

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060821\
 Data File : VL037132.D
 Acq On : 8 Jun 2021 15:00
 Operator : SY/AP
 Sample : M2614-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SR-3C

Manual Integrations
 APPROVED

MMDadoda
 6/9/2021 4:23:30 PM

Quant Time: Jun 09 01:48:04 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1394463	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.18	114	4018085	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.08	117	3627477	10.00	ppbv	0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2745174	10.07	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	46801	0.198	ppbv #	80
3) Chlorodifluoromethane	2.99	51	743493	2.910	ppbv	95
4) Chloromethane	3.14	50	49357	0.568	ppbv	91
9) Propene	3.02	41	184372	2.015	ppbv #	82
10) Heptane	8.12	43	34866m	0.153	ppbv	
11) Trichlorofluoromethane	3.96	101	56088m	0.256	ppbv	
13) Ethanol	3.62	45	12910451	1057.756	ppbv	98
15) Acetone	3.85	43	1710075	11.973	ppbv	93
17) tert-Butyl alcohol	4.31	59	39417m	0.301	ppbv	
19) Isopropyl Alcohol	3.99	45	3053014	39.764	ppbv #	34
20) Methylene Chloride	4.35	84	200519	2.619	ppbv	94
26) Hexane	5.69	57	313315	1.787	ppbv #	72
29) Chloroform	5.75	83	46832m	0.189	ppbv	
34) 2-Butanone	5.25	43	156981	1.073	ppbv	94
35) Carbon Tetrachloride	7.02	117	17470m	0.065	ppbv	
36) Benzene	6.89	78	1322747	3.822	ppbv	99
44) 2,2,4-Trimethylpentane	7.87	57	66656m	0.112	ppbv	
50) 4-Methyl-2-Pentanone	8.75	43	56331m	0.233	ppbv	
52) Tetrachloroethene	11.23	164	5124m	0.037	ppbv	
53) Toluene	9.81	91	731244	1.776	ppbv	98
58) Ethyl Benzene	12.70	91	49565m	0.097	ppbv	
59) m/p-Xylene	12.97	91	103906m	0.246	ppbv	
60) o-Xylene	13.69	91	43678	0.108	ppbv	97
61) Styrene	13.53	104	37219m	0.164	ppbv	
74) 1,2,4-Trimethylbenzene	16.77	105	50768m	0.109	ppbv	
79) Naphthalene	22.21	128	65791m	0.180	ppbv	

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

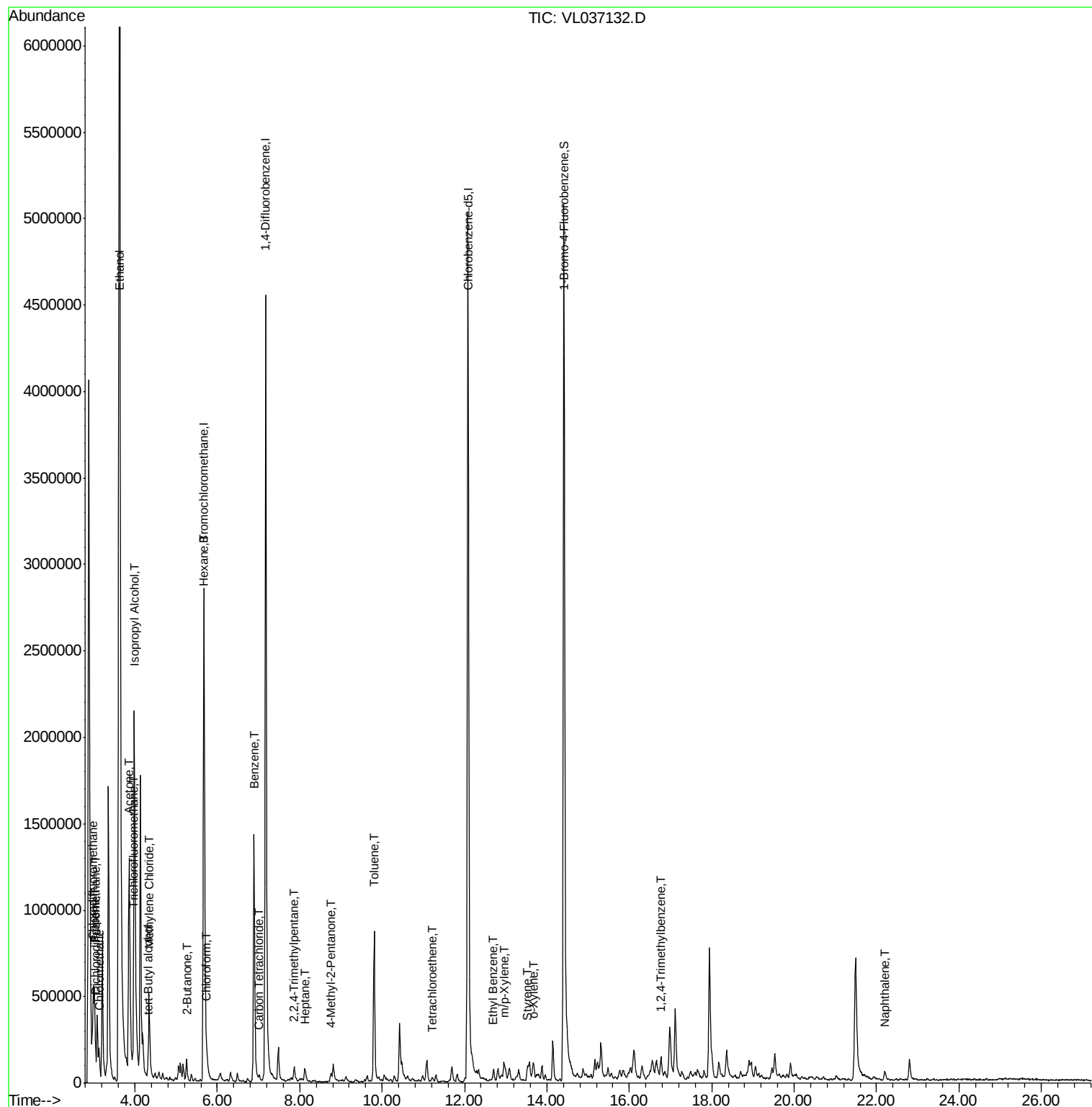
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060821\
Data File : VL037132.D
Acq On : 8 Jun 2021 15:00
Operator : SY/AP
Sample : M2614-02
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

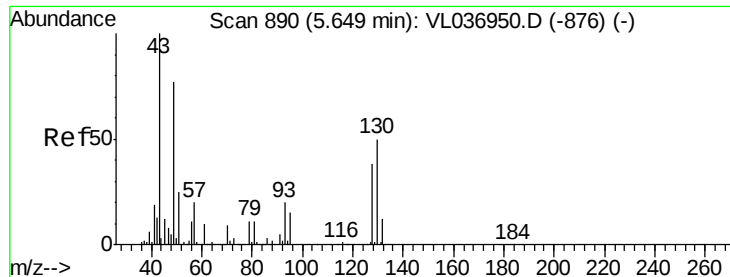
Instrument :
MSVOA_L
ClientSampleId :
SR-3C

Manual Integrations
APPROVED

MMDadoda
6/9/2021 4:23:30 PM

Quant Time: Jun 09 01:48:04 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May
QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.02 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

ClientSampleId :

SR-3C

Tot Ion: 49 Resp: 1394463

Ion Ratio Lower Upper

49 100

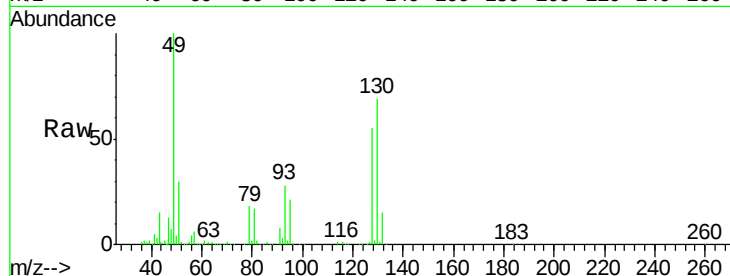
128 55.4 26.9 80.7

130 71.6 33.8 101.4

Manual Integrations
APPROVED

MMDadoda

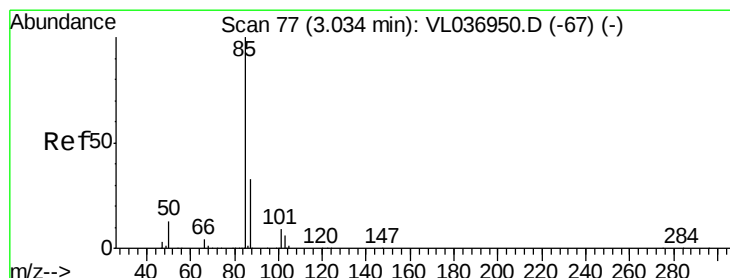
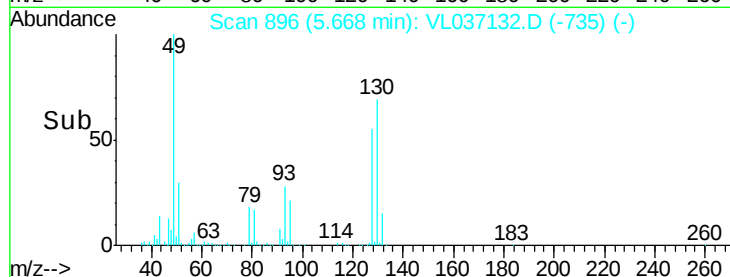
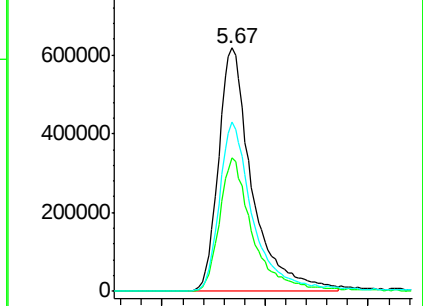
6/9/2021 4:23:30 PM



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: 0.198 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.01 min

Lab File: VL037132.D

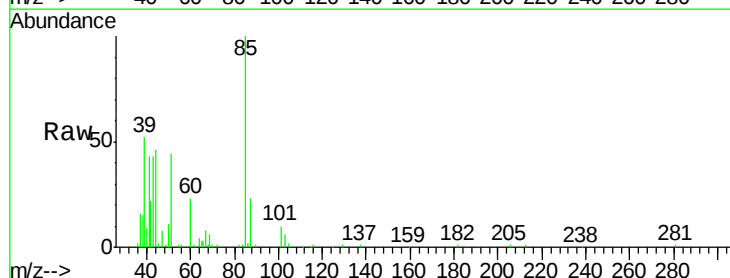
Acq: 8 Jun 2021 15:00

Tgt Ion: 85 Resp: 46801

Ion Ratio Lower Upper

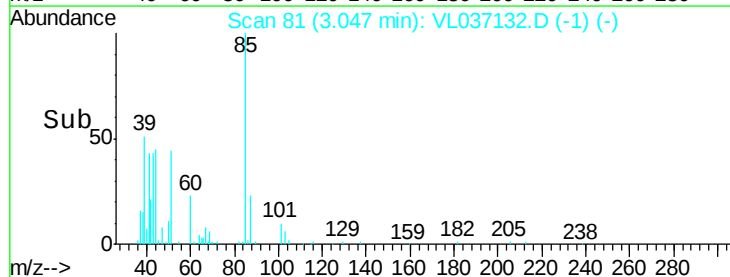
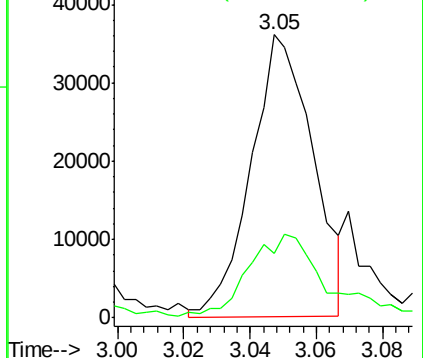
85 100

