

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110320\
 Data File : VL035814.D
 Acq On : 3 Nov 2020 22:01
 Operator : SY/AP
 Sample : L4604-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 04 05:16:44 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 04 02:40:06 2020
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	992524	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.15	114	4631990	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	4234440	10.00	ppbv	-0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	3002834	9.98	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

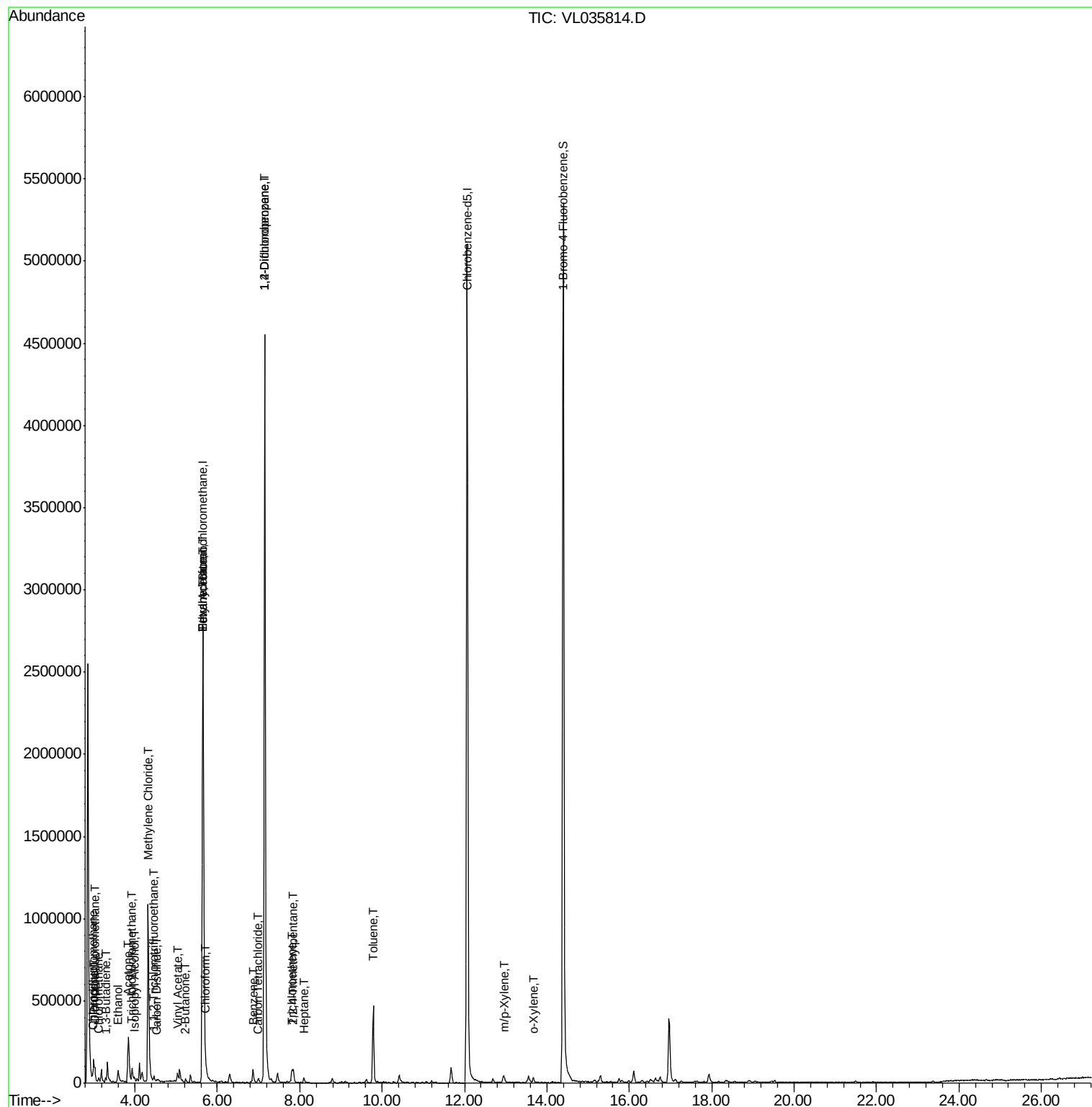
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	54664	0.293	ppbv 94
3) Chlorodifluoromethane	2.97	51	43948	0.370	ppbv 95
4) Chloromethane	3.12	50	24690	0.428	ppbv 96
9) Propene	3.00	41	33871	0.779	ppbv 85
10) Heptane	8.10	43	6246	0.052	ppbv # 19
11) Trichlorofluoromethane	3.93	101	61862	0.264	ppbv 97
12) 1,1,2-Trichlorotrifluoroet	4.46	101	7803	0.045	ppbv # 26
13) Ethanol	3.59	45	112490	11.919	ppbv 96
15) Acetone	3.83	43	338115	3.186	ppbv 95
16) 1,3-Butadiene	3.30	39	1797	0.039	ppbv # 1
19) Isopropyl Alcohol	3.98	45	4367	0.067	ppbv # 90
20) Methylene Chloride	4.32	84	623413	8.346	ppbv 97
23) Vinyl Acetate	5.04	43	22870	0.154	ppbv # 24
25) Ethyl Acetate	5.66	43	305829	1.463	ppbv # 72
26) Hexane	5.66	57	553756	4.803	ppbv # 44
27) Carbon Disulfide	4.53	76	15121	0.088	ppbv # 92
29) Chloroform	5.72	83	8851	0.039	ppbv # 76
34) 2-Butanone	5.23	43	21699	0.144	ppbv # 76
35) Carbon Tetrachloride	6.99	117	15103	0.061	ppbv # 83
36) Benzene	6.87	78	77636	0.225	ppbv # 94
38) Trichloroethene	7.81	130	28486	0.169	ppbv 92
39) 1,2-Dichloropropane	7.15	63	821796	7.088	ppbv # 30
41) Tetrahydrofuran	5.66	42	154634	1.811	ppbv # 41
44) 2,2,4-Trimethylpentane	7.85	57	69922	0.153	ppbv # 89
53) Toluene	9.78	91	433193	1.043	ppbv 98
59) m/p-Xylene	12.97	91	13530	0.031	ppbv # 28
60) o-Xylene	13.67	91	24170	0.057	ppbv 100

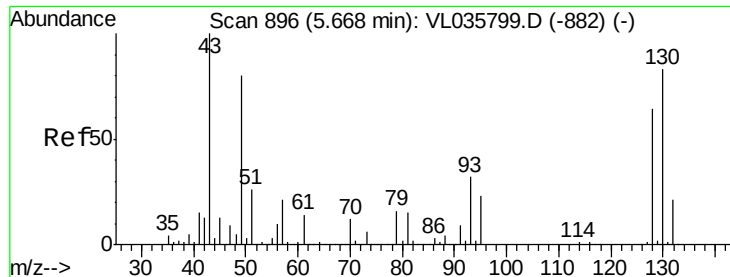
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Wed Nov 04 02:40:06 2020
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

ClientSampleId :

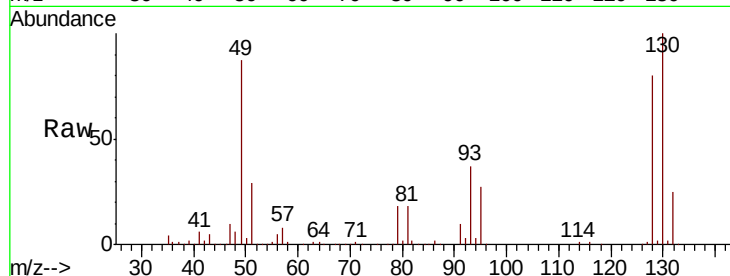
Tot Ion: 49 Resp: 992524

Ion Ratio Lower Upper

49 100

128 95.1 41.5 124.6

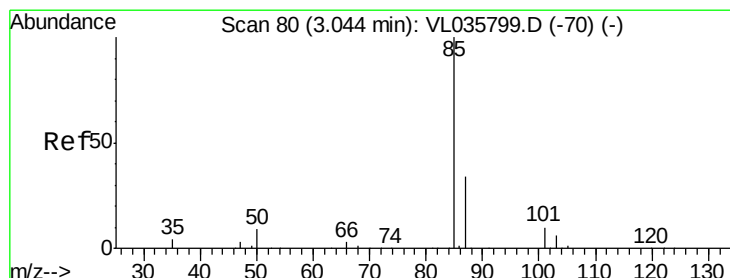
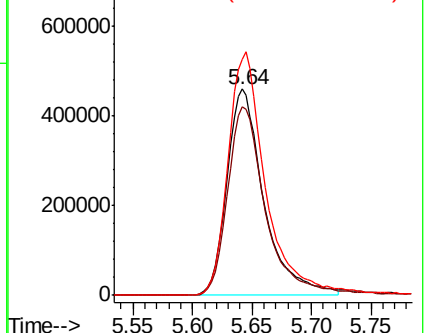
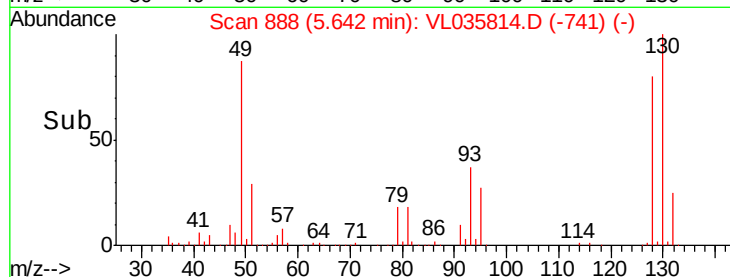
130 122.3 53.7 161.1



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.293 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.02 min

Lab File: VL035814.D

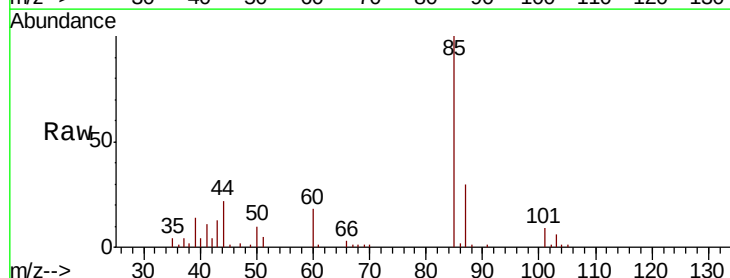
Acq: 3 Nov 2020 22:01

Tgt Ion: 85 Resp: 54664

Ion Ratio Lower Upper

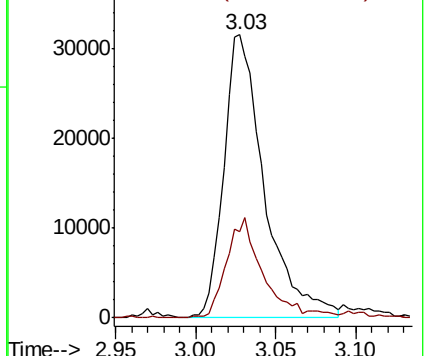
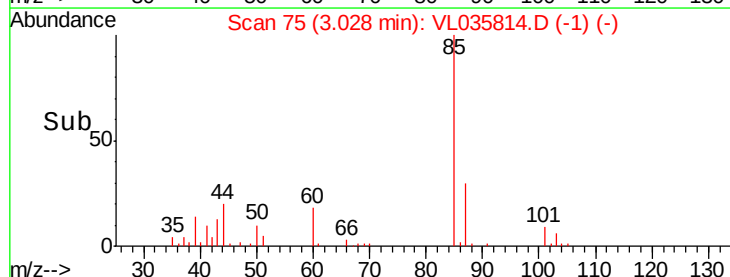
85 100

