

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL020620\
 Data File : VL034612.D
 Acq On : 6 Feb 2020 23:39
 Operator : SY/AP
 Sample : L1435-08
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-8

Quant Time: Feb 10 09:50:55 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL013020AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020
 QLast Update : Thu Jan 30 17:16:44 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	943329	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.21	114	1941856	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	1892432	10.00	ppbv	0.04

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1669472	10.44	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.40%

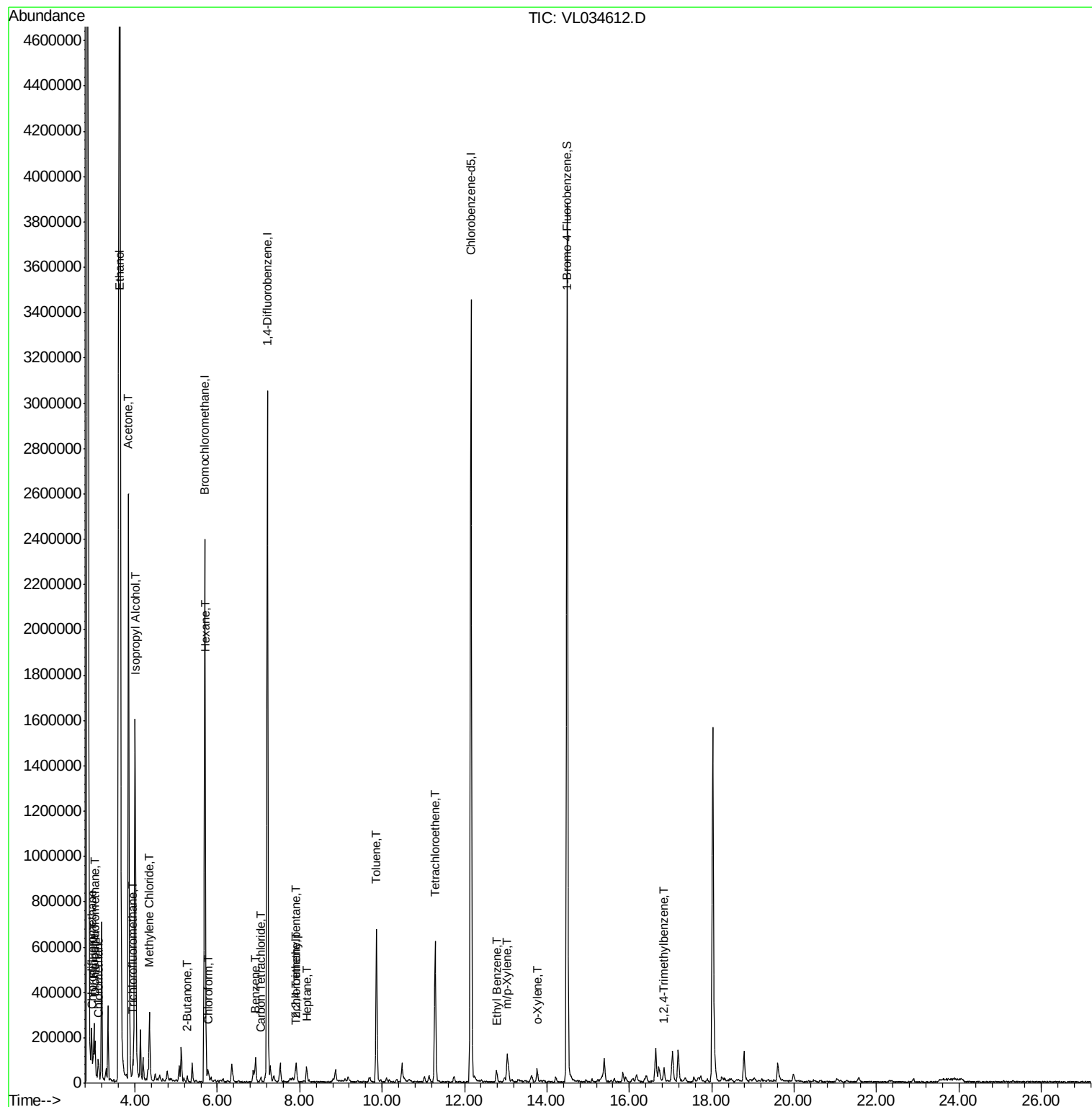
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	102757m	0.495	ppbv	
3) Chlorodifluoromethane	2.97	51	27024m	0.237	ppbv	
4) Chloromethane	3.13	50	31300	0.449	ppbv	93
9) Propene	3.00	41	50143m	1.130	ppbv	
10) Heptane	8.17	43	21826m	0.195	ppbv	
11) Trichlorofluoromethane	3.95	101	44122	0.234	ppbv	99
13) Ethanol	3.63	45	10626408	893.898	ppbv	89
15) Acetone	3.84	43	2612363	18.843	ppbv	99
19) Isopropyl Alcohol	4.00	45	2095078m	25.895	ppbv	
20) Methylene Chloride	4.35	84	94408	1.788	ppbv	93
26) Hexane	5.71	57	91091	0.969	ppbv	95
29) Chloroform	5.78	83	24361	0.147	ppbv	85
34) 2-Butanone	5.27	43	26083m	0.185	ppbv	
35) Carbon Tetrachloride	7.06	117	11059m	0.060	ppbv	
36) Benzene	6.93	78	72093m	0.417	ppbv	
38) Trichloroethene	7.89	130	2971m	0.041	ppbv	
44) 2,2,4-Trimethylpentane	7.92	57	50790m	0.162	ppbv	
52) Tetrachloroethene	11.29	164	128834	1.857	ppbv	93
53) Toluene	9.86	91	460127	2.425	ppbv	100
58) Ethyl Benzene	12.78	91	38775	0.153	ppbv	97
59) m/p-Xylene	13.04	91	121732m	0.544	ppbv	
60) o-Xylene	13.76	91	39320m	0.175	ppbv	
74) 1,2,4-Trimethylbenzene	16.84	105	35706m	0.134	ppbv	

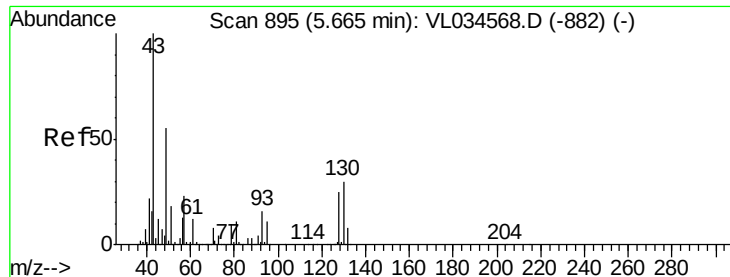
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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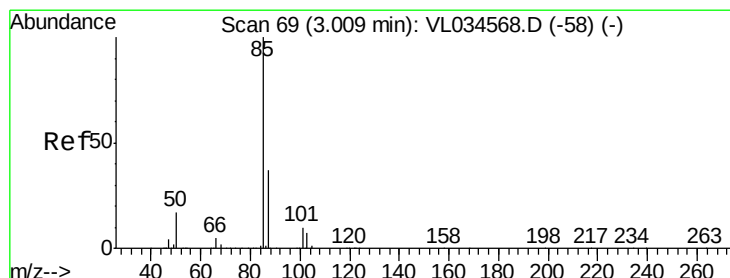
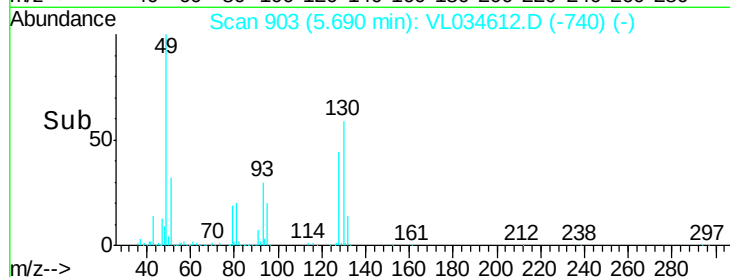
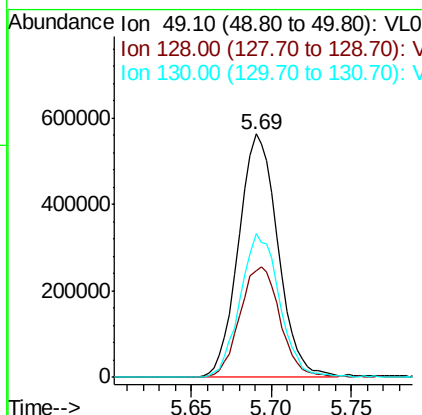
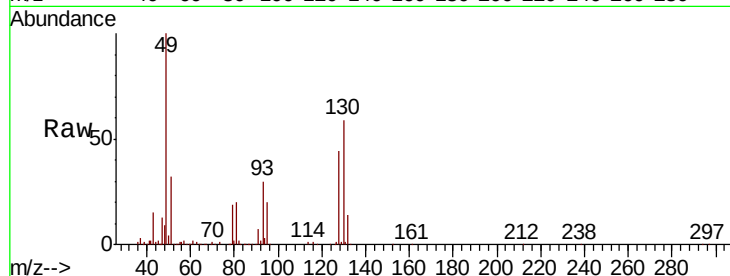




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.69 min Scan# 903
 Delta R.T. 0.03 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

