

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042021\
 Data File : VL036825.D
 Acq On : 20 Apr 2021 17:17
 Operator : SY/AP
 Sample : M2096-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 21 06:37:27 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	5.68	49	1259520	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	3144283	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2606760	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.43	95	1923733	9.26	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	92.60%

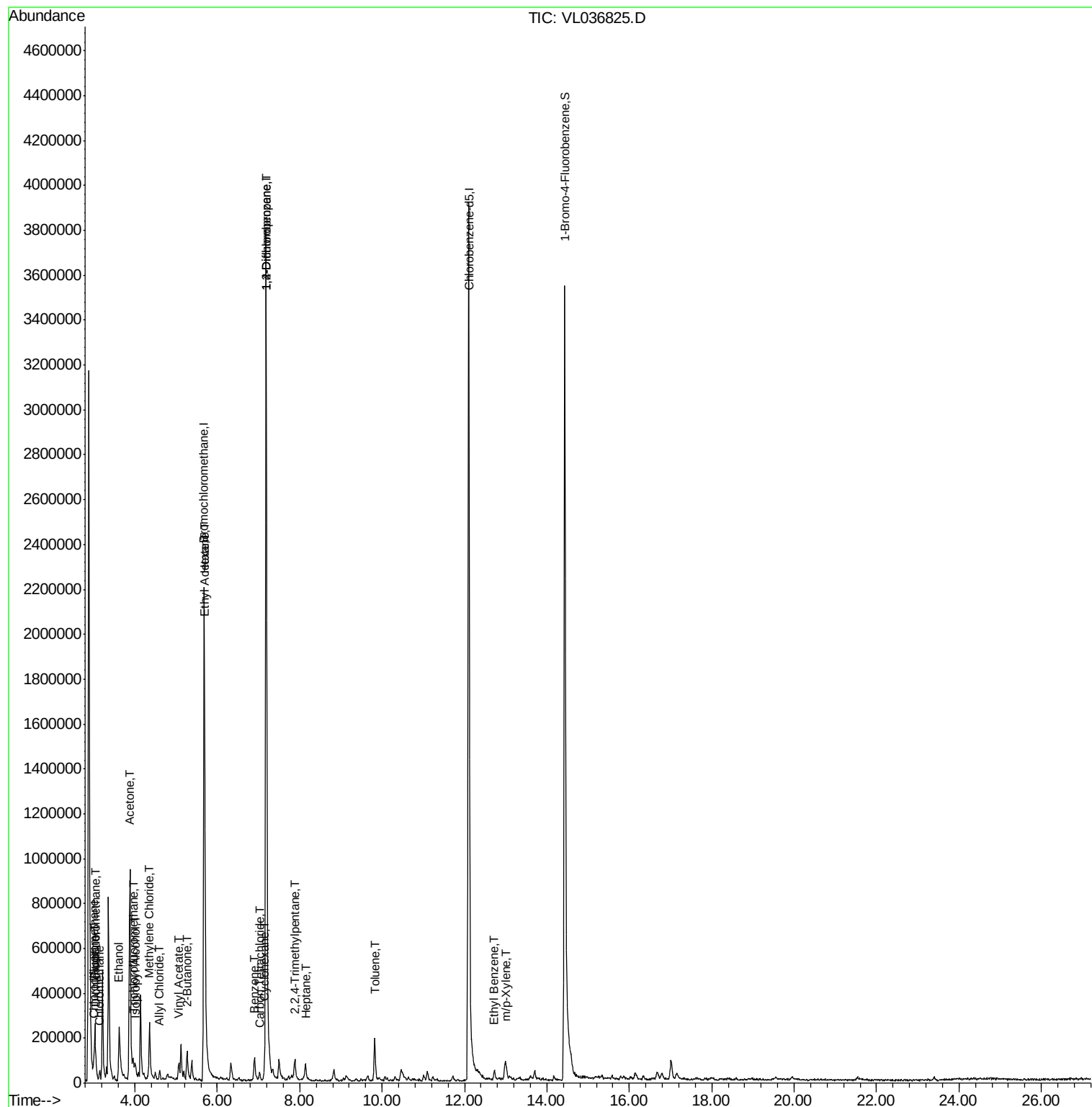
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	50467	0.246	ppbv 96
3) Chlorodifluoromethane	2.99	51	83111	0.353	ppbv # 91
4) Chloromethane	3.14	50	20726	0.249	ppbv 100
9) Propene	3.02	41	68973	0.919	ppbv 97
10) Heptane	8.14	43	10728	0.056	ppbv # 1
11) Trichlorofluoromethane	3.96	101	46315	0.221	ppbv 98
13) Ethanol	3.62	45	354228	39.651	ppbv 99
15) Acetone	3.87	43	842917	6.800	ppbv 90
19) Isopropyl Alcohol	4.01	45	29643	0.435	ppbv # 89
20) Methylene Chloride	4.35	84	93339	1.608	ppbv 94
21) Allyl Chloride	4.60	41	7036	0.071	ppbv # 79
23) Vinyl Acetate	5.07	43	13228	0.062	ppbv # 1
25) Ethyl Acetate	5.70	43	164622	0.559	ppbv # 89
26) Hexane	5.69	57	164704	1.204	ppbv # 55
30) Cyclohexane	7.14	84	5396	0.049	ppbv # 1
34) 2-Butanone	5.26	43	160199	1.044	ppbv # 89
35) Carbon Tetrachloride	7.03	117	16433	0.068	ppbv 88
36) Benzene	6.90	78	42549	0.147	ppbv 97
39) 1,2-Dichloropropane	7.19	63	834852	7.097	ppbv # 23
44) 2,2,4-Trimethylpentane	7.89	57	65273	0.128	ppbv # 72
53) Toluene	9.82	91	138568	0.449	ppbv 95
58) Ethyl Benzene	12.72	91	30965	0.082	ppbv 95
59) m/p-Xylene	13.01	91	19375	0.059	ppbv # 32

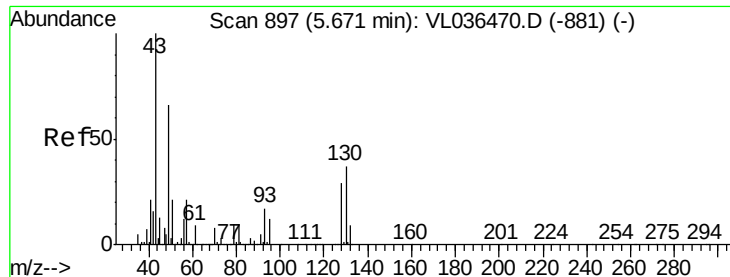
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 20 Apr 2021 17:17

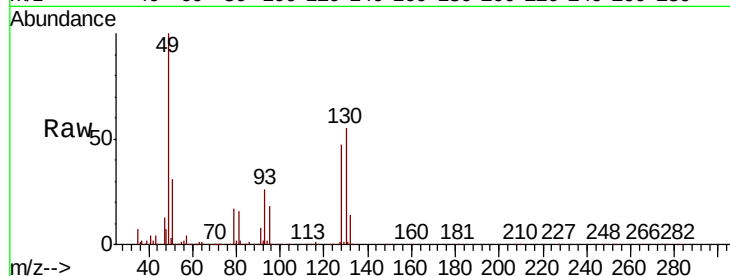
Tot Ion: 49 Resp: 1259520

Ion Ratio Lower Upper

49 100

128 47.7 23.5 70.6

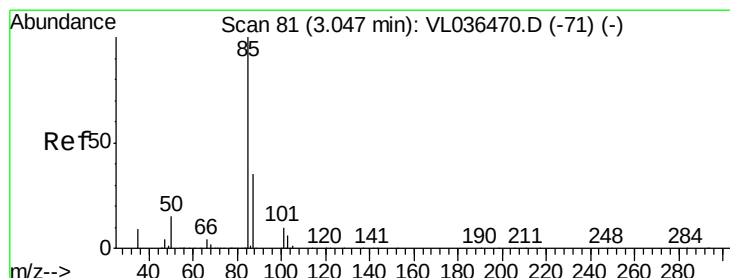
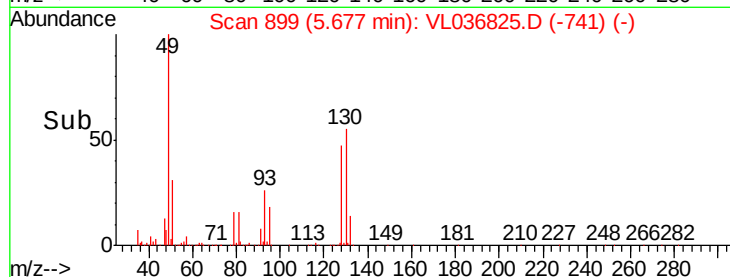
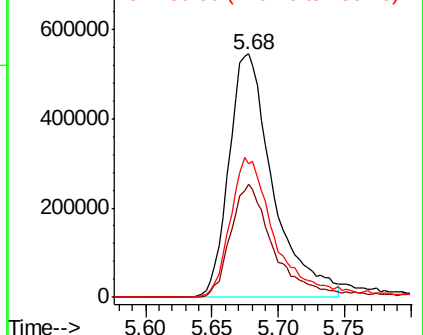
130 59.8 29.1 87.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.246 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.00 min

