

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042721\
 Data File : VL036855.D
 Acq On : 27 Apr 2021 13:15
 Operator : SY/AP
 Sample : M2174-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 28 05:23:44 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL042721AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Apr 27 16:56:35 2021
 QLast Update : Tue Apr 27 16:56:35 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1376222	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3320907	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	2922964	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2326125	9.91	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%

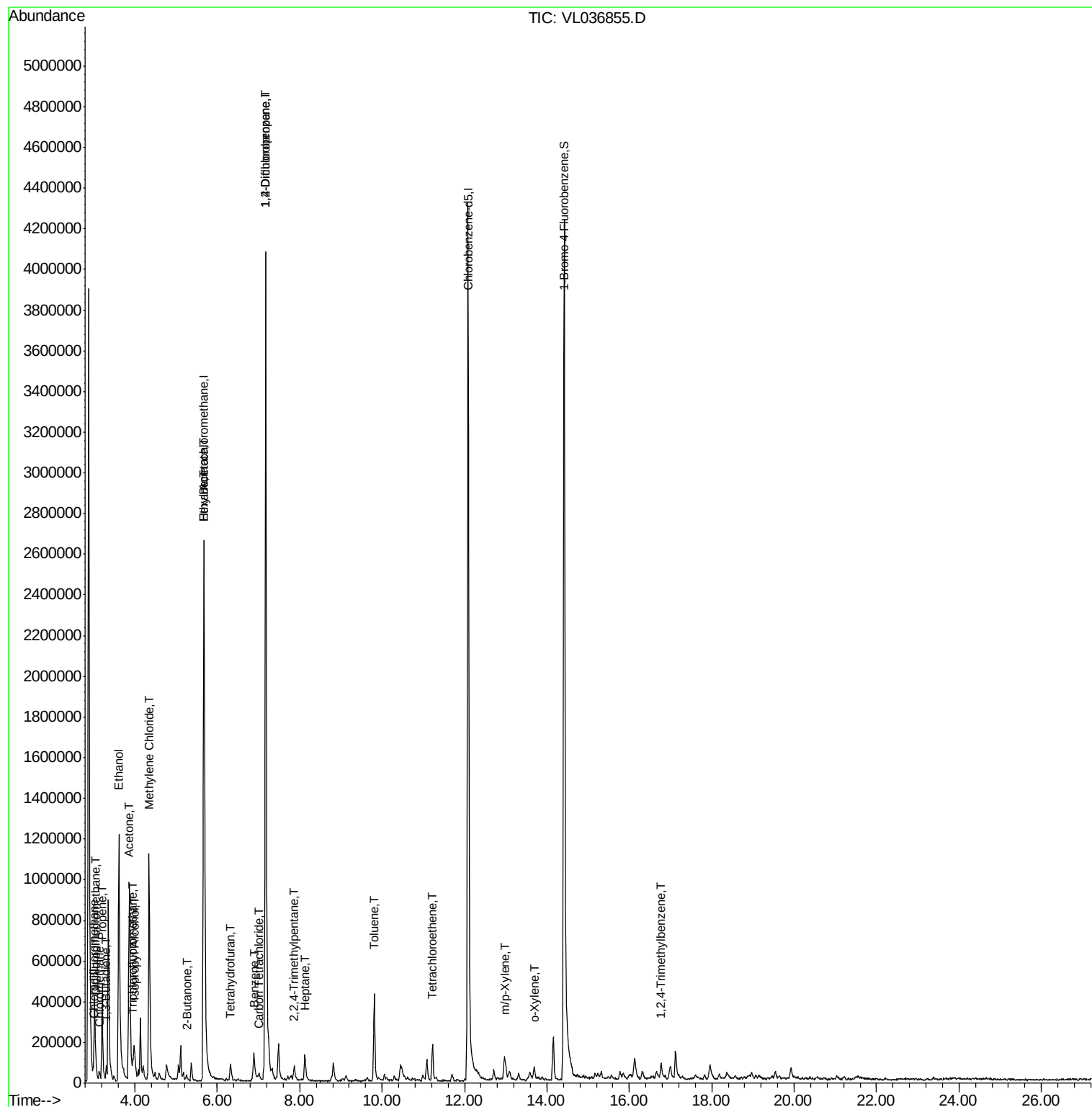
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	59207	0.273	ppbv 100
3) Chlorodifluoromethane	2.99	51	73432	0.293	ppbv 95
4) Chloromethane	3.14	50	39587	0.480	ppbv # 85
9) Propene	3.20	41	146673	1.920	ppbv 95
10) Heptane	8.13	43	23310	0.121	ppbv # 20
11) Trichlorofluoromethane	3.95	101	39955	0.207	ppbv 85
13) Ethanol	3.61	45	1717709	176.327	ppbv 91
15) Acetone	3.85	43	1137184	8.767	ppbv # 89
16) 1,3-Butadiene	3.30	39	23627	0.285	ppbv # 31
19) Isopropyl Alcohol	3.98	45	191466	2.979	ppbv # 86
20) Methylene Chloride	4.35	84	431892	6.963	ppbv 95
25) Ethyl Acetate	5.68	43	353813	1.117	ppbv # 85
26) Hexane	5.68	57	395733	2.670	ppbv # 49
34) 2-Butanone	5.26	43	36007	0.248	ppbv 92
35) Carbon Tetrachloride	7.02	117	9774	0.043	ppbv # 78
36) Benzene	6.89	78	75164	0.269	ppbv # 94
39) 1,2-Dichloropropane	7.17	63	862258	7.692	ppbv # 24
41) Tetrahydrofuran	6.31	42	2981	0.047	ppbv # 41
44) 2,2,4-Trimethylpentane	7.86	57	22255	0.046	ppbv # 1
52) Tetrachloroethene	11.21	164	14599	0.153	ppbv 82
53) Toluene	9.81	91	325766	1.113	ppbv 100
59) m/p-Xylene	12.99	91	37175	0.112	ppbv # 31
60) o-Xylene	13.69	91	25034	0.078	ppbv # 35
74) 1,2,4-Trimethylbenzene	16.76	105	14925	0.042	ppbv # 48

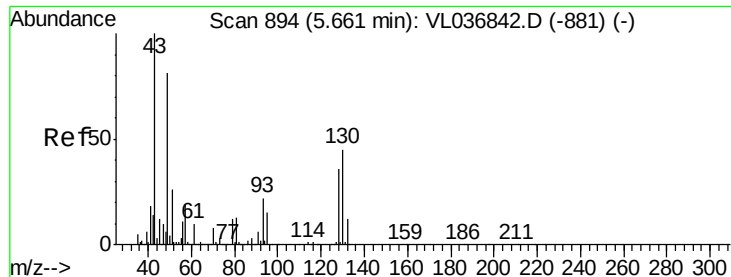
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 13:15

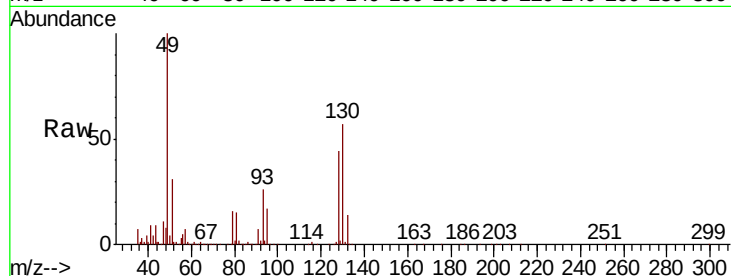
Tot Ion: 49 Resp: 1376222

Ion Ratio Lower Upper

49 100

128 46.3 24.4 73.2

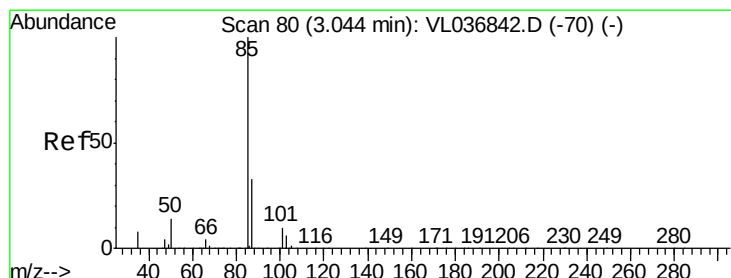
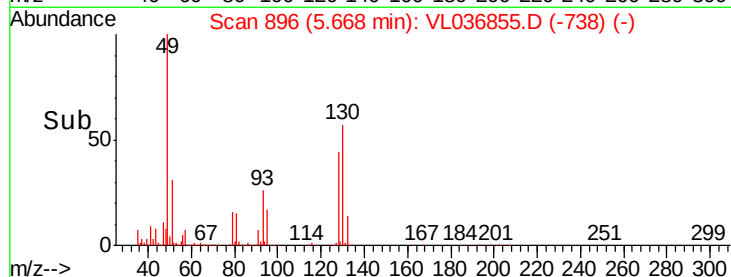
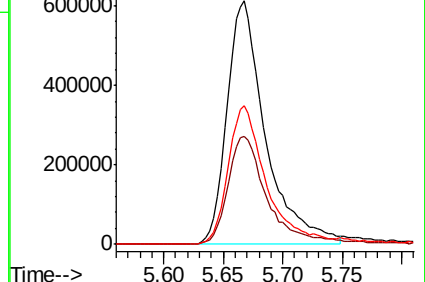
130 58.2 30.3 90.8



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: 0.273 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL036855.D

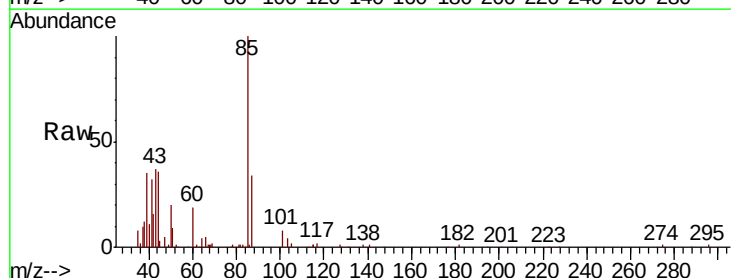
Acq: 27 Apr 2021 13:15

Tgt Ion: 85 Resp: 59207

Ion Ratio Lower Upper

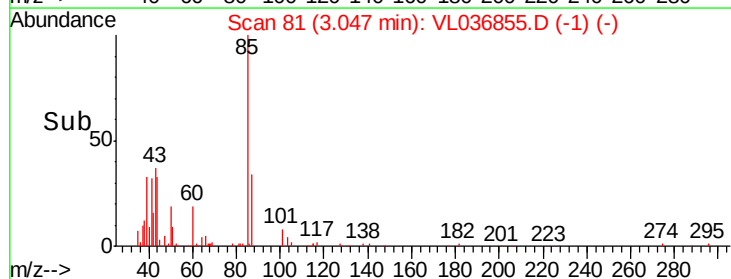
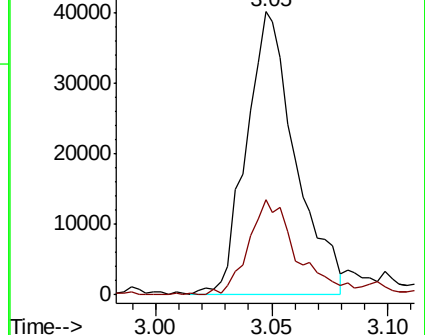
85 100