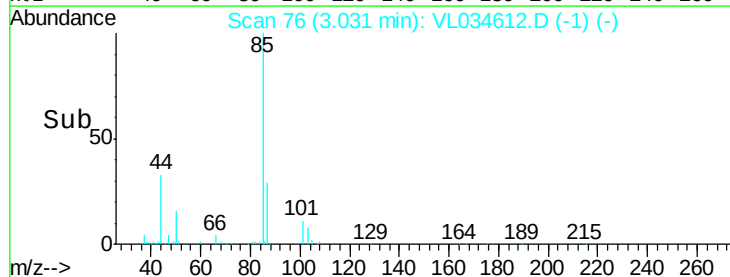
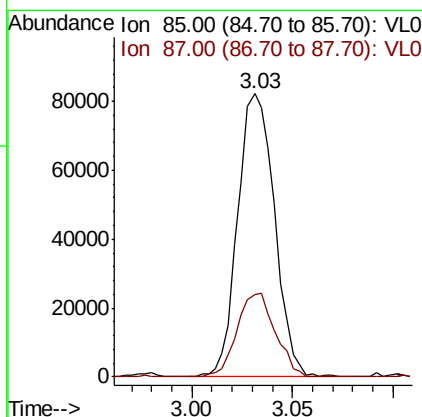
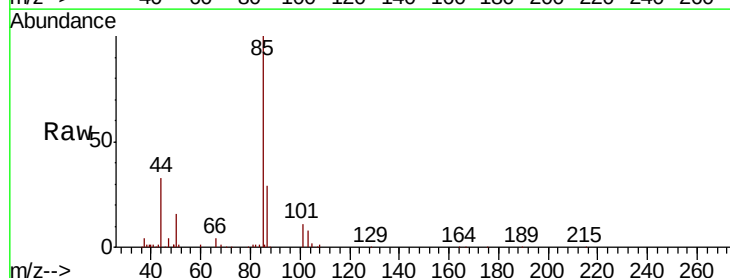
Instrument :
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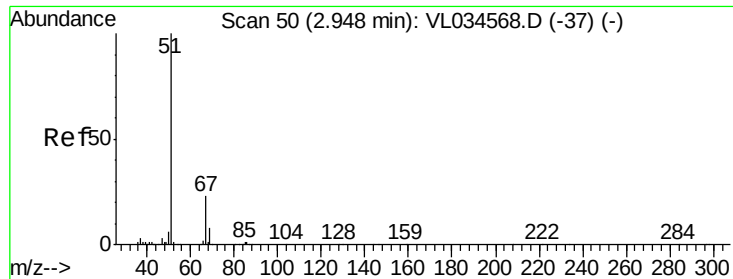
Tot Ion: 49 Resp: 943329
 Ion Ratio Lower Upper
 49 100
 128 46.8 22.7 68.1
 130 59.6 28.6 85.8



#2
 Dichlorodifluoromethane
 Concen: 0.495 ppbv m
 RT: 3.03 min Scan# 76
 Delta R.T. 0.02 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

Tgt Ion: 85 Resp: 102757
 Ion Ratio Lower Upper
 85 100
 87 29.3 29.5 44.3#

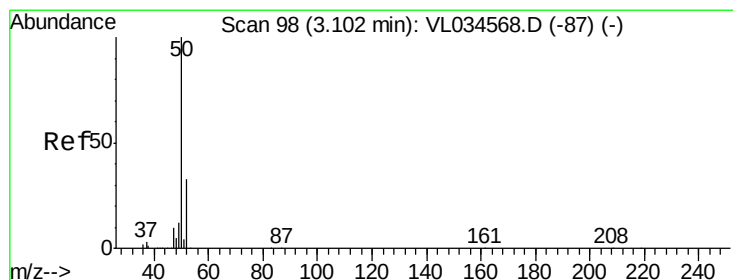
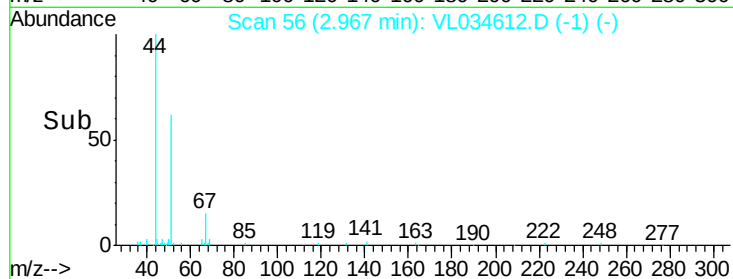
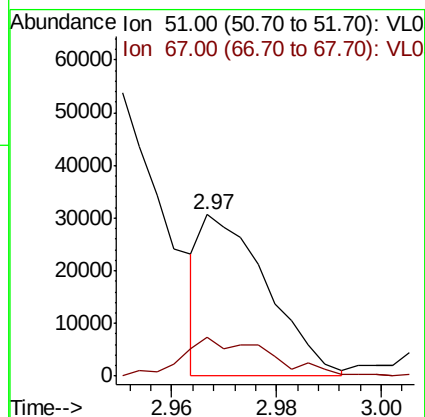
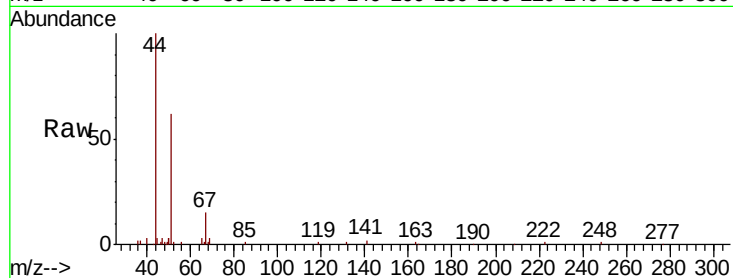




#3
Chlorodifluoromethane
Concen: 0.237 ppbv
RT: 2.97 min Scan# 56
Delta R.T. 0.02 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

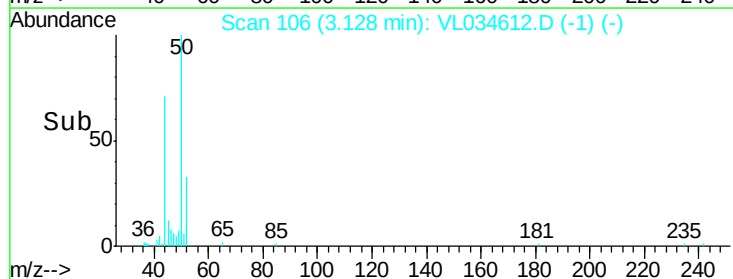
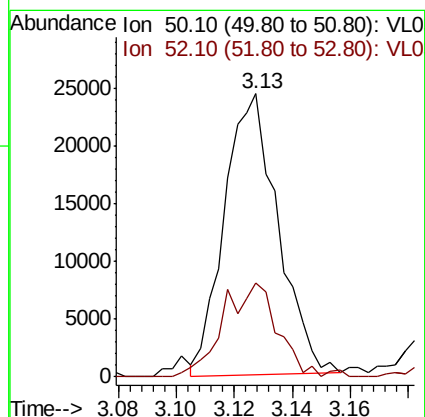
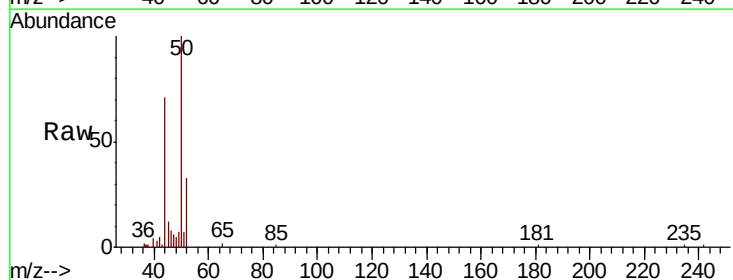
Instrument :
MSVOA_L
ClientSampleId :
IA-8

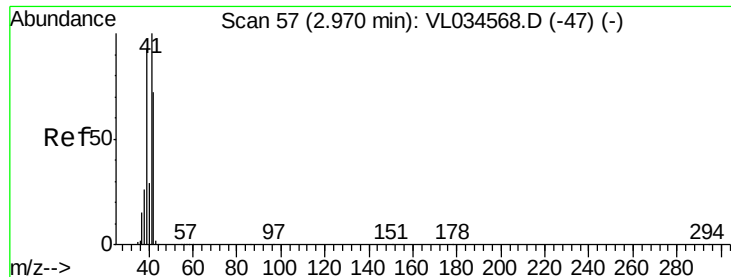
Tot Ion: 51 Resp: 27024
Ion Ratio Lower Upper
51 100
67 31.9 17.8 26.8#



#4
Chloromethane
Concen: 0.449 ppbv
RT: 3.13 min Scan# 106
Delta R.T. 0.03 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion: 50 Resp: 31300
Ion Ratio Lower Upper
50 100
52 29.1 26.6 39.8





#9

Propene

Concen: 1.130 ppbv m

RT: 3.00 min Scan# 66

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

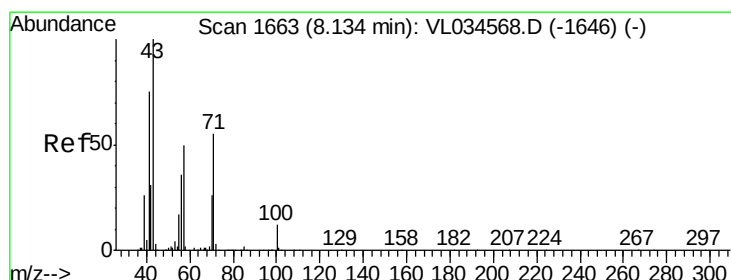
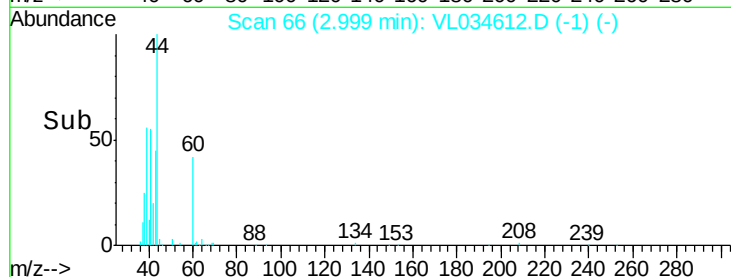
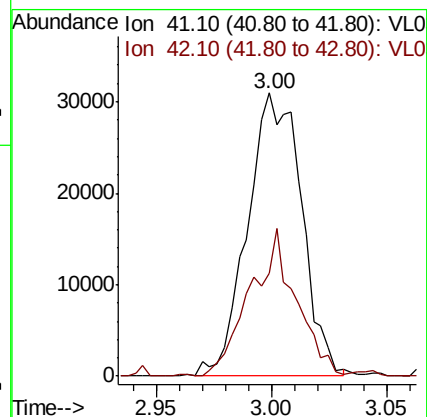
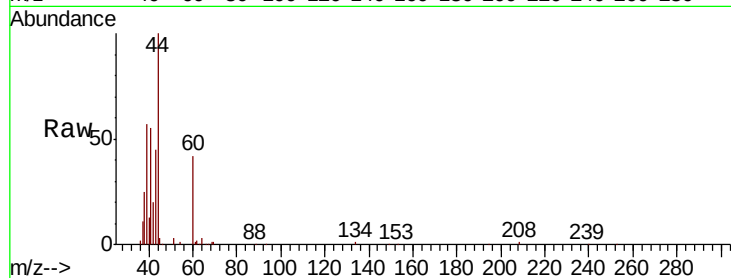
IA-8