Lab File: VL036825.D

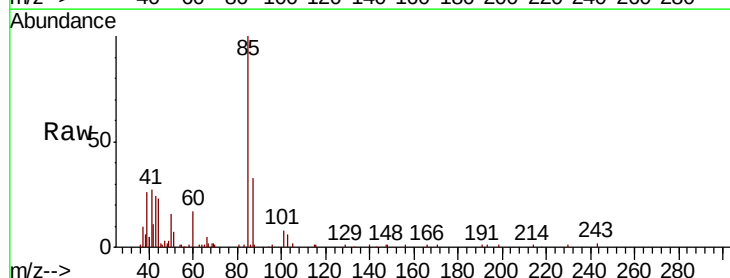
Acq: 20 Apr 2021 17:17

Tgt Ion: 85 Resp: 50467

Ion Ratio Lower Upper

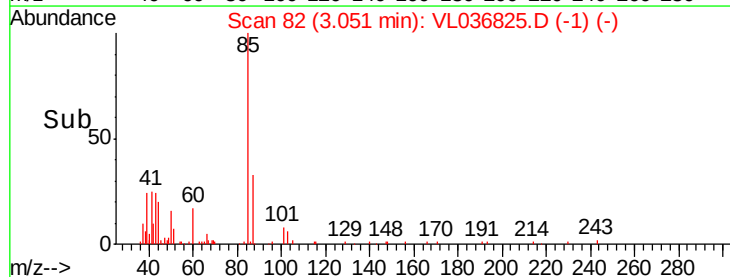
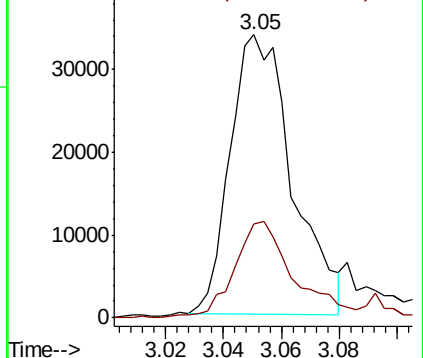
85 100

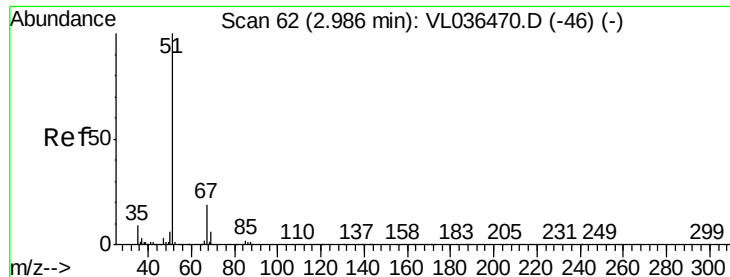
87 32.6 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.353 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

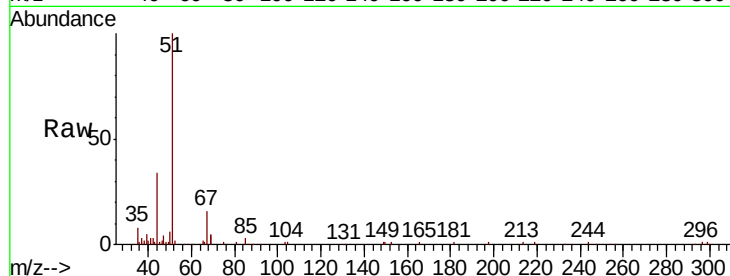
Acq: 20 Apr 2021 17:17

Tot Ion: 51 Resp: 83111

Ion Ratio Lower Upper

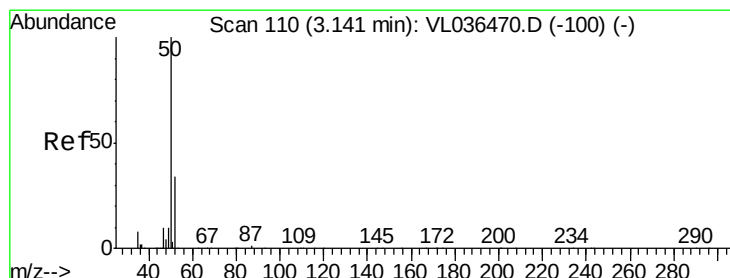
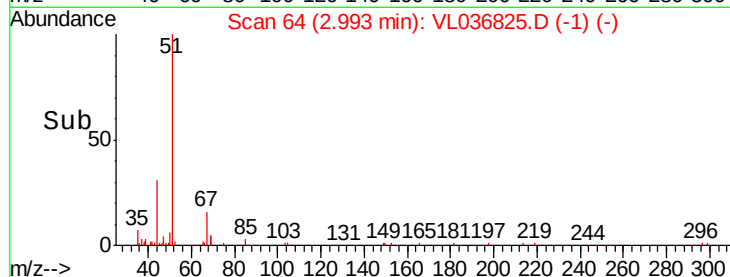
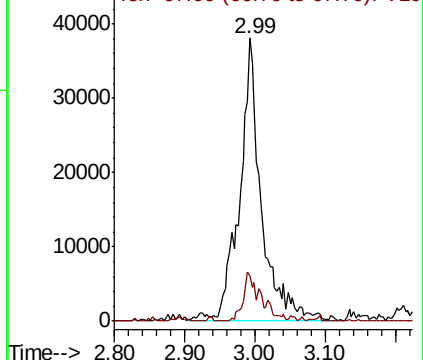
51 100

67 14.4 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.249 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL036825.D

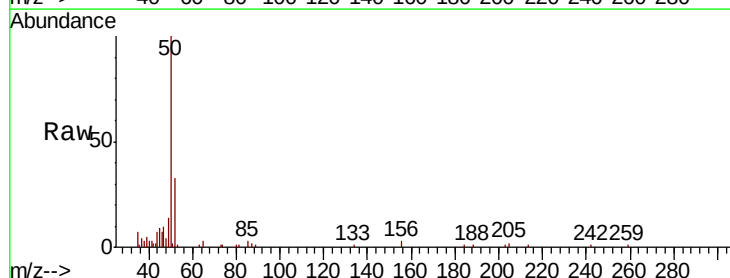
Acq: 20 Apr 2021 17:17

Tgt Ion: 50 Resp: 20726

Ion Ratio Lower Upper

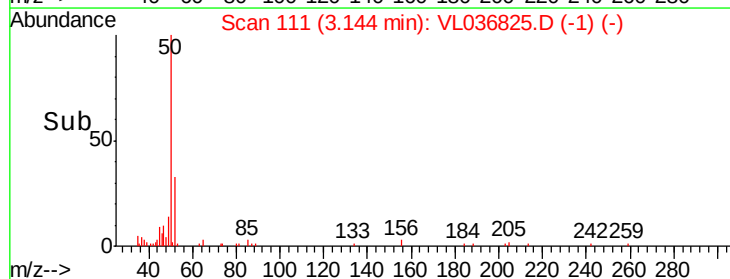
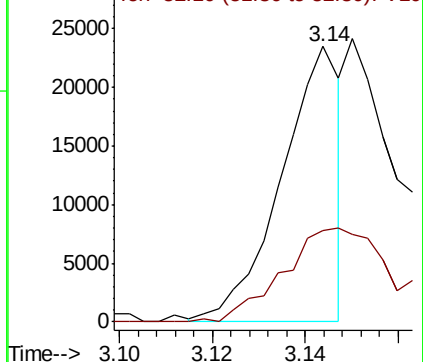
50 100

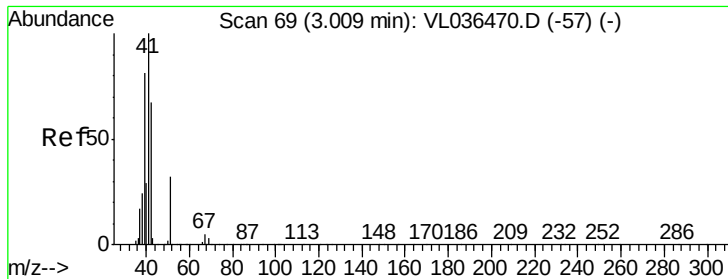
52 33.5 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.919 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

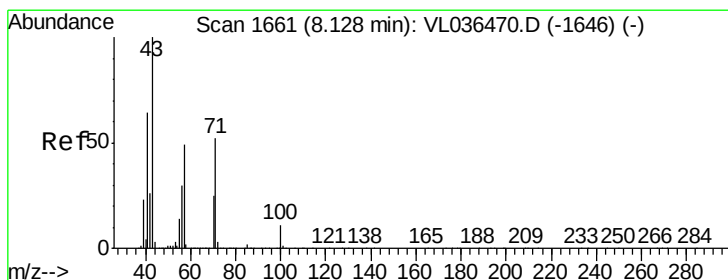
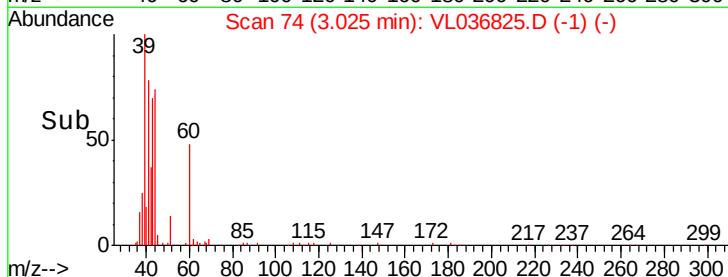
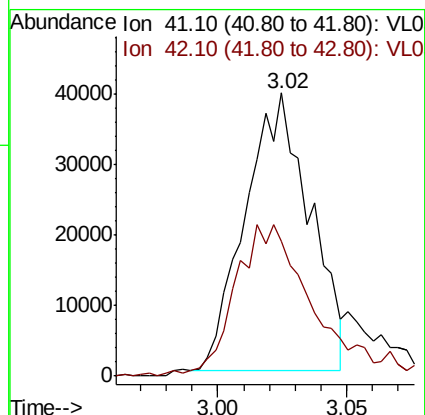
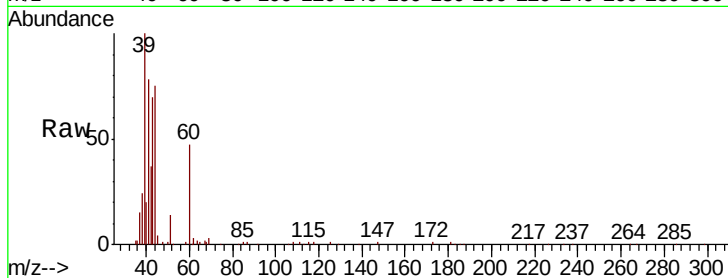
Acq: 20 Apr 2021 17:17

