

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL122123\
 Data File : VL040927.D
 Acq On : 21 Dec 2023 13:12
 Operator : SY/MD
 Sample : 05813-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 10311DUP

Quant Time: Dec 22 00:06:13 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)

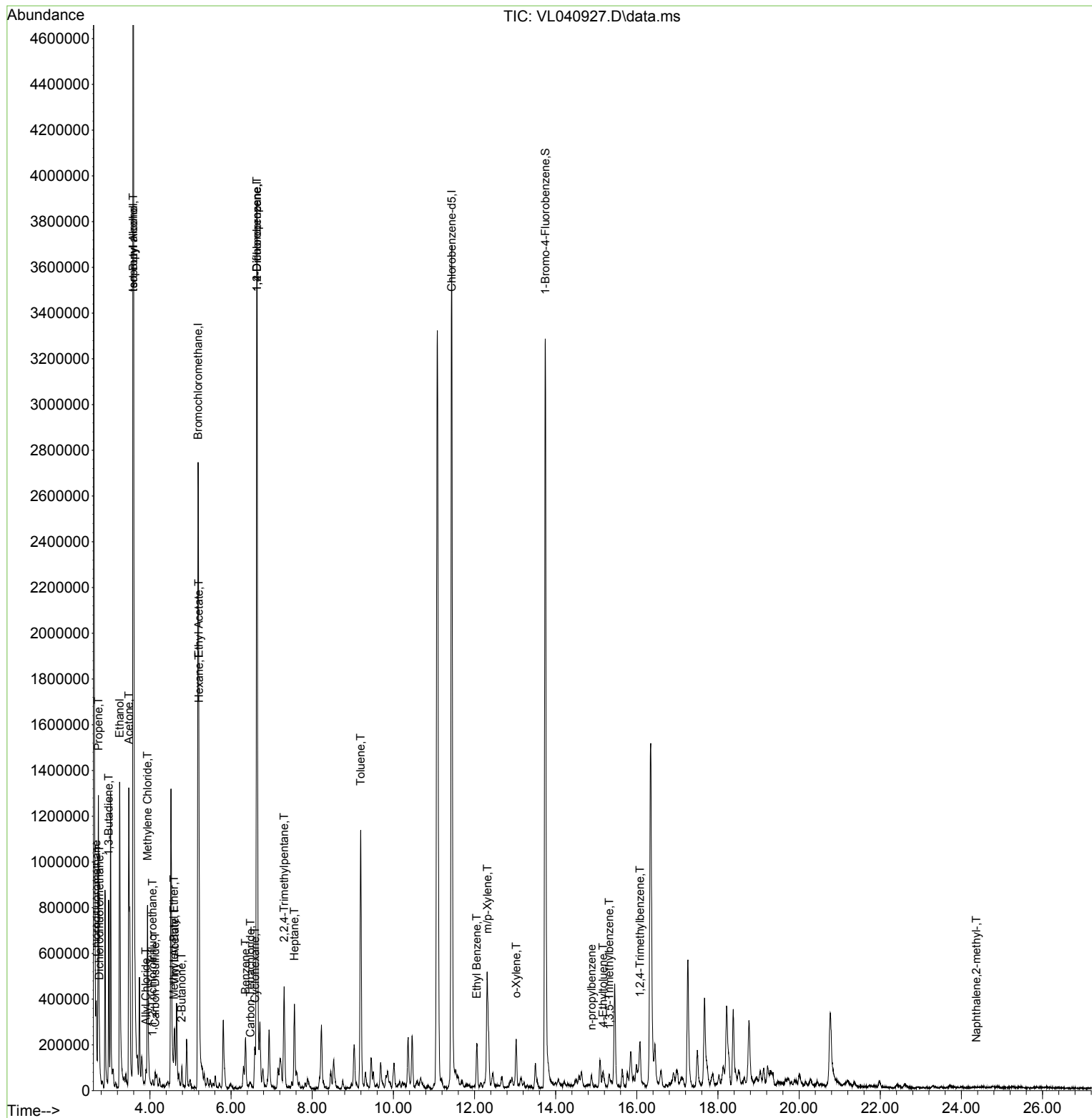
Internal Standards						
1) Bromochloromethane	5.185	49	1187871	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.636	114	2999505	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.436	117	2461896	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.745	95	1750981	9.656	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.600%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.755	85	105532	0.466	ppbv	97
3) Chlorodifluoromethane	2.677	51	197957	1.107	ppbv #	67
9) Propene	2.732	41	320764	5.438	ppbv #	77
10) Heptane	7.558	43	159972	1.091	ppbv	95
12) 1,1,2-Trichlorotrifluo...	4.063	101	4126	0.030	ppbv #	15
13) Ethanol	3.253	45	1348050	90.597	ppbv	100
15) Acetone	3.481	43	1469134	10.312	ppbv	97
16) 1,3-Butadiene	2.983	39	216667	3.532	ppbv #	15
17) tert-Butyl alcohol	3.591	59	260266	2.470	ppbv	97
19) Isopropyl Alcohol	3.591	45	6877920	92.521	ppbv #	97
20) Methylene Chloride	3.941	84	251357	4.950	ppbv	96
21) Allyl Chloride	3.899	41	12301	0.146	ppbv #	1
23) Vinyl Acetate	4.610	43	93779	0.597	ppbv #	1
25) Ethyl Acetate	5.205	43	364385	1.476	ppbv #	90
26) Hexane	5.208	57	329033	3.008	ppbv #	56
27) Carbon Disulfide	4.131	76	69052	0.466	ppbv #	95
28) Methyl tert-Butyl Ether	4.594	73	31862	0.314	ppbv #	91
30) Cyclohexane	6.590	84	30225	0.331	ppbv #	4
34) 2-Butanone	4.783	43	55719	0.351	ppbv #	54
35) Carbon Tetrachloride	6.478	117	5708	0.030	ppbv #	74
36) Benzene	6.356	78	178010	0.759	ppbv	94
39) 1,2-Dichloropropane	6.636	63	736472	7.993	ppbv #	24
44) 2,2,4-Trimethylpentane	7.308	57	346038	0.869	ppbv #	85
53) Toluene	9.195	91	758774	2.918	ppbv	100
58) Ethyl Benzene	12.053	91	85079	0.269	ppbv	99
59) m/p-Xylene	12.317	91	298930	1.111	ppbv #	100
60) o-Xylene	13.031	91	85365	0.337	ppbv #	31
64) n-propylbenzene	14.886	120	3696	0.039	ppbv #	1
72) 4-Ethyltoluene	15.166	105	23621	0.085	ppbv #	55
73) 1,3,5-Trimethylbenzene	15.320	105	17630	0.073	ppbv #	79
74) 1,2,4-Trimethylbenzene	16.076	105	80339	0.301	ppbv #	68
80) Naphthalene,2-methyl-	24.368	142	1088	0.046	ppbv #	34

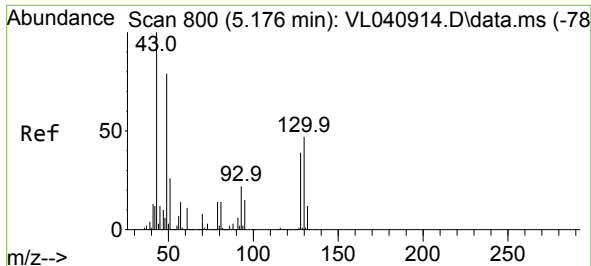
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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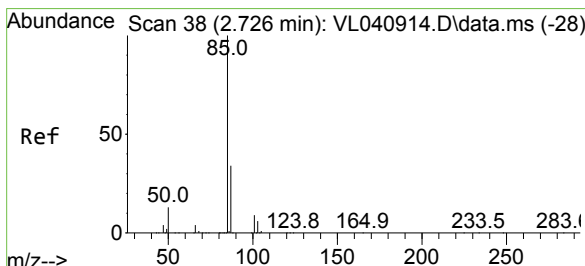
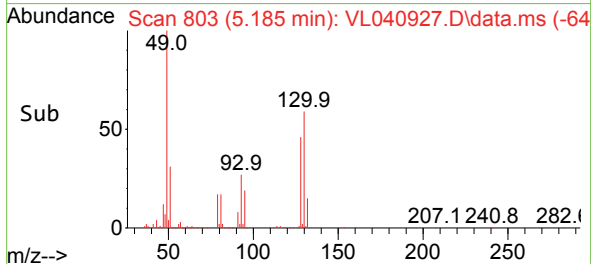
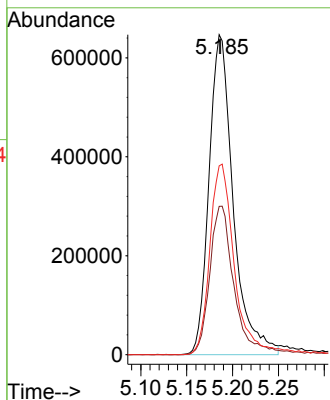
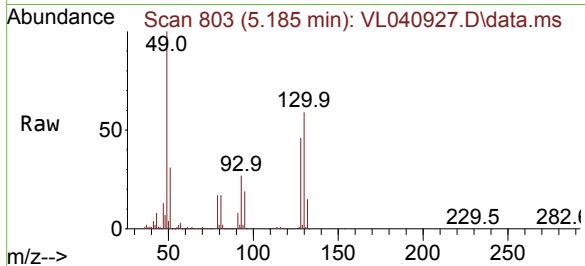




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.185 min Scan# 80
 Delta R.T. 0.009 min
 Lab File: VL040927.D
 Acq: 21 Dec 2023 13:12

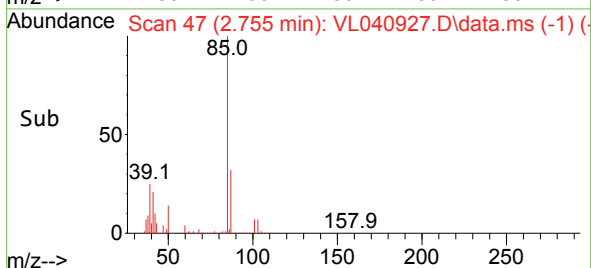
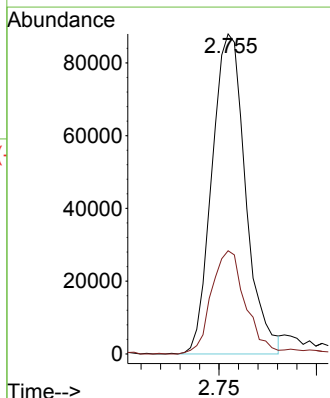
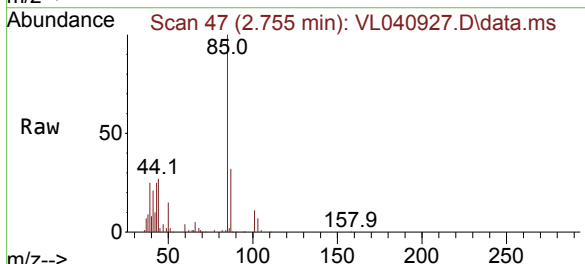
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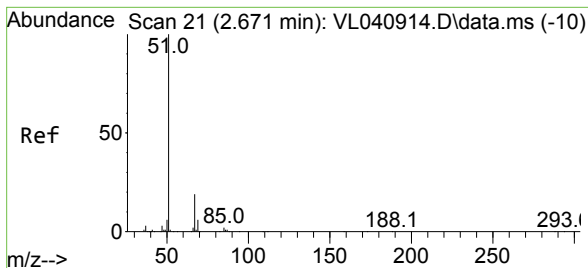
Tgt Ion: 49 Resp: 1187871
 Ion Ratio Lower Upper
 49 100
 128 48.1 23.8 71.2
 130 61.9 30.1 90.5



