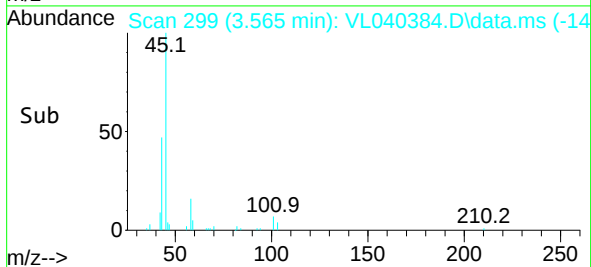
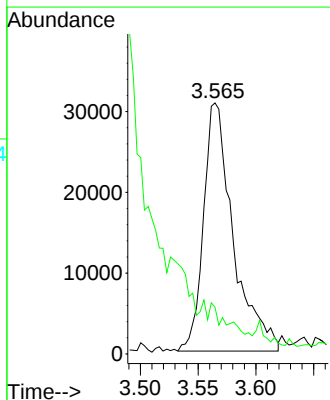
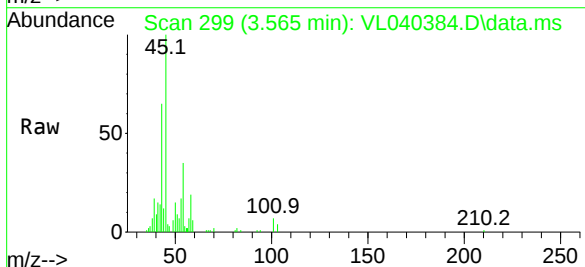
Instrument :
MSVOA_1
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SV-15-20230413DL

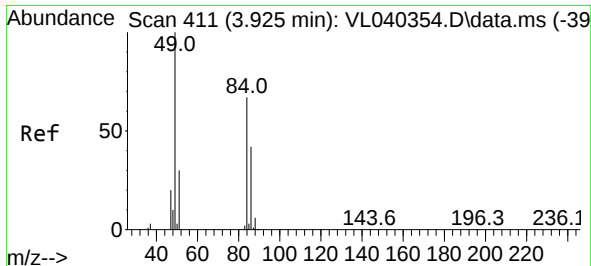
Tgt Ion: 59 Resp: 179097
Ion Ratio Lower Upper
59 100
57 12.5 8.5 12.7



#19
Isopropyl Alcohol
Concen: 0.786 ppbv
RT: 3.565 min Scan# 299
Delta R.T. -0.000 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 45 Resp: 55143
Ion Ratio Lower Upper
45 100
58 1165.2 2.6 4.0#





#20

Methylene Chloride

Concen: 6.013 ppbv

RT: 3.918 min Scan# 411

Delta R.T. -0.007 min

Lab File: VL040384.D

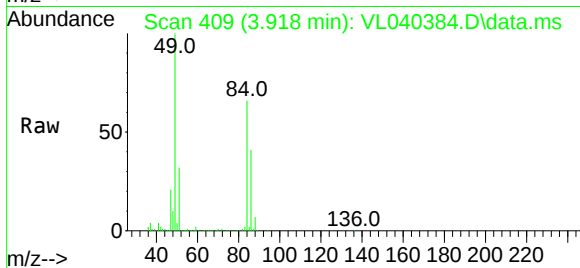
Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_L

ClientSampleId :

SV-15-20230413DL



Tgt Ion: 84 Resp: 369310

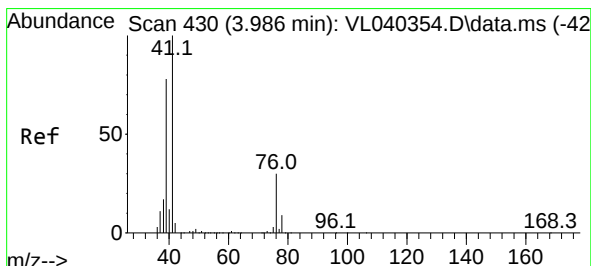
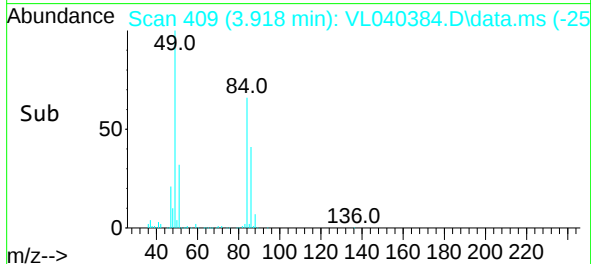
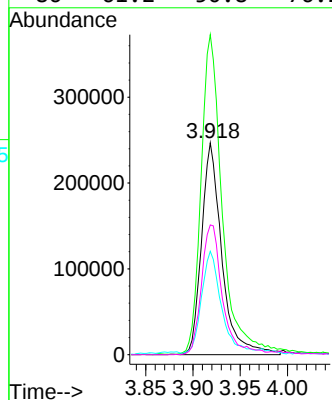
Ion Ratio Lower Upper

84 100

49 150.6 120.1 180.1

51 48.0 36.3 54.5

86 61.2 50.8 76.2



#21

Allyl Chloride

Concen: 0.164 ppbv

RT: 3.973 min Scan# 426

Delta R.T. -0.013 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

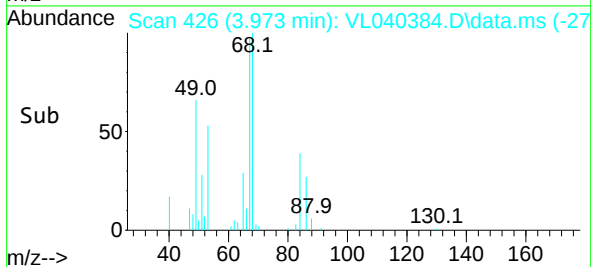
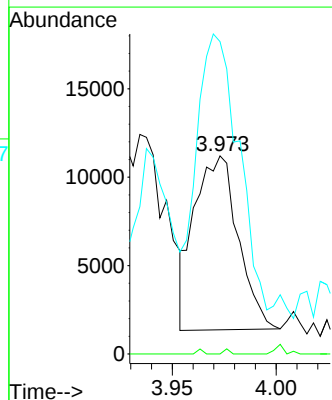
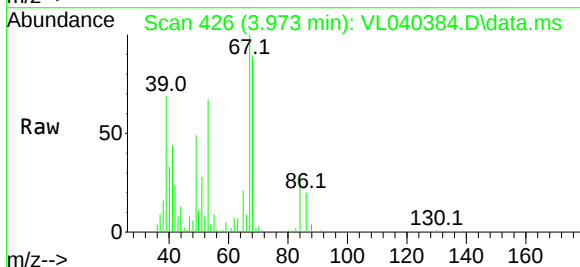
Tgt Ion: 41 Resp: 14380

