

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL122123\
 Data File : VL040939.D
 Acq On : 21 Dec 2023 21:04
 Operator : SY/MD
 Sample : 05848-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 22 00:11:36 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL122023AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Dec 21 07:32:42 2023
 Response via : Initial Calibration

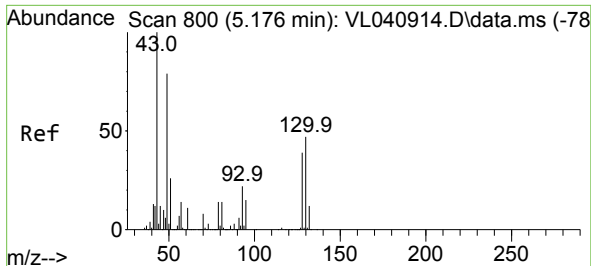
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.188	49	1304434	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.639	114	3472391	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.442	117	3010406	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.748	95	2260692	10.195	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.758	85	46270	0.186	ppbv #	74
3) Chlorodifluoromethane	2.681	51	56163	0.286	ppbv #	67
9) Propene	2.722	41	11226	0.173	ppbv #	21
10) Heptane	7.561	43	104554	0.649	ppbv	98
11) Trichlorofluoromethane	3.581	101	12412	0.064	ppbv	96
13) Ethanol	3.263	45	57853	3.541	ppbv	92
15) Acetone	3.481	43	1611410	10.300	ppbv	92
16) 1,3-Butadiene	2.989	39	40525	0.602	ppbv #	21
17) tert-Butyl alcohol	3.893	59	3973	0.034	ppbv #	72
19) Isopropyl Alcohol	3.594	45	3438	0.042	ppbv #	95
20) Methylene Chloride	3.941	84	50416	0.904	ppbv	95
22) trans-1,2-Dichloroethene	4.446	96	7622	0.107	ppbv	87
23) Vinyl Acetate	4.629	43	153811	0.891	ppbv #	94
25) Ethyl Acetate	5.211	43	675087	2.490	ppbv #	79
26) Hexane	5.211	57	936754	7.797	ppbv #	34
28) Methyl tert-Butyl Ether	4.590	73	18548	0.166	ppbv #	53
29) Chloroform	5.266	83	76278	0.376	ppbv	89
30) Cyclohexane	6.587	84	6398	0.064	ppbv #	10
31) cis-1,2-Dichloroethene	5.076	61	191442	1.551	ppbv	99
34) 2-Butanone	4.787	43	1405790	7.653	ppbv	100
36) Benzene	6.356	78	35061	0.129	ppbv	98
38) Trichloroethene	7.275	130	2704799	26.530	ppbv	97
39) 1,2-Dichloropropane	6.639	63	836455	7.841	ppbv #	24
41) Tetrahydrofuran	5.806	42	6206	0.056	ppbv #	41
44) 2,2,4-Trimethylpentane	7.311	57	154642	0.335	ppbv #	1
51) 2-Hexanone	9.536	43	479060	2.392	ppbv	93
52) Tetrachloroethene	10.638	164	28650708	313.324	ppbv	88
53) Toluene	9.198	91	183674	0.610	ppbv	98
58) Ethyl Benzene	12.063	91	38558	0.100	ppbv	90
59) m/p-Xylene	12.330	91	66788	0.203	ppbv #	100
60) o-Xylene	13.031	91	66431	0.214	ppbv	99
73) 1,3,5-Trimethylbenzene	15.320	105	11166	0.038	ppbv	89
74) 1,2,4-Trimethylbenzene	16.072	105	89510	0.274	ppbv #	69

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

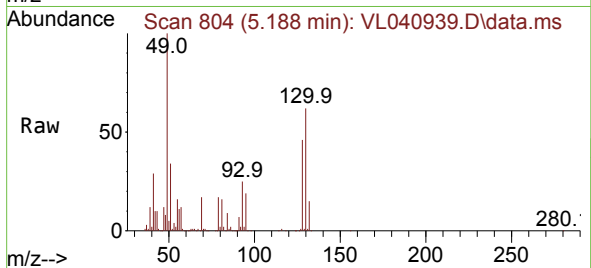
Quant Time: Dec 22 00:11:36 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL122023AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Thu Dec 21 07:32:42 2023
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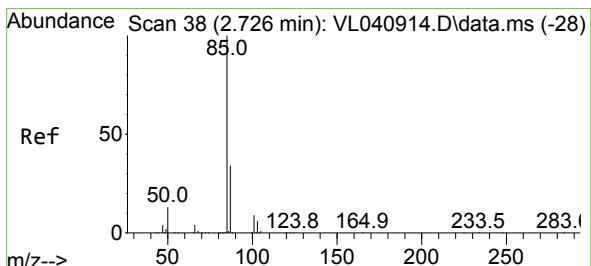
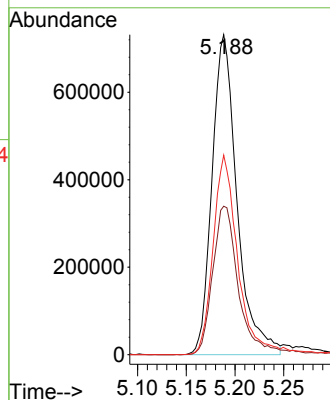
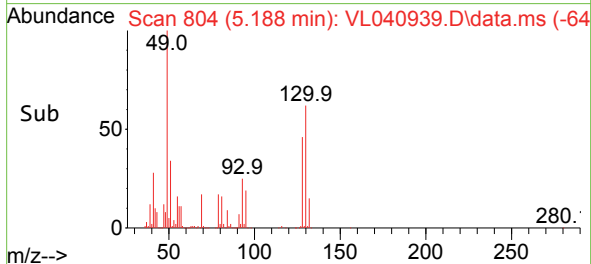


#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.188 min Scan# 80
Delta R.T. 0.012 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Instrument :
MSVOA_L
ClientSampleId :

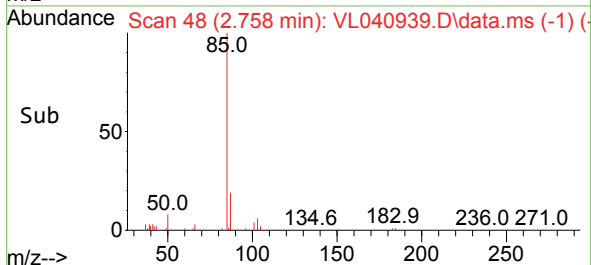
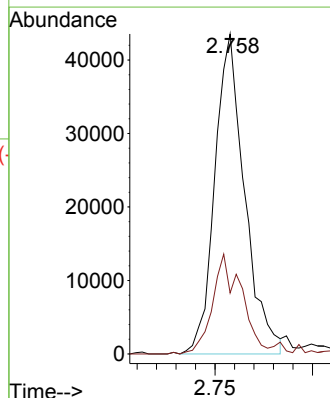
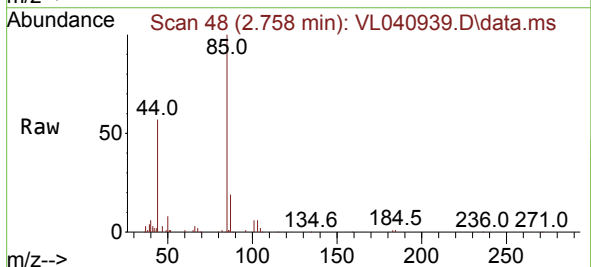


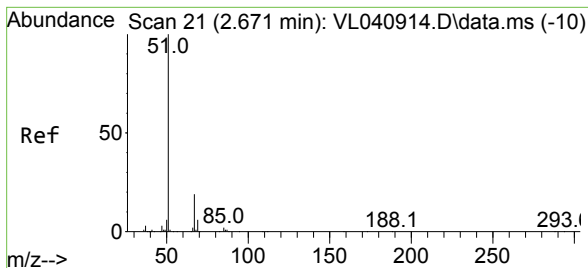
Tgt Ion: 49 Resp: 1304434
Ion Ratio Lower Upper
49 100
128 49.0 23.8 71.2
130 62.7 30.1 90.5



#2
Dichlorodifluoromethane
Concen: 0.186 ppbv
RT: 2.758 min Scan# 48
Delta R.T. 0.032 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 85 Resp: 46270
Ion Ratio Lower Upper
85 100
87 19.1 27.0 40.6#

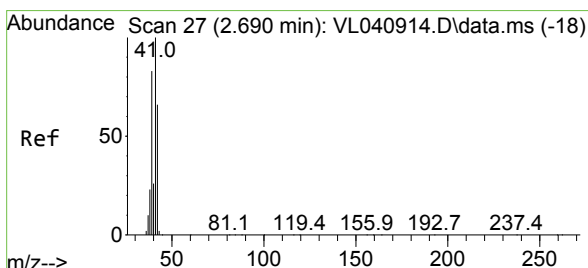
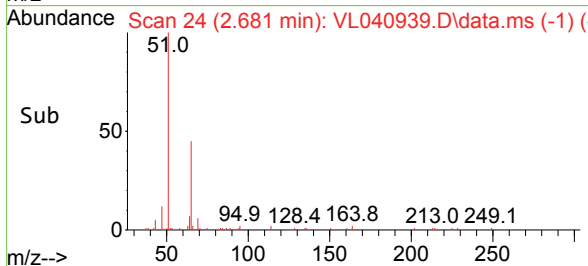
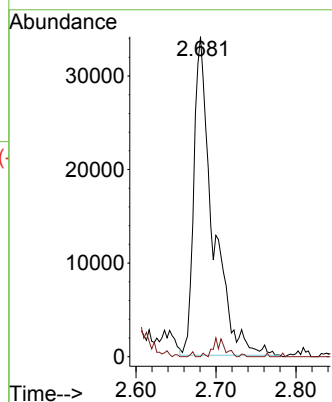
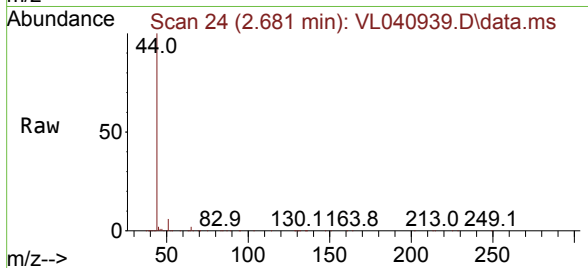




#3
Chlorodifluoromethane
Concen: 0.286 ppbv
RT: 2.681 min Scan# 24
Delta R.T. 0.010 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

