

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL033021\
 Data File : VL036577.D
 Acq On : 30 Mar 2021 19:55
 Operator : SY/AP
 Sample : M1797-06
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MF-SG-08(2021)

Manual Integrations
 APPROVED

Quant Time: Mar 31 21:08:21 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 2
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

4/1/2021 10:58:49 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1460028	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3341577	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	3087416	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2491212	10.12	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	38742	0.163	ppbv	94
3) Chlorodifluoromethane	2.98	51	71228m	0.261	ppbv	
4) Chloromethane	3.13	50	21325	0.221	ppbv #	76
11) Trichlorofluoromethane	3.93	101	54250	0.224	ppbv	94
13) Ethanol	3.60	45	3009726	290.630	ppbv	93
15) Acetone	3.83	43	5682572	39.544	ppbv	99
17) tert-Butyl alcohol	4.30	59	117225m	0.937	ppbv	
19) Isopropyl Alcohol	3.97	45	495529	6.269	ppbv #	1
20) Methylene Chloride	4.33	84	829833	12.334	ppbv	97
24) 1,1-Dichloroethane	5.00	63	17333m	0.097	ppbv	
26) Hexane	5.67	57	1437256	9.065	ppbv #	47
27) Carbon Disulfide	4.54	76	15044	0.096	ppbv #	86
29) Chloroform	5.74	83	275304	1.086	ppbv	86
32) 1,1,1-Trichloroethane	6.50	97	80400m	0.315	ppbv	
34) 2-Butanone	5.23	43	281503	1.726	ppbv	94
35) Carbon Tetrachloride	7.00	117	12139m	0.047	ppbv	
36) Benzene	6.87	78	38239	0.124	ppbv	96
38) Trichloroethene	7.81	130	13074m	0.109	ppbv	
40) 1,4-Dioxane	7.84	88	8739m	0.300	ppbv	
44) 2,2,4-Trimethylpentane	7.85	57	112099	0.207	ppbv #	83
50) 4-Methyl-2-Pentanone	8.73	43	58911m	0.250	ppbv	
52) Tetrachloroethene	11.20	164	73248m	0.645	ppbv	
53) Toluene	9.79	91	221785	0.676	ppbv	99
58) Ethyl Benzene	12.69	91	72785m	0.162	ppbv	
59) m/p-Xylene	12.95	91	127489m	0.325	ppbv	
60) o-Xylene	13.67	91	55291	0.146	ppbv	94
69) p-Isopropyltoluene	17.64	119	98504	0.202	ppbv #	80
79) Naphthalene	22.19	128	100153m	0.414	ppbv	

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

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Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

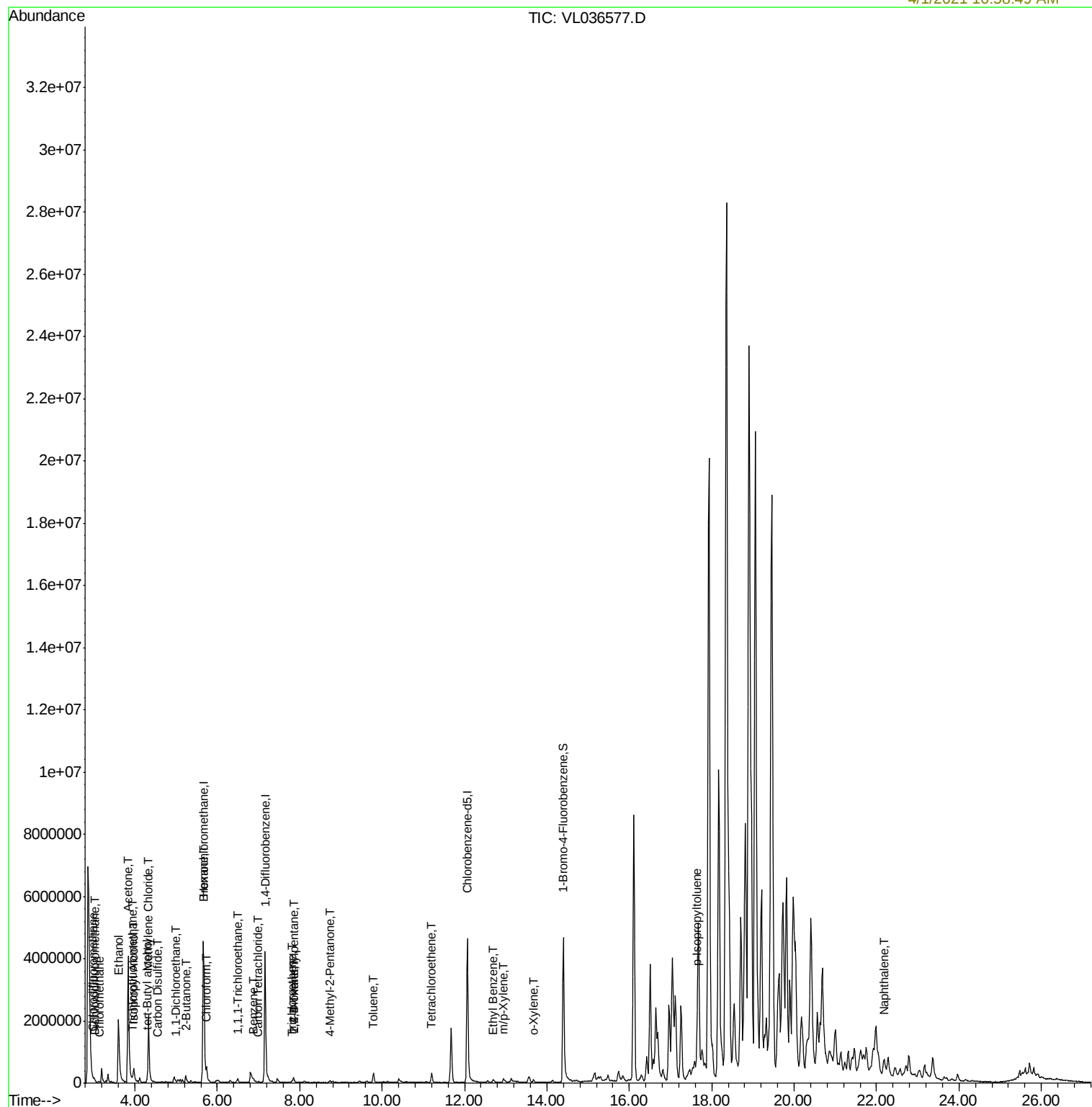
Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

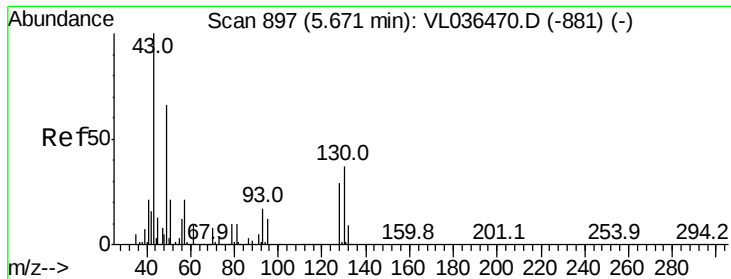
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Quant Time: Mar 31 21:08:21 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration

4/1/2021 10:58:49 AM





#1

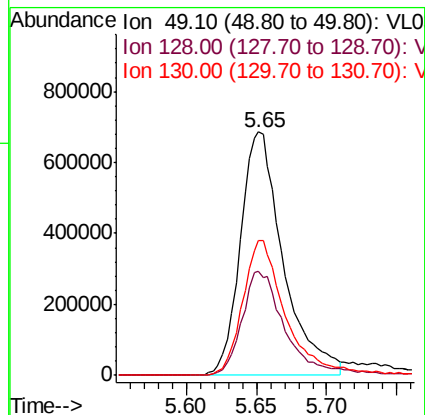
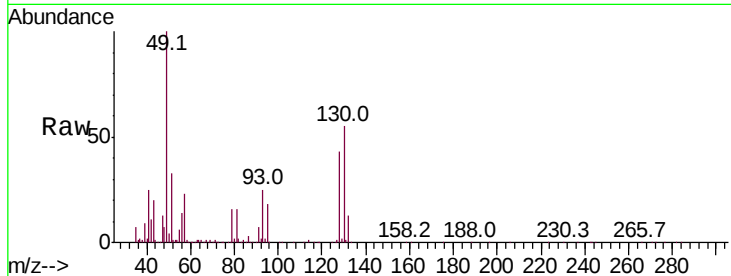
Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65 min Scan# 891
 Delta R.T. -0.02 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

Instrument :
 MSVOA_L
 ClientSampleId :
 MF-SG-08(2021)

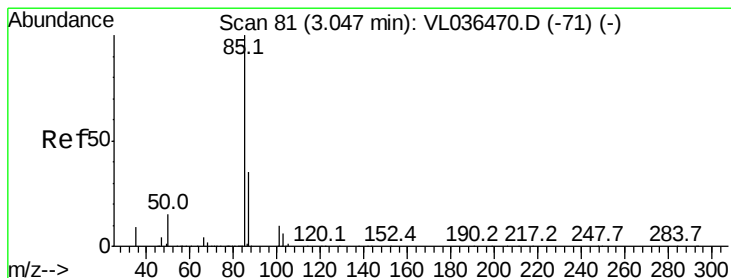
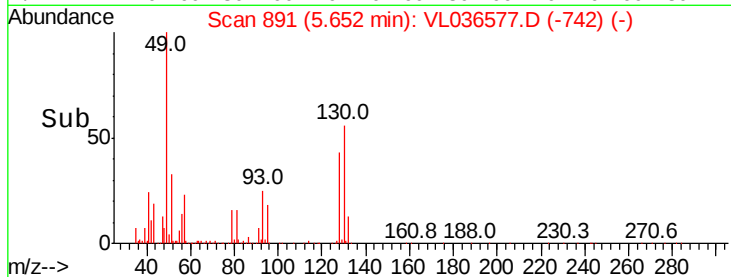
Tot Ion	Ratio	Lower	Upper
49	100		
128	44.0	23.5	70.6
130	57.6	29.1	87.4

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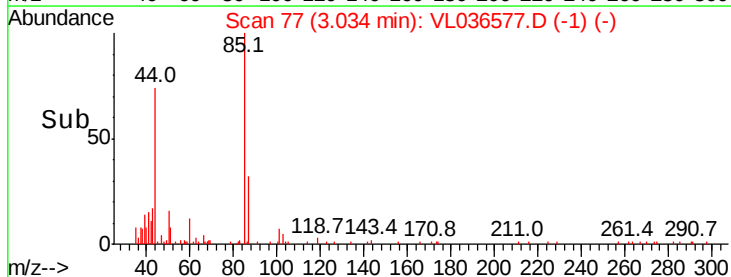
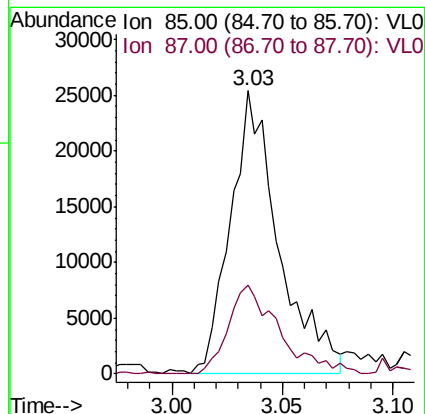
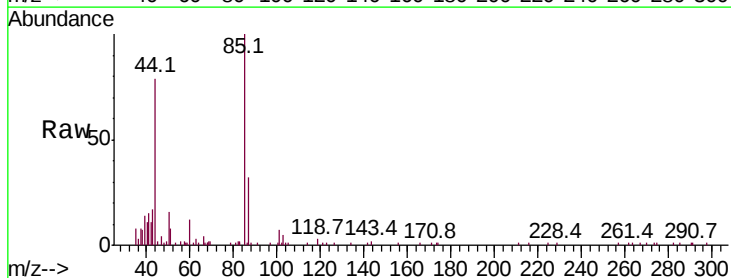
4/1/2021 10:58:49 AM