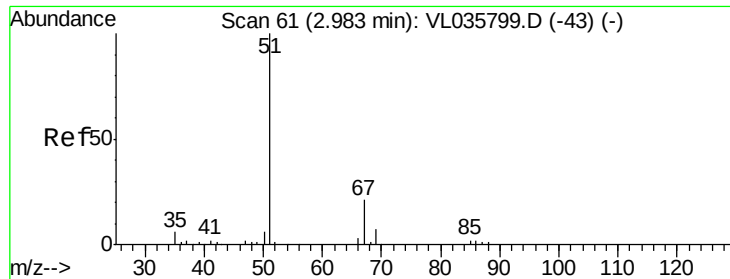
87 30.3 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.370 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.01 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

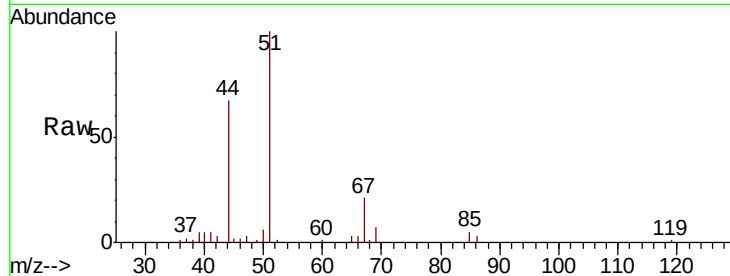
ClientSampleId :

Tot Ion: 51 Resp: 43948

Ion Ratio Lower Upper

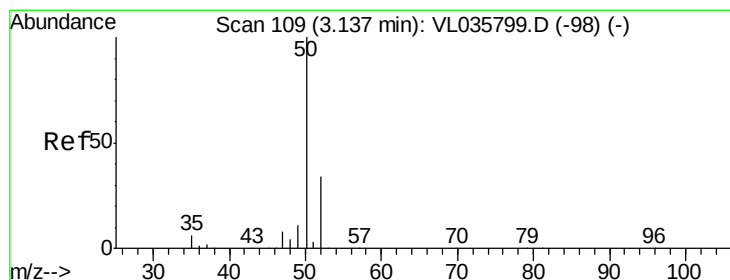
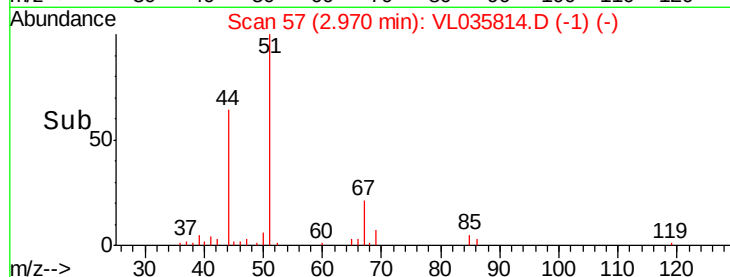
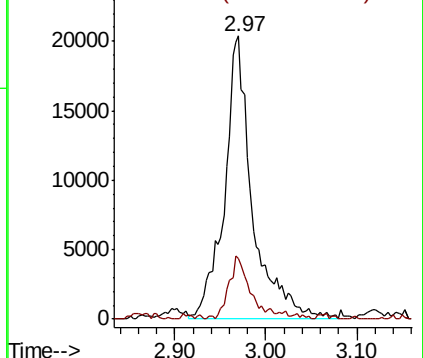
51 100

67 18.9 17.0 25.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.428 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.02 min

Lab File: VL035814.D

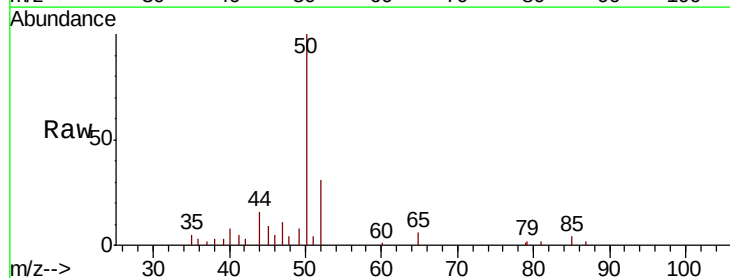
Acq: 3 Nov 2020 22:01

Tgt Ion: 50 Resp: 24690

Ion Ratio Lower Upper

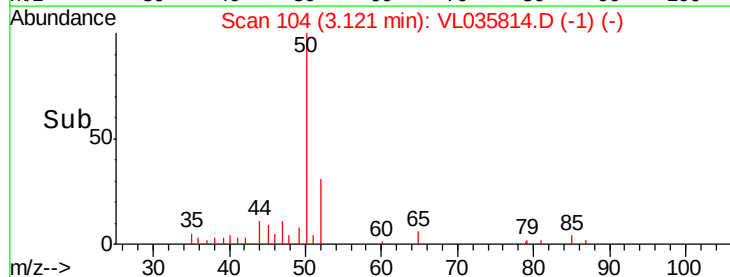
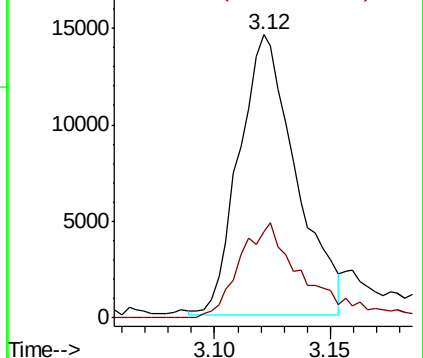
50 100

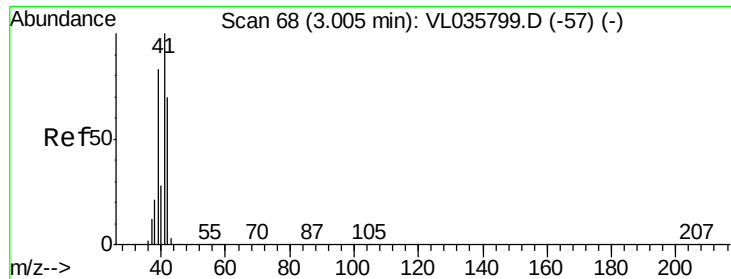
52 31.4 27.1 40.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.779 ppbv

RT: 3.00 min Scan# 65

Delta R.T. -0.01 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

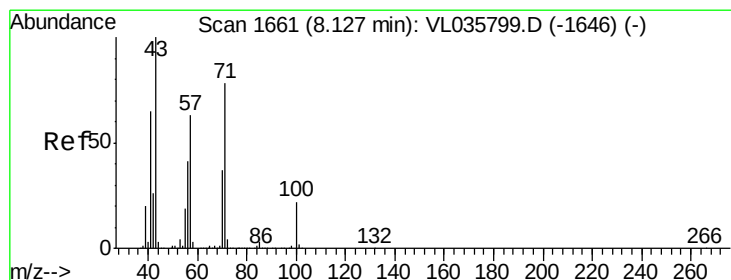
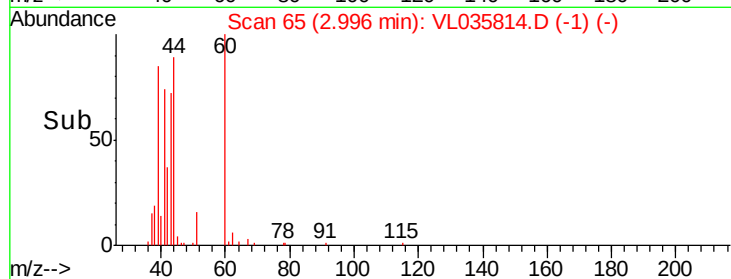
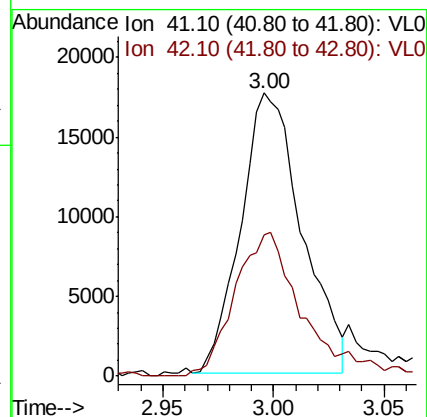
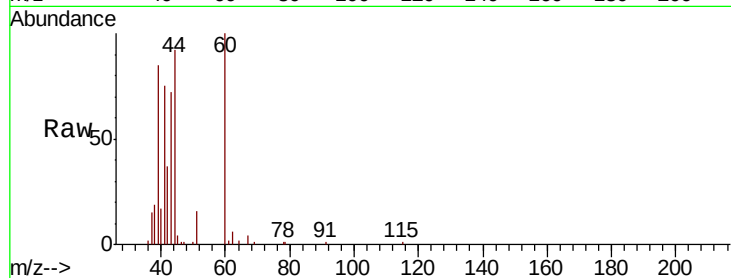
ClientSampleId :

Tot Ion: 41 Resp: 33871

Ion Ratio Lower Upper

41 100

42 57.9 56.2 84.4



#10

Heptane

Concen: 0.052 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. -0.03 min

Lab File: VL035814.D

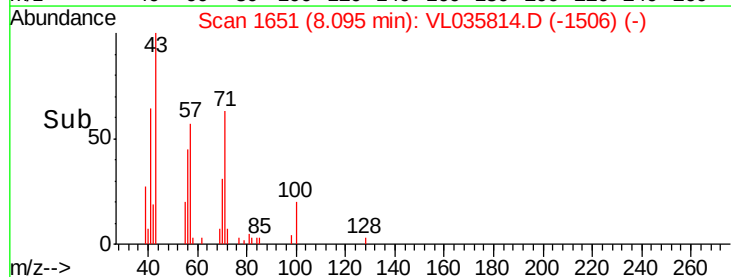
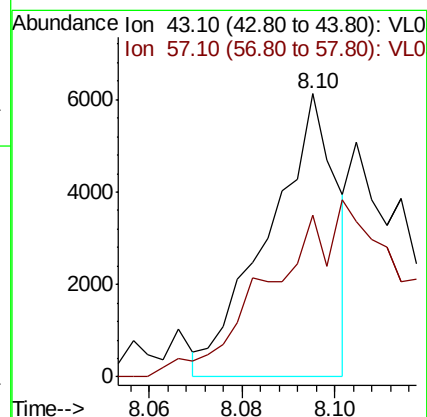
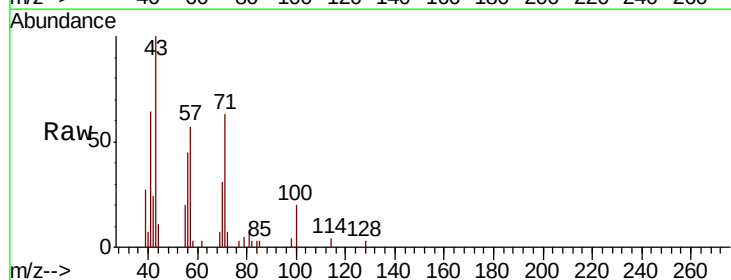
Acq: 3 Nov 2020 22:01