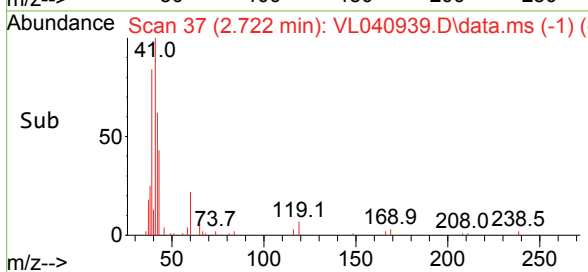
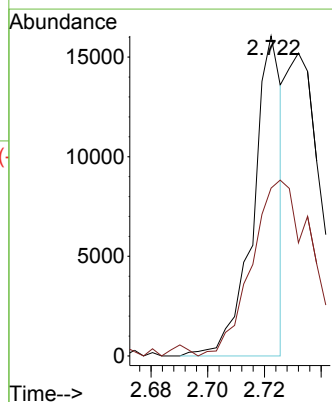
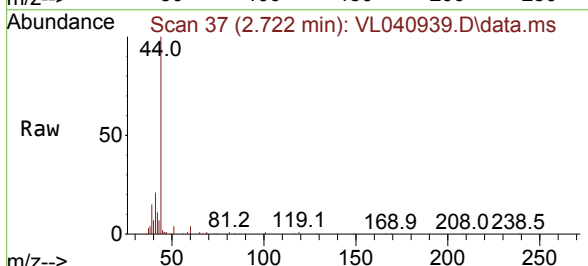
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MSVOA_L
ClientSampleId :

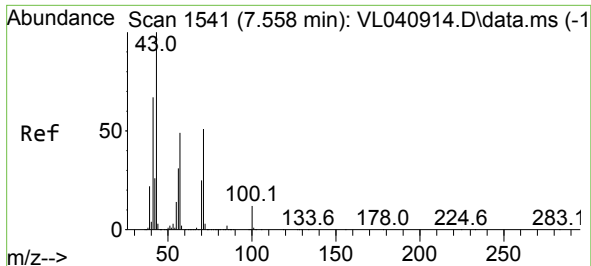
Tgt Ion: 51 Resp: 56163
Ion Ratio Lower Upper
51 100
67 3.9 14.7 22.1#



#9
Propene
Concen: 0.173 ppbv
RT: 2.722 min Scan# 37
Delta R.T. 0.032 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 41 Resp: 11226
Ion Ratio Lower Upper
41 100
42 134.7 55.8 83.6#

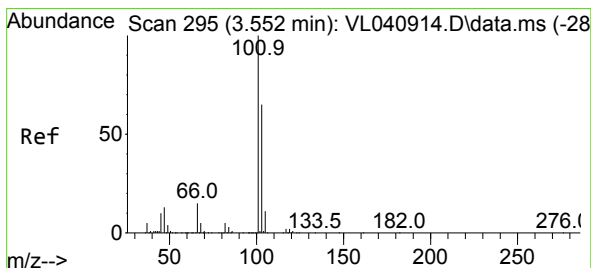
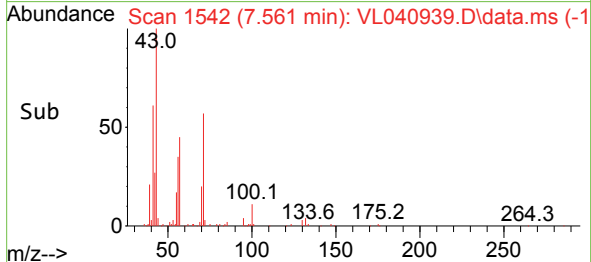
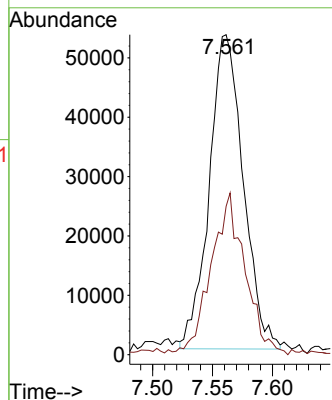
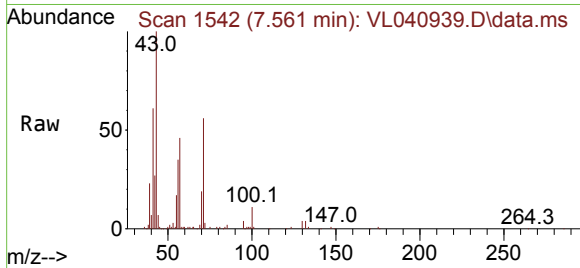




#10
Heptane
Concen: 0.649 ppbv
RT: 7.561 min Scan# 11
Delta R.T. 0.003 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

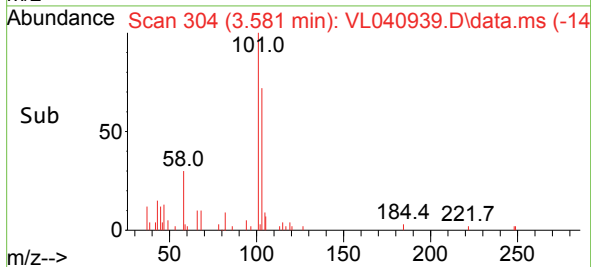
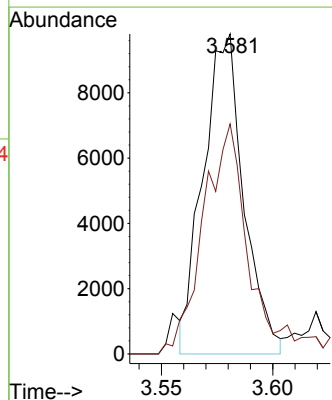
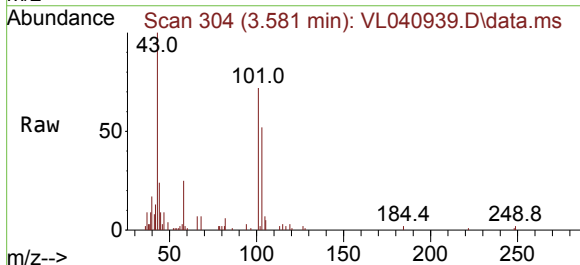
Instrument :
MSVOA_L
ClientSampleId :

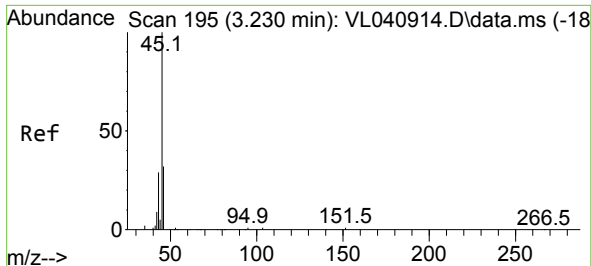
Tgt Ion: 43 Resp: 104554
Ion Ratio Lower Upper
43 100
57 50.7 39.3 58.9



#11
Trichlorofluoromethane
Concen: 0.064 ppbv
RT: 3.581 min Scan# 304
Delta R.T. 0.029 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 101 Resp: 12412
Ion Ratio Lower Upper
101 100
103 67.9 51.9 77.9

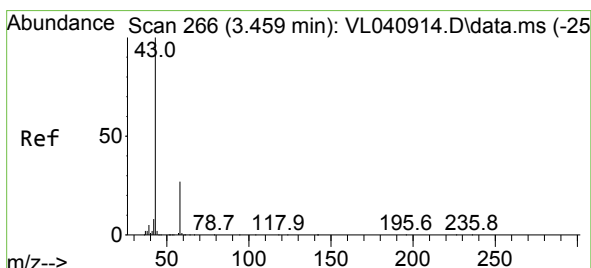
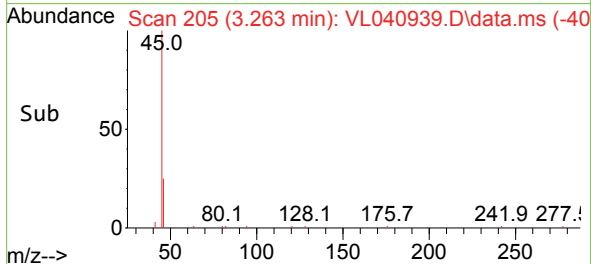
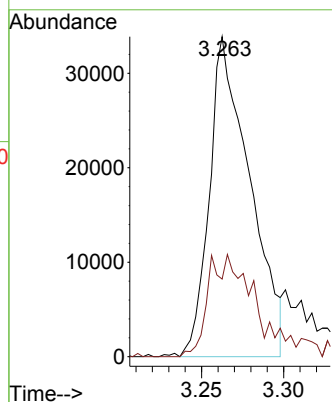
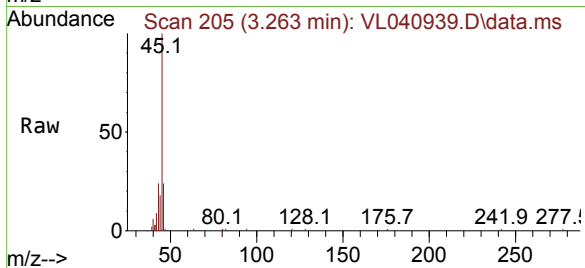




#13
Ethanol
Concen: 3.541 ppbv
RT: 3.263 min Scan# 205
Delta R.T. 0.032 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

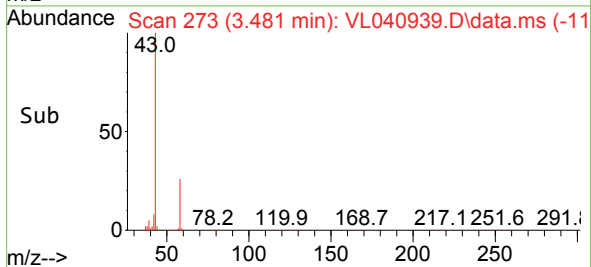
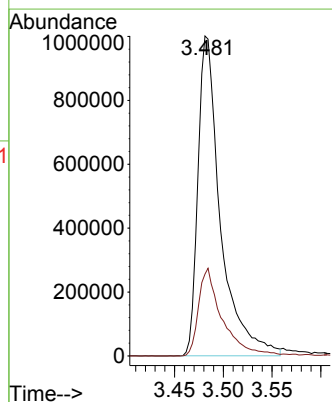
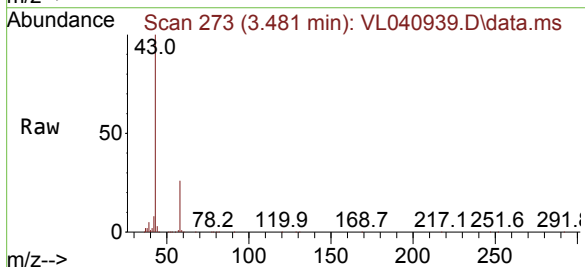
Instrument :
MSVOA_L
ClientSampleId :

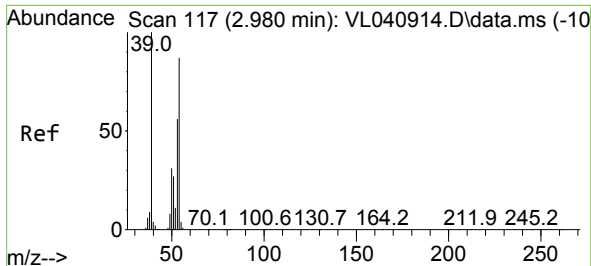
Tgt Ion: 45 Resp: 57853
Ion Ratio Lower Upper
45 100
46 42.3 15.0 60.0



#15
Acetone
Concen: 10.300 ppbv
RT: 3.481 min Scan# 273
Delta R.T. 0.022 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 43 Resp: 1611410
Ion Ratio Lower Upper
43 100
58 29.5 20.6 30.8