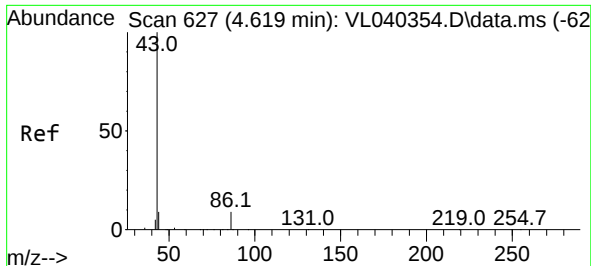
Ion Ratio Lower Upper

41 100

76 0.0 25.5 38.3#

39 319.1 64.0 96.0#

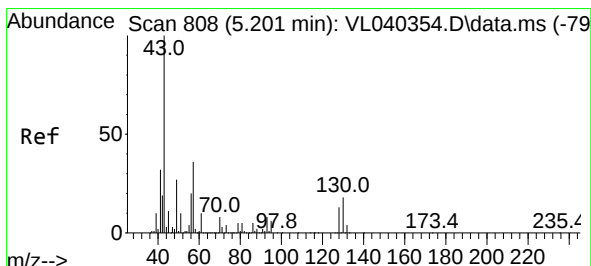
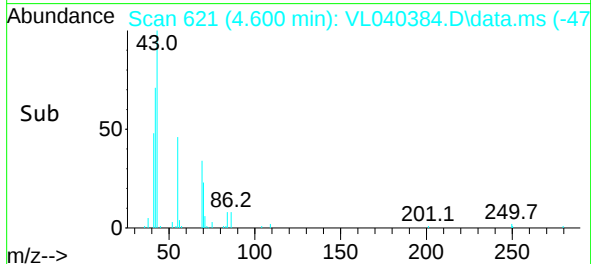
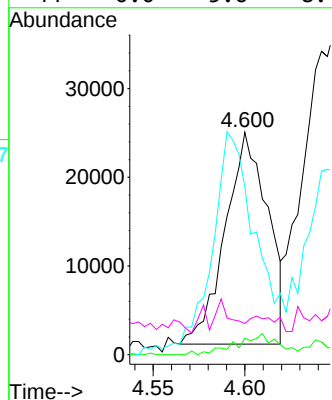
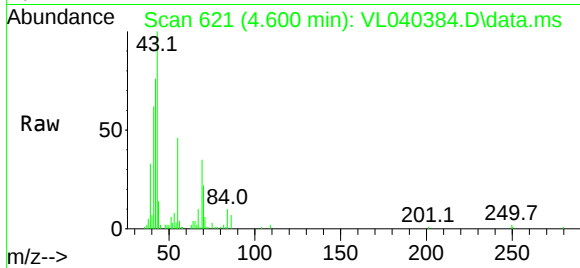




#23
 Vinyl Acetate
 Concen: 0.982 ppbv
 RT: 4.600 min Scan# 61
 Delta R.T. -0.019 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

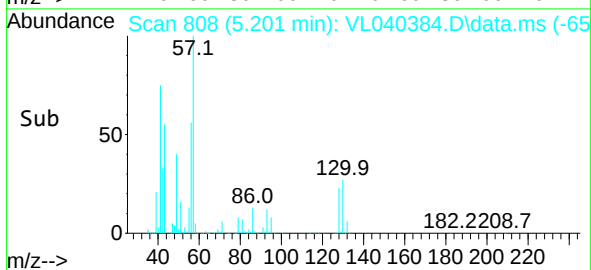
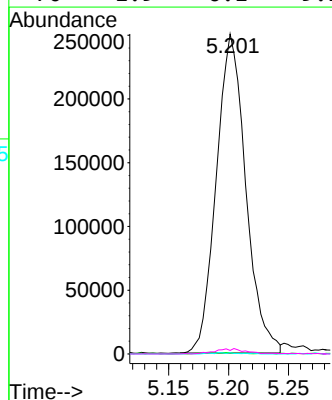
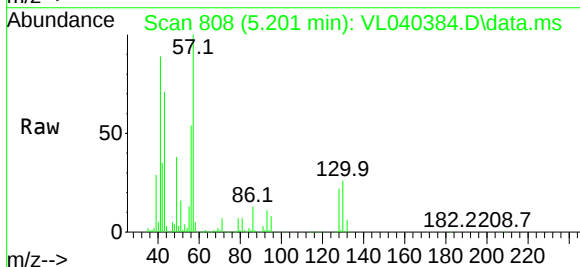
Instrument :
 MSVOA_1
 ClientSampleId :
 SV-15-20230413DL

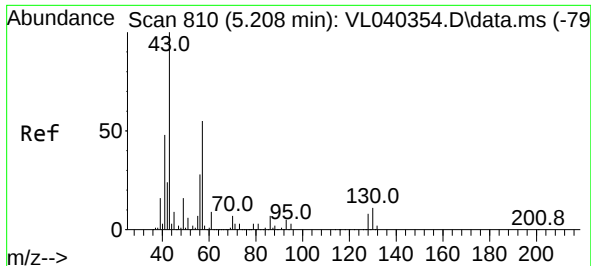
Tgt Ion: 43	Resp: 38452
Ion Ratio	Lower Upper
43 100	
86 7.7	6.0 9.0
42 74.5	6.4 9.6#
44 0.0	5.6 8.4#



#25
 Ethyl Acetate
 Concen: 1.649 ppbv
 RT: 5.201 min Scan# 808
 Delta R.T. 0.000 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

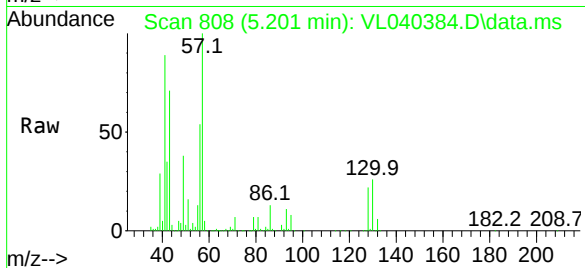
Tgt	Ion: 43	Resp:	427007
Ion	Ratio	Lower	Upper
43	100		
45	0.5	8.5	12.7#
61	0.4	8.5	12.7#
70	1.9	6.1	9.1#



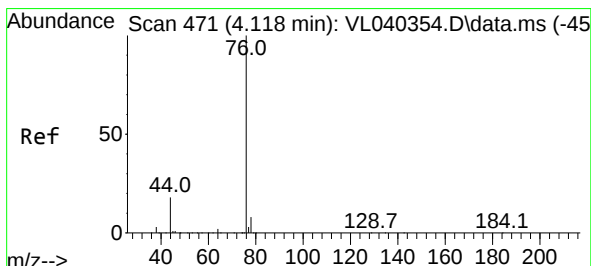
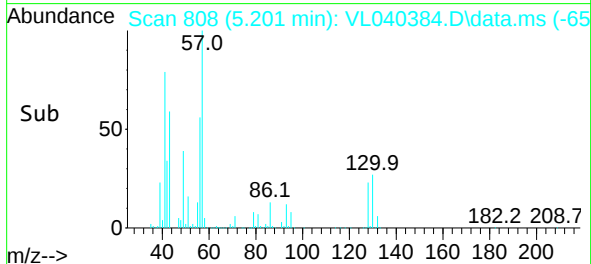
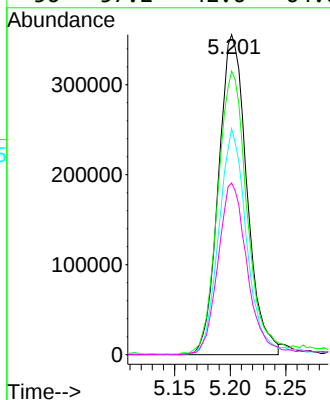