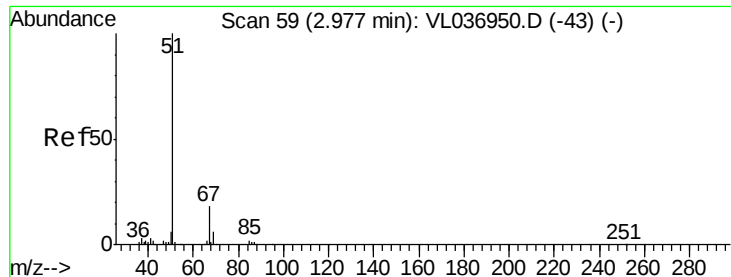
87 21.8 26.6 39.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.910 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

ClientSampleId :

SR-3C

Tot Ion: 51 Resp: 743493

Ion Ratio Lower Upper

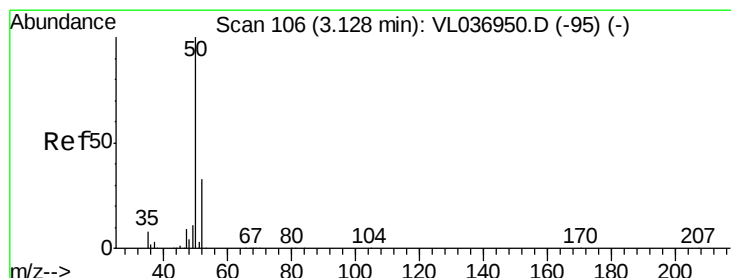
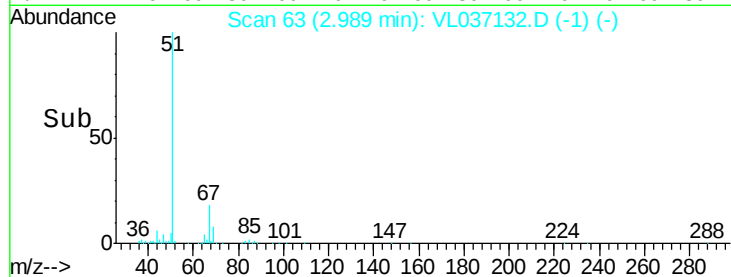
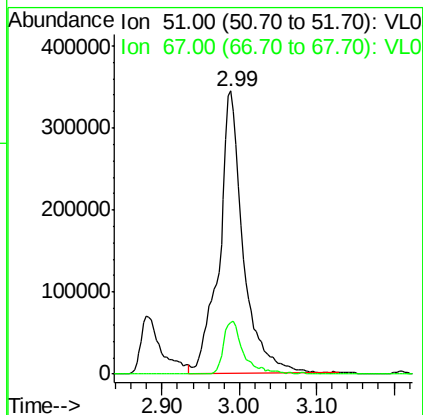
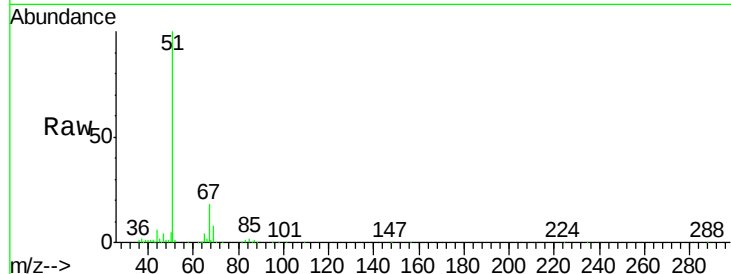
51 100

67 15.9 14.6 21.8

Manual Integrations
APPROVED

MMDadoda

6/9/2021 4:23:30 PM



#4

Chloromethane

Concen: 0.568 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.02 min

Lab File: VL037132.D

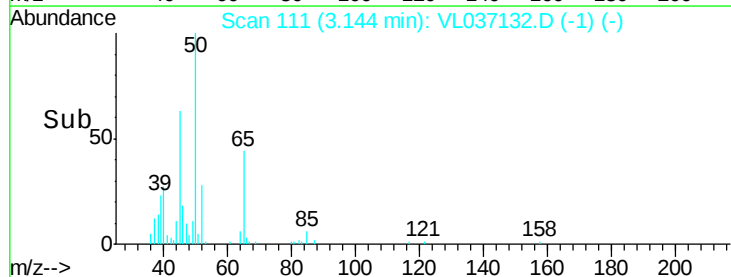
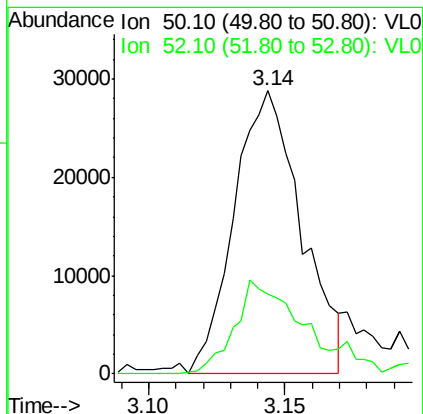
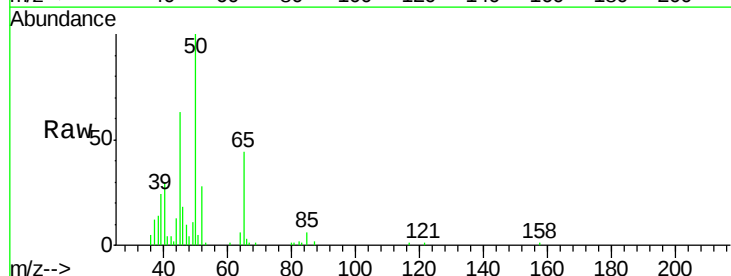
Acq: 8 Jun 2021 15:00

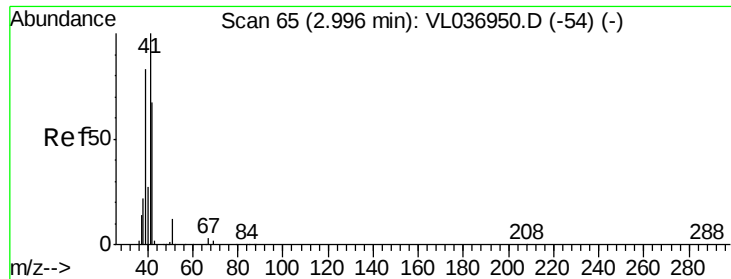
Tgt Ion: 50 Resp: 49357

Ion Ratio Lower Upper

50 100

52 27.4 26.1 39.1





#9

Propene

Concen: 2.015 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.02 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

ClientSampleId :

SR-3C

Tot Ion: 41 Resp: 184372

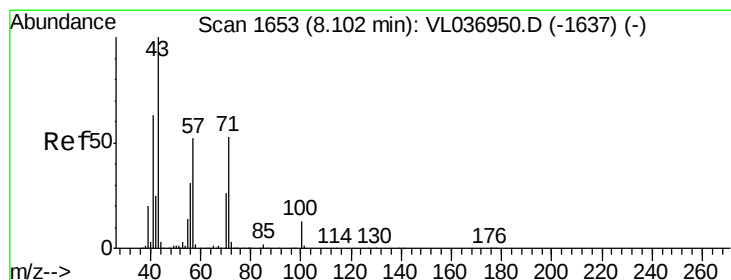
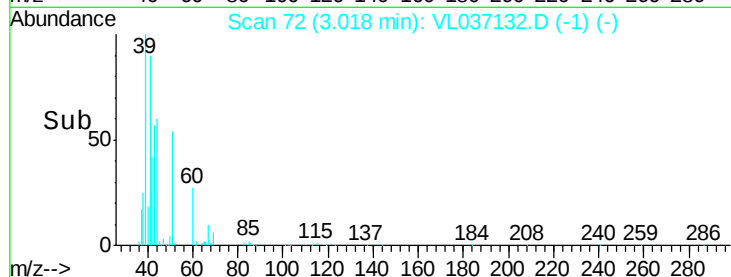
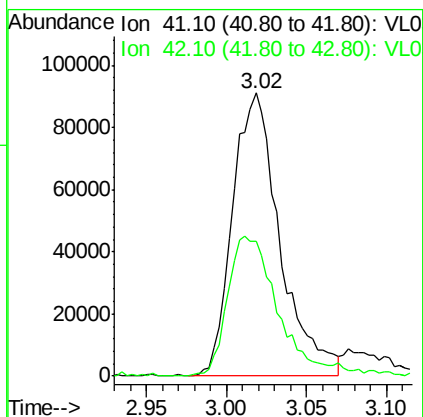
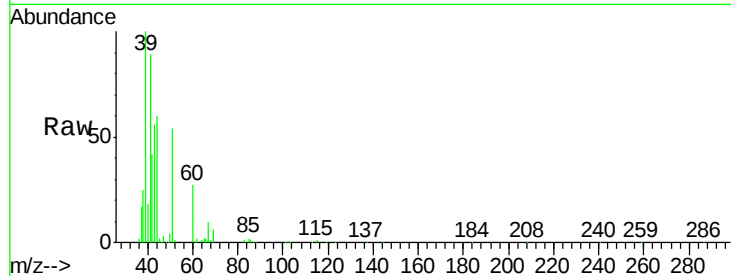
Ion Ratio Lower Upper

41 100

42 52.9 53.9 80.9#

Manual Integrations
APPROVED

MMDadoda
6/9/2021 4:23:30 PM



#10

Heptane

Concen: 0.153 ppbv m

RT: 8.12 min Scan# 1659

Delta R.T. 0.02 min

Lab File: VL037132.D

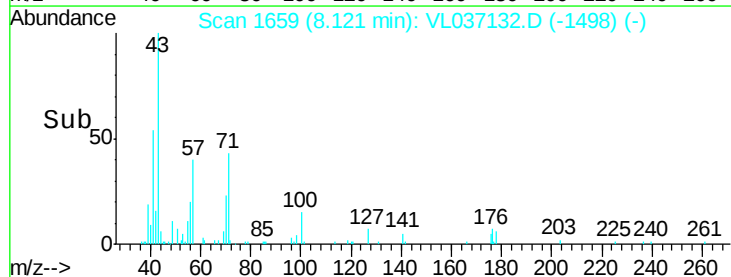
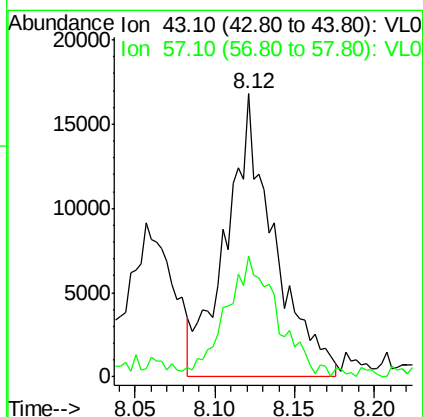
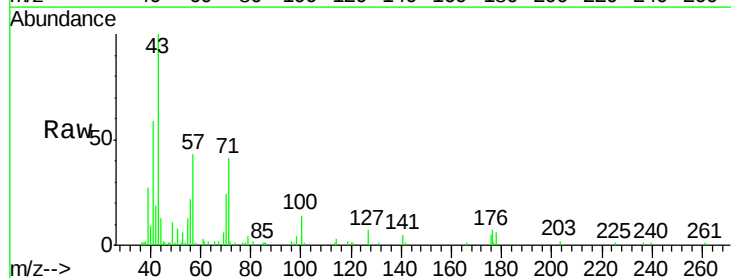
Acq: 8 Jun 2021 15:00

