

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040521\
 Data File : VL036680.D
 Acq On : 5 Apr 2021 19:24
 Operator : SY/AP
 Sample : M1834-02 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 06 02:00:39 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1407993	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	3513170	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3251161	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2596625	10.02	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

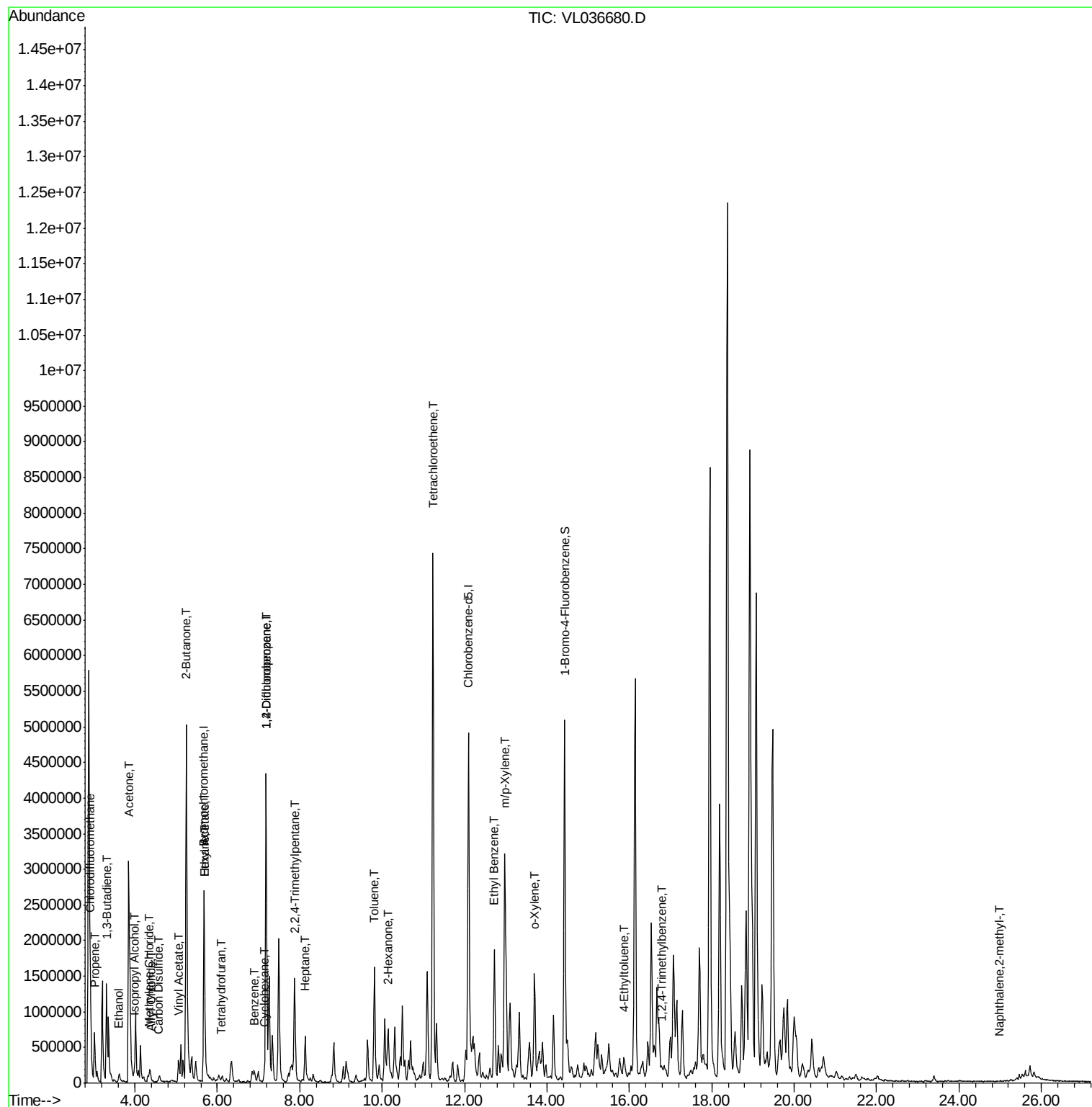
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.92	51	65032	0.247	ppbv #	60
9) Propene	3.02	41	329323	3.927	ppbv	89
10) Heptane	8.13	43	266951	1.250	ppbv	99
13) Ethanol	3.61	45	164351	16.457	ppbv	97
15) Acetone	3.85	43	4465131	32.221	ppbv	97
16) 1,3-Butadiene	3.31	39	430002	4.457	ppbv #	26
19) Isopropyl Alcohol	3.99	45	129218	1.695	ppbv #	89
20) Methylene Chloride	4.35	84	38239	0.589	ppbv	93
21) Allyl Chloride	4.40	41	3954	0.036	ppbv #	17
23) Vinyl Acetate	5.06	43	140482	0.593	ppbv #	1
25) Ethyl Acetate	5.69	43	117641	0.357	ppbv #	83
26) Hexane	5.69	57	71766	0.469	ppbv #	1
27) Carbon Disulfide	4.56	76	12518	0.083	ppbv #	19
30) Cyclohexane	7.14	84	9632	0.078	ppbv #	1
34) 2-Butanone	5.24	43	7446423	43.422	ppbv	97
36) Benzene	6.89	78	99461	0.307	ppbv #	87
39) 1,2-Dichloropropane	7.18	63	920544	7.004	ppbv #	23
41) Tetrahydrofuran	6.09	42	4171	0.053	ppbv #	59
44) 2,2,4-Trimethylpentane	7.88	57	1307701	2.293	ppbv	90
51) 2-Hexanone	10.15	43	805037	6.429	ppbv #	90
52) Tetrachloroethene	11.23	164	1904170	15.960	ppbv	97
53) Toluene	9.82	91	832702	2.413	ppbv	100
58) Ethyl Benzene	12.72	91	1315764	2.782	ppbv	93
59) m/p-Xylene	12.98	91	3276425	7.942	ppbv	95
60) o-Xylene	13.70	91	1045006	2.620	ppbv	98
72) 4-Ethyltoluene	15.86	105	13305	0.030	ppbv #	51
74) 1,2,4-Trimethylbenzene	16.77	105	17900	0.041	ppbv #	52
80) Naphthalene,2-methyl-	24.98	142	2446	0.049	ppbv #	25

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

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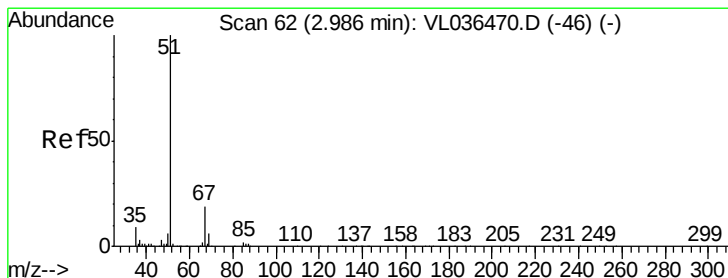
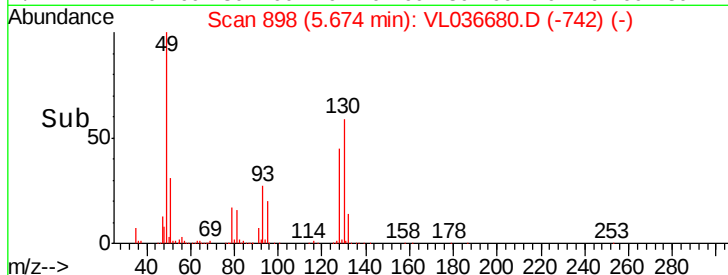
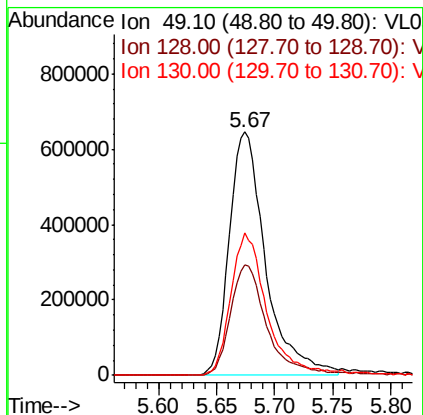
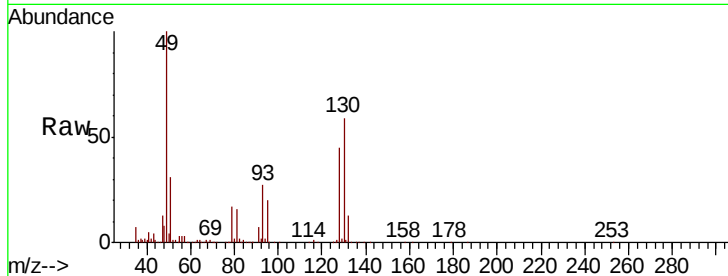


#1

Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. 0.00 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

Instrument :
 MSVOA_L
 ClientSampleId :

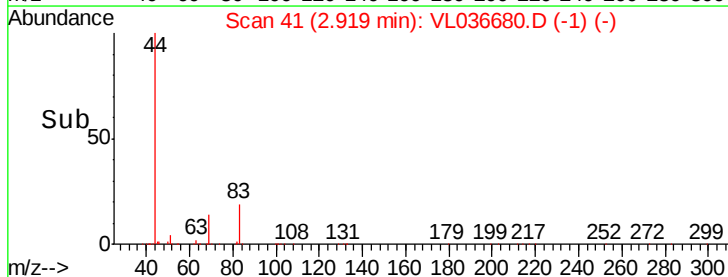
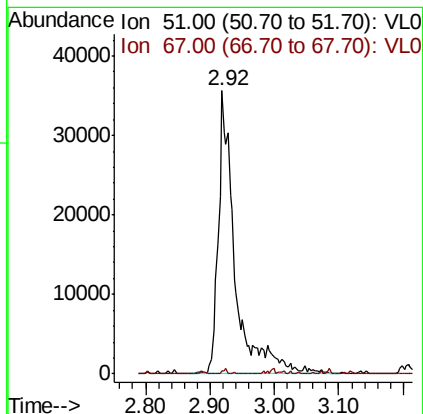
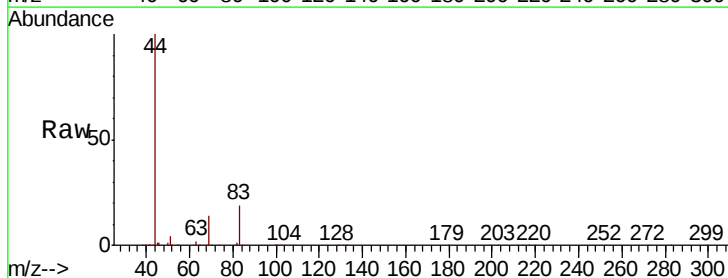
Tot Ion: 49 Resp: 1407993
 Ion Ratio Lower Upper
 49 100
 128 46.9 23.5 70.6
 130 59.1 29.1 87.4

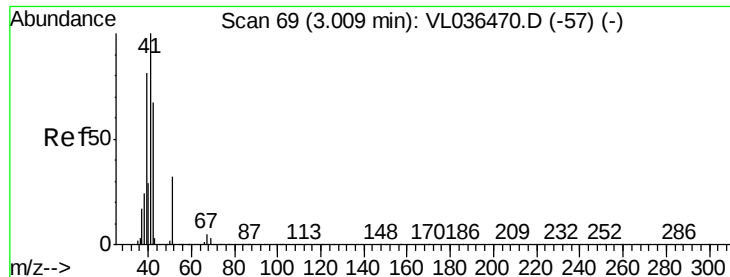


#3

Chlorodifluoromethane
 Concen: 0.247 ppbv
 RT: 2.92 min Scan# 41
 Delta R.T. -0.07 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