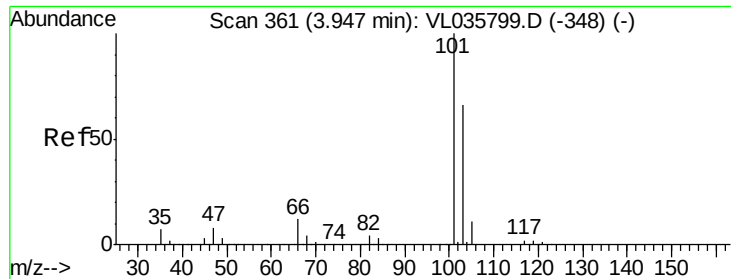
Tgt Ion: 43 Resp: 6246

Ion Ratio Lower Upper

43 100

57 0.0 50.0 75.0#

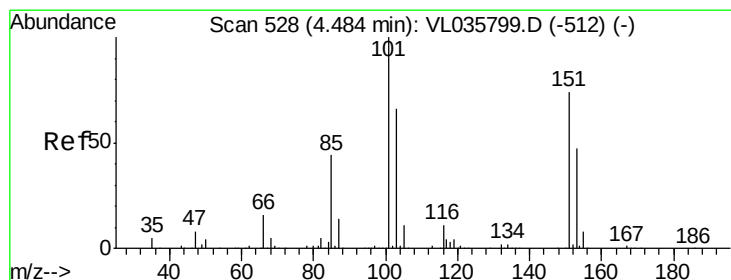
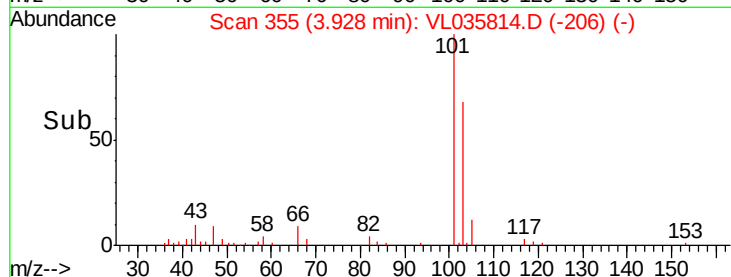
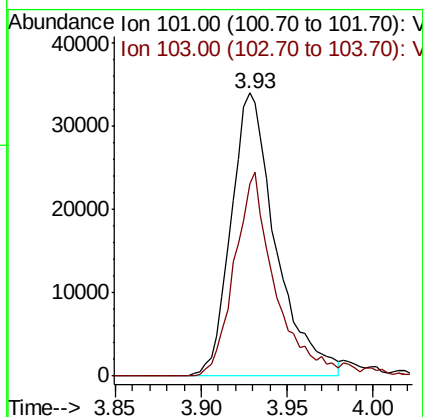
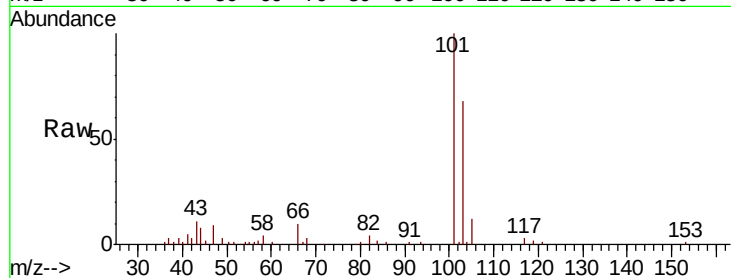




#11
 Trichlorofluoromethane
 Concen: 0.264 ppbv
 RT: 3.93 min Scan# 355
 Delta R.T. -0.02 min
 Lab File: VL035814.D
 Acq: 3 Nov 2020 22:01

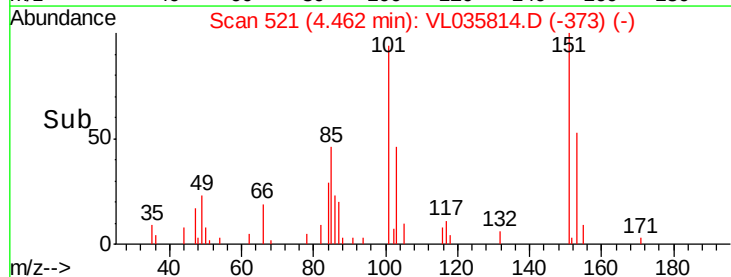
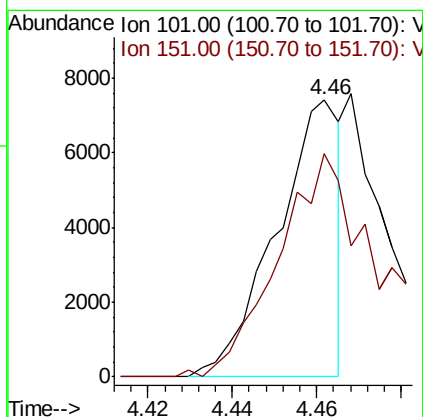
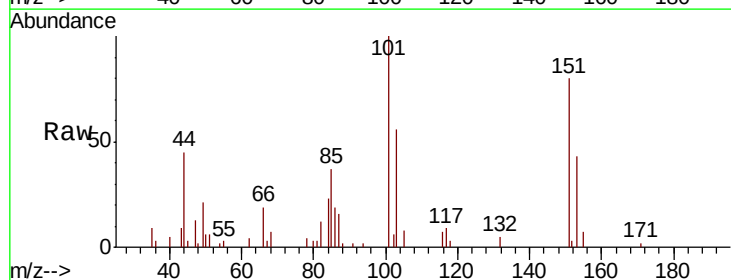
Instrument :
 MSVOA_L
 ClientSampleId :

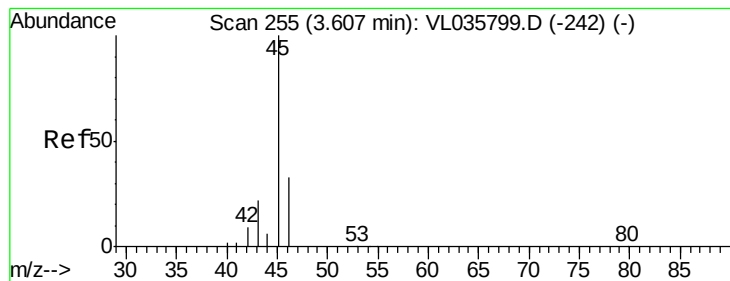
Tot Ion:101 Resp: 61862
 Ion Ratio Lower Upper
 101 100
 103 68.2 53.0 79.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.045 ppbv
 RT: 4.46 min Scan# 521
 Delta R.T. -0.02 min
 Lab File: VL035814.D
 Acq: 3 Nov 2020 22:01

Tgt Ion:101 Resp: 7803
 Ion Ratio Lower Upper
 101 100
 151 135.8 58.9 88.3#





#13

Ethanol

Concen: 11.919 ppbv

RT: 3.59 min Scan# 249

Delta R.T. -0.02 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

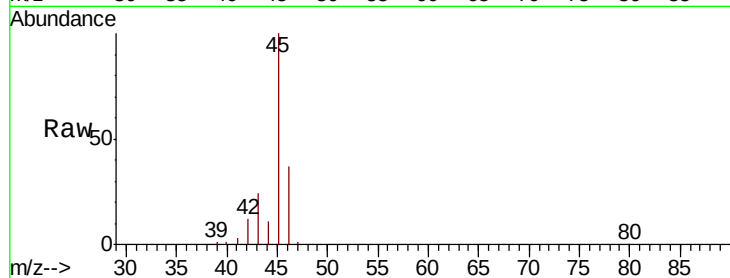
ClientSampleId :

Tot Ion: 45 Resp: 112490

Ion Ratio Lower Upper

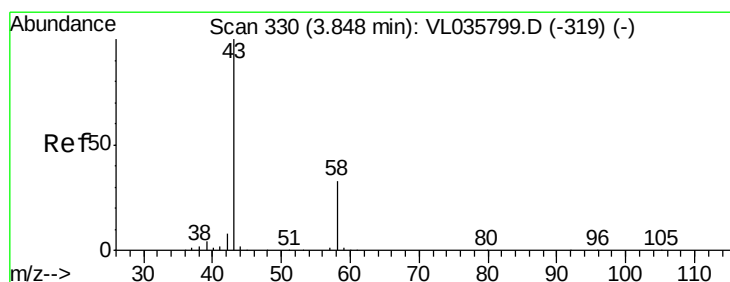
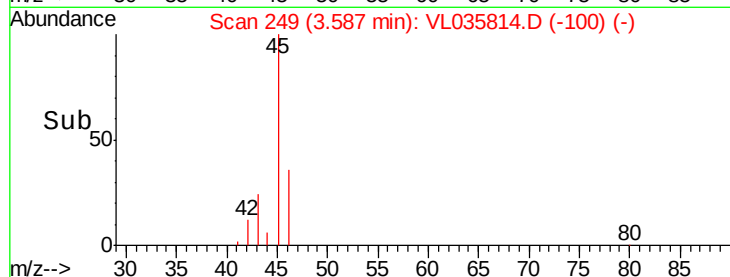
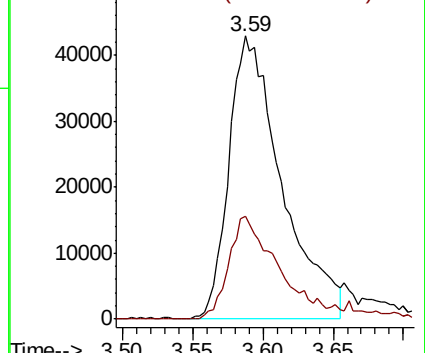
45 100

46 37.8 16.1 64.5



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 3.186 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.02 min

Lab File: VL035814.D

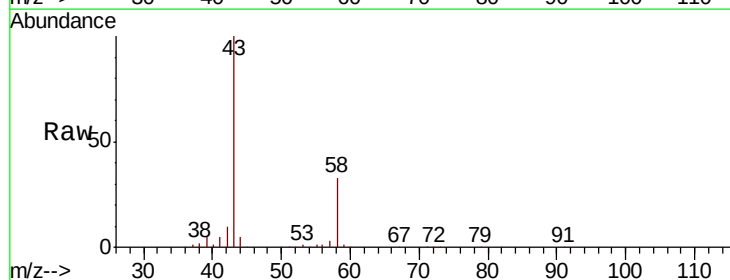
Acq: 3 Nov 2020 22:01

Tgt Ion: 43 Resp: 338115

Ion Ratio Lower Upper

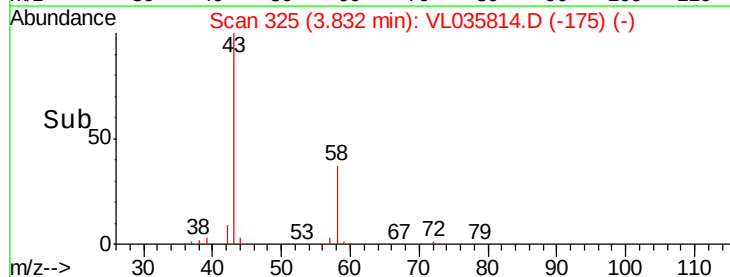
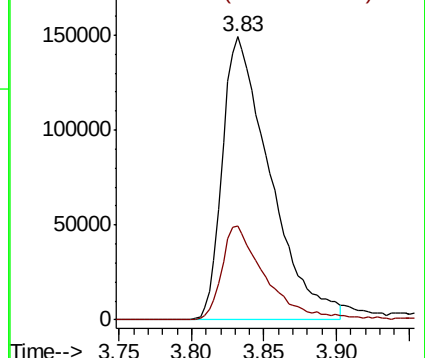
43 100