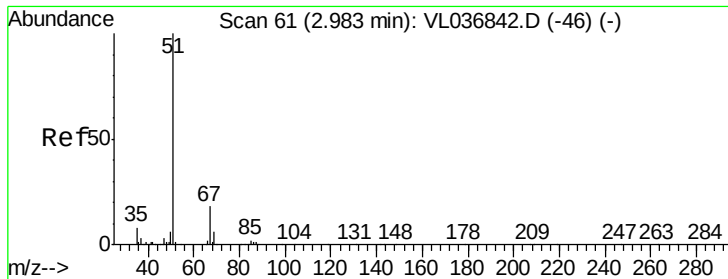
87 33.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.293 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

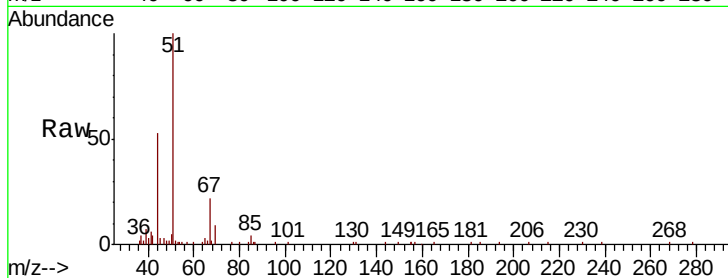
Acq: 27 Apr 2021 13:15

Tot Ion: 51 Resp: 73432

Ion Ratio Lower Upper

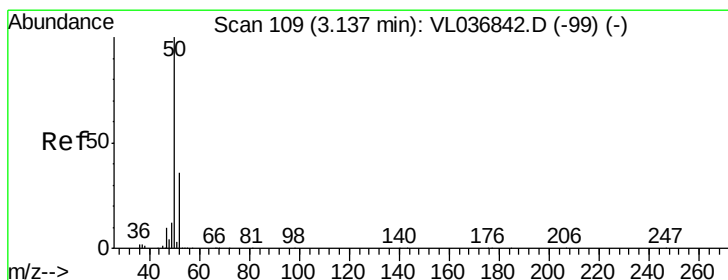
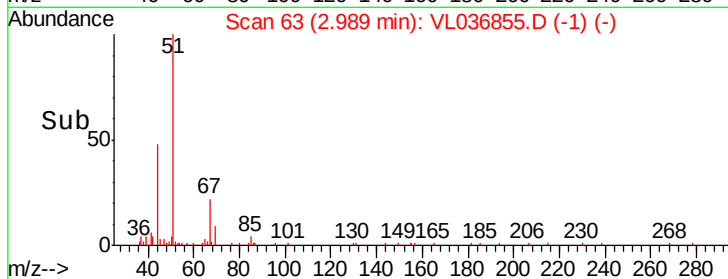
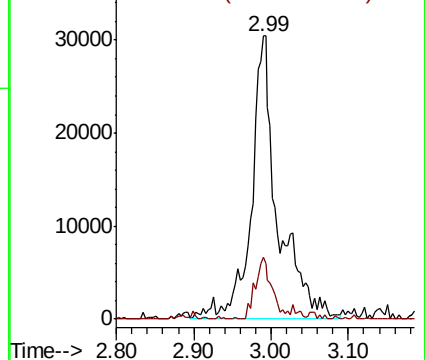
51 100

67 16.1 14.8 22.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.480 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.01 min

Lab File: VL036855.D

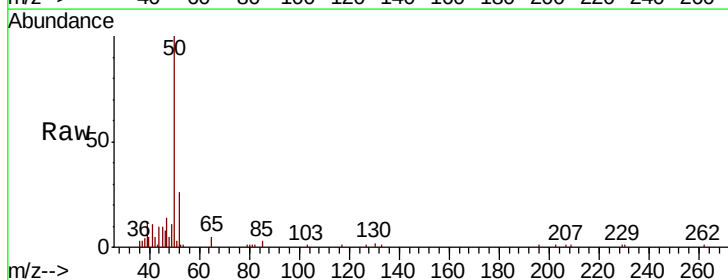
Acq: 27 Apr 2021 13:15

Tgt Ion: 50 Resp: 39587

Ion Ratio Lower Upper

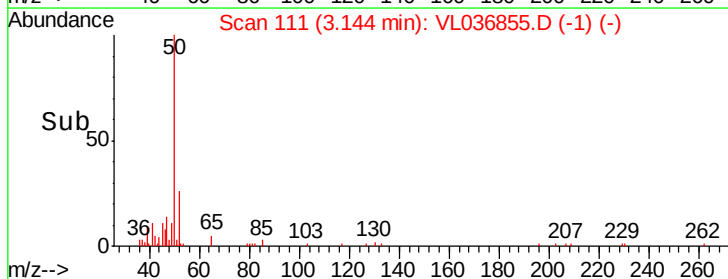
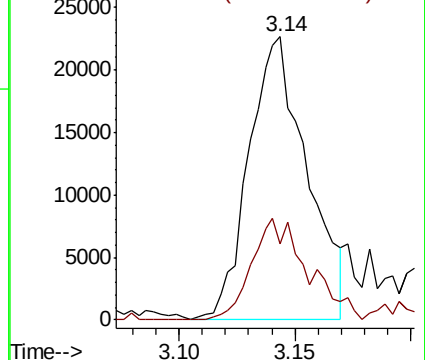
50 100

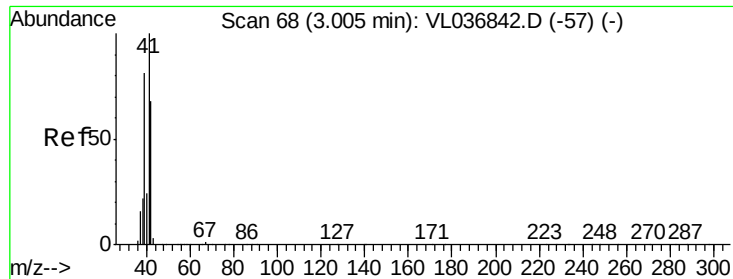
52 26.6 28.5 42.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.920 ppbv

RT: 3.20 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

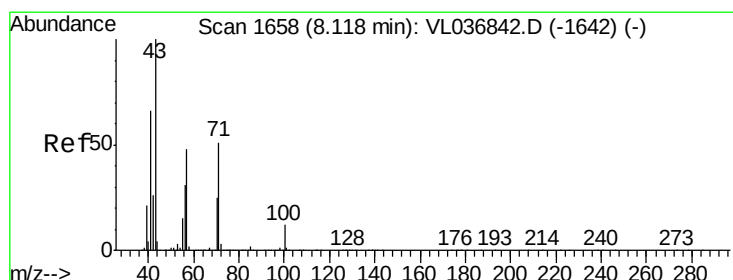
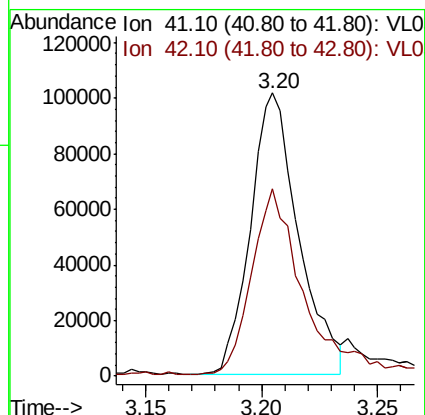
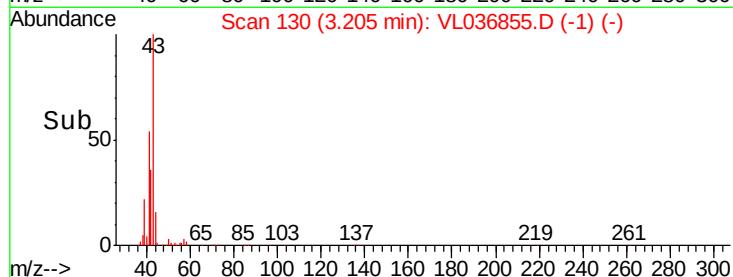
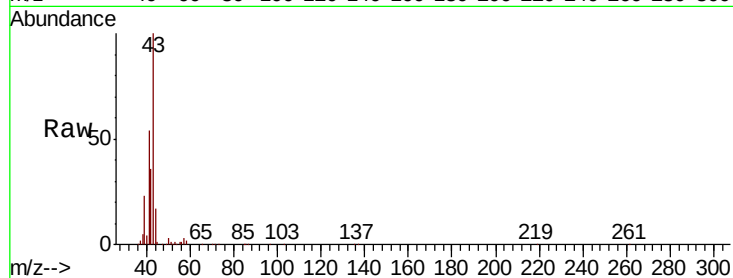
Acq: 27 Apr 2021 13:15