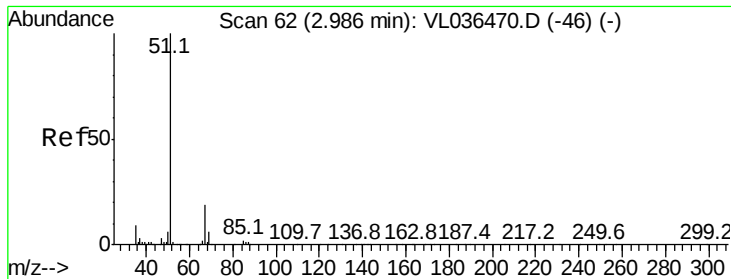


#2

Dichlorodifluoromethane
 Concen: 0.163 ppbv
 RT: 3.03 min Scan# 77
 Delta R.T. -0.01 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.5	27.8	41.8





#3

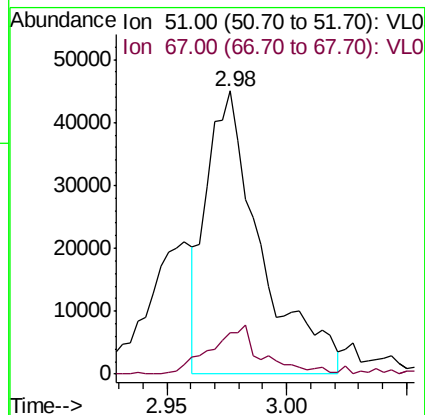
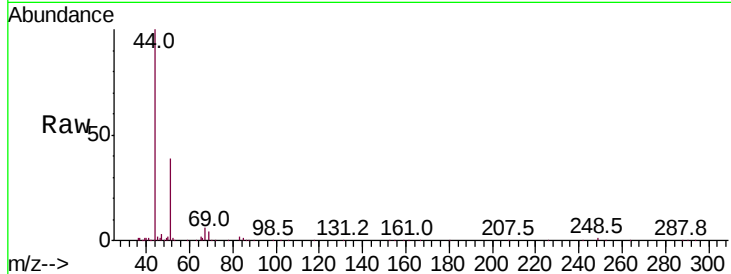
Chlorodifluoromethane
 Concen: 0.261 ppbv
 RT: 2.98 min Scan# 59
 Delta R.T. -0.01 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

Instrument :
 MSVOA_L
 ClientSampleId :
 MF-SG-08(2021)

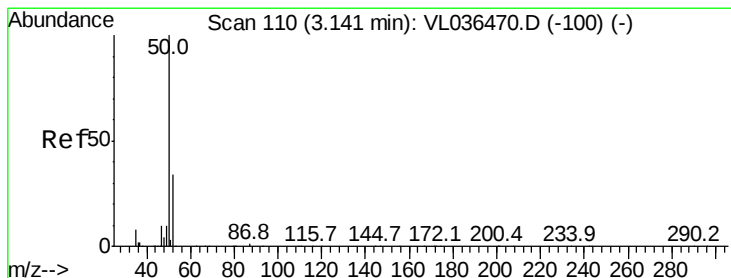
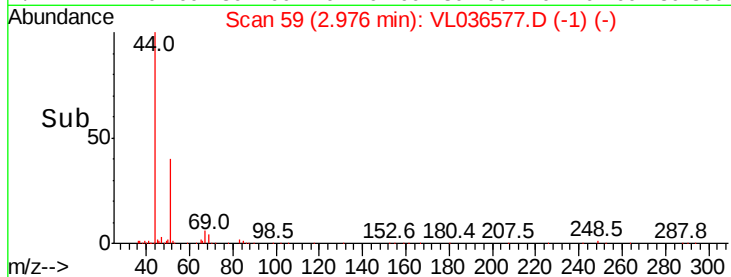
Tot Ion	Ratio	Lower	Upper
51	100		
67	17.8	14.7	22.1

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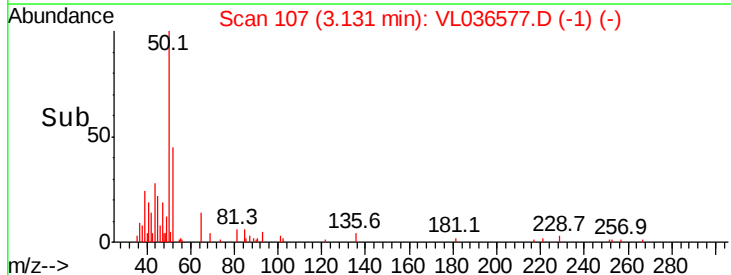
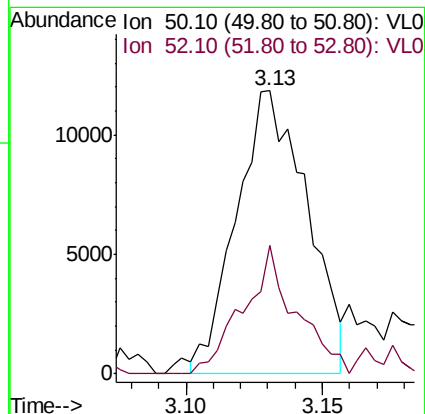
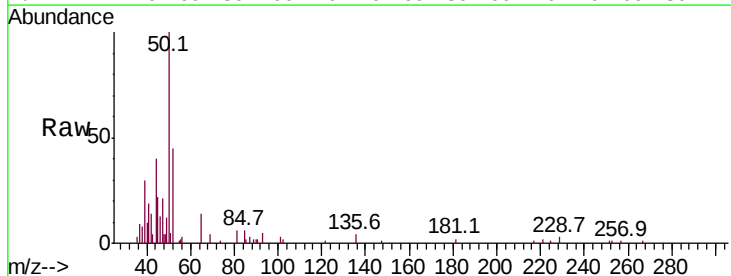
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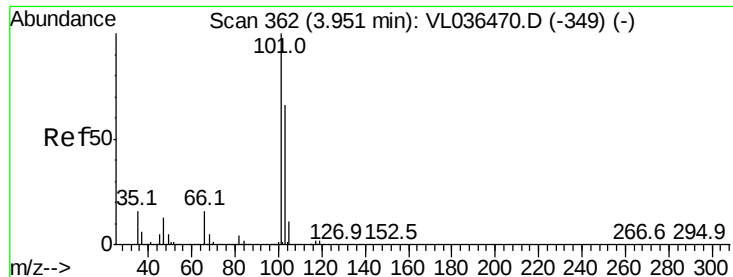


#4

Chloromethane
 Concen: 0.221 ppbv
 RT: 3.13 min Scan# 107
 Delta R.T. -0.01 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
50	100		
52	47.3	27.0	40.6





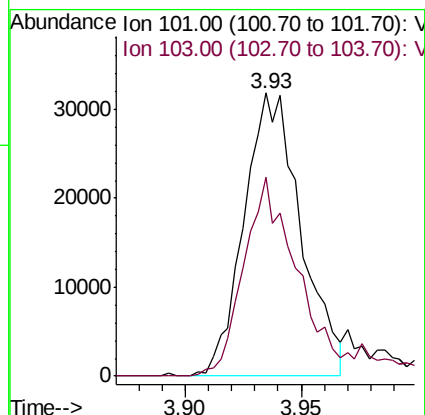
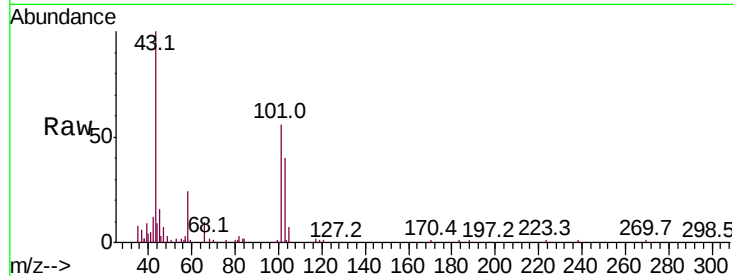
#11
Trichlorofluoromethane
Concen: 0.224 ppbv
RT: 3.93 min Scan# 357
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

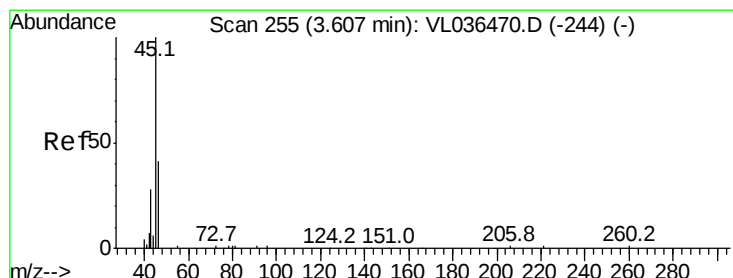
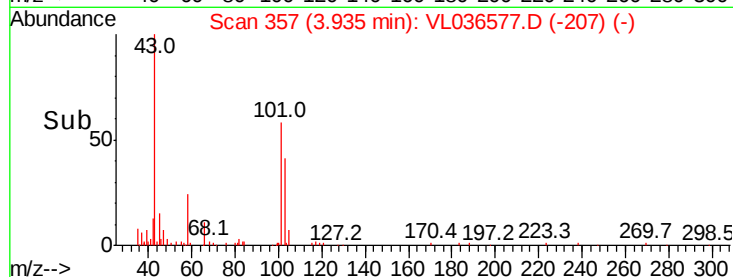
Tot Ion: 101 Resp: 54250
Ion Ratio Lower Upper
101 100
103 70.2 52.5 78.7

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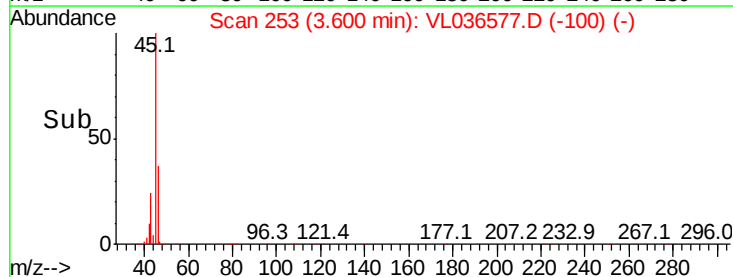
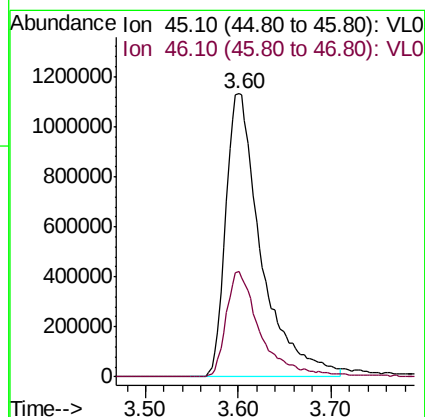
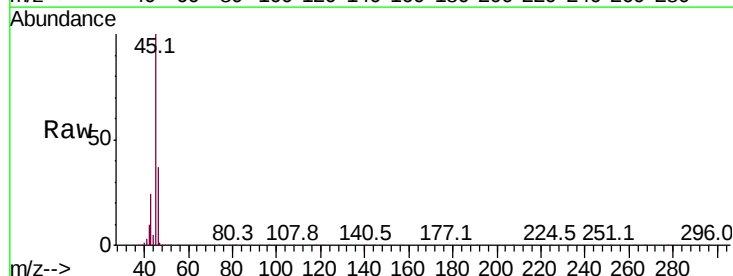


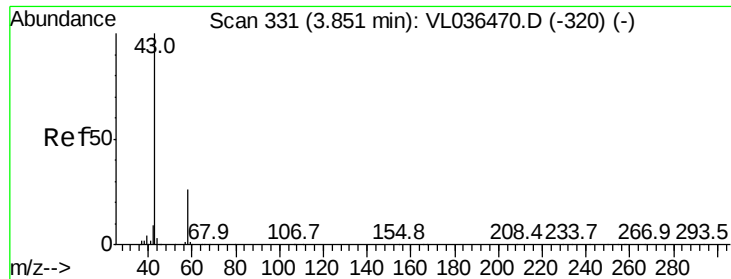
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#13
Ethanol
Concen: 290.630 ppbv
RT: 3.60 min Scan# 253
Delta R.T. -0.01 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion: 45 Resp: 3009726
Ion Ratio Lower Upper
45 100
46 36.8 16.6 66.2