Tot Ion: 41 Resp: 50143

Ion Ratio Lower Upper

41 100

42 45.4 57.0 85.4#



#10

Heptane

Concen: 0.195 ppbv m

RT: 8.17 min Scan# 1674

Delta R.T. 0.04 min

Lab File: VL034612.D

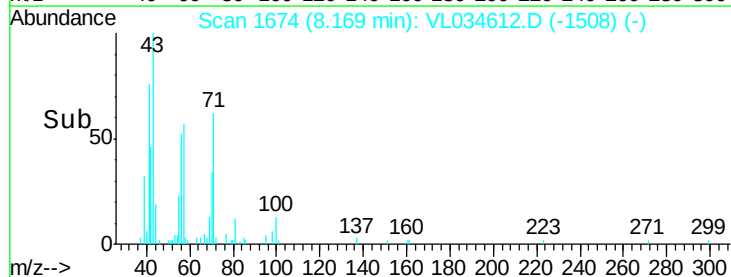
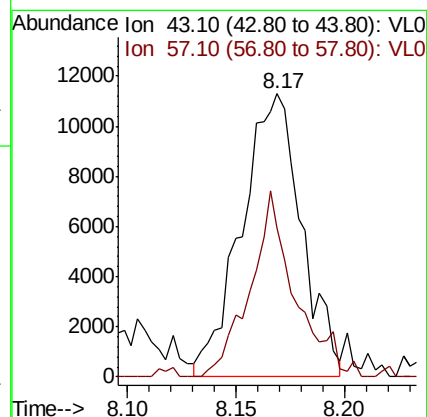
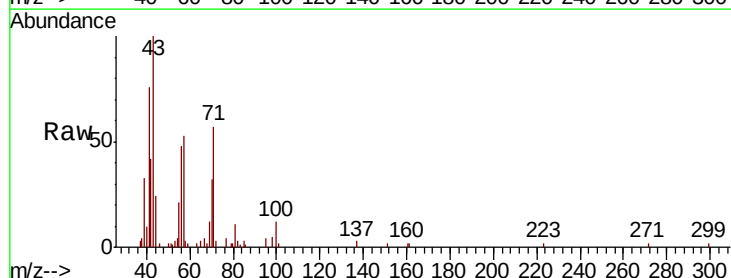
Acq: 6 Feb 2020 23:39

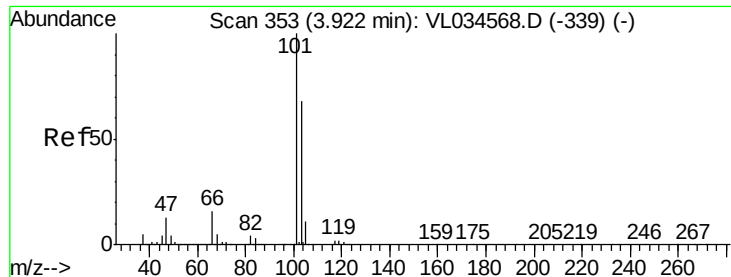
Tgt Ion: 43 Resp: 21826

Ion Ratio Lower Upper

43 100

57 50.5 41.2 61.8

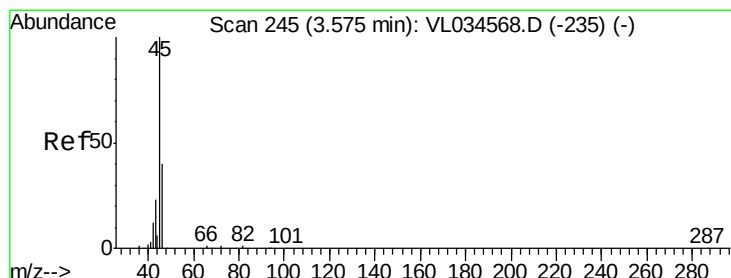
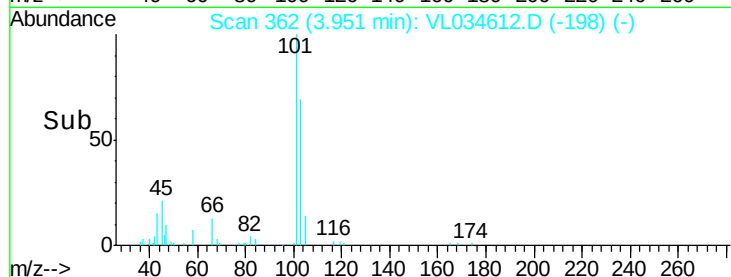
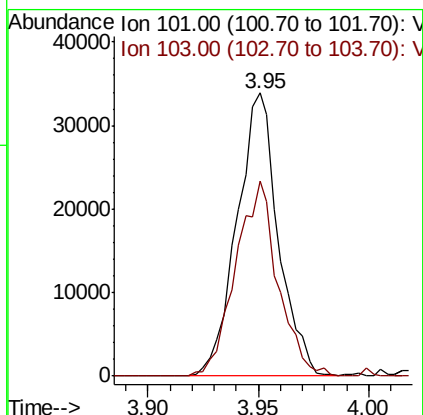
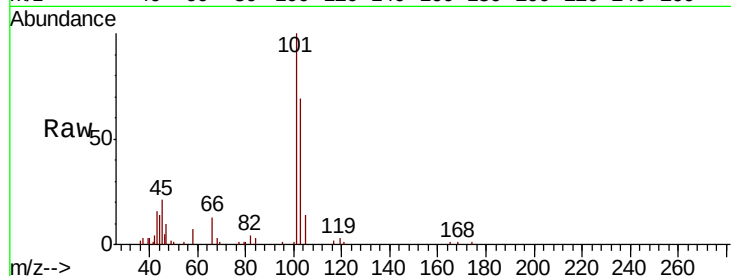




#11
 Trichlorofluoromethane
 Concen: 0.234 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.03 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

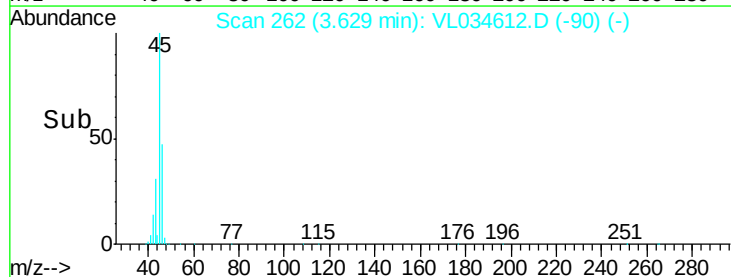
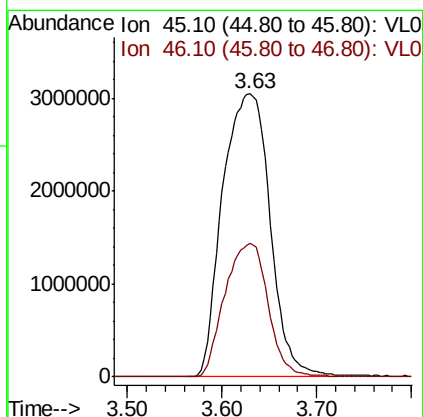
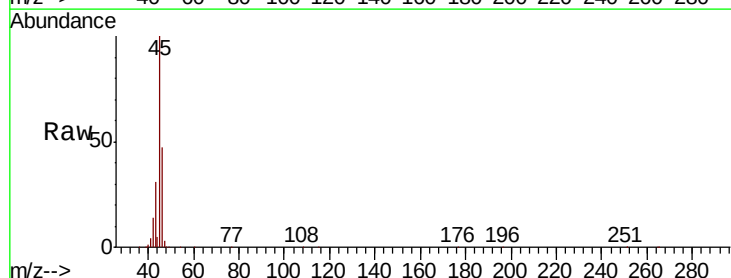
Instrument :
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 IA-8

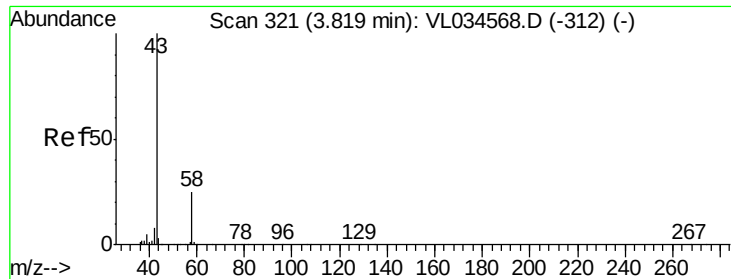
Tot Ion:101 Resp: 44122
 Ion Ratio Lower Upper
 101 100
 103 68.9 54.4 81.6



#13
 Ethanol
 Concen: 893.898 ppbv
 RT: 3.63 min Scan# 262
 Delta R.T. 0.05 min
 Lab File: VL034612.D
 Acq: 6 Feb 2020 23:39

Tgt Ion: 45 Resp:10626408
 Ion Ratio Lower Upper
 45 100
 46 43.3 14.8 59.2





#15

Acetone

Concen: 18.843 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.02 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