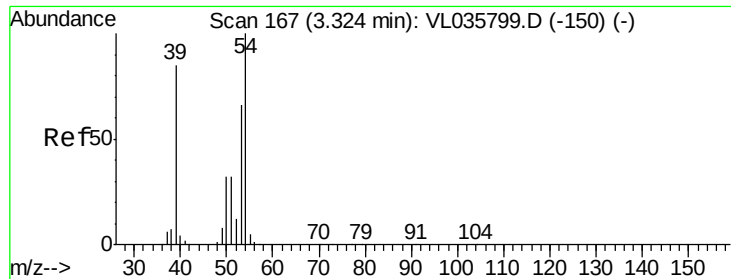
58 31.3 27.5 41.3



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#16

1,3-Butadiene

Concen: 0.039 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.02 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

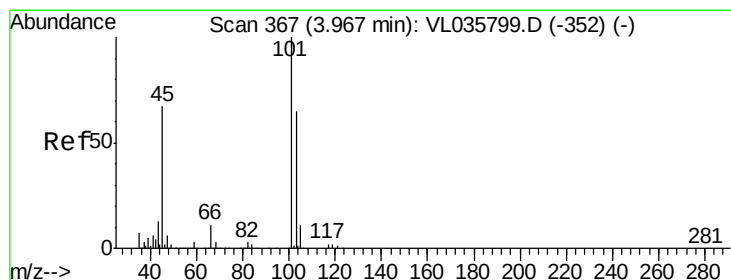
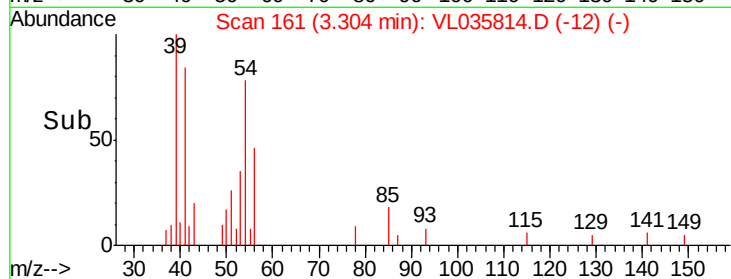
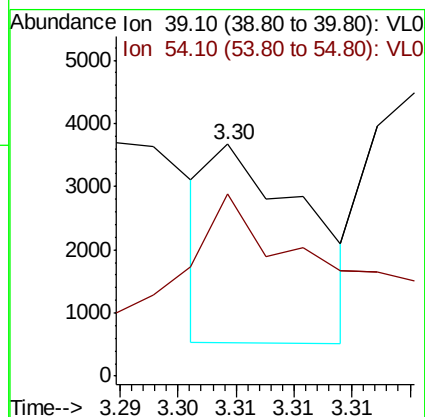
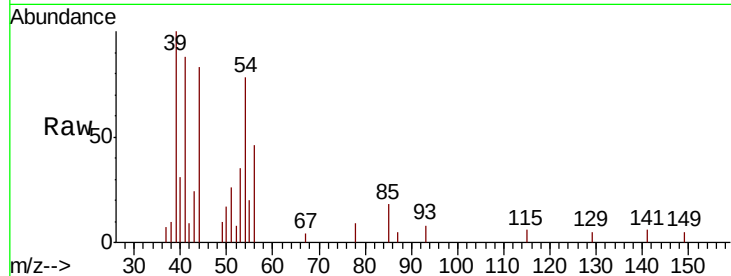
ClientSampled :

Tot Ion: 39 Resp: 1797

Ion Ratio Lower Upper

39 100

54 235.8 87.1 130.7#



#19

Isopropyl Alcohol

Concen: 0.067 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.01 min

Lab File: VL035814.D

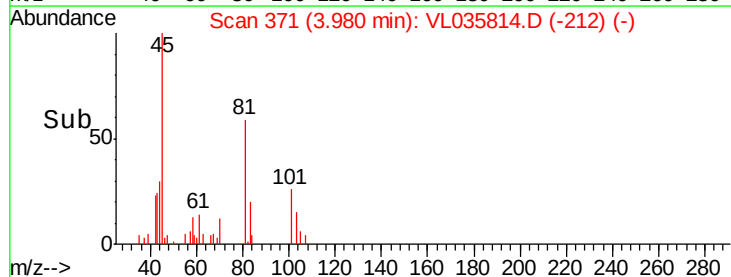
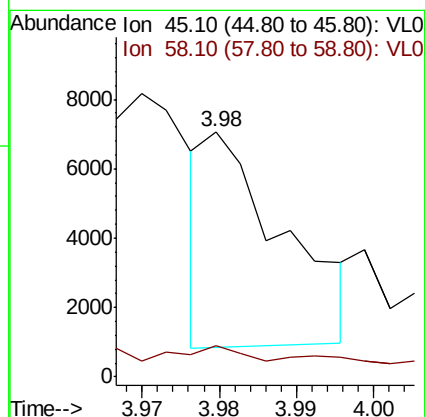
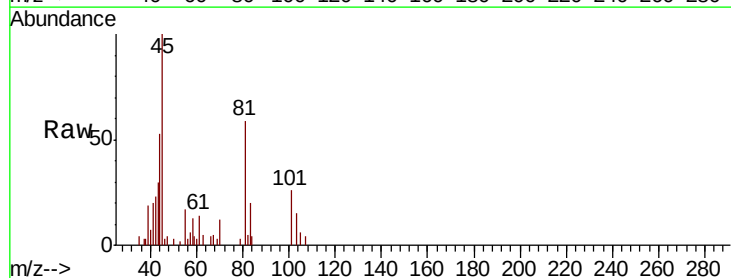
Acq: 3 Nov 2020 22:01

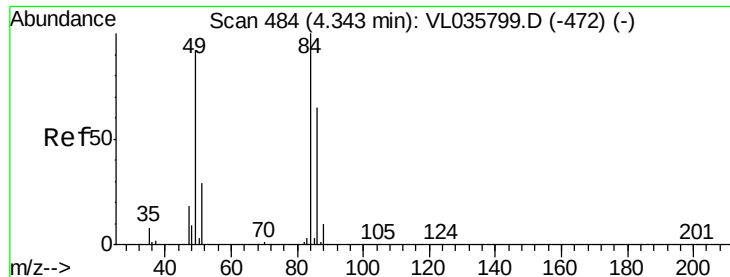
Tgt Ion: 45 Resp: 4367

Ion Ratio Lower Upper

45 100

58 0.0 2.6 3.8#

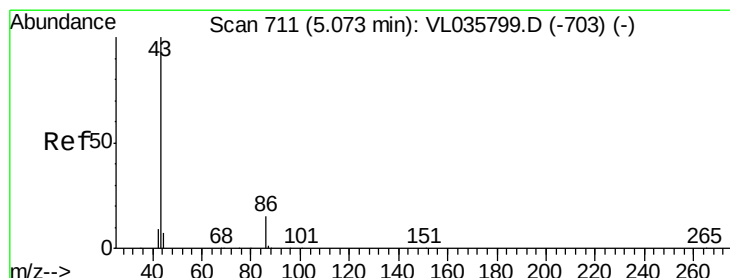
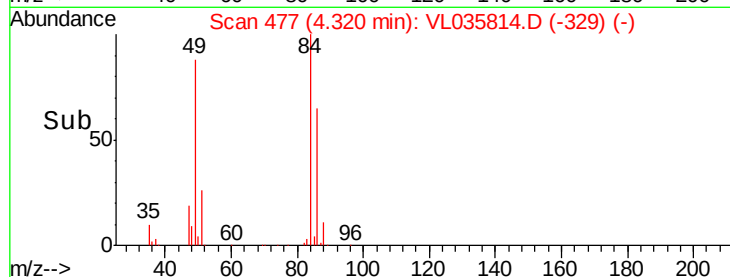
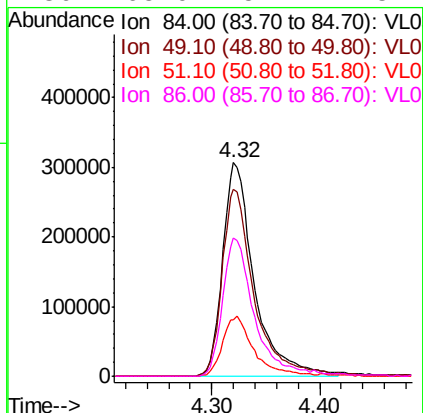
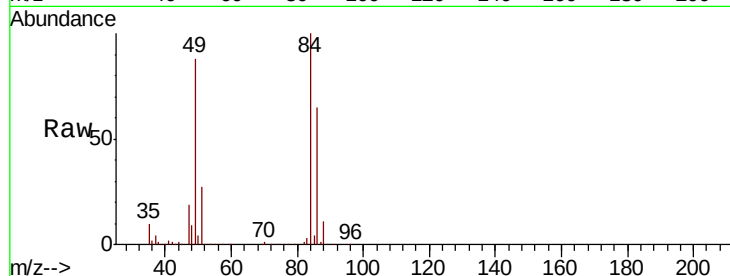




#20
Methvlene Chloride
Concen: 8.346 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.02 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

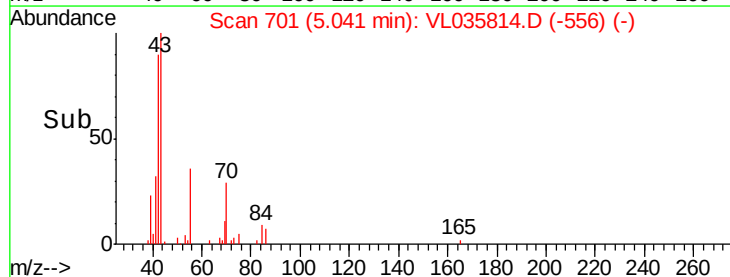
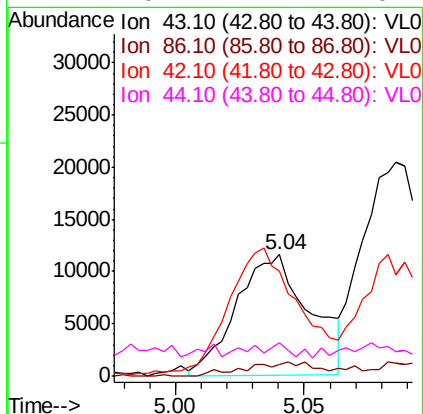
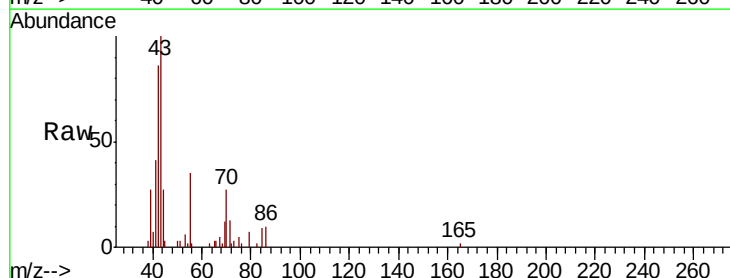
Instrument :
MSVOA_L
ClientSampleId :

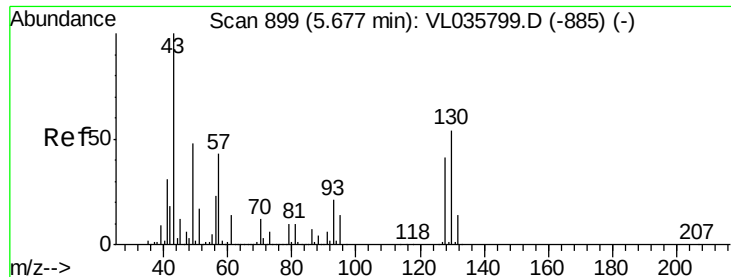
Tot Ion:	84	Resp:	623413
Ion	Ratio	Lower	Upper
84	100		
49	87.6	73.8	110.8
51	26.6	23.0	34.4
86	65.0	52.1	78.1