Tgt Ion: 51 Resp: 65032
 Ion Ratio Lower Upper
 51 100
 67 0.5 14.7 22.1#





#9

Propene

Concen: 3.927 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.01 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

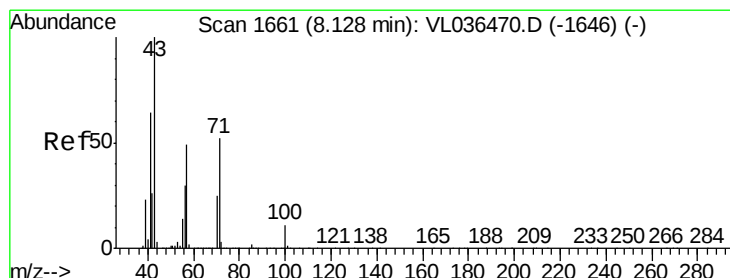
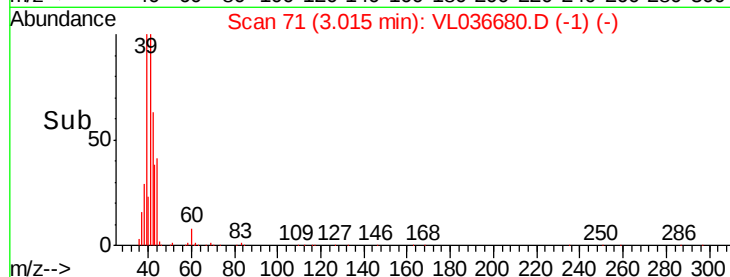
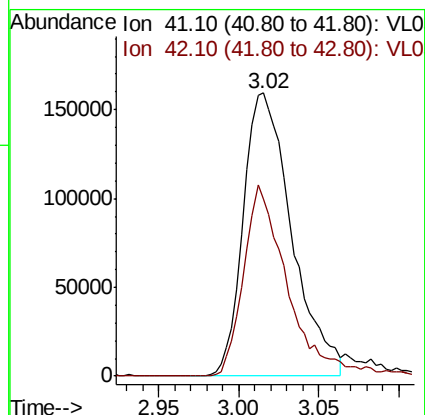
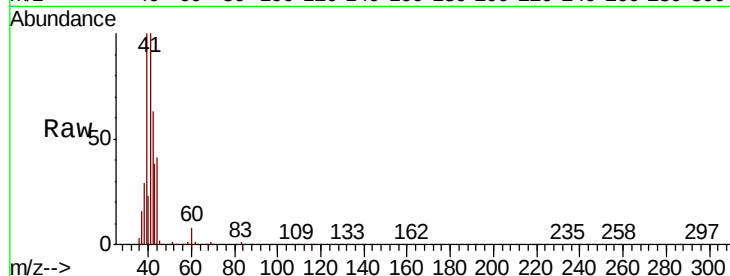
ClientSampleId :

Tot Ion: 41 Resp: 329323

Ion Ratio Lower Upper

41 100

42 62.1 57.0 85.4



#10

Heptane

Concen: 1.250 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. 0.00 min

Lab File: VL036680.D

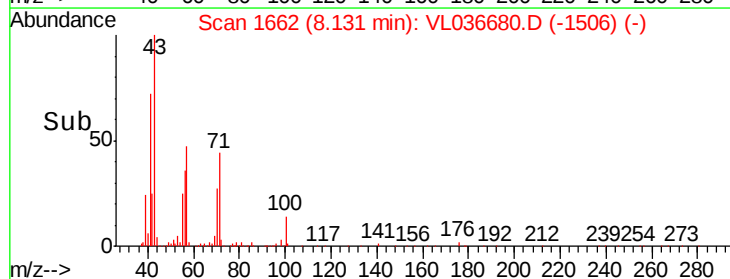
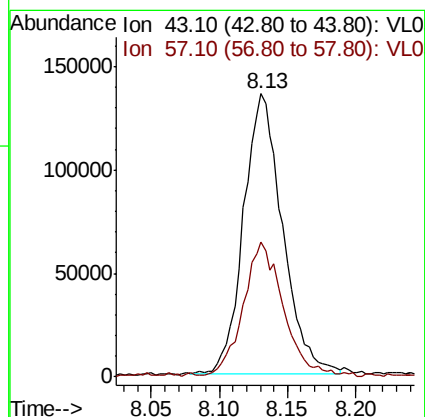
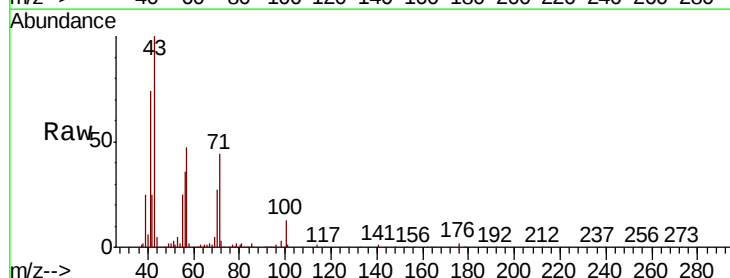
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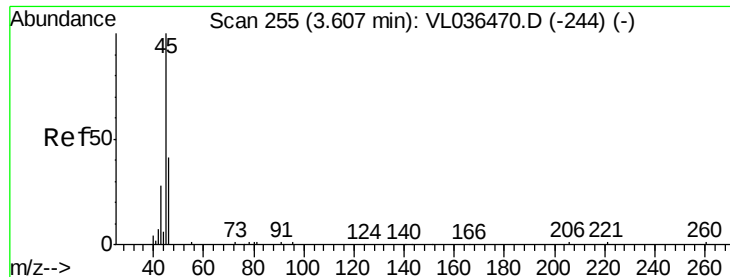
Tgt Ion: 43 Resp: 266951

Ion Ratio Lower Upper

43 100

57 49.4 39.0 58.6





#13

Ethanol

Concen: 16.457 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

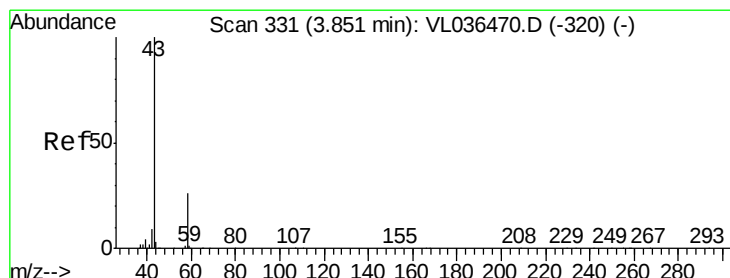
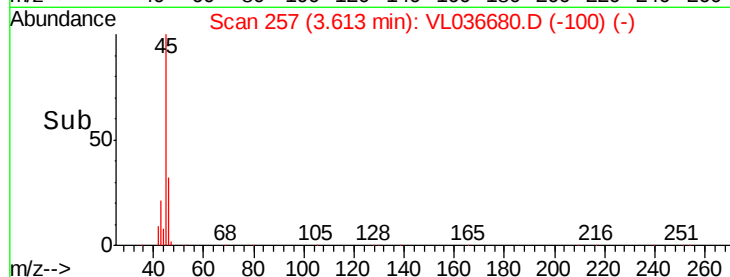
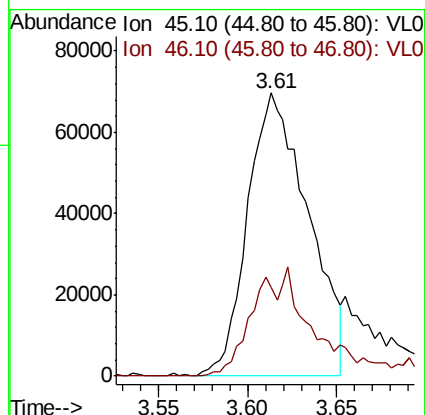
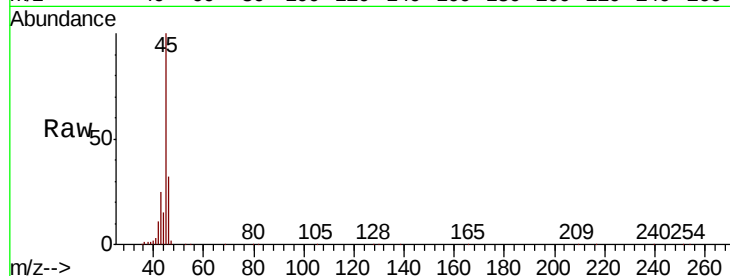
ClientSampleId :

Tot Ion: 45 Resp: 164351

Ion Ratio Lower Upper

45 100

46 43.4 16.6 66.2



#15

Acetone

Concen: 32.221 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.00 min

Lab File: VL036680.D

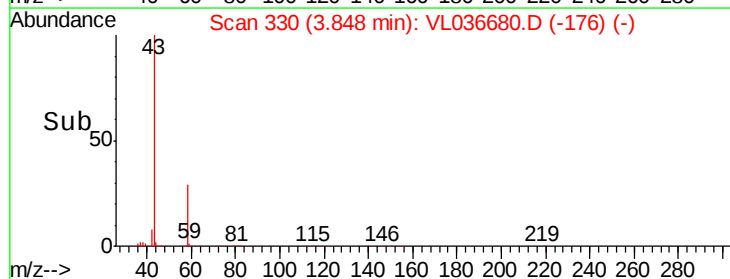
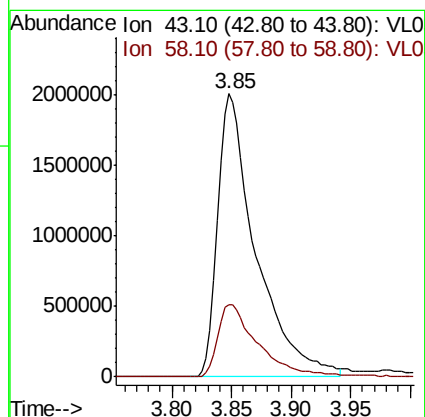
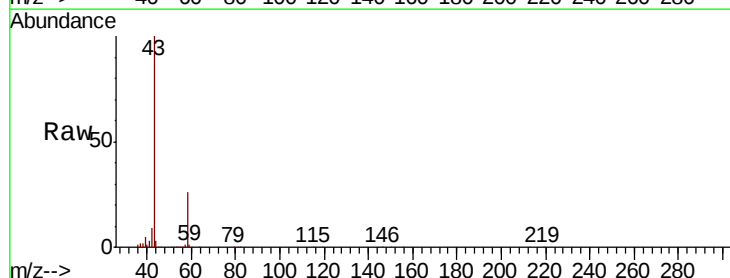
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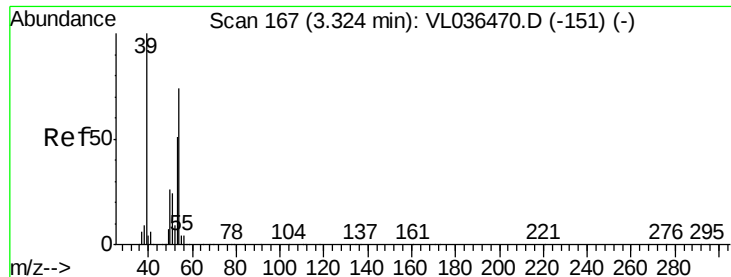
Tgt Ion: 43 Resp: 4465131