Tot Ion: 41 Resp: 68973

Ion Ratio Lower Upper

41 100

42 68.6 57.0 85.4



#10

Heptane

Concen: 0.056 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.01 min

Lab File: VL036825.D

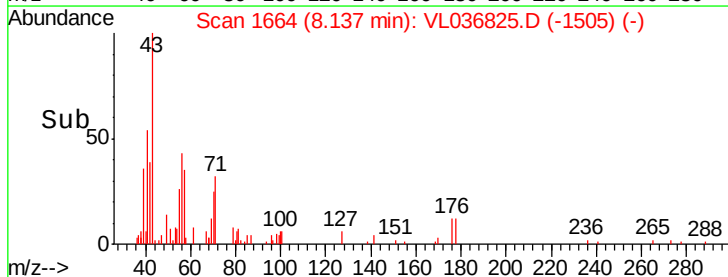
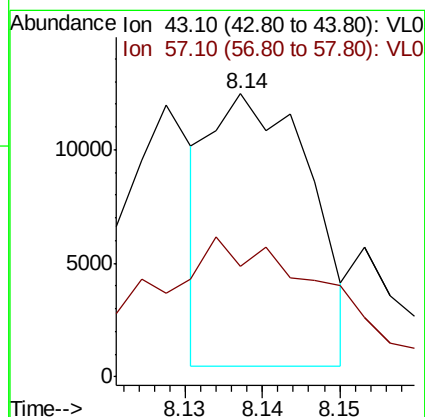
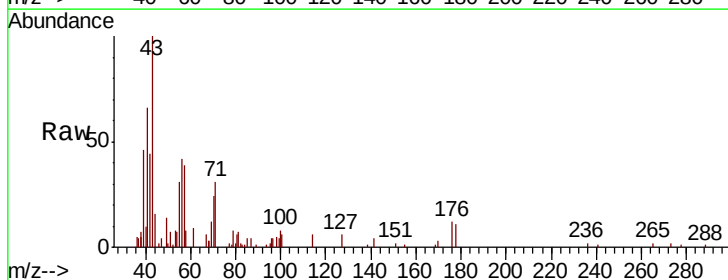
Acq: 20 Apr 2021 17:17

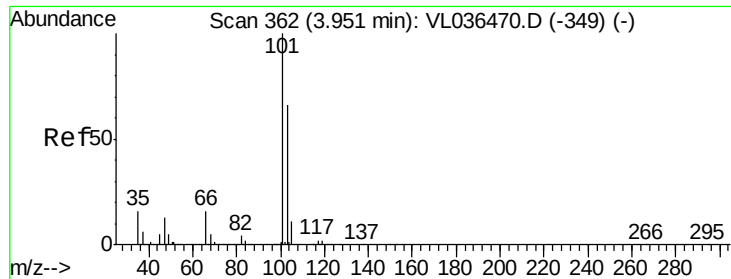
Tgt Ion: 43 Resp: 10728

Ion Ratio Lower Upper

43 100

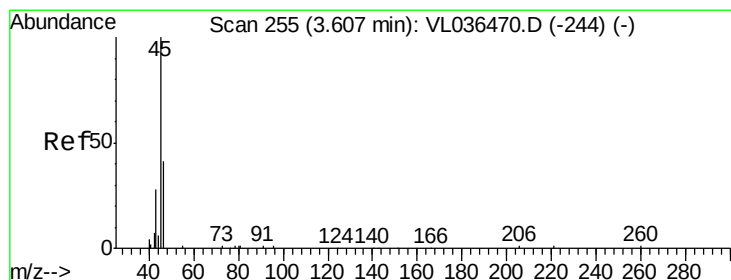
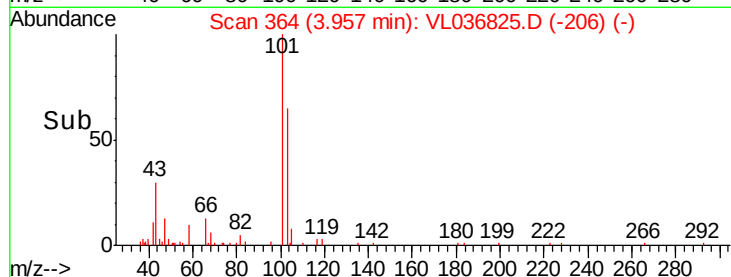
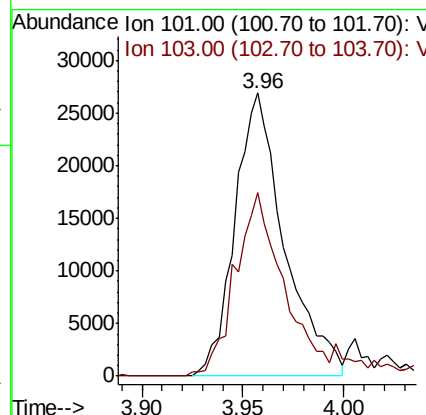
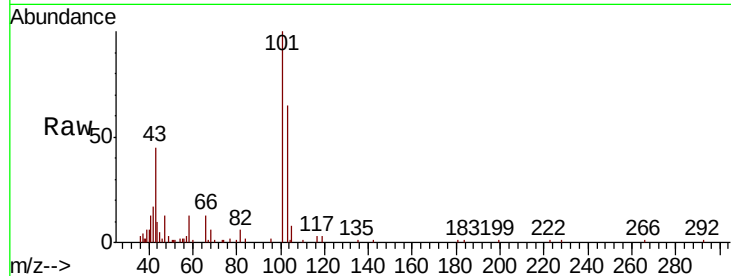
57 128.9 39.0 58.6#





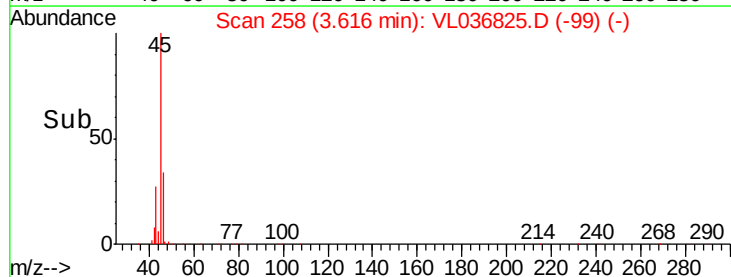
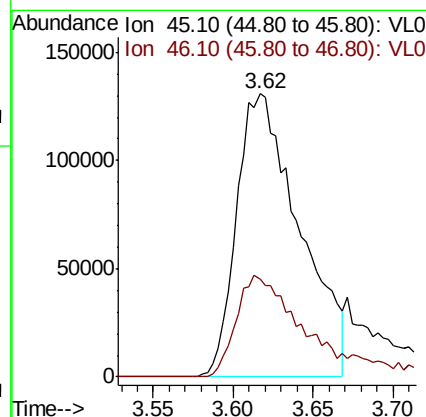
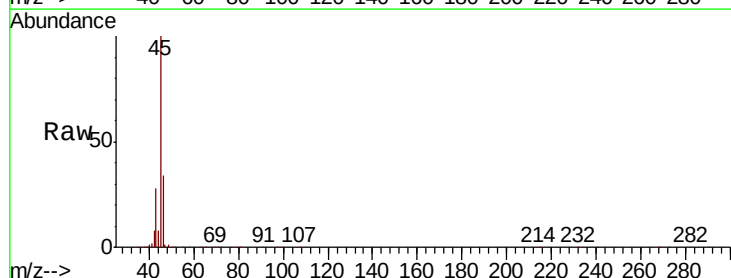
#11
 Trichlorofluoromethane
 Concen: 0.221 ppbv
 RT: 3.96 Instrument :
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 20 Apr 2021 17:17

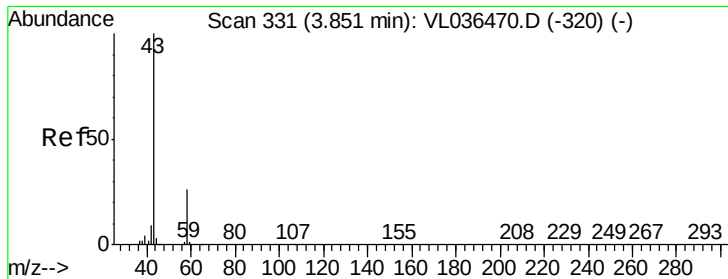
Tot Ion:101 Resp: 46315
 Ion Ratio Lower Upper
 101 100
 103 63.7 52.5 78.7



#13
 Ethanol
 Concen: 39.651 ppbv
 RT: 3.62 min Scan# 258
 Delta R.T. 0.01 min
 Lab File: VL036825.D
 Acq: 20 Apr 2021 17:17

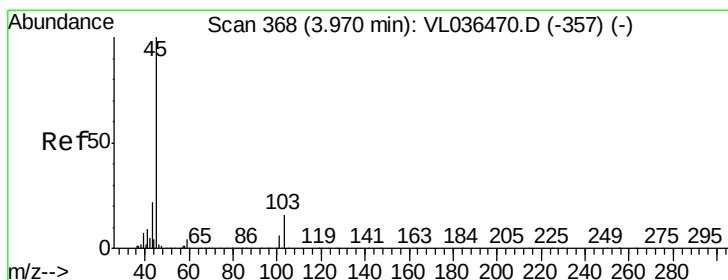
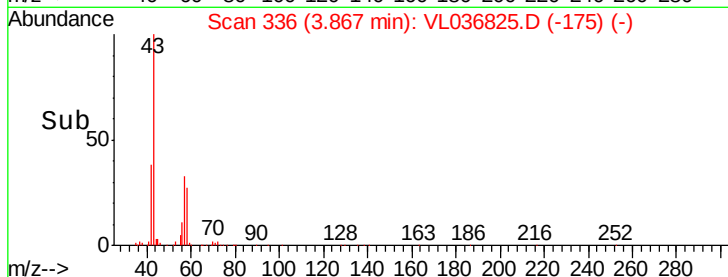
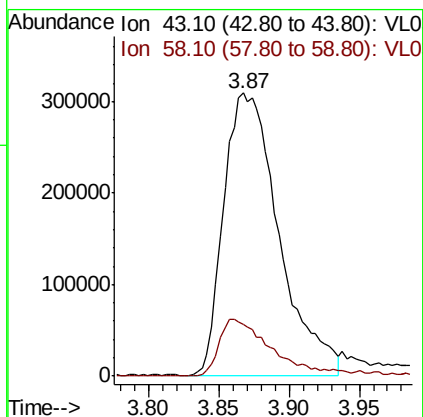
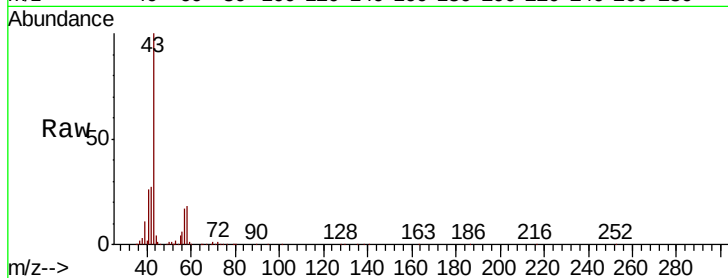
Tgt Ion: 45 Resp: 354228
 Ion Ratio Lower Upper
 45 100
 46 41.7 16.6 66.2