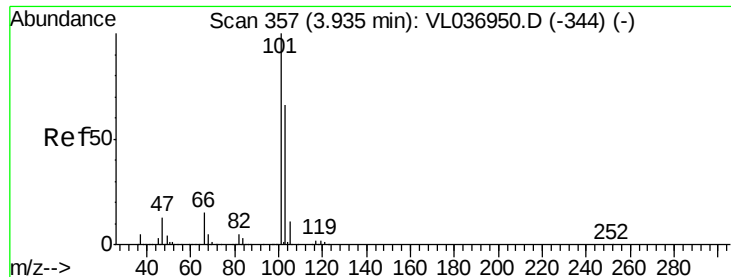
Tgt Ion: 43 Resp: 34866

Ion Ratio Lower Upper

43 100

57 0.0 41.0 61.6#





#11

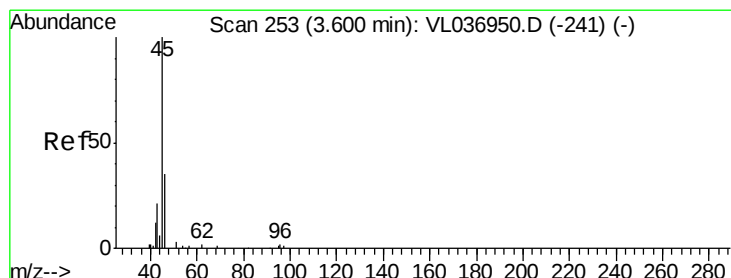
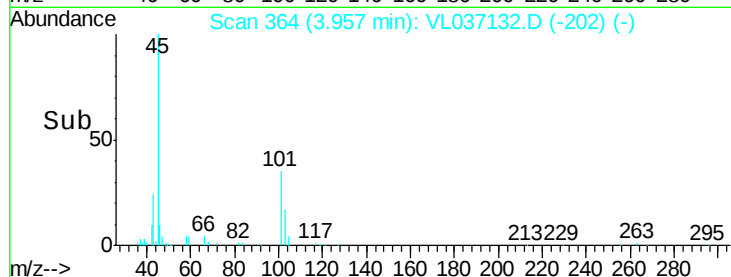
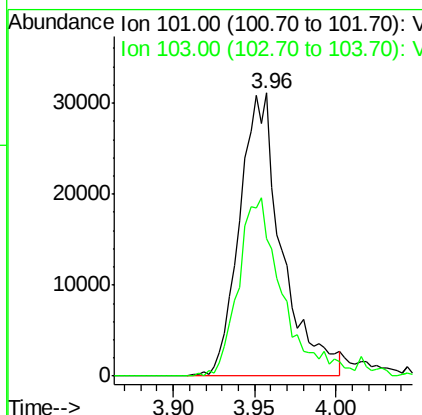
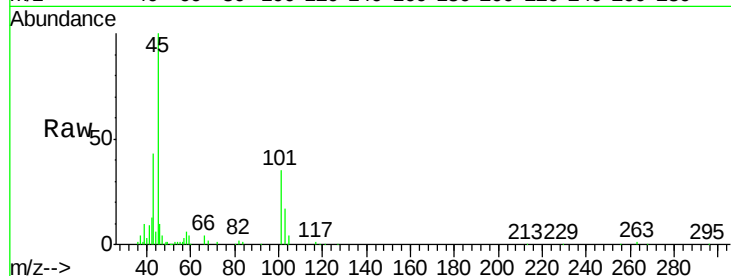
Trichlorofluoromethane
Concen: 0.256 ppbv m
RT: 3.96 min Scan# 364
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampleId :
SR-3C

Tot Ion	Ion	Ratio	Lower	Upper
101	100			
103	48.7	52.6	79.0	#

Manual Integrations
APPROVED

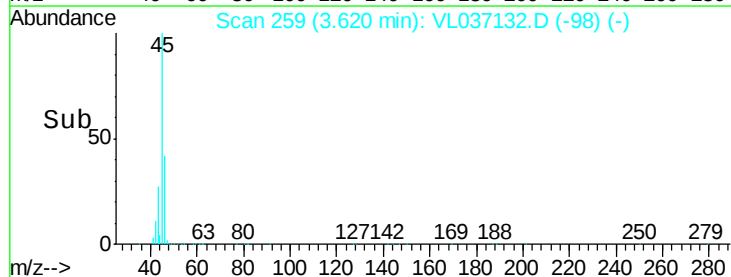
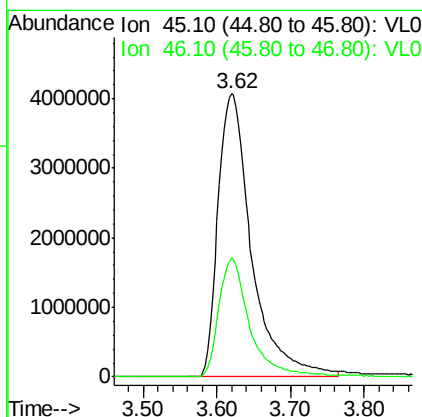
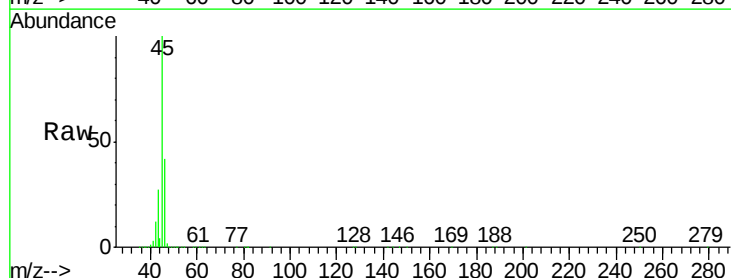
MMDadoda
6/9/2021 4:23:30 PM

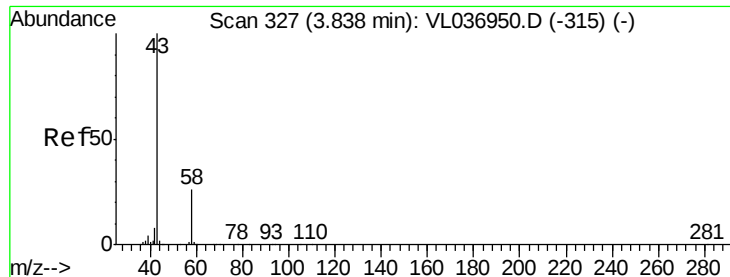


#13

Ethanol
Concen: 1057.756 ppbv
RT: 3.62 min Scan# 259
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion	Ion	Ratio	Lower	Upper
45	100			
46	39.5	16.3	65.3	





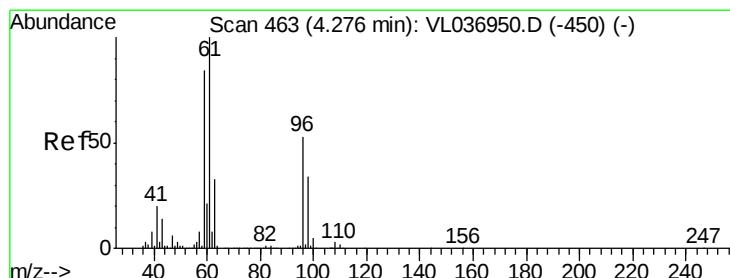
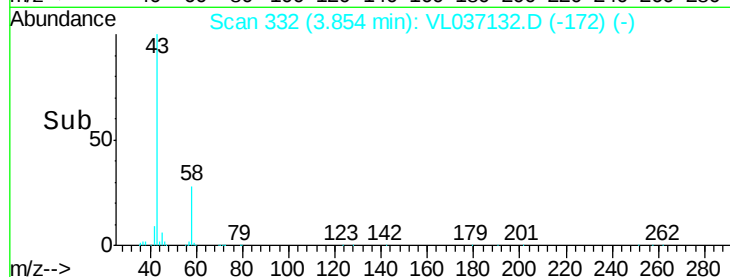
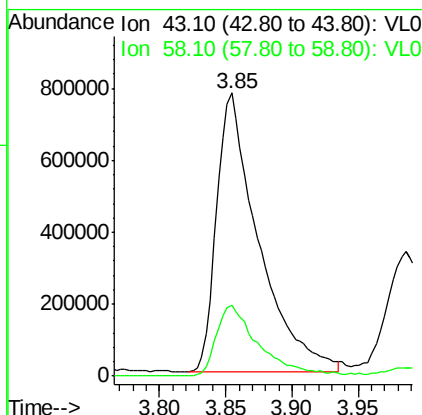
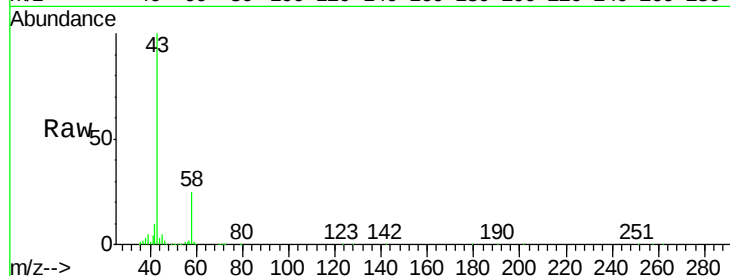
#15
Acetone
Concen: 11.973 ppbv
RT: 3.85 min Scan# 332
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampleId :
SR-3C

Tot Ion: 43 Resp: 1710075
Ion Ratio Lower Upper
43 100
58 26.2 24.0 36.0

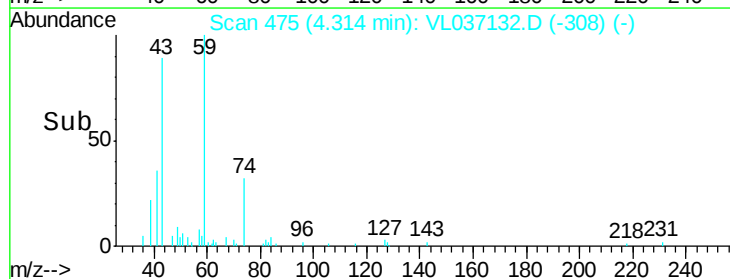
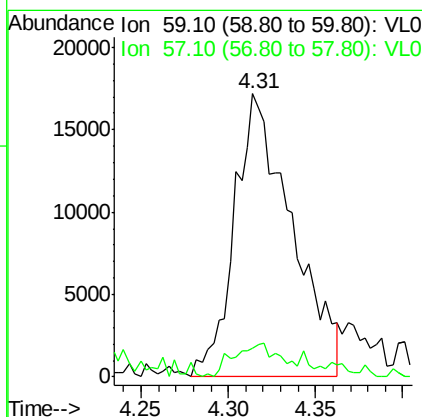
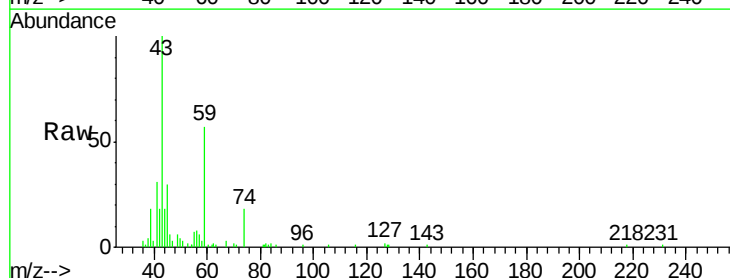
Manual Integrations
APPROVED