Tot Ion: 41 Resp: 146673

Ion Ratio Lower Upper

41 100

42 74.1 56.0 84.0



#10

Heptane

Concen: 0.121 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. 0.01 min

Lab File: VL036855.D

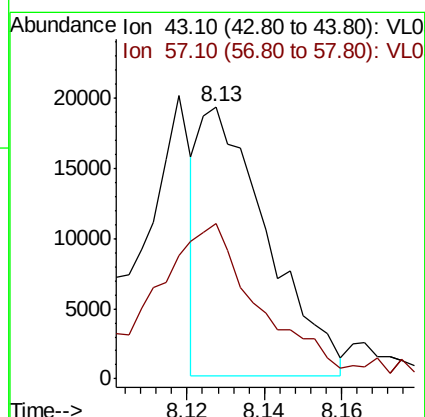
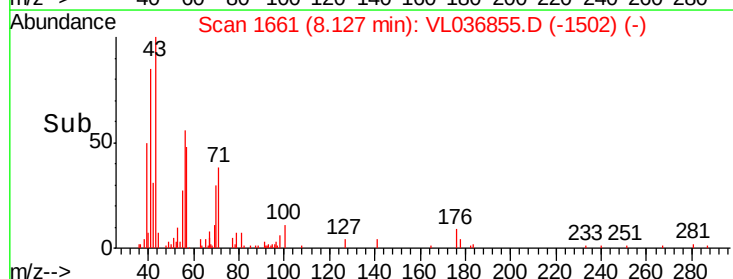
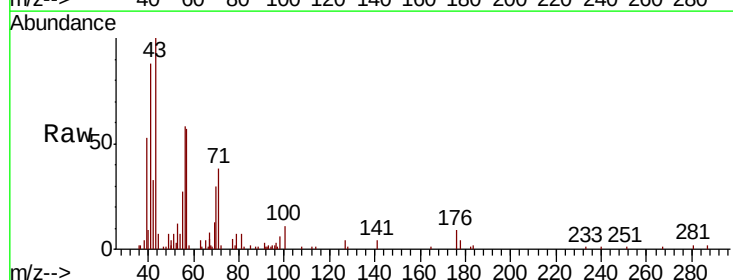
Acq: 27 Apr 2021 13:15

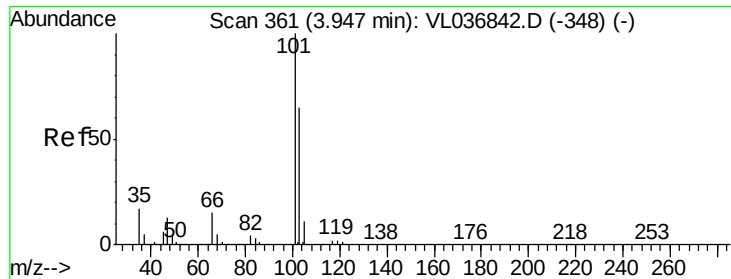
Tgt Ion: 43 Resp: 23310

Ion Ratio Lower Upper

43 100

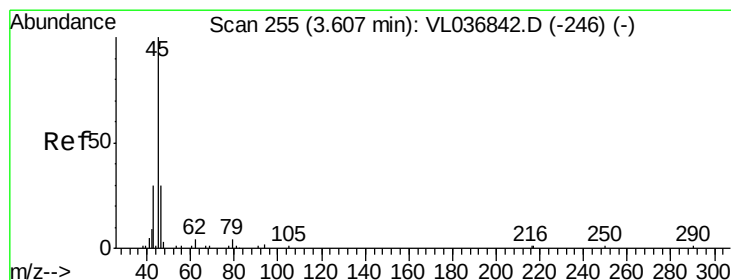
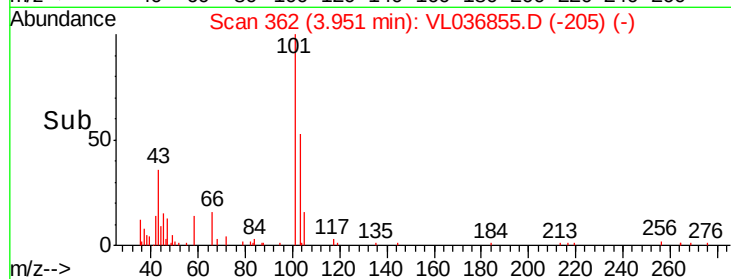
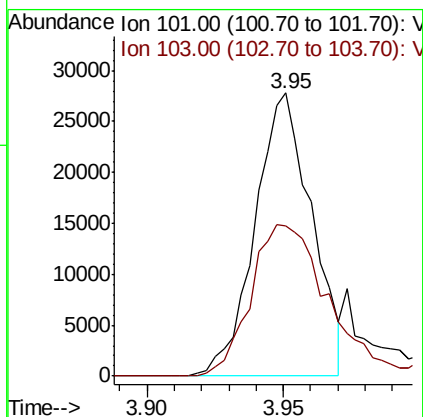
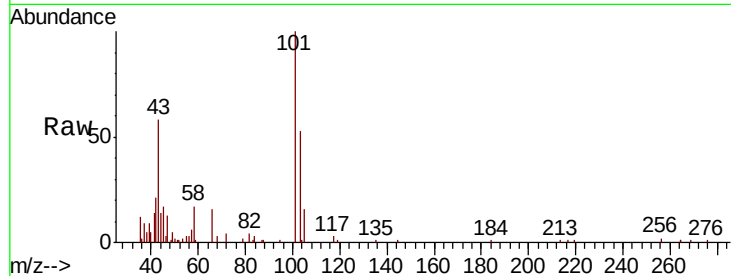
57 102.8 38.8 58.2#





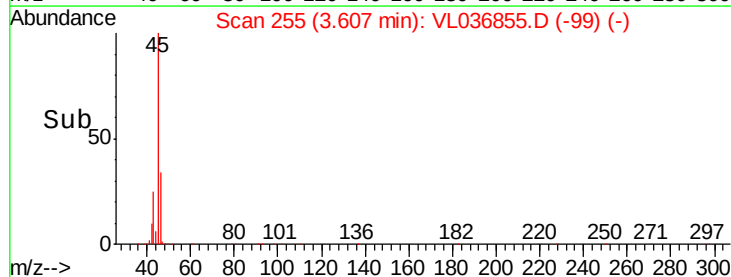
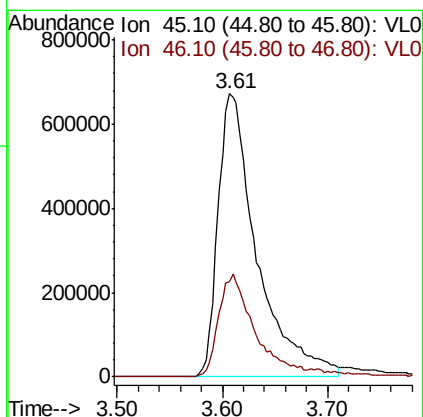
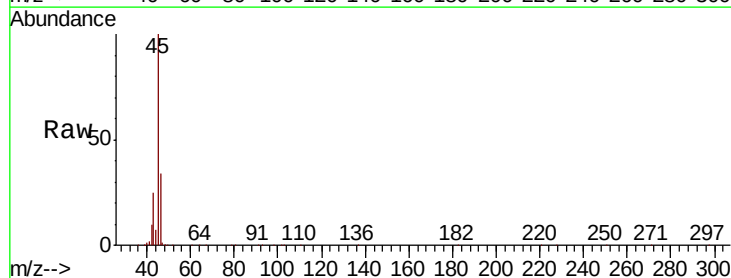
#11
 Trichlorofluoromethane
 Concen: 0.207 ppbv
 RT: 3.95 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 27 Apr 2021 13:15

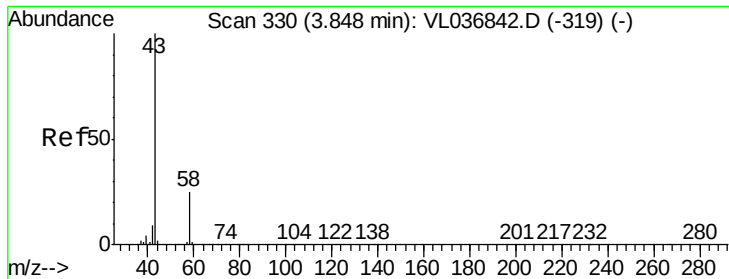
Tot Ion: 101 Resp: 39955
 Ion Ratio Lower Upper
 101 100
 103 52.6 51.6 77.4



#13
 Ethanol
 Concen: 176.327 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T.: 0.00 min
 Lab File: VL036855.D
 Acq: 27 Apr 2021 13:15

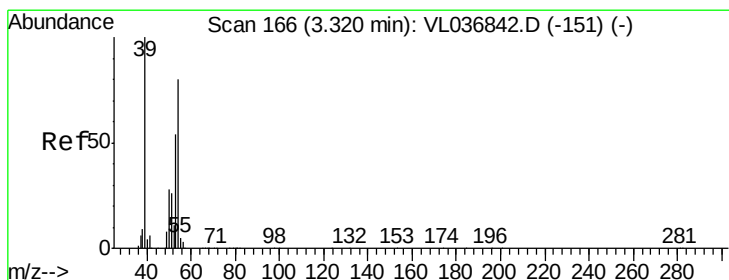
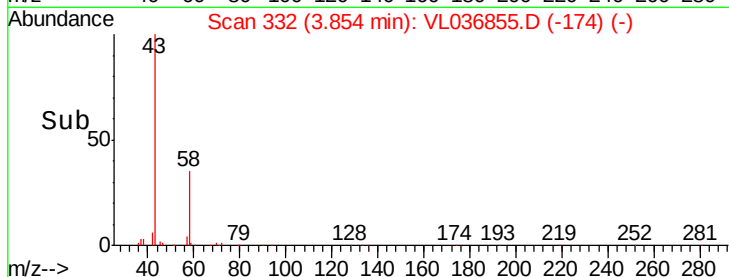
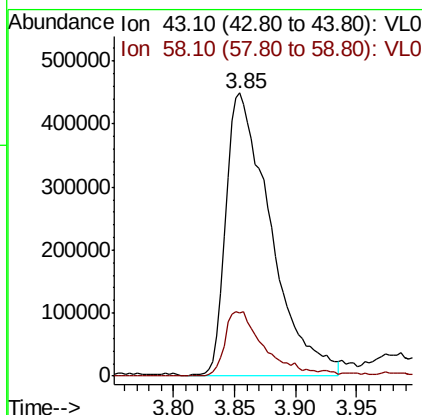
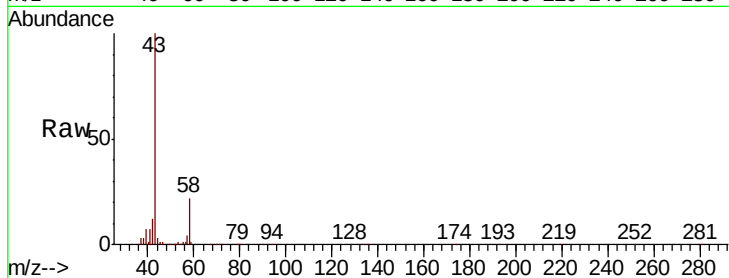
Tgt Ion: 45 Resp: 1717709
 Ion Ratio Lower Upper
 45 100
 46 36.5 16.8 67.4