#2
 Dichlorodifluoromethane
 Concen: 0.466 ppbv
 RT: 2.755 min Scan# 47
 Delta R.T. 0.029 min
 Lab File: VL040927.D
 Acq: 21 Dec 2023 13:12

Tgt Ion: 85 Resp: 105532
 Ion Ratio Lower Upper
 85 100
 87 32.3 27.0 40.6

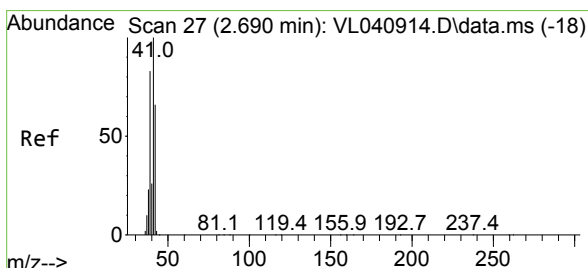
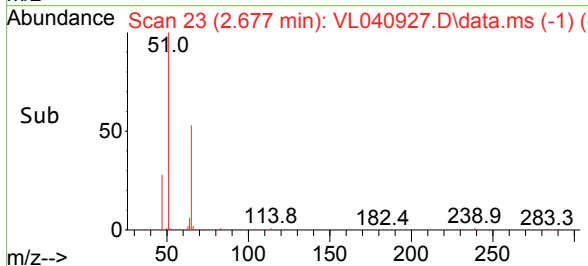
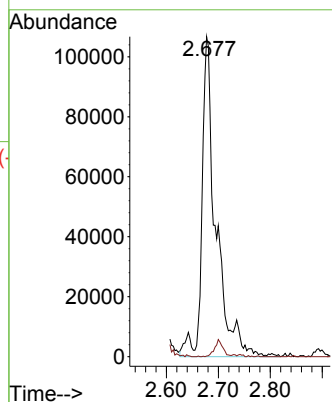
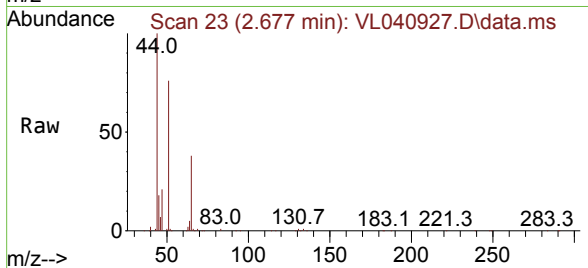




#3
Chlorodifluoromethane
Concen: 1.107 ppbv
RT: 2.677 min Scan# 21
Delta R.T. 0.007 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

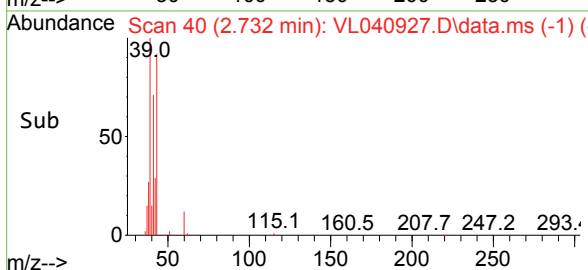
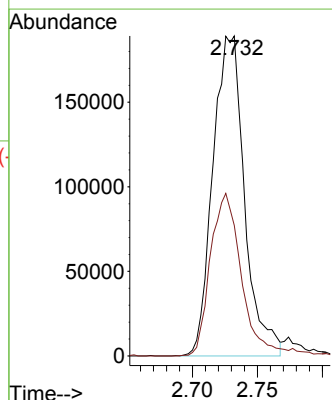
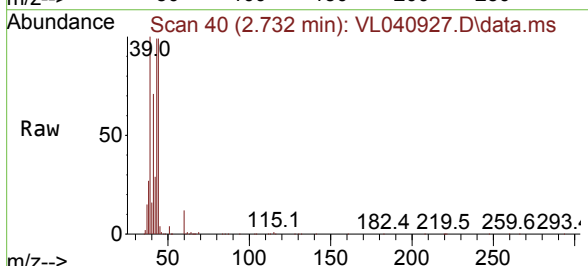
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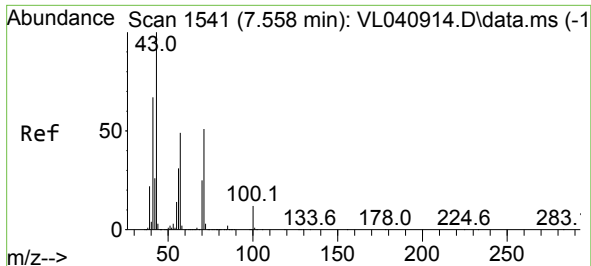
Tgt Ion: 51 Resp: 197957
Ion Ratio Lower Upper
51 100
67 3.6 14.7 22.1#



#9
Propene
Concen: 5.438 ppbv
RT: 2.732 min Scan# 40
Delta R.T. 0.042 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 41 Resp: 320764
Ion Ratio Lower Upper
41 100
42 50.8 55.8 83.6#

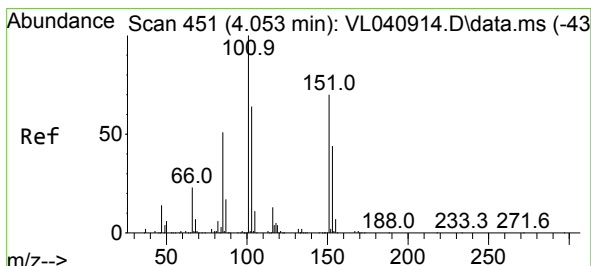
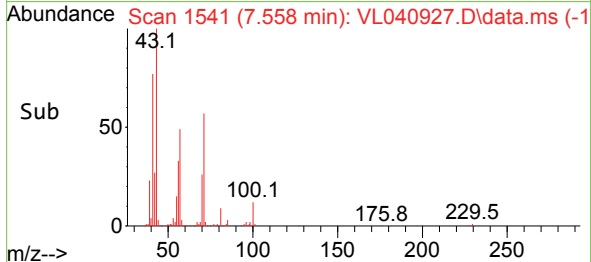
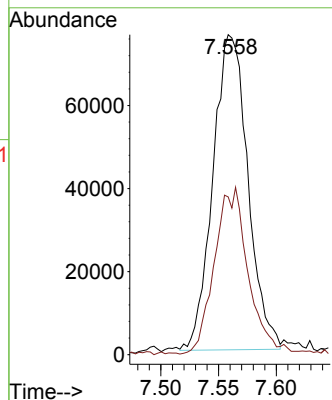
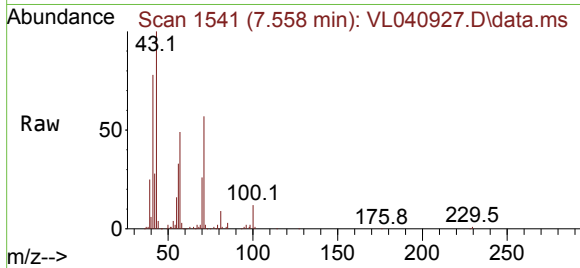




#10
Heptane
Concen: 1.091 ppbv
RT: 7.558 min Scan# 11
Delta R.T. 0.000 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

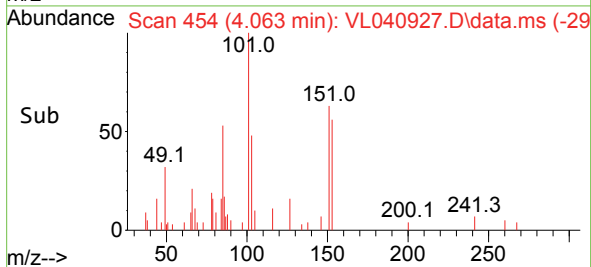
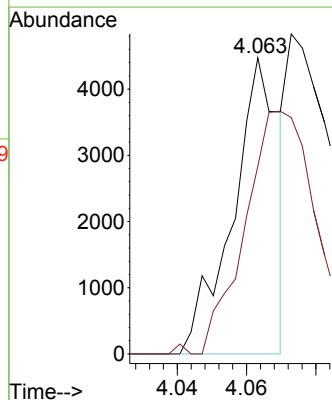
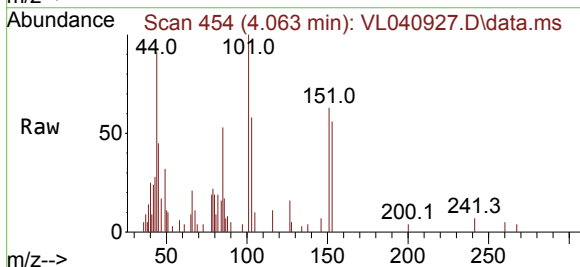
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

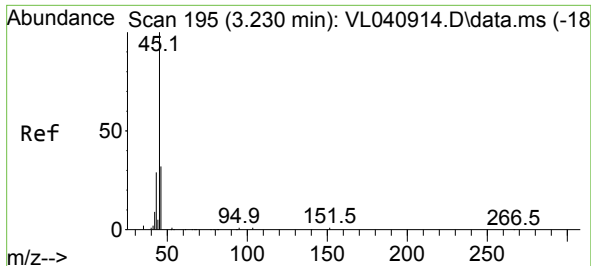
Tgt Ion: 43 Resp: 159972
Ion Ratio Lower Upper
43 100
57 52.5 39.3 58.9



#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.030 ppbv
RT: 4.063 min Scan# 454
Delta R.T. 0.010 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 101 Resp: 4126
Ion Ratio Lower Upper
101 100
151 0.0 55.8 83.8#

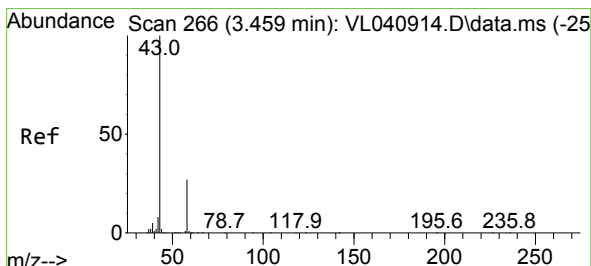
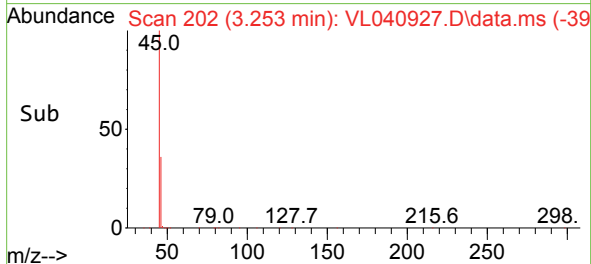
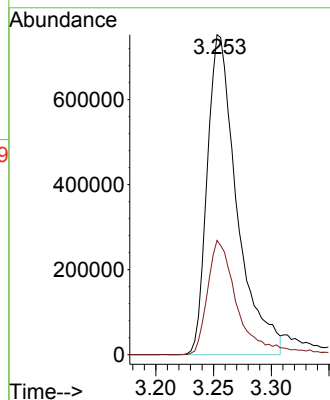
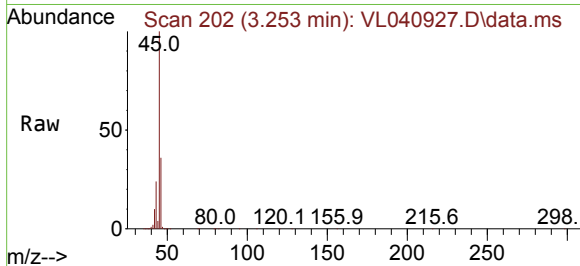