#26
Hexane
Concen: 5.759 ppbv
RT: 5.201 min Scan# 810
Delta R.T. -0.007 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

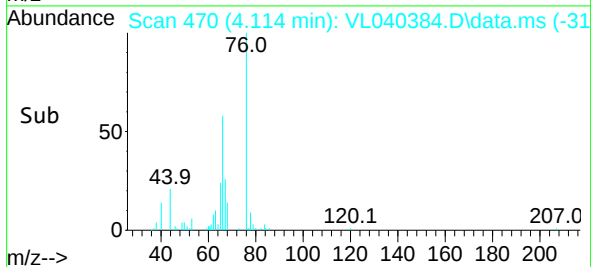
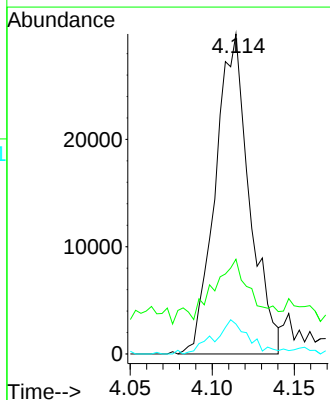
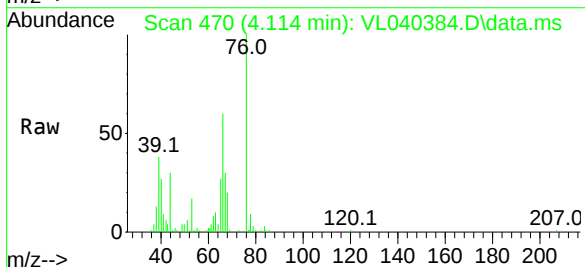


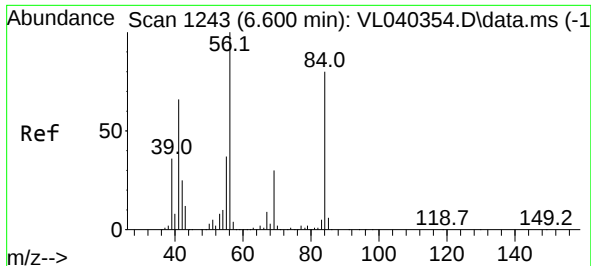
Tgt Ion: 57 Resp: 628458
Ion Ratio Lower Upper
57 100
41 95.5 74.8 112.2
43 70.7 192.7 289.1#
56 57.2 42.6 64.0



#27
Carbon Disulfide
Concen: 0.306 ppbv
RT: 4.114 min Scan# 470
Delta R.T. -0.004 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 76 Resp: 43286
Ion Ratio Lower Upper
76 100
44 29.9 14.7 22.1#
78 12.4 7.7 11.5#





#30

Cyclohexane

Concen: 0.049 ppbv

RT: 6.593 min Scan# 11

Delta R.T. -0.007 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_L

ClientSampleId :

SV-15-20230413DL

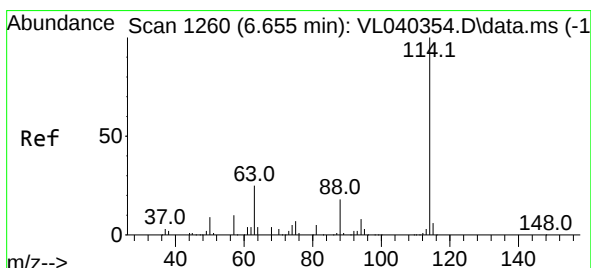
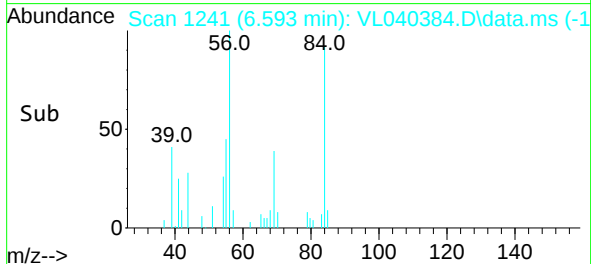
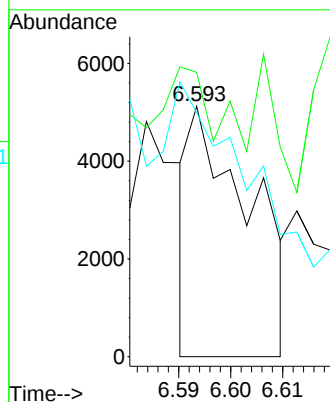
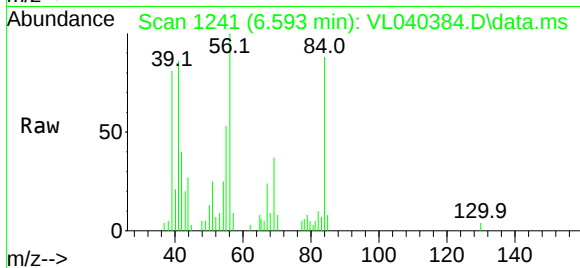
Tgt Ion: 84 Resp: 4112

Ion Ratio Lower Upper

84 100

56 318.5 107.0 160.6#

41 276.0 66.7 100.1#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.645 min Scan# 1257

Delta R.T. -0.010 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

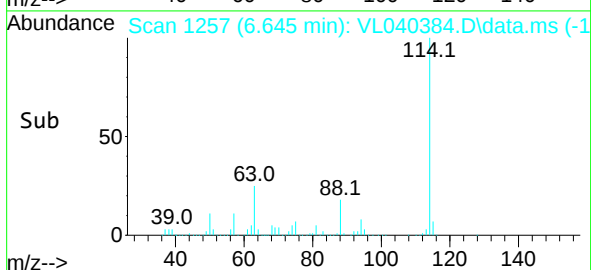
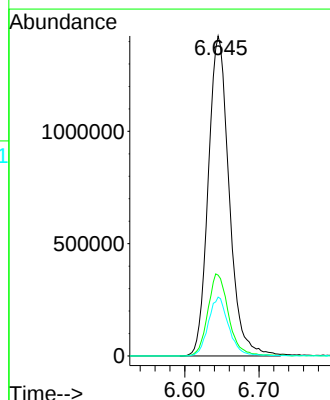
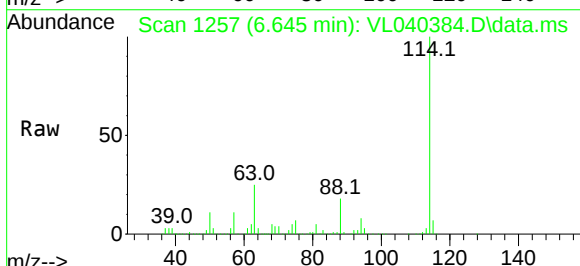
Tgt Ion: 114 Resp: 2779714