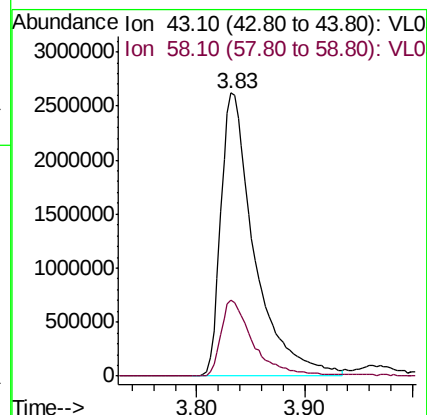
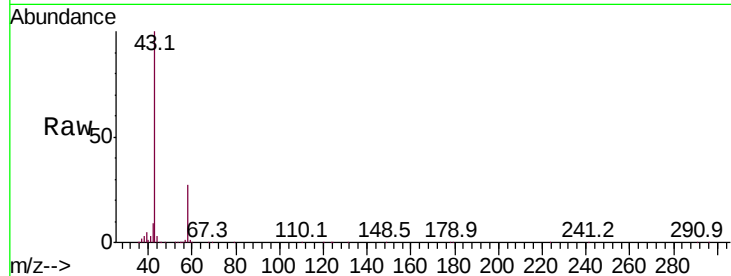
#15
Acetone
Concen: 39.544 ppbv
RT: 3.83 min Scan# 325
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

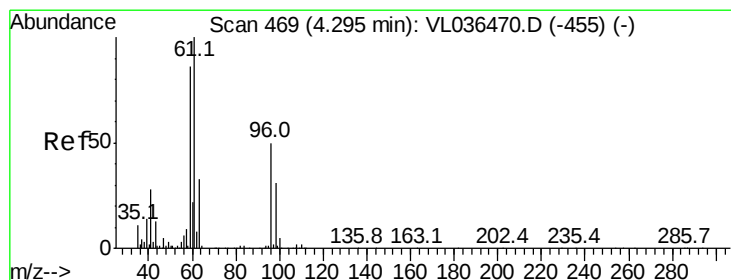
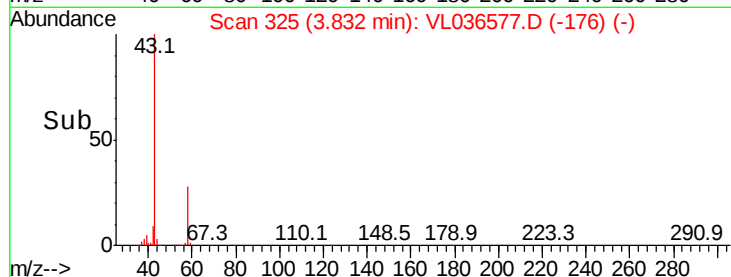
Tot Ion: 43 Resp: 5682572
Ion Ratio Lower Upper
43 100
58 26.1 21.2 31.8

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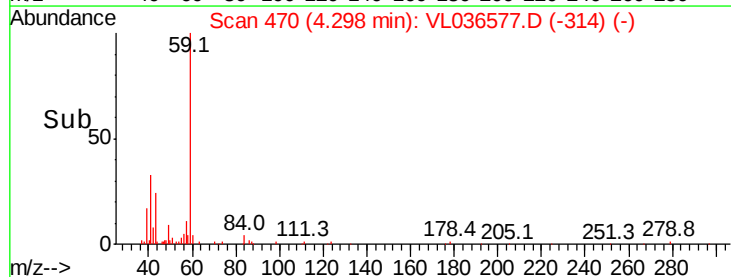
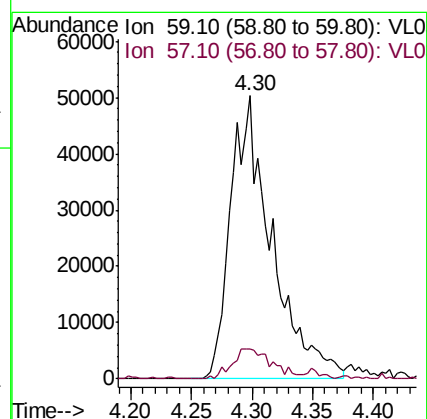
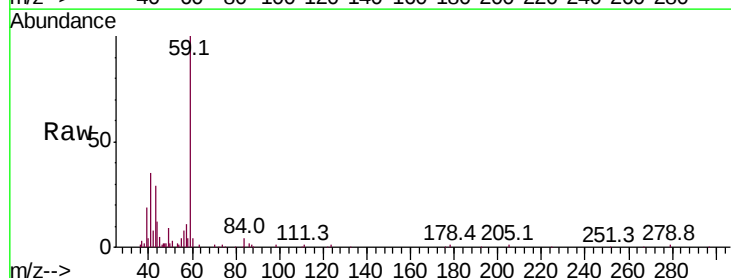


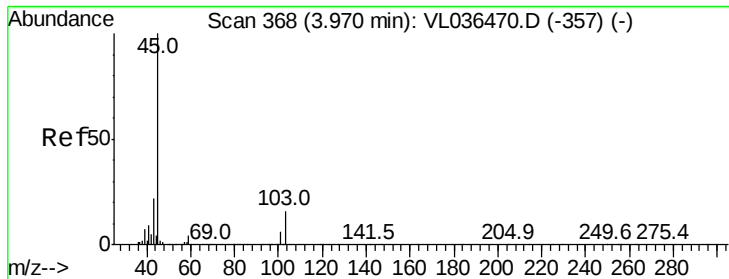
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#17
tert-Butyl alcohol
Concen: 0.937 ppbv m
RT: 4.30 min Scan# 470
Delta R.T. 0.00 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion: 59 Resp: 117225
Ion Ratio Lower Upper
59 100
57 0.0 8.6 12.8#





#19

Isopropyl Alcohol

Concen: 6.269 ppbv

RT: 3.97 min Scan# 367

Delta R.T. -0.00 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tot Ion	45	58	Ratio	100	300.0	Resp	495529	Lower	Upper

Instrument :

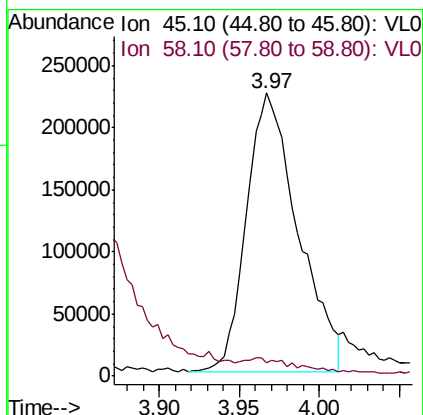
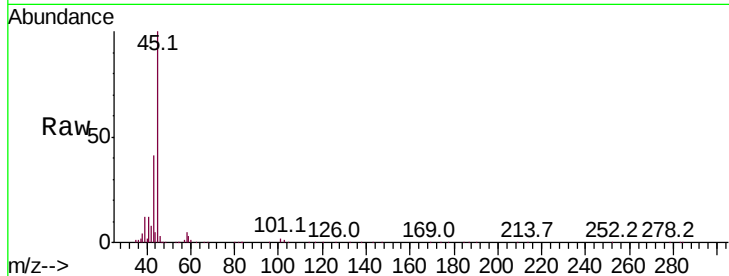
MSVOA_L

ClientSampleId :

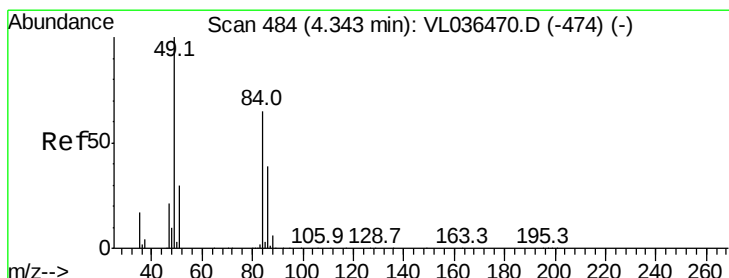
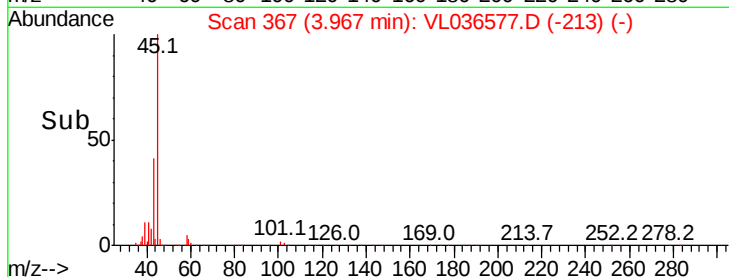
MF-SG-08(2021)

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#20

Methylene Chloride

Concen: 12.334 ppbv

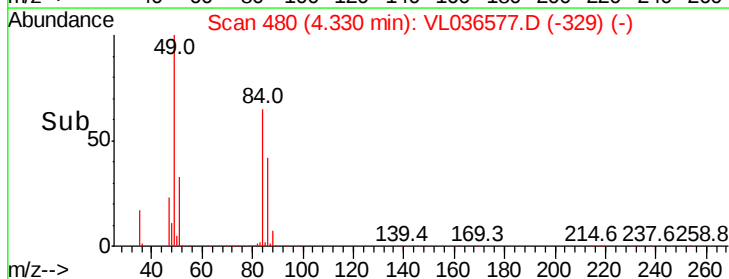
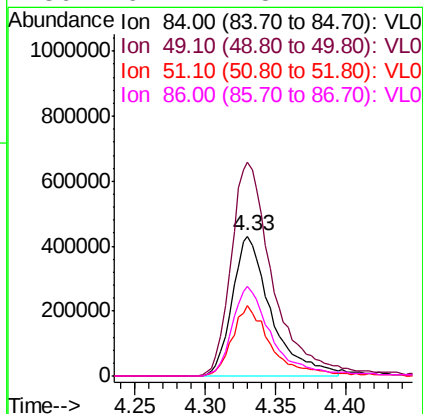
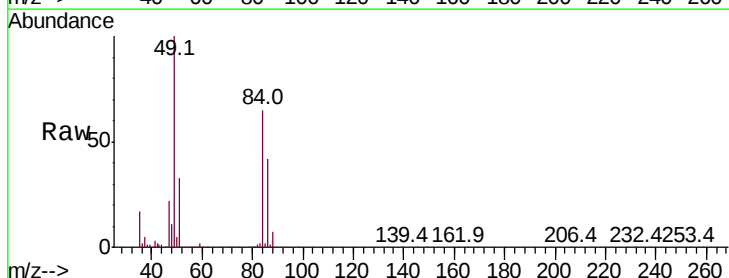
RT: 4.33 min Scan# 480

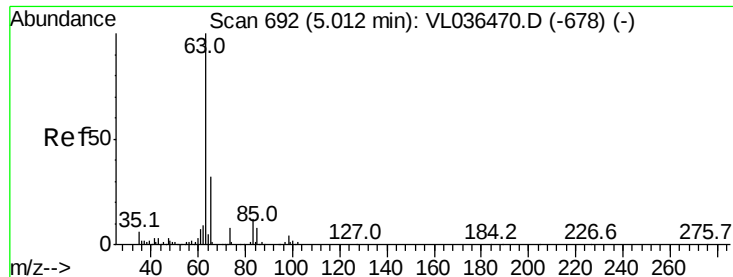
Delta R.T. -0.01 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tgt Ion	84	49	51	86	Ratio	100	152.9	50.6	64.1	Resp	829833	Lower	Upper





#24

1,1-Dichloroethane

Concen: 0.097 ppbv m

RT: 5.00 min Scan# 687

Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Instrument :