#13
Ethanol
Concen: 90.597 ppbv
RT: 3.253 min Scan# 20
Delta R.T. 0.023 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

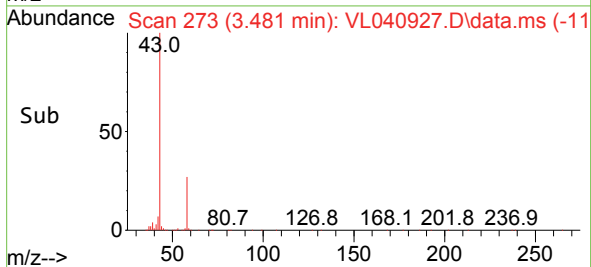
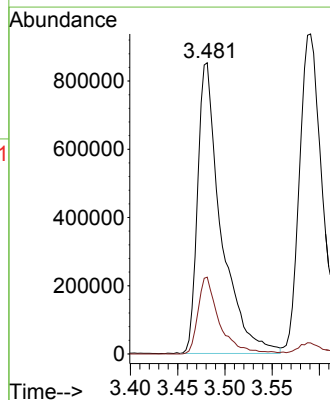
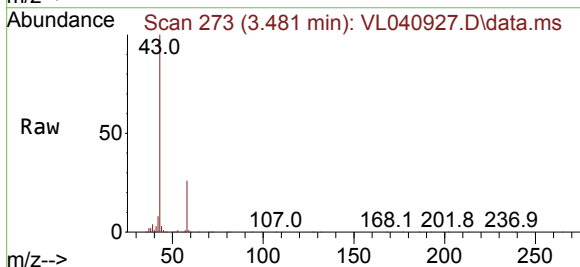
Instrument :
MSVOA_L
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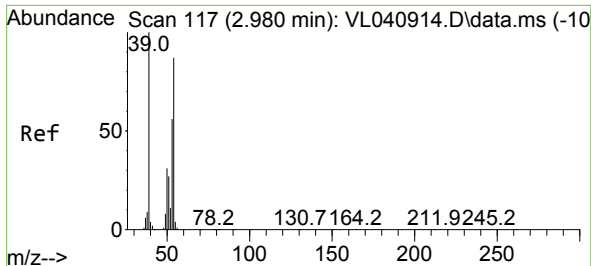
Tgt Ion: 45 Resp: 1348050
Ion Ratio Lower Upper
45 100
46 37.5 15.0 60.0



#15
Acetone
Concen: 10.312 ppbv
RT: 3.481 min Scan# 273
Delta R.T. 0.023 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 43 Resp: 1469134
Ion Ratio Lower Upper
43 100
58 24.2 20.6 30.8

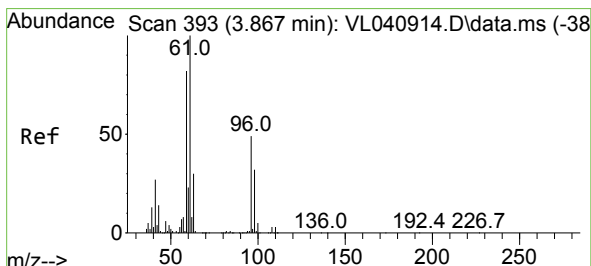
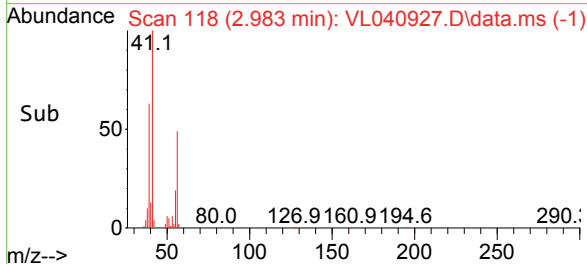
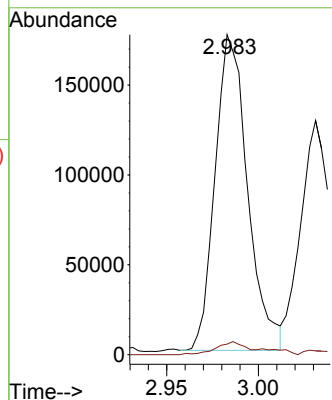
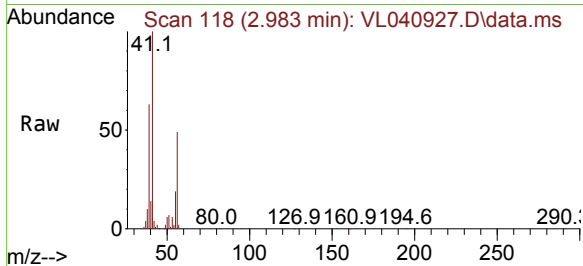




#16
1,3-Butadiene
Concen: 3.532 ppbv
RT: 2.983 min Scan# 117
Delta R.T. 0.003 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

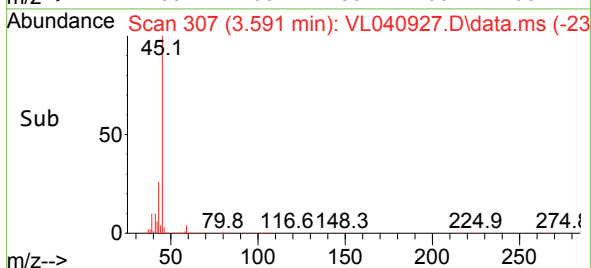
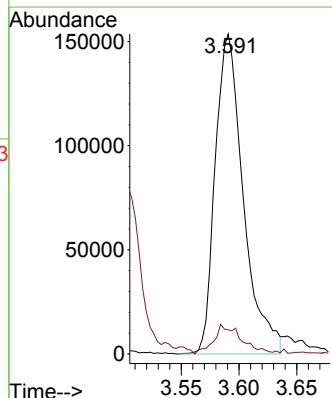
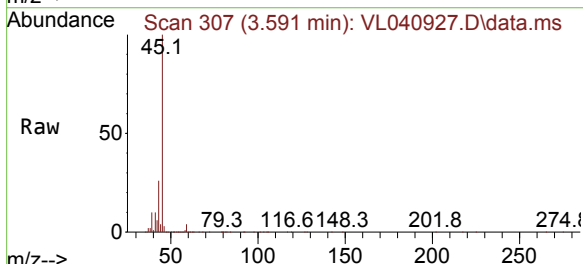
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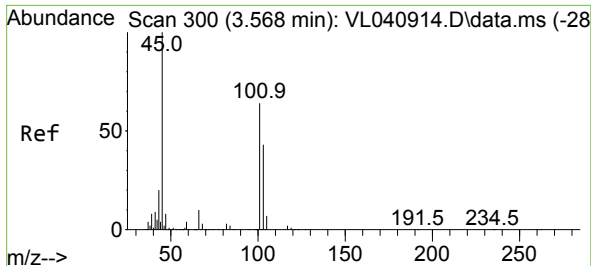
Tgt Ion: 39 Resp: 216667
Ion Ratio Lower Upper
39 100
54 5.2 63.8 95.6#



#17
tert-Butyl alcohol
Concen: 2.470 ppbv
RT: 3.591 min Scan# 307
Delta R.T. -0.276 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 59 Resp: 260266
Ion Ratio Lower Upper
59 100
57 9.2 8.3 12.5

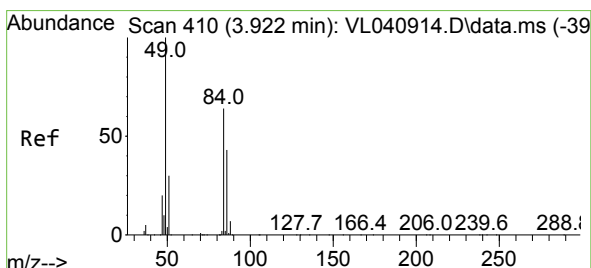
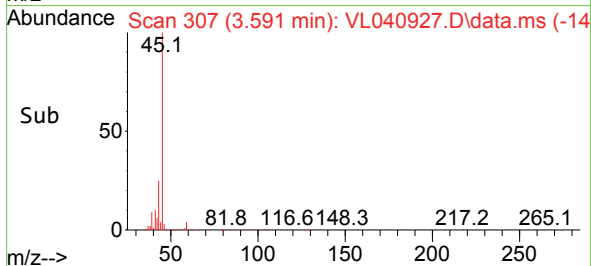
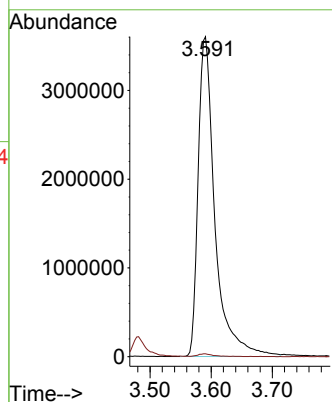
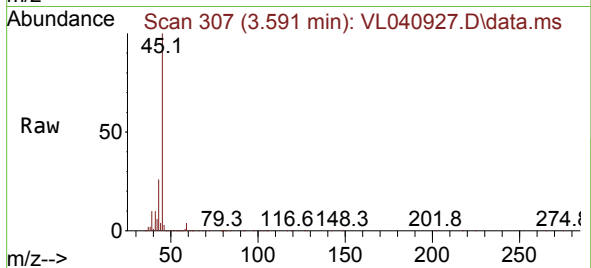




#19
Isopropyl Alcohol
Concen: 92.521 ppbv
RT: 3.591 min Scan# 307
Delta R.T. 0.023 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

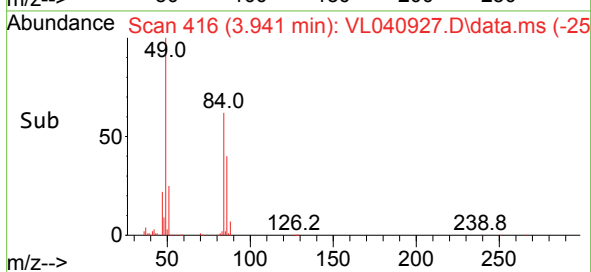
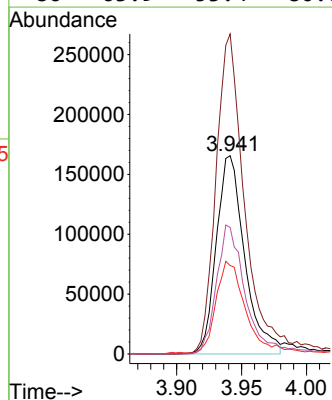
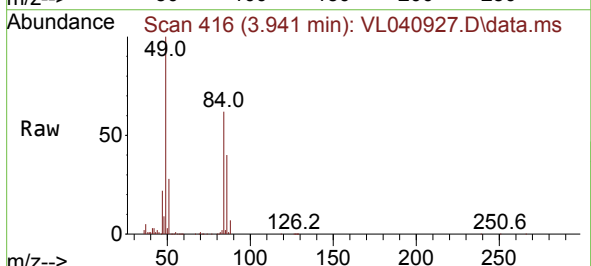
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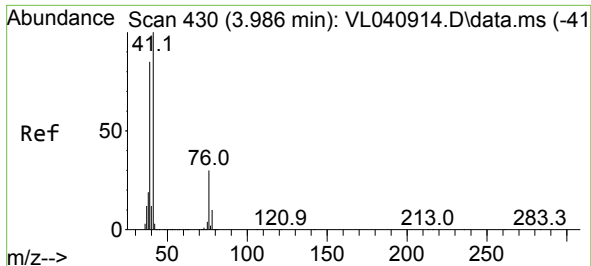
Tgt Ion: 45 Resp: 6877920
Ion Ratio Lower Upper
45 100
58 0.9 1.5 2.3#