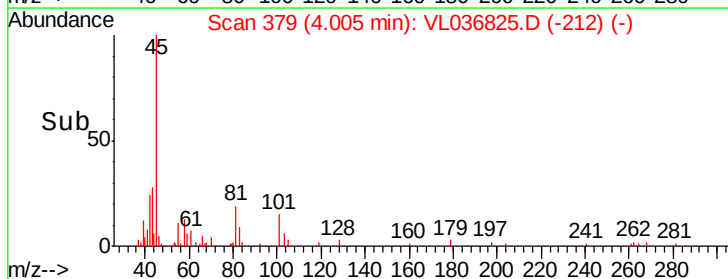
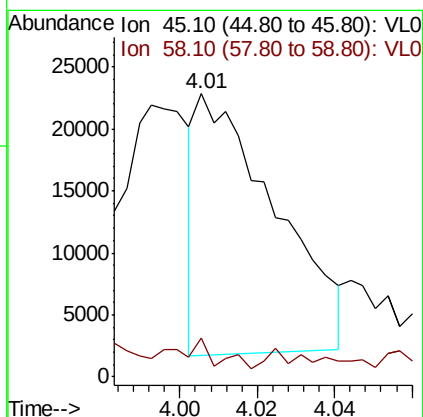
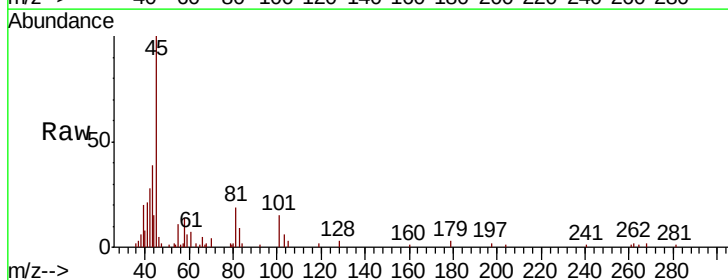
#15
Acetone
Concen: 6.800 ppbv
RT: 3.87
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 20 Apr 2021 17:17

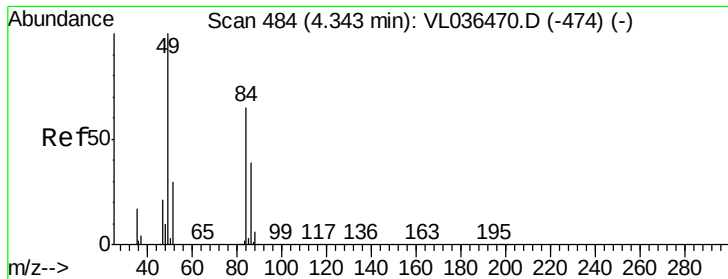
Tot Ion: 43 Resp: 842917
Ion Ratio Lower Upper
43 100
58 21.3 21.2 31.8



#19
Isopropyl Alcohol
Concen: 0.435 ppbv
RT: 4.01 min Scan# 379
Delta R.T. 0.04 min
Lab File: VL036825.D
Acq: 20 Apr 2021 17:17

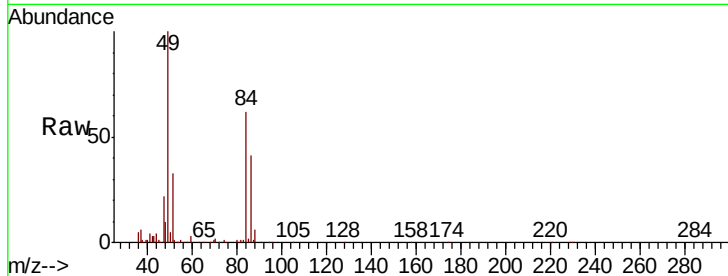
Tgt Ion: 45 Resp: 29643
Ion Ratio Lower Upper
45 100
58 0.0 2.9 4.3#





#20
Methylene Chloride
Concen: 1.608 ppbv
RT: 4.35 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 20 Apr 2021 17:17

Tot Ion:	84	Resp:	93339
Ion	Ratio	Lower	Upper
84	100		
49	160.5	122.9	184.3
51	52.0	36.9	55.3
86	65.5	48.2	72.4



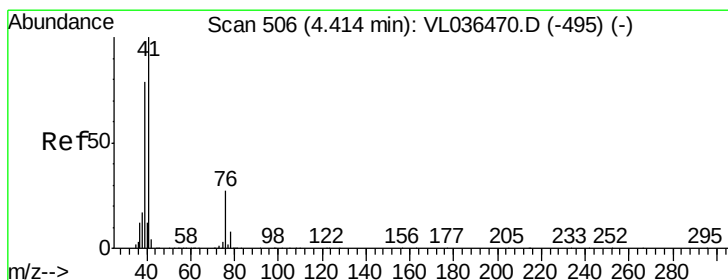
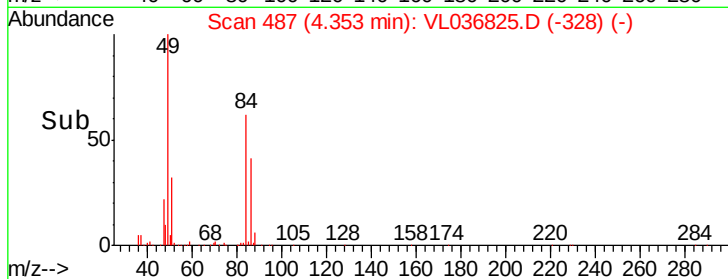
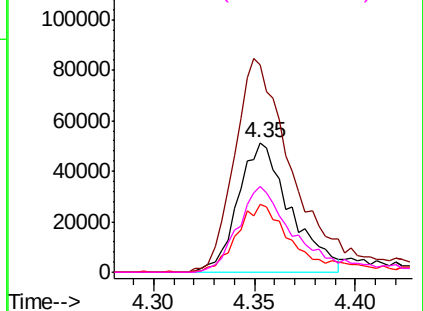
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

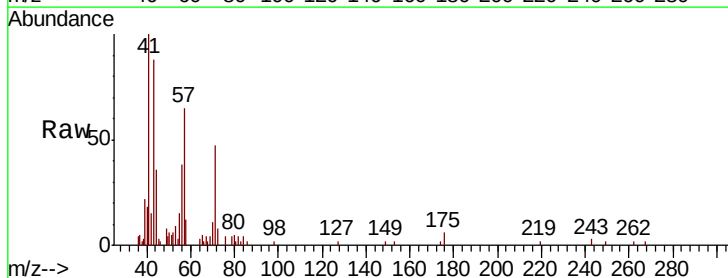
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.071 ppbv
RT: 4.60 min Scan# 564
Delta R.T. 0.19 min
Lab File: VL036825.D
Acq: 20 Apr 2021 17:17

Tgt Ion:	41	Resp:	7036
Ion	Ratio	Lower	Upper
41	100		
76	32.4	22.9	34.3
39	108.0	67.3	100.9#

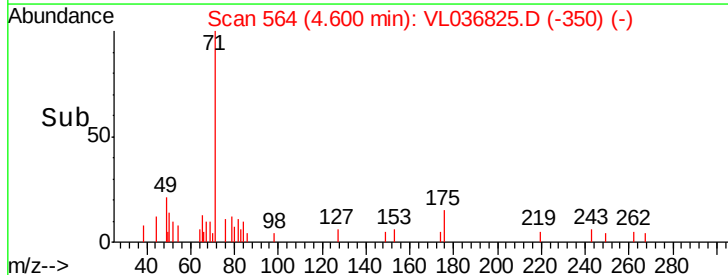
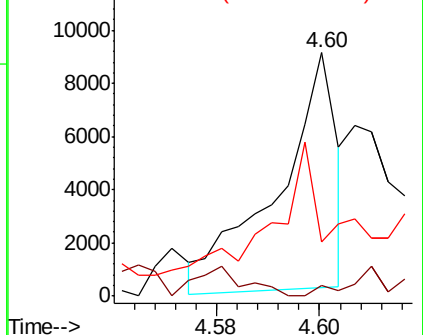


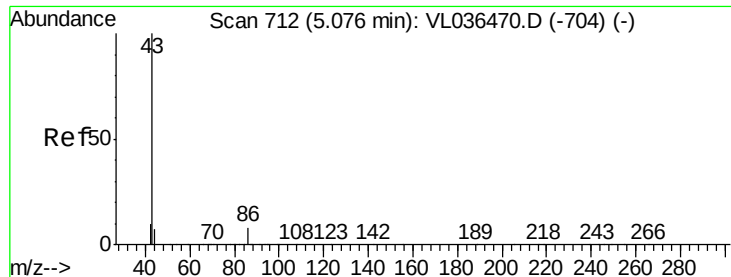
Abundance

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: 0.062 ppbv

RT: 5.07 Instrument:

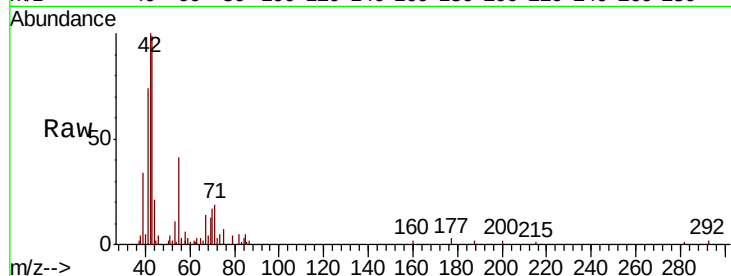
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 20 Apr 2021 17:17

Tot Ion: 43 Resp: 13228

Ion	Ratio	Lower	Upper
43	100		
86	1.3	5.4	8.0#
42	105.7	8.5	12.7#
44	7.3	4.6	7.0#

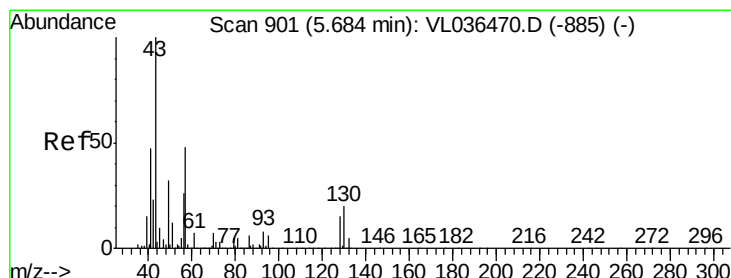
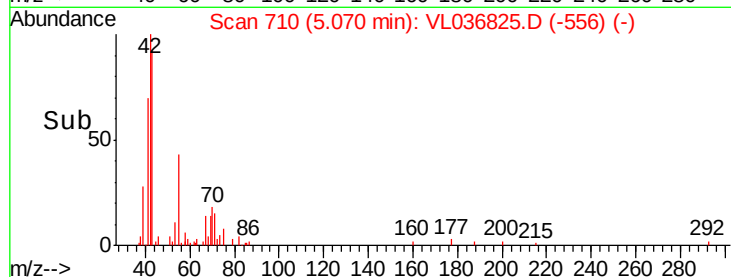
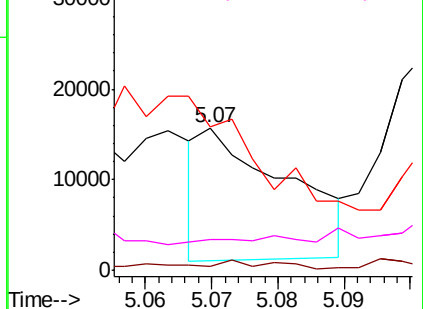


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.559 ppbv

RT: 5.70 min Scan# 905

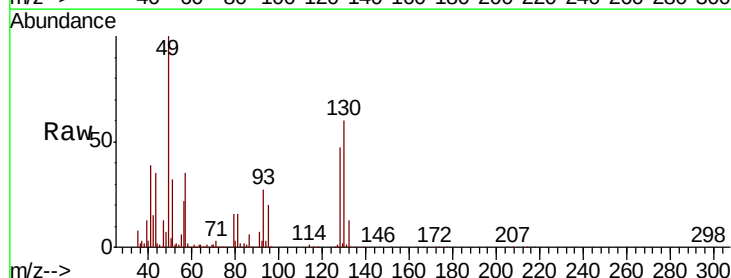
Delta R.T. 0.01 min

Lab File: VL036825.D

Acq: 20 Apr 2021 17:17

Tgt Ion: 43 Resp: 164622

Ion	Ratio	Lower	Upper
43	100		
45	5.0	7.9	11.9#
61	4.4	7.4	11.2#
70	4.5	5.1	7.7#

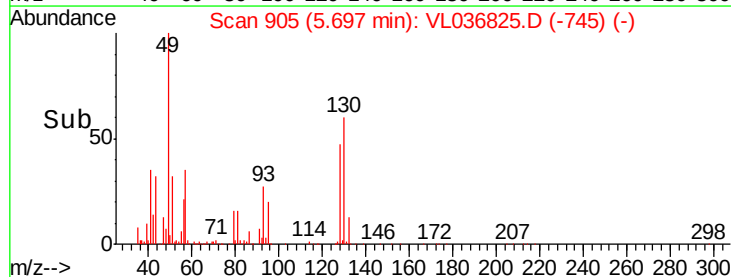
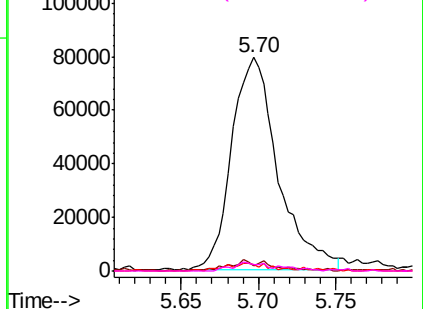


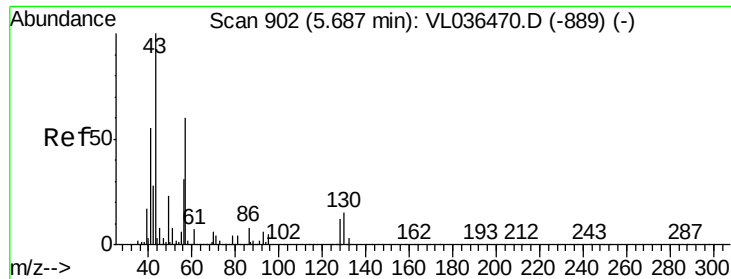
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

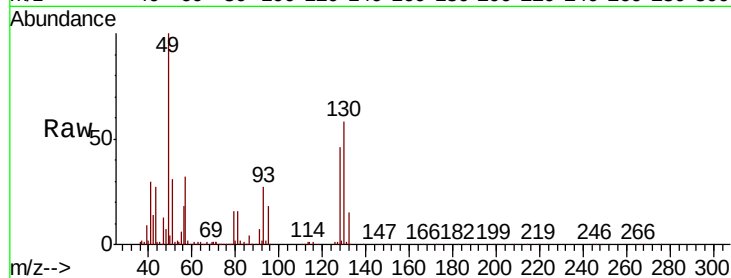
Ion 70.10 (69.80 to 70.80): VL0



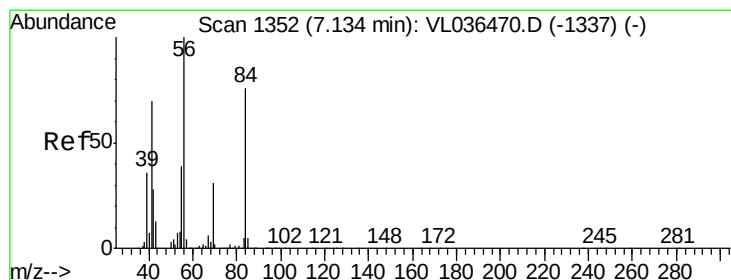
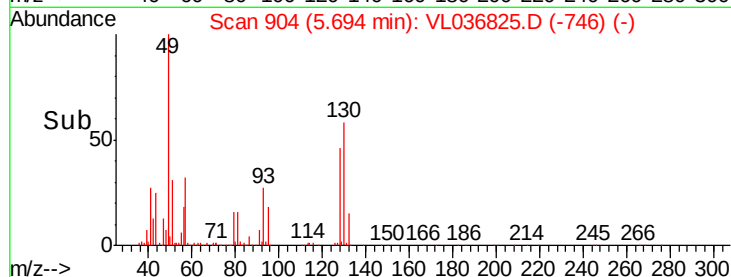
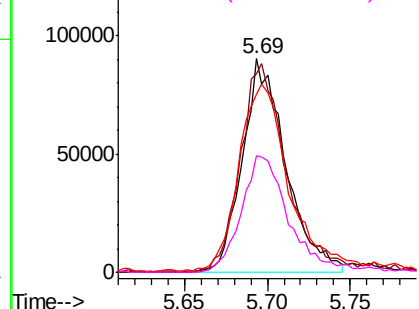


#26
Hexane
Concen: 1.204 ppbv
RT: 5.69
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 20 Apr 2021 17:17

Tot Ion:	57	Resp:	164704
Ion	Ratio	Lower	Upper
57	100		
41	105.6	77.2	115.8
43	105.5	173.8	260.6#
56	61.5	43.8	65.6

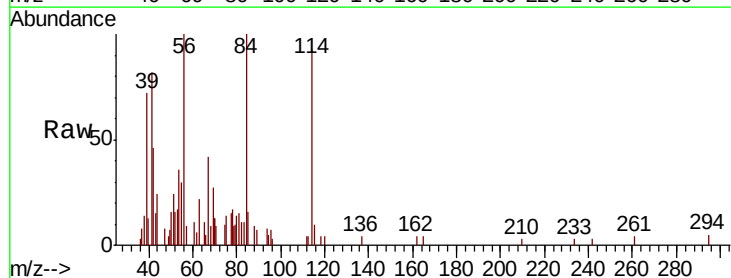


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

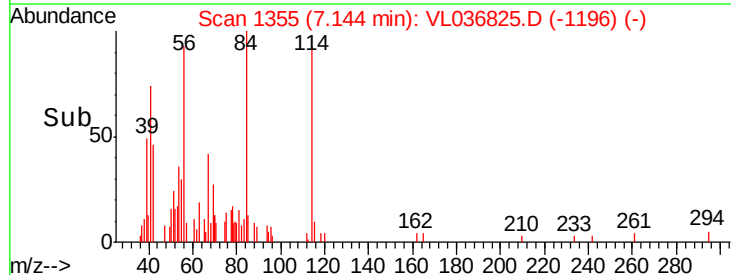
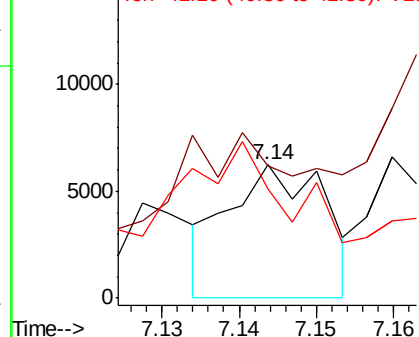