MSVOA_L

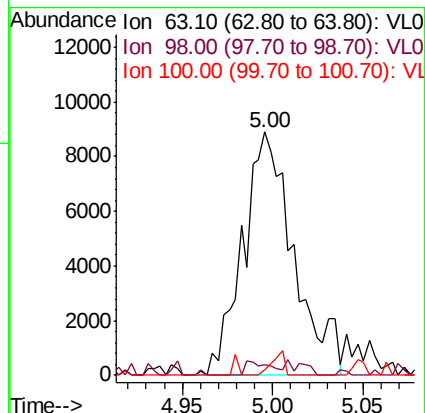
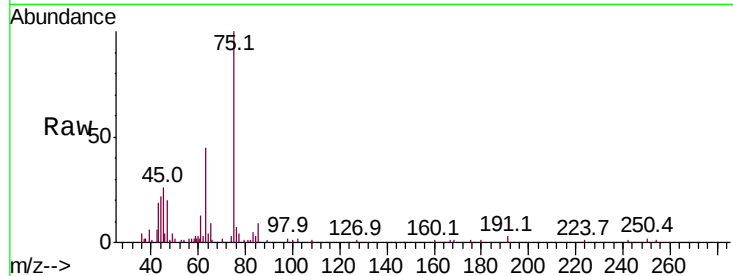
ClientSampleId :

MF-SG-08(2021)

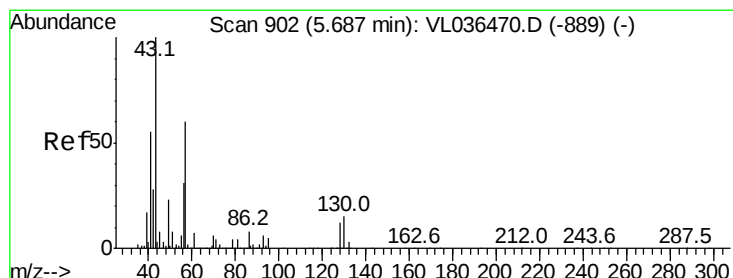
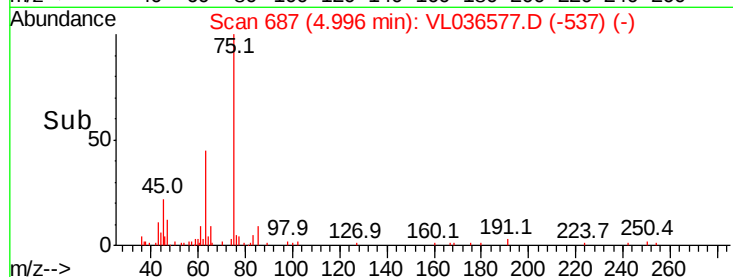
Tot Ion:	63	Resp:	17333
Ion Ratio	Lower	Upper	
63	100		
98	4.4	2.1	6.2
100	2.4	0.9	2.8

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#26

Hexane

Concen: 9.065 ppbv

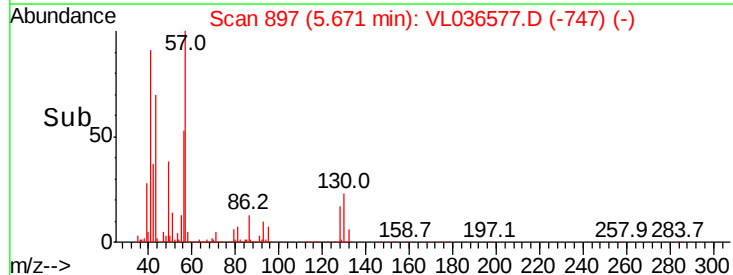
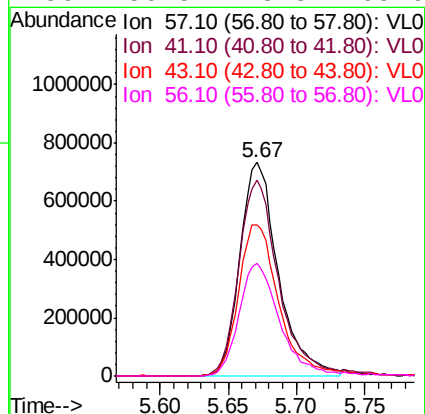
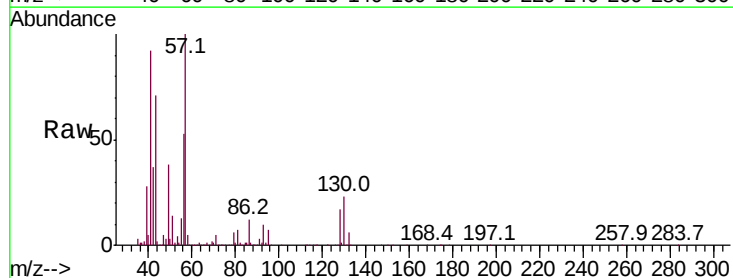
RT: 5.67 min Scan# 897

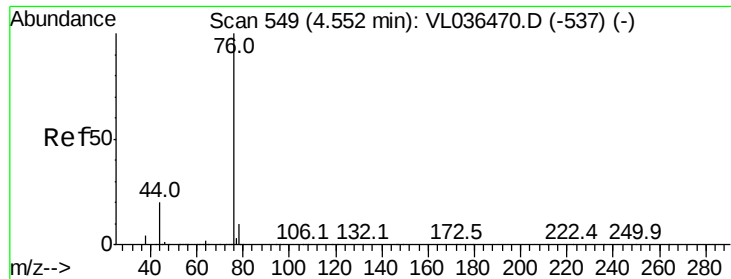
Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tgt Ion:	57	Resp:	1437256
Ion Ratio	Lower	Upper	
57	100		
41	97.3	77.2	115.8
43	76.2	173.8	260.6#
56	56.5	43.8	65.6





#27

Carbon Disulfide

Concen: 0.096 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.01 min

Lab File: VL036577.D

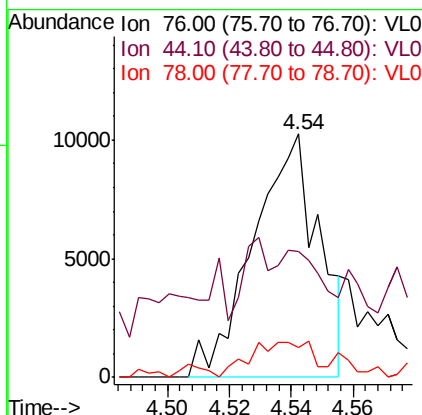
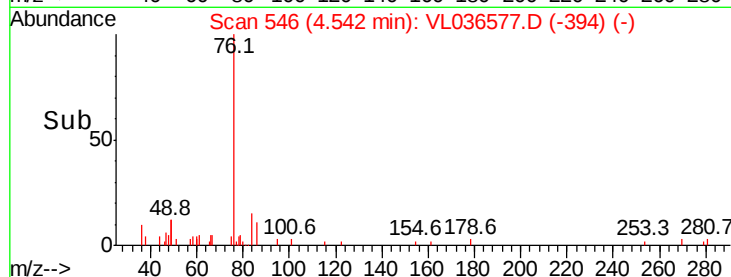
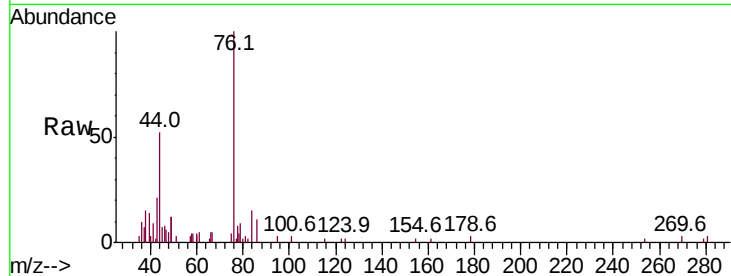
Acq: 30 Mar 2021 19:55

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MF-SG-08(2021)

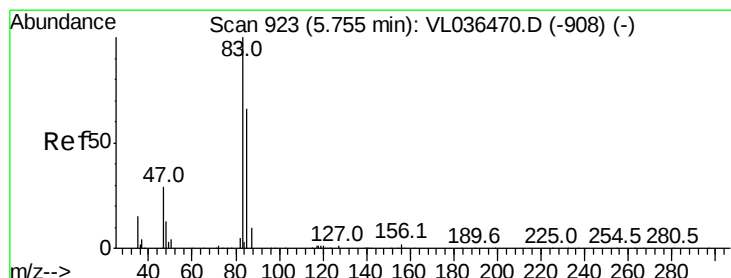
Tot Ion	Ratio	Lower	Upper
76	100		
44	24.4	17.5	26.3
78	22.4	8.6	13.0

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#29

Chloroform

Concen: 1.086 ppbv

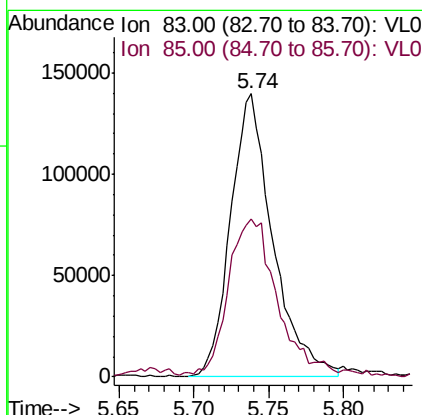
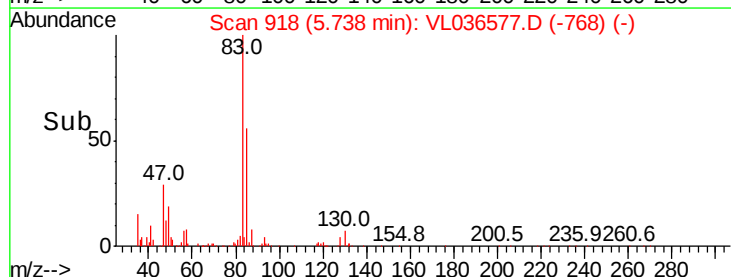
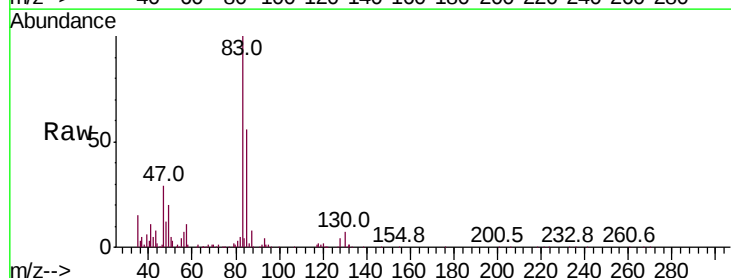
RT: 5.74 min Scan# 918

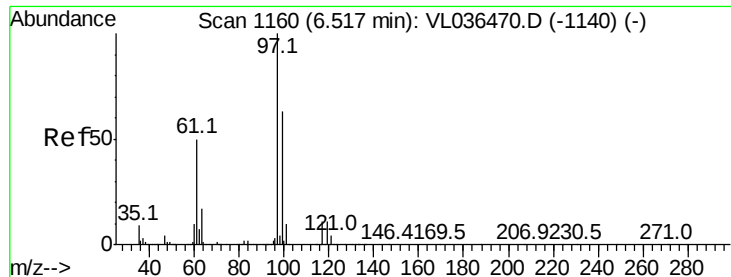
Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
83	100		
85	54.5	52.6	78.8





#32

1,1,1-Trichloroethane

Concen: 0.315 ppbv m

RT: 6.50 min Scan# 1154

Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Instrument :

MSVOA_L

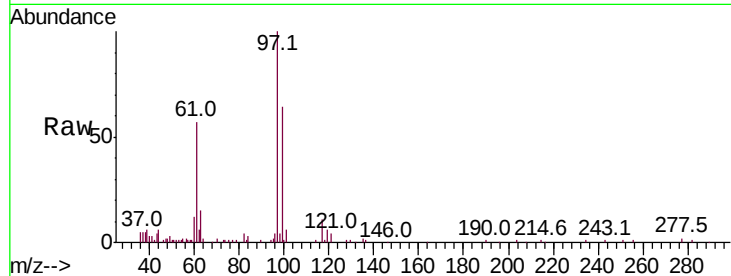
ClientSampleId :

MF-SG-08(2021)

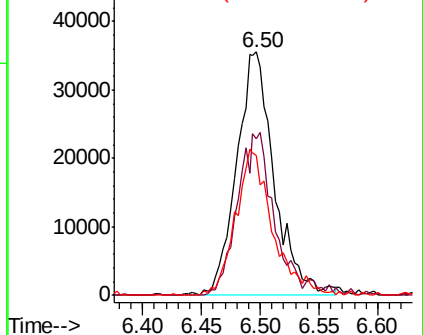
Tot Ion:	97	Resp:	80400
Ion Ratio	Lower	Upper	
97	100		
99	67.0	51.4	77.0
61	59.2	40.6	60.8