#23
Vinyl Acetate
Concen: 0.154 ppbv
RT: 5.04 min Scan# 701
Delta R.T. -0.03 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Tgt Ion:	43	Resp:	22870
Ion	Ratio	Lower	Upper
43	100		
86	10.2	9.8	14.6
42	82.6	8.1	12.1#
44	9.7	4.2	6.4#

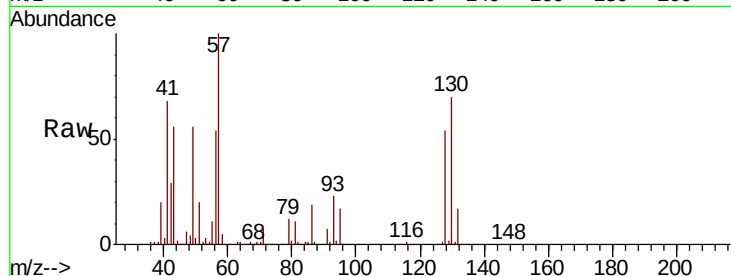




#25
Ethyl Acetate
Concen: 1.463 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.01 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	305829
Ion	Ratio	Lower	Upper
43	100		
45	0.4	8.5	12.7#
61	0.5	10.7	16.1#
70	2.2	8.6	12.8#



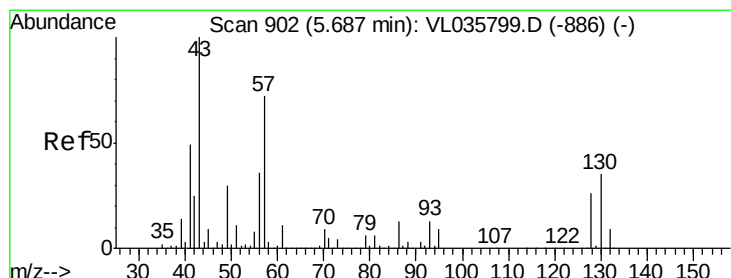
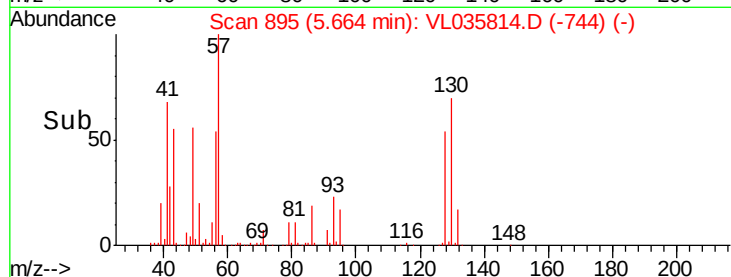
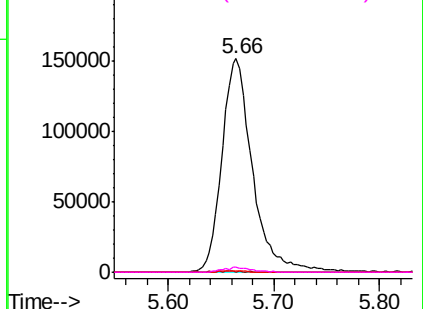
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

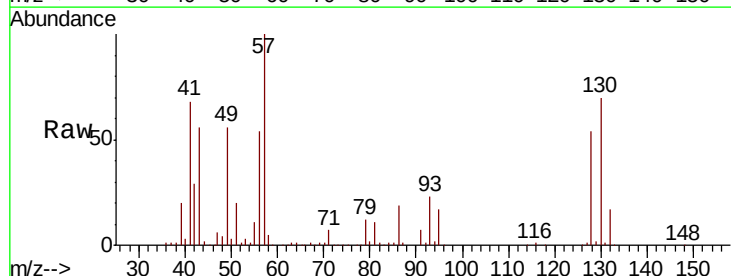
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 4.803 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.02 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Tgt Ion:	57	Resp:	553756
Ion	Ratio	Lower	Upper
57	100		
41	68.9	58.9	88.3
43	55.6	150.2	225.2#
56	54.0	42.4	63.6



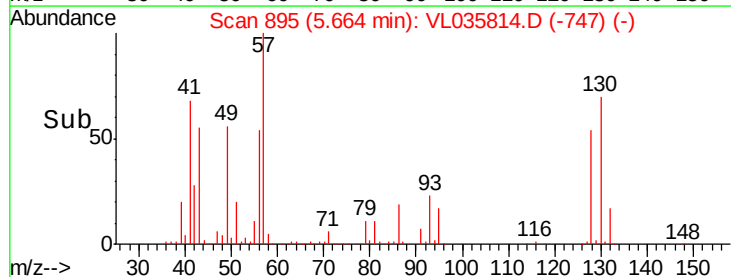
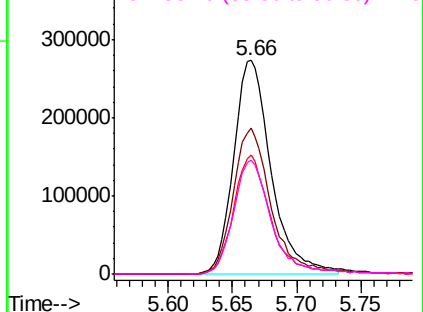
Abundance

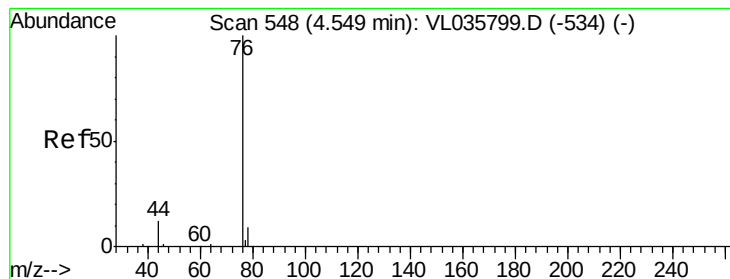
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.088 ppbv

RT: 4.53 min Scan# 542

Delta R.T. -0.02 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

ClientSampleId :

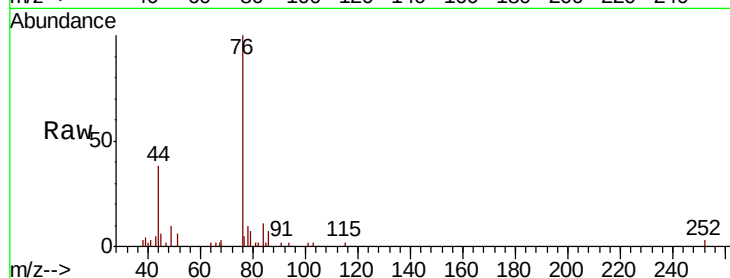
Tot Ion: 76 Resp: 15121

Ion Ratio Lower Upper

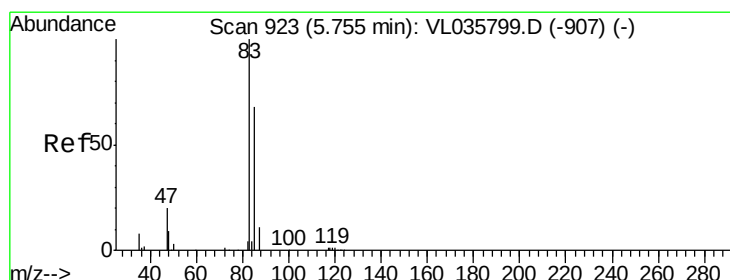
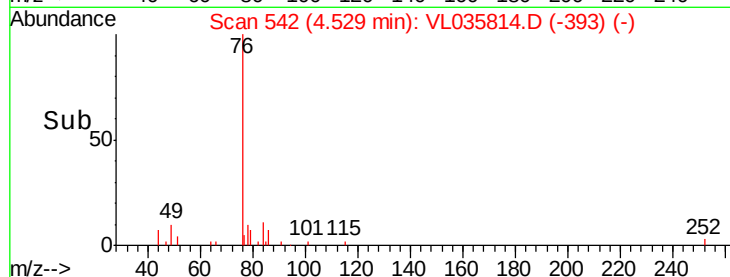
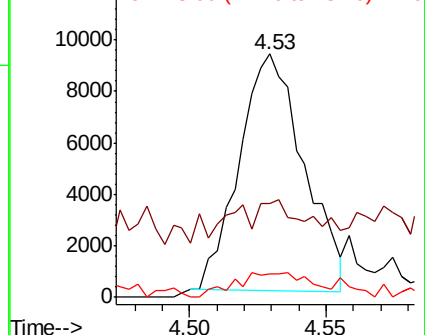
76 100

44 13.2 9.9 14.9

78 15.5 8.1 12.1#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.039 ppbv

RT: 5.72 min Scan# 913

Delta R.T. -0.03 min

Lab File: VL035814.D

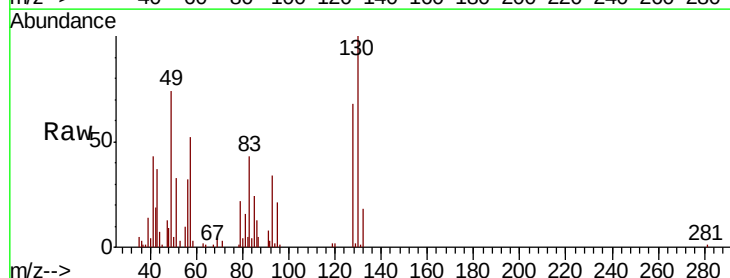
Acq: 3 Nov 2020 22:01

Tgt Ion: 83 Resp: 8851

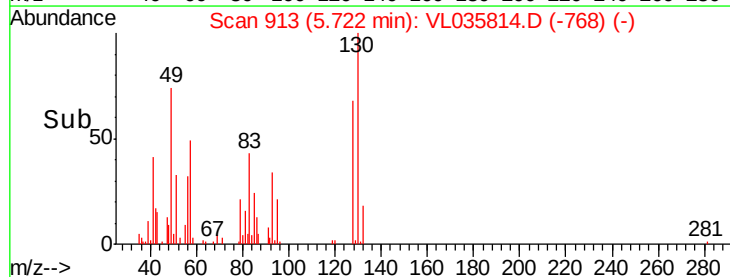
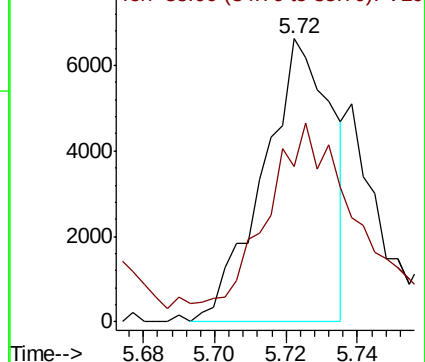
Ion Ratio Lower Upper