#20
Methylene Chloride
Concen: 4.950 ppbv
RT: 3.941 min Scan# 416
Delta R.T. 0.019 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 84 Resp: 251357
Ion Ratio Lower Upper
84 100
49 161.3 124.6 187.0
51 43.8 37.2 55.8
86 63.9 53.4 80.0

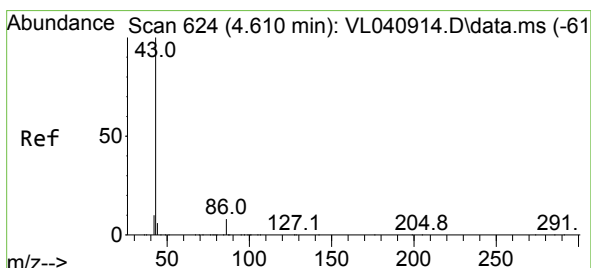
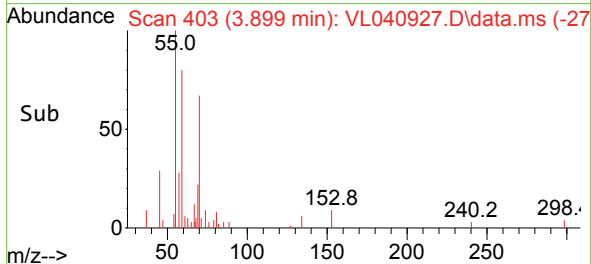
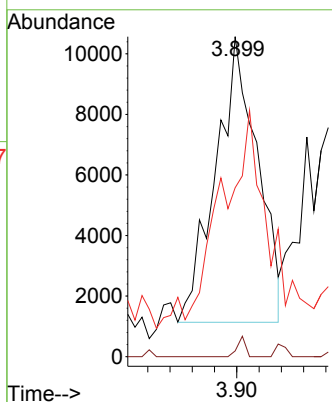
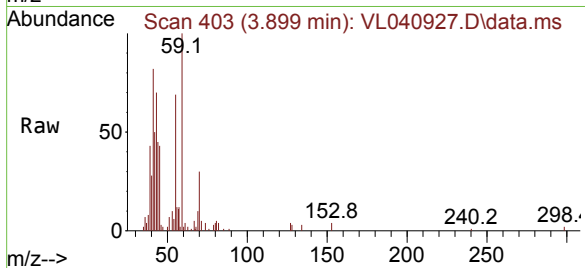




#21
 Allyl Chloride
 Concen: 0.146 ppbv
 RT: 3.899 min Scan# 403
 Delta R.T. -0.087 min
 Lab File: VL040927.D
 Acq: 21 Dec 2023 13:12

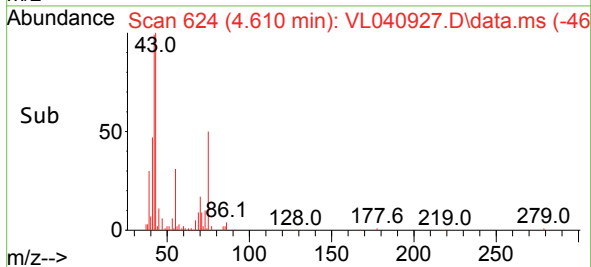
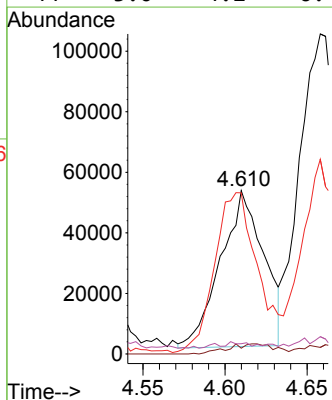
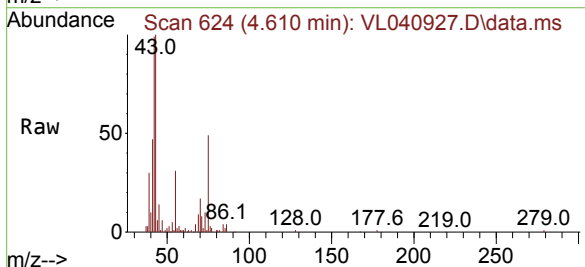
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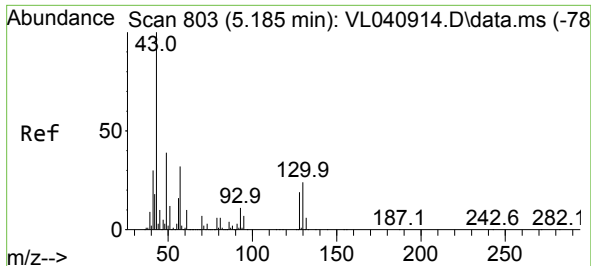
Tgt Ion: 41 Resp: 12301
 Ion Ratio Lower Upper
 41 100
 76 0.0 23.9 35.9#
 39 191.6 66.5 99.7#



#23
 Vinyl Acetate
 Concen: 0.597 ppbv
 RT: 4.610 min Scan# 624
 Delta R.T. 0.000 min
 Lab File: VL040927.D
 Acq: 21 Dec 2023 13:12

Tgt Ion: 43 Resp: 93779
 Ion Ratio Lower Upper
 43 100
 86 3.8 5.5 8.3#
 42 103.4 8.4 12.6#
 44 3.0 4.2 6.4#

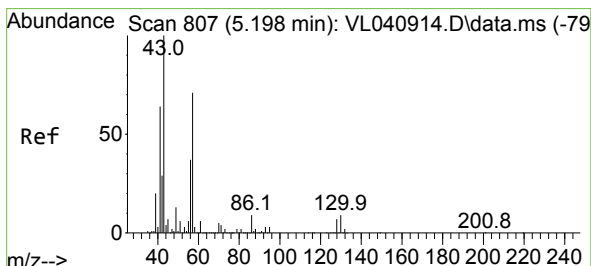
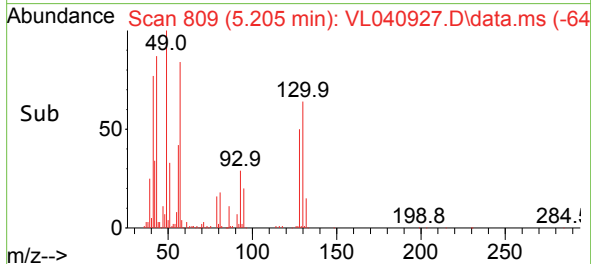
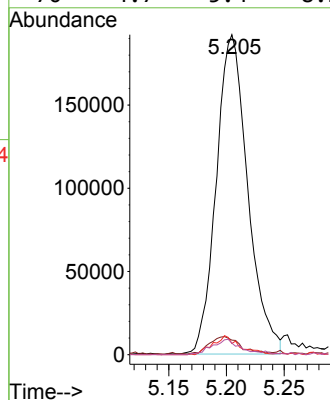
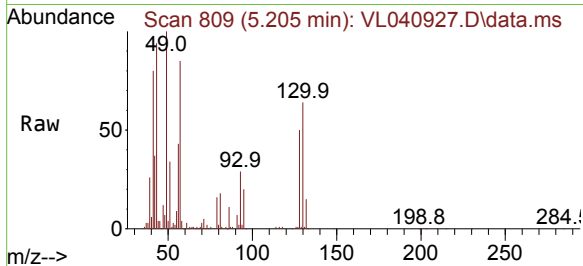




#25
Ethyl Acetate
Concen: 1.476 ppbv
RT: 5.205 min Scan# 80
Delta R.T. 0.019 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

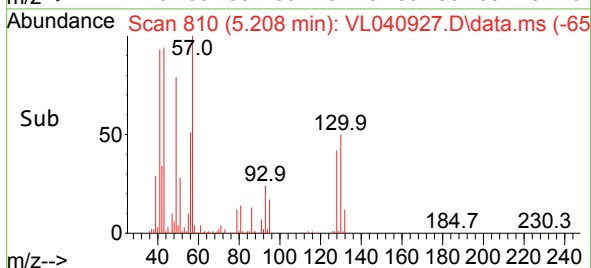
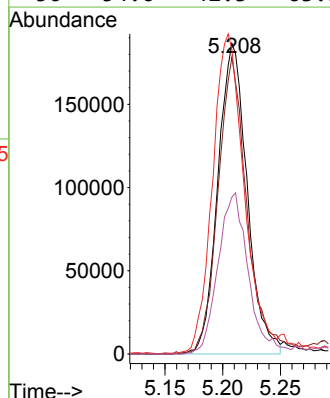
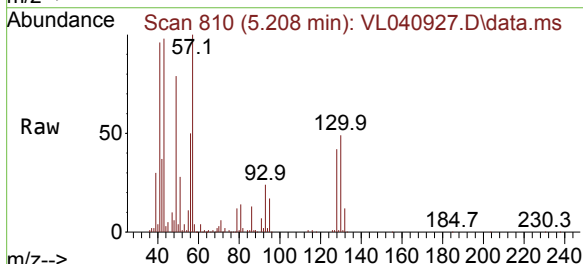
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

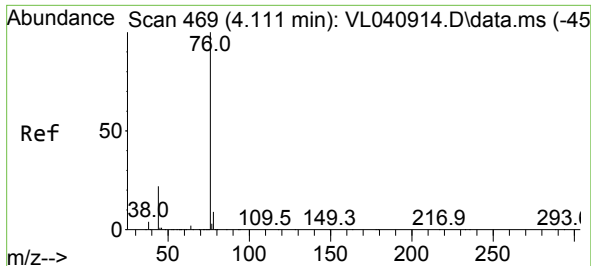
Tgt Ion: 43	Resp: 364385
Ion Ratio	Lower Upper
43 100	
45 5.8	8.2 12.2#
61 5.2	7.6 11.4#
70 4.7	5.4 8.2#



#26
Hexane
Concen: 3.008 ppbv
RT: 5.208 min Scan# 810
Delta R.T. 0.010 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 57	Resp: 329033
Ion Ratio	Lower Upper
57 100	
41 95.3	75.2 112.8
43 116.1	188.0 282.0#
56 54.6	42.3 63.5

