

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051920\
 Data File : VL035062.D
 Acq On : 20 May 2020 2:50
 Operator : SY/AP
 Sample : L2683-08
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IR-PR-SS

Manual Integrations
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 5/20/2020 4:28:06 PM

Quant Time: May 20 09:55:32 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 0
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1164420	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	2612560	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.10	117	2547381	10.00	ppbv	-0.03

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.43	95	2186531	10.60	ppbv	-0.03	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.00	85	44185	0.267	ppbv	95
3) Chlorodifluoromethane	2.93	51	71259m	0.536	ppbv	
4) Chloromethane	3.09	50	30931	0.406	ppbv #	83
9) Propene	2.97	41	178592	3.096	ppbv #	76
10) Heptane	8.11	43	56056m	0.388	ppbv	
11) Trichlorofluoromethane	3.91	101	44988	0.264	ppbv	93
13) Ethanol	3.56	45	1803192	94.725	ppbv	98
15) Acetone	3.80	43	3557713	23.111	ppbv	95
19) Isopropyl Alcohol	3.94	45	200723	1.955	ppbv #	1
20) Methylene Chloride	4.31	84	25913	0.509	ppbv #	73
26) Hexane	5.66	57	36744	0.328	ppbv #	47
29) Chloroform	5.73	83	39390m	0.215	ppbv	
34) 2-Butanone	5.21	43	714879	4.403	ppbv	99
35) Carbon Tetrachloride	7.00	117	10788	0.065	ppbv #	69
36) Benzene	6.87	78	72296	0.336	ppbv #	93
38) Trichloroethene	7.83	130	32812m	0.393	ppbv	
41) Tetrahydrofuran	6.04	42	23092m	0.270	ppbv	
52) Tetrachloroethene	11.23	164	1663637	21.721	ppbv	99
53) Toluene	9.81	91	360642	1.579	ppbv	98
58) Ethyl Benzene	12.72	91	52260m	0.166	ppbv	
59) m/p-Xylene	12.98	91	123743m	0.446	ppbv	
60) o-Xylene	13.72	91	49056m	0.179	ppbv	
61) Styrene	13.54	104	19040m	0.110	ppbv	
69) p-Isopropyltoluene	17.67	119	49806m	0.122	ppbv	

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

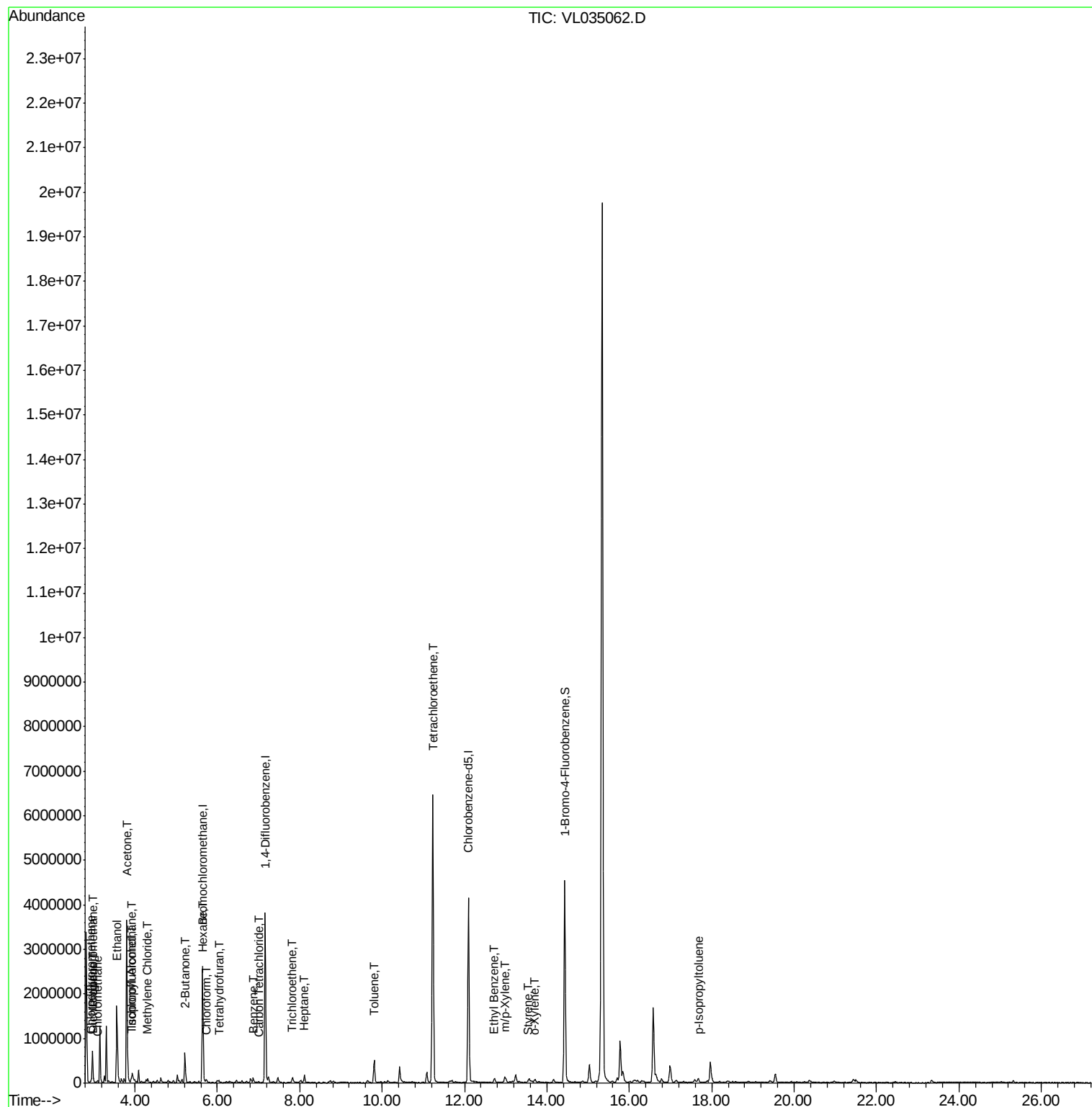
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL051920\
Data File : VL035062.D
Acq On : 20 May 2020 2:50
Operator : SY/AP
Sample : L2683-08
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