Ion Ratio Lower Upper

43 100

58 27.8 21.2 31.8

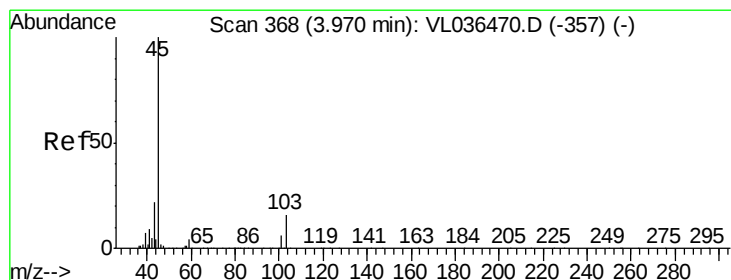
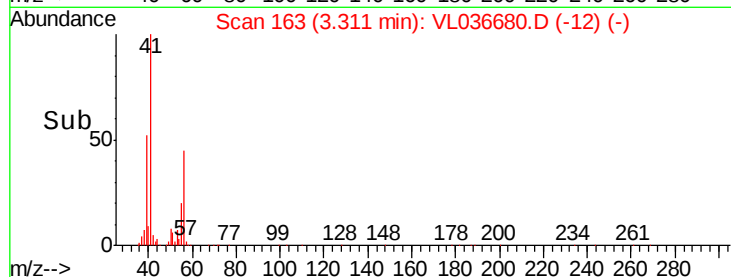
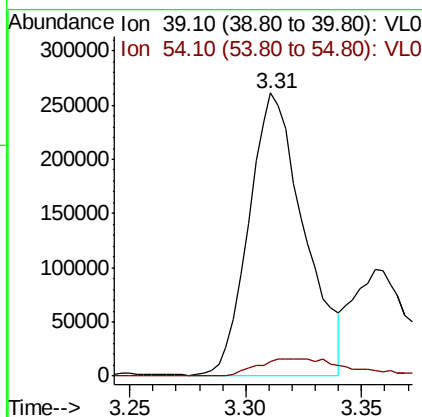
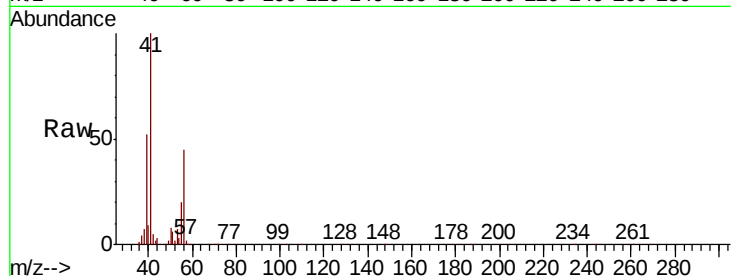




#16
 1,3-Butadiene
 Concen: 4.457 ppbv
 RT: 3.31 min Scan# 163
 Delta R.T. -0.01 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

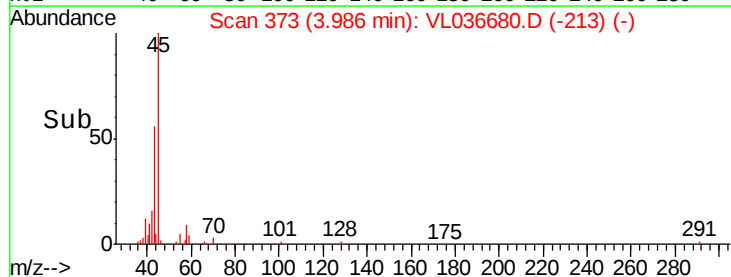
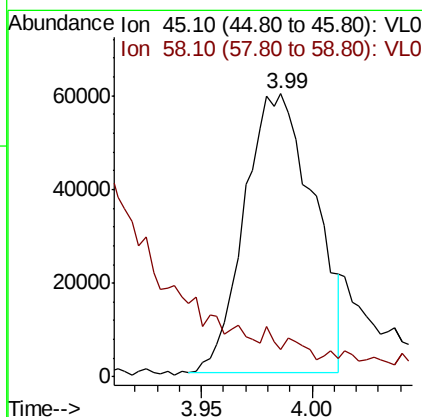
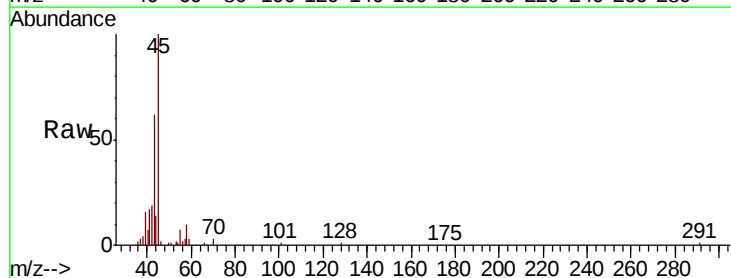
Instrument :
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 ClientSampleId :

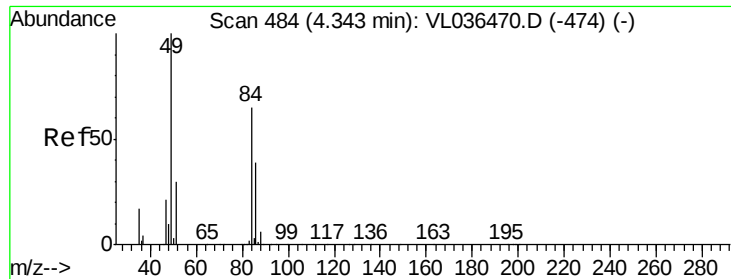
Tot Ion: 39 Resp: 430002
 Ion Ratio Lower Upper
 39 100
 54 10.8 58.8 88.2#



#19
 Isopropyl Alcohol
 Concen: 1.695 ppbv
 RT: 3.99 min Scan# 373
 Delta R.T. 0.02 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

Tgt Ion: 45 Resp: 129218
 Ion Ratio Lower Upper
 45 100
 58 0.0 2.9 4.3#

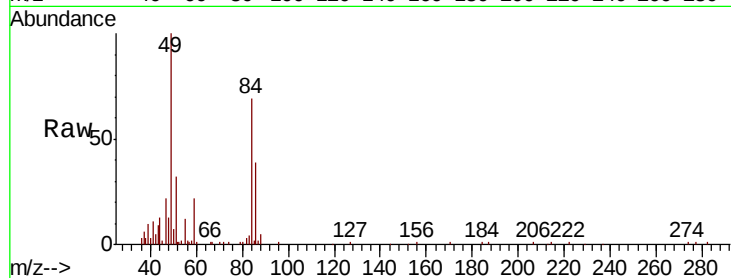




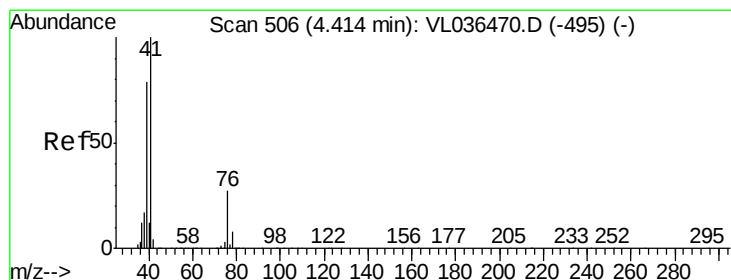
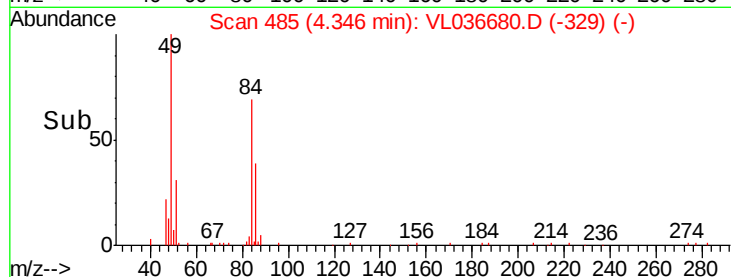
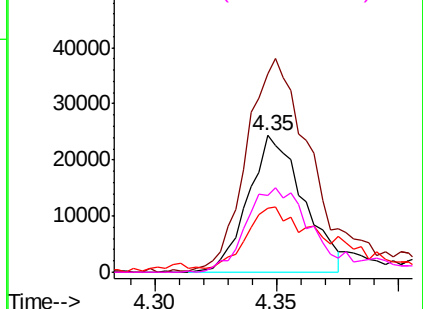
#20
Methvlene Chloride
Concen: 0.589 ppbv
RT: 4.35 min Scan# 485
Delta R.T. 0.00 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	84	Resp:	38239
Ion	Ratio	Lower	Upper
84	100		
49	143.9	122.9	184.3
51	43.5	36.9	55.3
86	55.4	48.2	72.4

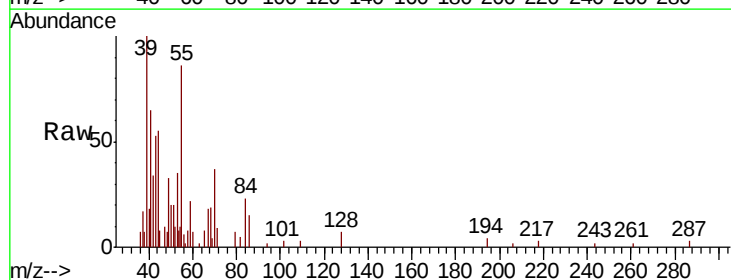


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

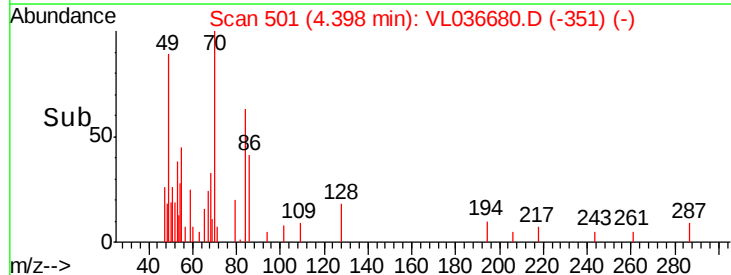
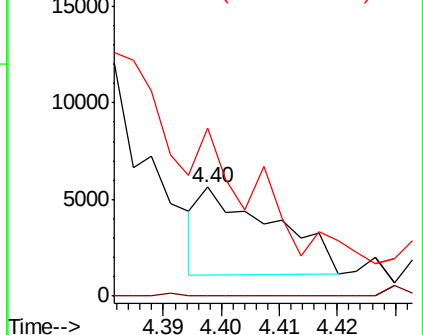


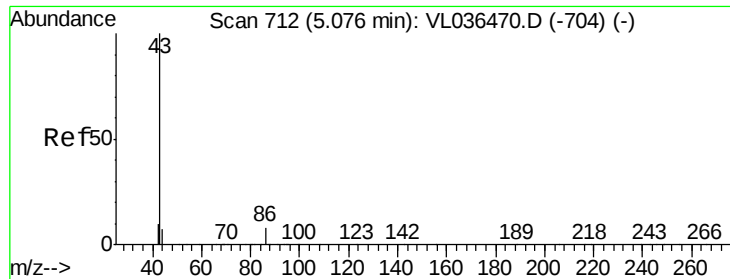
#21
Allyl Chloride
Concen: 0.036 ppbv
RT: 4.40 min Scan# 501
Delta R.T. -0.02 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

Tgt Ion:	41	Resp:	3954
Ion	Ratio	Lower	Upper
41	100		
76	0.0	22.9	34.3#
39	0.0	67.3	100.9#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0