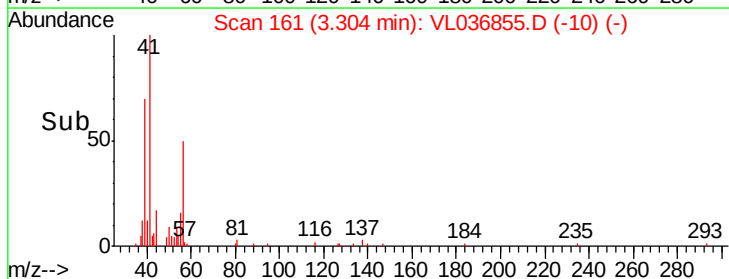
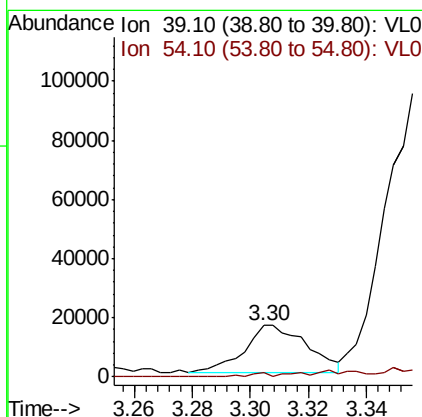
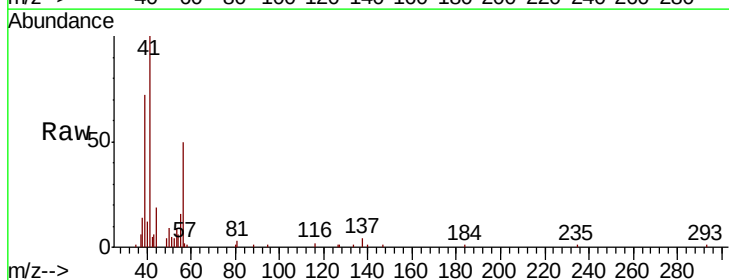
#15
Acetone
Concen: 8.767 ppbv
RT: 3.85
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 27 Apr 2021 13:15

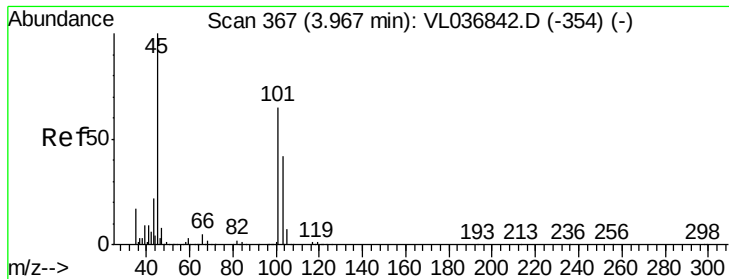
Tot Ion: 43 Resp: 1137184
Ion Ratio Lower Upper
43 100
58 21.4 21.7 32.5#



#16
1,3-Butadiene
Concen: 0.285 ppbv
RT: 3.30 min Scan# 161
Delta R.T. -0.02 min
Lab File: VL036855.D
Acq: 27 Apr 2021 13:15

Tgt Ion: 39 Resp: 23627
Ion Ratio Lower Upper
39 100
54 15.9 59.6 89.4#





#19

Isopropyl Alcohol

Concen: 2.979 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

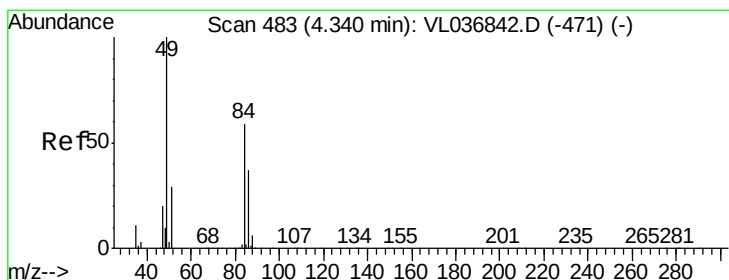
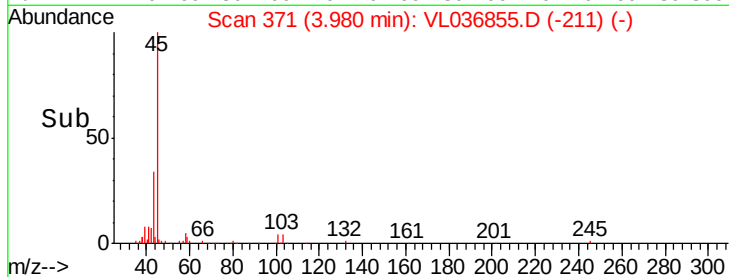
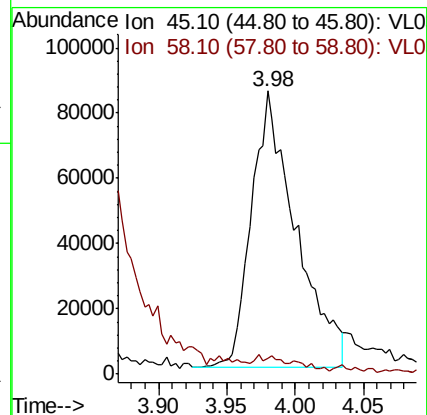
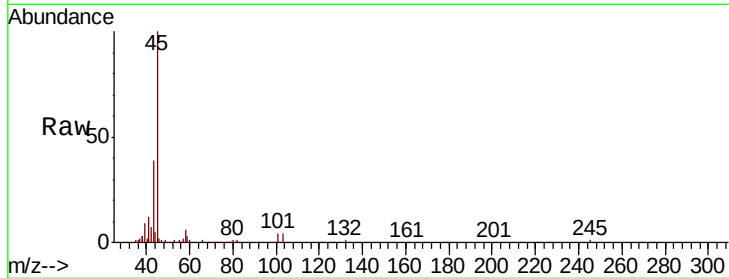
Acq: 27 Apr 2021 13:15

Tot Ion: 45 Resp: 191466

Ion Ratio Lower Upper

45 100

58 8.1 2.8 4.2#



#20

Methylene Chloride

Concen: 6.963 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.01 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

Tgt Ion: 84 Resp: 431892

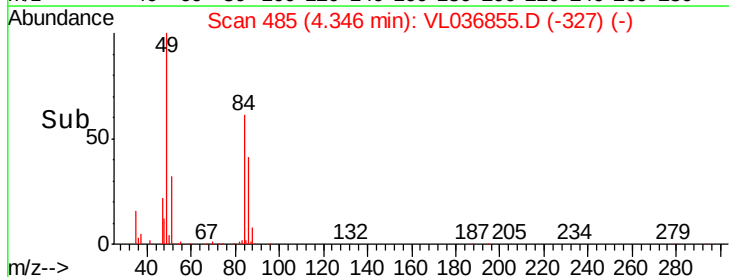
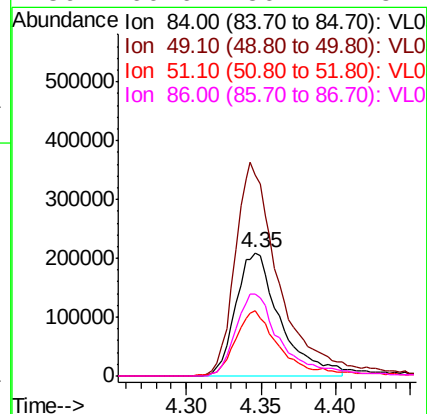
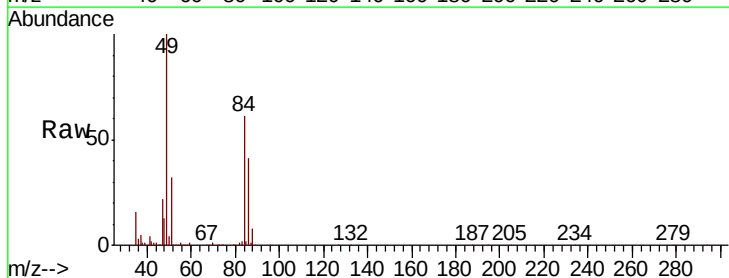
Ion Ratio Lower Upper

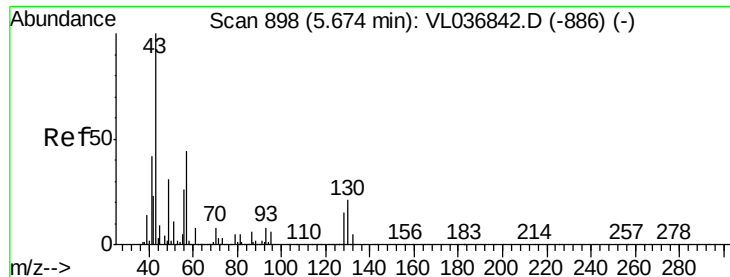
84 100

49 162.7 135.4 203.0

51 52.8 39.3 58.9

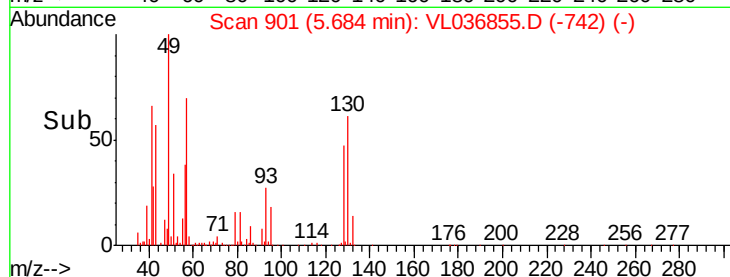
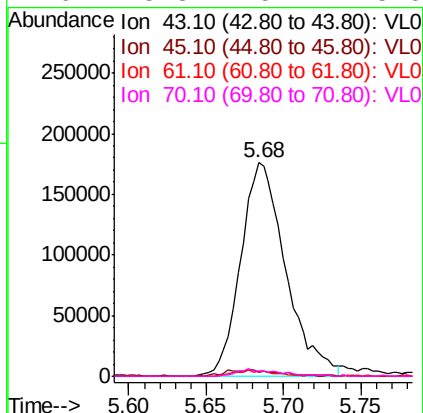
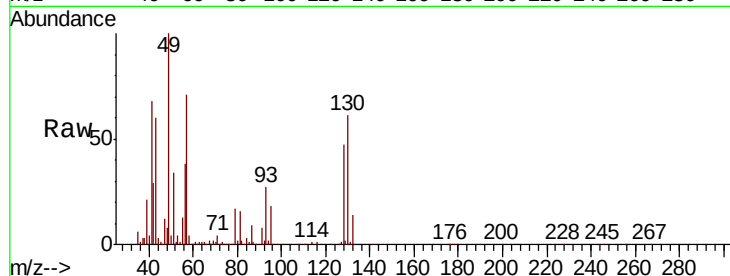
86 66.6 50.2 75.2