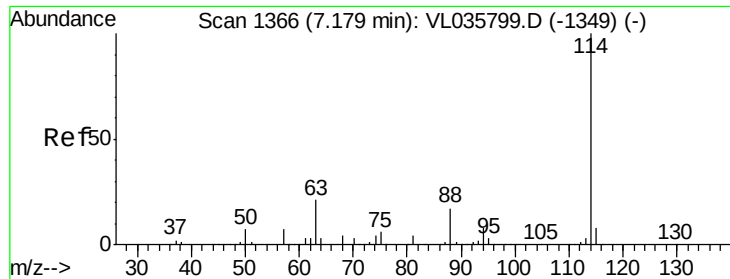
83 100

85 48.6 54.6 81.8#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

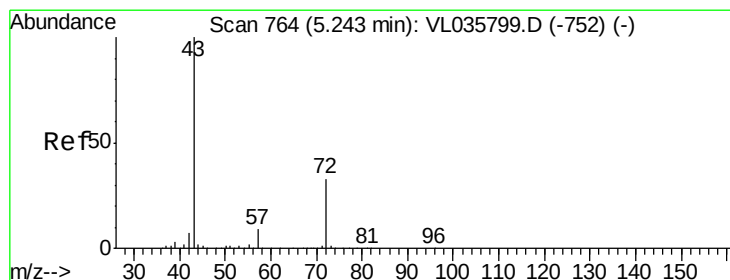
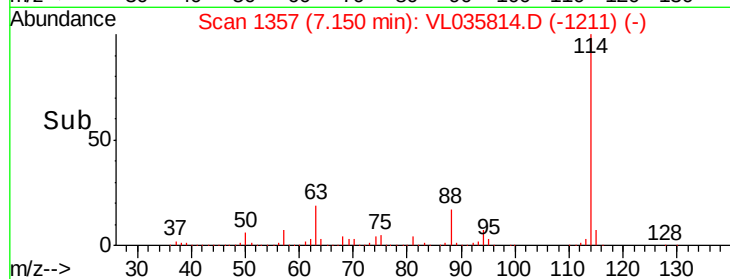
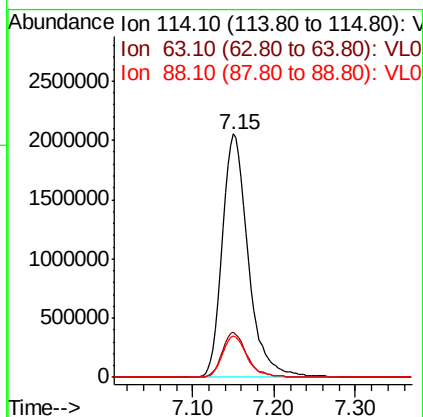
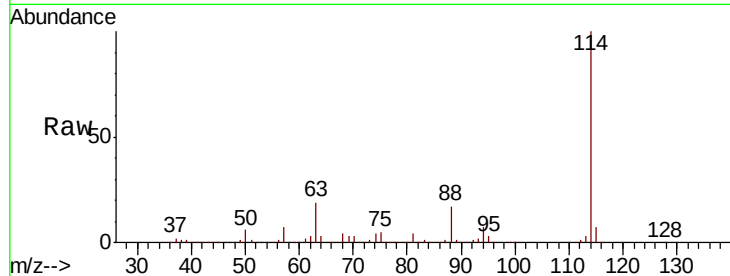




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1357
 Delta R.T. -0.03 min
 Lab File: VL035814.D
 Acq: 3 Nov 2020 22:01

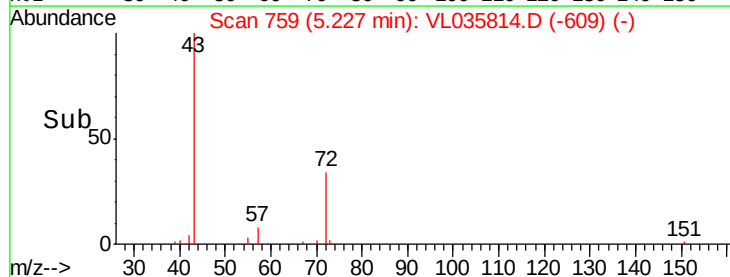
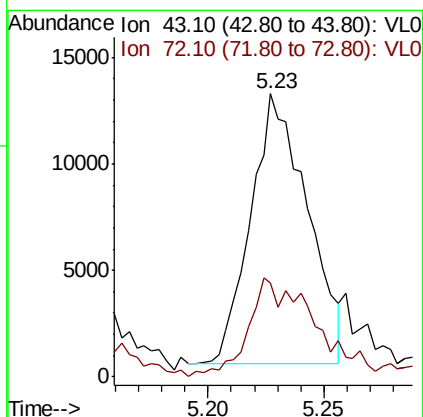
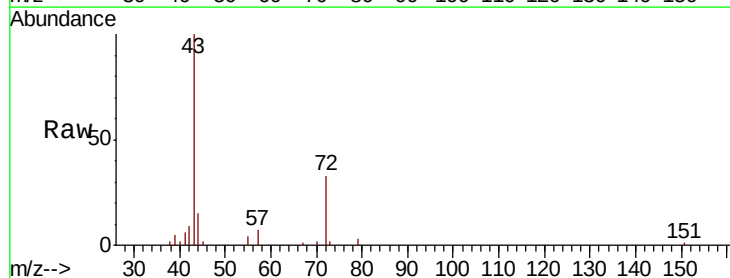
Instrument :
 MSVOA_L
 ClientSampleId :

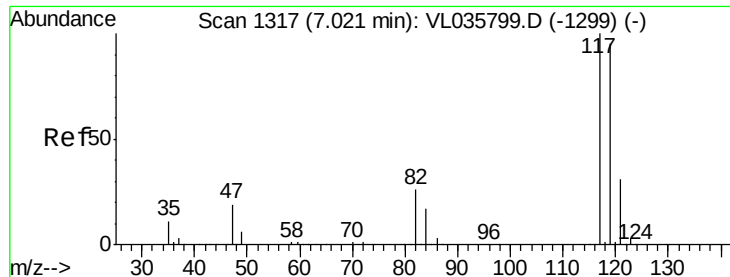
Tot Ion:114 Resp: 4631990
 Ion Ratio Lower Upper
 114 100
 63 17.9 16.1 24.1
 88 16.4 13.7 20.5



#34
 2-Butanone
 Concen: 0.144 ppbv
 RT: 5.23 min Scan# 759
 Delta R.T. -0.02 min
 Lab File: VL035814.D
 Acq: 3 Nov 2020 22:01

Tgt Ion: 43 Resp: 21699
 Ion Ratio Lower Upper
 43 100
 72 46.5 26.5 39.7#





#35

Carbon Tetrachloride

Concen: 0.061 ppbv

RT: 6.99 min Scan# 1308

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

ClientSampled :

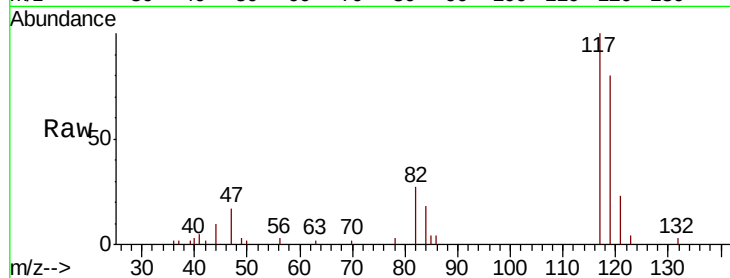
Tot Ion:117 Resp: 15103

Ion Ratio Lower Upper

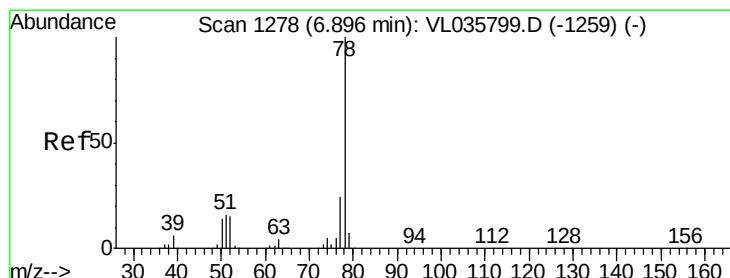
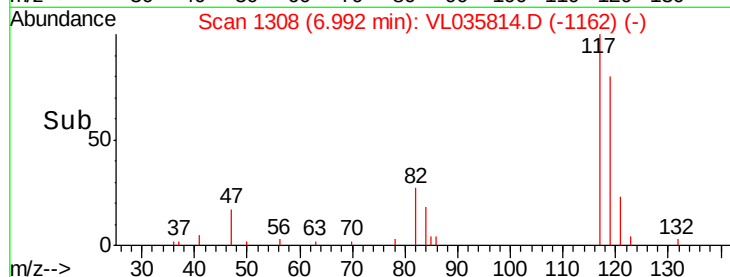
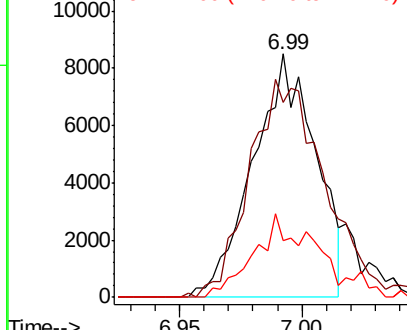
117 100

119 78.1 75.6 113.4

121 23.0 25.1 37.7#



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: 0.225 ppbv

RT: 6.87 min Scan# 1269

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

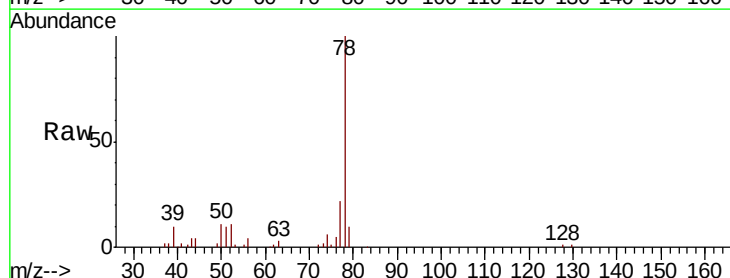
Tgt Ion: 78 Resp: 77636

Ion Ratio Lower Upper

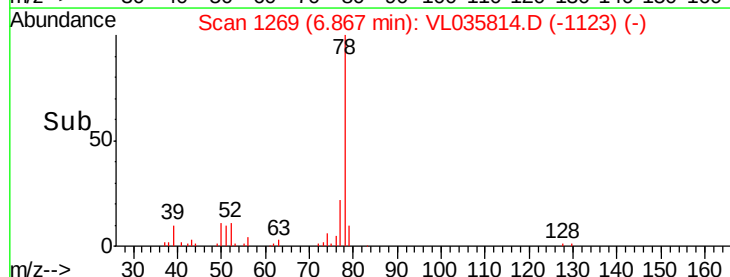
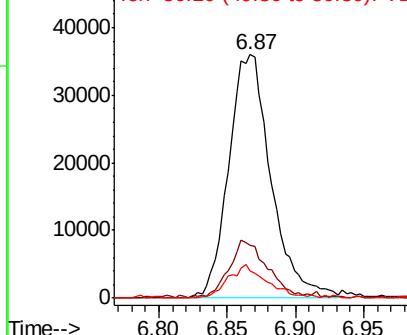
78 100