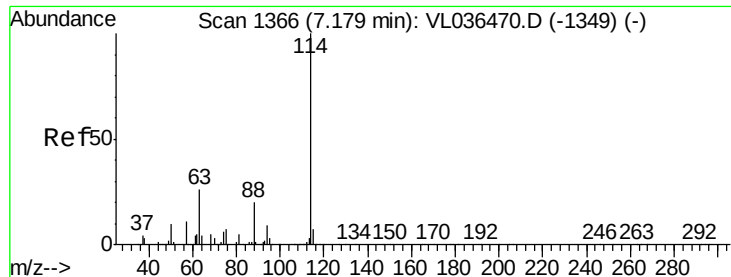
#30
Cyclohexane
Concen: 0.049 ppbv
RT: 7.14 min Scan# 1355
Delta R.T. 0.01 min
Lab File: VL036825.D
Acq: 20 Apr 2021 17:17

Tgt Ion:	84	Resp:	5396
Ion	Ratio	Lower	Upper
84	100		
56	0.0	114.6	171.8#
41	244.6	75.3	112.9#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 20 Apr 2021 17:17

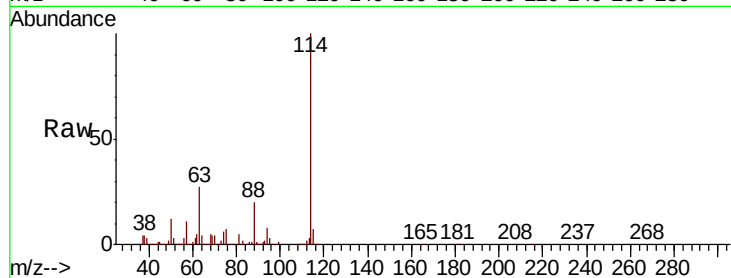
Tot Ion:114 Resp: 3144283

Ion Ratio Lower Upper

114 100

63 27.1 22.4 33.6

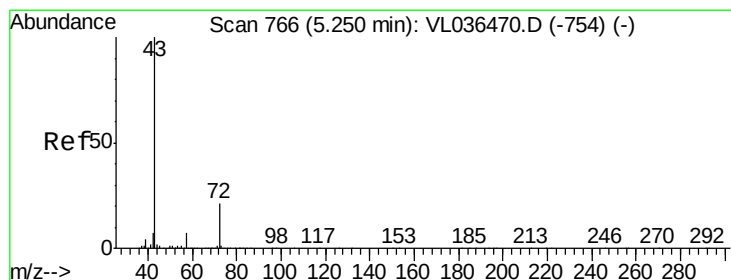
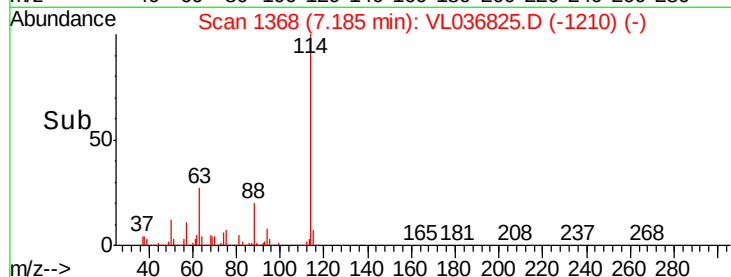
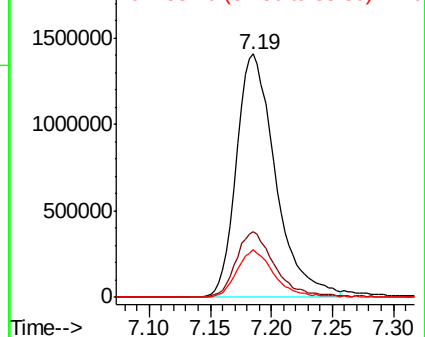
88 19.0 15.4 23.0



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.044 ppbv

RT: 5.26 min Scan# 769

Delta R.T. 0.01 min

Lab File: VL036825.D

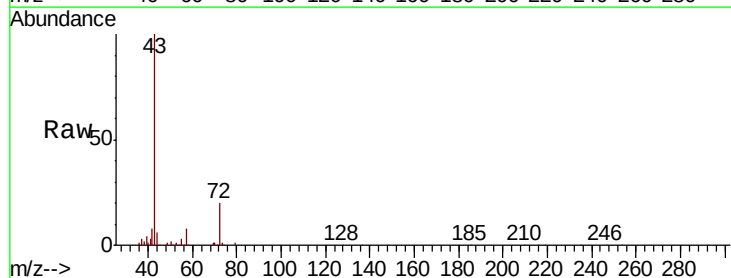
Acq: 20 Apr 2021 17:17

Tgt Ion: 43 Resp: 160199

Ion Ratio Lower Upper

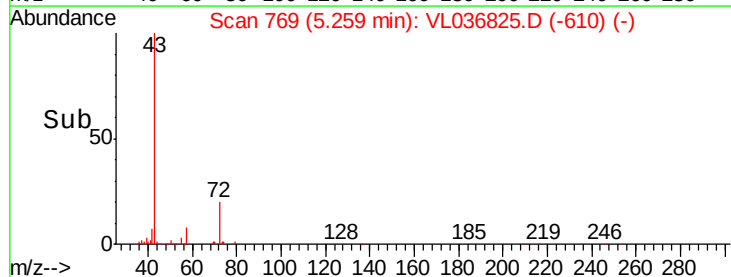
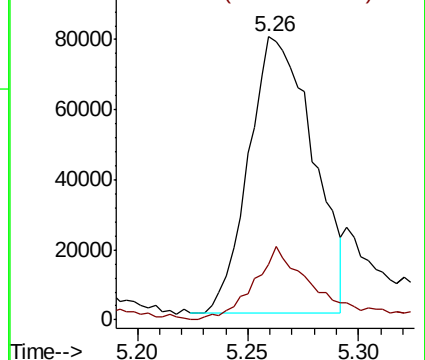
43 100

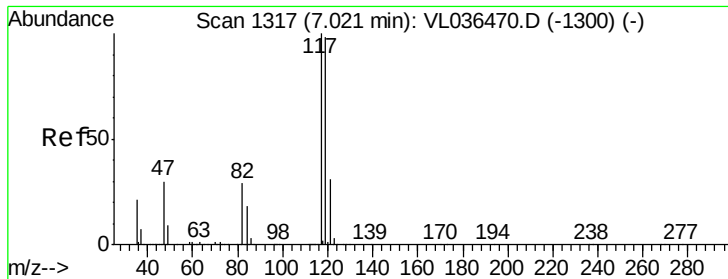
72 26.6 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.068 ppbv

RT: 7.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 20 Apr 2021 17:17

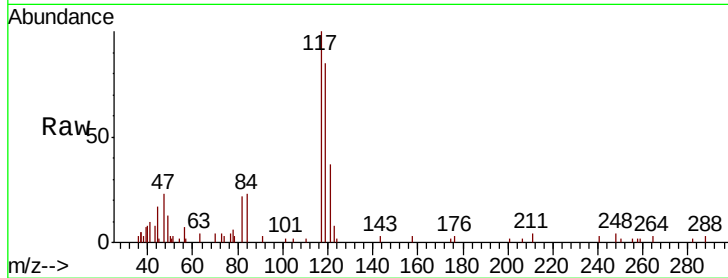
Tot Ion: 117 Resp: 16433

Ion Ratio Lower Upper

117 100

119 83.9 78.2 117.2

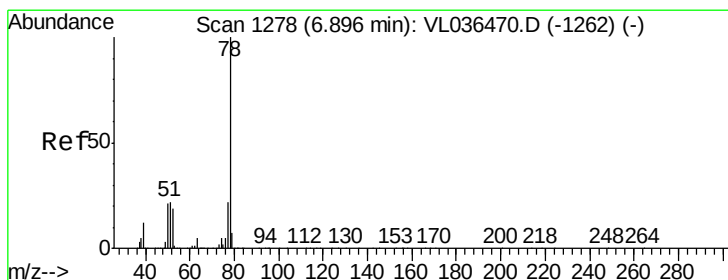
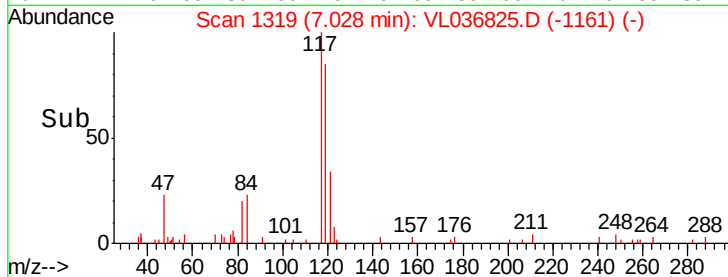
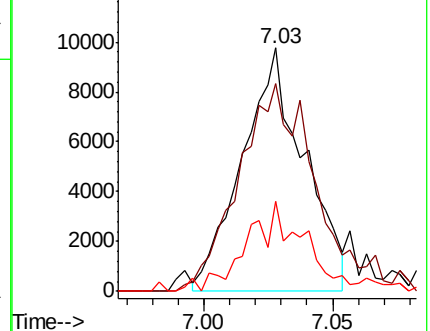
121 32.8 24.5 36.7