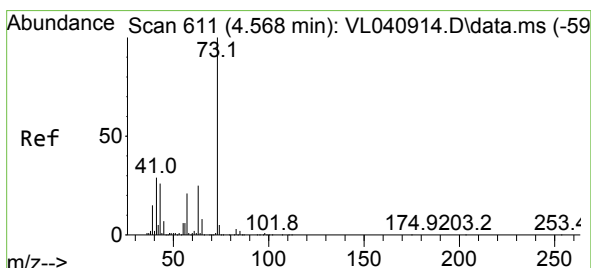
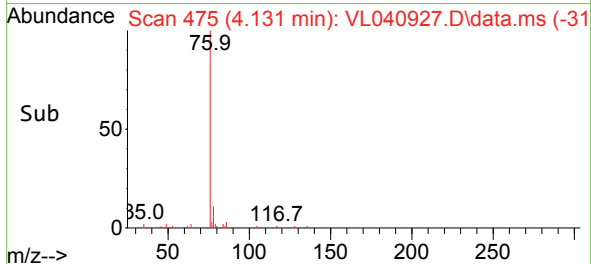
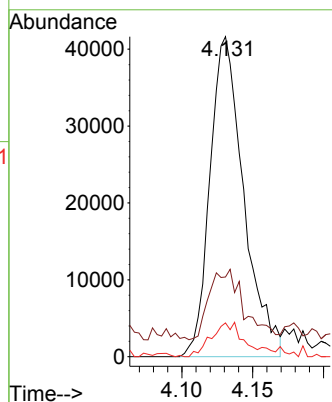
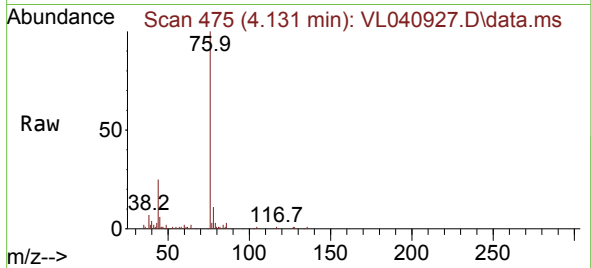




#27
Carbon Disulfide
Concen: 0.466 ppbv
RT: 4.131 min Scan# 41
Delta R.T. 0.019 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

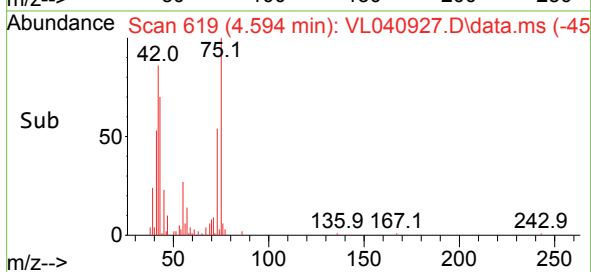
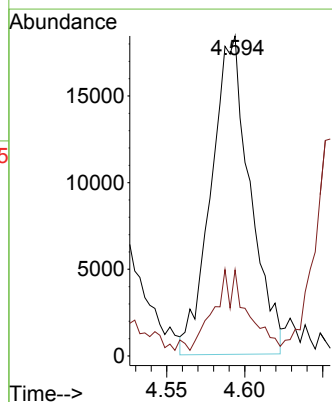
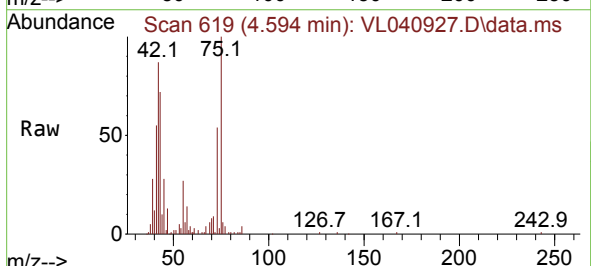
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

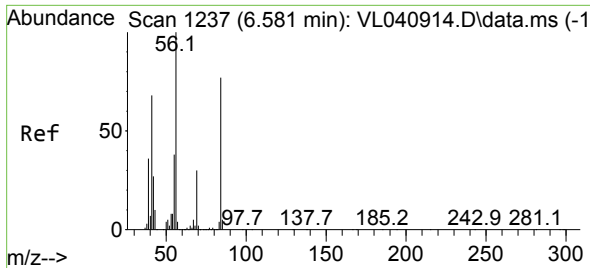
Tgt Ion: 76 Resp: 69052
Ion Ratio Lower Upper
76 100
44 25.0 18.4 27.6
78 12.1 7.9 11.9#



#28
Methyl tert-Butyl Ether
Concen: 0.314 ppbv
RT: 4.594 min Scan# 619
Delta R.T. 0.026 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 73 Resp: 31862
Ion Ratio Lower Upper
73 100
57 27.0 18.0 27.0#

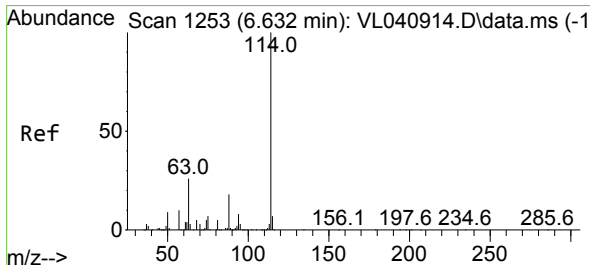
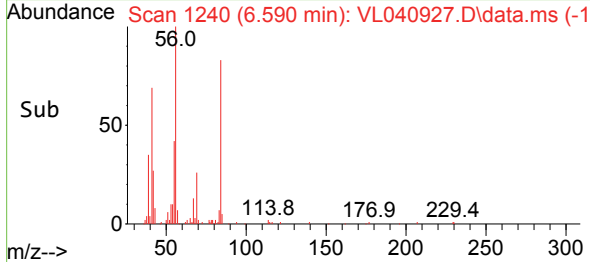
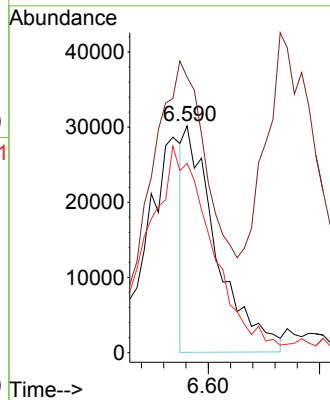
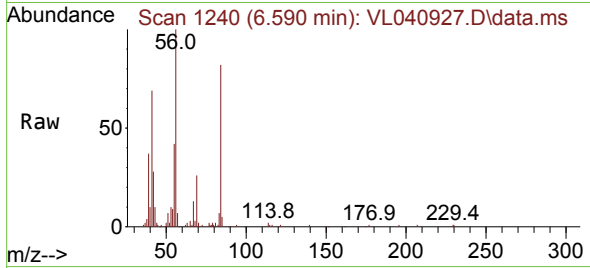




#30
Cyclohexane
Concen: 0.331 ppbv
RT: 6.590 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

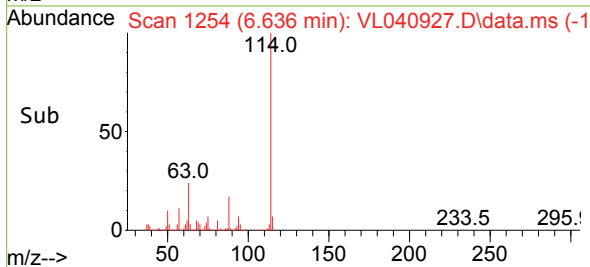
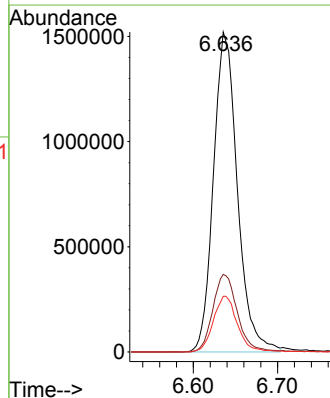
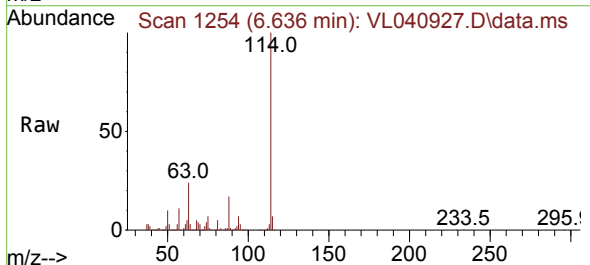
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

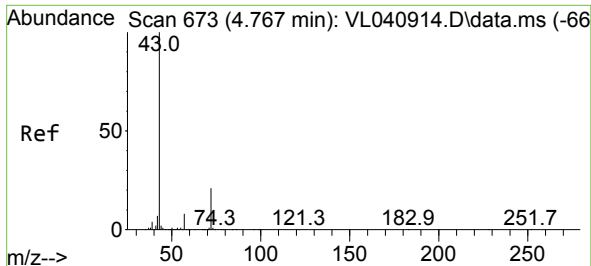
Tgt Ion: 84 Resp: 30225
Ion Ratio Lower Upper
84 100
56 256.6 111.4 167.2#
41 0.0 70.0 105.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.636 min Scan# 1254
Delta R.T. 0.003 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 114 Resp: 2999505
Ion Ratio Lower Upper
114 100
63 25.2 21.0 31.6
88 17.7 14.3 21.5

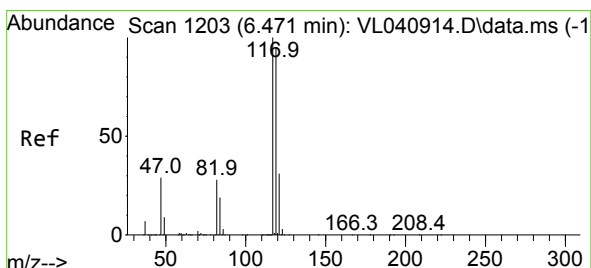
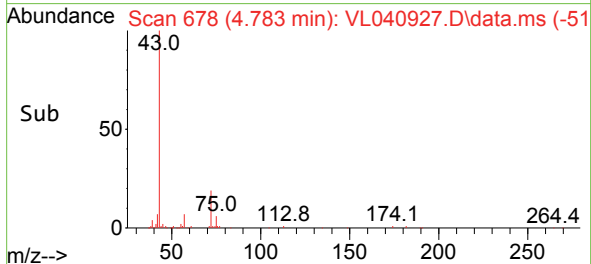
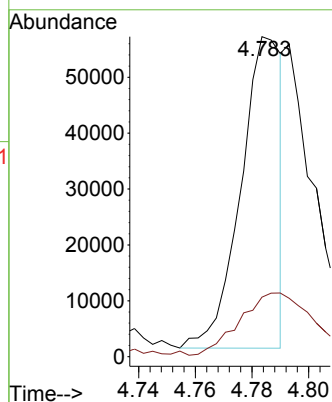
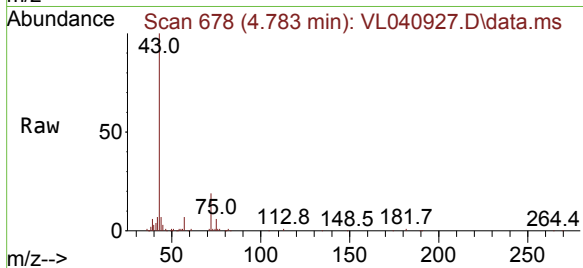




#34
2-Butanone
Concen: 0.351 ppbv
RT: 4.783 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