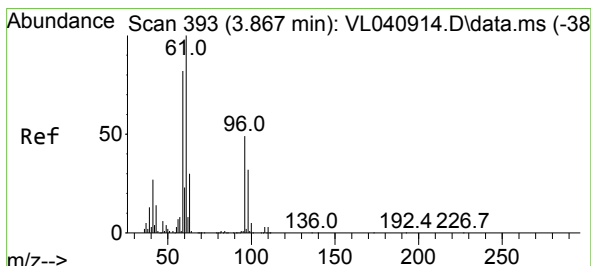
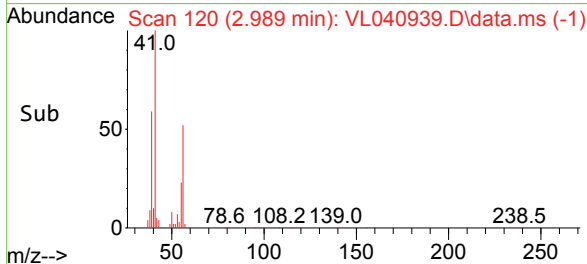
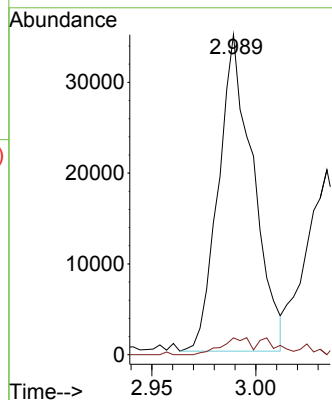
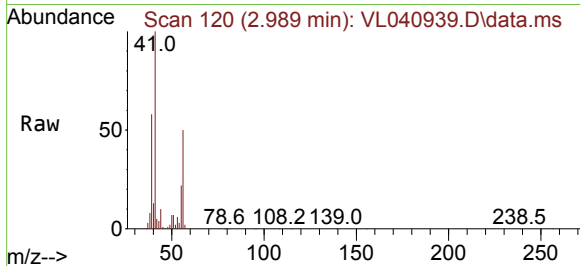




#16
1,3-Butadiene
Concen: 0.602 ppbv
RT: 2.989 min Scan# 117
Delta R.T. 0.010 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

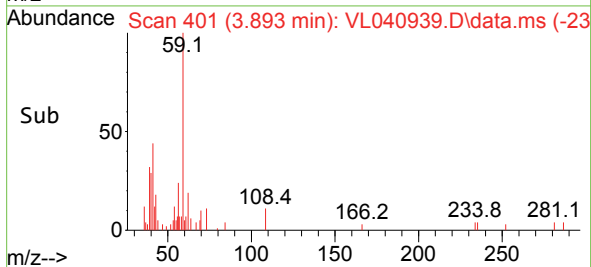
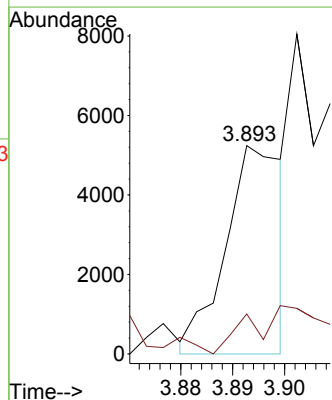
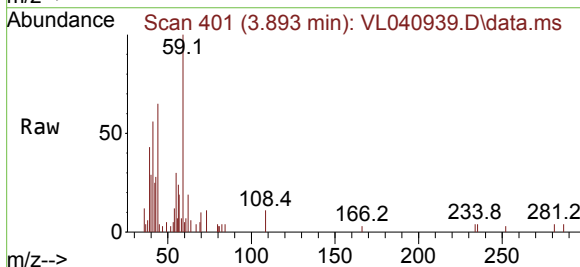
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MSVOA_L
ClientSampleId :

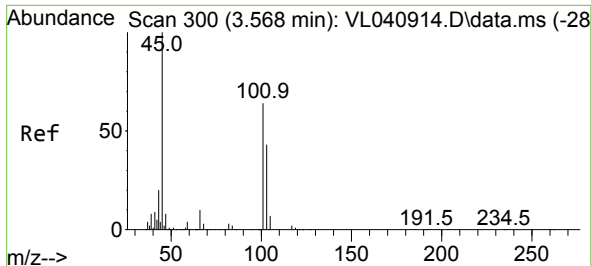
Tgt Ion: 39 Resp: 40525
Ion Ratio Lower Upper
39 100
54 10.0 63.8 95.6#



#17
tert-Butyl alcohol
Concen: 0.034 ppbv
RT: 3.893 min Scan# 401
Delta R.T. 0.026 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 59 Resp: 3973
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#

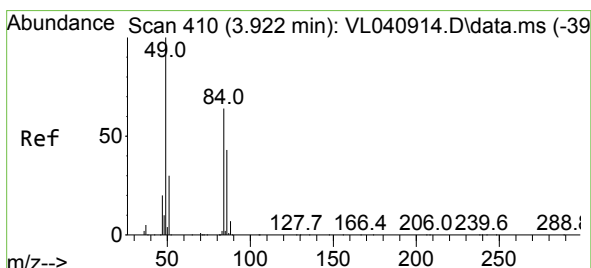
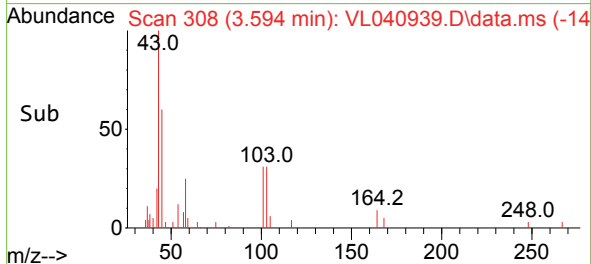
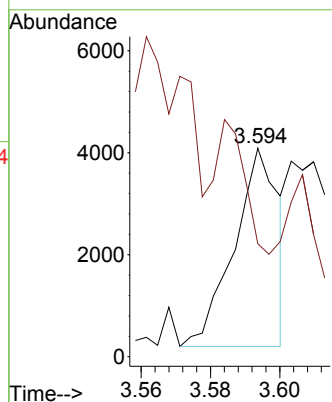
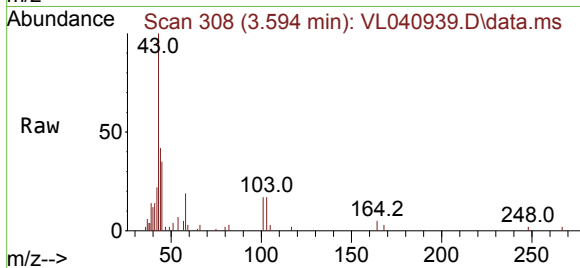




#19
Isopropyl Alcohol
Concen: 0.042 ppbv
RT: 3.594 min Scan# 308
Delta R.T. 0.026 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

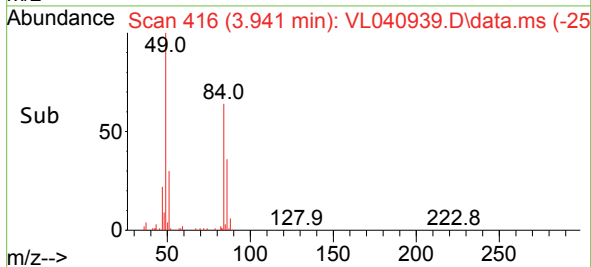
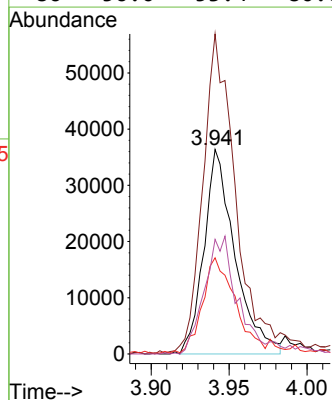
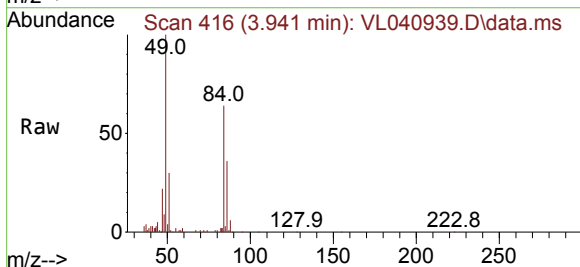
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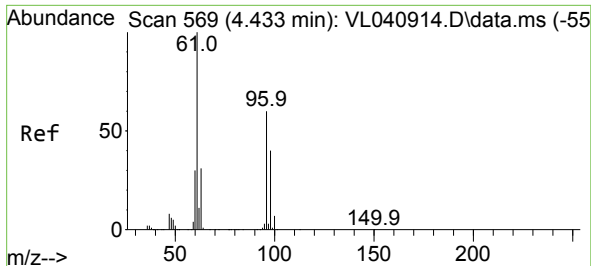
Tgt Ion: 45 Resp: 3438
Ion Ratio Lower Upper
45 100
58 0.0 1.5 2.3#



#20
Methylene Chloride
Concen: 0.904 ppbv
RT: 3.941 min Scan# 416
Delta R.T. 0.019 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

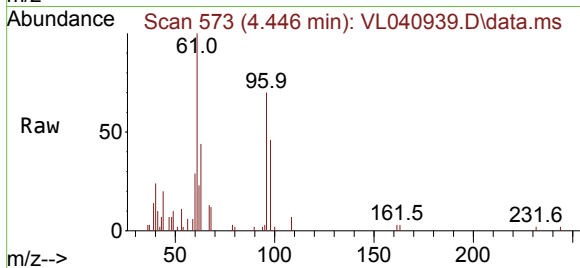
Tgt Ion: 84 Resp: 50416
Ion Ratio Lower Upper
84 100
49 152.4 124.6 187.0
51 46.4 37.2 55.8
86 56.0 53.4 80.0





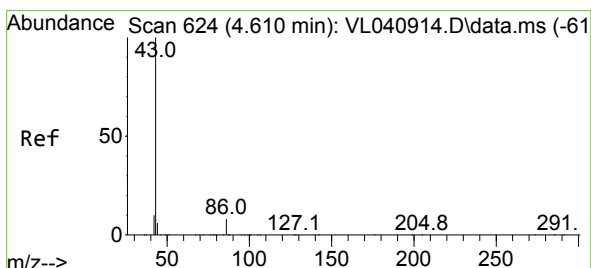
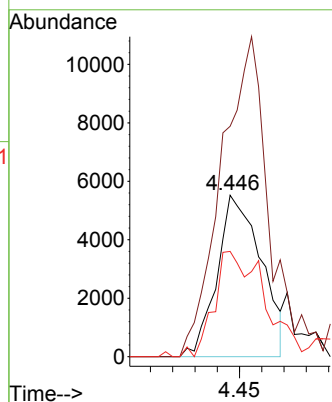
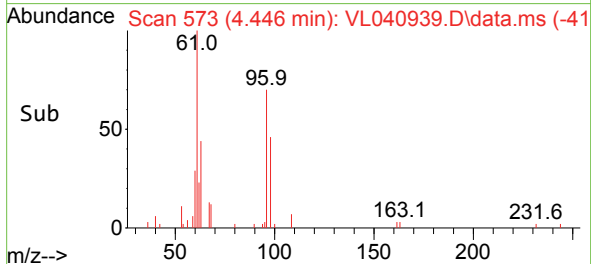
#22
trans-1,2-Dichloroethene
Concen: 0.107 ppbv
RT: 4.446 min Scan# 51
Delta R.T. 0.013 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Instrument :
MSVOA_L
ClientSampleId :