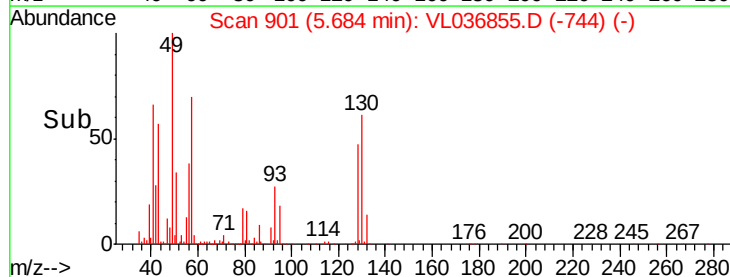
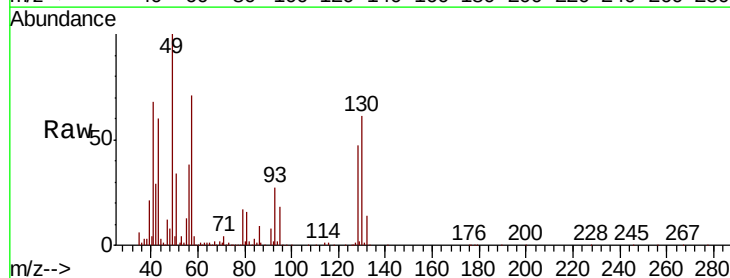
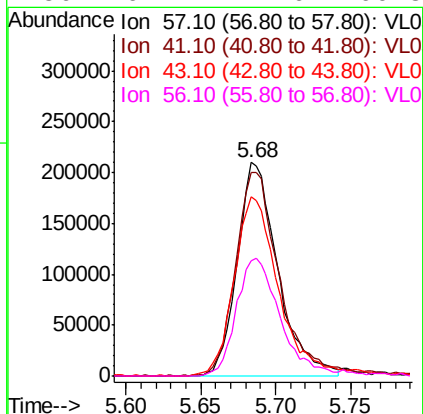
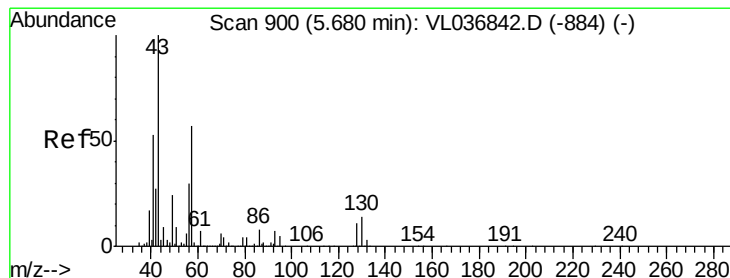
#25
Ethyl Acetate
Concen: 1.117 ppbv
RT: 5.68 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 27 Apr 2021 13:15

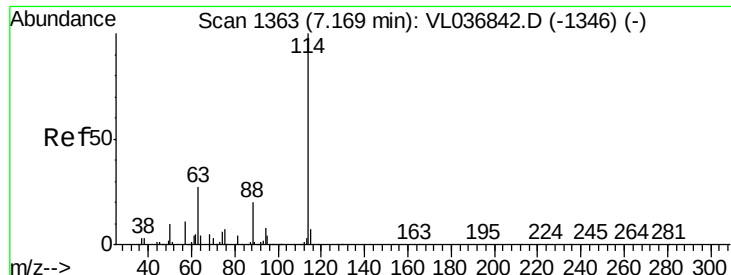
Tot Ion:	43	Resp:	353813
Ion	Ratio	Lower	Upper
43	100		
45	3.7	7.8	11.8#
61	3.1	7.4	11.0#
70	3.3	5.4	8.0#



#26
Hexane
Concen: 2.670 ppbv
RT: 5.68 min Scan# 901
Delta R.T.: 0.00 min
Lab File: VL036855.D
Acq: 27 Apr 2021 13:15

Tgt Ion:	57	Resp:	395733
Ion	Ratio	Lower	Upper
57	100		
41	104.5	77.7	116.5
43	94.4	180.5	270.7#
56	61.4	44.6	66.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 13:15

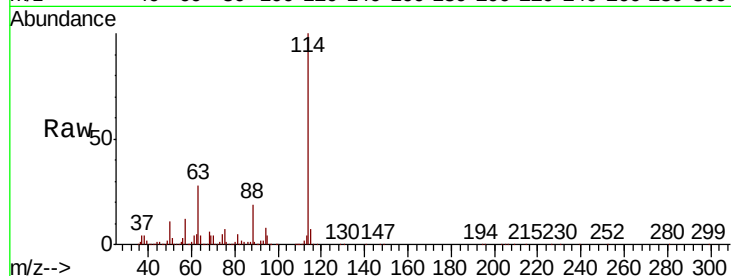
Tot Ion:114 Resp: 3320907

Ion Ratio Lower Upper

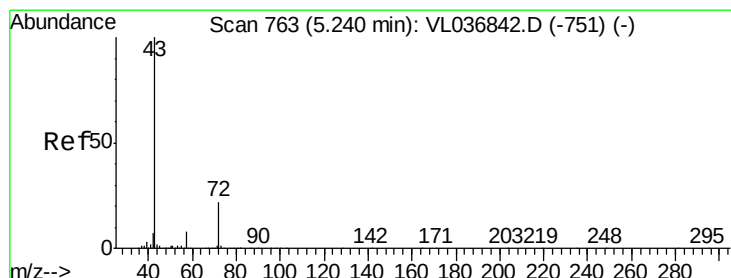
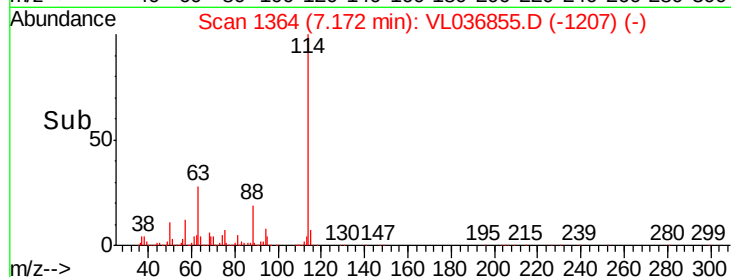
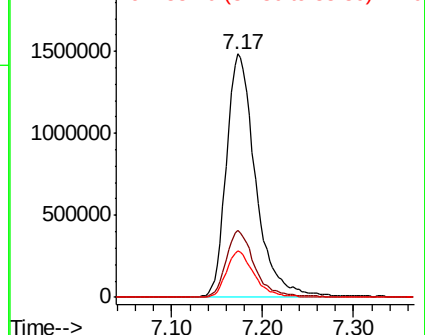
114 100

63 27.0 21.9 32.9

88 18.4 15.1 22.7



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: 0.248 ppbv

RT: 5.26 min Scan# 768

Delta R.T. 0.02 min

Lab File: VL036855.D

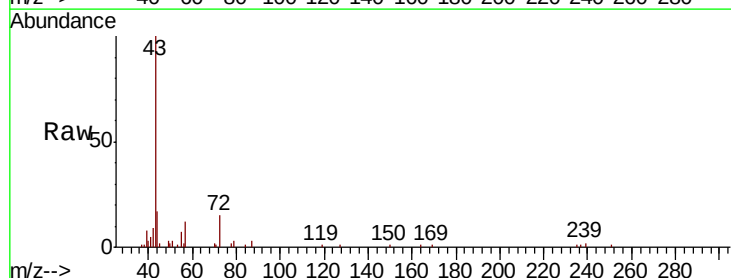
Acq: 27 Apr 2021 13:15

Tgt Ion: 43 Resp: 36007

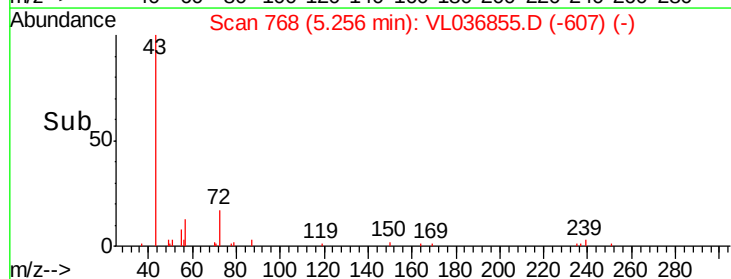
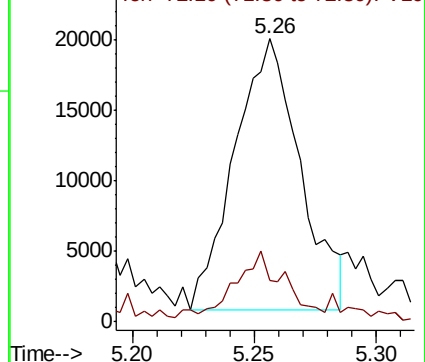
Ion Ratio Lower Upper

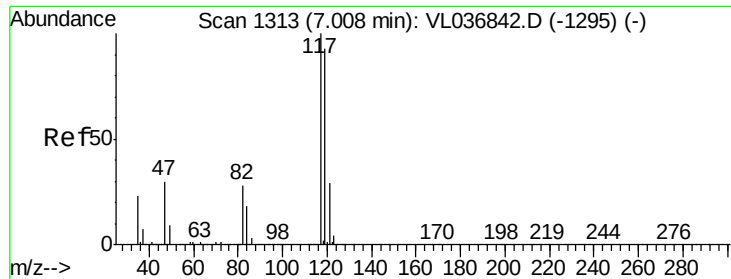
43 100

72 25.6 17.6 26.4



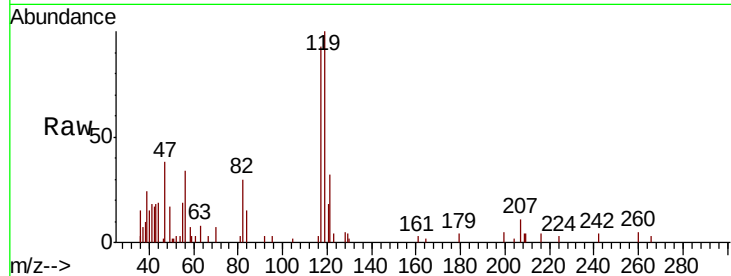
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 72.10 (71.80 to 72.80): VL0