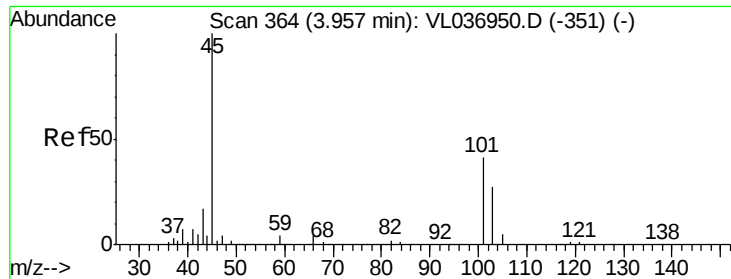
MMDadoda
6/9/2021 4:23:30 PM



#17
tert-Butyl alcohol
Concen: 0.301 ppbv m
RT: 4.31 min Scan# 475
Delta R.T. 0.04 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion: 59 Resp: 39417
Ion Ratio Lower Upper
59 100
57 0.0 8.3 12.5#





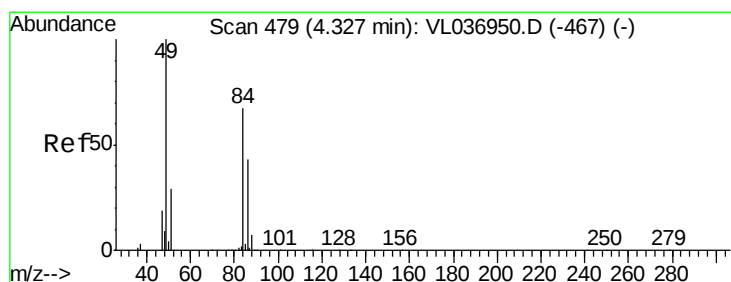
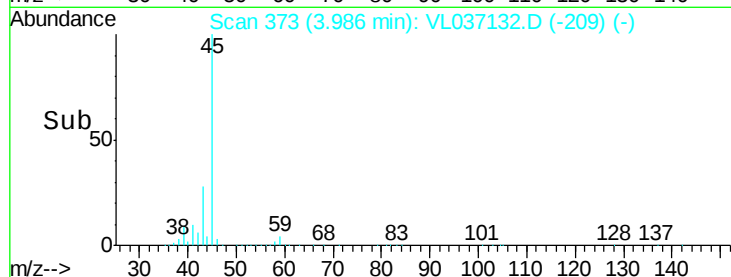
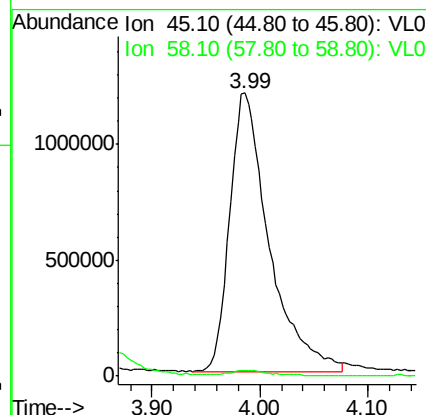
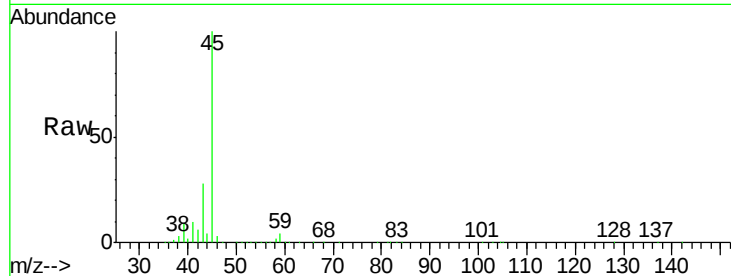
#19
Isopropyl Alcohol
Concen: 39.764 ppbv
RT: 3.99 min Scan# 373
Delta R.T. 0.03 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampled :
SR-3C

Tot Ion: 45 Resp: 3053014
Ion Ratio Lower Upper
45 100
58 2.4 37.2 55.8#

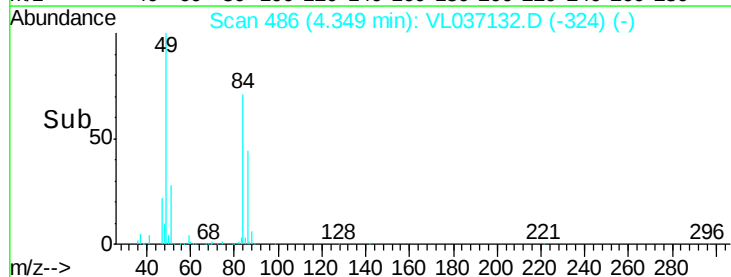
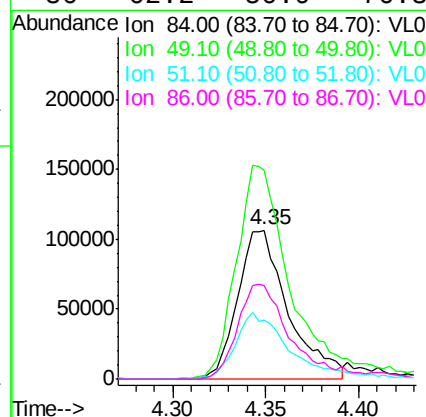
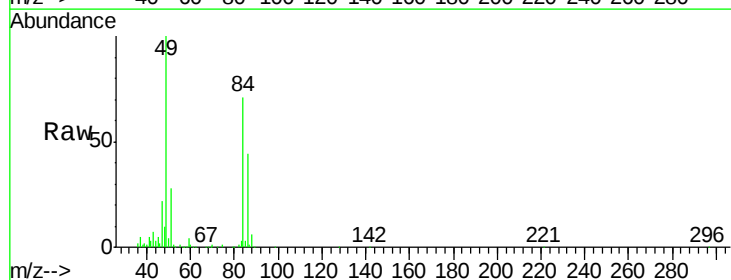
Manual Integrations
APPROVED

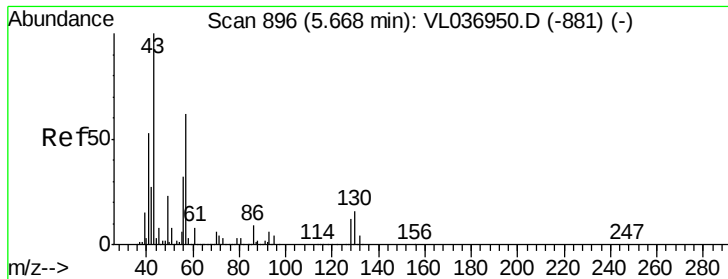
MMDadoda
6/9/2021 4:23:30 PM



#20
Methylene Chloride
Concen: 2.619 ppbv
RT: 4.35 min Scan# 486
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion: 84 Resp: 200519
Ion Ratio Lower Upper
84 100
49 139.3 119.8 179.6
51 39.2 35.1 52.7
86 62.2 50.9 76.3





#26

Hexane

Concen: 1.787 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.02 min

Lab File: VL037132.D

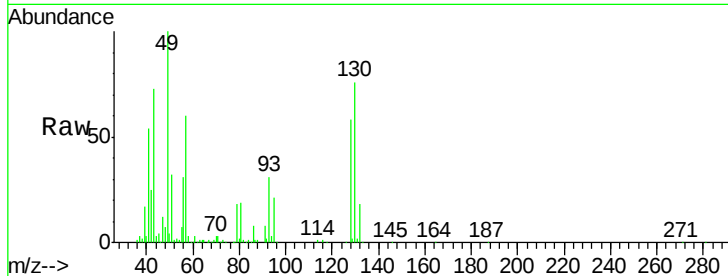
Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

ClientSampleId :

SR-3C



Tot Ion: 57 Resp: 313315

Ion Ratio Lower Upper

57 100

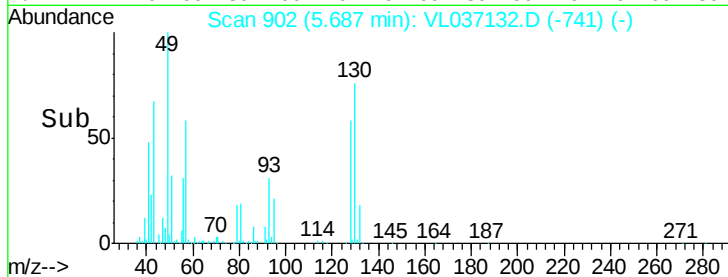
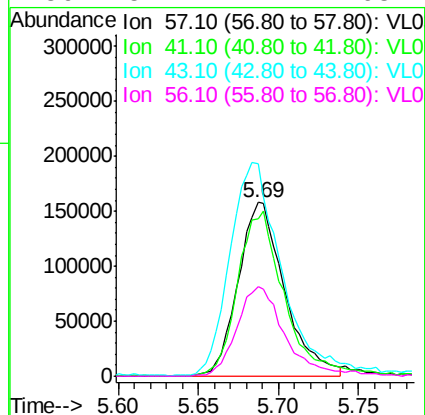
41 97.9 70.5 105.7

43 142.2 165.8 248.8#

56 54.1 42.2 63.4

Manual Integrations
APPROVED

MMDadoda
6/9/2021 4:23:30 PM



#29

Chloroform

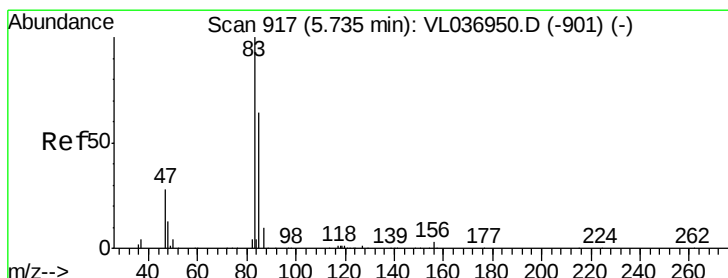
Concen: 0.189 ppbv m

RT: 5.75 min Scan# 921

Delta R.T. 0.01 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

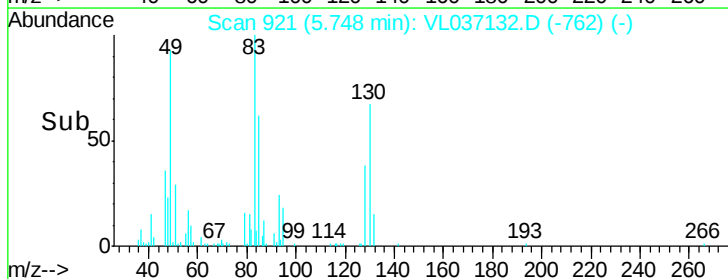
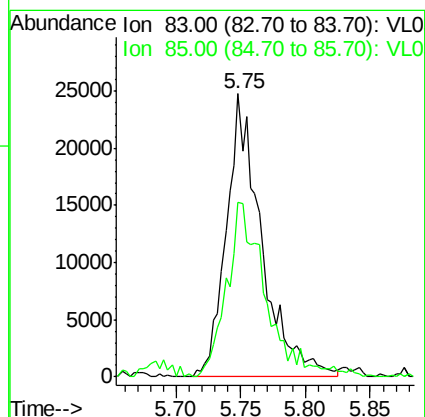
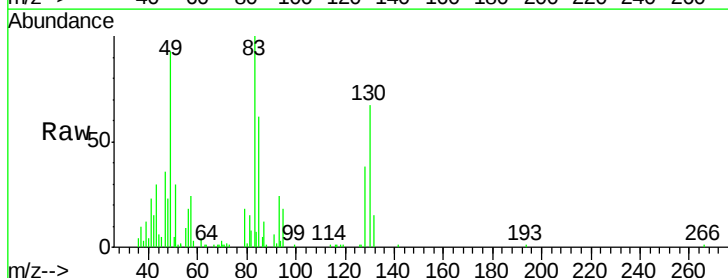