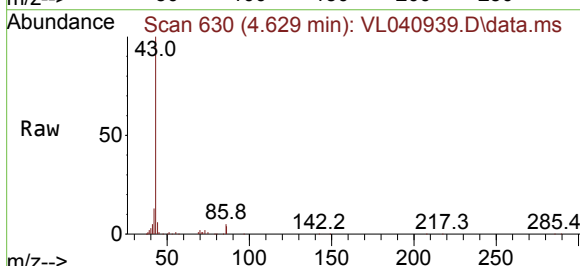


Tgt Ion: 96 Resp: 7622

Ion	Ratio	Lower	Upper
96	100		
61	142.7	133.0	199.6
98	65.2	53.7	80.5

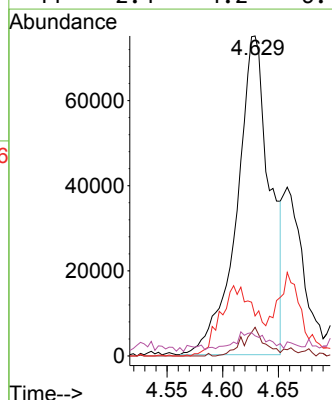
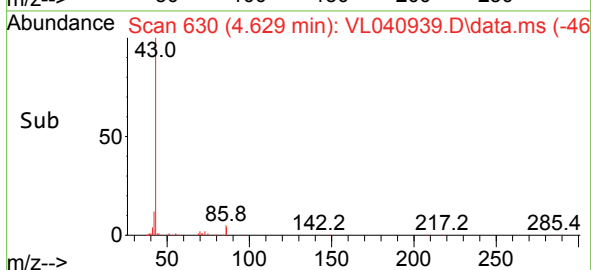


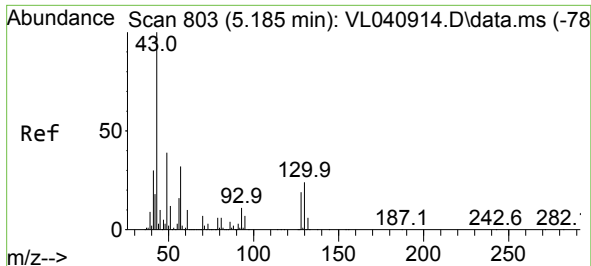
#23
Vinyl Acetate
Concen: 0.891 ppbv
RT: 4.629 min Scan# 630
Delta R.T. 0.019 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04



Tgt Ion: 43 Resp: 153811

Ion	Ratio	Lower	Upper
43	100		
86	9.0	5.5	8.3#
42	12.6	8.4	12.6
44	2.4	4.2	6.4#

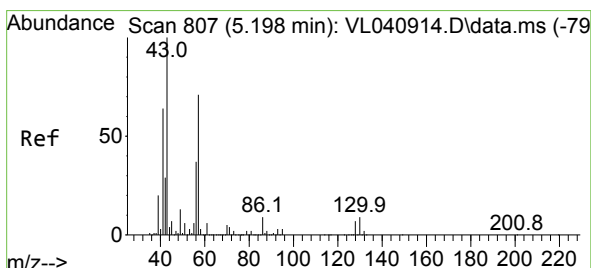
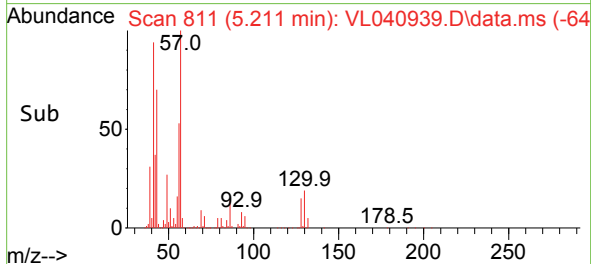
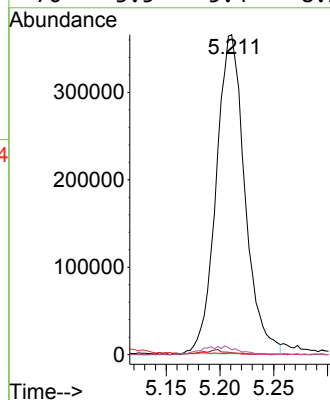
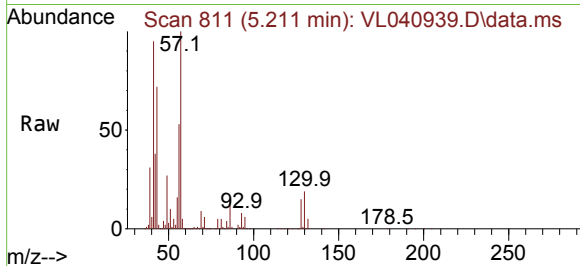




#25
Ethyl Acetate
Concen: 2.490 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.026 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

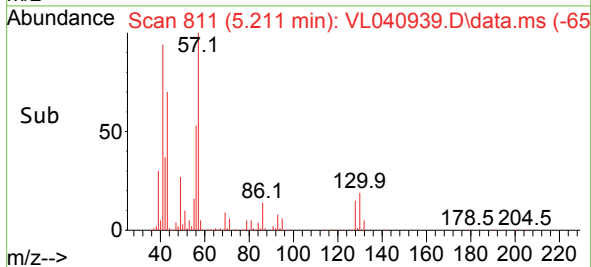
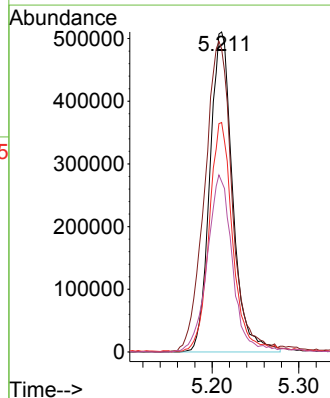
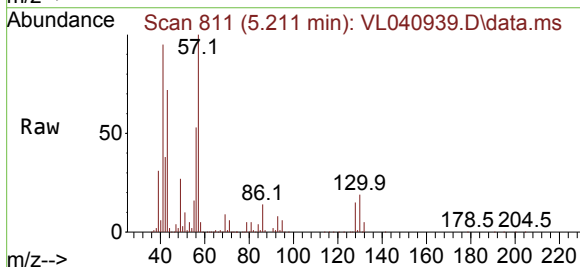
Instrument :
MSVOA_L
ClientSampleId :

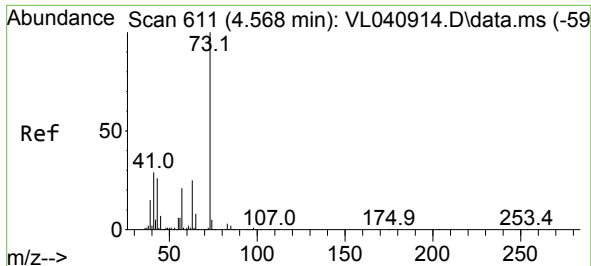
Tgt Ion: 43 Resp: 675087
Ion Ratio Lower Upper
43 100
45 1.7 8.2 12.2#
61 0.0 7.6 11.4#
70 3.5 5.4 8.2#



#26
Hexane
Concen: 7.797 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.013 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 57 Resp: 936754
Ion Ratio Lower Upper
57 100
41 118.5 75.2 112.8#
43 75.6 188.0 282.0#
56 61.8 42.3 63.5

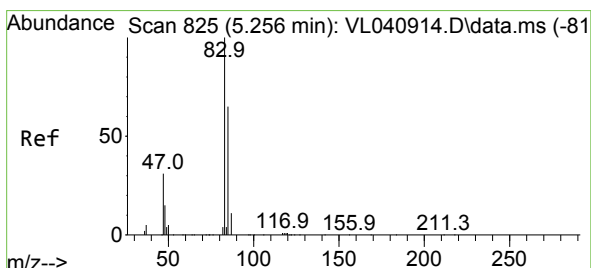
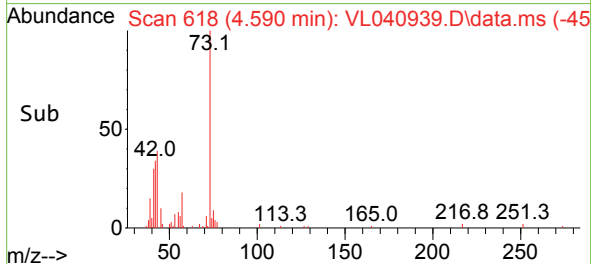
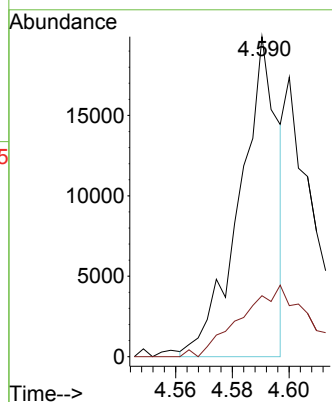
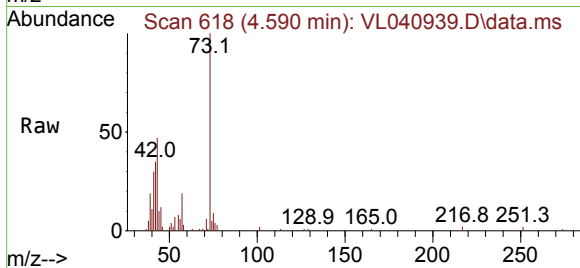




#28
Methyl tert-Butyl Ether
Concen: 0.166 ppbv
RT: 4.590 min Scan# 611
Delta R.T. 0.022 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

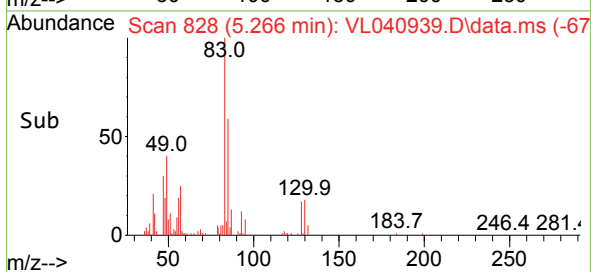
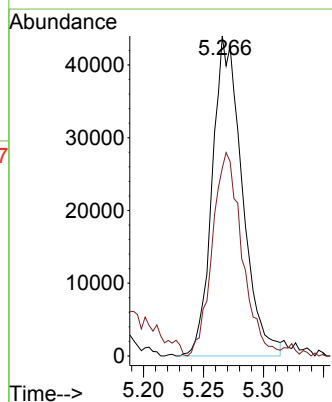
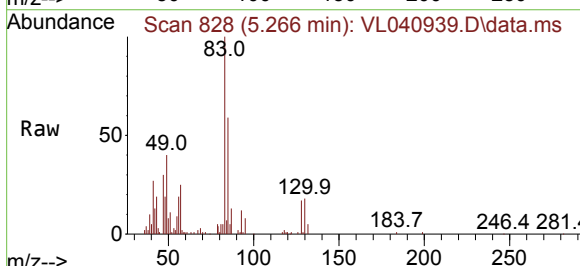
Instrument :
MSVOA_L
ClientSampleId :