Manual Integrations
APPROVED

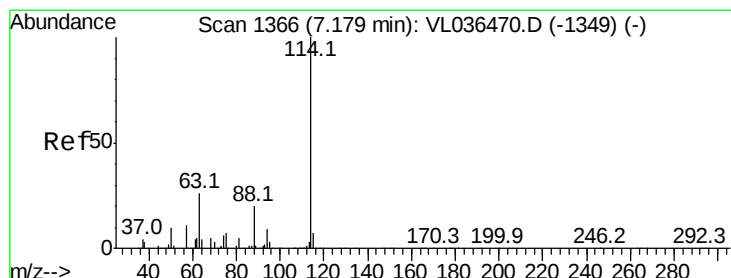
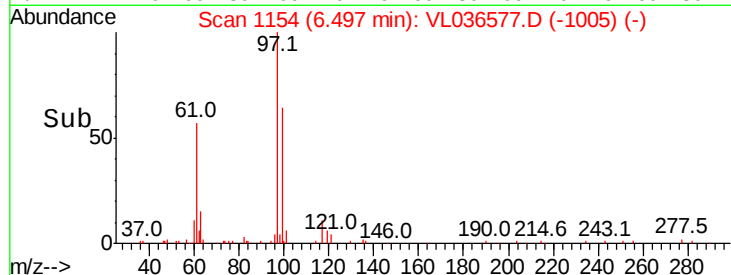
MMDadoda



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

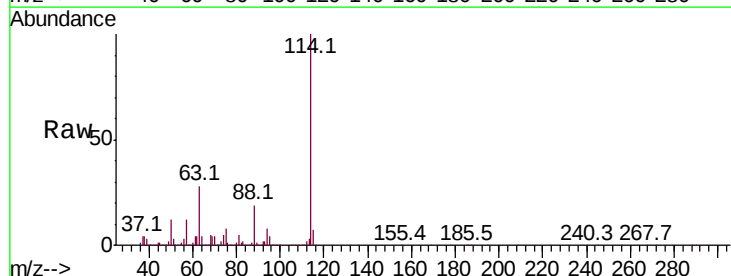
RT: 7.16 min Scan# 1359

Delta R.T. -0.02 min

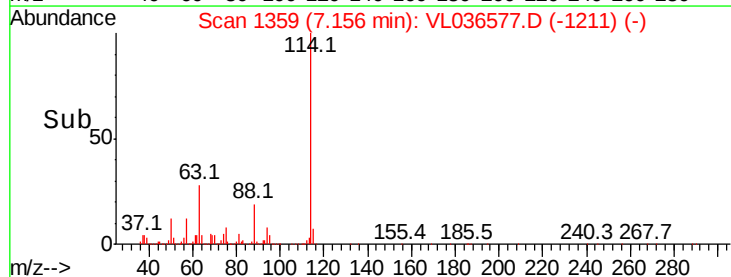
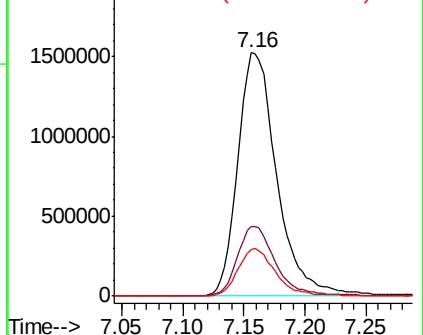
Lab File: VL036577.D

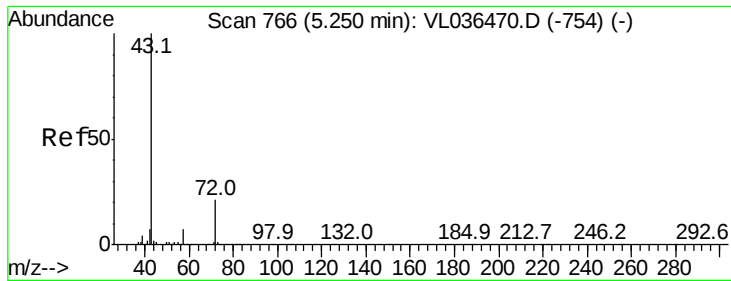
Acq: 30 Mar 2021 19:55

Tgt Ion:	114	Resp:	3341577
Ion Ratio	Lower	Upper	
114	100		
63	28.8	22.4	33.6
88	19.2	15.4	23.0



Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





#34
2-Butanone
Concen: 1.726 ppbv
RT: 5.23 min Scan# 760
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

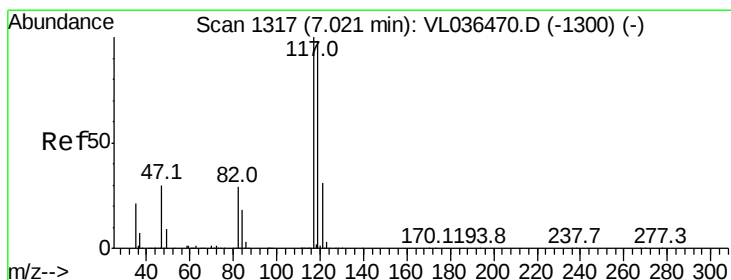
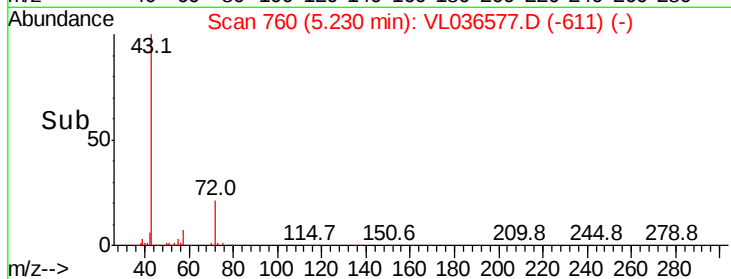
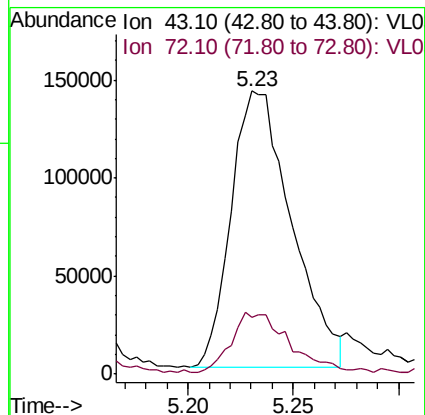
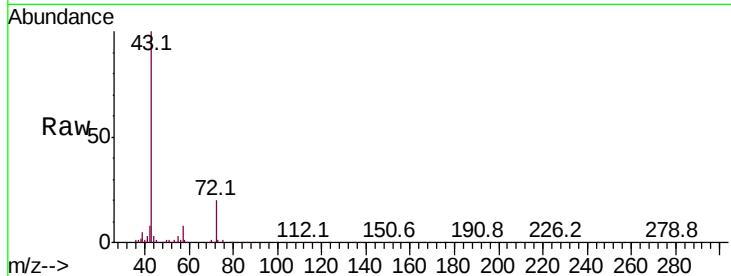
Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

Tot Ion: 43 Resp: 281503
Ion Ratio Lower Upper
43 100
72 24.0 17.0 25.6

Manual Integrations
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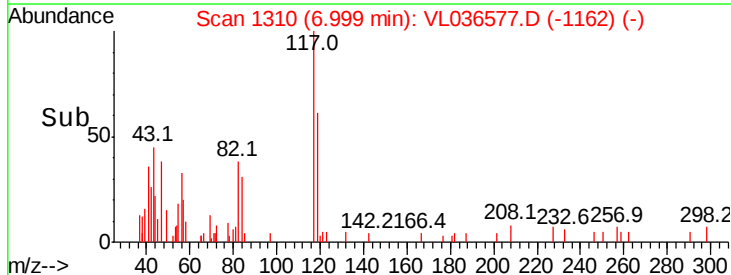
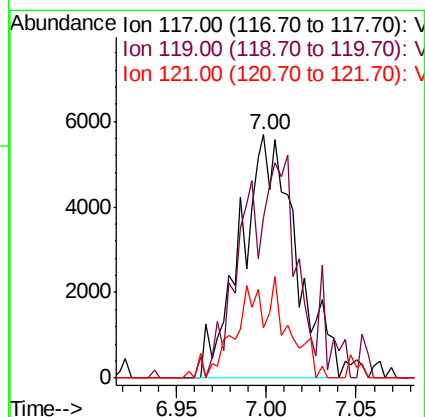
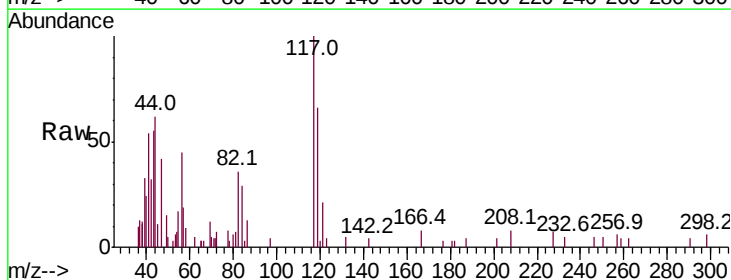
MMDadoda

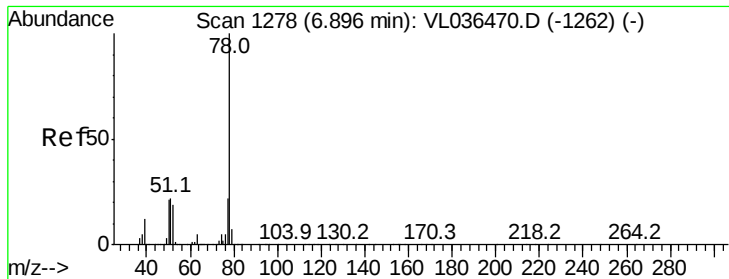
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#35
Carbon Tetrachloride
Concen: 0.047 ppbv m
RT: 7.00 min Scan# 1310
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion: 117 Resp: 12139
Ion Ratio Lower Upper
117 100
119 65.8 78.2 117.2#
121 20.9 24.5 36.7#





#36

Benzene

Concen: 0.124 ppbv

RT: 6.87 min Scan# 1271

Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Instrument :

MSVOA_L

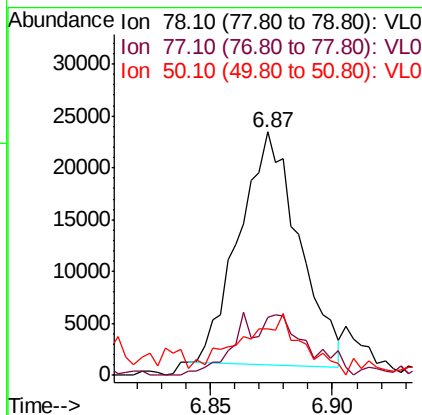
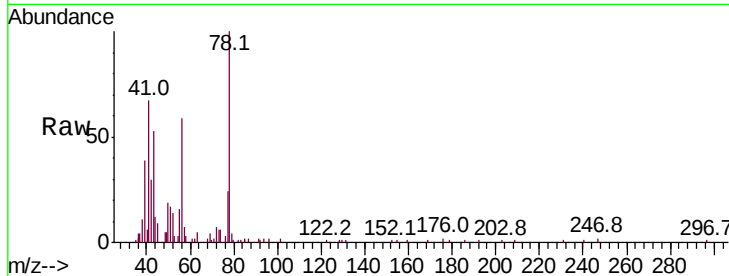
ClientSampleId :

MF-SG-08(2021)