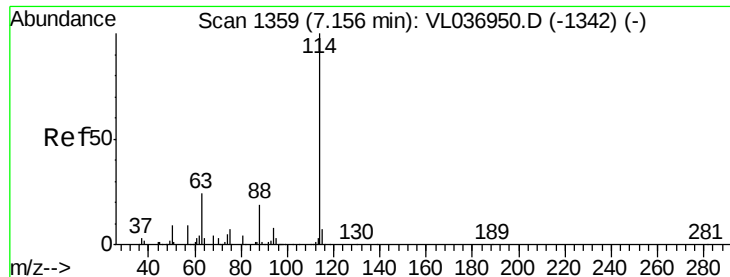
Tgt Ion: 83 Resp: 46832

Ion Ratio Lower Upper

83 100

85 61.7 51.1 76.7





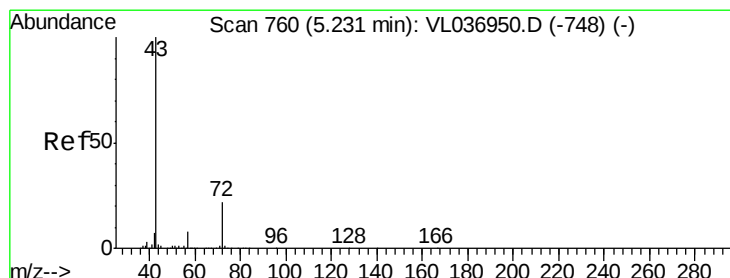
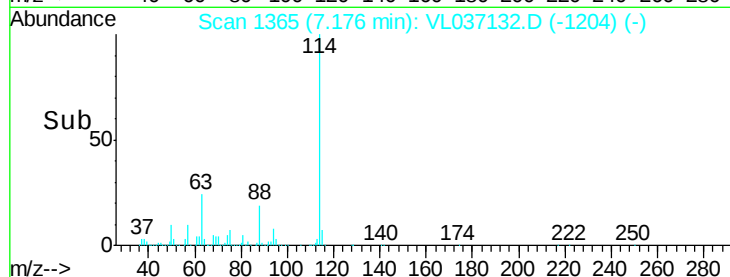
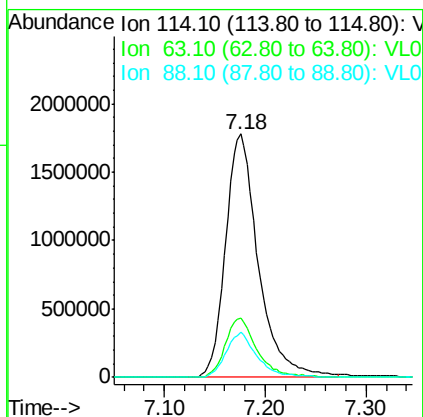
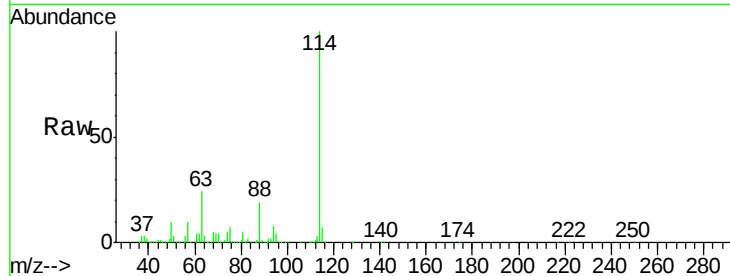
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. 0.02 min
 Lab File: VL037132.D
 Acq: 8 Jun 2021 15:00

Instrument :
 MSVOA_L
 ClientSampleId :
 SR-3C

Tot Ion:114 Resp: 4018085
 Ion Ratio Lower Upper
 114 100
 63 24.1 19.6 29.4
 88 17.9 14.6 21.8

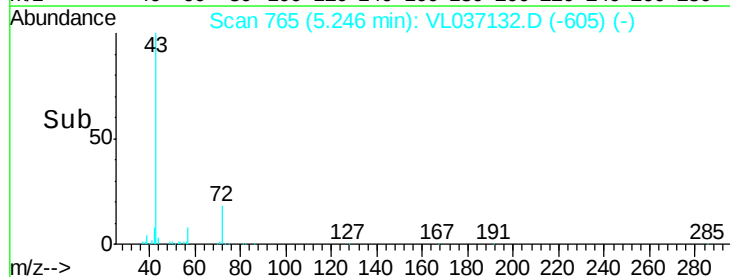
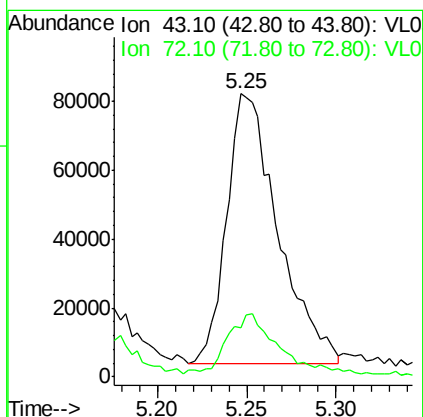
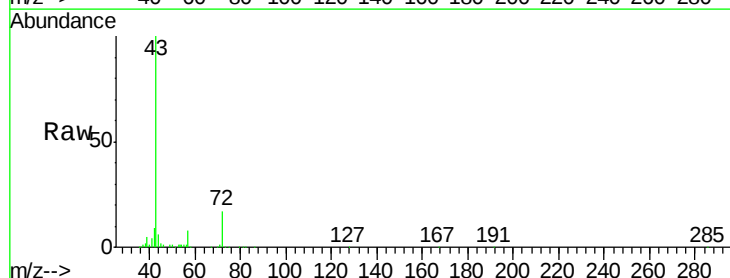
Manual Integrations
 APPROVED

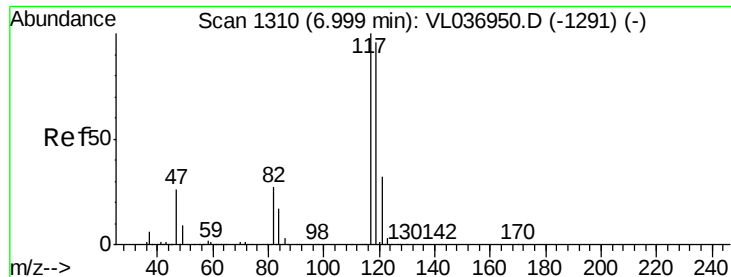
MMDadoda
 6/9/2021 4:23:30 PM



#34
 2-Butanone
 Concen: 1.073 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. 0.02 min
 Lab File: VL037132.D
 Acq: 8 Jun 2021 15:00

Tgt Ion: 43 Resp: 156981
 Ion Ratio Lower Upper
 43 100
 72 26.8 19.0 28.4





#35

Carbon Tetrachloride

Concen: 0.065 ppbv m

RT: 7.02 min Scan# 1318

Delta R.T. 0.03 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

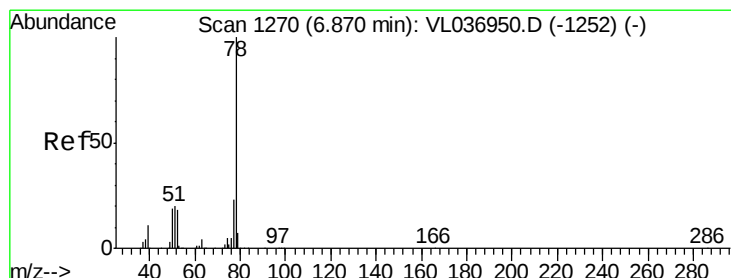
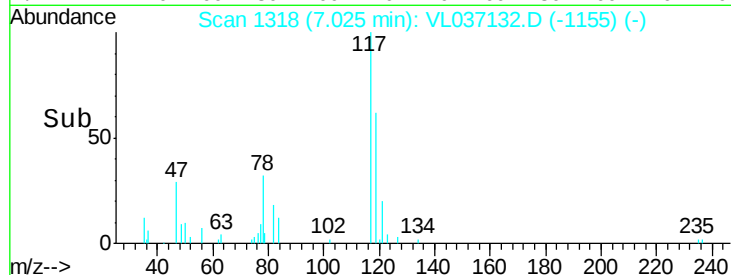
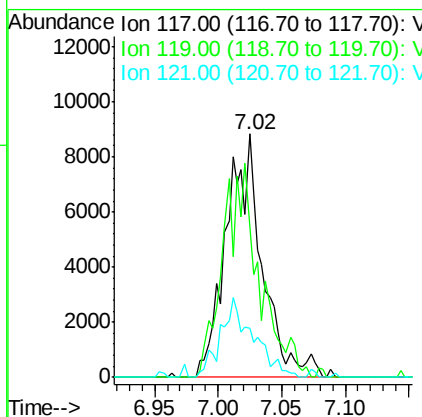
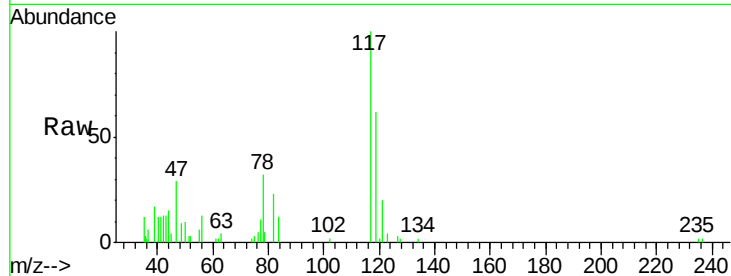
ClientSampleId :

SR-3C

Tot Ion	Ratio	Lower	Upper
117	100		
119	61.7	76.6	114.8#
121	20.3	25.8	38.6#

Manual Integrations
APPROVED

MMDadoda
6/9/2021 4:23:30 PM



#36

Benzene

Concen: 3.822 ppbv

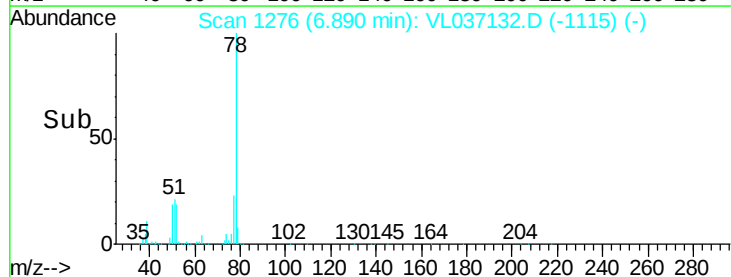
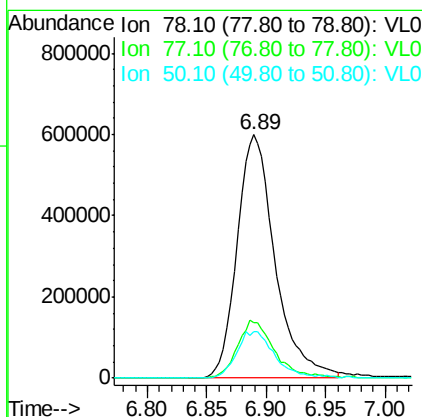
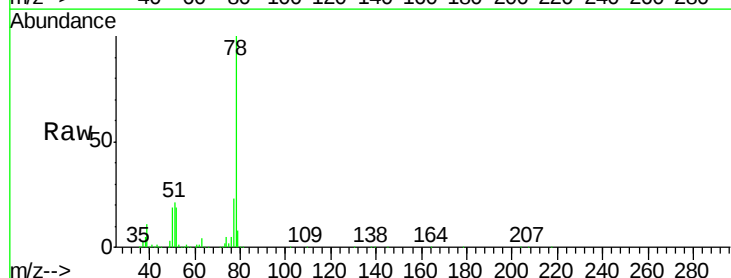
RT: 6.89 min Scan# 1276