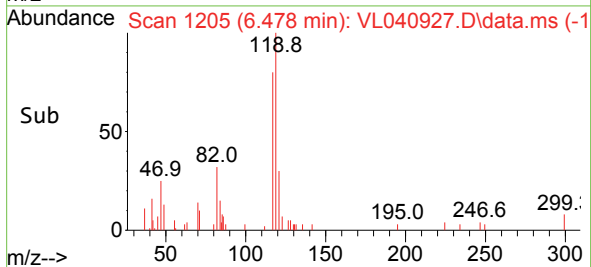
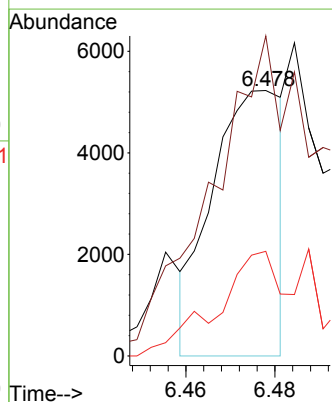
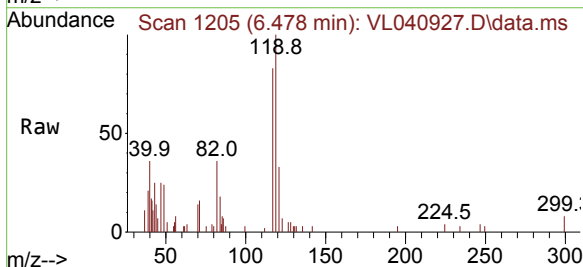
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

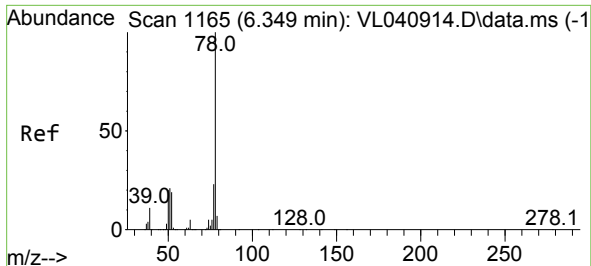
Tgt Ion: 43 Resp: 55719
Ion Ratio Lower Upper
43 100
72 0.0 17.2 25.8#



#35
Carbon Tetrachloride
Concen: 0.030 ppbv
RT: 6.478 min Scan# 1205
Delta R.T. 0.007 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 117 Resp: 5708
Ion Ratio Lower Upper
117 100
119 122.6 76.3 114.5#
121 42.3 24.9 37.3#

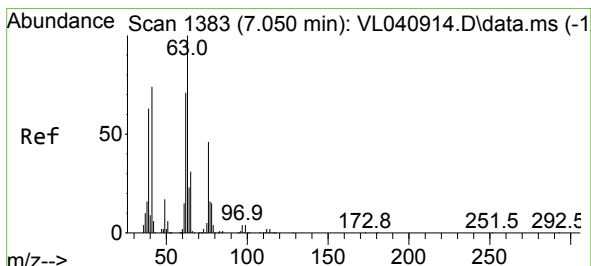
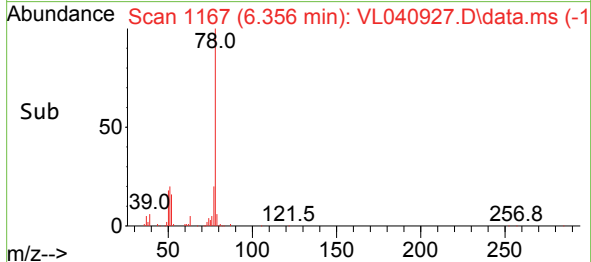
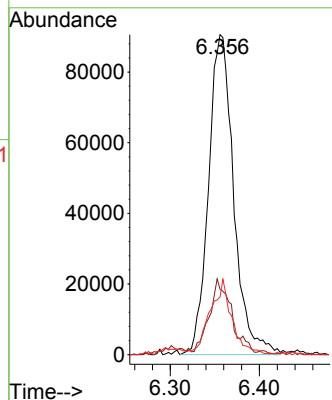
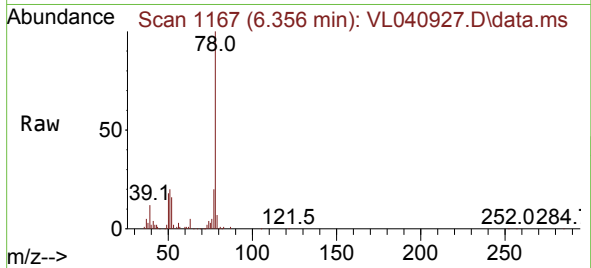




#36
Benzene
Concen: 0.759 ppbv
RT: 6.356 min Scan# 1165
Delta R.T. 0.007 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

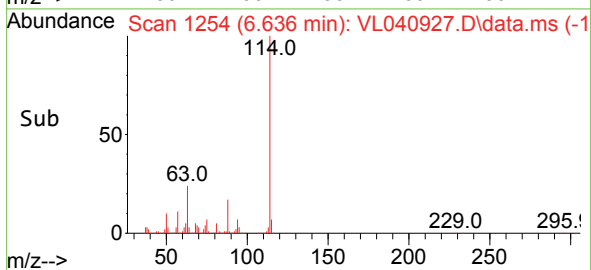
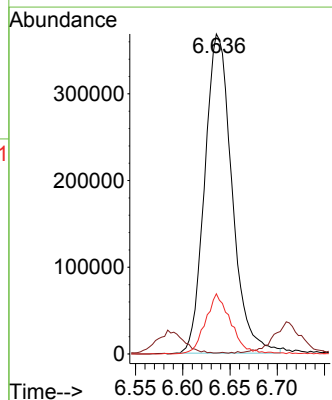
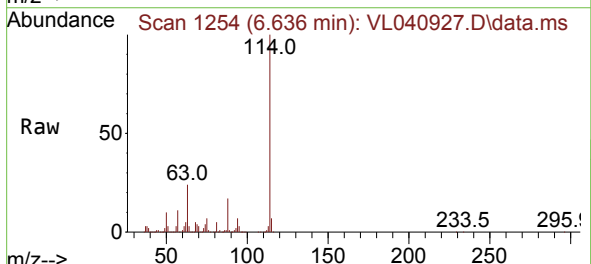
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

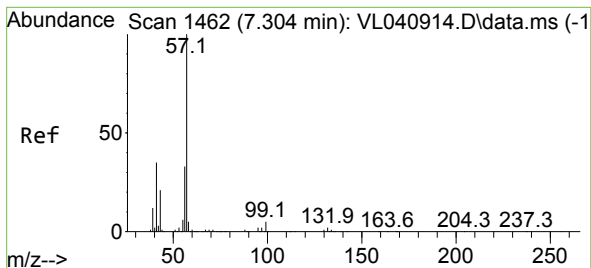
Tgt Ion: 78 Resp: 178010
Ion Ratio Lower Upper
78 100
77 20.0 18.4 27.6
50 17.8 16.0 24.0



#39
1,2-Dichloropropane
Concen: 7.993 ppbv
RT: 6.636 min Scan# 1254
Delta R.T. -0.415 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 63 Resp: 736472
Ion Ratio Lower Upper
63 100
41 0.0 59.0 88.6#
62 18.5 56.6 85.0#





#44

2,2,4-Trimethylpentane

Concen: 0.869 ppbv

RT: 7.308 min Scan# 1462

Delta R.T. 0.003 min

Lab File: VL040927.D

Acq: 21 Dec 2023 13:12

Instrument :

MSVOA_L

ClientSampleId :

10311DUP

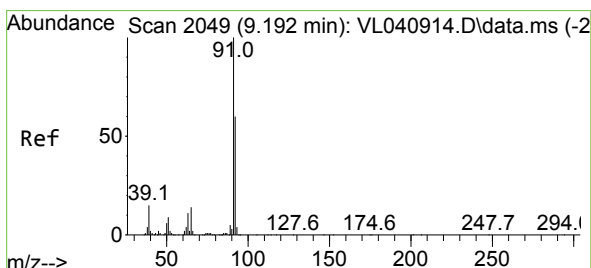
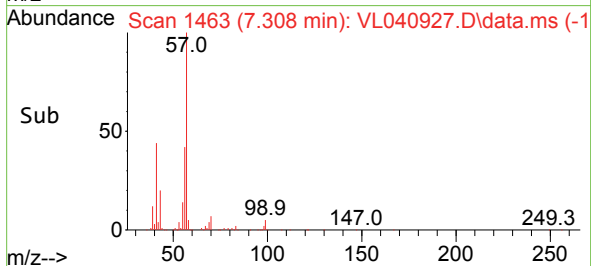
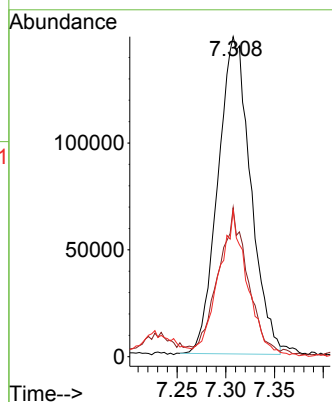
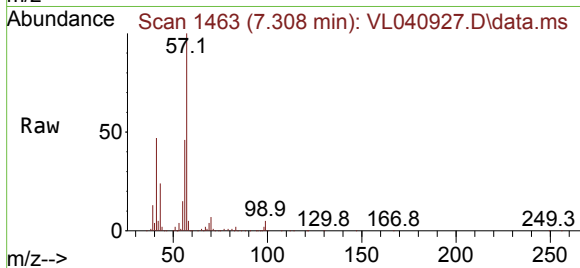
Tgt Ion: 57 Resp: 346038

Ion Ratio Lower Upper

57 100

41 42.7 28.2 42.4#

56 41.4 25.3 37.9#



#53

Toluene

Concen: 2.918 ppbv

RT: 9.195 min Scan# 2050

Delta R.T. 0.003 min

Lab File: VL040927.D

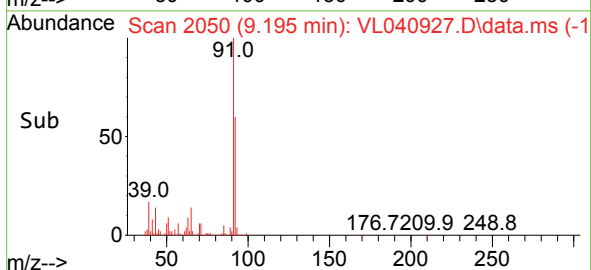
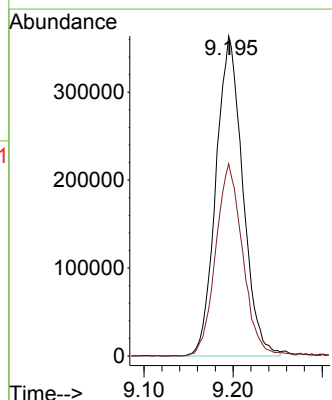
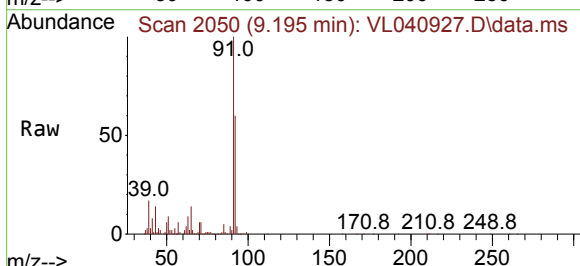
Acq: 21 Dec 2023 13:12