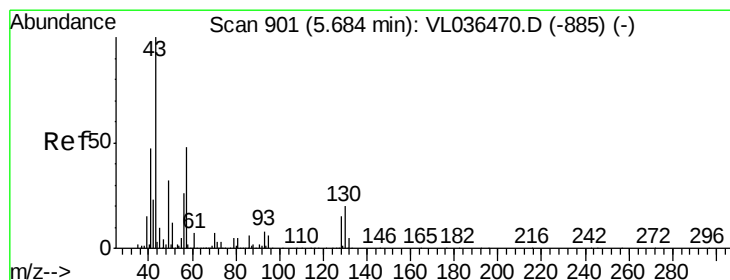
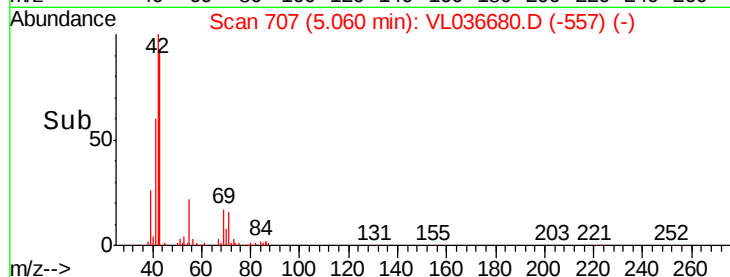
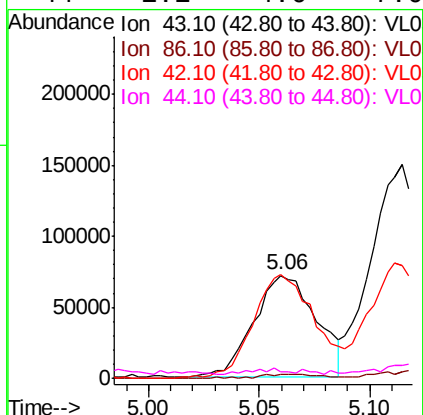
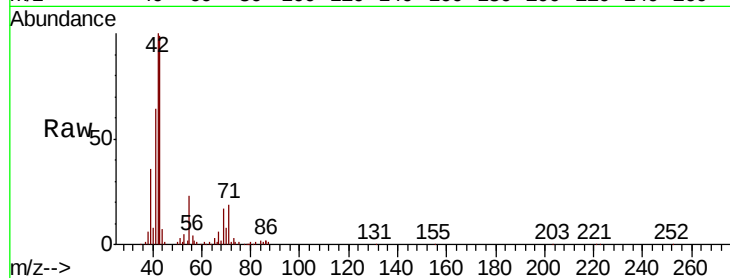




#23
 Vinyl Acetate
 Concen: 0.593 ppbv
 RT: 5.06 min Scan# 707
 Delta R.T. -0.02 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

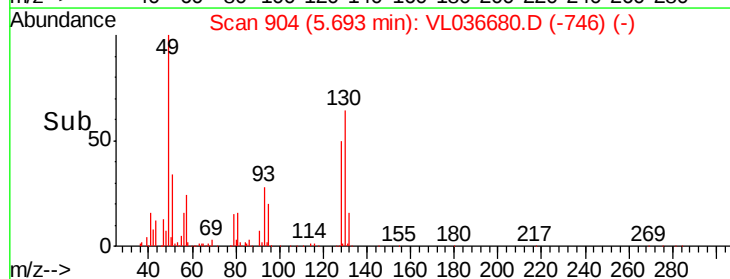
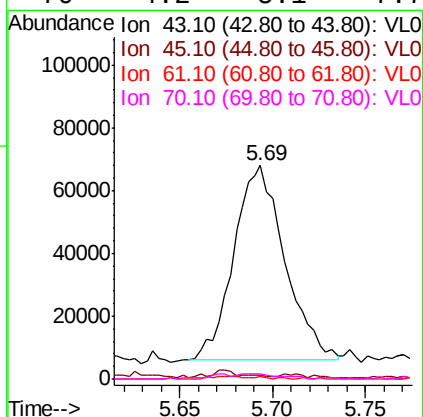
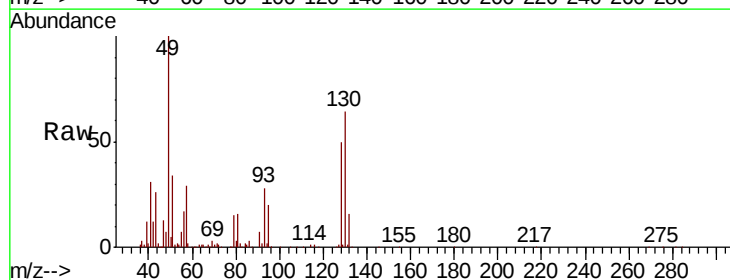
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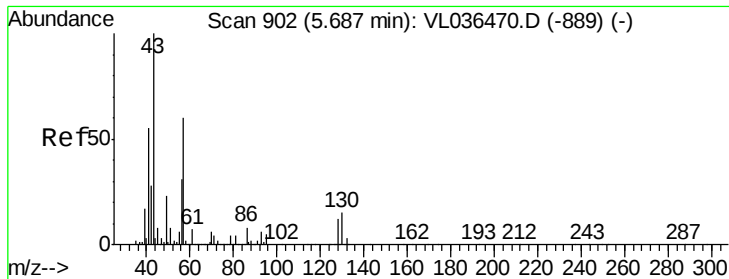
Tot Ion:	43	Resp:	140482
Ion	Ratio	Lower	Upper
43	100		
86	3.9	5.4	8.0#
42	101.9	8.5	12.7#
44	1.1	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 0.357 ppbv
 RT: 5.69 min Scan# 904
 Delta R.T. 0.01 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

Tgt Ion:	43	Resp:	117641
Ion	Ratio	Lower	Upper
43	100		
45	2.8	7.9	11.9#
61	1.4	7.4	11.2#
70	4.2	5.1	7.7#

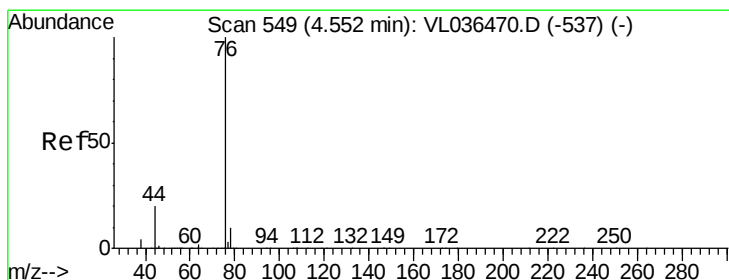
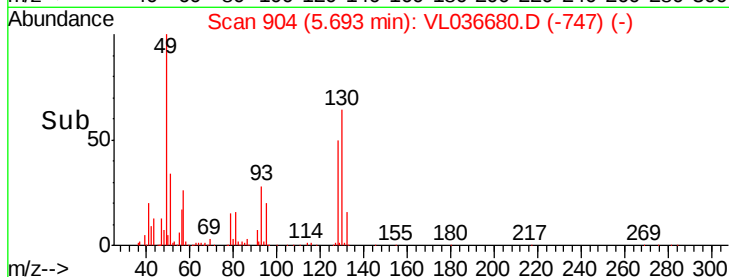
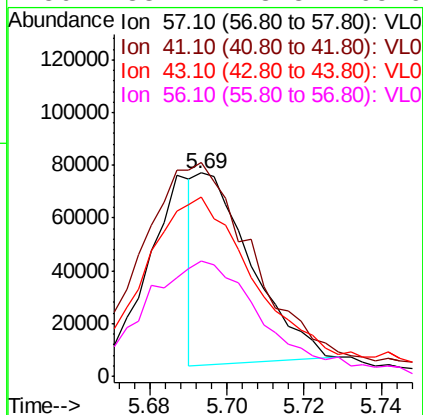
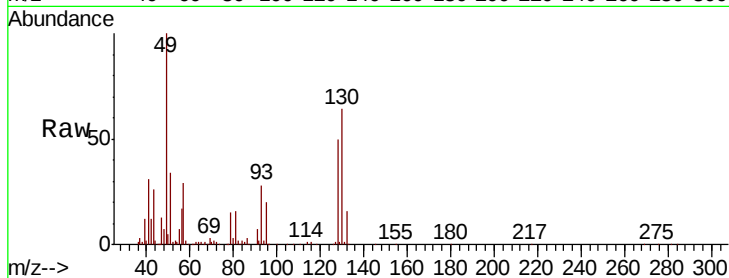




#26
Hexane
Concen: 0.469 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.01 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

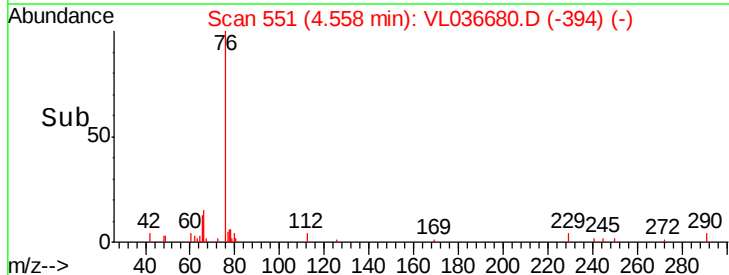
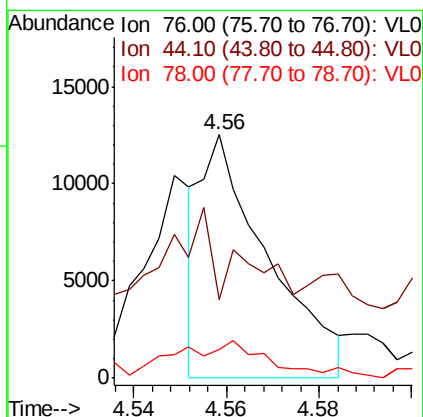
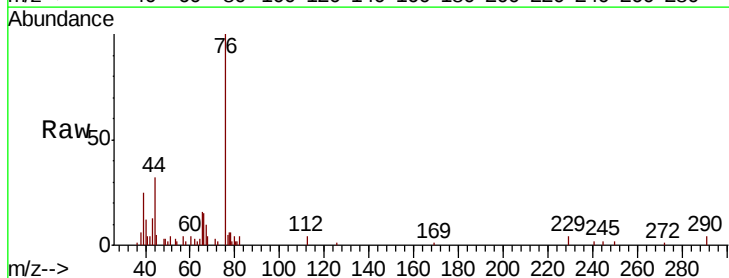
Instrument :
MSVOA_L
ClientSampleId :

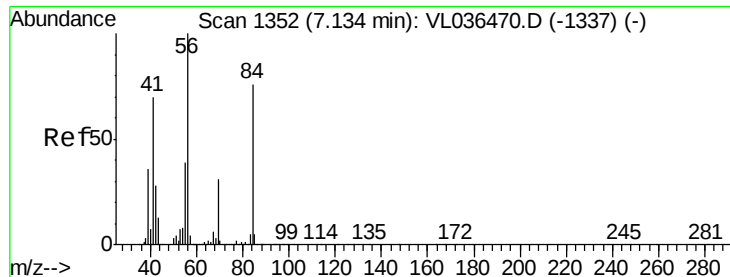
Tot Ion: 57 Resp: 71766
Ion Ratio Lower Upper
57 100
41 252.3 77.2 115.8#
43 0.0 173.8 260.6#
56 133.7 43.8 65.6#



#27
Carbon Disulfide
Concen: 0.083 ppbv
RT: 4.56 min Scan# 551
Delta R.T. 0.01 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

Tgt Ion: 76 Resp: 12518
Ion Ratio Lower Upper
76 100
44 71.4 17.5 26.3#
78 24.3 8.6 13.0#