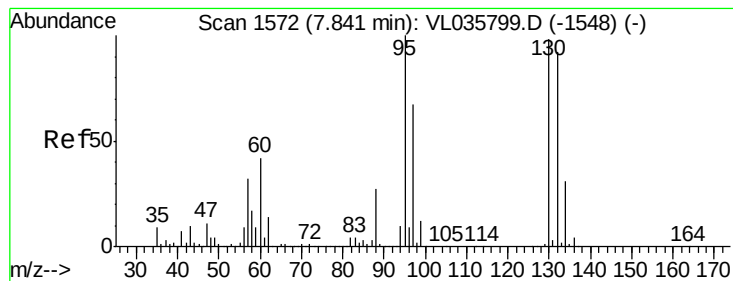
77 21.9 19.3 28.9

50 11.3 11.4 17.2#



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: 0.169 ppbv

RT: 7.81 min Scan# 1563

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:130 Resp: 28486

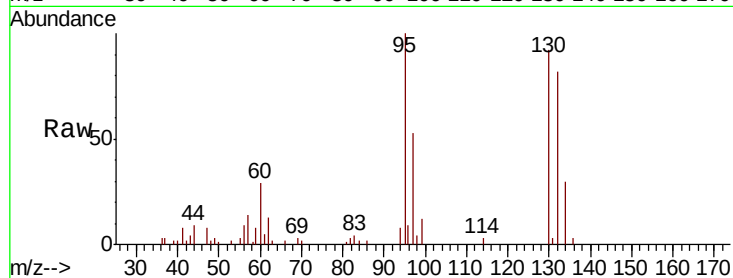
Ion Ratio Lower Upper

130 100

95 108.7 81.6 122.4

132 89.4 75.1 112.7

97 57.7 54.6 81.8

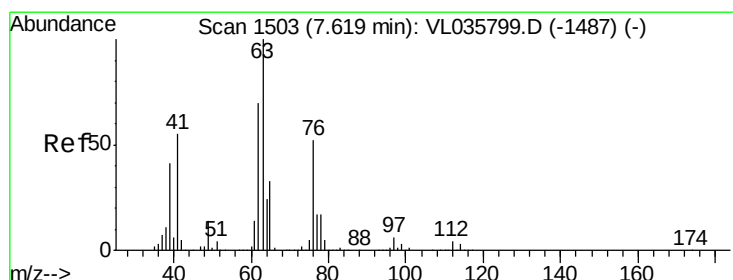
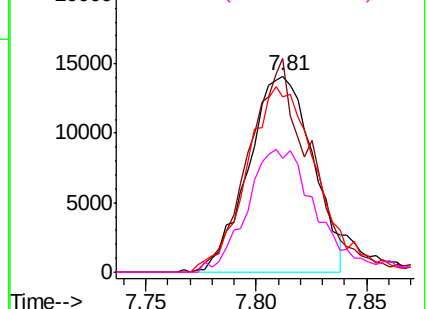
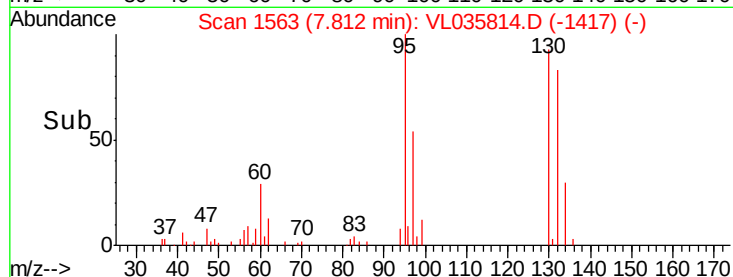


Abundance Ion 130.00 (129.70 to 130.70): V

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



#39

1,2-Dichloropropane

Concen: 7.088 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. -0.47 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

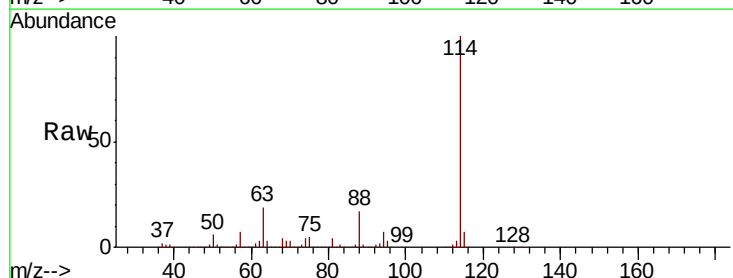
Tgt Ion: 63 Resp: 821796

Ion Ratio Lower Upper

63 100

41 0.0 43.8 65.6#

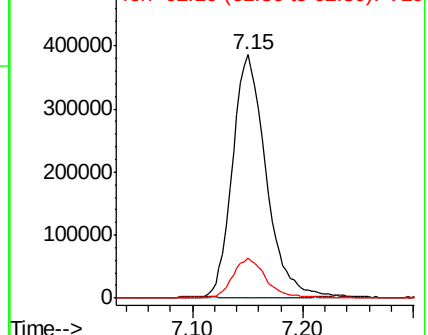
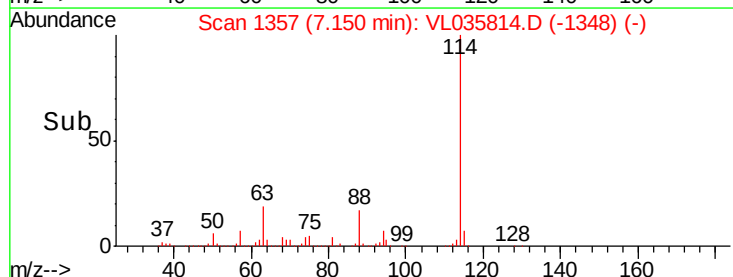
62 16.7 56.2 84.2#

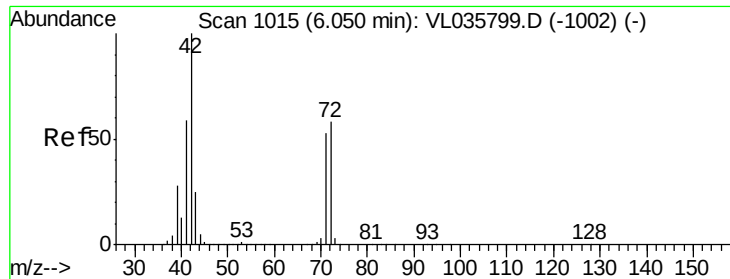


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

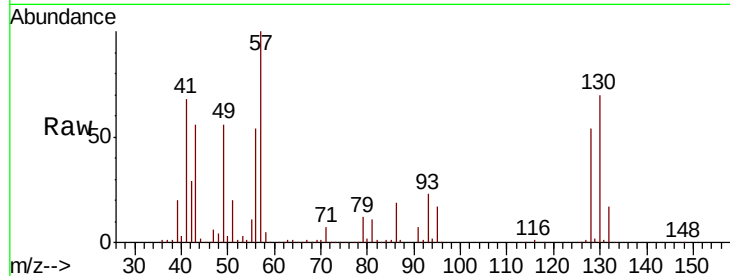




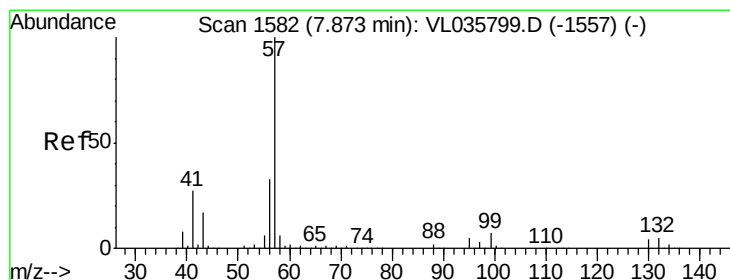
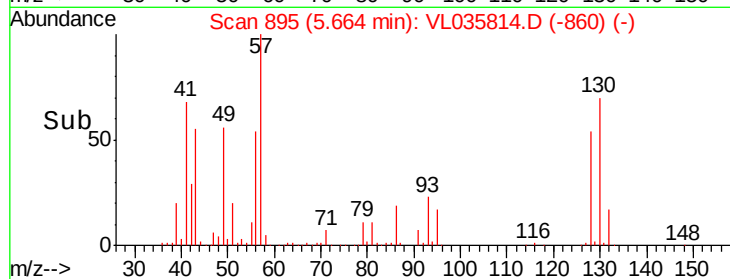
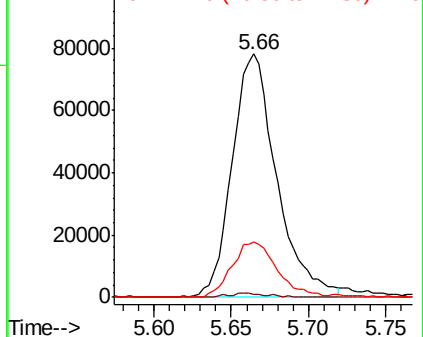
#41
Tetrahydrofuran
Concen: 1.811 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.39 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 42 Resp: 154634
Ion Ratio Lower Upper
42 100
72 1.6 45.4 68.0#
71 24.4 43.4 65.2#

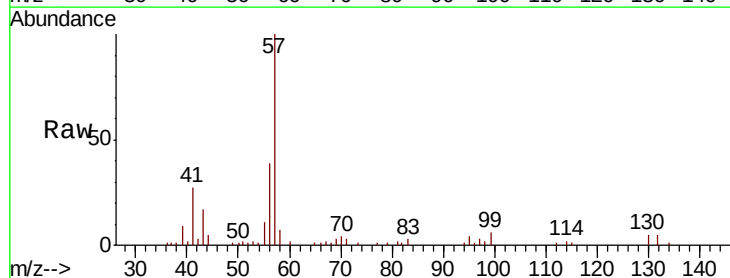


Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0

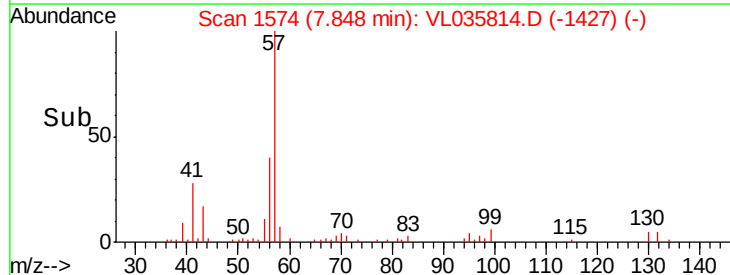
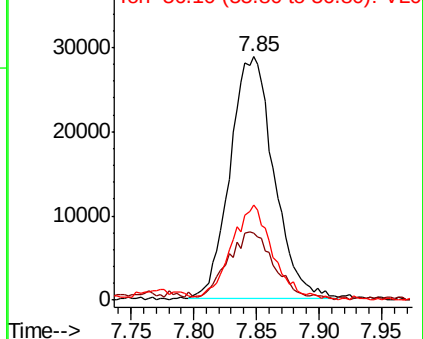


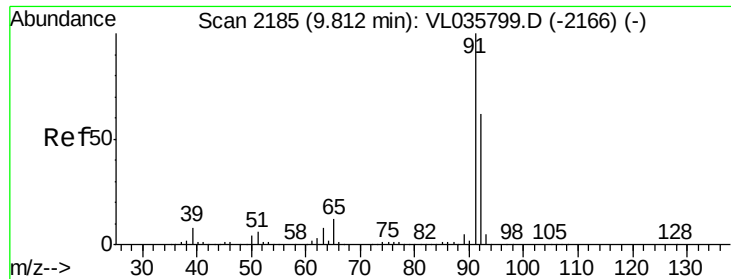
#44
2,2,4-Trimethylpentane
Concen: 0.153 ppbv
RT: 7.85 min Scan# 1574
Delta R.T. -0.03 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Tgt Ion: 57 Resp: 69922
Ion Ratio Lower Upper
57 100
41 31.8 21.0 31.4#
56 38.3 25.4 38.0#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 1.043 ppbv