#35
Carbon Tetrachloride
Concen: 0.043 ppbv
RT: 7.02 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 27 Apr 2021 13:15

Tot Ion	Ratio	Lower	Upper
117	100		
119	107.3	74.6	111.8
121	53.8	23.3	34.9

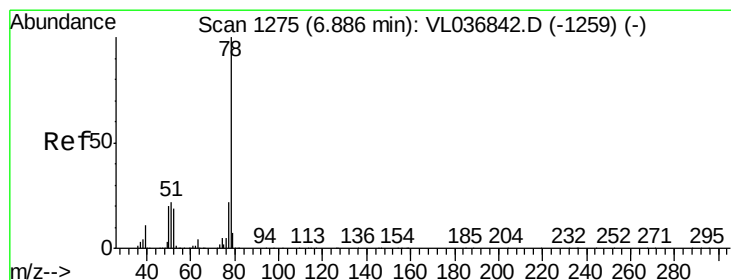
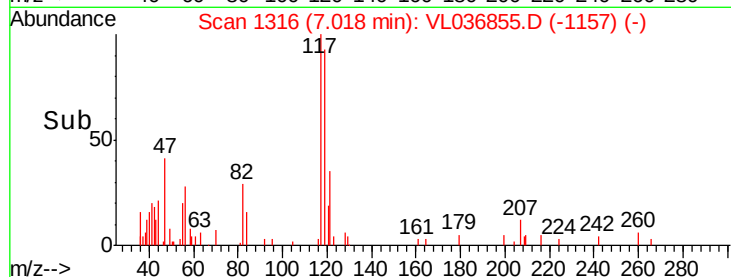
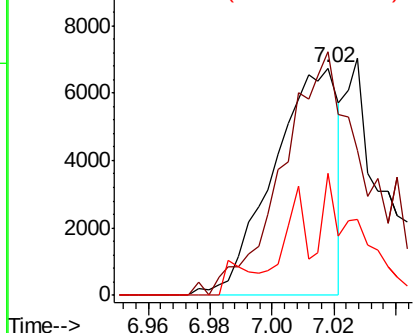


Abundance

Ion 117.00 (116.70 to 117.70): V

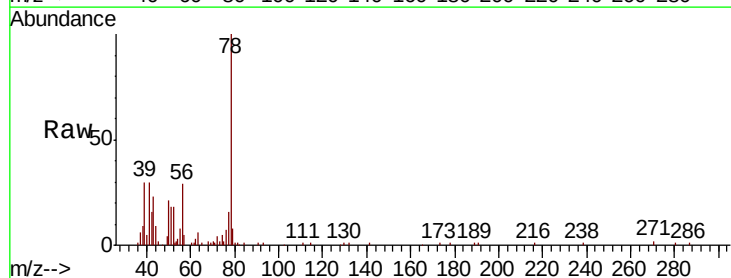
Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36
Benzene
Concen: 0.269 ppbv
RT: 6.89 min Scan# 1276
Delta R.T.: 0.00 min
Lab File: VL036855.D
Acq: 27 Apr 2021 13:15

Tgt Ion	Ratio	Lower	Upper
78	100		
77	16.9	17.6	26.4
50	20.7	16.3	24.5

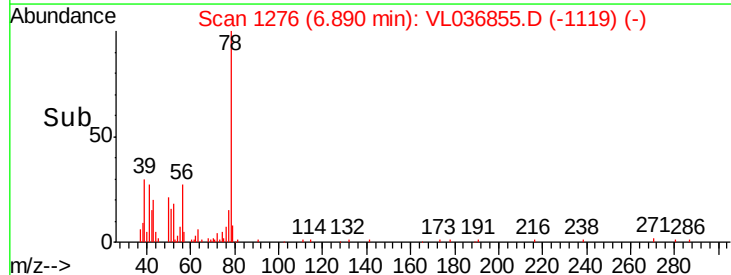
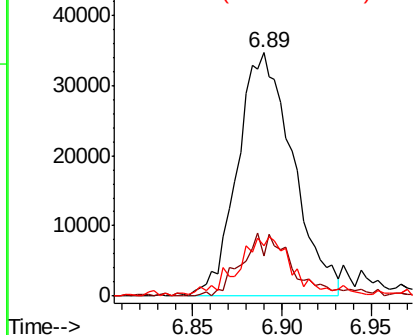


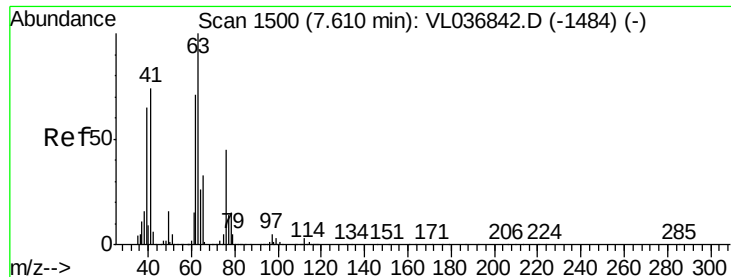
Abundance

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: 7.692 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 13:15

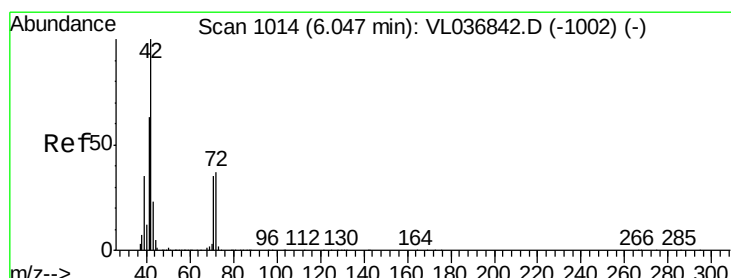
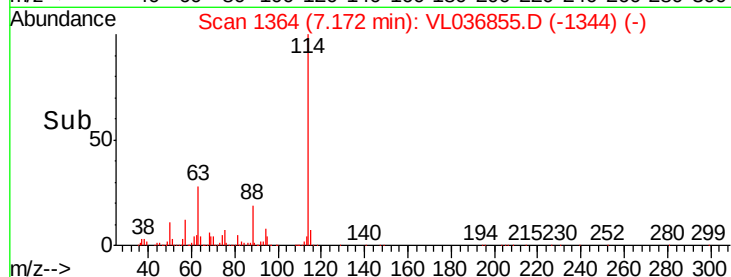
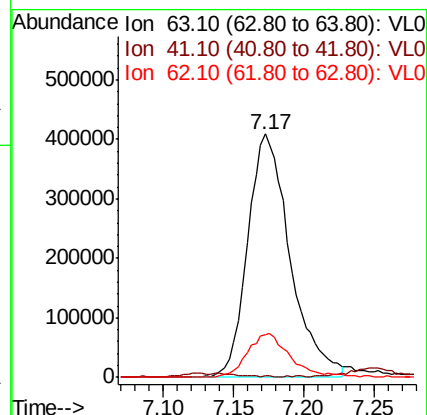
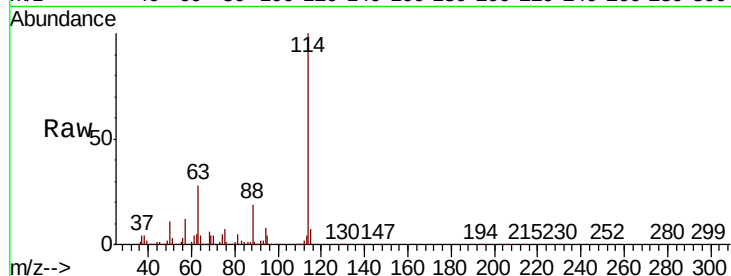
Tot Ion: 63 Resp: 862258

Ion Ratio Lower Upper

63 100

41 0.0 59.1 88.7#

62 17.3 56.9 85.3#



#41

Tetrahydrofuran

Concen: 0.047 ppbv

RT: 6.31 min Scan# 1097

Delta R.T. 0.27 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

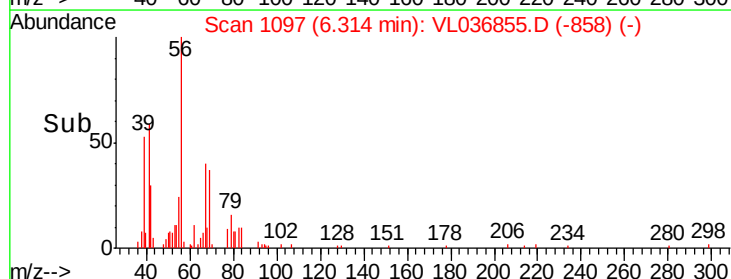
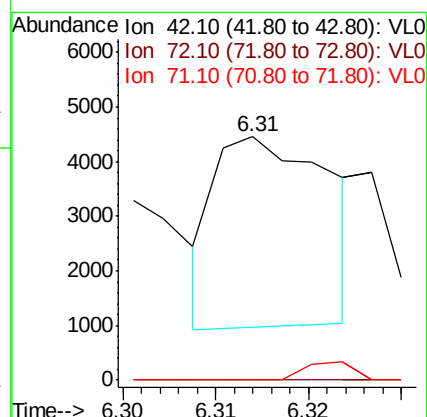
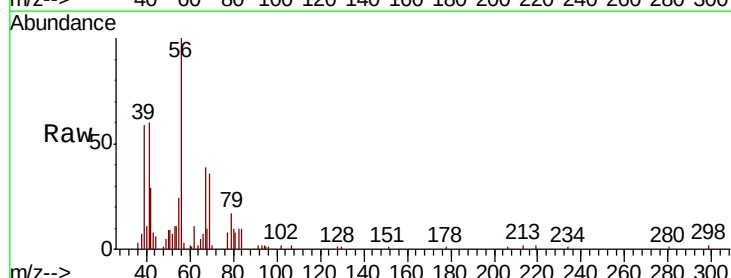
Tgt Ion: 42 Resp: 2981