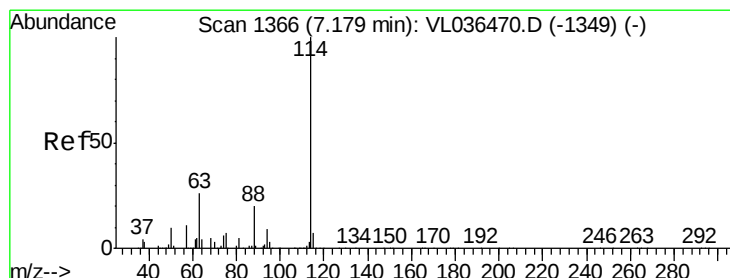
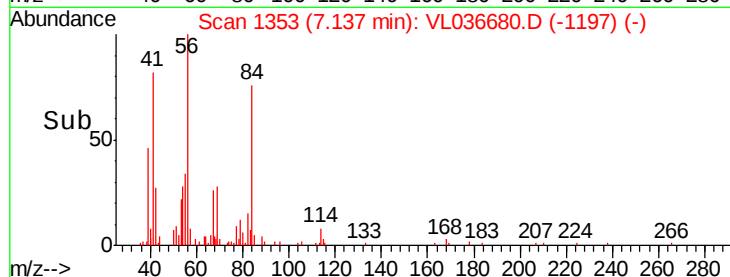
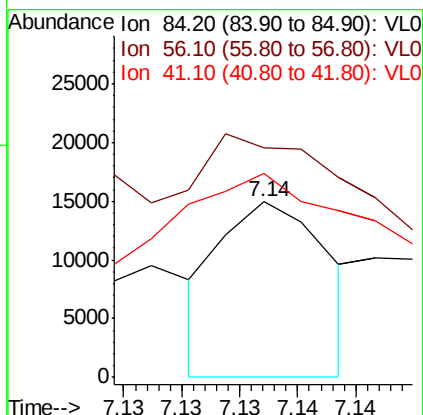
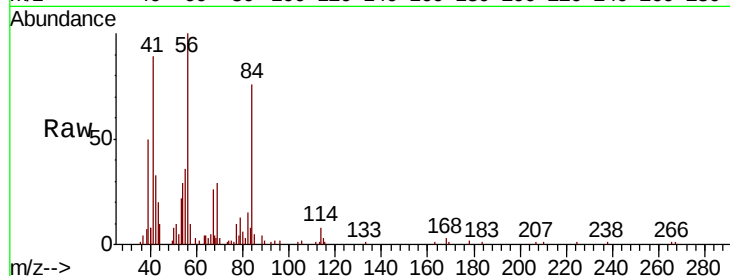




#30
Cvclohexane
Concen: 0.078 ppbv
RT: 7.14 min Scan# 1353
Delta R.T. 0.00 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

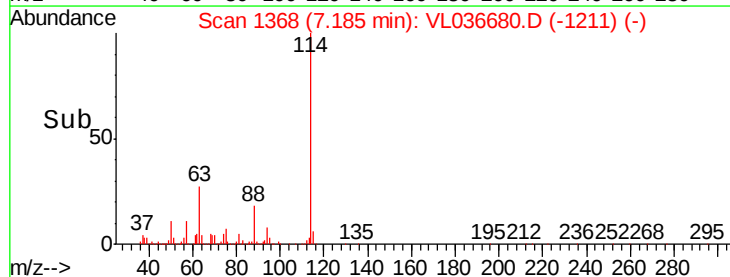
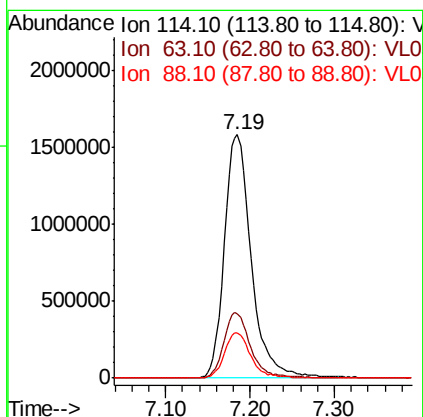
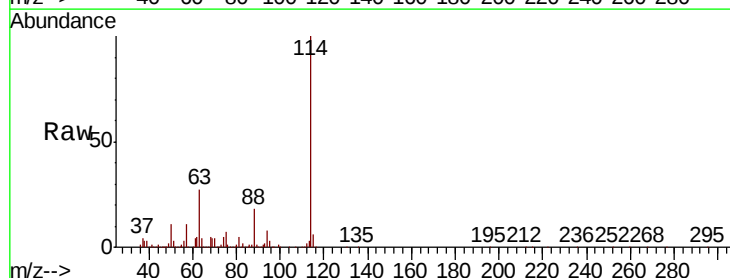
Instrument :
MSVOA_L
ClientSampled :

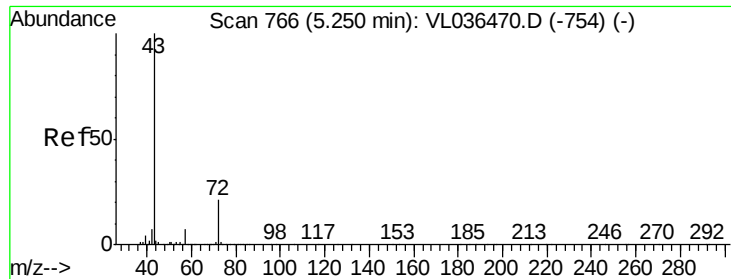
Tot Ion: 84 Resp: 9632
Ion Ratio Lower Upper
84 100
56 0.0 114.6 171.8#
41 335.2 75.3 112.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.19 min Scan# 1368
Delta R.T. 0.01 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

Tgt Ion: 114 Resp: 3513170
Ion Ratio Lower Upper
114 100
63 26.7 22.4 33.6
88 18.5 15.4 23.0





#34

2-Butanone

Concen: 43.422 ppbv

RT: 5.24 min Scan# 764

Delta R.T. -0.01 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

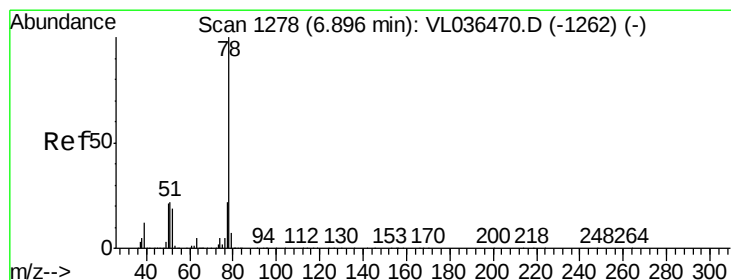
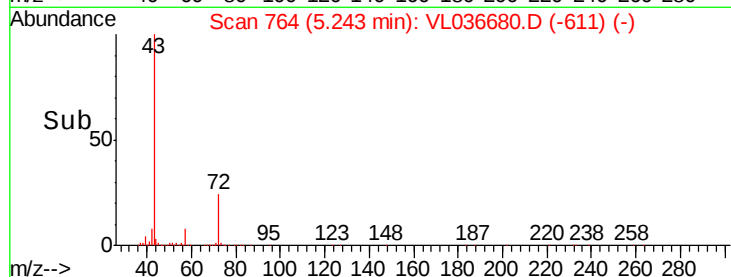
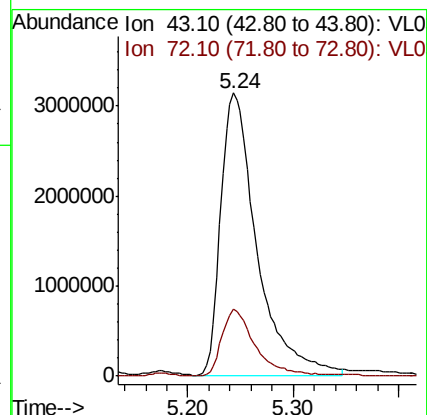
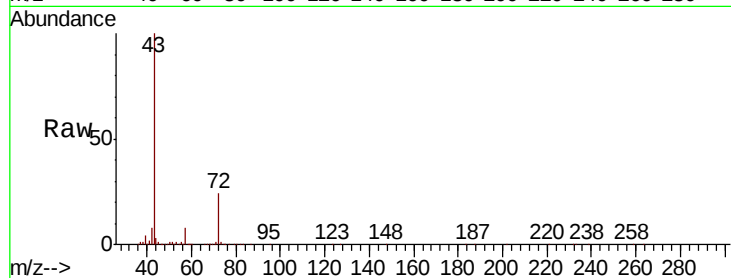
ClientSampleId :

Tot Ion: 43 Resp: 7446423

Ion Ratio Lower Upper

43 100

72 22.5 17.0 25.6



#36

Benzene

Concen: 0.307 ppbv

RT: 6.89 min Scan# 1277

Delta R.T. -0.00 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

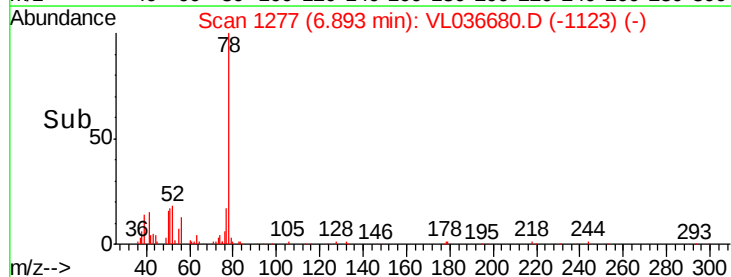
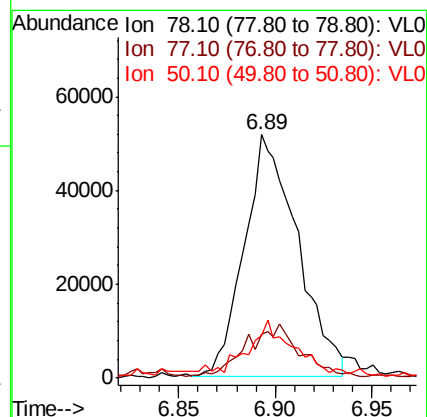
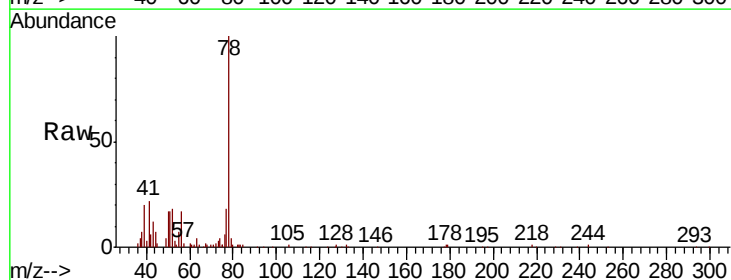
Tgt Ion: 78 Resp: 99461

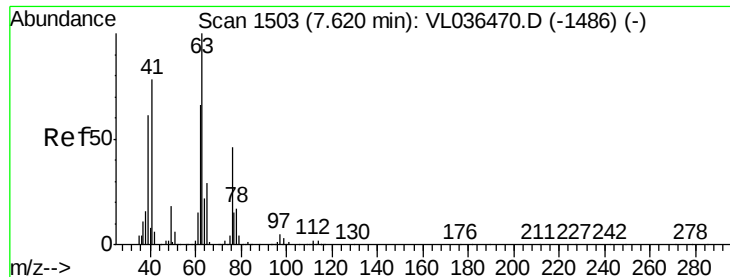
Ion Ratio Lower Upper

78 100

77 16.7 18.0 27.0#

50 14.6 16.5 24.7#





#39

1,2-Dichloropropane

Concen: 7.004 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.44 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

ClientSampleId :