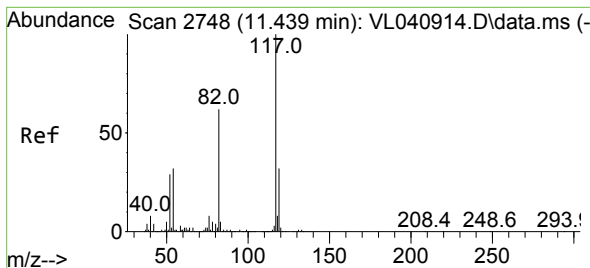
Tgt Ion: 91 Resp: 758774

Ion Ratio Lower Upper

91 100

92 61.2 49.2 73.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.436 min Scan# 21

Delta R.T. -0.003 min

Lab File: VL040927.D

Acq: 21 Dec 2023 13:12

Instrument :

MSVOA_L

ClientSampleId :

10311DUP

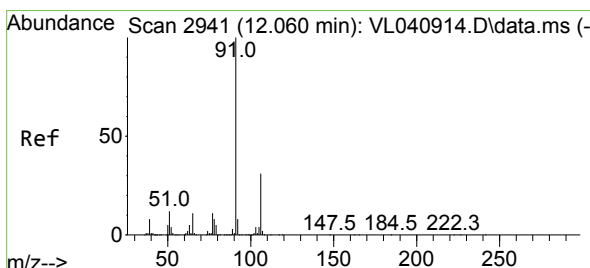
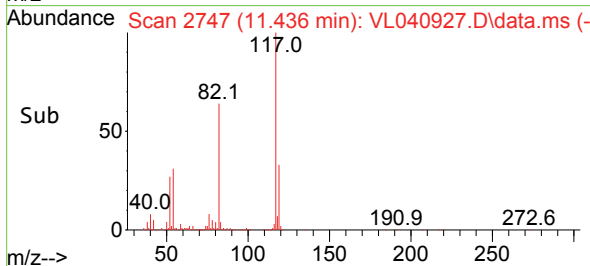
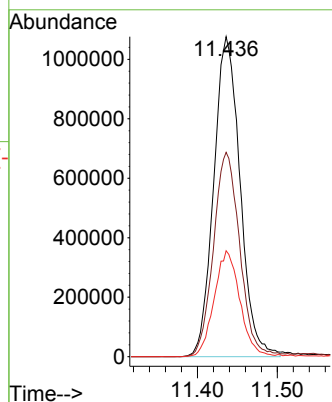
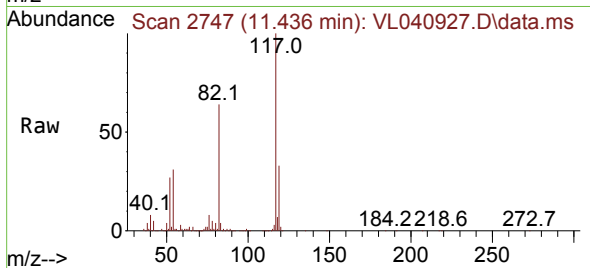
Tgt Ion:117 Resp: 2461896

Ion Ratio Lower Upper

117 100

82 64.2 49.6 74.4

119 32.8 23.4 35.0



#58

Ethyl Benzene

Concen: 0.269 ppbv

RT: 12.053 min Scan# 2939

Delta R.T. -0.006 min

Lab File: VL040927.D

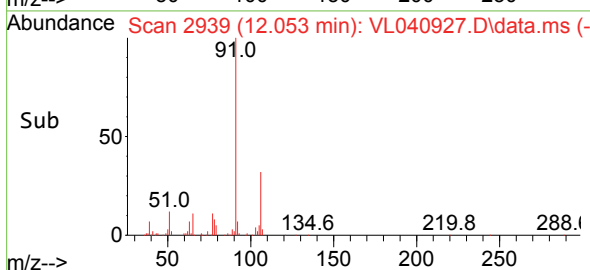
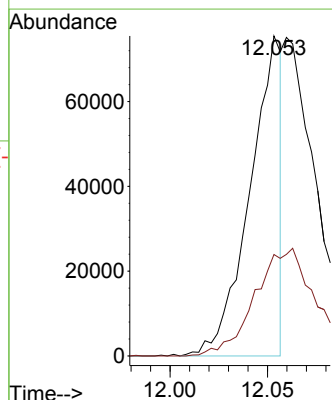
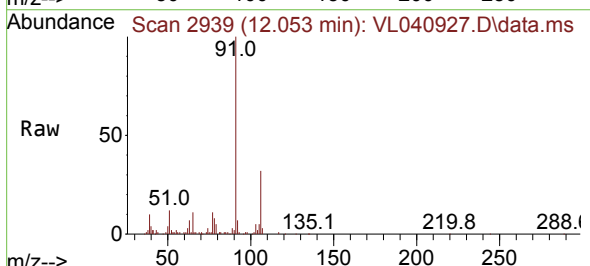
Acq: 21 Dec 2023 13:12

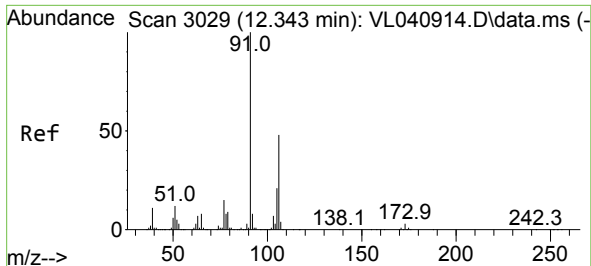
Tgt Ion: 91 Resp: 85079

Ion Ratio Lower Upper

91 100

106 31.7 24.9 37.3





#59

m/p-Xylene

Concen: 1.111 ppbv

RT: 12.317 min Scan# 3029

Delta R.T. -0.026 min

Lab File: VL040927.D

Acq: 21 Dec 2023 13:12

Instrument :

MSVOA_L

ClientSampleId :

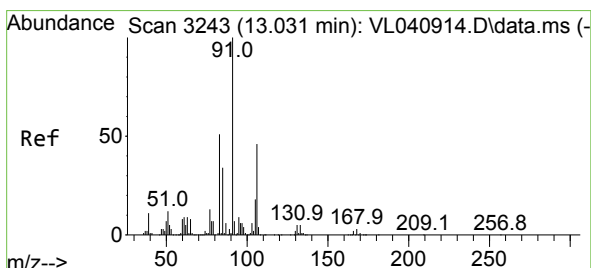
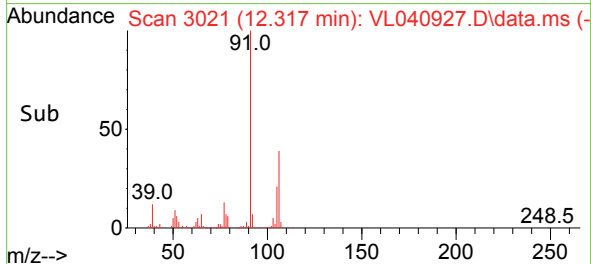
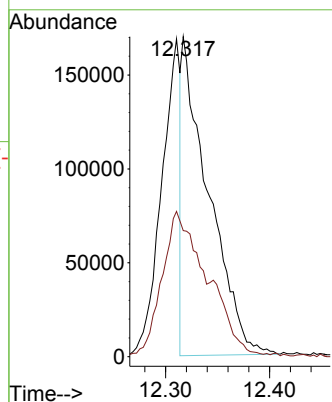
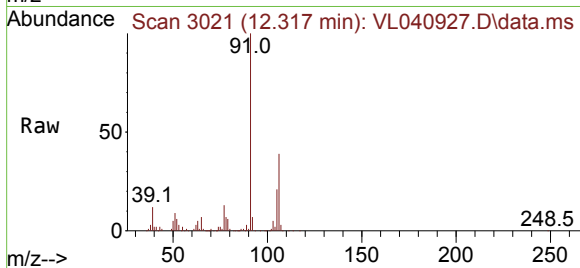
10311DUP

Tgt Ion: 91 Resp: 298930

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0



#60

o-Xylene

Concen: 0.337 ppbv

RT: 13.031 min Scan# 3243

Delta R.T. 0.000 min

Lab File: VL040927.D

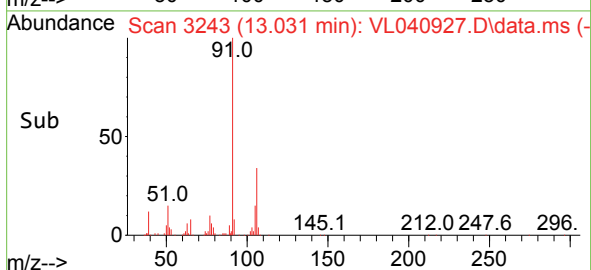
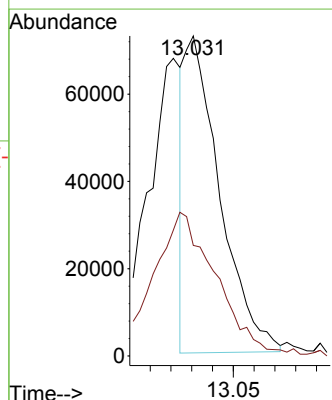
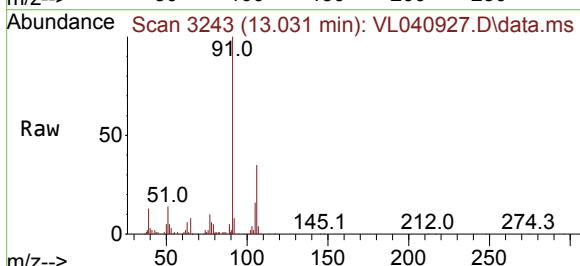
Acq: 21 Dec 2023 13:12

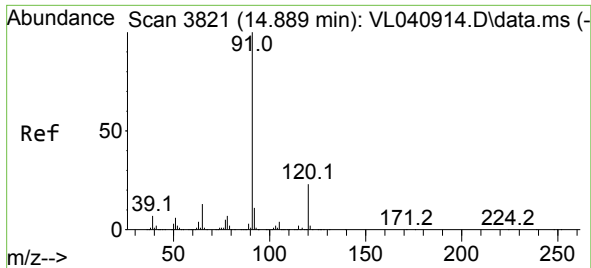
Tgt Ion: 91 Resp: 85365

Ion Ratio Lower Upper

91 100

106 0.0 22.6 67.7#

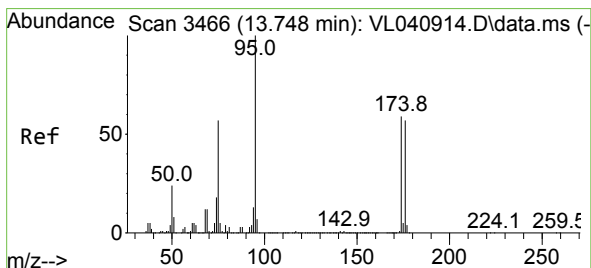
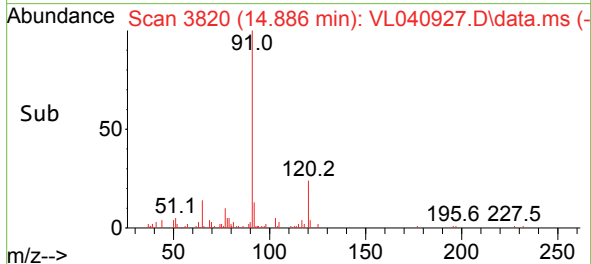
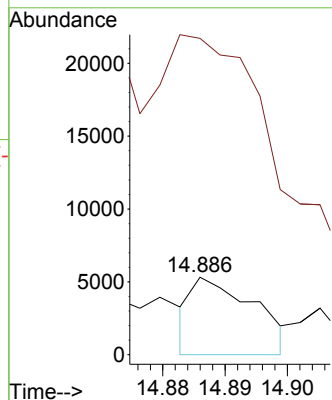
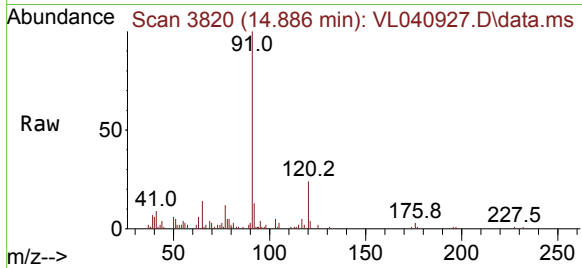