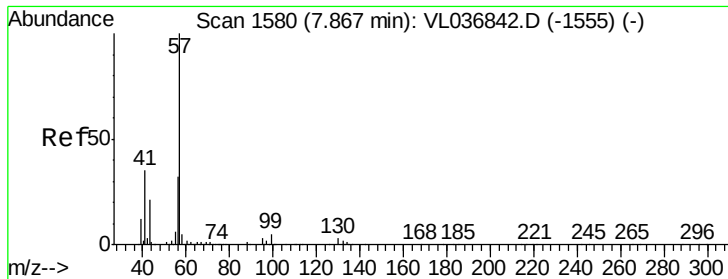
Ion Ratio Lower Upper

42 100

72 3.6 29.7 44.5#

71 0.0 29.0 43.6#





#44

2,2,4-Trimethylpentane

Concen: 0.046 ppbv

RT: 7.86 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 13:15

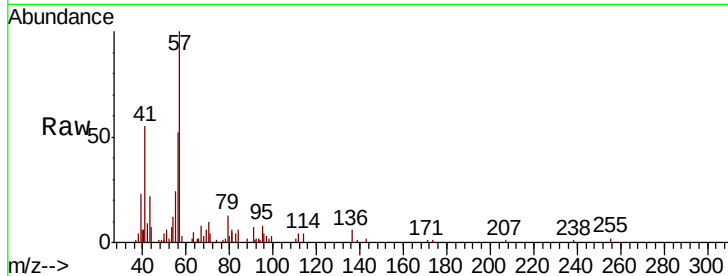
Tot Ion: 57 Resp: 22255

Ion Ratio Lower Upper

57 100

41 125.9 28.2 42.4#

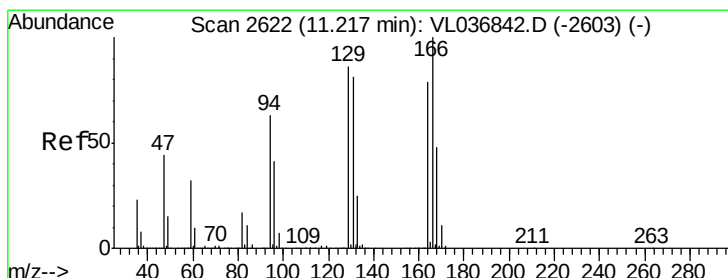
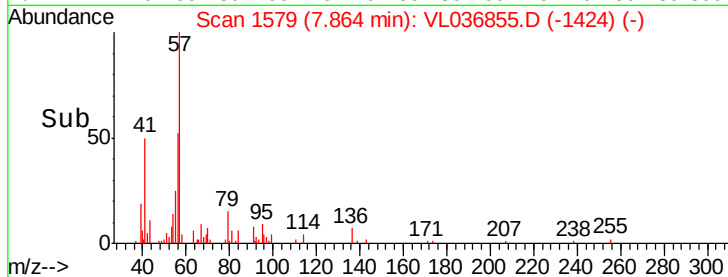
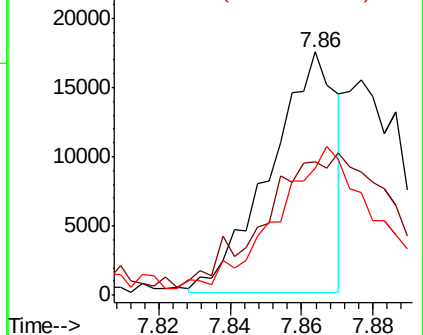
56 111.4 25.9 38.9#



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



#52

Tetrachloroethene

Concen: 0.153 ppbv

RT: 11.21 min Scan# 2621

Delta R.T. -0.00 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

Tgt Ion: 164 Resp: 14599

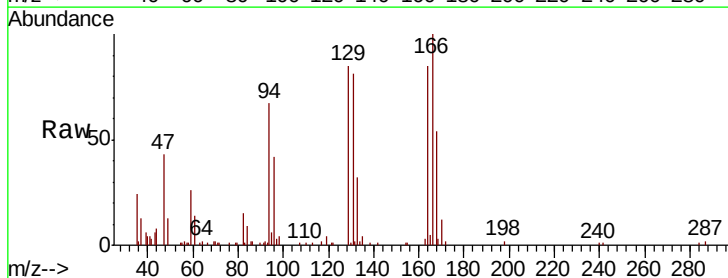
Ion Ratio Lower Upper

164 100

166 101.0 100.9 151.3

129 92.4 87.0 130.4

131 85.9 81.7 122.5

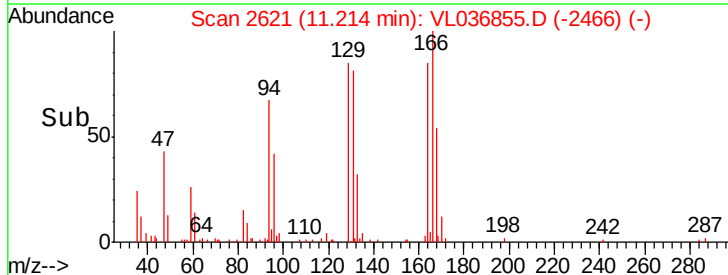
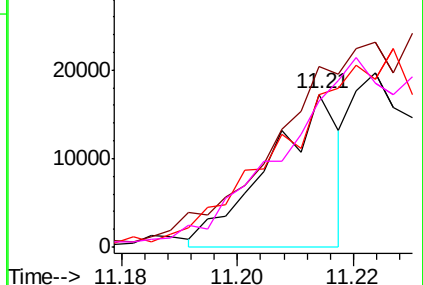


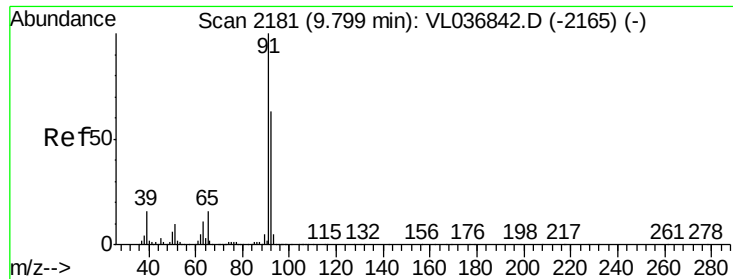
Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.113 ppbv

RT: 9.81 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

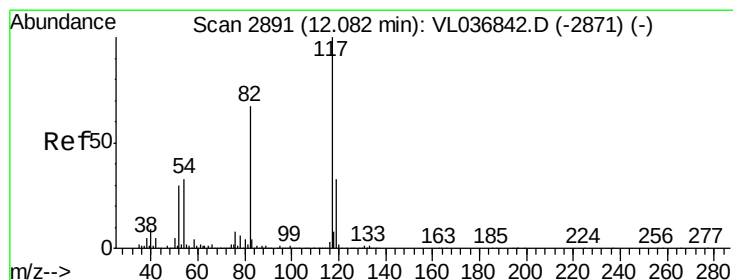
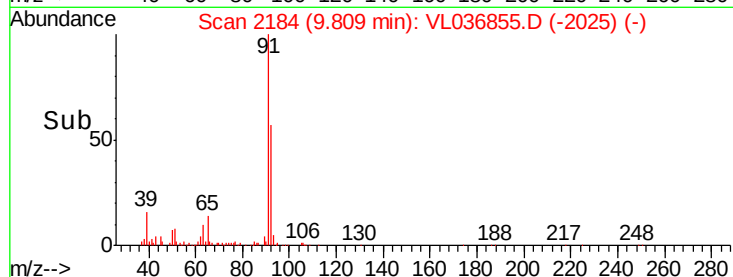
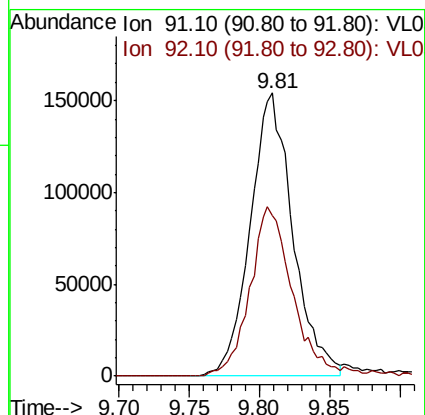
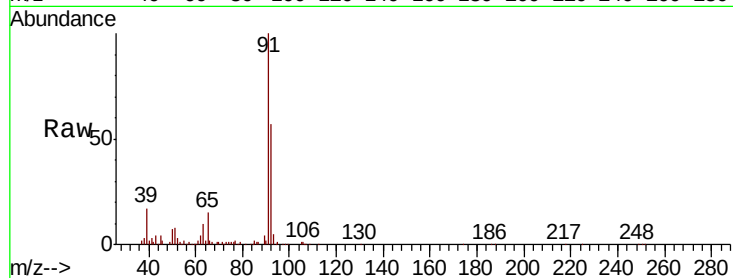
Acq: 27 Apr 2021 13:15

Tot Ion: 91 Resp: 325766

Ion Ratio Lower Upper

91 100

92 61.0 49.0 73.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. 0.00 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

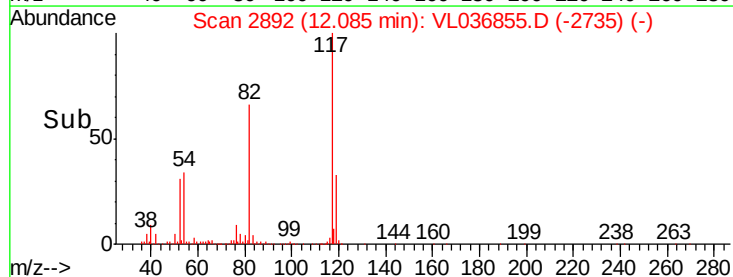
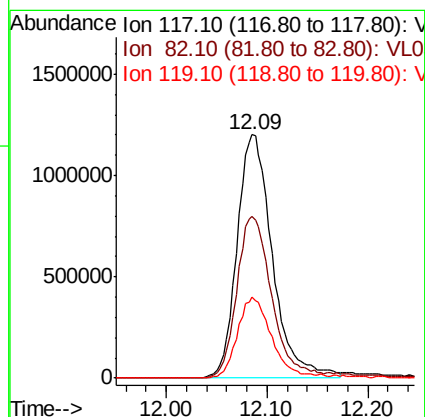
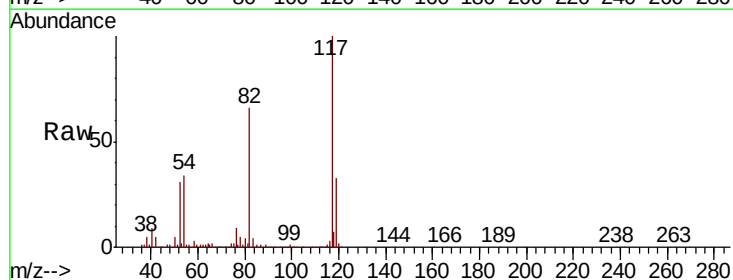
Tgt Ion: 117 Resp: 2922964