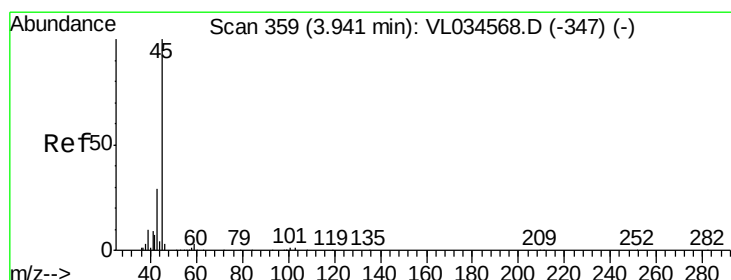
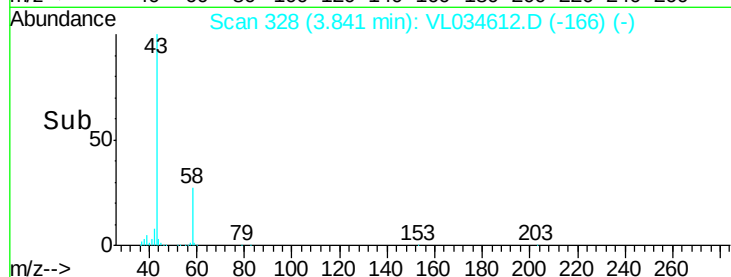
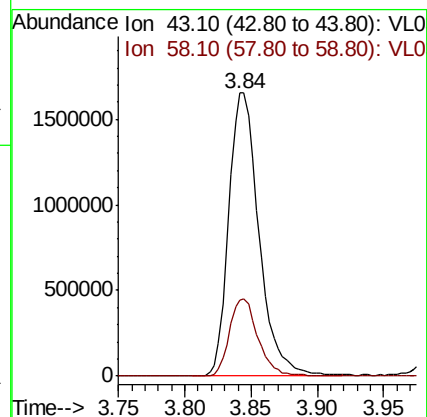
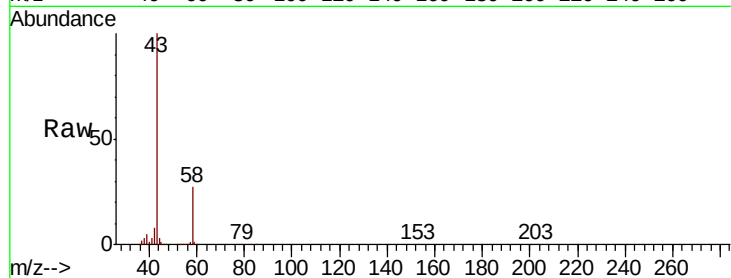
IA-8

Tot Ion: 43 Resp: 2612363

Ion Ratio Lower Upper

43 100

58 26.0 20.3 30.5



#19

Isopropyl Alcohol

Concen: 25.895 ppbv m

RT: 4.00 min Scan# 378

Delta R.T. 0.06 min

Lab File: VL034612.D

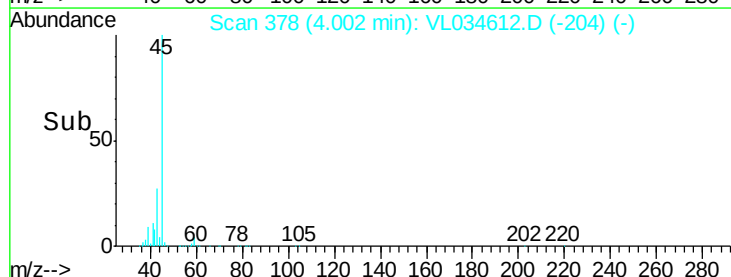
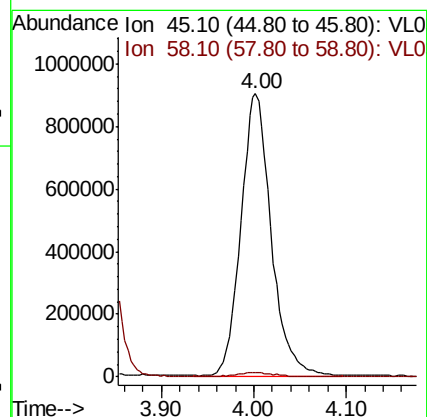
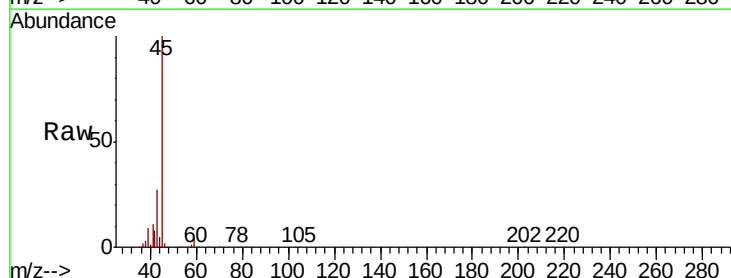
Acq: 6 Feb 2020 23:39

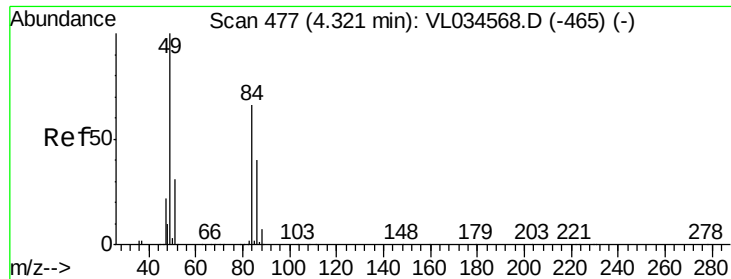
Tgt Ion: 45 Resp: 2095078

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#

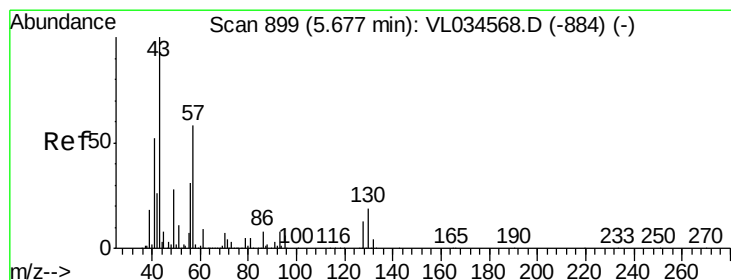
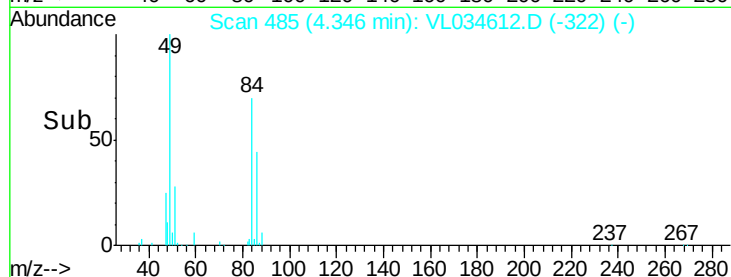
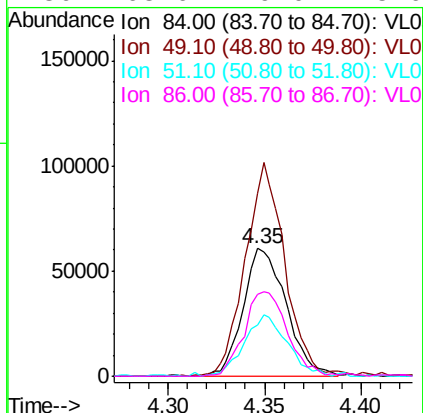
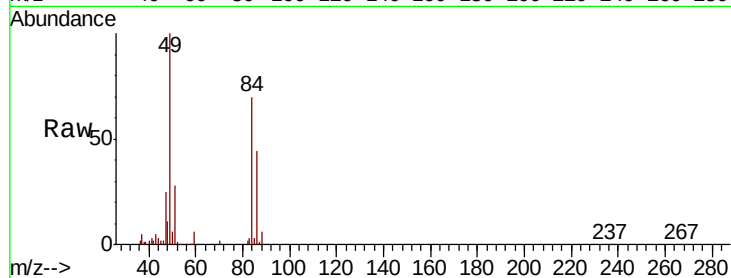




#20
Methvlene Chloride
Concen: 1.788 ppbv
RT: 4.35 min Scan# 485
Delta R.T. 0.03 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

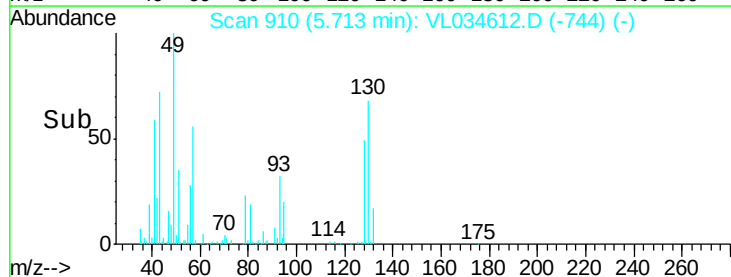
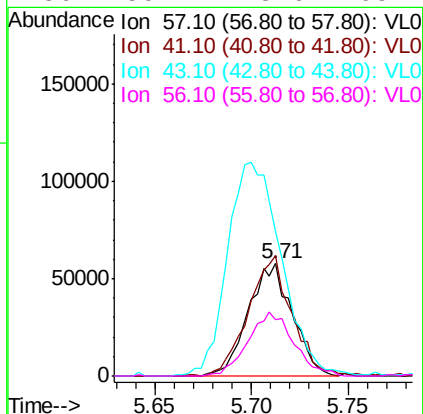
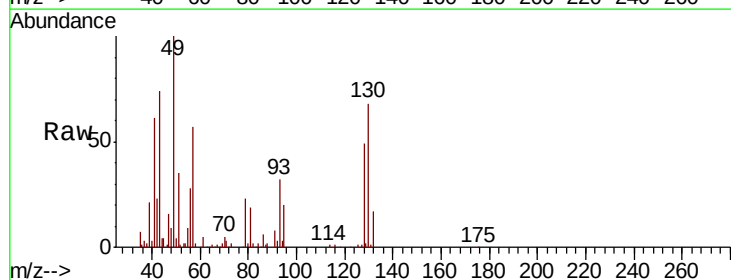
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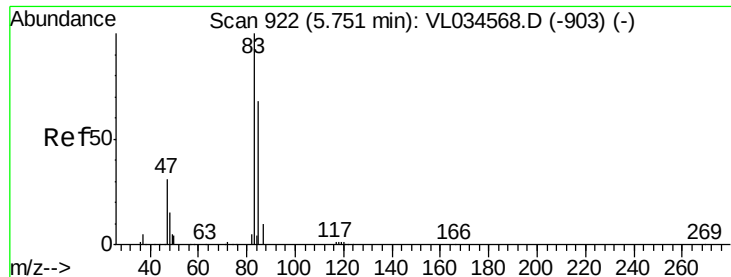
Tot Ion:	84	Resp:	94408
Ion	Ratio	Lower	Upper
84	100		
49	143.0	122.4	183.6
51	40.3	38.6	57.8
86	63.6	49.0	73.6