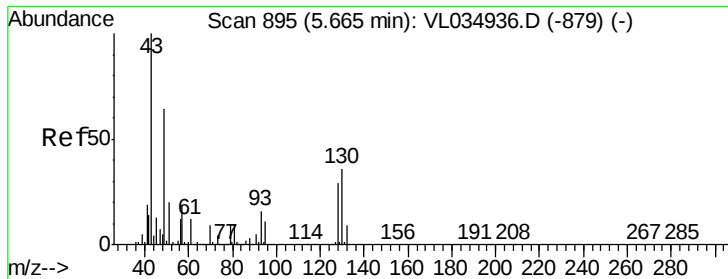
Instrument :
MSVOA_L
ClientSampleId :
IR-PR-SS

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Quant Time: May 20 09:55:32 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed May
QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 49 Resp: 1164420

Ion Ratio Lower Upper

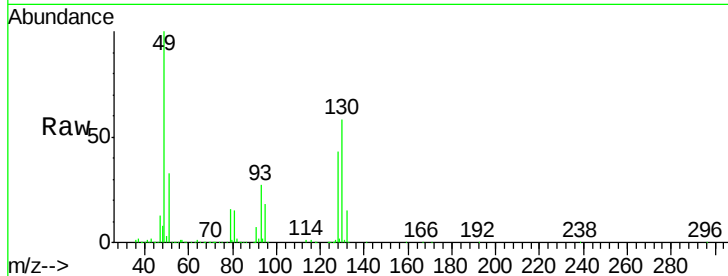
49 100

128 44.7 22.1 66.5

130 57.4 29.1 87.3

Manual Integrations
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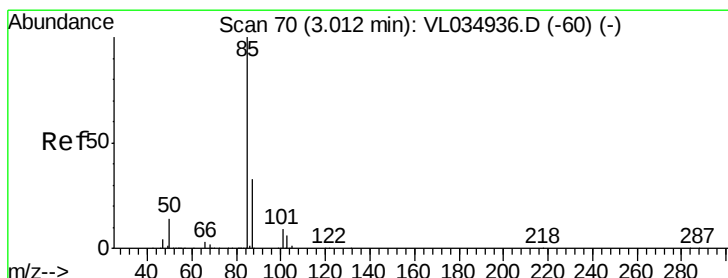
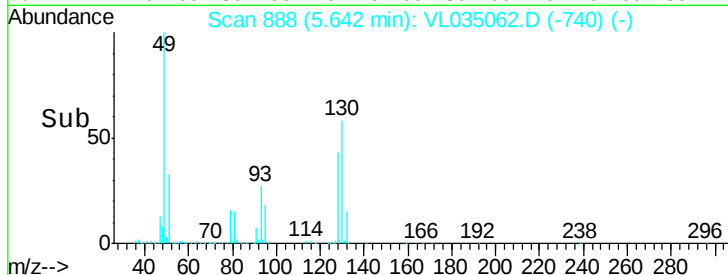
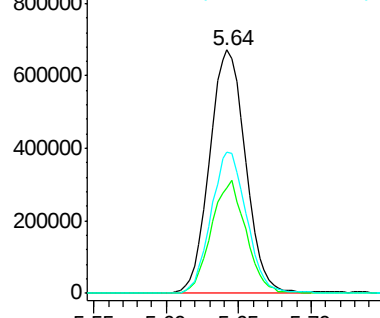
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.267 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL035062.D