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: 0.147 ppbv

RT: 6.90 min Scan# 1279

Delta R.T. 0.00 min

Lab File: VL036825.D

Acq: 20 Apr 2021 17:17

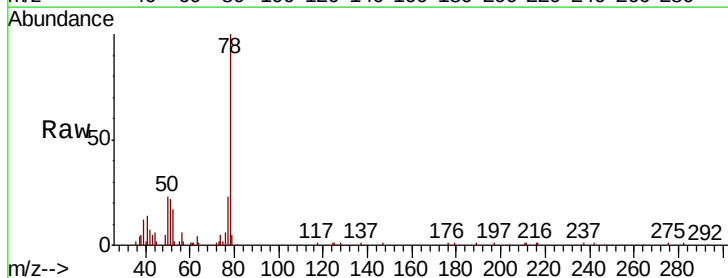
Tgt Ion: 78 Resp: 42549

Ion Ratio Lower Upper

78 100

77 22.4 18.0 27.0

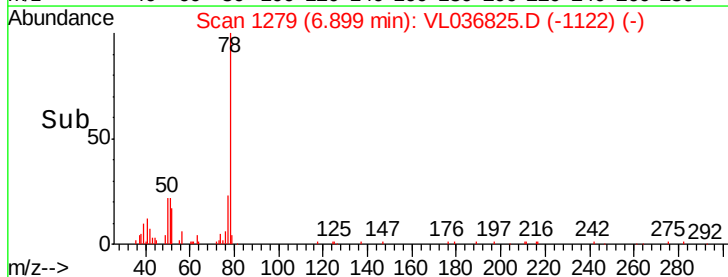
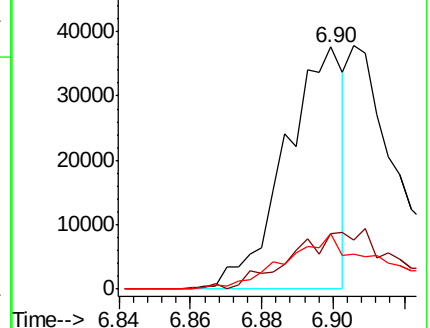
50 23.1 16.5 24.7

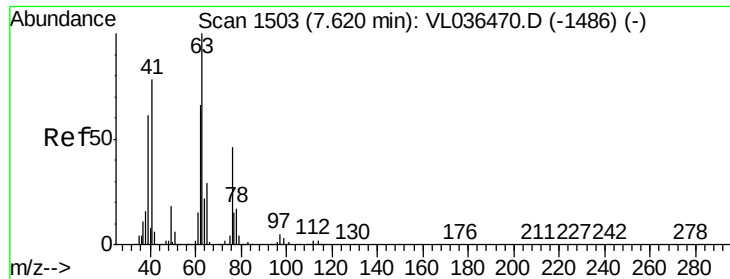


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 7.097 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 20 Apr 2021 17:17

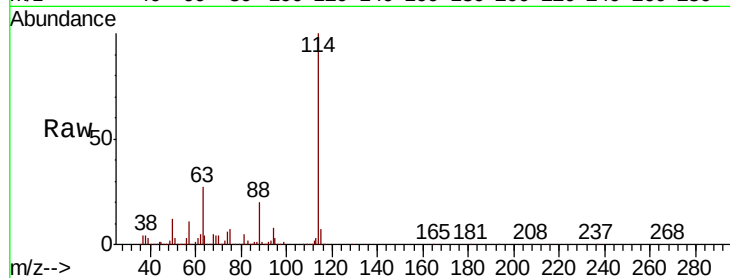
Tot Ion: 63 Resp: 834852

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

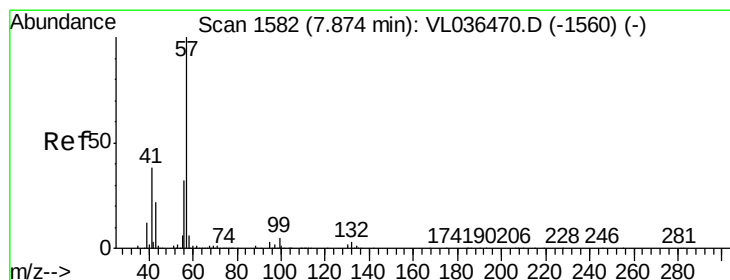
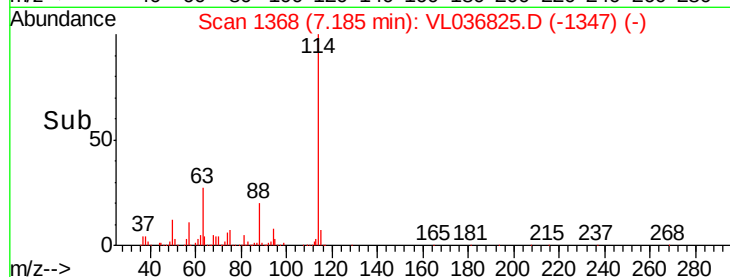
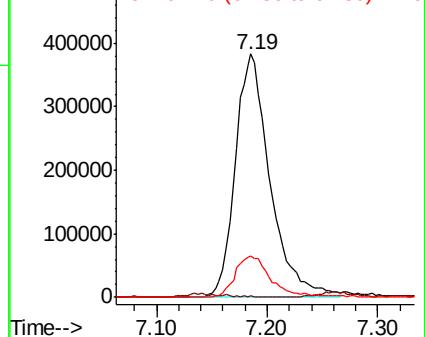
62 16.8 52.8 79.2#



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



#44

2,2,4-Trimethylpentane

Concen: 0.128 ppbv

RT: 7.89 min Scan# 1586

Delta R.T. 0.01 min

Lab File: VL036825.D

Acq: 20 Apr 2021 17:17

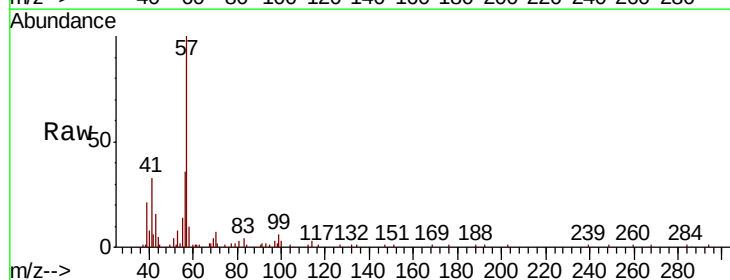
Tgt Ion: 57 Resp: 65273

Ion Ratio Lower Upper

57 100

41 51.5 28.8 43.2#

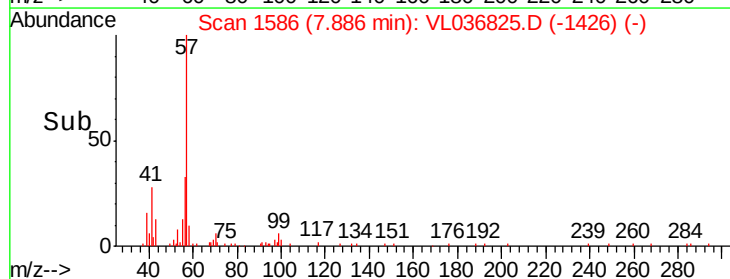
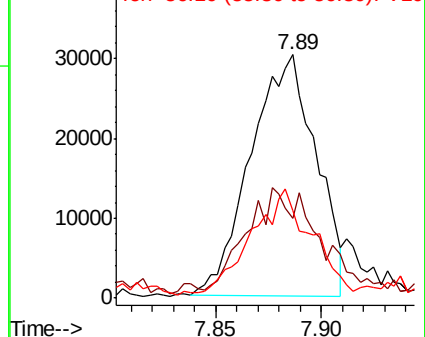
56 49.5 26.1 39.1#

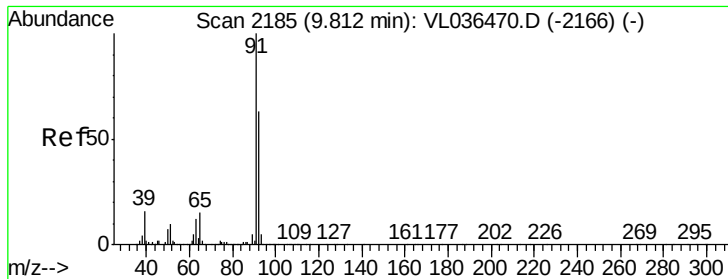


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.449 ppbv

RT: 9.82 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

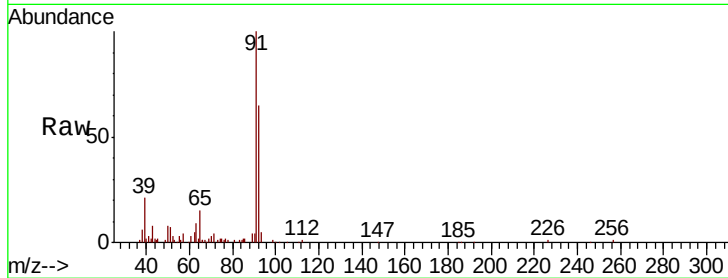
Acq: 20 Apr 2021 17:17

Tot Ion: 91 Resp: 138568

Ion Ratio Lower Upper

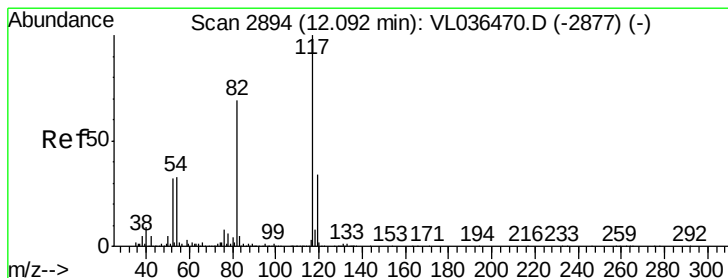
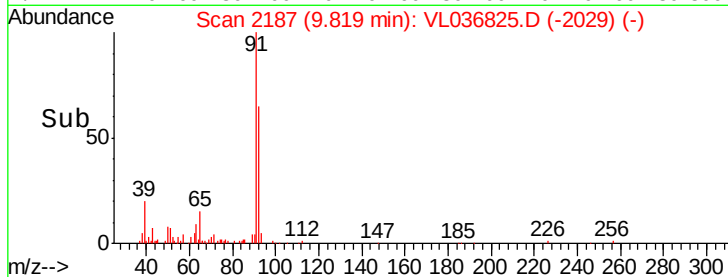
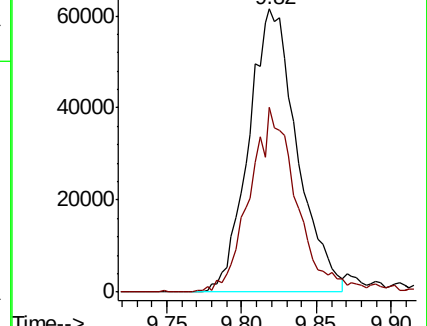
91 100