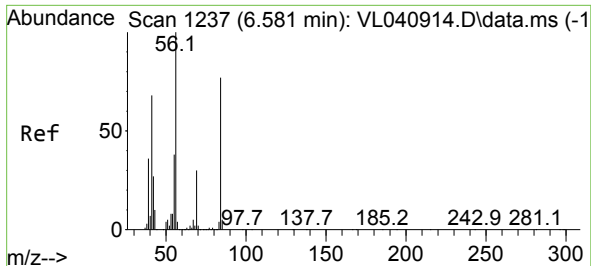
Tgt Ion: 73 Resp: 18548
Ion Ratio Lower Upper
73 100
57 0.0 18.0 27.0#



#29
Chloroform
Concen: 0.376 ppbv
RT: 5.266 min Scan# 828
Delta R.T. 0.010 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 83 Resp: 76278
Ion Ratio Lower Upper
83 100
85 56.9 52.3 78.5

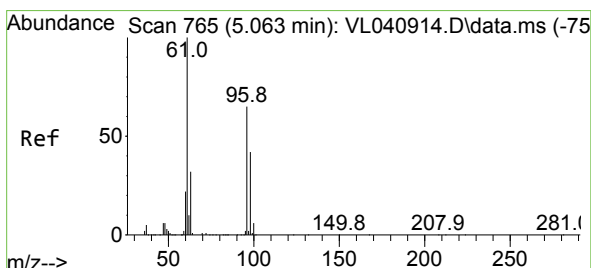
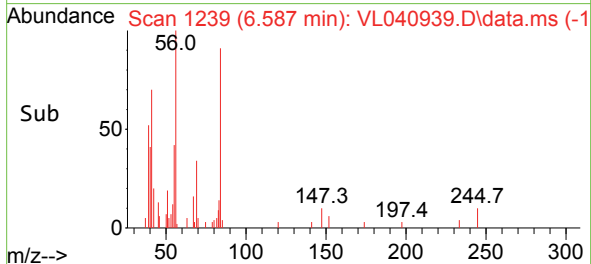
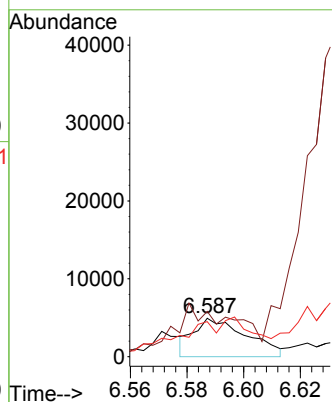
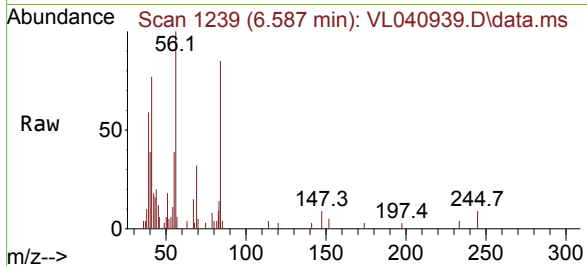




#30
Cyclohexane
Concen: 0.064 ppbv
RT: 6.587 min Scan# 11
Delta R.T. 0.006 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

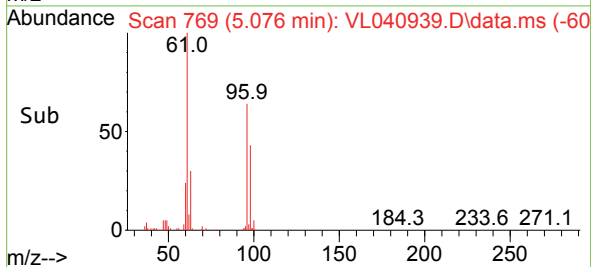
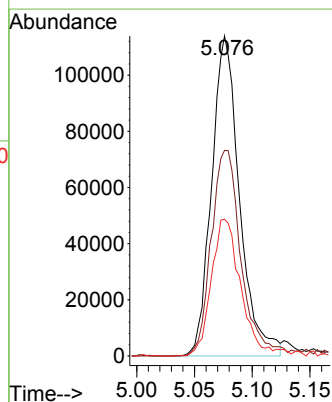
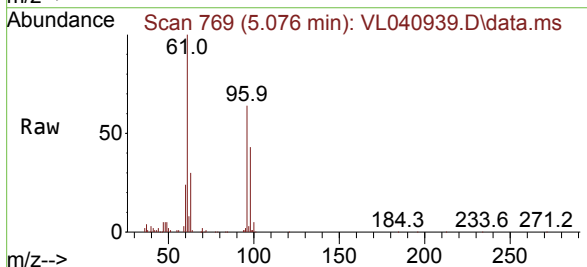
Instrument :
MSVOA_L
ClientSampleId :

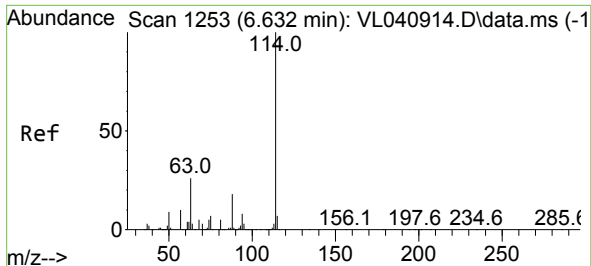
Tgt Ion: 84 Resp: 6398
Ion Ratio Lower Upper
84 100
56 0.0 111.4 167.2#
41 133.4 70.0 105.0#



#31
cis-1,2-Dichloroethene
Concen: 1.551 ppbv
RT: 5.076 min Scan# 769
Delta R.T. 0.013 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 61 Resp: 191442
Ion Ratio Lower Upper
61 100
96 64.3 51.7 77.5
98 42.5 33.2 49.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.639 min Scan# 11

Delta R.T. 0.006 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :

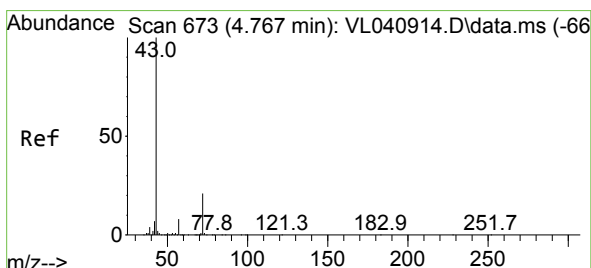
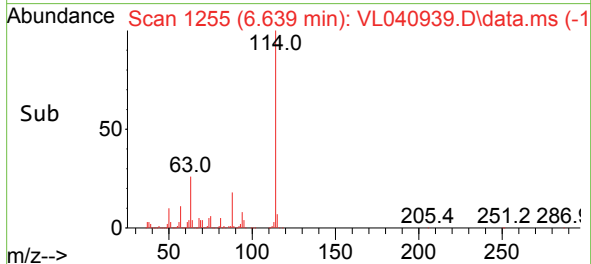
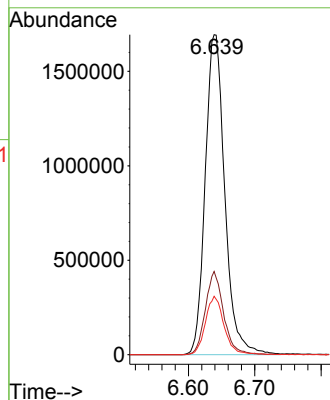
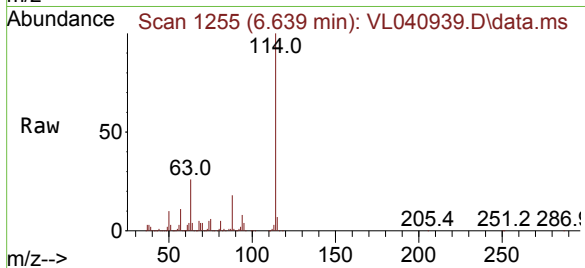
Tgt Ion:114 Resp: 3472391

Ion Ratio Lower Upper

114 100

63 24.5 21.0 31.6

88 17.5 14.3 21.5



#34

2-Butanone

Concen: 7.653 ppbv

RT: 4.787 min Scan# 679

Delta R.T. 0.019 min

Lab File: VL040939.D

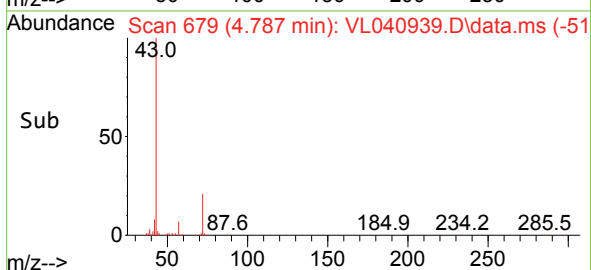
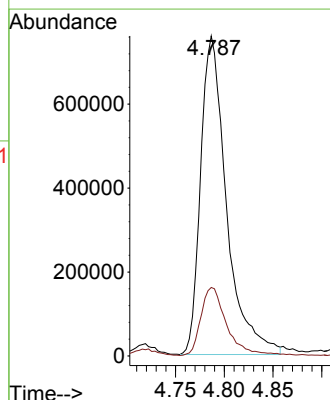
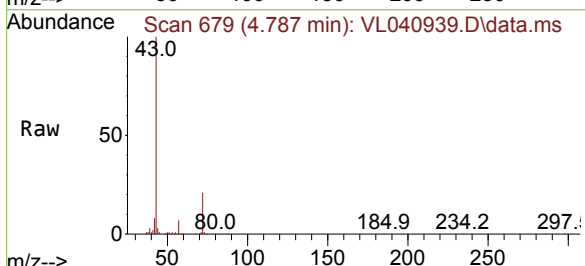
Acq: 21 Dec 2023 21:04

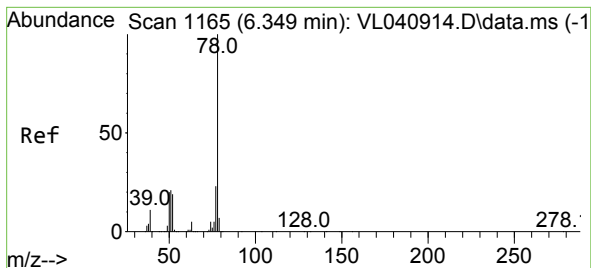
Tgt Ion: 43 Resp: 1405790

Ion Ratio Lower Upper

43 100

72 21.6 17.2 25.8





#36

Benzene

Concen: 0.129 ppbv

RT: 6.356 min Scan# 1167

Delta R.T. 0.006 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :