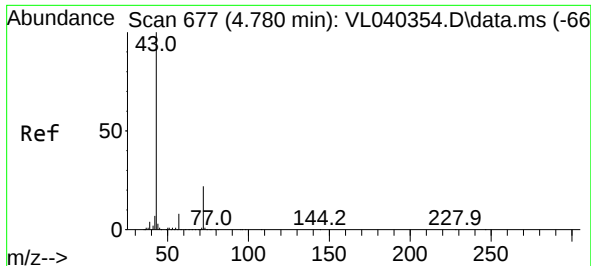
Ion Ratio Lower Upper

114 100

63 25.5 21.4 32.0

88 18.1 14.6 22.0

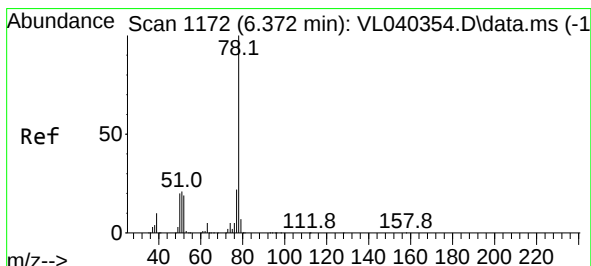
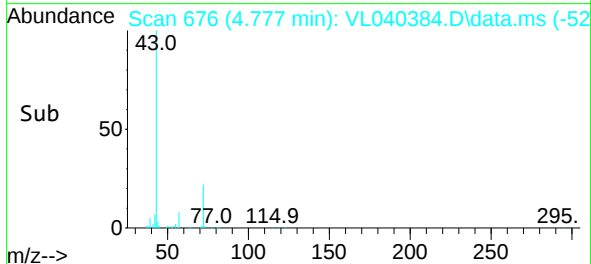
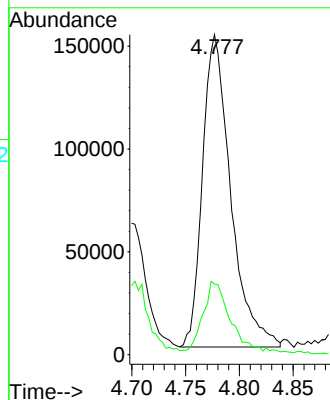
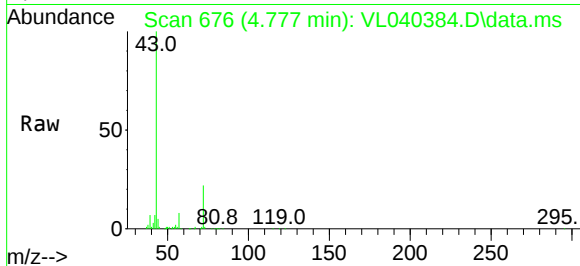




#34
2-Butanone
Concen: 1.848 ppbv
RT: 4.777 min Scan# 61
Delta R.T. -0.003 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

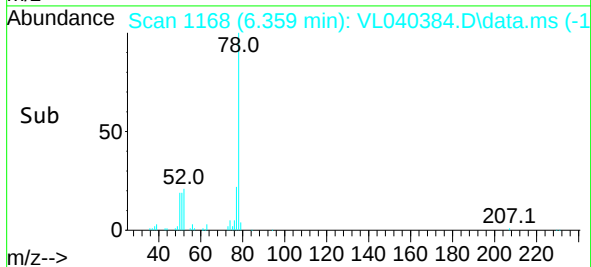
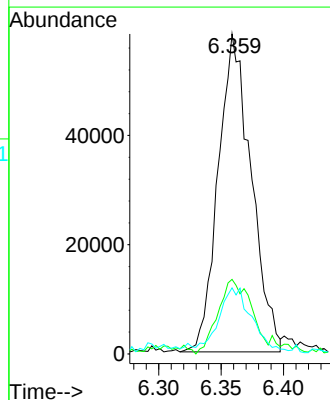
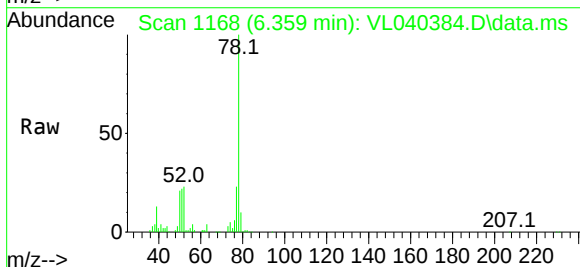
Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

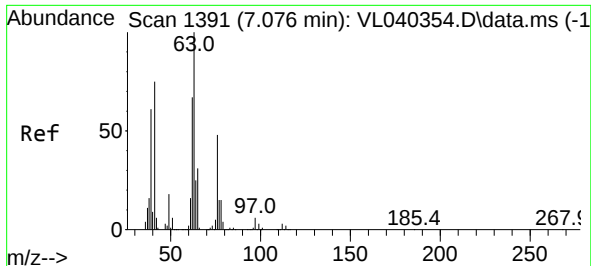
Tgt Ion: 43 Resp: 276944
Ion Ratio Lower Upper
43 100
72 24.9 18.4 27.6



#36
Benzene
Concen: 0.473 ppbv
RT: 6.359 min Scan# 1168
Delta R.T. -0.013 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 78 Resp: 107305
Ion Ratio Lower Upper
78 100
77 21.9 17.8 26.8
50 19.2 15.6 23.4





#39

1,2-Dichloropropane

Concen: 7.852 ppbv

RT: 6.642 min Scan# 1

Delta R.T. -0.434 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_L

ClientSampleId :

SV-15-20230413DL

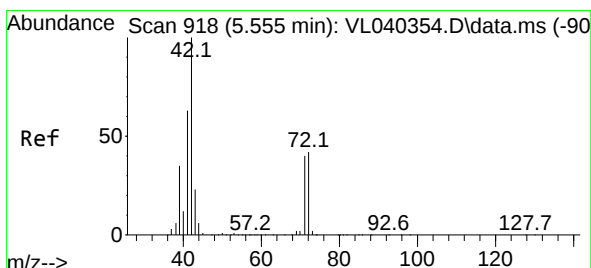
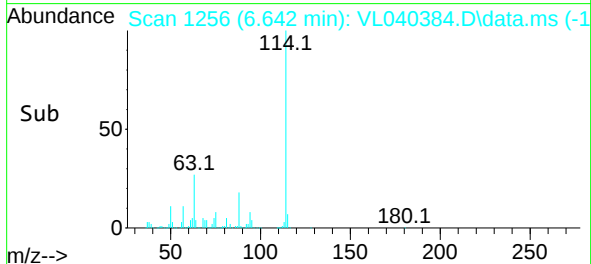
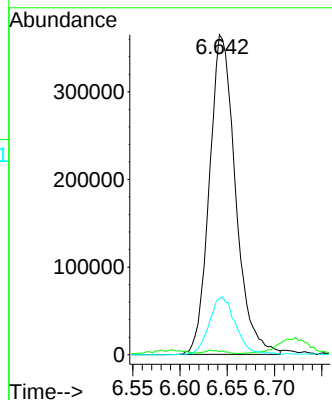
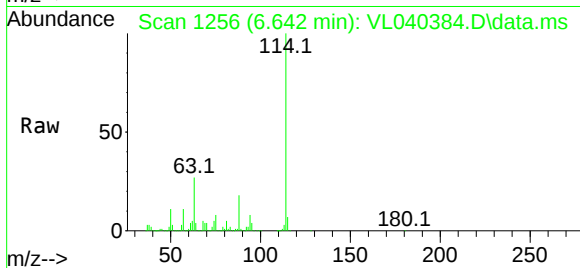
Tgt Ion: 63 Resp: 700697