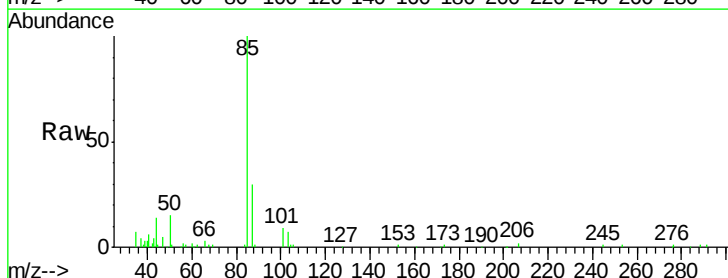
Acq: 20 May 2020 2:50

Tgt Ion: 85 Resp: 44185

Ion Ratio Lower Upper

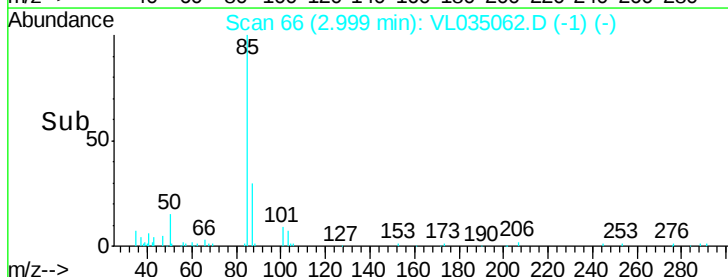
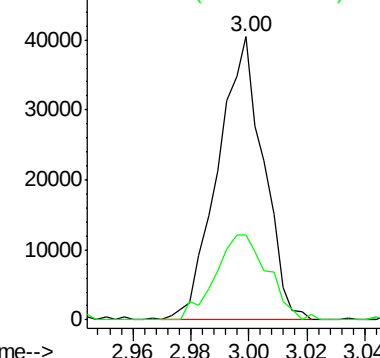
85 100

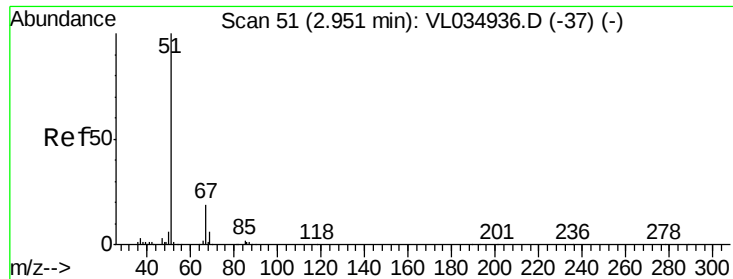
87 29.8 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.536 ppbv

RT: 2.93 min Scan# 46

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampleId :