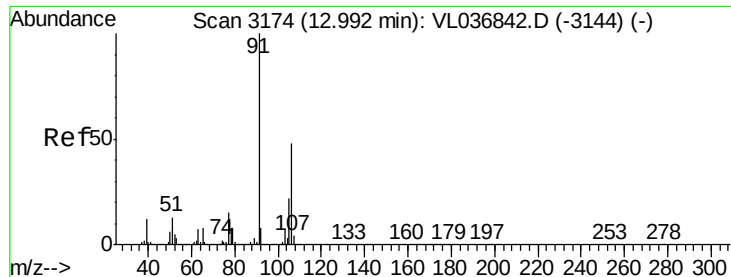
Ion Ratio Lower Upper

117 100

82 69.0 53.5 80.3

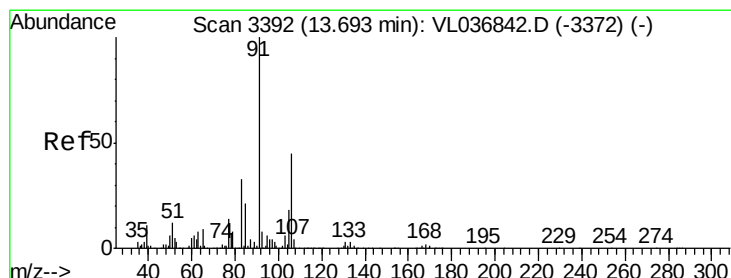
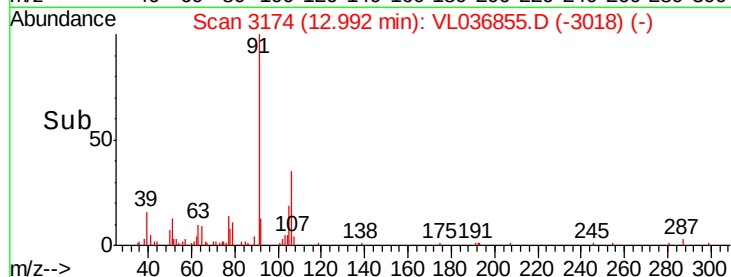
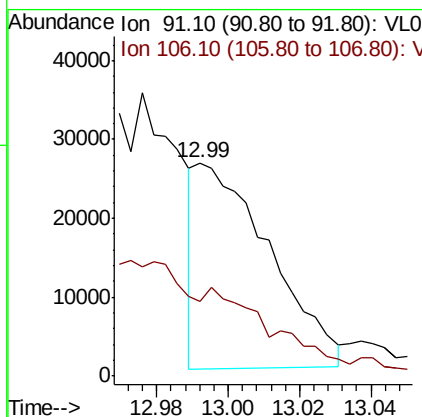
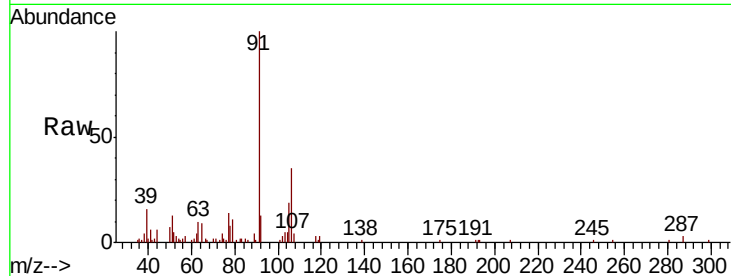
119 33.2 25.6 38.4





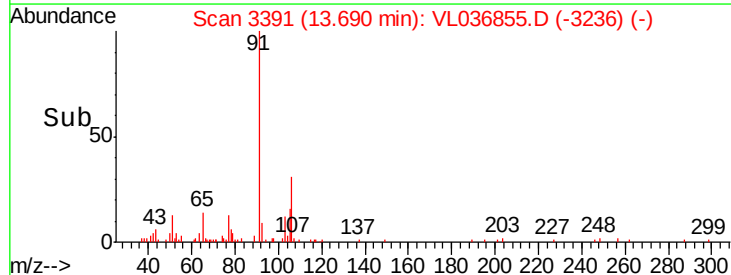
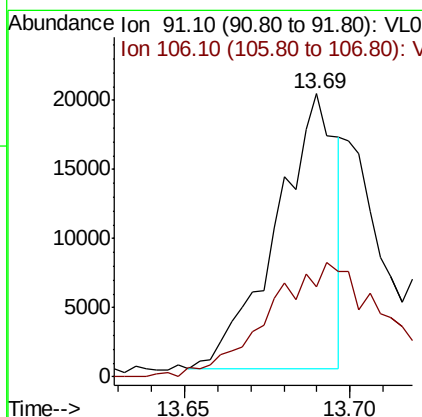
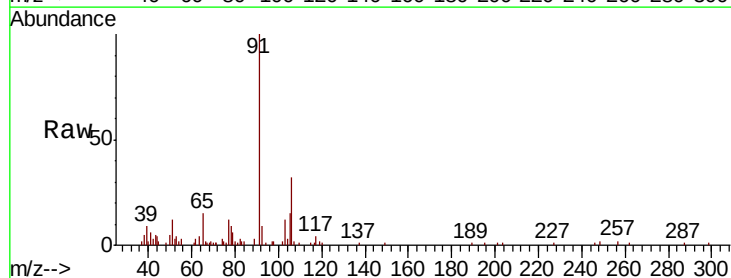
#59
m/p-Xylene
Concen: 0.112 ppbv
RT: 12.99 min
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 27 Apr 2021 13:15

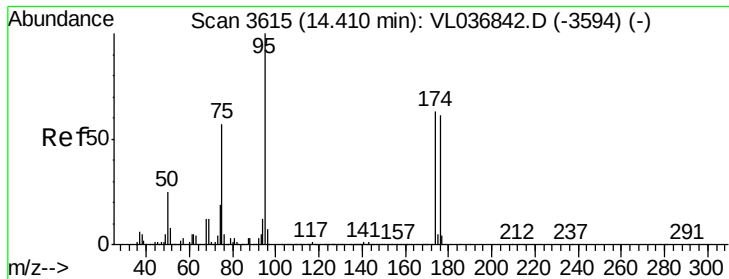
Tot Ion: 91 Resp: 37175
Ion Ratio Lower Upper
91 100
106 0.0 35.8 53.6#



#60
o-Xylene
Concen: 0.078 ppbv
RT: 13.69 min Scan# 3391
Delta R.T. -0.00 min
Lab File: VL036855.D
Acq: 27 Apr 2021 13:15

Tgt Ion: 91 Resp: 25034
Ion Ratio Lower Upper
91 100
106 88.0 22.6 67.7#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.914 ppbv

RT: 14.42

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 27 Apr 2021 13:15

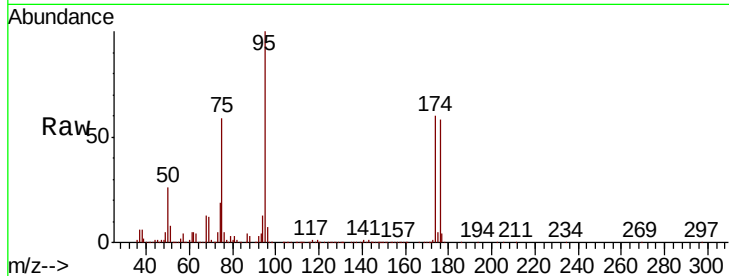
Tot Ion: 95 Resp: 2326125

Ion Ratio Lower Upper

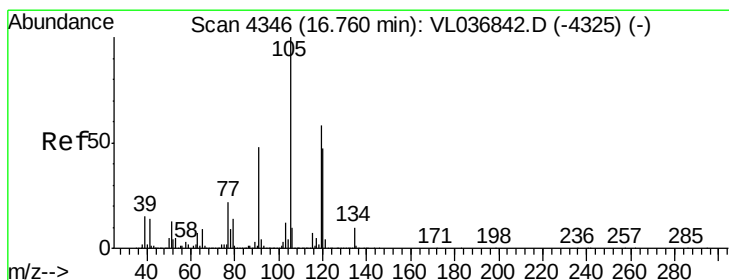
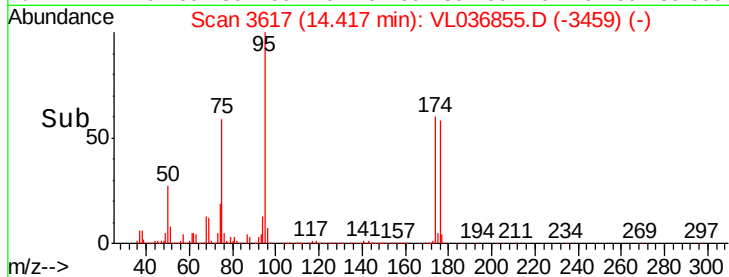
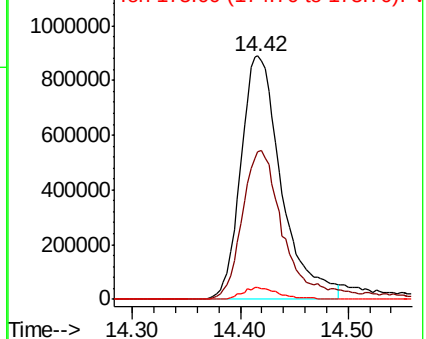
95 100

174 66.2 52.2 78.2

175 4.8 4.0 6.0



Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.042 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. 0.00 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

Tgt Ion:105 Resp: 14925

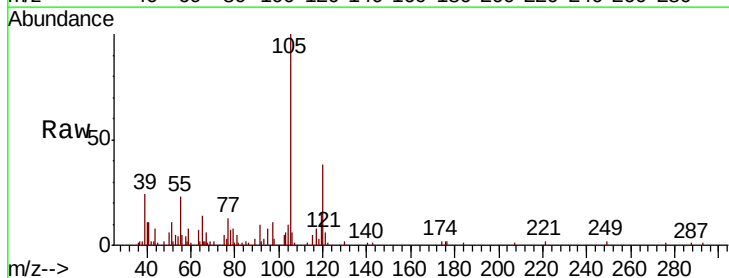
Ion Ratio Lower Upper

105 100

120 19.3 37.6 56.4#

91 0.0 39.0 58.4#

77 7.7 17.4 26.0#



Abundance Ion 105.10 (104.80 to 105.80): V
Ion 120.20 (119.90 to 120.90): V
Ion 91.10 (90.80 to 91.80): VL0
Ion 77.10 (76.80 to 77.80): VL0