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 17.4 53.9 80.9#



#41

Tetrahydrofuran

Concen: 0.073 ppbv

RT: 5.484 min Scan# 896

Delta R.T. -0.071 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

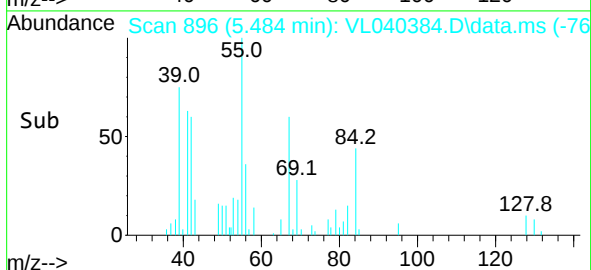
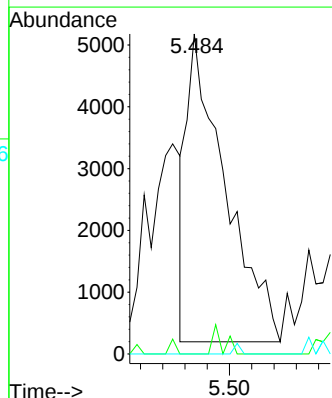
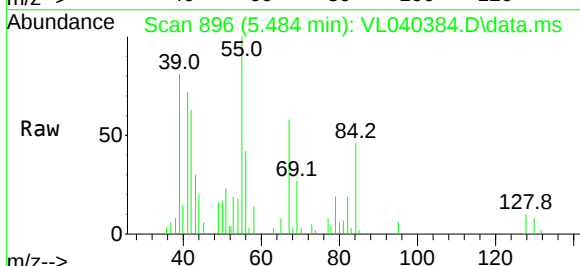
Tgt Ion: 42 Resp: 5985

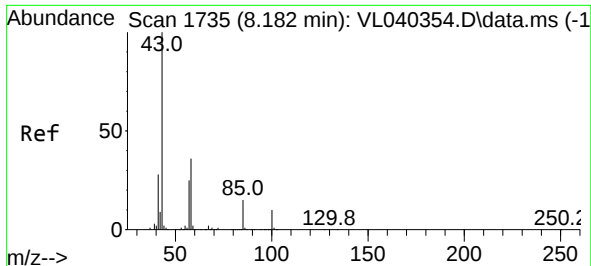
Ion Ratio Lower Upper

42 100

72 2.5 33.7 50.5#

71 0.0 32.2 48.2#





#50

4-Methyl-2-Pentanone

Concen: 0.158 ppbv

RT: 8.188 min Scan# 1

Delta R.T. 0.006 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

Instrument :

MSVOA_L

ClientSampleId :

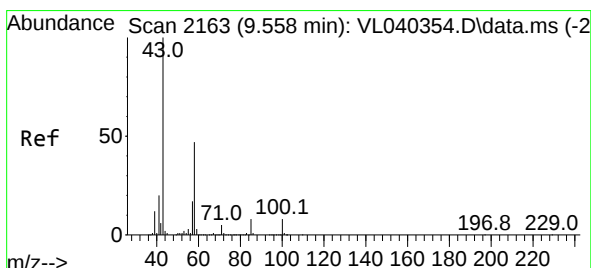
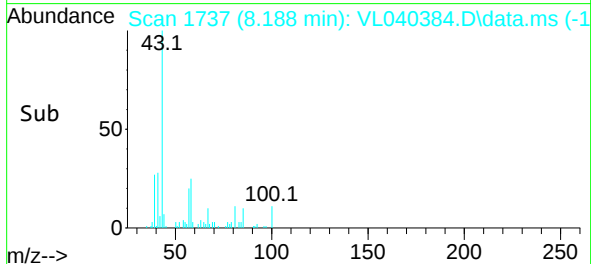
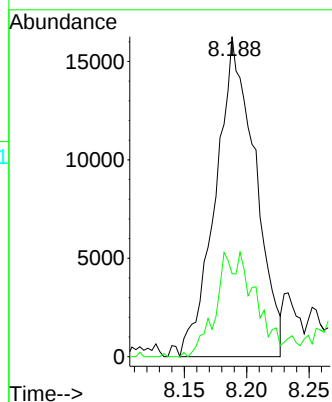
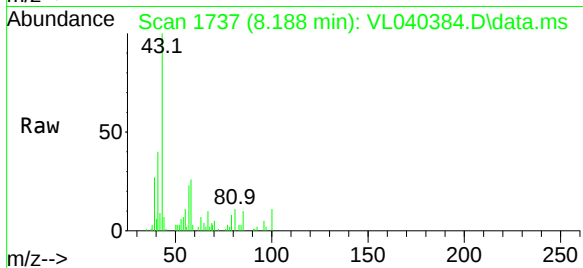
SV-15-20230413DL

Tgt Ion: 43 Resp: 35947

Ion Ratio Lower Upper

43 100

58 33.7 28.6 43.0



#51

2-Hexanone

Concen: 0.157 ppbv

RT: 9.561 min Scan# 2164

Delta R.T. 0.003 min

Lab File: VL040384.D

Acq: 19 Apr 2023 17:54

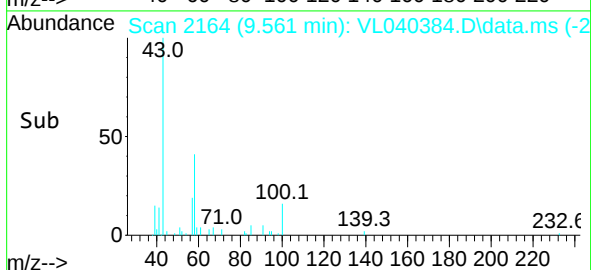
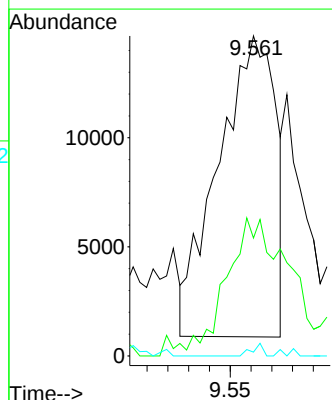
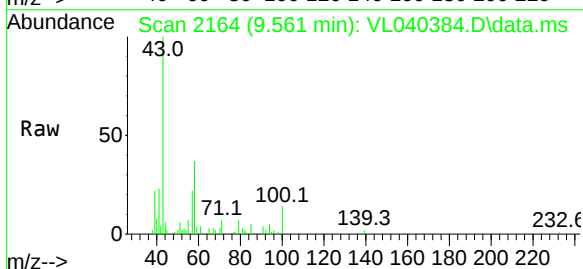
Tgt Ion: 43 Resp: 26420