#26
Hexane
Concen: 0.969 ppbv
RT: 5.71 min Scan# 910
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion:	57	Resp:	91091
Ion	Ratio	Lower	Upper
57	100		
41	107.1	76.2	114.2
43	235.1	189.9	284.9
56	59.1	43.6	65.4

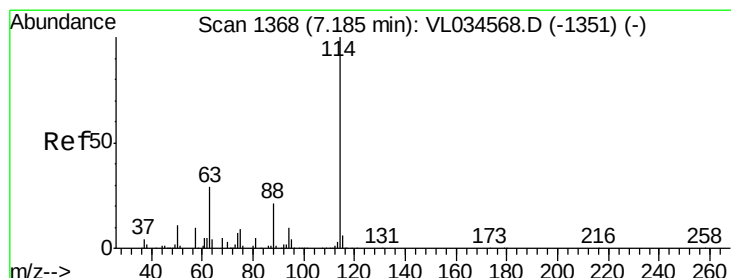
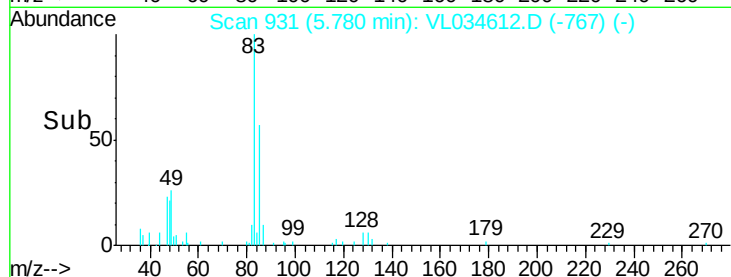
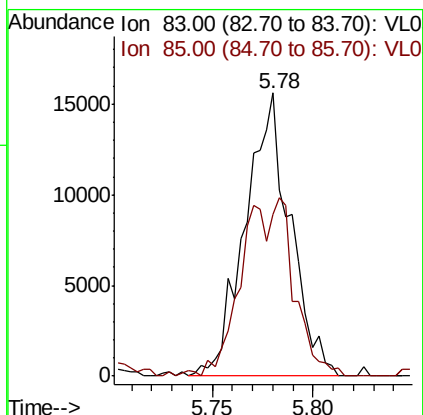
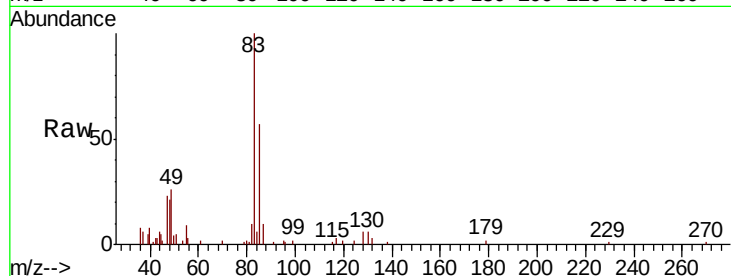




#29
Chloroform
Concen: 0.147 ppbv
RT: 5.78 min Scan# 931
Delta R.T. 0.03 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

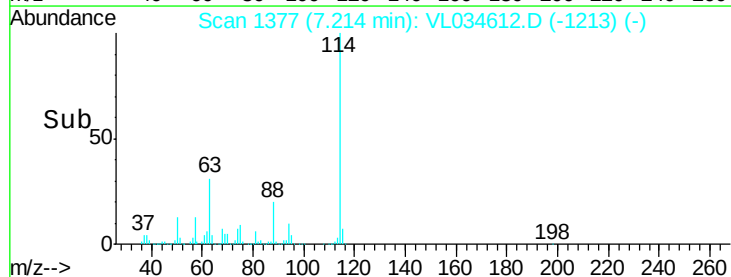
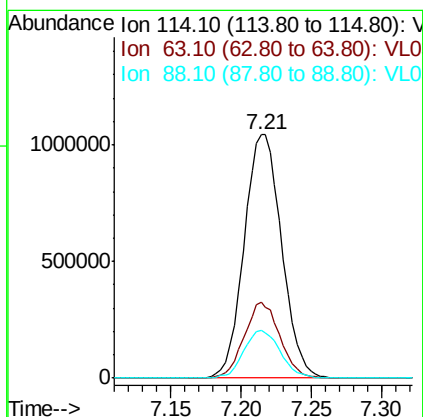
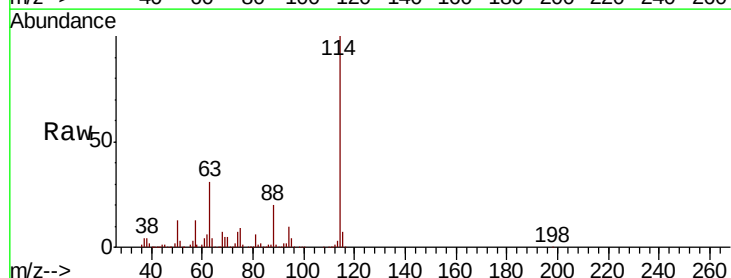
Instrument :
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ClientSampleId :
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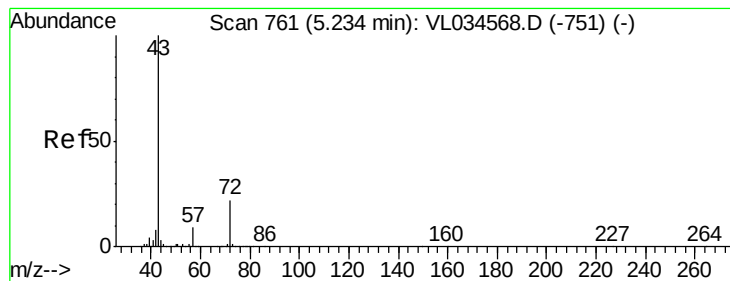
Tot Ion: 83 Resp: 24361
Ion Ratio Lower Upper
83 100
85 55.1 54.0 81.0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1377
Delta R.T. 0.03 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion: 114 Resp: 1941856
Ion Ratio Lower Upper
114 100
63 29.7 24.1 36.1
88 19.1 15.9 23.9





#34

2-Butanone

Concen: 0.185 ppbv m

RT: 5.27 min Scan# 771

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

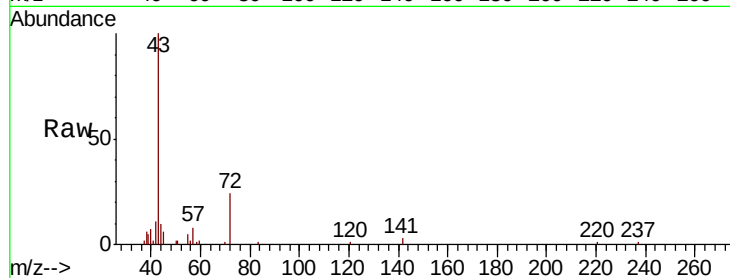
IA-8

Tot Ion: 43 Resp: 26083

Ion Ratio Lower Upper

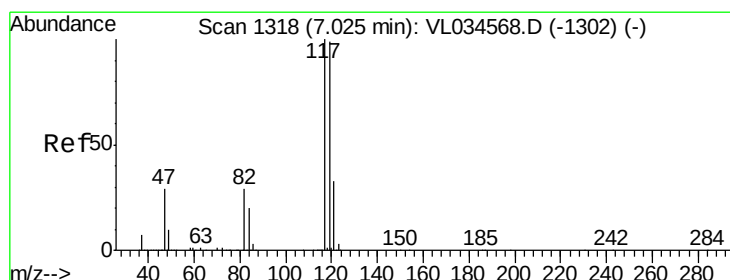
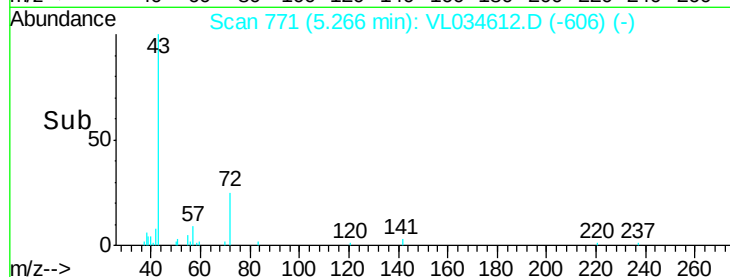
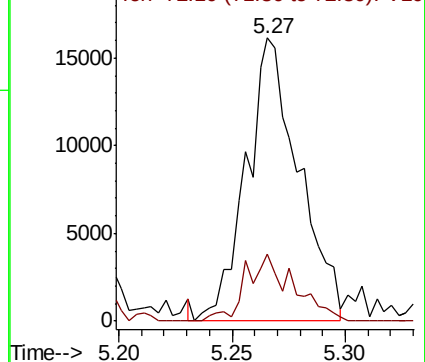
43 100

72 0.0 17.2 25.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.060 ppbv m

RT: 7.06 min Scan# 1328

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

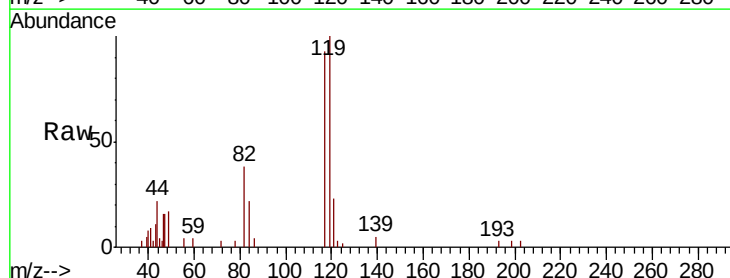
Tgt Ion: 117 Resp: 11059

Ion Ratio Lower Upper

117 100

119 107.9 79.5 119.3

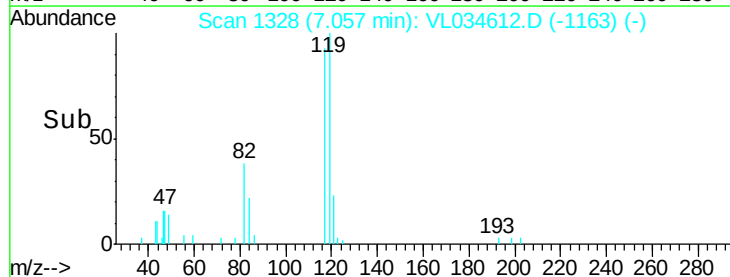
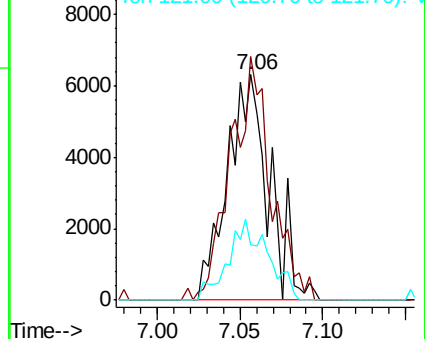
121 24.4 26.2 39.2#