RT: 9.78 min Scan# 2176

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

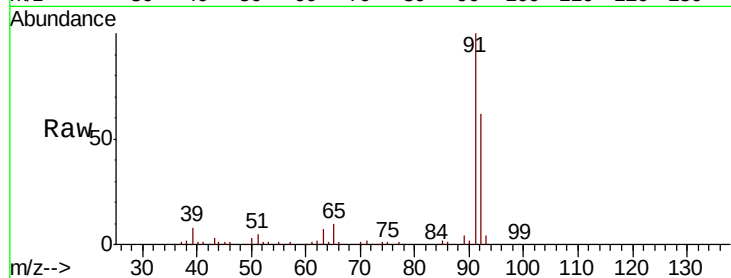
ClientSampled :

Tot Ion: 91 Resp: 433193

Ion Ratio Lower Upper

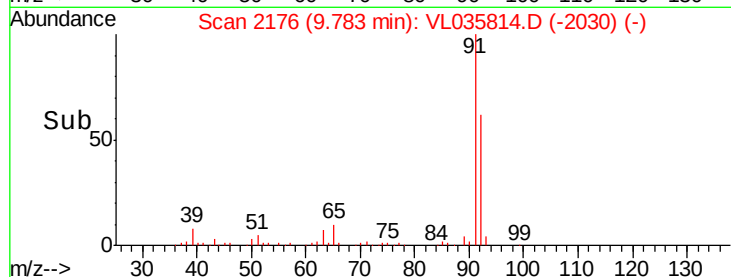
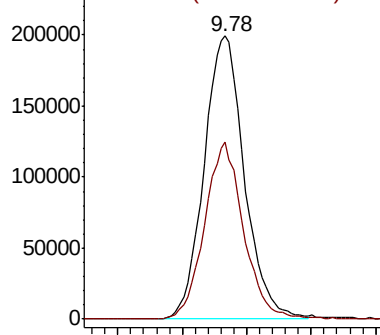
91 100

92 60.8 49.8 74.6

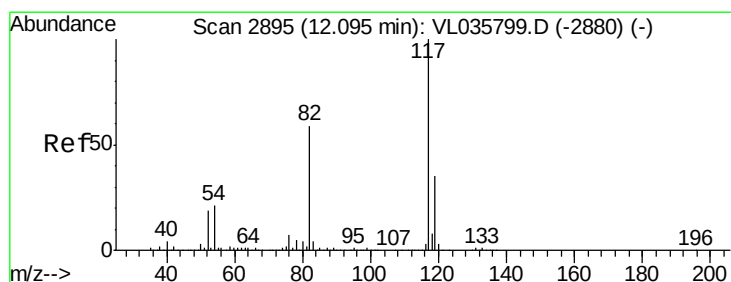


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2885

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

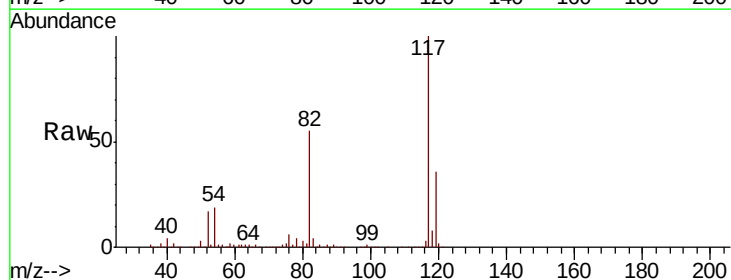
Tgt Ion: 117 Resp: 4234440

Ion Ratio Lower Upper

117 100

82 55.4 50.6 76.0

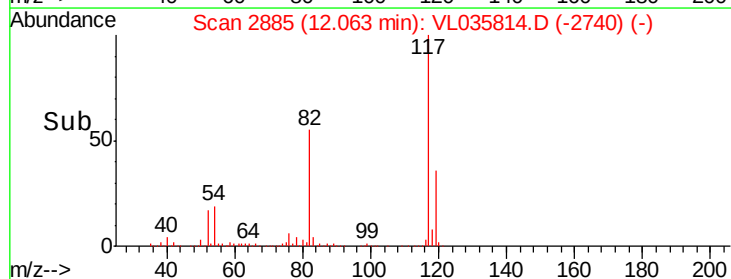
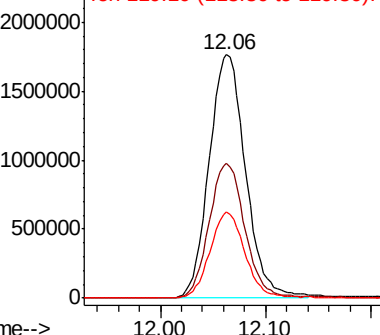
119 34.3 52.6 78.8#



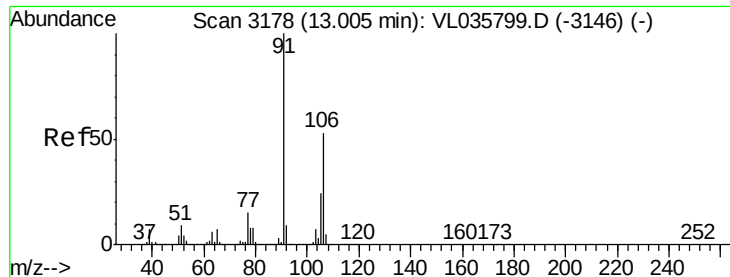
Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



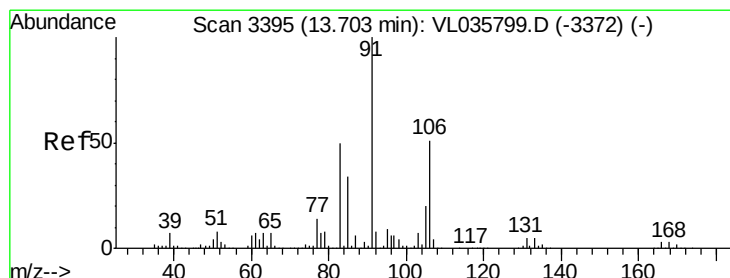
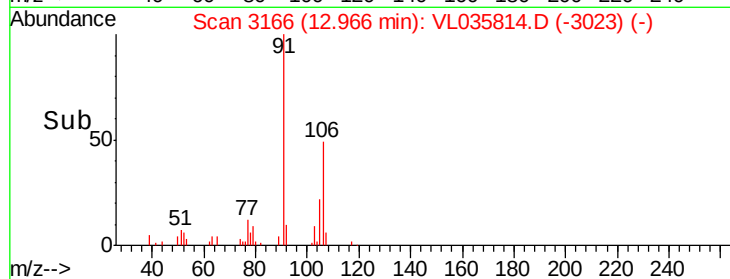
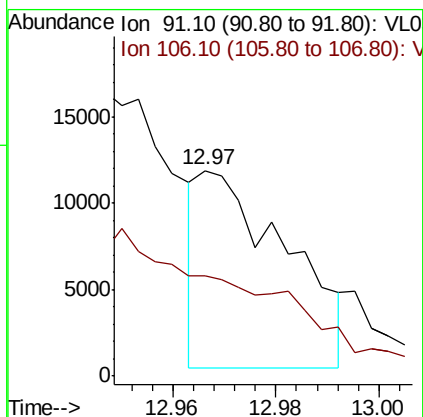
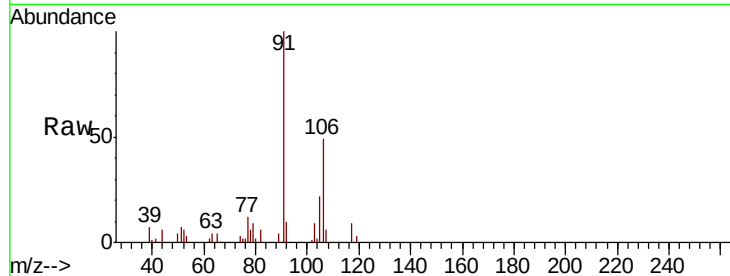
Time-->



#59
m/p-Xylene
Concen: 0.031 ppbv
RT: 12.97 min Scan# 3166
Delta R.T. -0.04 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

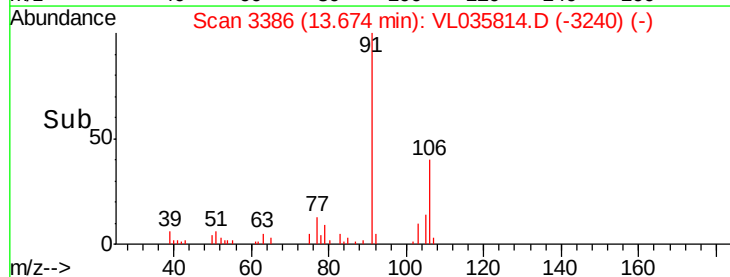
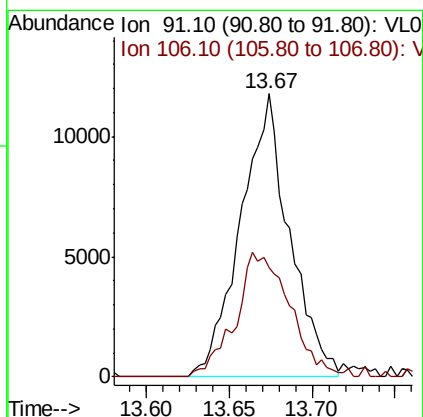
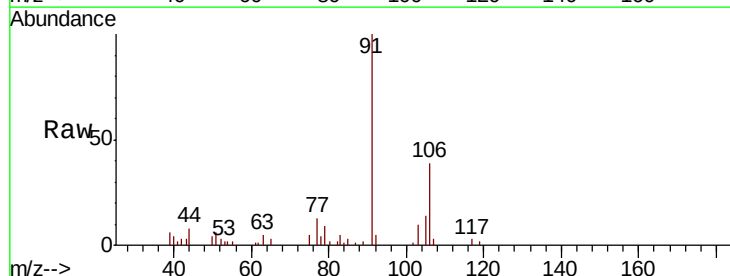
Instrument :
MSVOA_L
ClientSampleId :

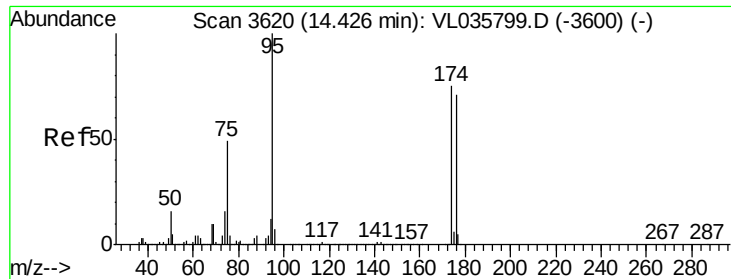
Tot Ion: 91 Resp: 13530
Ion Ratio Lower Upper
91 100
106 0.0 39.5 59.3#



#60
o-Xylene
Concen: 0.057 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. -0.03 min
Lab File: VL035814.D
Acq: 3 Nov 2020 22:01

Tgt Ion: 91 Resp: 24170
Ion Ratio Lower Upper
91 100
106 49.3 24.8 74.4





#68

1-Bromo-4-Fluorobenzene

Concen: 9.981 ppbv

RT: 14.40 min Scan# 3611

Delta R.T. -0.03 min

Lab File: VL035814.D

Acq: 3 Nov 2020 22:01

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 95 Resp: 3002834

Ion Ratio Lower Upper

95 100

174 79.4 59.8 89.6

175 5.5 4.3 6.5