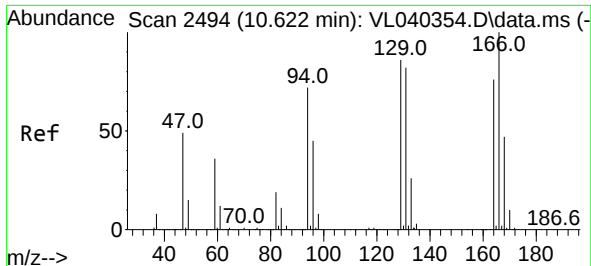
Ion Ratio Lower Upper

43 100

58 57.1 38.3 57.5

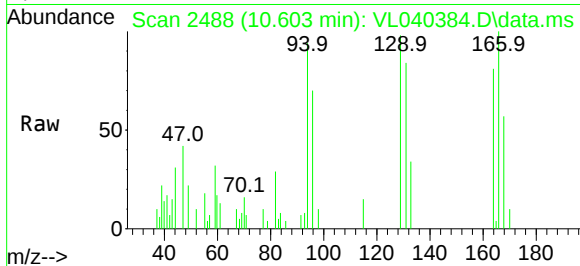
98 1.2 0.4 0.6#



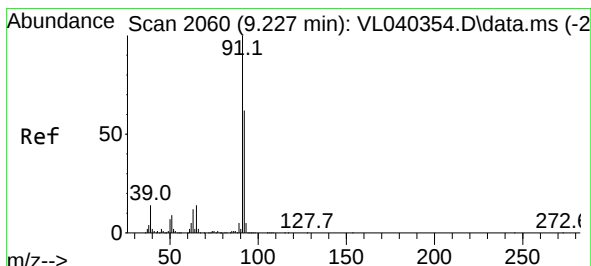
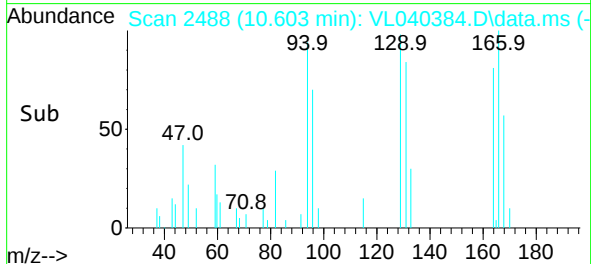
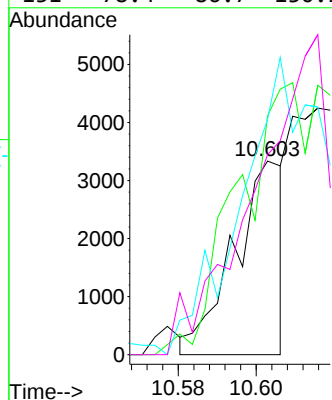


#52
Tetrachloroethene
Concen: 0.041 ppbv
RT: 10.603 min Scan# 2494
Delta R.T. -0.019 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

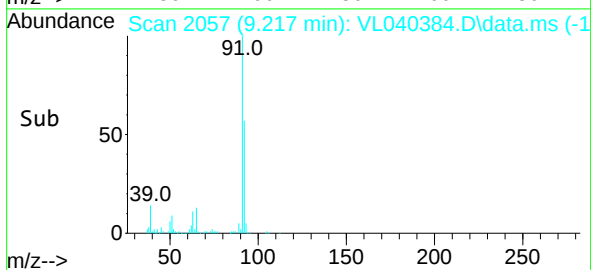
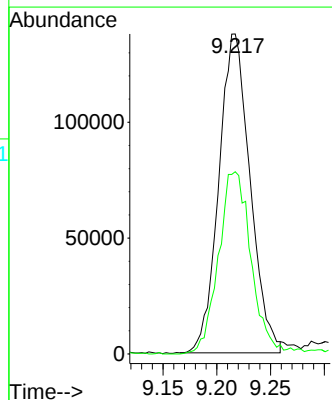
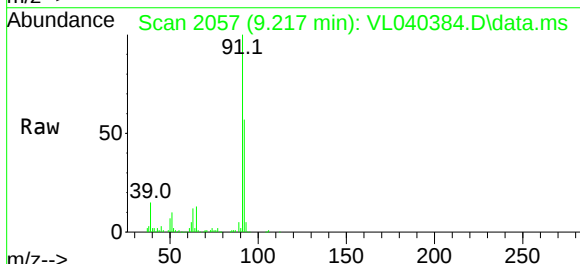


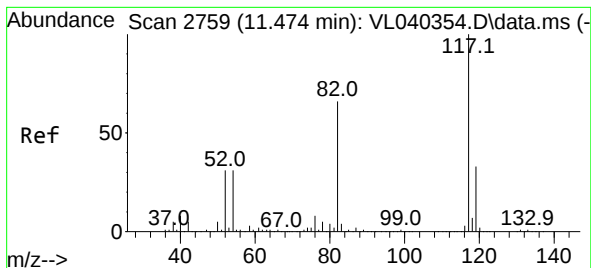
Tgt Ion:164 Resp: 2907
Ion Ratio Lower Upper
164 100
166 123.8 105.2 157.8
129 113.8 90.3 135.5
131 78.4 86.7 130.1#



#53
Toluene
Concen: 1.159 ppbv
RT: 9.217 min Scan# 2057
Delta R.T. -0.010 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

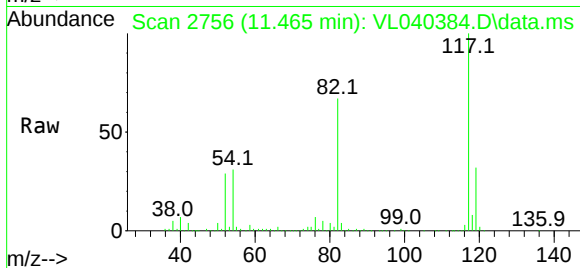
Tgt Ion: 91 Resp: 278618
Ion Ratio Lower Upper
91 100
92 59.9 48.9 73.3