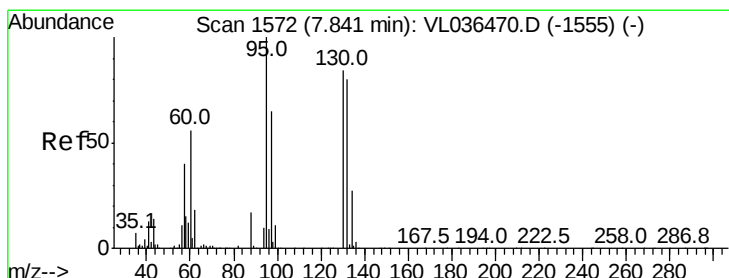
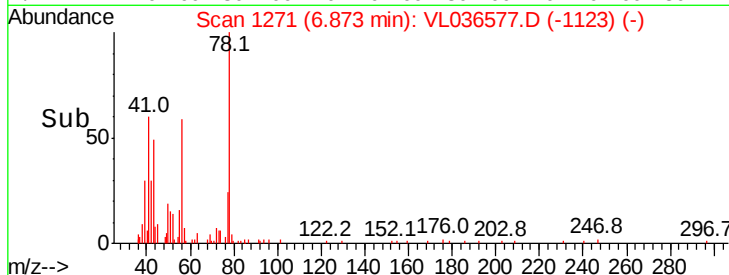
Tot Ion:	78	Resp:	38239
Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.0	27.0
50	17.3	16.5	24.7

Manual Integrations
APPROVED

MMDadoda



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#38

Trichloroethene

Concen: 0.109 ppbv m

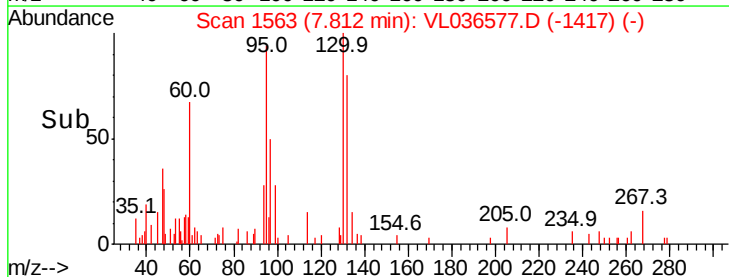
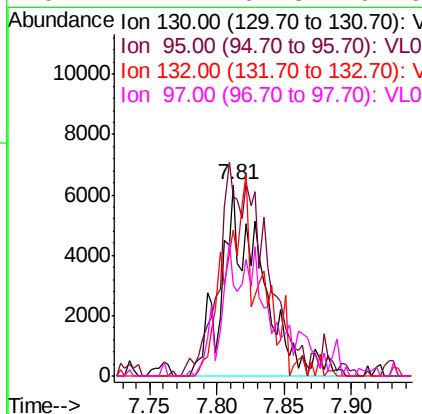
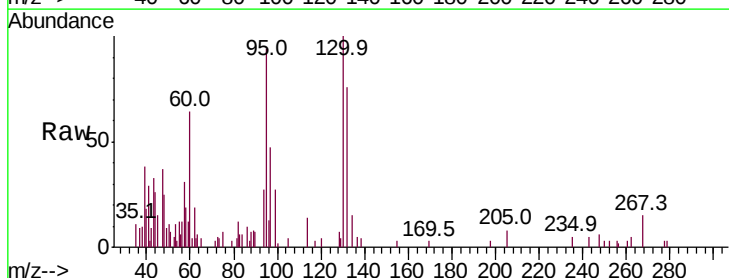
RT: 7.81 min Scan# 1563

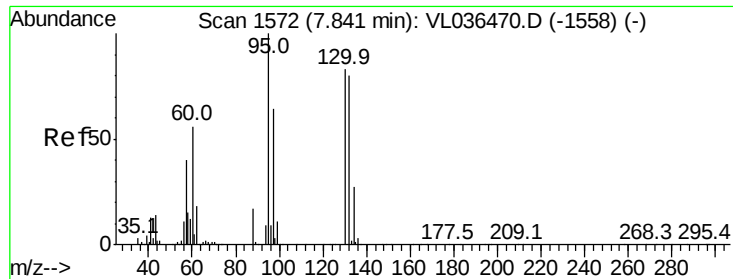
Delta R.T. -0.03 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tgt Ion:	130	Resp:	13074
Ion	Ratio	Lower	Upper
130	100		
95	93.6	95.7	143.5#
132	76.0	76.2	114.4#
97	47.4	61.8	92.6#





#40
 1,4-Dioxane
 Concen: 0.300 ppbv m
 RT: 7.84 min Scan# 1572
 Delta R.T. -0.00 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

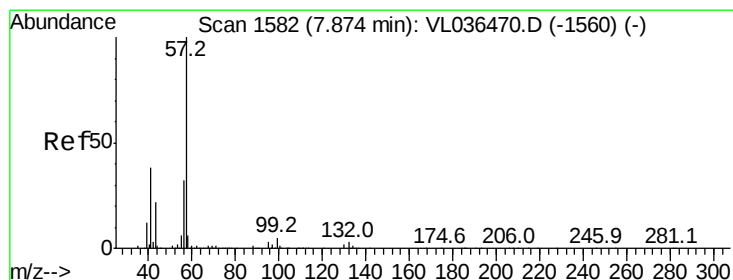
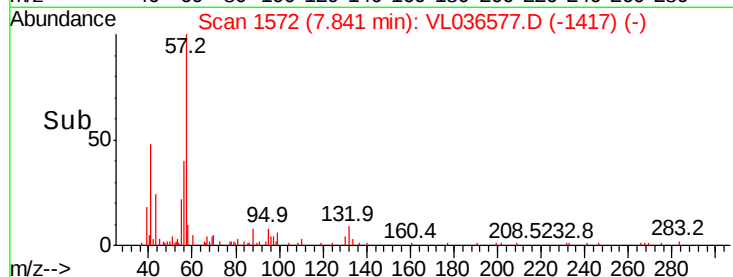
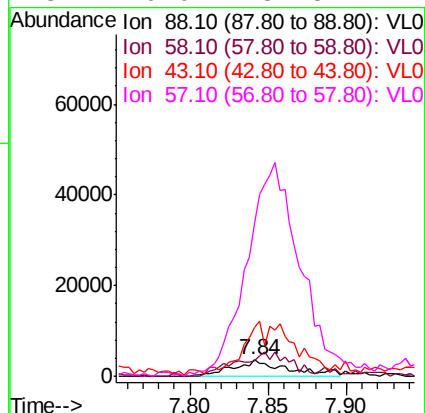
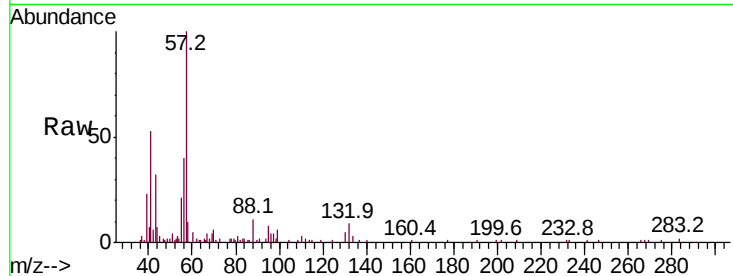
Instrument :
 MSVOA_L
 ClientSampleId :
 MF-SG-08(2021)

Tot Ion	Ratio	Lower	Upper
88	100		
58	0.0	134.1	201.1#
43	0.0	346.6	520.0#
57	0.0	1481.8	2222.8#

Manual Integrations
 APPROVED

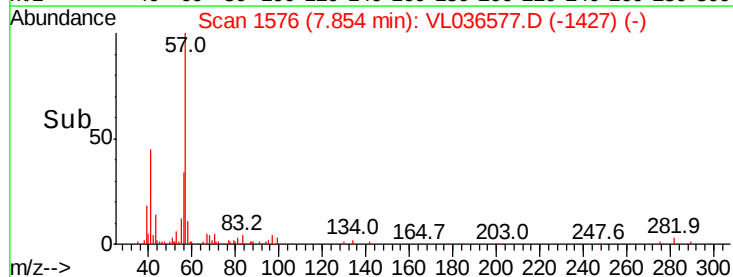
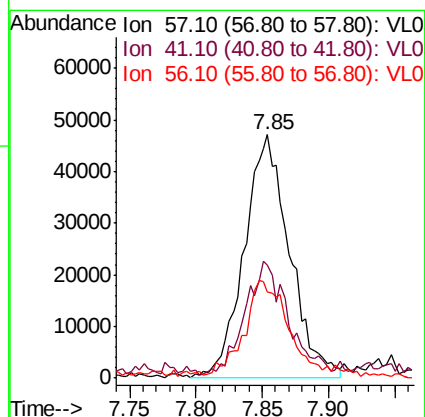
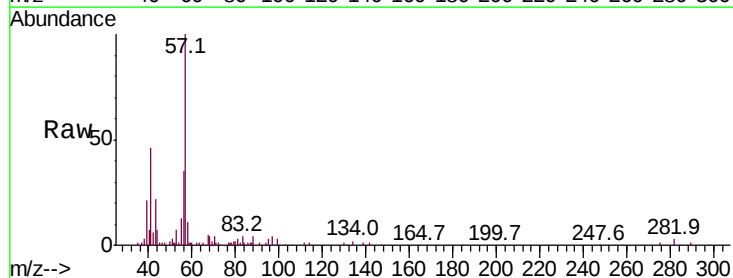
MMDadoda

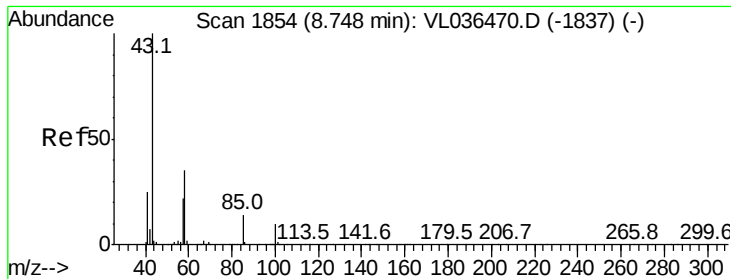
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#44
 2,2,4-Trimethylpentane
 Concen: 0.207 ppbv
 RT: 7.85 min Scan# 1576
 Delta R.T. -0.02 min
 Lab File: VL036577.D
 Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
57	100		
41	46.0	28.8	43.2#
56	42.7	26.1	39.1#





#50
4-Methyl-2-Pentanone
Concen: 0.250 ppbv m
RT: 8.73 min Scan# 1850
Delta R.T. -0.01 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

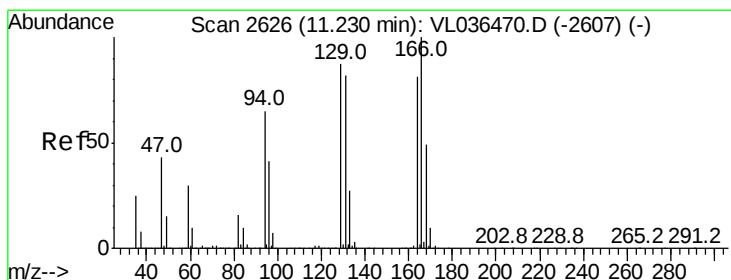
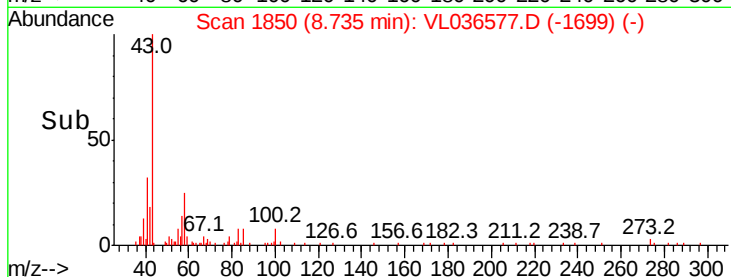
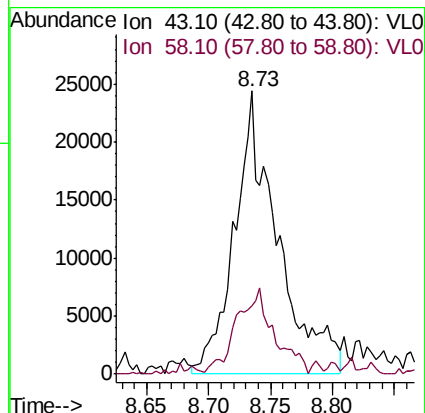
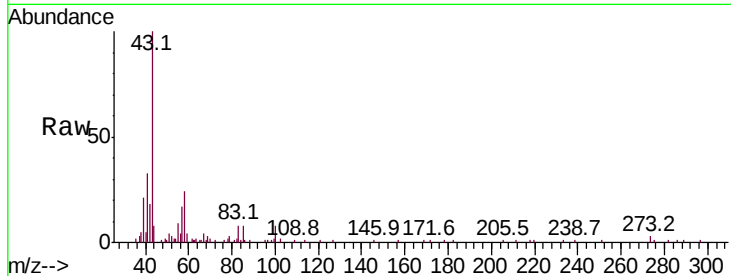
Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