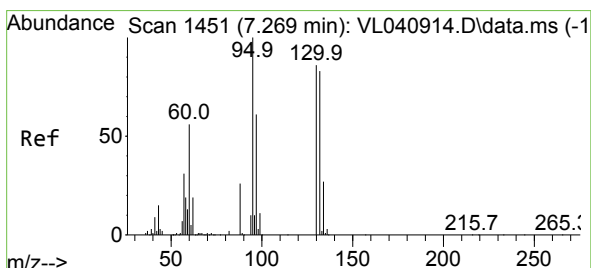
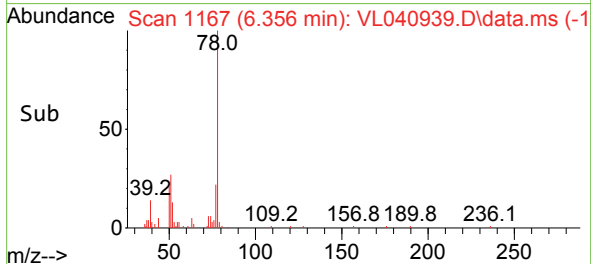
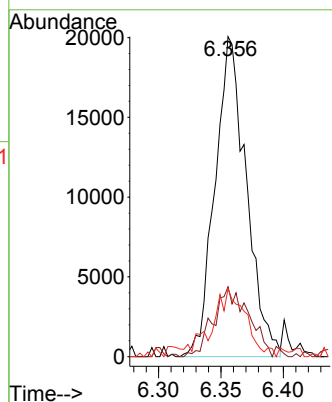
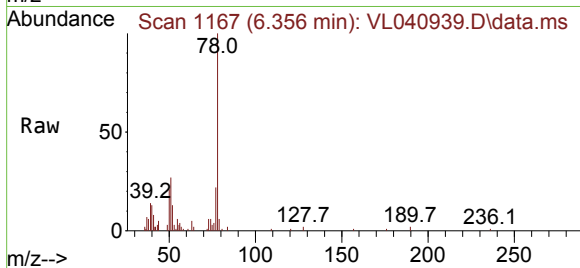
Tgt Ion: 78 Resp: 35061

Ion Ratio Lower Upper

78 100

77 22.3 18.4 27.6

50 19.2 16.0 24.0



#38

Trichloroethene

Concen: 26.530 ppbv

RT: 7.275 min Scan# 1453

Delta R.T. 0.006 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Tgt Ion: 130 Resp: 2704799

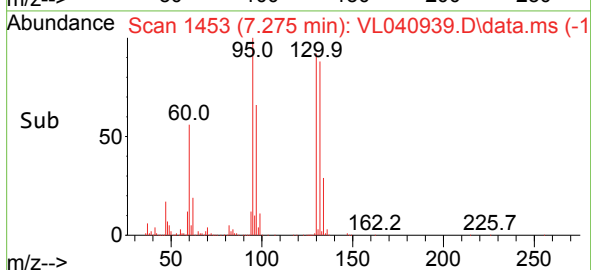
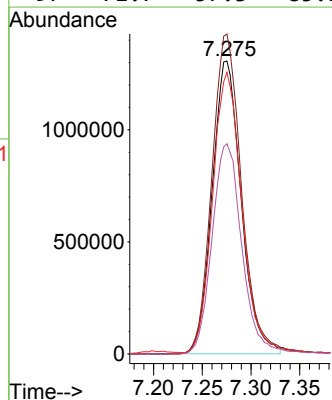
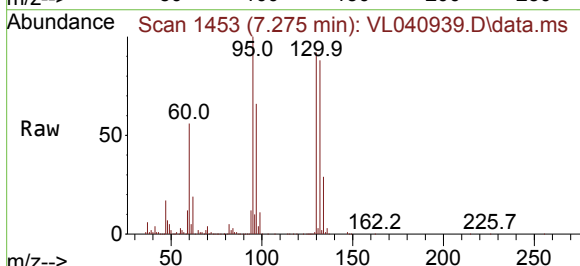
Ion Ratio Lower Upper

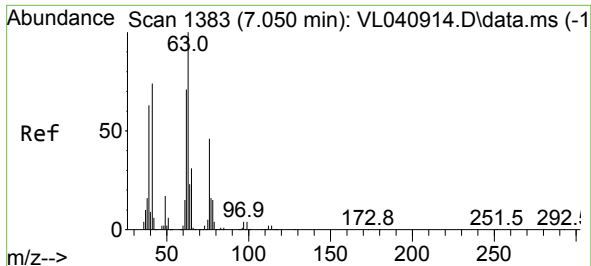
130 100

95 109.1 93.5 140.3

132 95.6 77.4 116.2

97 71.7 57.3 85.9





#39

1,2-Dichloropropane

Concen: 7.841 ppbv

RT: 6.639 min Scan# 11

Delta R.T. -0.412 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :

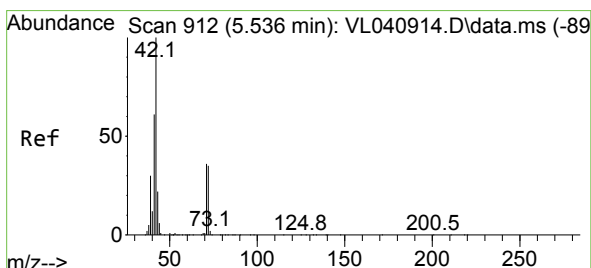
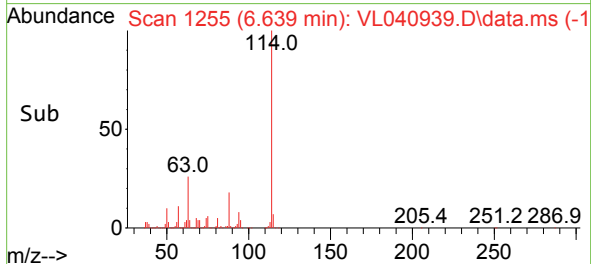
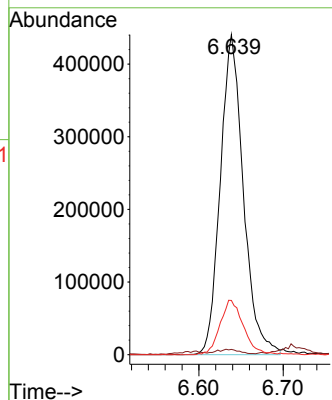
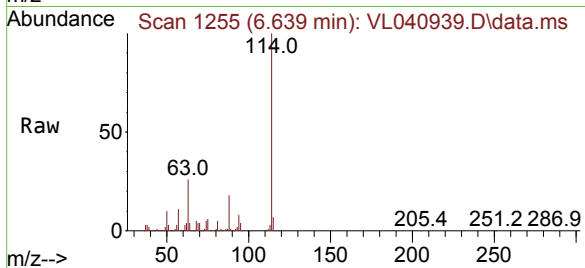
Tgt Ion: 63 Resp: 836455

Ion Ratio Lower Upper

63 100

41 1.0 59.0 88.6#

62 16.9 56.6 85.0#



#41

Tetrahydrofuran

Concen: 0.056 ppbv

RT: 5.806 min Scan# 996

Delta R.T. 0.270 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

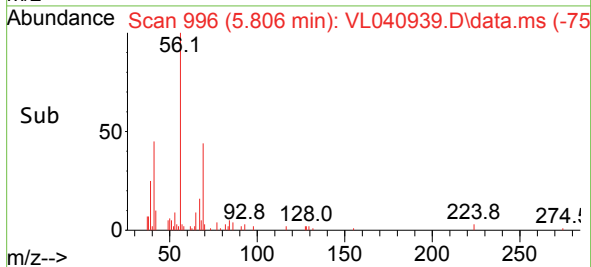
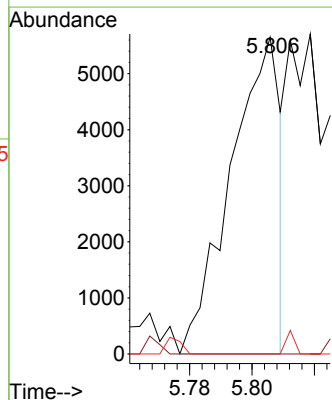
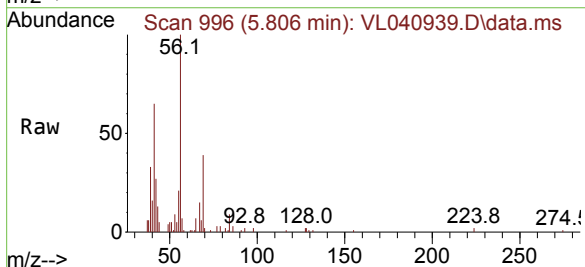
Tgt Ion: 42 Resp: 6206

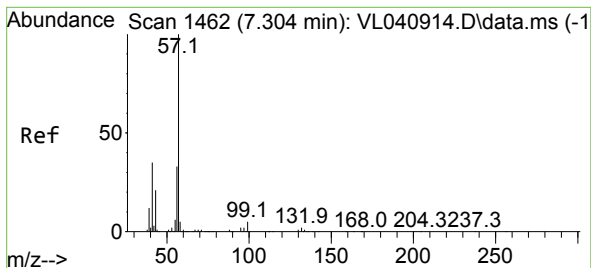
Ion Ratio Lower Upper

42 100

72 3.3 29.6 44.4#

71 0.0 29.1 43.7#





#44

2,2,4-Trimethylpentane

Concen: 0.335 ppbv

RT: 7.311 min Scan# 1464

Delta R.T. 0.006 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :

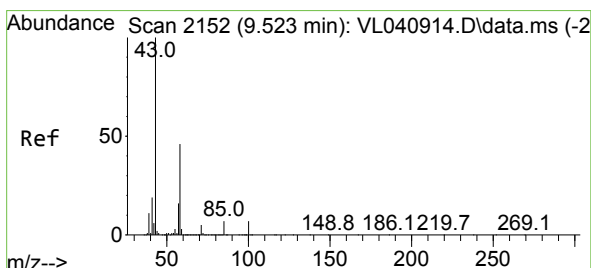
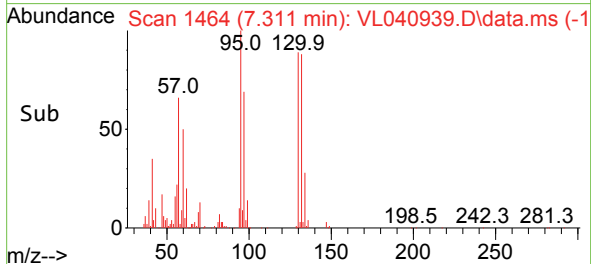
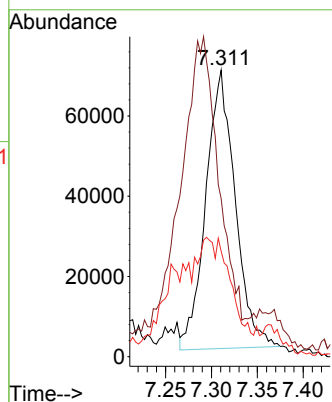
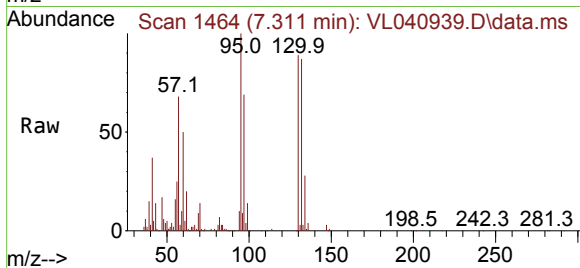
Tgt Ion: 57 Resp: 154642