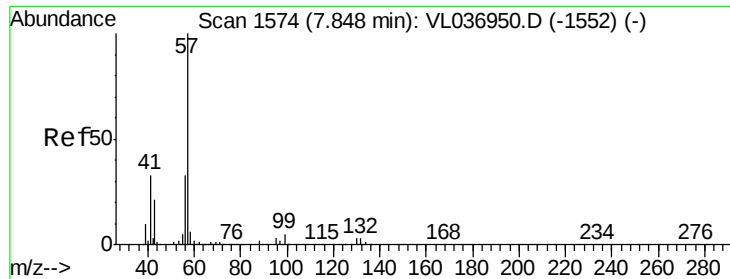
Delta R.T. 0.02 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.6	28.0
50	18.8	15.0	22.4





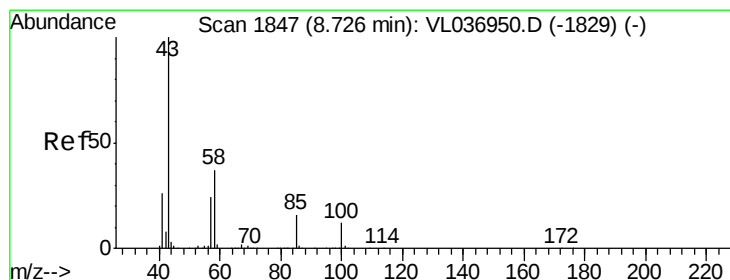
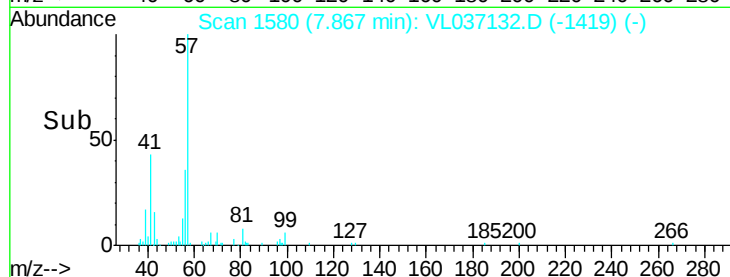
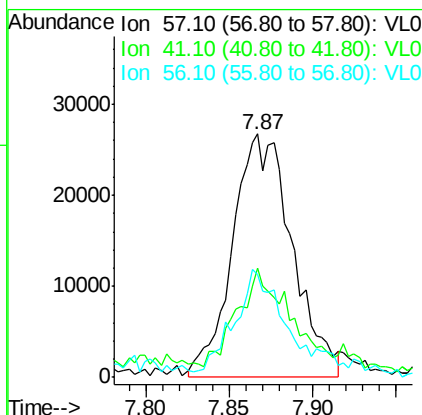
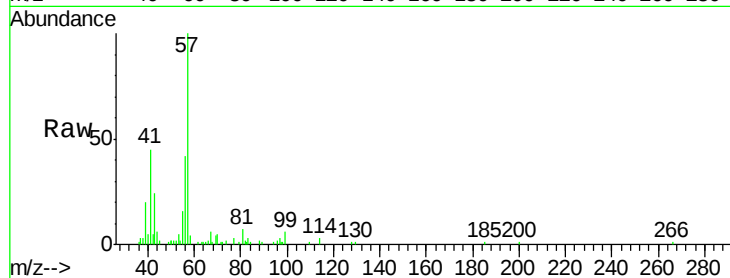
#44
 2,2,4-Trimethylpentane
 Concen: 0.112 ppbv m
 RT: 7.87 min Scan# 1580
 Delta R.T. 0.02 min
 Lab File: VL037132.D
 Acq: 8 Jun 2021 15:00

Instrument :
 MSVOA_L
 ClientSampleId :
 SR-3C

Tot Ion	Ratio	Lower	Upper
57	100		
41	44.6	27.0	40.4#
56	43.6	25.4	38.2#

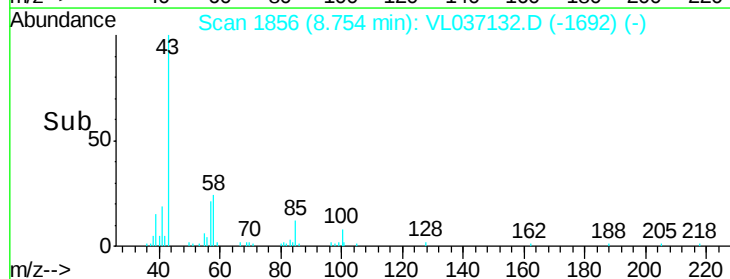
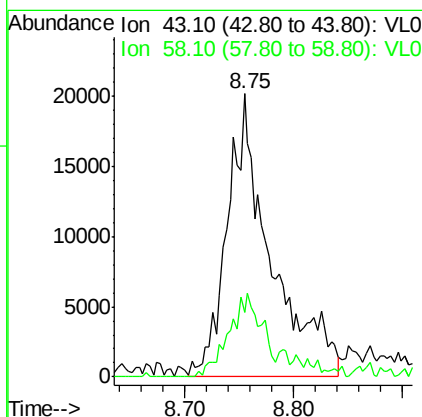
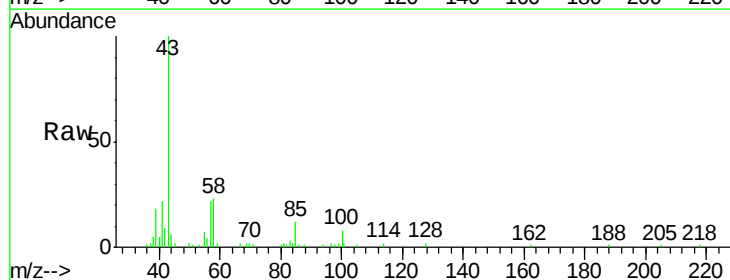
Manual Integrations
 APPROVED

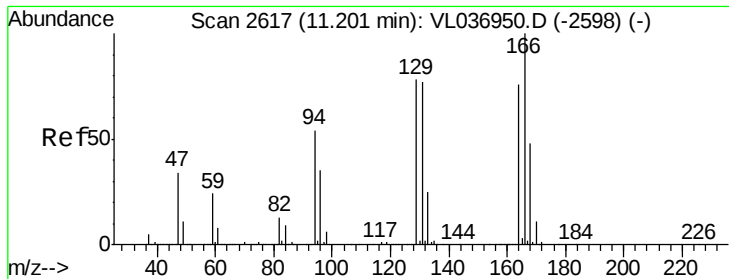
MMDadoda
 6/9/2021 4:23:30 PM



#50
 4-Methyl-2-Pentanone
 Concen: 0.233 ppbv m
 RT: 8.75 min Scan# 1856
 Delta R.T. 0.03 min
 Lab File: VL037132.D
 Acq: 8 Jun 2021 15:00

Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	29.4	44.2#





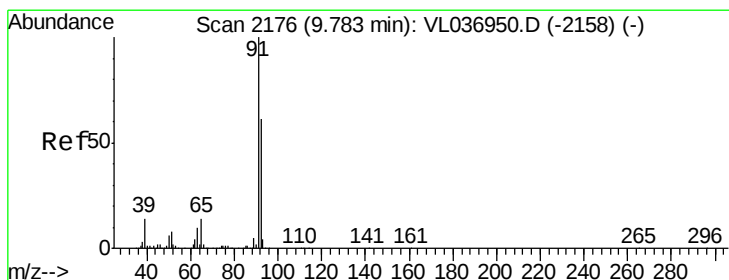
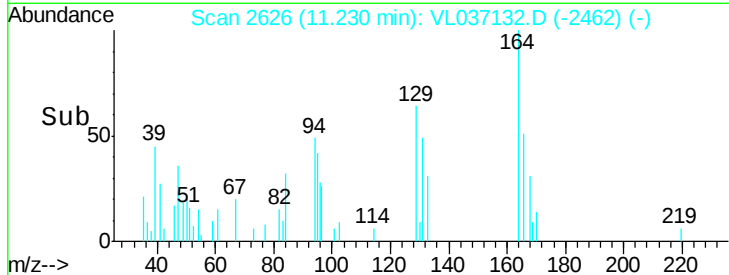
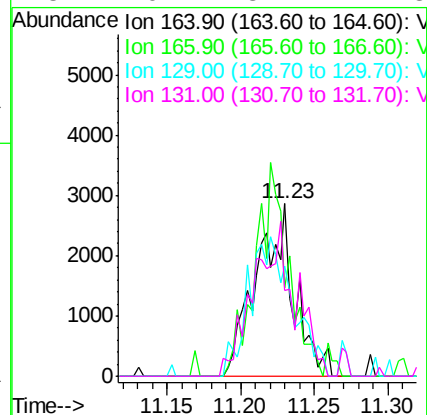
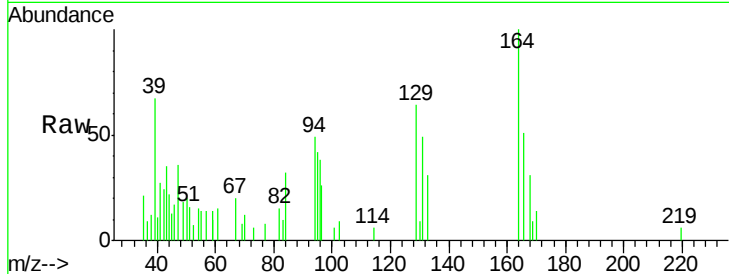
#52
Tetrachloroethene
Concen: 0.037 ppbv m
RT: 11.23 min Scan# 2626
Delta R.T. 0.03 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampled :
SR-3C

Tot Ion	Ratio	Lower	Upper
164	100		
166	51.0	105.5	158.3#
129	63.8	81.8	122.8#
131	49.4	81.2	121.8#