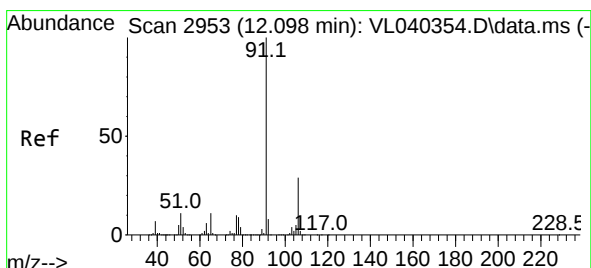
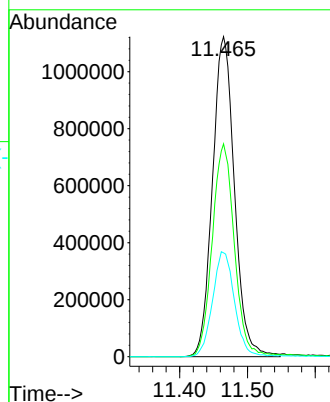
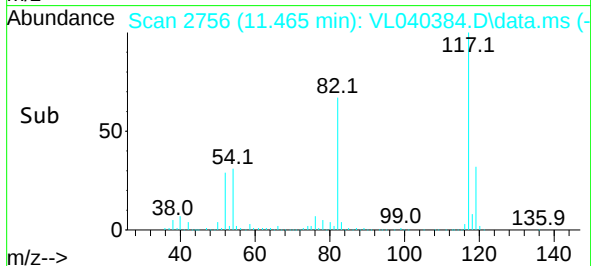


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.465 min Scan# 21
Delta R.T. -0.009 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

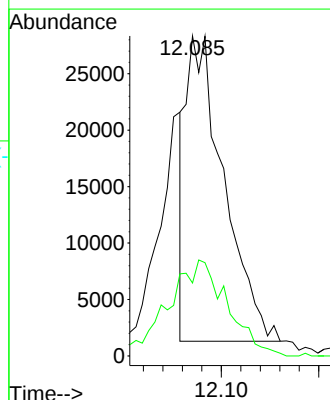
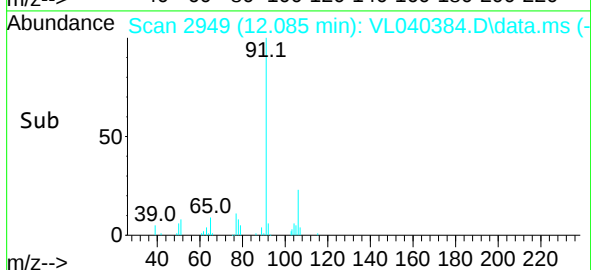
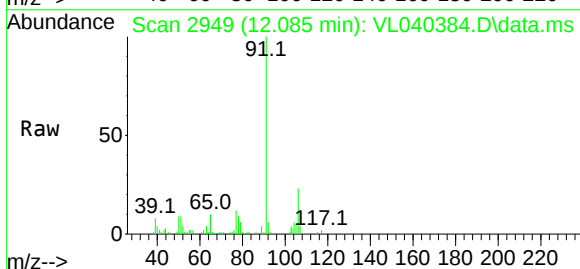


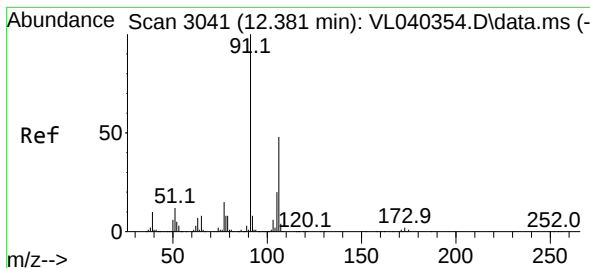
Tgt Ion:117 Resp: 2530835
Ion Ratio Lower Upper
117 100
82 67.8 52.5 78.7
119 33.1 24.3 36.5



#58
Ethyl Benzene
Concen: 0.117 ppbv
RT: 12.085 min Scan# 2949
Delta R.T. -0.013 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 91 Resp: 36297
Ion Ratio Lower Upper
91 100
106 23.0 23.5 35.3#

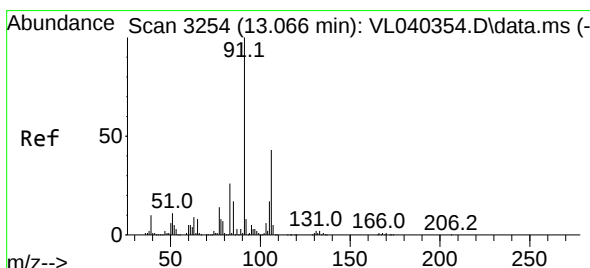
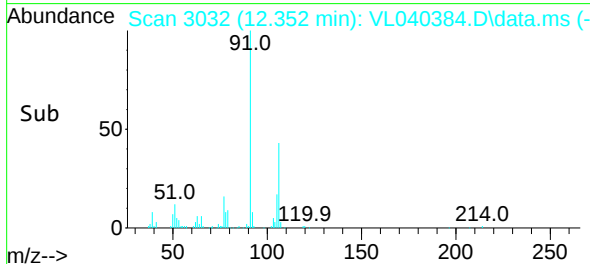
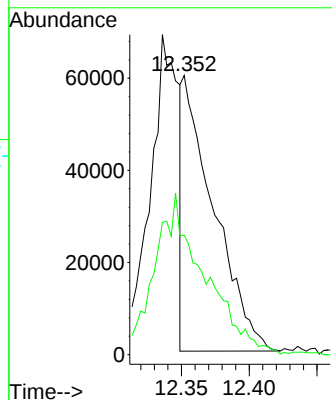
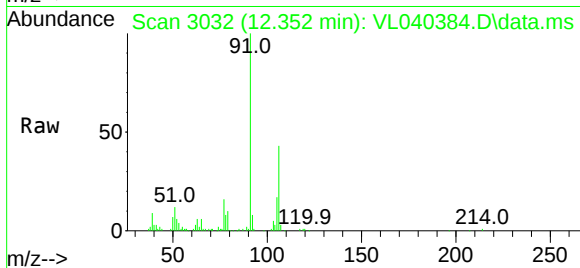




#59
m/p-Xylene
Concen: 0.332 ppbv
RT: 12.352 min Scan# 3041
Delta R.T. -0.029 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

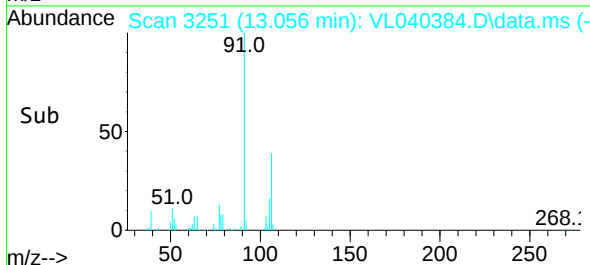
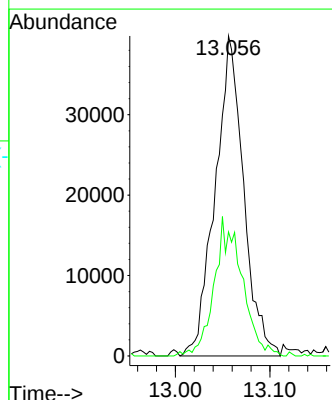
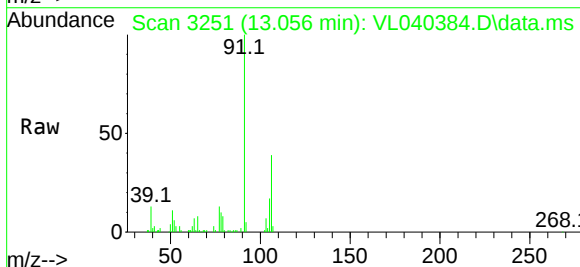
Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