Tot Ion: 43 Resp: 58911
Ion Ratio Lower Upper
43 100
58 0.0 28.2 42.2#

Manual Integrations
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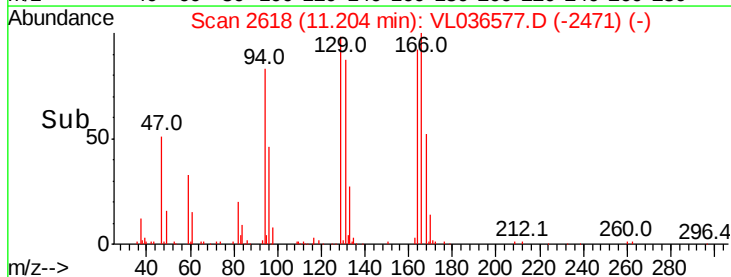
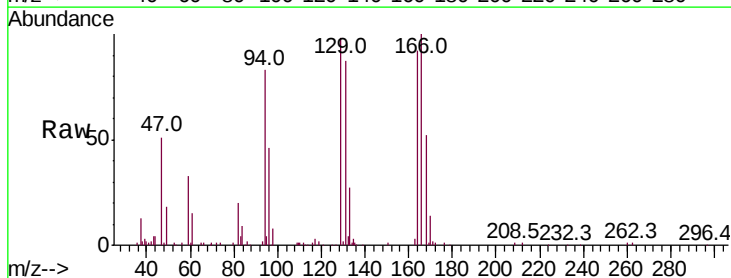
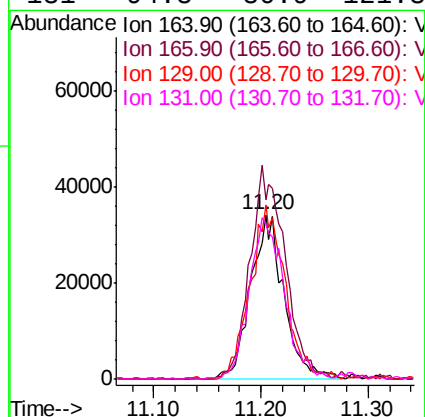
MMDadoda

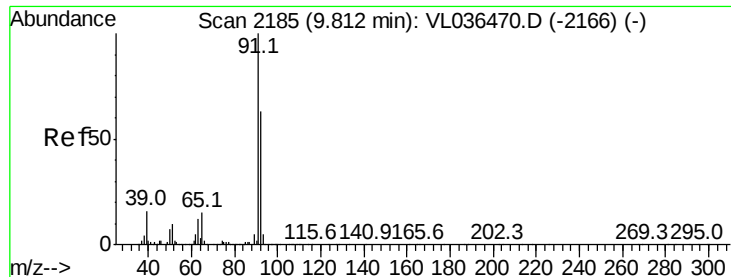
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#52
Tetrachloroethene
Concen: 0.645 ppbv m
RT: 11.20 min Scan# 2618
Delta R.T. -0.03 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion: 164 Resp: 73248
Ion Ratio Lower Upper
164 100
166 109.0 98.3 147.5
129 106.5 85.8 128.8
131 94.8 80.9 121.3





#53

Toluene

Concen: 0.676 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Tot Ion: 91 Resp: 221785

Ion Ratio Lower Upper

91 100

92 60.1 48.8 73.2

Instrument :

MSVOA_L

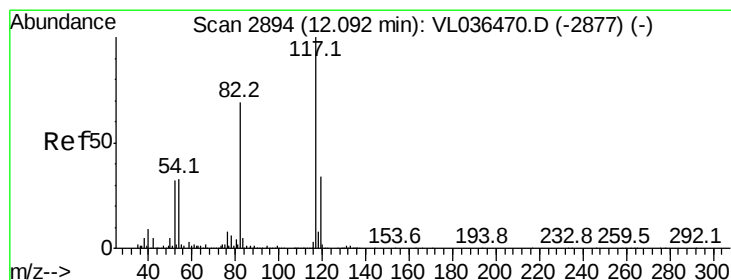
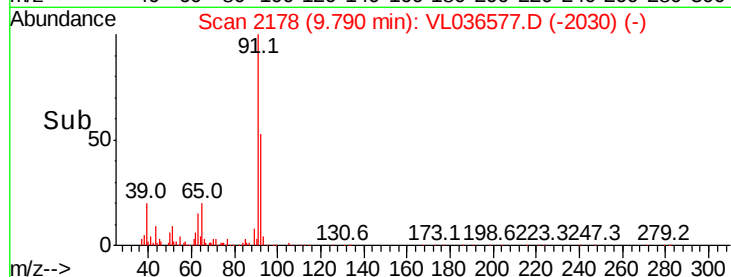
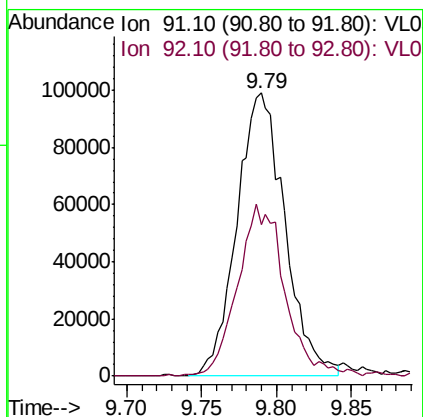
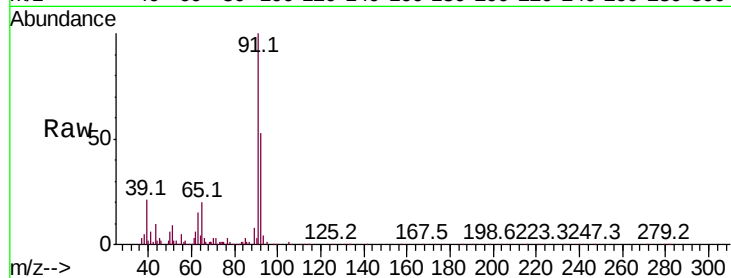
ClientSampled :

MF-SG-08(2021)

Manual Integrations
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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. -0.03 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

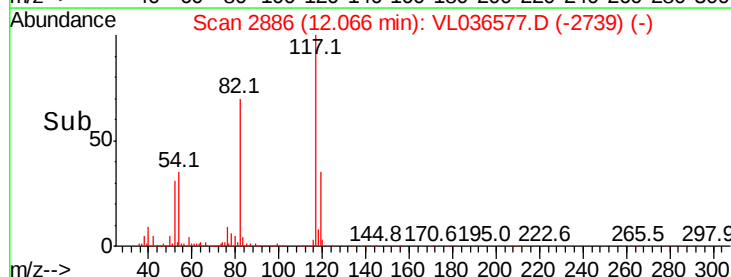
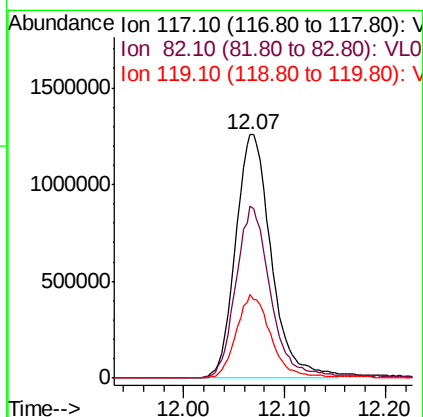
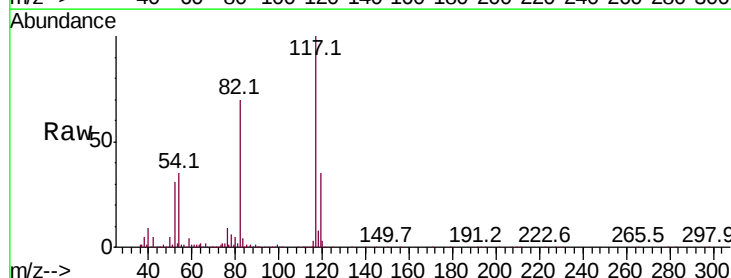
Tgt Ion: 117 Resp: 3087416

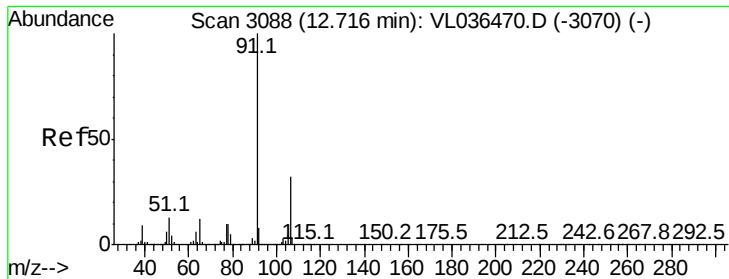
Ion Ratio Lower Upper

117 100

82 68.6 57.4 86.0

119 33.8 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.162 ppbv m

RT: 12.69 min Scan# 3081

Delta R.T. -0.02 min

Lab File: VL036577.D

Acq: 30 Mar 2021 19:55

Instrument :

MSVOA_L

ClientSampleId :

MF-SG-08(2021)

Tot Ion: 91 Resp: 72785

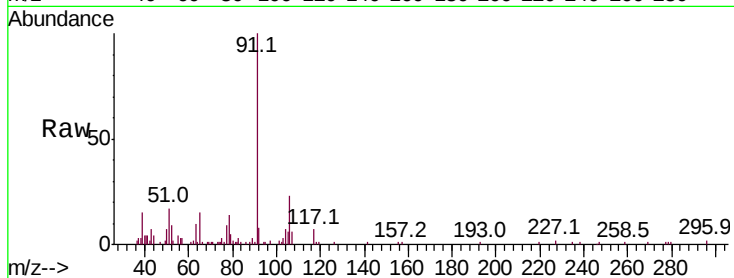
Ion Ratio Lower Upper

91 100

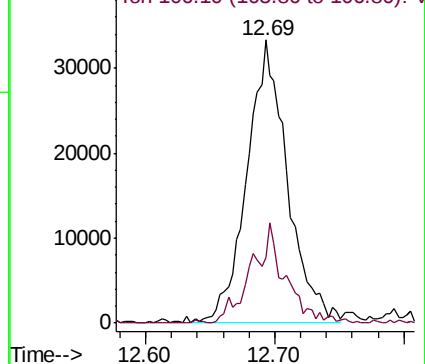
106 23.2 25.3 37.9#

Manual Integrations
APPROVED

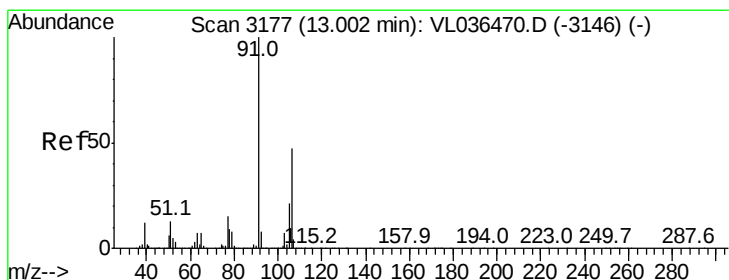
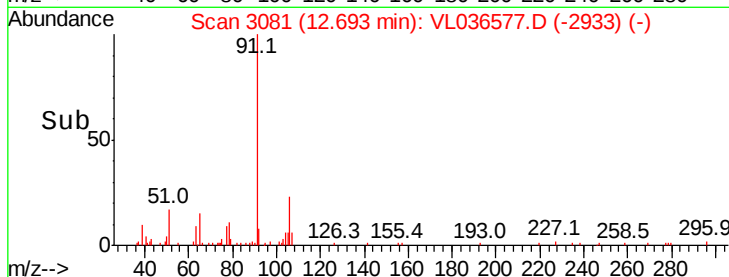
MMDadoda