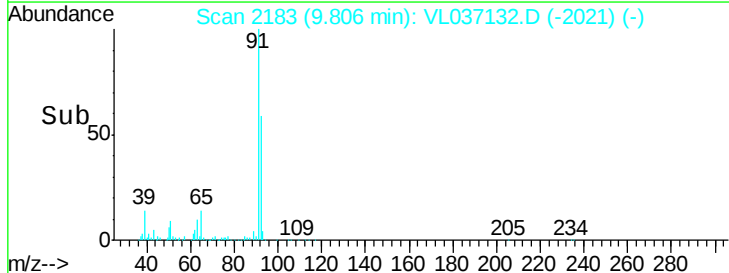
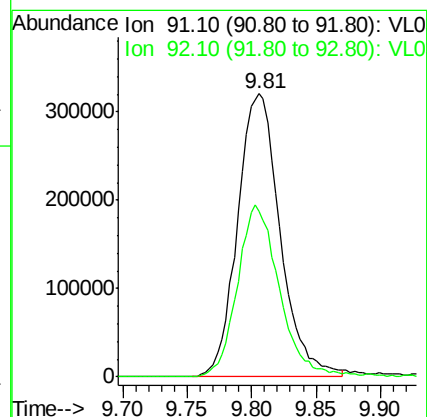
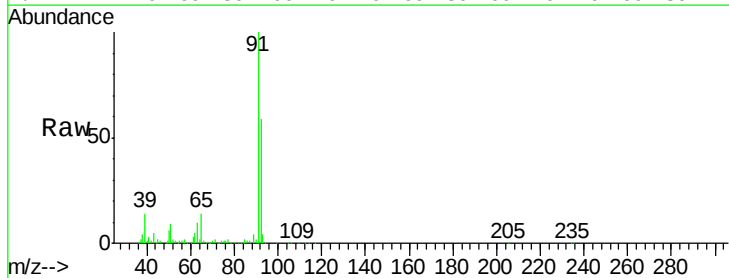
Manual Integrations
APPROVED

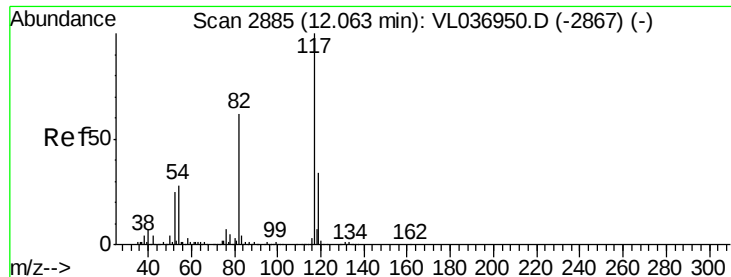
MMDadoda
6/9/2021 4:23:30 PM



#53
Toluene
Concen: 1.776 ppbv
RT: 9.81 min Scan# 2183
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.6	49.5	74.3





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2891

Delta R.T. 0.02 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

ClientSampleId :

SR-3C

Tot Ion:117 Resp: 3627477

Ion Ratio Lower Upper

117 100

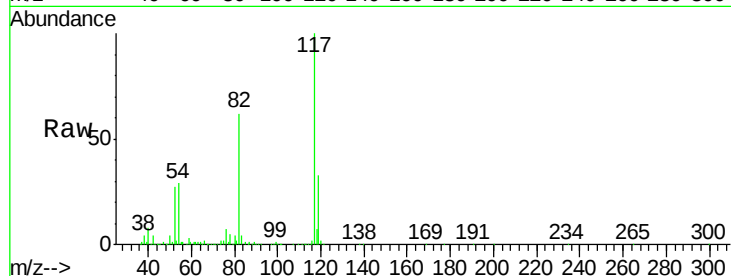
82 65.6 52.6 79.0

119 34.5 46.6 70.0#

Manual Integrations
APPROVED

MMDadoda

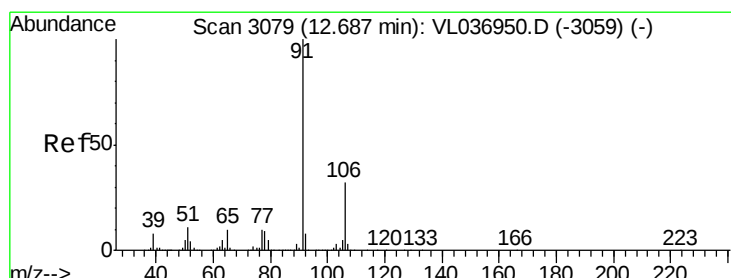
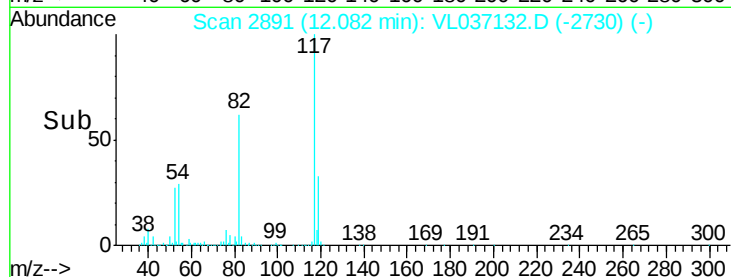
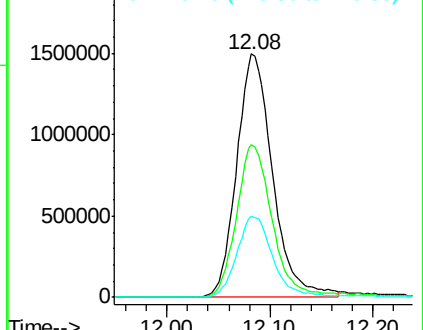
6/9/2021 4:23:30 PM



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: 0.097 ppbv m

RT: 12.70 min Scan# 3084

Delta R.T. 0.02 min

Lab File: VL037132.D

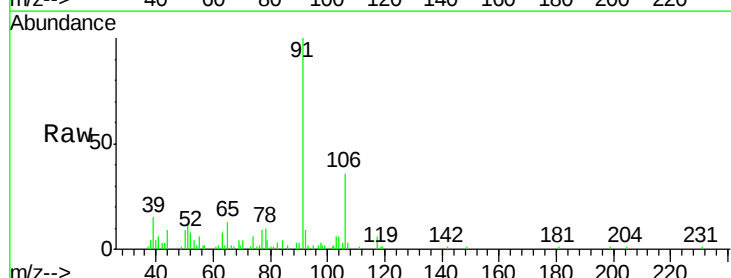
Acq: 8 Jun 2021 15:00

Tgt Ion: 91 Resp: 49565

Ion Ratio Lower Upper

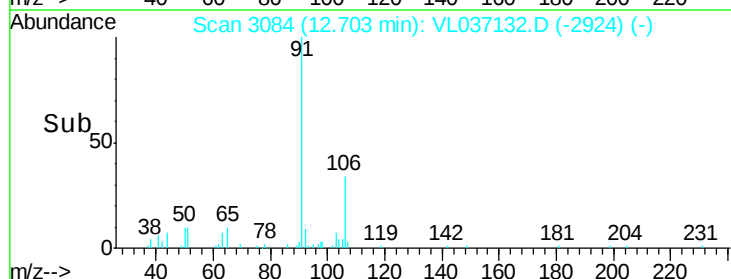
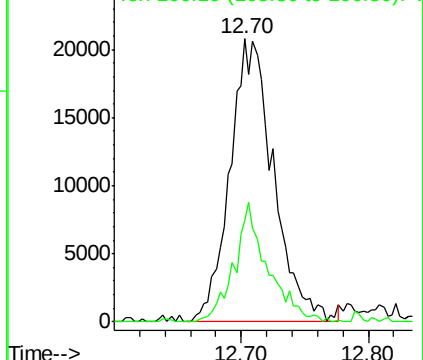
91 100

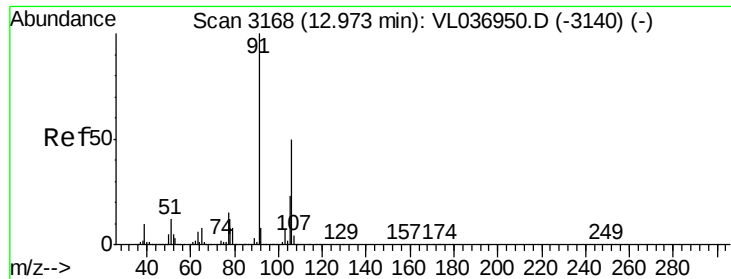
106 35.9 25.6 38.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





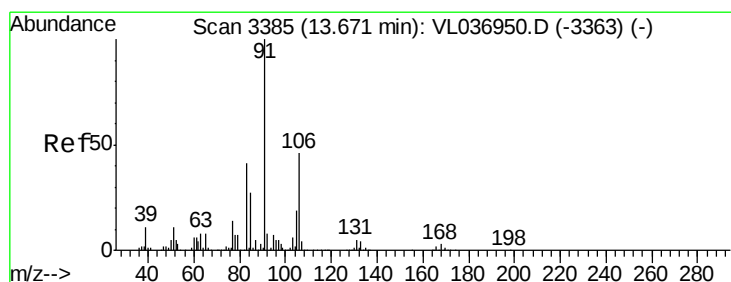
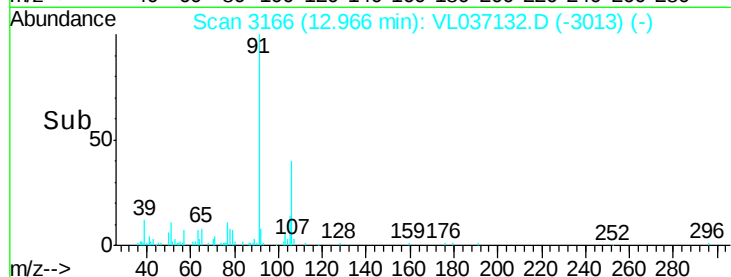
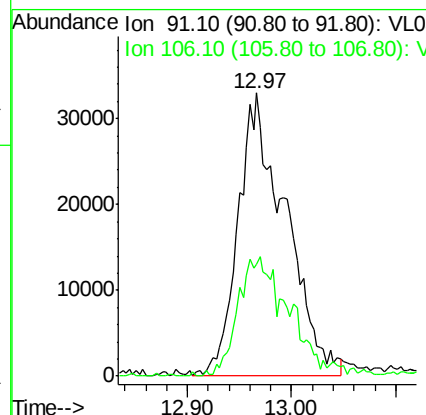
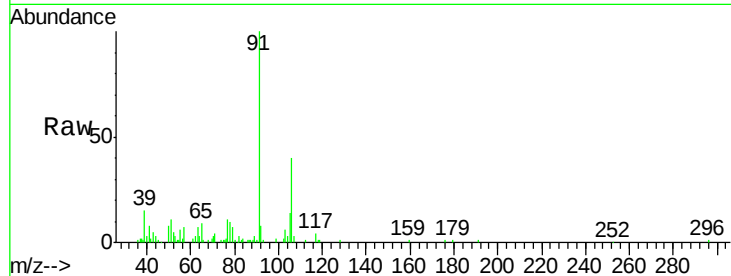
#59
m/p-Xylene
Concen: 0.246 ppbv m
RT: 12.97 min Scan# 3166
Delta R.T. -0.01 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampled :
SR-3C