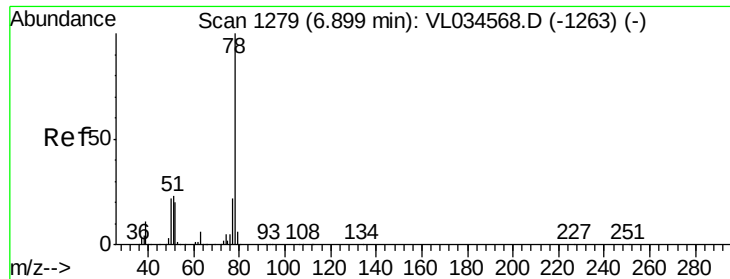


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.417 ppbv m

RT: 6.93 min Scan# 1288

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampled :

IA-8

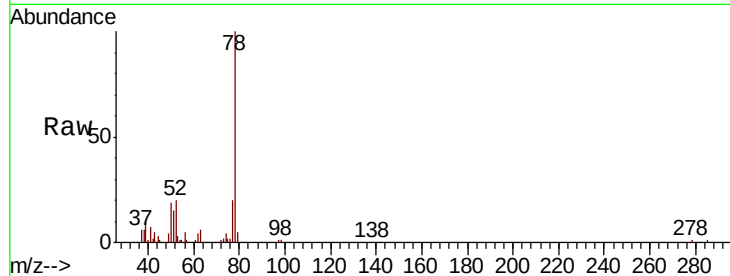
Tot Ion: 78 Resp: 72093

Ion Ratio Lower Upper

78 100

77 20.0 17.3 25.9

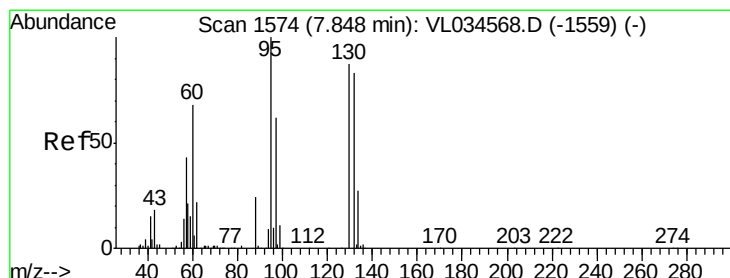
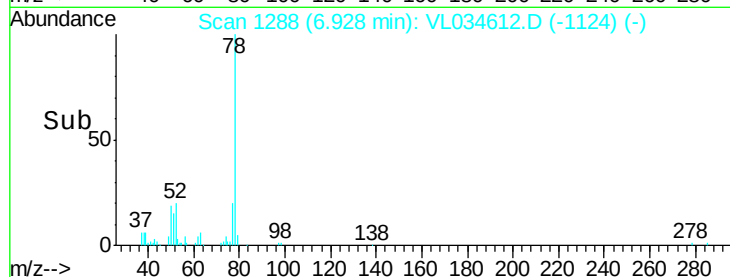
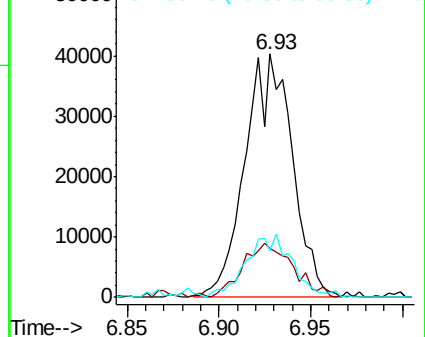
50 18.8 17.4 26.2



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#38

Trichloroethene

Concen: 0.041 ppbv m

RT: 7.89 min Scan# 1587

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Tgt Ion: 130 Resp: 2971

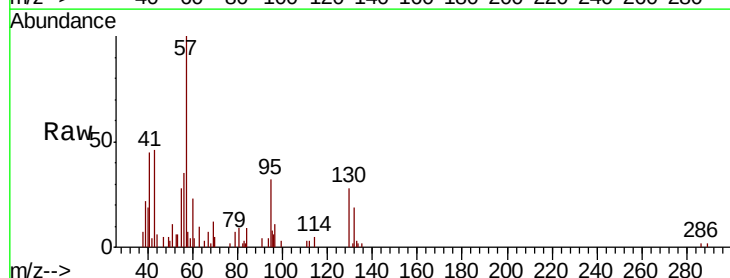
Ion Ratio Lower Upper

130 100

95 115.0 91.6 137.4

132 68.6 76.1 114.1#

97 39.1 56.6 84.8#

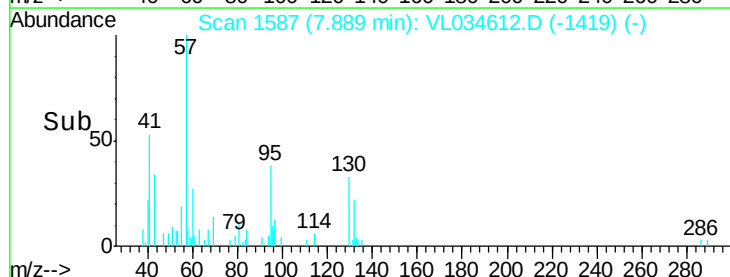
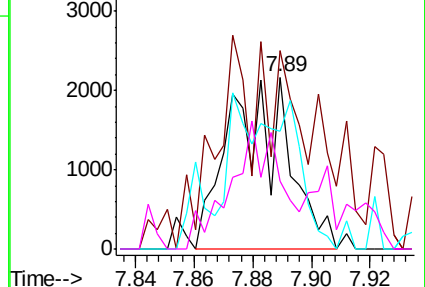


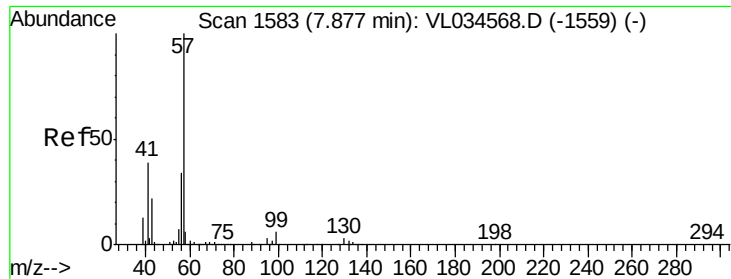
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0

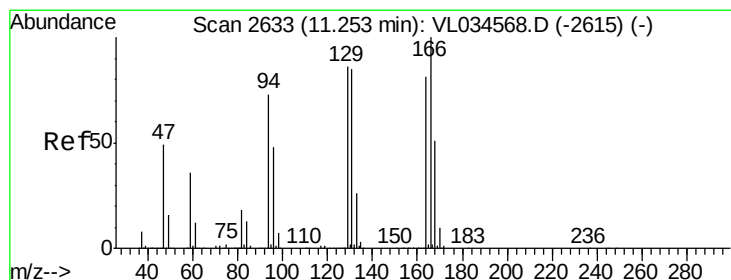
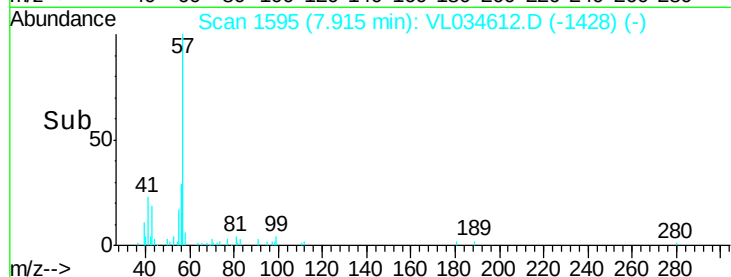
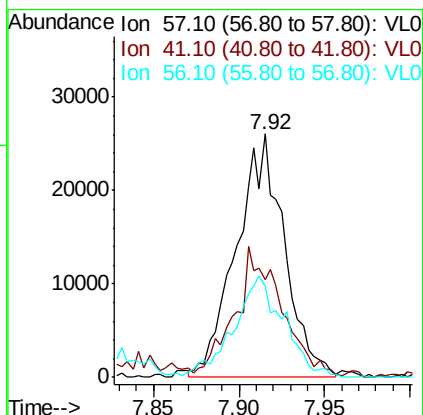
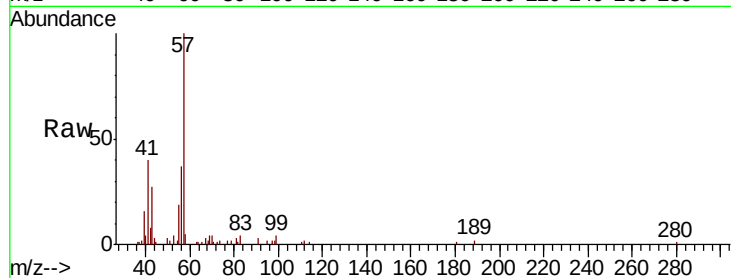




#44
2,2,4-Trimethylpentane
Concen: 0.162 ppbv m
RT: 7.92 min Scan# 1595
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