Abundance Ion 91.10 (90.80 to 91.80): VL036577.D (-2933) (-)



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#59

m/p-Xylene

Concen: 0.325 ppbv m

RT: 12.95 min Scan# 3161

Delta R.T. -0.05 min

Lab File: VL036577.D

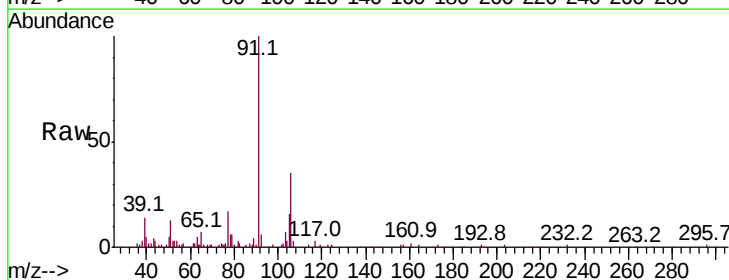
Acq: 30 Mar 2021 19:55

Tgt Ion: 91 Resp: 127489

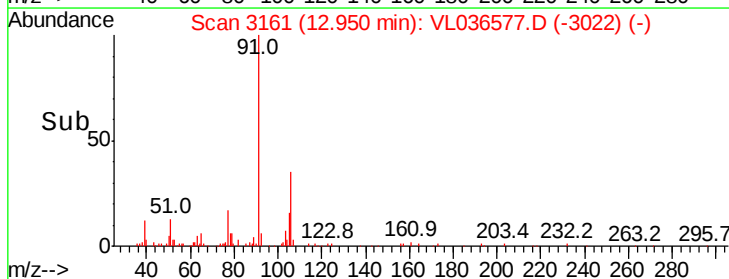
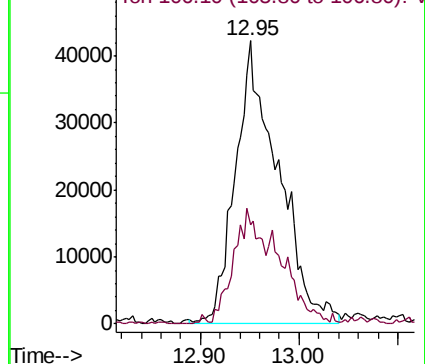
Ion Ratio Lower Upper

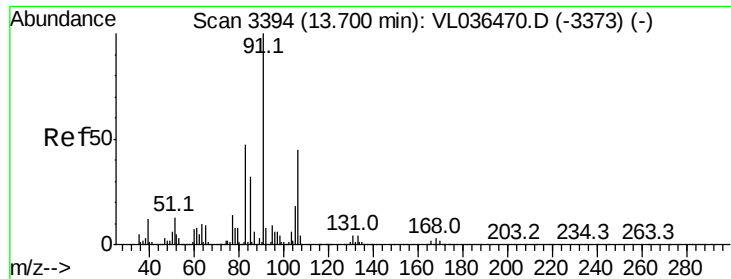
91 100

106 0.0 35.3 52.9#



Abundance Ion 91.10 (90.80 to 91.80): VL036577.D (-3022) (-)





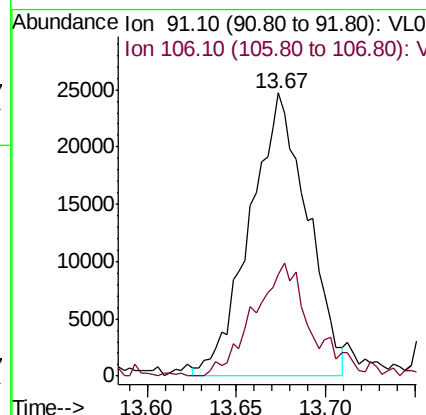
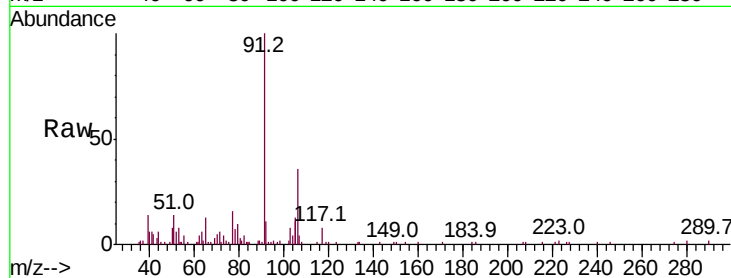
#60
o-Xylene
Concen: 0.146 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. -0.03 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

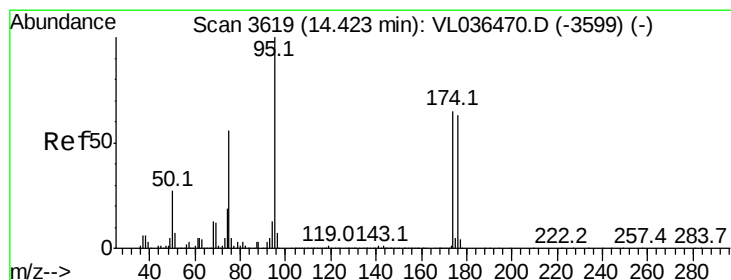
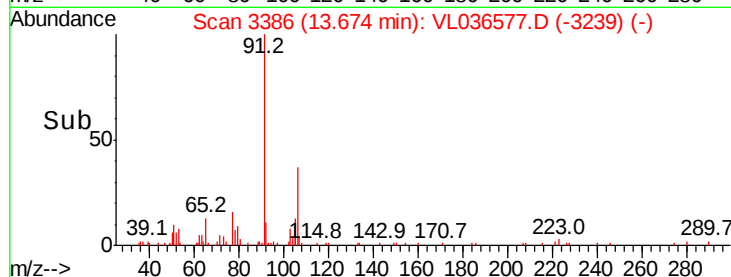
Tot Ion	Ratio	Lower	Upper
91	100		
106	41.0	22.3	66.9

Manual Integrations
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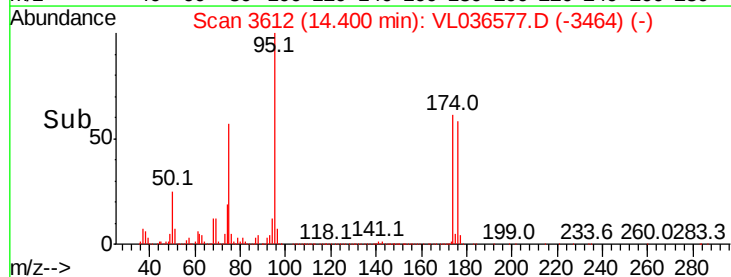
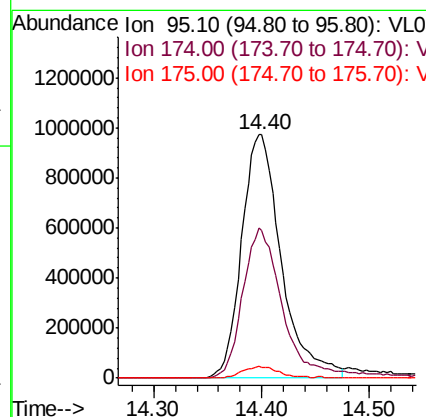
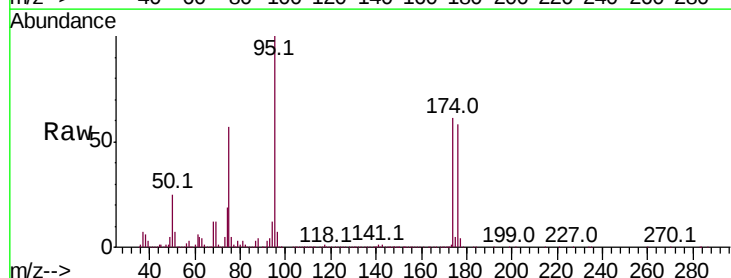


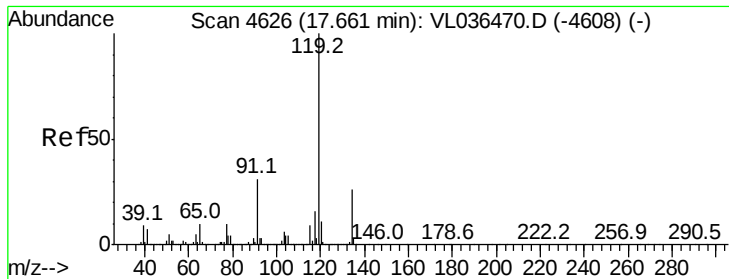
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#68
1-Bromo-4-Fluorobenzene
Concen: 10.124 ppbv
RT: 14.40 min Scan# 3612
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
95	100		
174	64.3	51.0	76.6
175	4.8	3.9	5.9





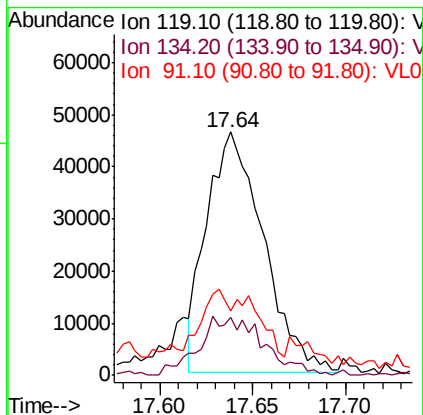
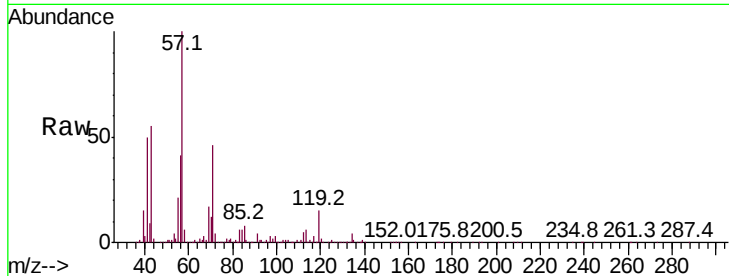
#69
p-Isopropyltoluene
Concen: 0.202 ppbv
RT: 17.64 min Scan# 4619
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Instrument :
MSVOA_L
ClientSampleId :
MF-SG-08(2021)

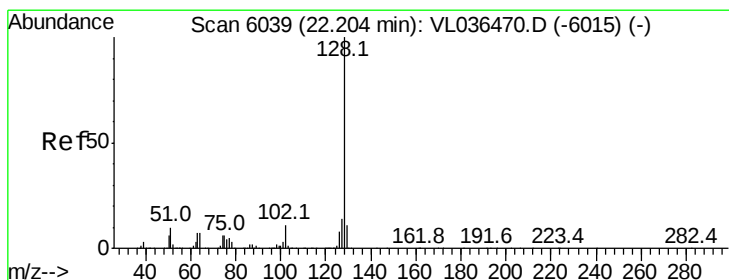
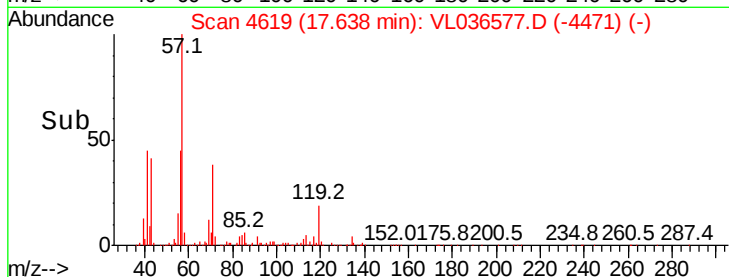
Tot Ion	Ratio	Lower	Upper
119	100		
134	28.5	20.6	30.8
91	48.8	25.0	37.6

Manual Integrations
APPROVED

MM Dadoda



4/1/2021 10:58:49 AM



#79
Naphthalene
Concen: 0.414 ppbv m
RT: 22.19 min Scan# 6034
Delta R.T. -0.02 min
Lab File: VL036577.D
Acq: 30 Mar 2021 19:55

Tgt Ion	Ratio	Lower	Upper
128	100		
127	11.0	10.9	16.3
129	6.8	9.0	13.4