Ion Ratio Lower Upper

57 100

41 161.2 28.2 42.4#

56 86.0 25.3 37.9#



#51

2-Hexanone

Concen: 2.392 ppbv

RT: 9.536 min Scan# 2156

Delta R.T. 0.013 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

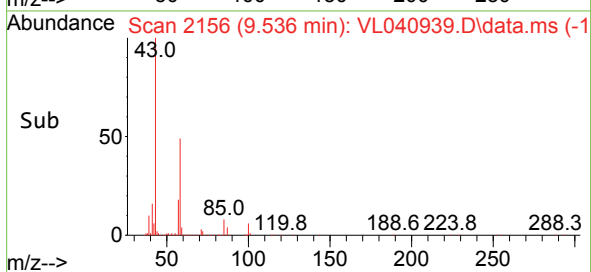
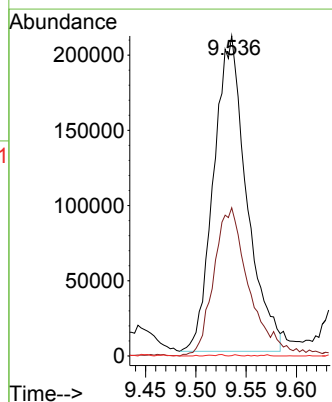
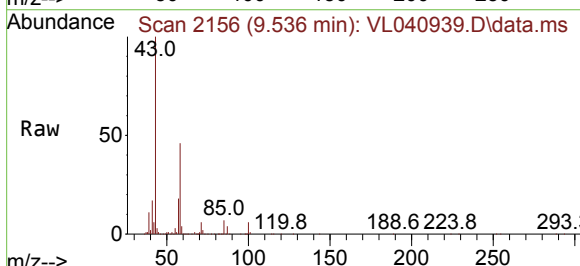
Tgt Ion: 43 Resp: 479060

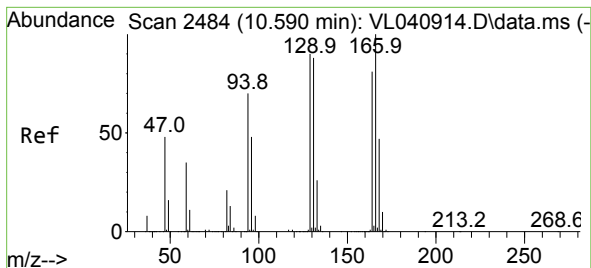
Ion Ratio Lower Upper

43 100

58 51.0 37.3 55.9

98 0.2 0.2 0.2





#52

Tetrachloroethene

Concen: 313.324 ppbv

RT: 10.638 min Scan# 24

Delta R.T. 0.048 min

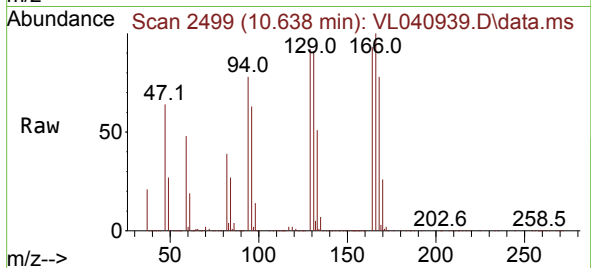
Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion:164 Resp:28650708

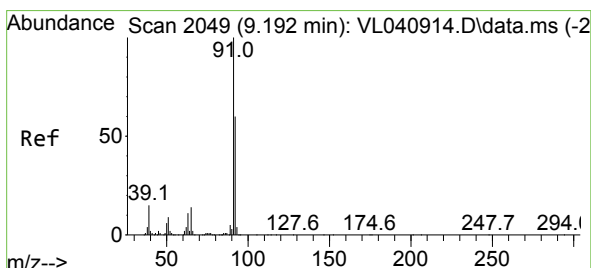
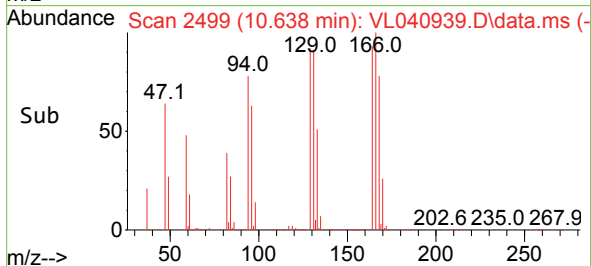
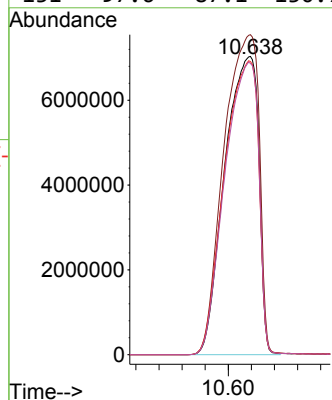
Ion Ratio Lower Upper

164 100

166 107.3 98.9 148.3

129 98.3 88.7 133.1

131 97.6 87.1 130.7



#53

Toluene

Concen: 0.610 ppbv

RT: 9.198 min Scan# 2051

Delta R.T. 0.006 min

Lab File: VL040939.D

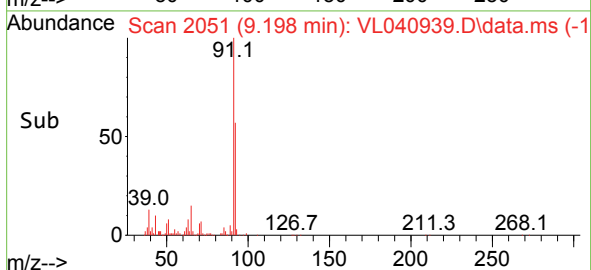
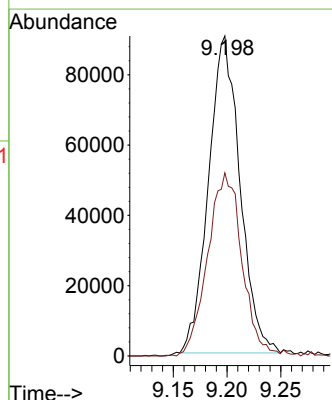
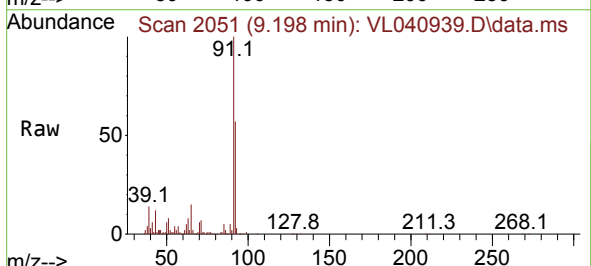
Acq: 21 Dec 2023 21:04

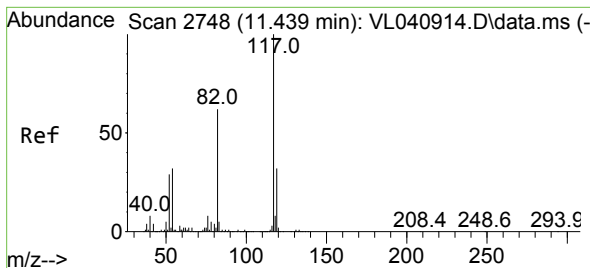
Tgt Ion: 91 Resp: 183674

Ion Ratio Lower Upper

91 100

92 62.8 49.2 73.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.442 min Scan# 21

Delta R.T. 0.003 min

Lab File: VL040939.D

Acq: 21 Dec 2023 21:04

Instrument :

MSVOA_L

ClientSampleId :

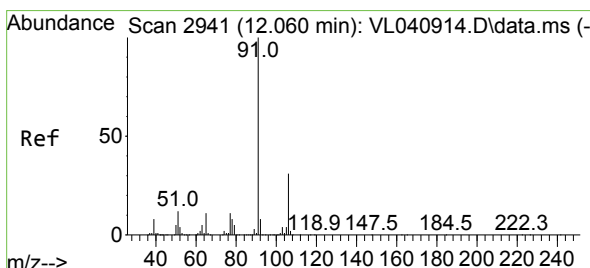
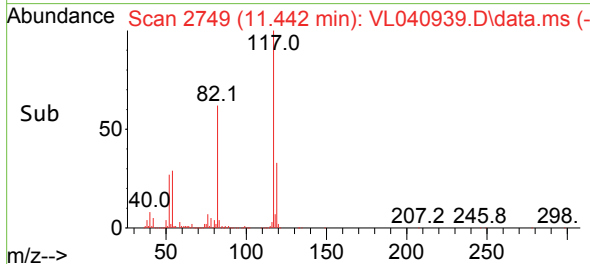
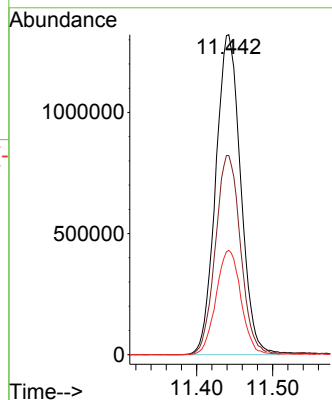
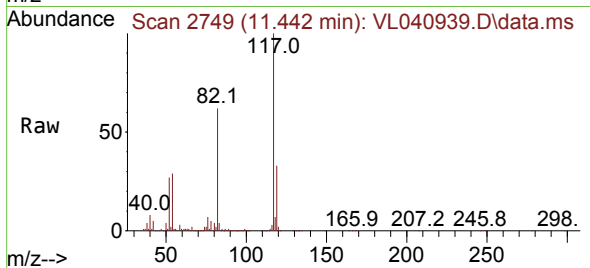
Tgt Ion:117 Resp: 3010406

Ion Ratio Lower Upper

117 100

82 63.0 49.6 74.4

119 32.8 23.4 35.0



#58

Ethyl Benzene

Concen: 0.100 ppbv

RT: 12.063 min Scan# 2942

Delta R.T. 0.003 min

Lab File: VL040939.D

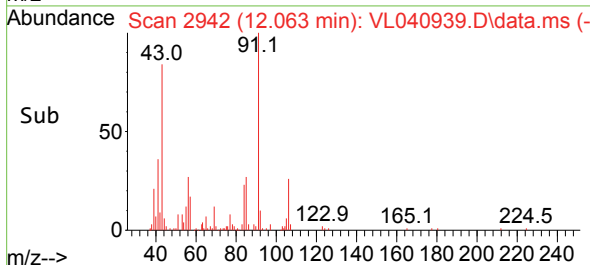
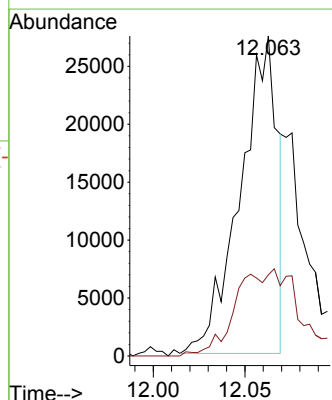
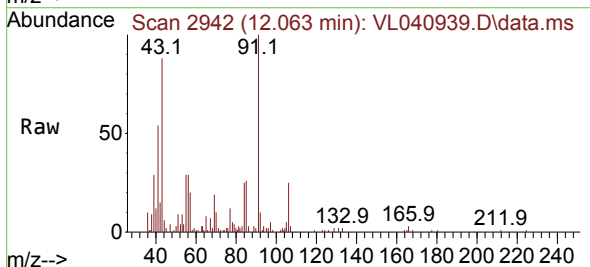
Acq: 21 Dec 2023 21:04