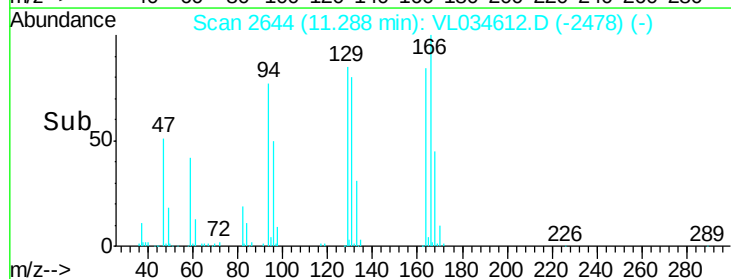
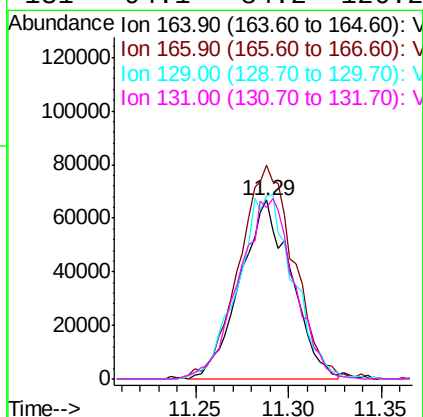
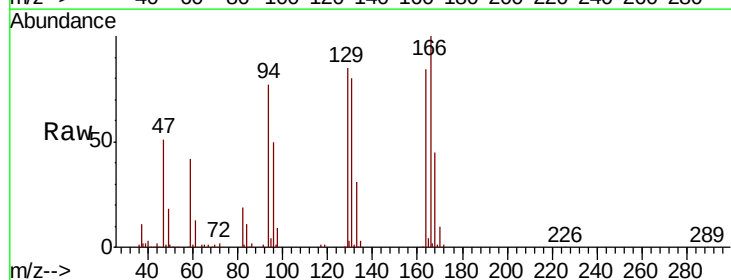
Instrument :
MSVOA_L
ClientSampleId :
IA-8

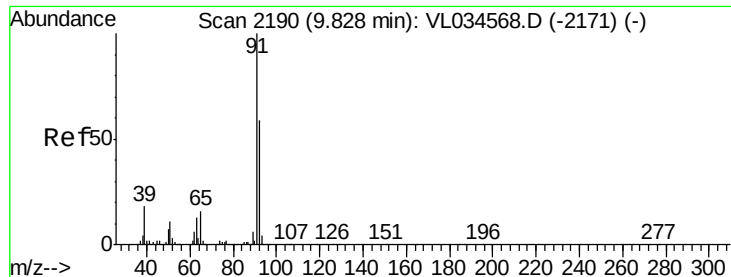
Tot Ion: 57 Resp: 50790
Ion Ratio Lower Upper
57 100
41 54.5 28.9 43.3#
56 0.0 25.5 38.3#



#52
Tetrachloroethene
Concen: 1.857 ppbv
RT: 11.29 min Scan# 2644
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion:164 Resp: 128834
Ion Ratio Lower Upper
164 100
166 117.4 99.0 148.4
129 100.4 85.3 127.9
131 94.1 84.2 126.2





#53

Toluene

Concen: 2.425 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. 0.03 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampled :

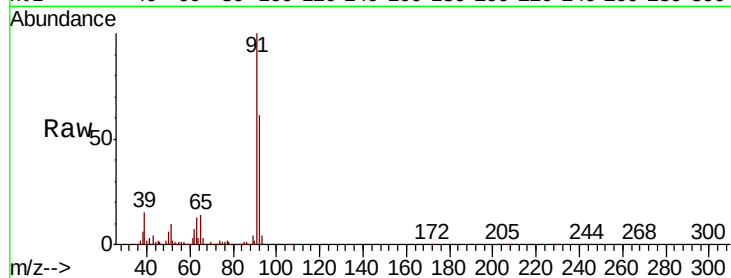
IA-8

Tot Ion: 91 Resp: 460127

Ion Ratio Lower Upper

91 100

92 60.2 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

250000

200000

150000

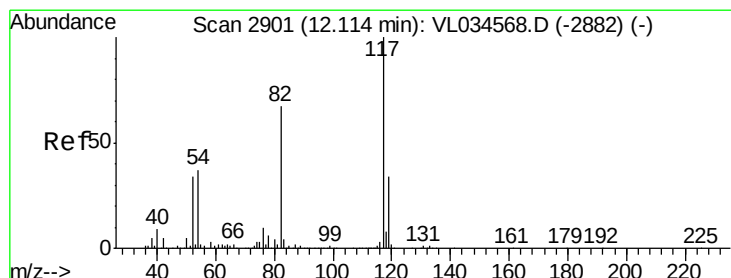
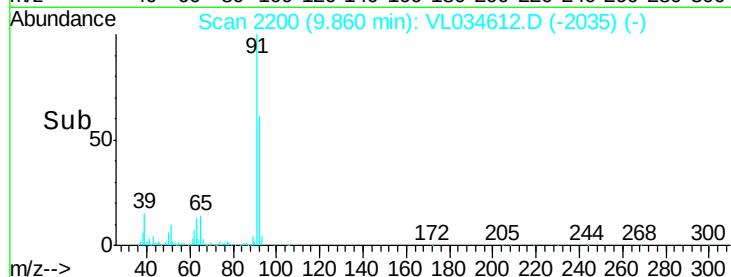
100000

50000

0

9.80 9.85 9.90

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2913

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

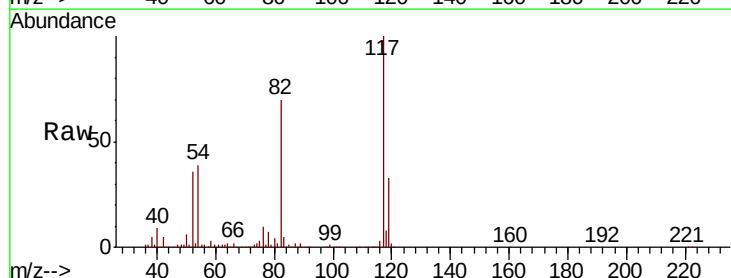
Tgt Ion: 117 Resp: 1892432

Ion Ratio Lower Upper

117 100

82 71.4 54.2 81.4

119 33.6 26.1 39.1



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

1200000

1000000

800000

600000

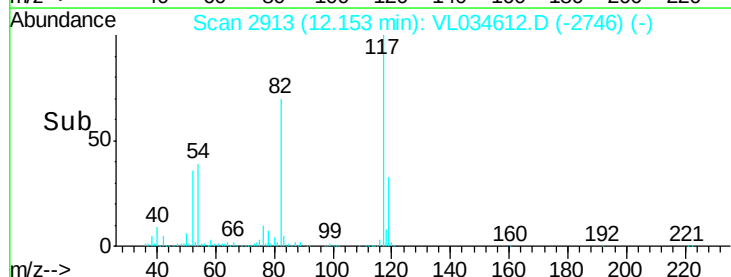
400000

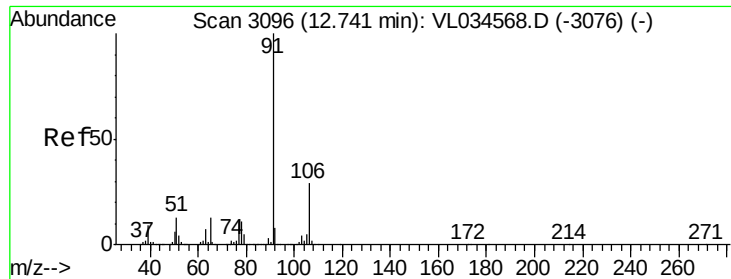
200000

0

12.05 12.10 12.15 12.20

Time-->





#58

Ethyl Benzene

Concen: 0.153 ppbv

RT: 12.78 min Scan# 3109

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

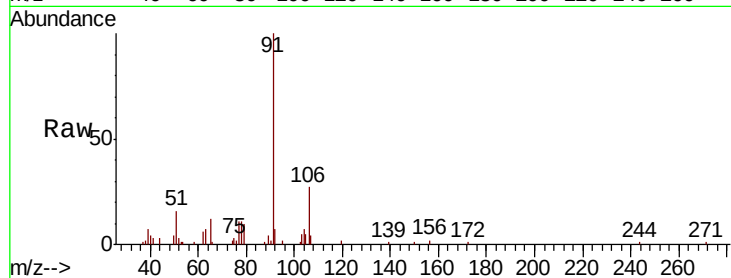
IA-8

Tot Ion: 91 Resp: 38775

Ion Ratio Lower Upper

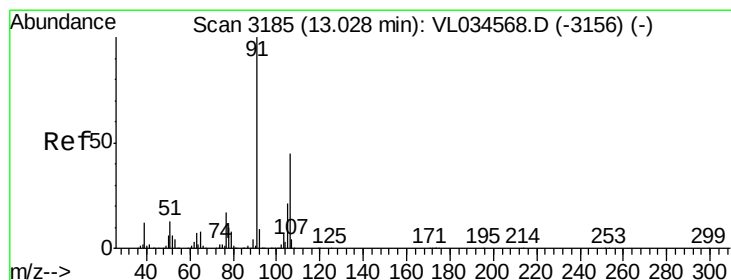
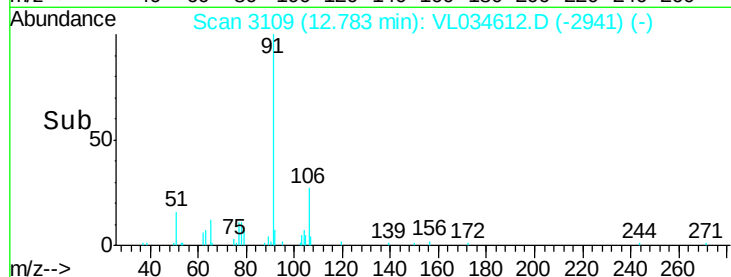
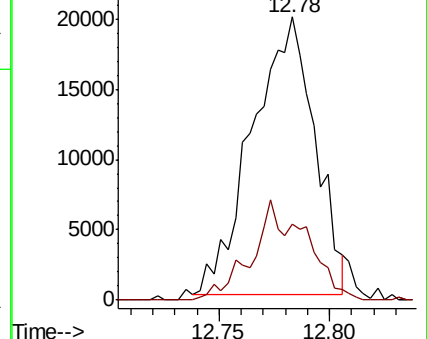
91 100

106 27.4 23.3 34.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.544 ppbv m