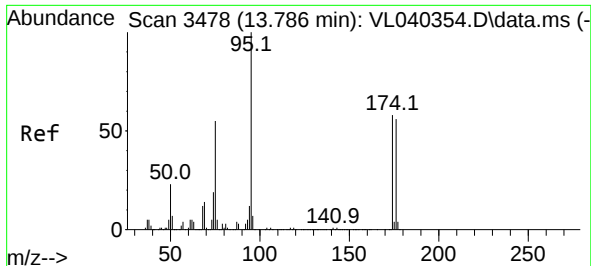
Tgt Ion: 91 Resp: 95145
Ion Ratio Lower Upper
91 100
106 95.6 34.7 52.1#



#60
o-Xylene
Concen: 0.302 ppbv
RT: 13.056 min Scan# 3251
Delta R.T. -0.010 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

Tgt Ion: 91 Resp: 83086
Ion Ratio Lower Upper
91 100
106 42.9 21.9 65.8

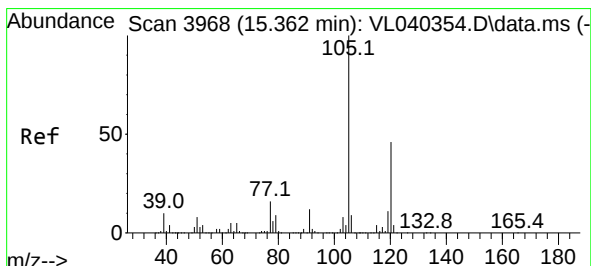
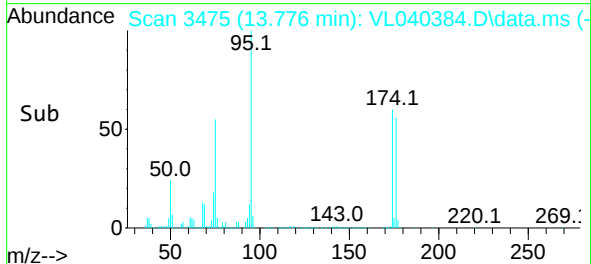
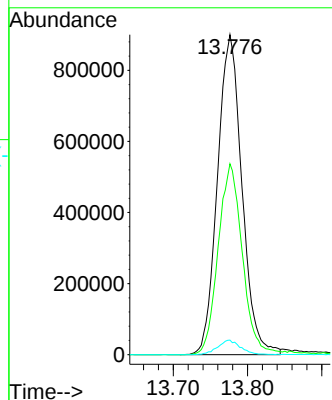
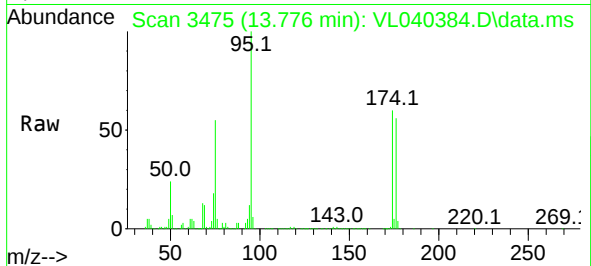




#68
1-Bromo-4-Fluorobenzene
Concen: 9.877 ppbv
RT: 13.776 min Scan# 3478
Delta R.T. -0.010 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

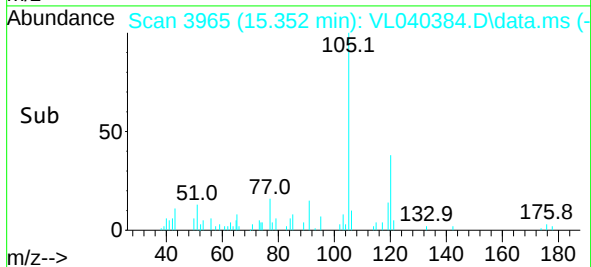
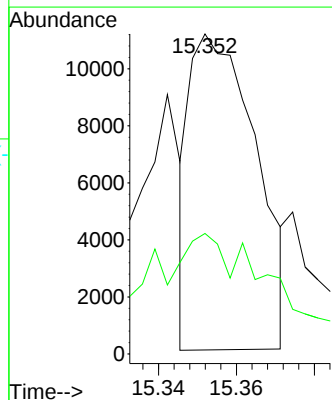
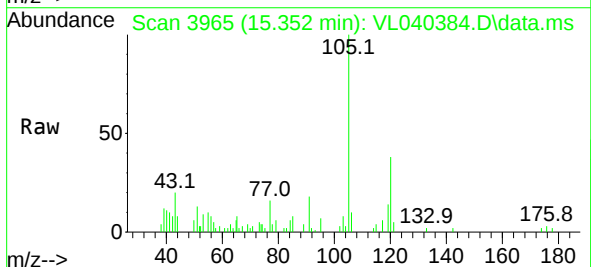
Instrument :
MSVOA_L
ClientSampleId :
SV-15-20230413DL

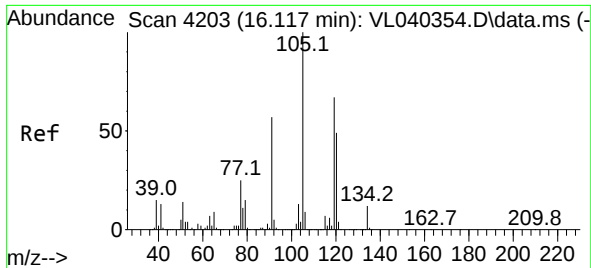
Tgt Ion: 95 Resp: 2067043
Ion Ratio Lower Upper
95 100
174 59.5 47.2 70.8
175 4.3 3.5 5.3



#73
1,3,5-Trimethylbenzene
Concen: 0.047 ppbv
RT: 15.352 min Scan# 3965
Delta R.T. -0.010 min
Lab File: VL040384.D
Acq: 19 Apr 2023 17:54

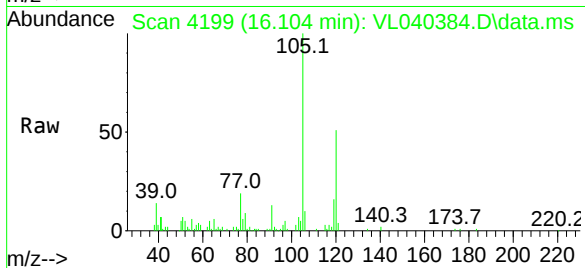
Tgt Ion: 105 Resp: 13057
Ion Ratio Lower Upper
105 100
120 23.2 36.9 55.3#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.175 ppbv
 RT: 16.104 min Scan# 41
 Delta R.T. -0.013 min
 Lab File: VL040384.D
 Acq: 19 Apr 2023 17:54

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-15-20230413DL



Tgt Ion:	105	Resp:	56080
Ion	Ratio	Lower	Upper
105	100		
120	51.0	38.9	58.3
91	11.7	46.0	69.0#
77	18.3	20.0	30.0#