Tot Ion: 91 Resp: 103906
Ion Ratio Lower Upper
91 100
106 0.0 37.4 56.2#

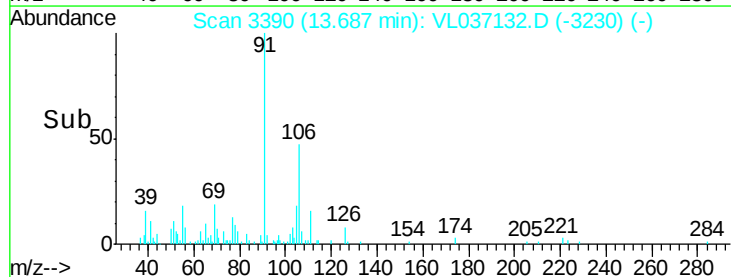
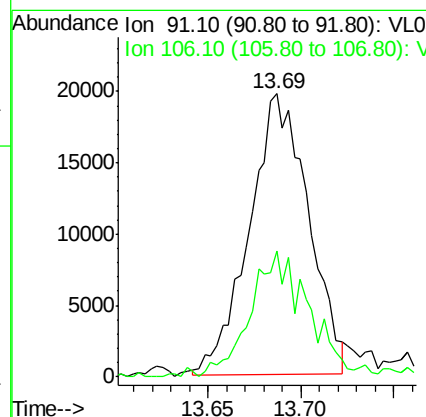
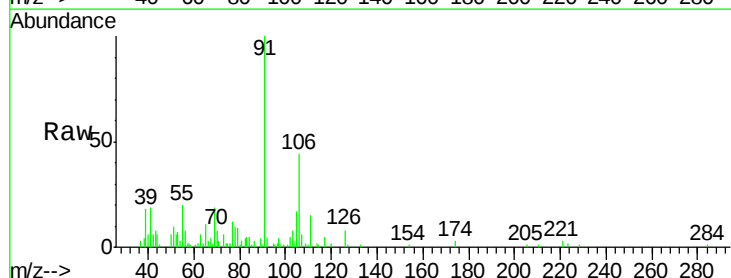
Manual Integrations
APPROVED

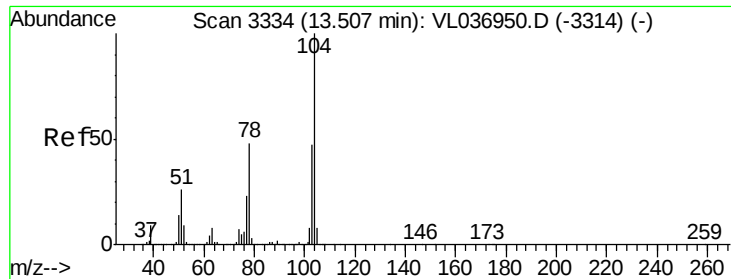
MMDadoda
6/9/2021 4:23:30 PM



#60
o-Xylene
Concen: 0.108 ppbv
RT: 13.69 min Scan# 3390
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion: 91 Resp: 43678
Ion Ratio Lower Upper
91 100
106 44.8 23.4 70.3





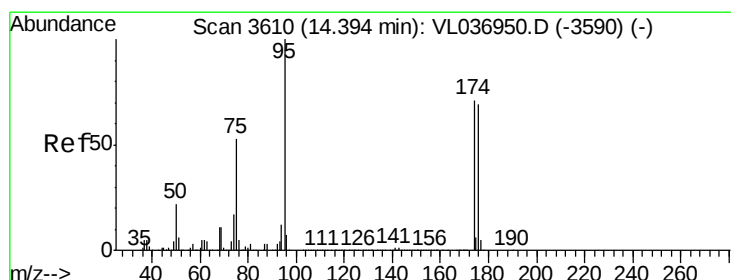
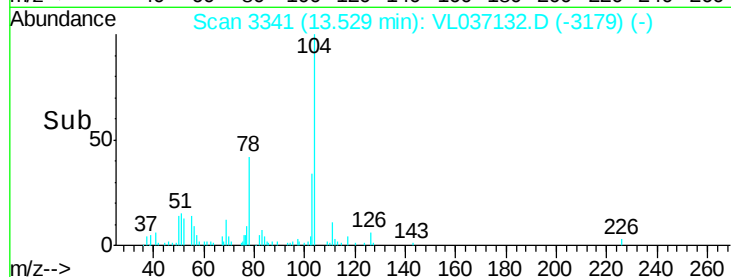
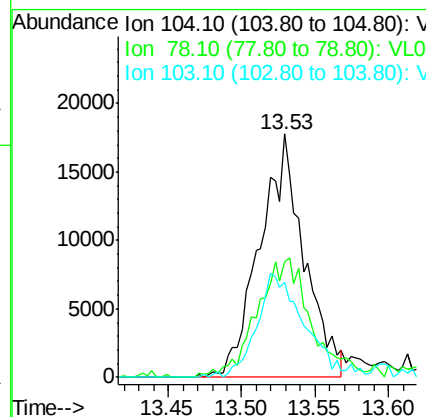
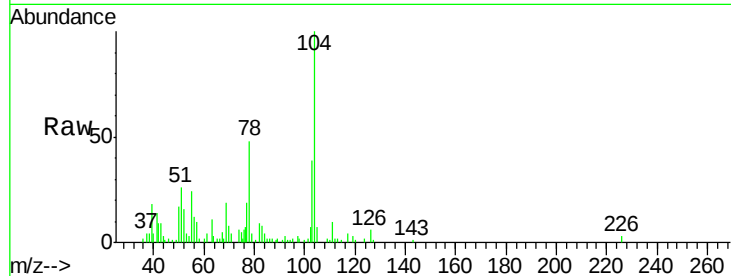
#61
Stvrene
Concen: 0.164 ppbv m
RT: 13.53 min Scan# 3341
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Instrument :
MSVOA_L
ClientSampleId :
SR-3C

Tot Ion	Ratio	Lower	Upper
104	100		
78	60.3	39.0	58.6#
103	0.0	38.0	57.0#

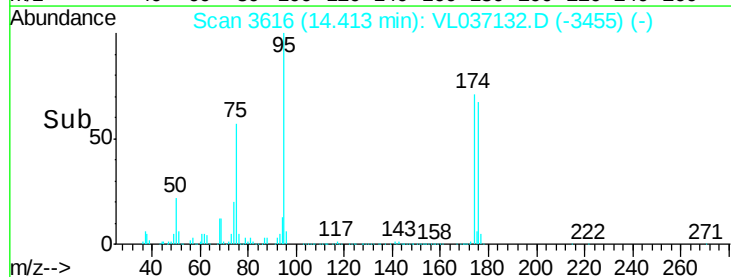
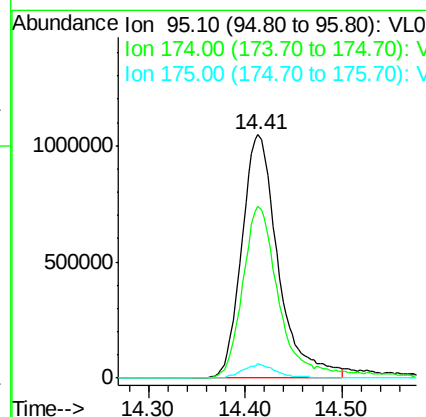
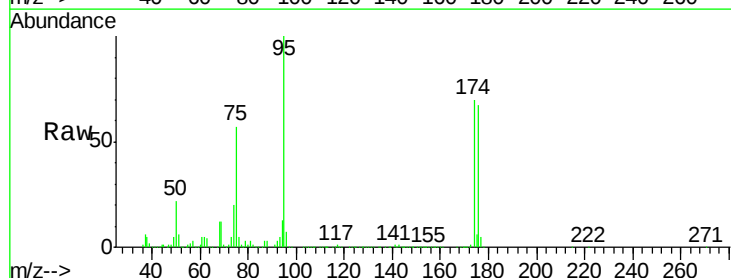
Manual Integrations
APPROVED

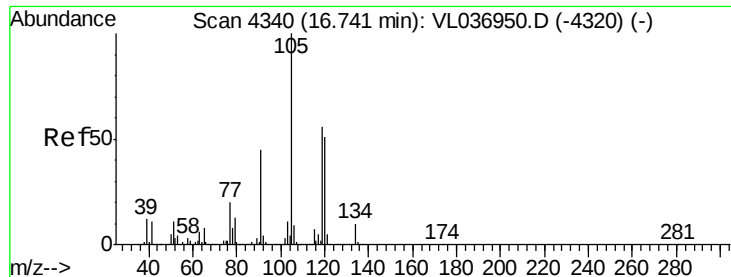
MMDadoda
6/9/2021 4:23:30 PM



#68
1-Bromo-4-Fluorobenzene
Concen: 10.074 ppbv
RT: 14.41 min Scan# 3616
Delta R.T. 0.02 min
Lab File: VL037132.D
Acq: 8 Jun 2021 15:00

Tgt Ion	Ratio	Lower	Upper
95	100		
174	73.0	58.4	87.6
175	5.4	4.4	6.6





#74

1,2,4-Trimethylbenzene

Concen: 0.109 ppbv m

RT: 16.77 min Scan# 4348

Delta R.T. 0.03 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Instrument :

MSVOA_L

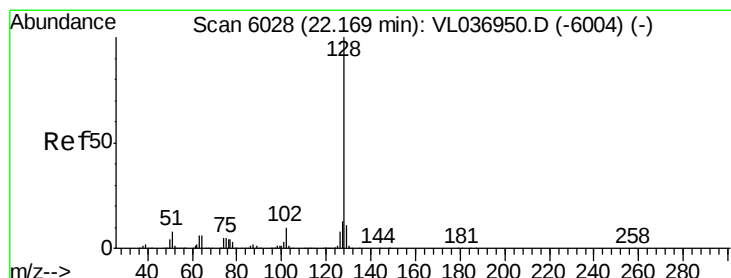
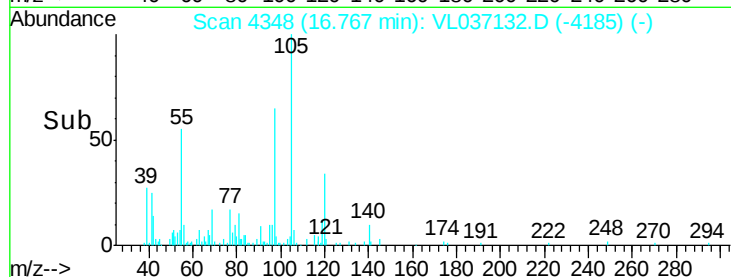
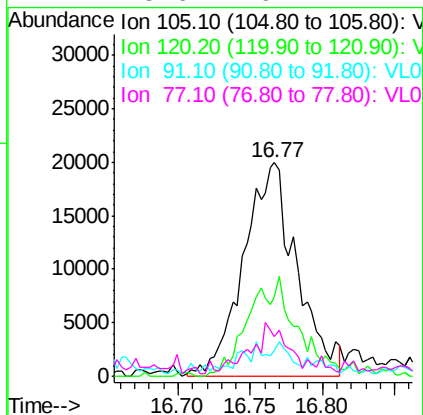
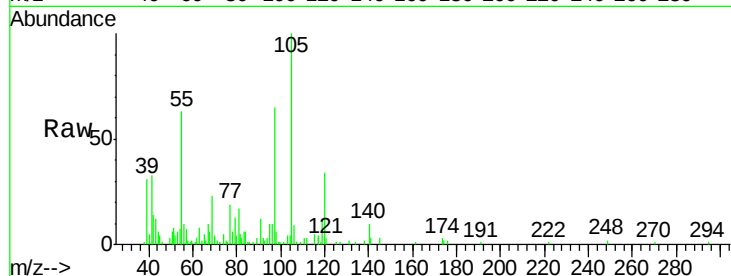
ClientSampled :

SR-3C

Tot Ion:	105	Resp:	50768
Ion Ratio		Lower	Upper
105	100		
120	33.7	40.6	61.0#
91	11.9	37.4	56.0#
77	18.6	16.2	24.4

Manual Integrations
APPROVED

MMDadoda
6/9/2021 4:23:30 PM



#79

Naphthalene

Concen: 0.180 ppbv m

RT: 22.21 min Scan# 6042

Delta R.T. 0.04 min

Lab File: VL037132.D

Acq: 8 Jun 2021 15:00

Tgt Ion:	128	Resp:	65791
Ion Ratio		Lower	Upper
128	100		
127	10.0	10.4	15.6#
129	8.5	9.0	13.6#