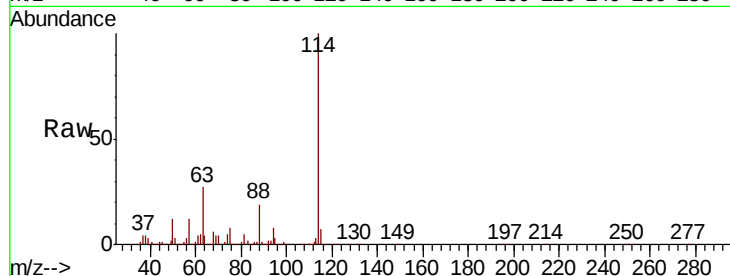
Tot Ion: 63 Resp: 920544

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

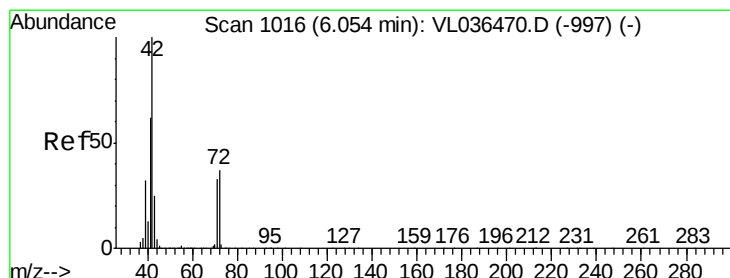
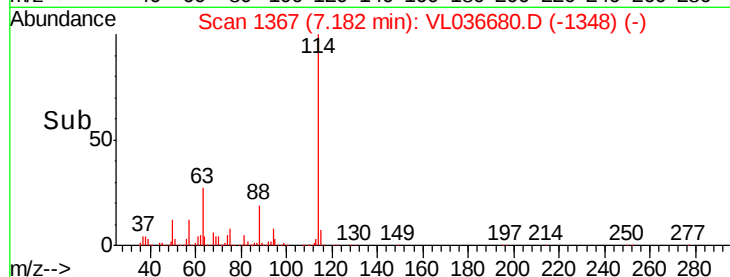
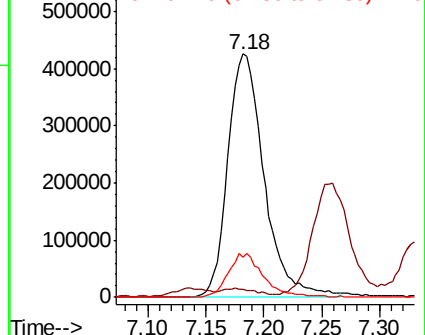
62 16.7 52.8 79.2#



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: 0.053 ppbv

RT: 6.09 min Scan# 1026

Delta R.T. 0.03 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

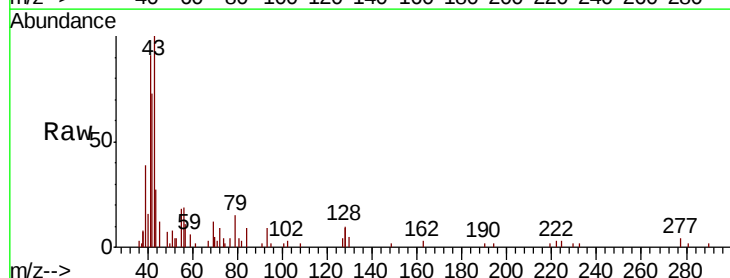
Tgt Ion: 42 Resp: 4171

Ion Ratio Lower Upper

42 100

72 0.0 27.6 41.4#

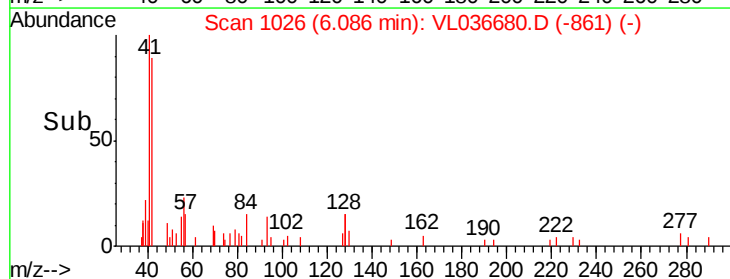
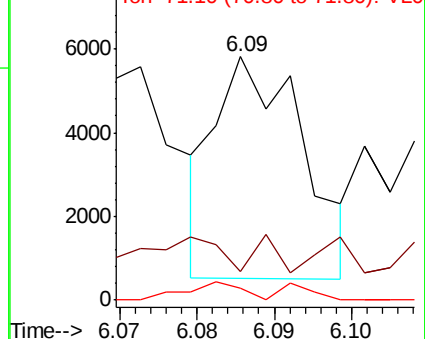
71 21.1 27.0 40.4#

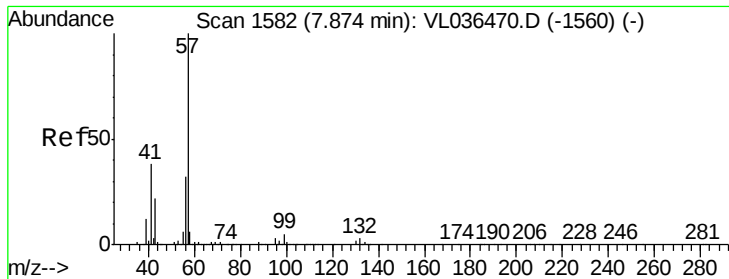


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 2.293 ppbv

RT: 7.88 min Scan# 1583

Delta R.T. 0.00 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

ClientSampleId :

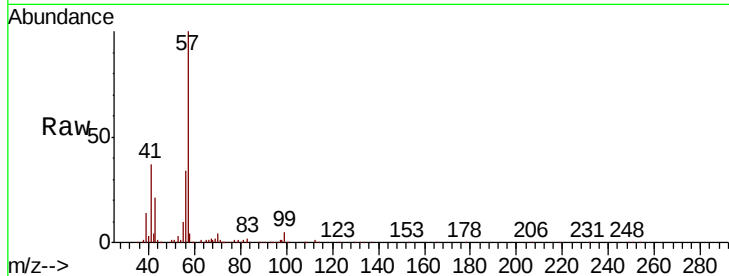
Tot Ion: 57 Resp: 1307701

Ion Ratio Lower Upper

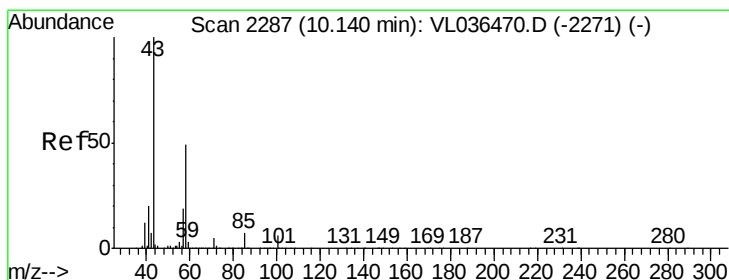
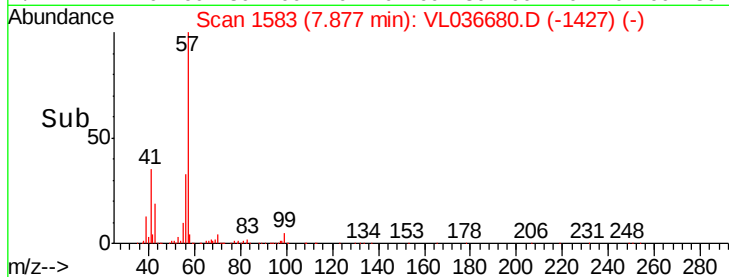
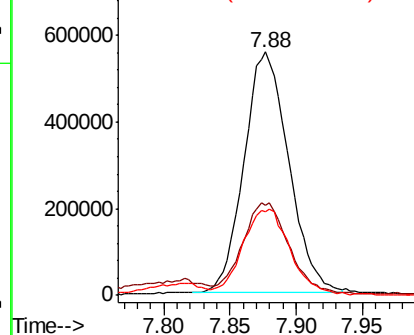
57 100

41 41.8 28.8 43.2

56 37.8 26.1 39.1



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



#51

2-Hexanone

Concen: 6.429 ppbv

RT: 10.15 min Scan# 2290

Delta R.T. 0.01 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

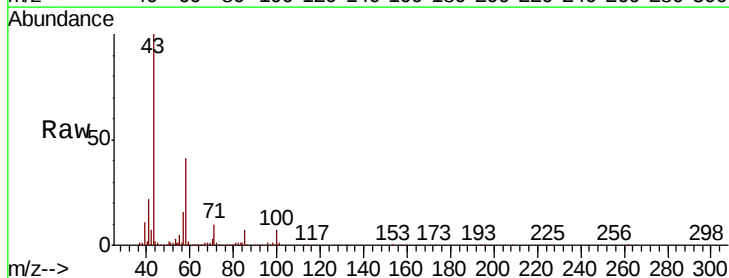
Tgt Ion: 43 Resp: 805037

Ion Ratio Lower Upper

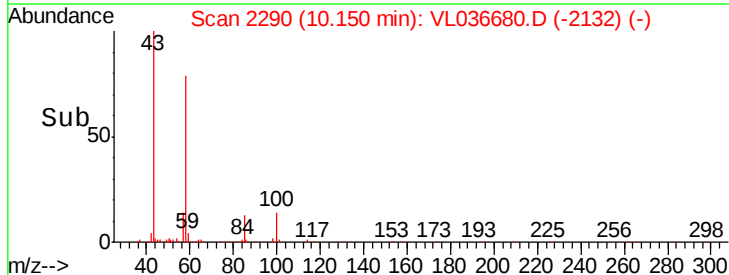
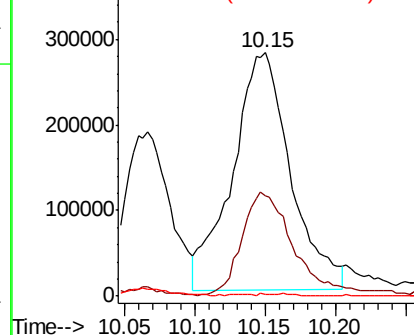
43 100

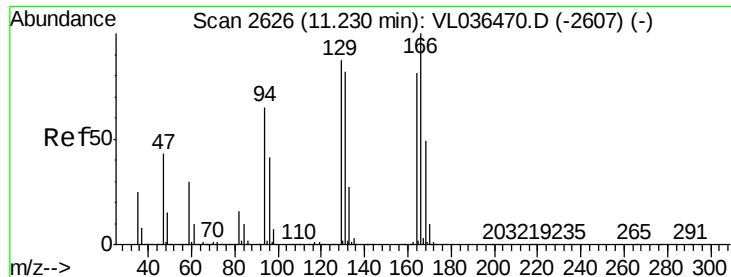
58 40.3 37.7 56.5

98 0.7 0.2 0.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 15.960 ppbv

RT: 11.23 min Scan# 2627

Delta R.T. 0.00 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 1904170

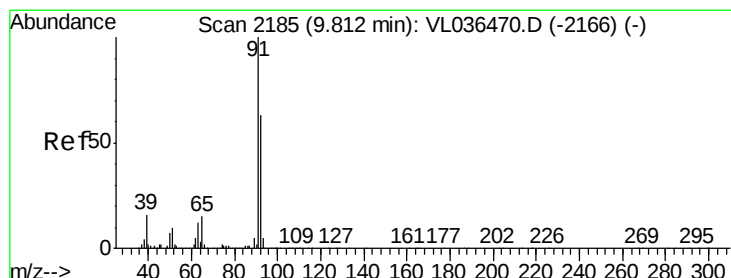
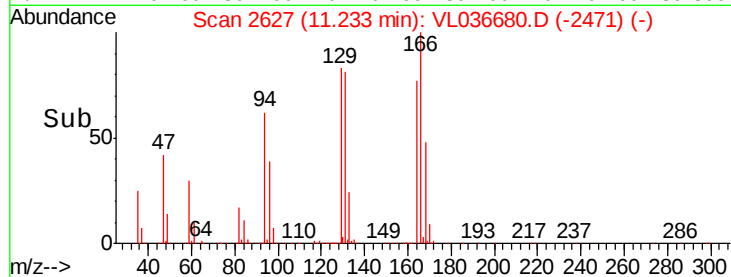
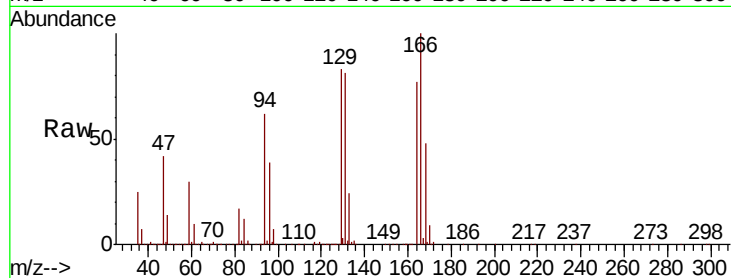
Ion	Ratio	Lower	Upper
164	100		
166	129.7	98.3	147.5
129	108.2	85.8	128.8
131	104.3	80.9	121.3

Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 2.413 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. 0.00 min

Lab File: VL036680.D

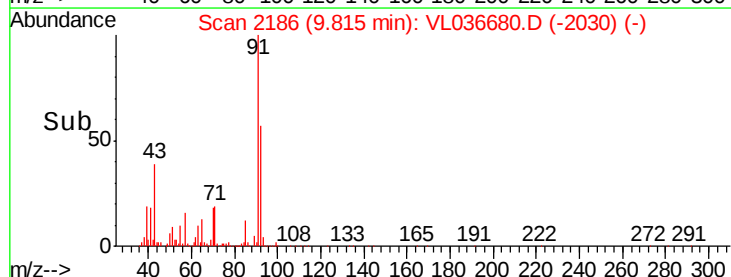
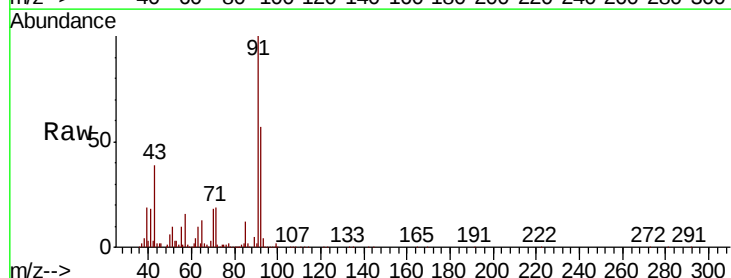
Acq: 5 Apr 2021 19:24

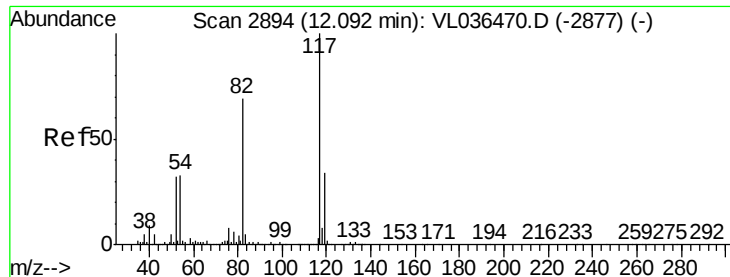
Tgt Ion: 91 Resp: 832702

Ion	Ratio	Lower	Upper
91	100		
92	60.7	48.8	73.2

Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

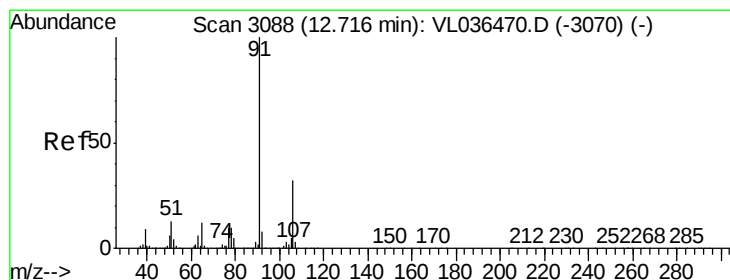
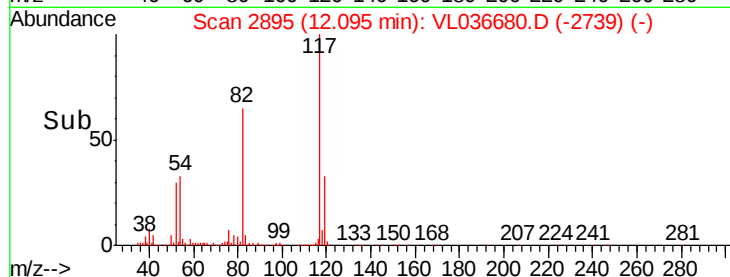
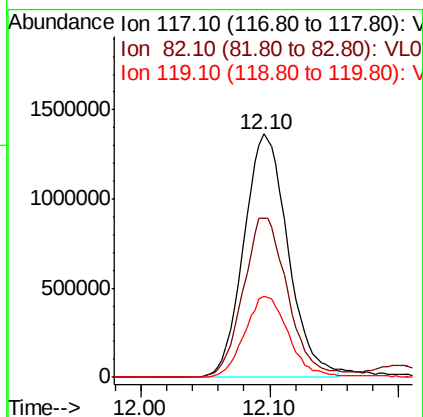
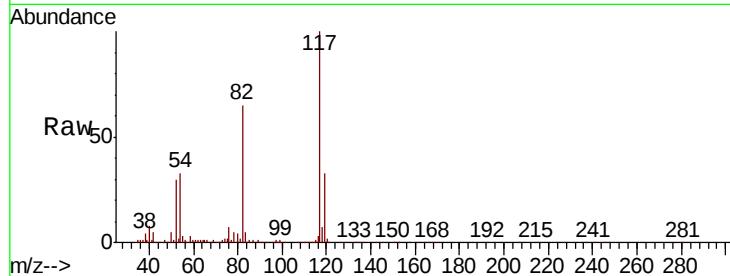




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2895
Delta R.T. 0.00 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

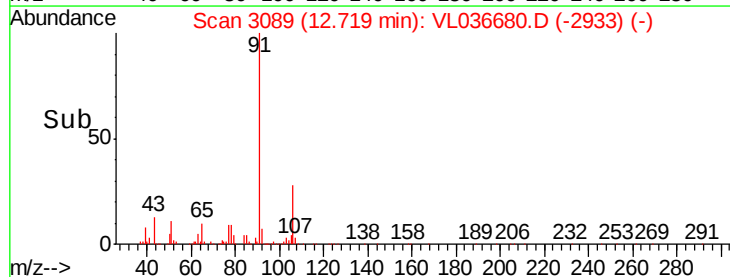
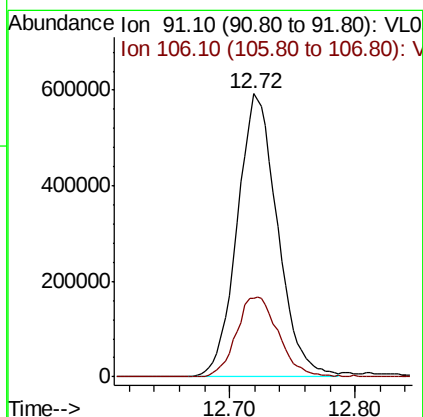
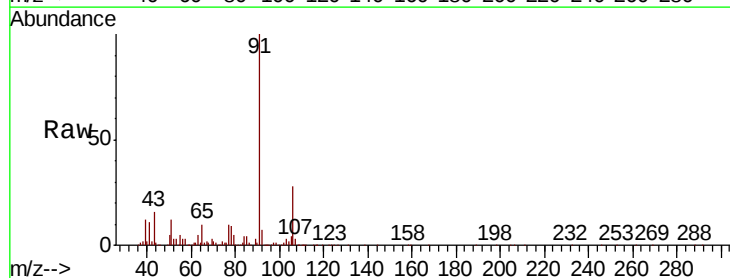
Instrument :
MSVOA_L
ClientSampleId :

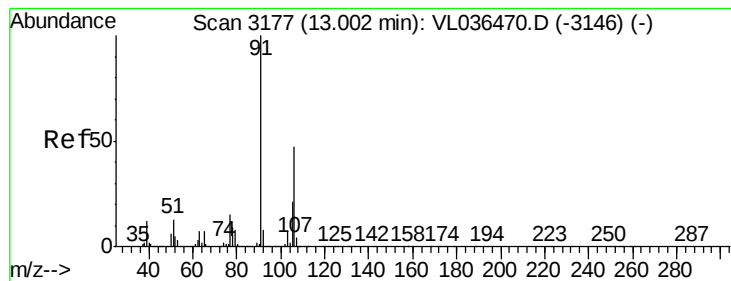
Tot Ion:117 Resp: 3251161
Ion Ratio Lower Upper
117 100
82 67.1 57.4 86.0
119 34.1 47.4 71.0#



#58
Ethyl Benzene
Concen: 2.782 ppbv
RT: 12.72 min Scan# 3089
Delta R.T. 0.00 min
Lab File: VL036680.D
Acq: 5 Apr 2021 19:24

Tgt Ion: 91 Resp: 1315764
Ion Ratio Lower Upper
91 100
106 27.7 25.3 37.9





#59

m/p-Xylene

Concen: 7.942 ppbv

RT: 12.98 min Scan# 3170

Delta R.T. -0.02 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

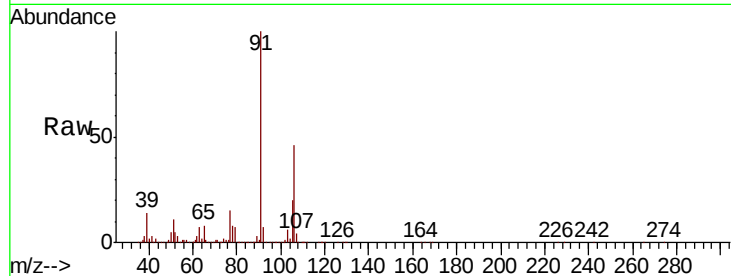
ClientSampleId :