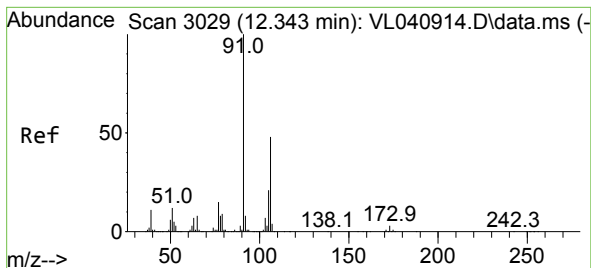
Tgt Ion: 91 Resp: 38558

Ion Ratio Lower Upper

91 100

106 25.5 24.9 37.3

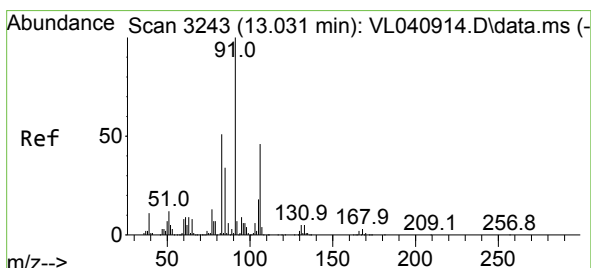
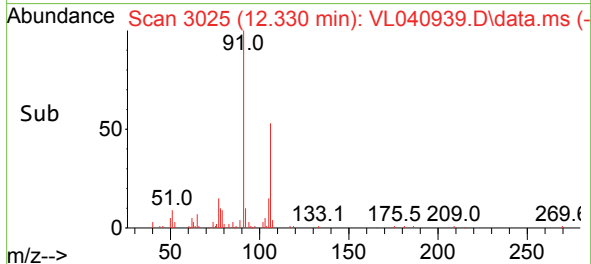
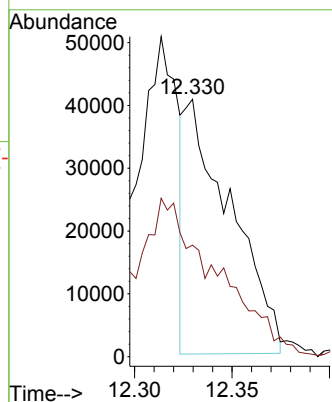
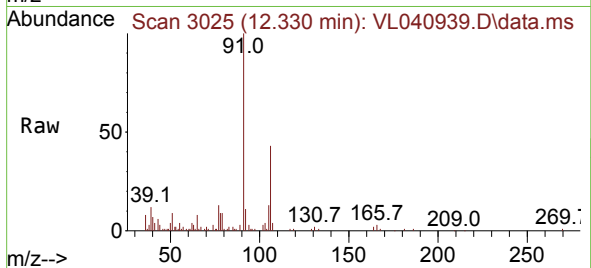




#59
m/p-Xylene
Concen: 0.203 ppbv
RT: 12.330 min Scan# 3029
Delta R.T. -0.013 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

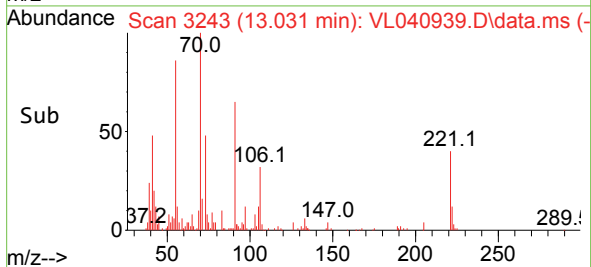
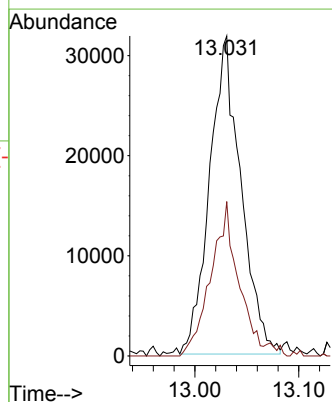
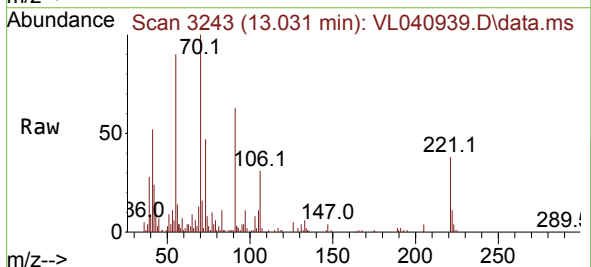
Instrument :
MSVOA_L
ClientSampleId :

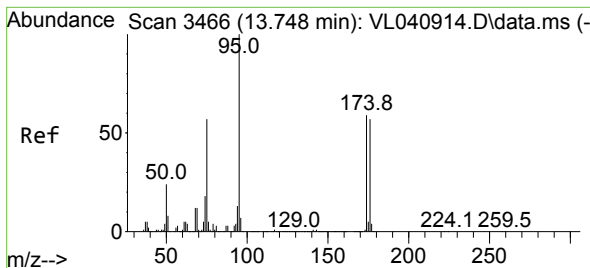
Tgt Ion: 91 Resp: 66788
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.214 ppbv
RT: 13.031 min Scan# 3243
Delta R.T. -0.000 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

Tgt Ion: 91 Resp: 66431
Ion Ratio Lower Upper
91 100
106 44.4 22.6 67.7

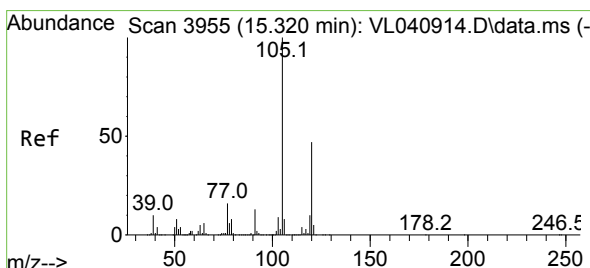
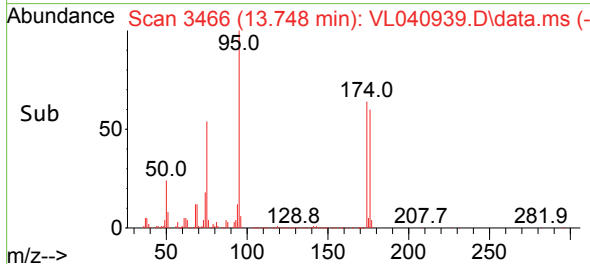
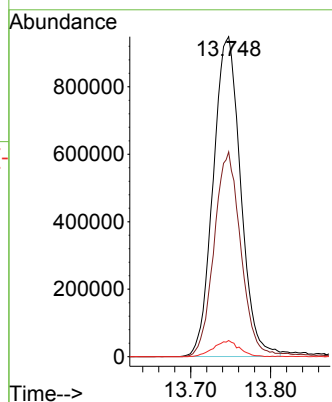
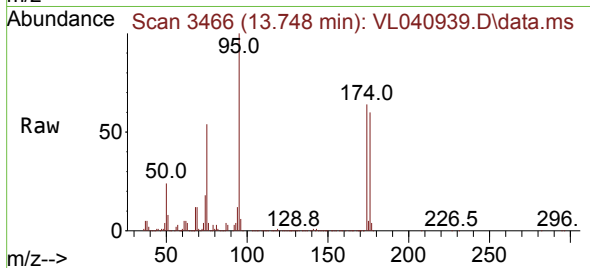




#68
1-Bromo-4-Fluorobenzene
Concen: 10.195 ppbv
RT: 13.748 min Scan# 3466
Delta R.T. -0.000 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

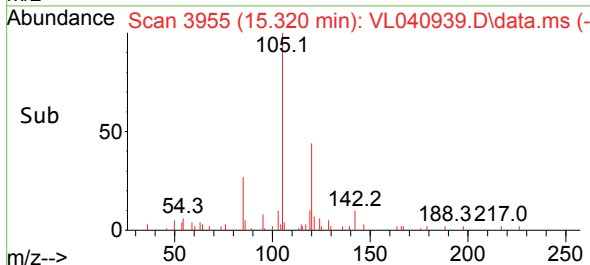
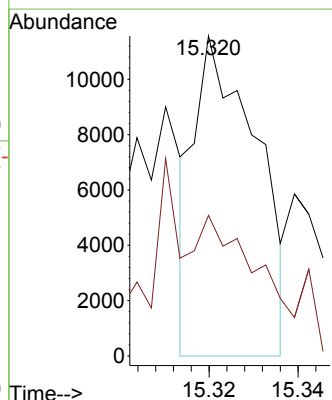
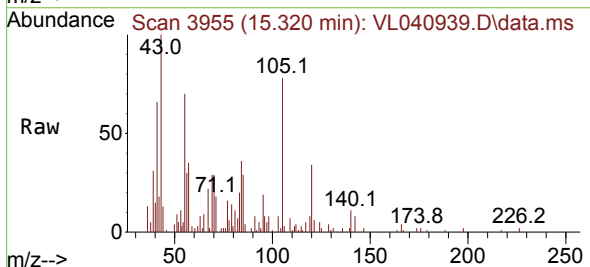
Instrument :
MSVOA_L
ClientSampleId :

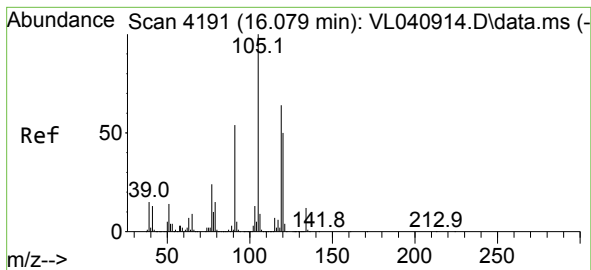
Tgt Ion: 95 Resp: 2260692
Ion Ratio Lower Upper
95 100
174 63.5 48.0 72.0
175 4.9 3.7 5.5



#73
1,3,5-Trimethylbenzene
Concen: 0.038 ppbv
RT: 15.320 min Scan# 3955
Delta R.T. -0.000 min
Lab File: VL040939.D
Acq: 21 Dec 2023 21:04

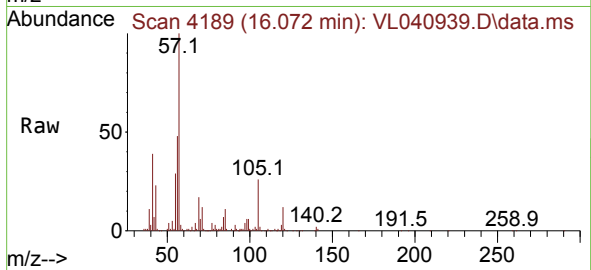
Tgt Ion: 105 Resp: 11166
Ion Ratio Lower Upper
105 100
120 39.9 37.8 56.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.274 ppbv
 RT: 16.072 min Scan# 4191
 Delta R.T. -0.006 min
 Lab File: VL040939.D
 Acq: 21 Dec 2023 21:04

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:	105	Resp:	89510
Ion	Ratio	Lower	Upper
105	100		
120	47.4	40.2	60.4
91	11.4	43.0	64.6#
77	13.1	18.9	28.3#