92 65.0 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# 2897

Delta R.T. 0.01 min

Lab File: VL036825.D

Acq: 20 Apr 2021 17:17

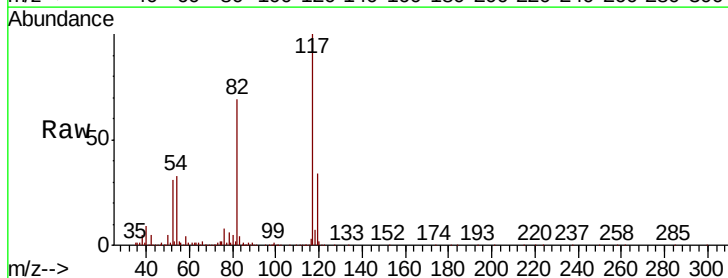
Tgt Ion: 117 Resp: 2606760

Ion Ratio Lower Upper

117 100

82 72.2 57.4 86.0

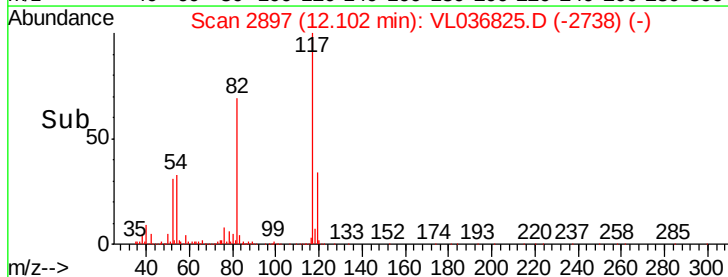
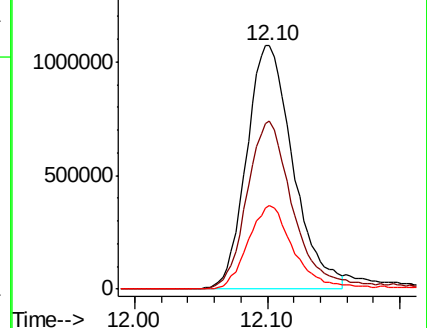
119 35.2 47.4 71.0#

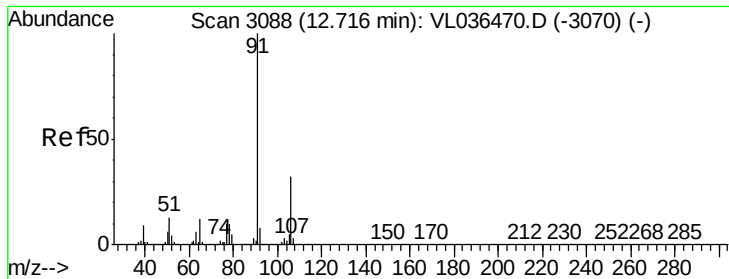


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

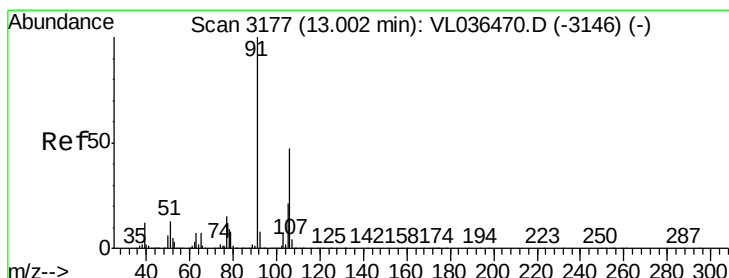
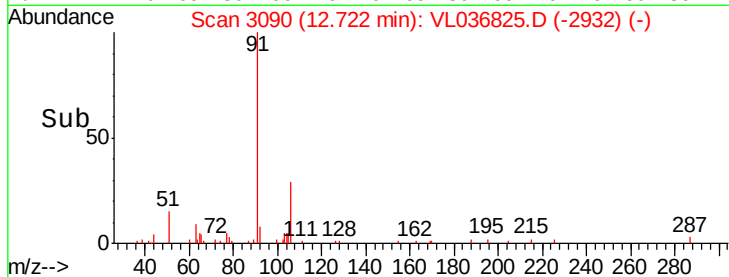
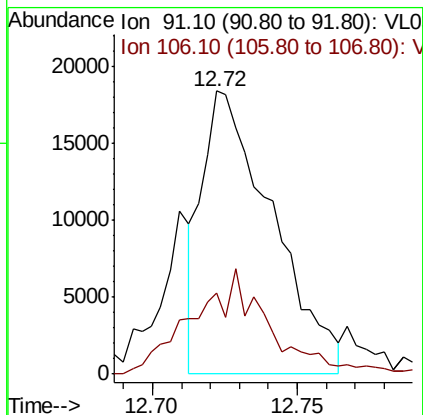
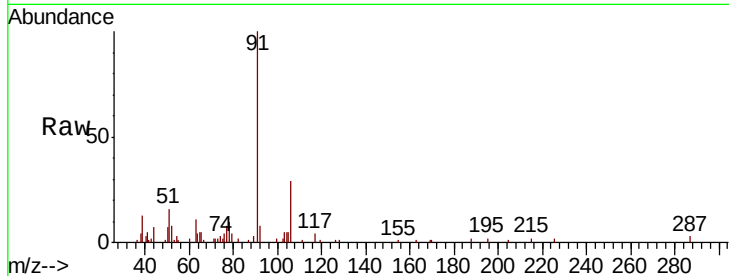
Ion 119.10 (118.80 to 119.80): V





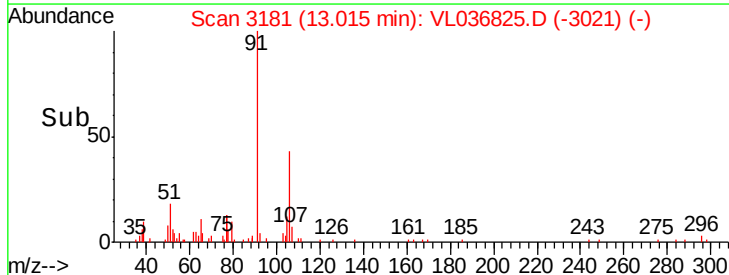
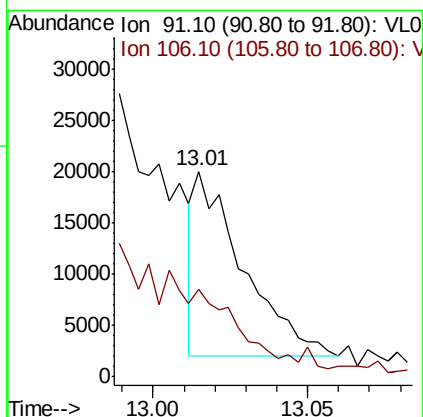
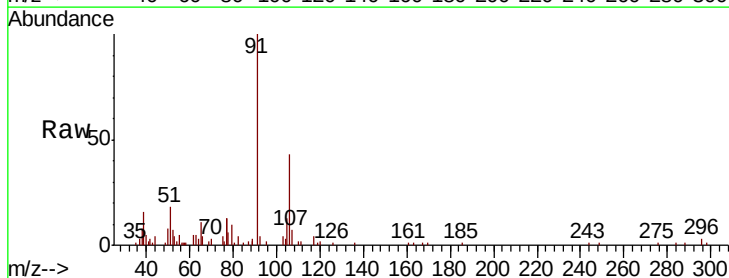
#58
Ethyl Benzene
Concen: 0.082 ppbv
RT: 12.72 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 20 Apr 2021 17:17

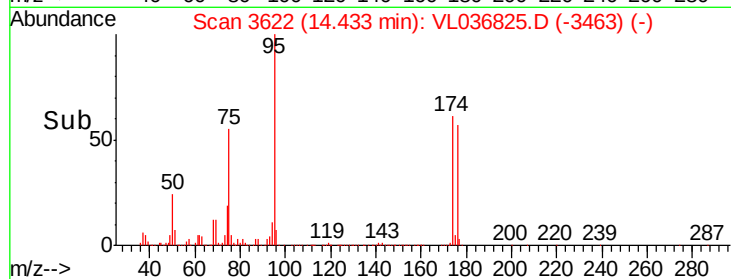
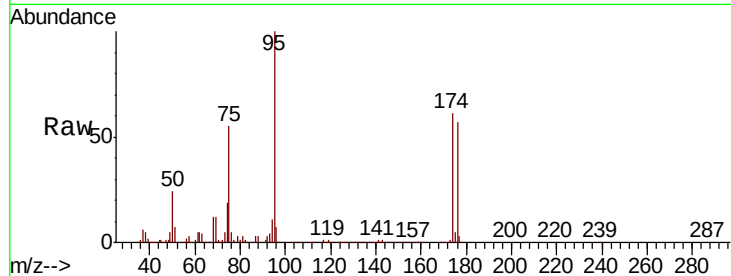
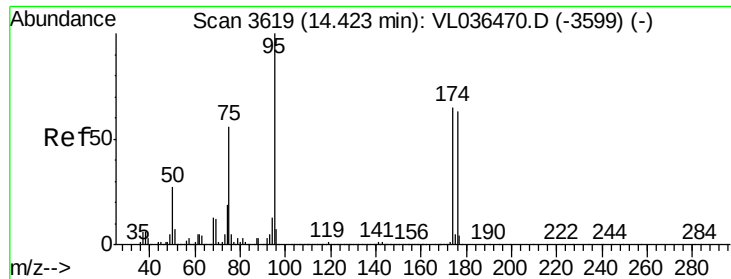
Tot Ion: 91 Resp: 30965
Ion Ratio Lower Upper
91 100
106 28.9 25.3 37.9



#59
m/p-Xylene
Concen: 0.059 ppbv
RT: 13.01 min Scan# 3181
Delta R.T. 0.01 min
Lab File: VL036825.D
Acq: 20 Apr 2021 17:17

Tgt Ion: 91 Resp: 19375
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.259 ppbv

RT: 14.43

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 20 Apr 2021 17:17

Tot Ion: 95 Resp: 1923733

Ion Ratio Lower Upper

95 100

174 68.9 51.0 76.6

175 4.8 3.9 5.9