Tot Ion: 91 Resp: 3276425

Ion Ratio Lower Upper

91 100

106 47.3 35.3 52.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

1200000

1000000

800000

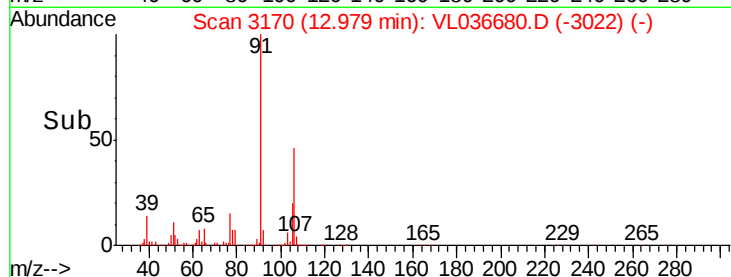
600000

400000

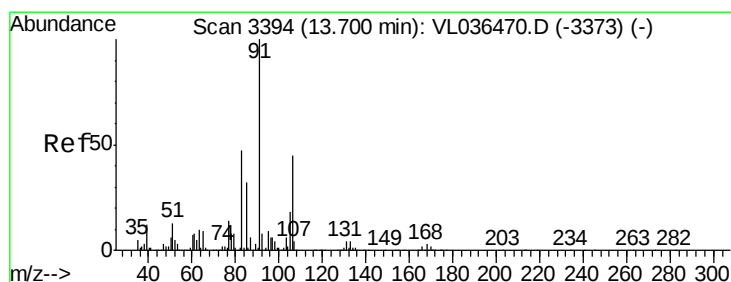
200000

0

Time-->



Time-->



#60

o-Xylene

Concen: 2.620 ppbv

RT: 13.70 min Scan# 3395

Delta R.T. 0.00 min

Lab File: VL036680.D

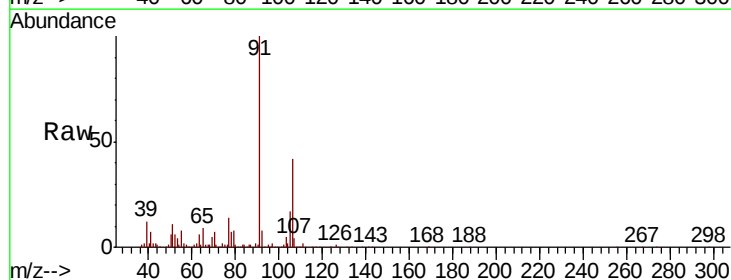
Acq: 5 Apr 2021 19:24

Tgt Ion: 91 Resp: 1045006

Ion Ratio Lower Upper

91 100

106 43.1 22.3 66.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

500000

400000

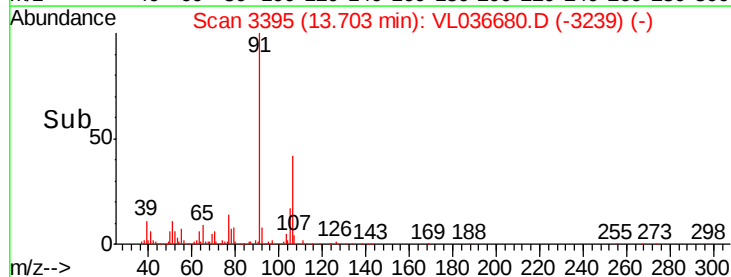
300000

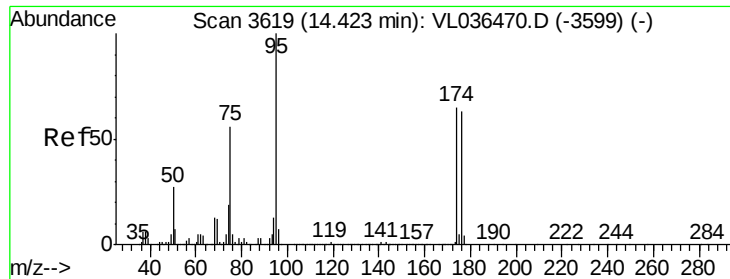
200000

100000

0

Time-->

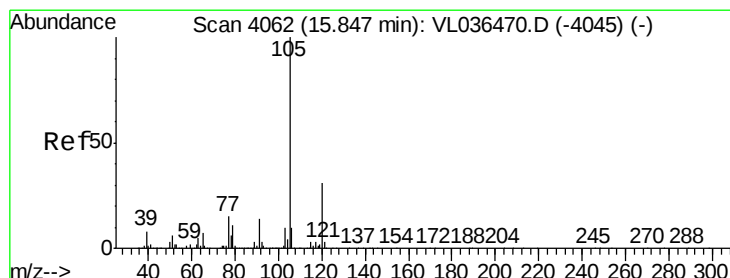
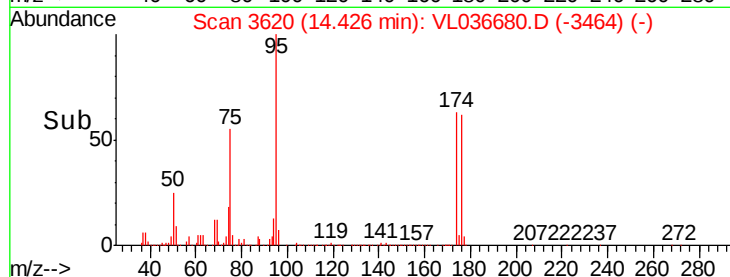
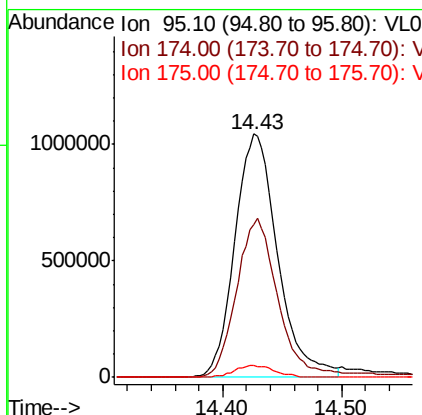
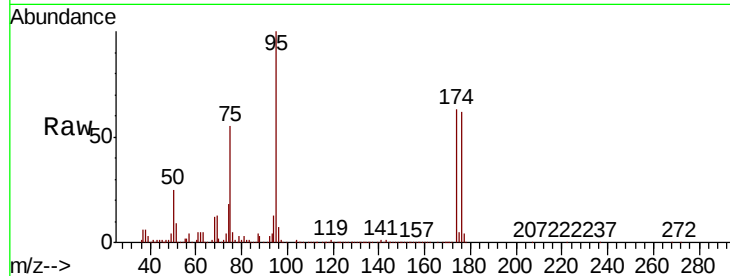




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.021 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. 0.00 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

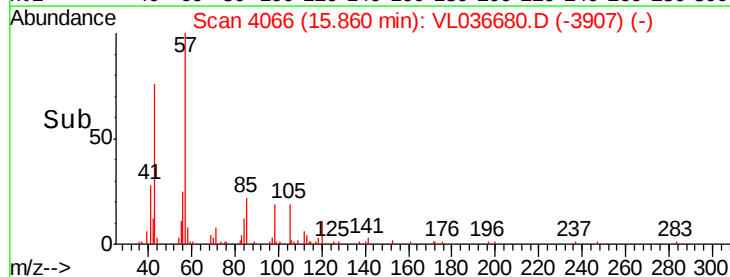
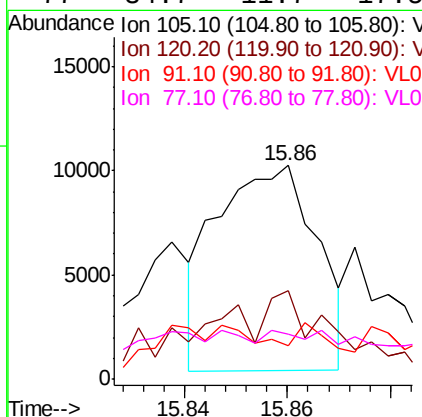
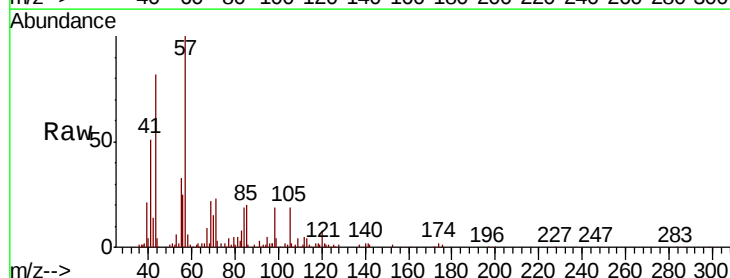
Instrument :
 MSVOA_L
 ClientSampleId :

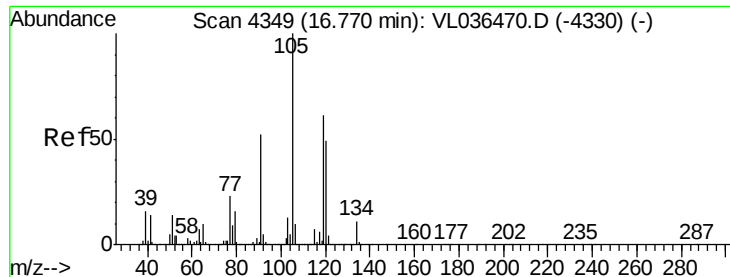
Tot Ion: 95 Resp: 2596625
 Ion Ratio Lower Upper
 95 100
 174 66.3 51.0 76.6
 175 4.9 3.9 5.9



#72
 4-Ethyltoluene
 Concen: 0.030 ppbv
 RT: 15.86 min Scan# 4066
 Delta R.T. 0.01 min
 Lab File: VL036680.D
 Acq: 5 Apr 2021 19:24

Tgt Ion:105 Resp: 13305
 Ion Ratio Lower Upper
 105 100
 120 58.4 24.0 36.0#
 91 31.3 11.0 16.4#
 77 34.7 11.7 17.5#





#74

1,2,4-Trimethylbenzene

Concen: 0.041 ppbv

RT: 16.77 min Scan# 4350

Delta R.T. 0.00 min

Lab File: VL036680.D

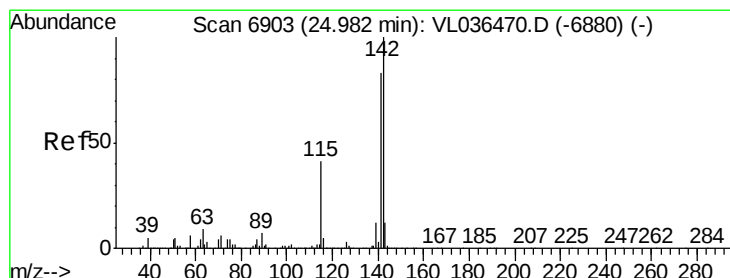
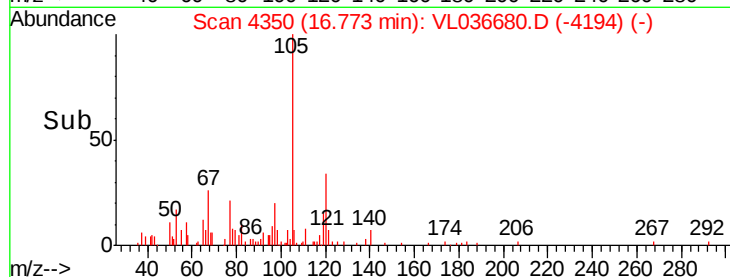
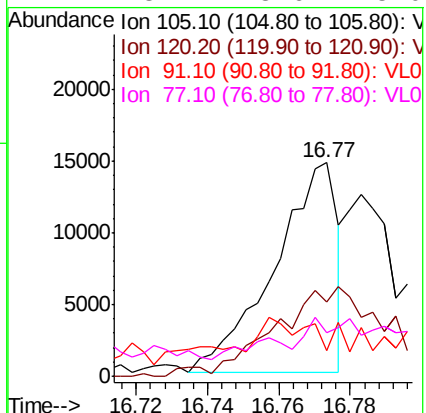
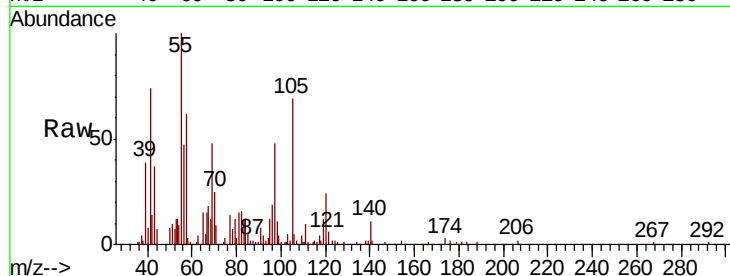
Acq: 5 Apr 2021 19:24

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	17900
Ion	Ratio	Lower	Upper
105	100		
120	31.3	39.2	58.8#
91	0.0	42.6	64.0#
77	8.4	18.6	28.0#



#80

Naphthalene, 2-methyl-

Concen: 0.049 ppbv

RT: 24.98 min Scan# 6902

Delta R.T. -0.00 min

Lab File: VL036680.D

Acq: 5 Apr 2021 19:24

Tgt Ion:	142	Resp:	2446
Ion	Ratio	Lower	Upper
142	100		
141	0.0	67.8	101.8#
115	67.7	34.0	51.0#