RT: 13.04 min Scan# 3188

Delta R.T. 0.01 min

Lab File: VL034612.D

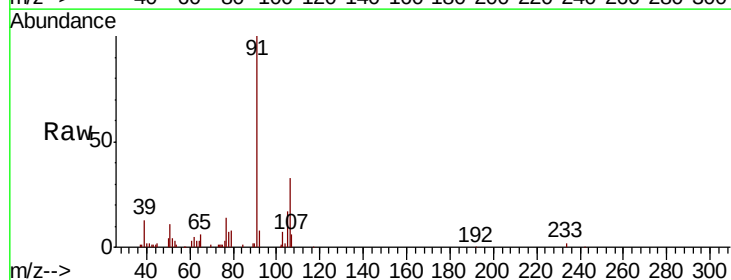
Acq: 6 Feb 2020 23:39

Tgt Ion: 91 Resp: 121732

Ion Ratio Lower Upper

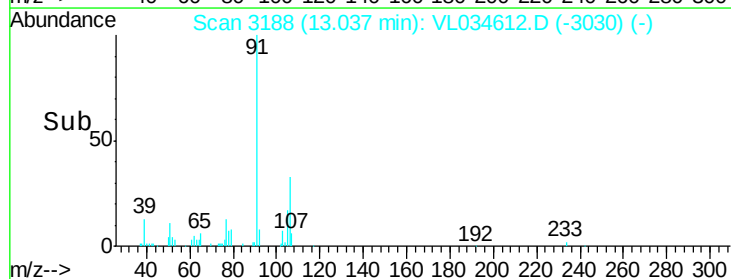
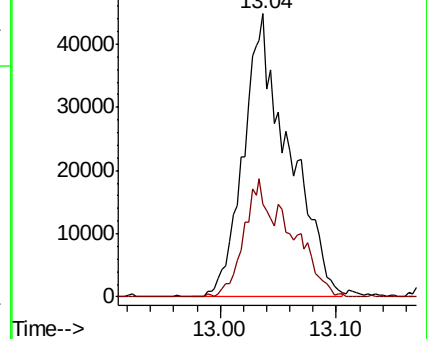
91 100

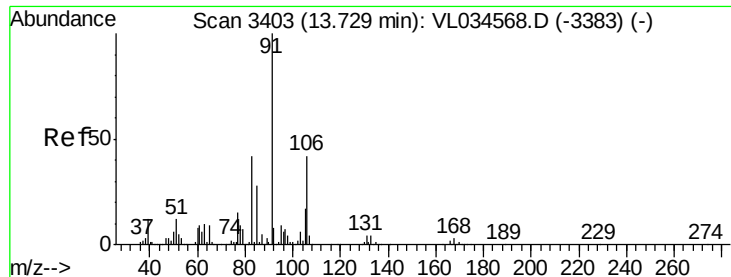
106 0.0 35.3 52.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

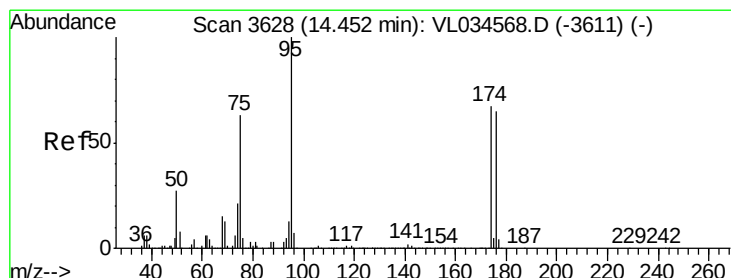
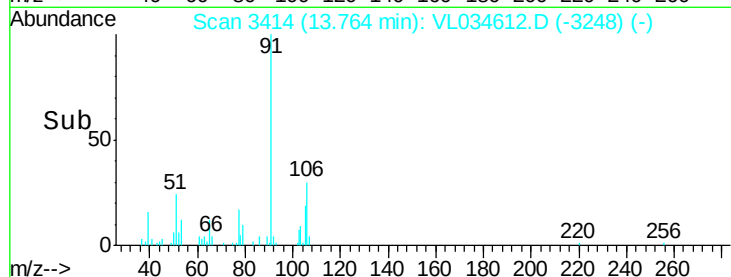
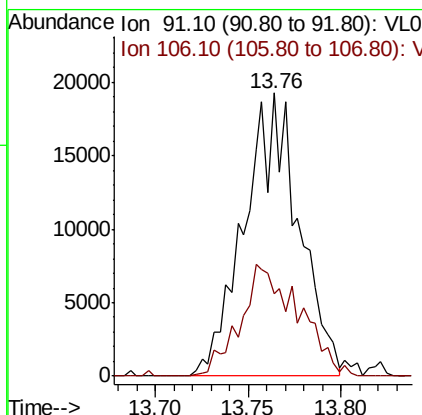
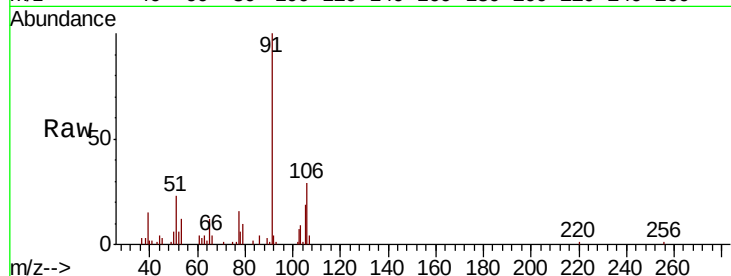




#60
o-Xylene
Concen: 0.175 ppbv m
RT: 13.76 min Scan# 3414
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

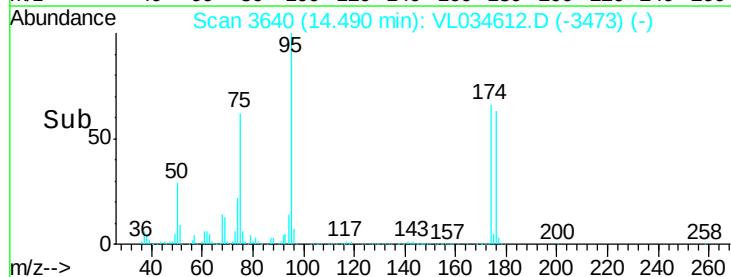
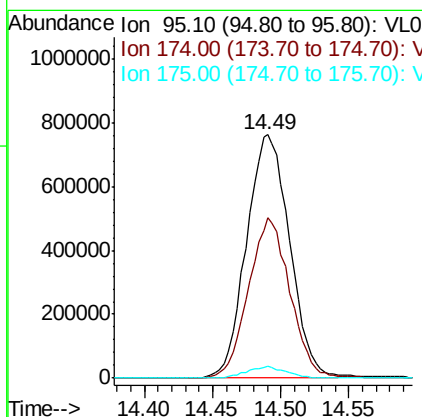
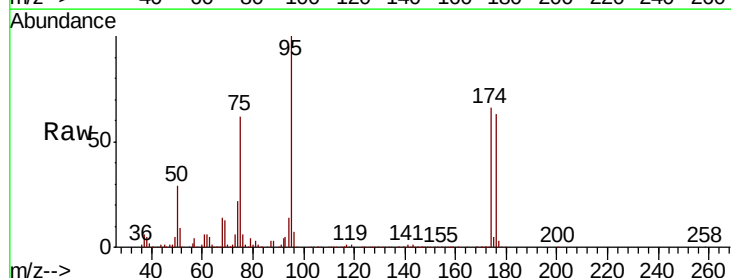
Instrument :
MSVOA_L
ClientSampled :
IA-8

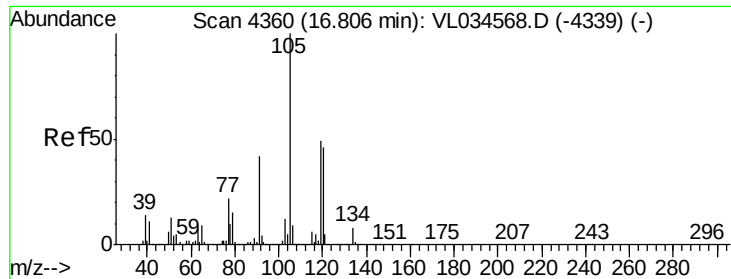
Tot Ion: 91 Resp: 39320
Ion Ratio Lower Upper
91 100
106 0.0 21.6 65.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.438 ppbv
RT: 14.49 min Scan# 3640
Delta R.T. 0.04 min
Lab File: VL034612.D
Acq: 6 Feb 2020 23:39

Tgt Ion: 95 Resp: 1669472
Ion Ratio Lower Upper
95 100
174 64.0 52.3 78.5
175 4.5 3.8 5.6





#74

1,2,4-Trimethylbenzene

Concen: 0.134 ppbv m

RT: 16.84 min Scan# 4371

Delta R.T. 0.04 min

Lab File: VL034612.D

Acq: 6 Feb 2020 23:39

Instrument :

MSVOA_L

ClientSampleId :

IA-8

Tot Ion:105 Resp: 35706

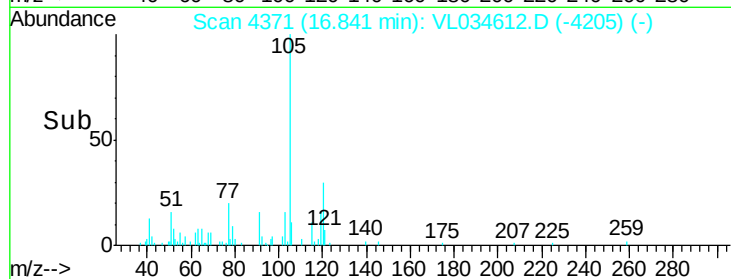
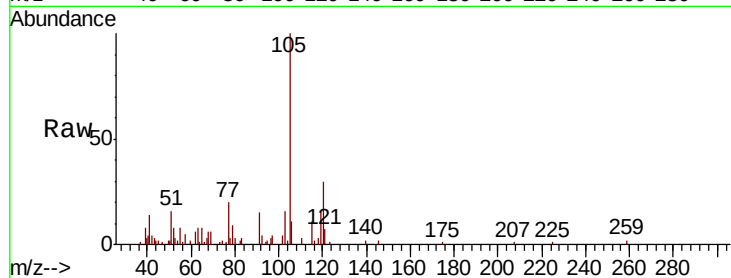
Ion Ratio Lower Upper

105 100

120 30.0 37.1 55.7#

91 15.4 34.3 51.5#

77 20.1 17.5 26.3



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