#64
n-propylbenzene
Concen: 0.039 ppbv
RT: 14.886 min Scan# 31
Delta R.T. -0.003 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

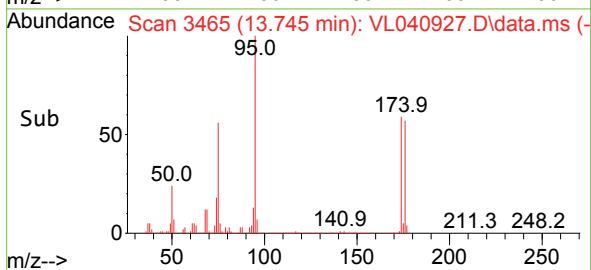
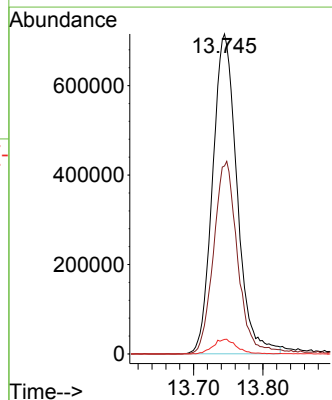
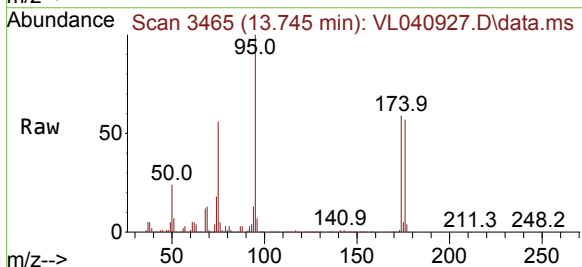
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

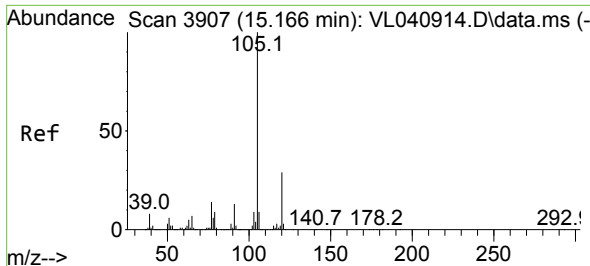
Tgt Ion:120 Resp: 3696
Ion Ratio Lower Upper
120 100
91 1513.6 381.9 572.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.656 ppbv
RT: 13.745 min Scan# 3465
Delta R.T. -0.003 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion: 95 Resp: 1750981
Ion Ratio Lower Upper
95 100
174 59.9 48.0 72.0
175 4.6 3.7 5.5

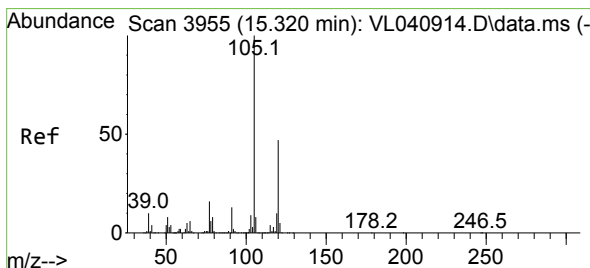
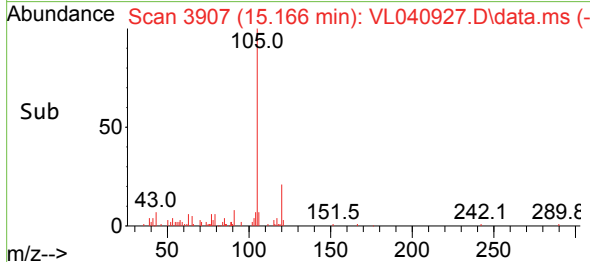
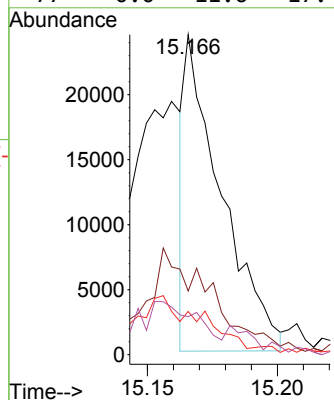
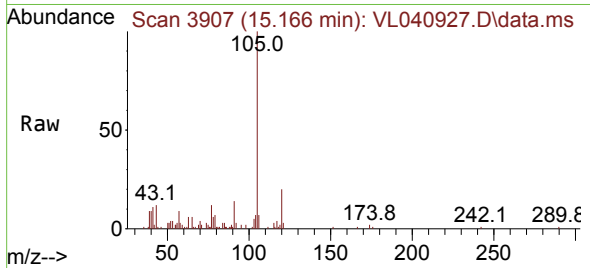




#72
4-Ethyltoluene
Concen: 0.085 ppbv
RT: 15.166 min Scan# 3907
Delta R.T. 0.000 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

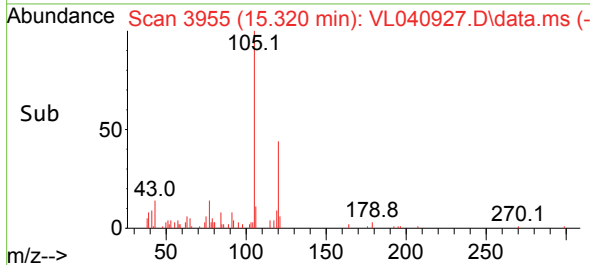
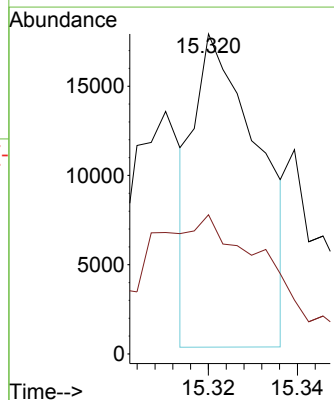
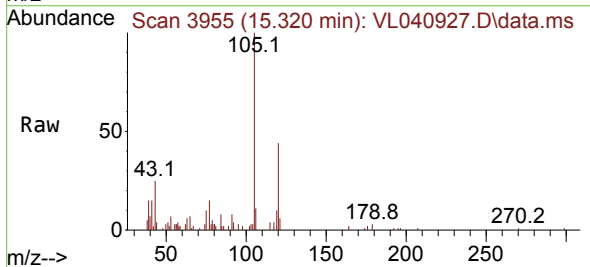
Instrument :
MSVOA_L
ClientSampleId :
10311DUP

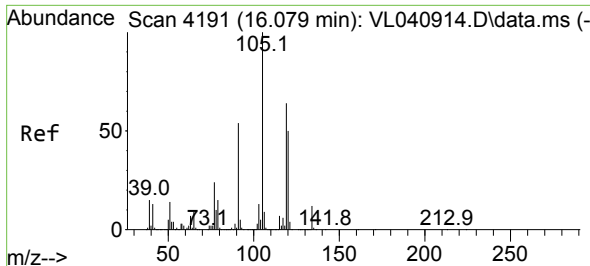
Tgt Ion:105 Resp: 23621
Ion Ratio Lower Upper
105 100
120 0.0 23.8 35.8#
91 0.0 10.9 16.3#
77 0.0 11.6 17.4#



#73
1,3,5-Trimethylbenzene
Concen: 0.073 ppbv
RT: 15.320 min Scan# 3955
Delta R.T. 0.000 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion:105 Resp: 17630
Ion Ratio Lower Upper
105 100
120 33.4 37.8 56.8#

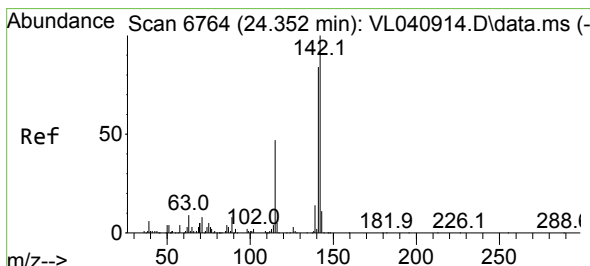
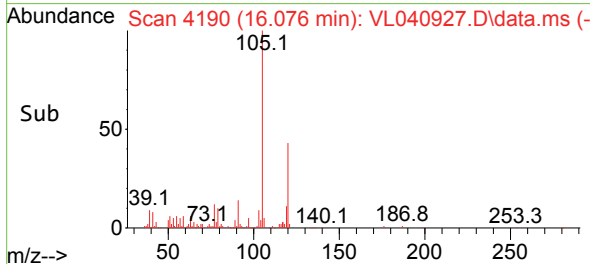
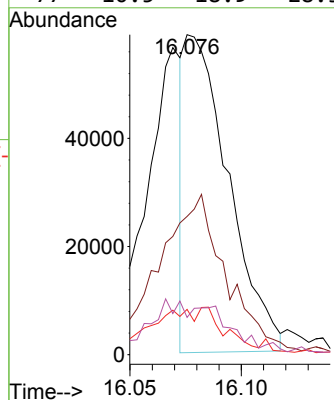
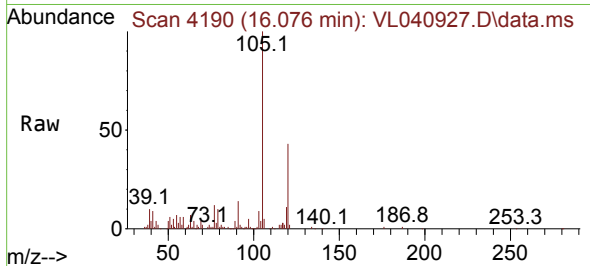




#74
1,2,4-Trimethylbenzene
Concen: 0.301 ppbv
RT: 16.076 min Scan# 4191
Delta R.T. -0.003 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Instrument :
MSVOA_L
ClientSampleId :
10311DUP

Tgt Ion:	105	Resp:	80339
Ion Ratio	Lower	Upper	
105	100		
120	44.6	40.2	60.4
91	13.9	43.0	64.6#
77	10.5	18.9	28.3#



#80
Naphthalene,2-methyl-
Concen: 0.046 ppbv
RT: 24.368 min Scan# 6769
Delta R.T. 0.016 min
Lab File: VL040927.D
Acq: 21 Dec 2023 13:12

Tgt Ion:	142	Resp:	1088
Ion Ratio	Lower	Upper	
142	100		
141	0.0	68.5	102.7#
115	36.5	34.5	51.7