IR-PR-SS

Tot Ion: 51 Resp: 71259

Ion Ratio Lower Upper

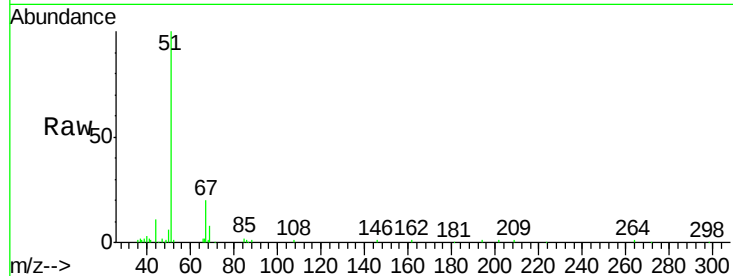
51 100

67 19.7 15.0 22.6

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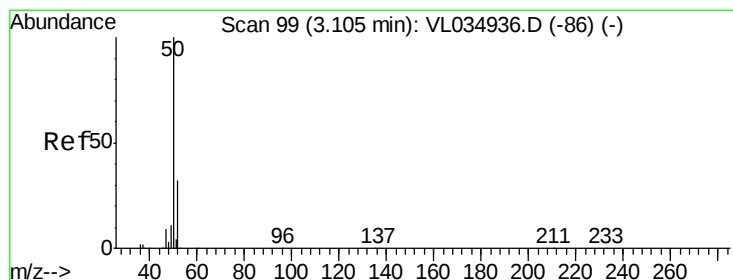
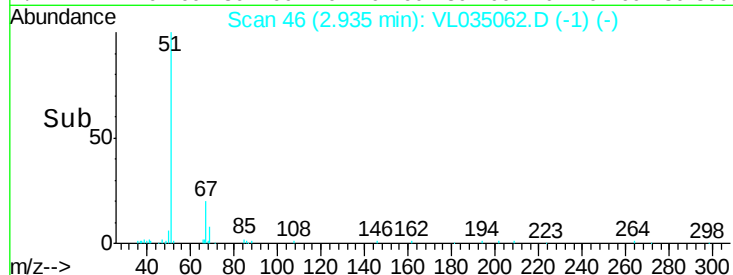
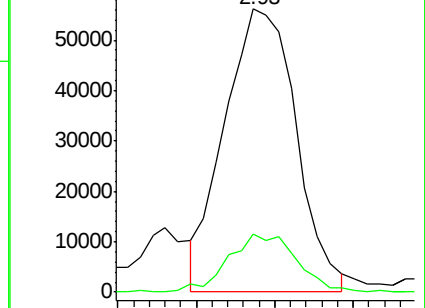
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.406 ppbv

RT: 3.09 min Scan# 95

Delta R.T. -0.01 min

Lab File: VL035062.D

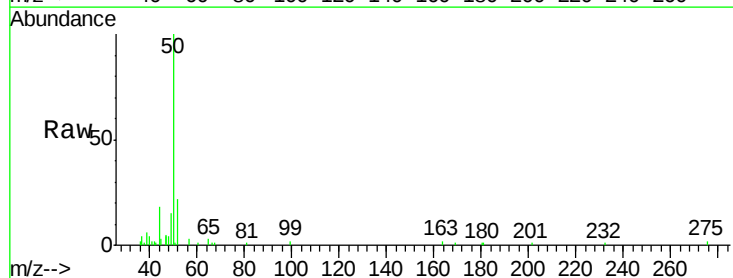
Acq: 20 May 2020 2:50

Tgt Ion: 50 Resp: 30931

Ion Ratio Lower Upper

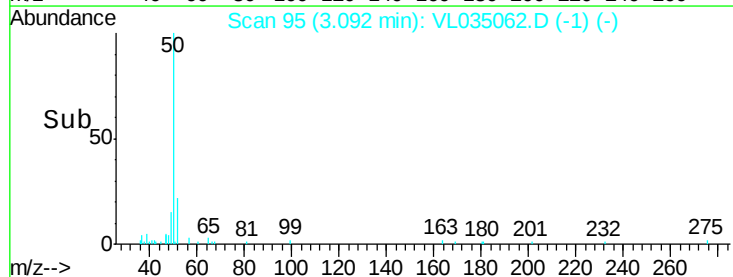
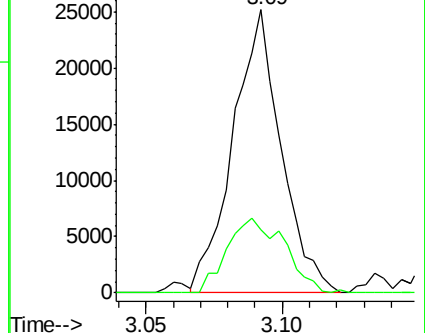
50 100

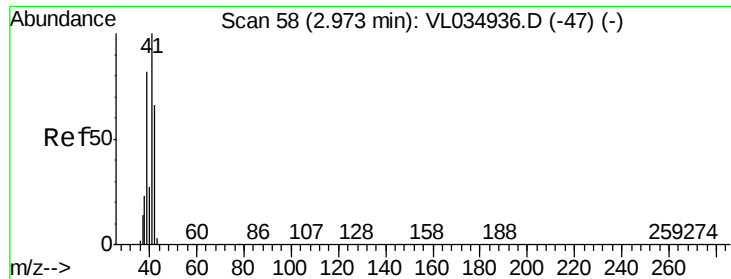
52 22.2 25.4 38.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.096 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.01 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 41 Resp: 178592

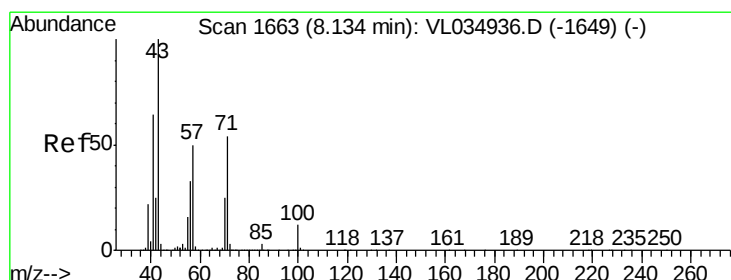
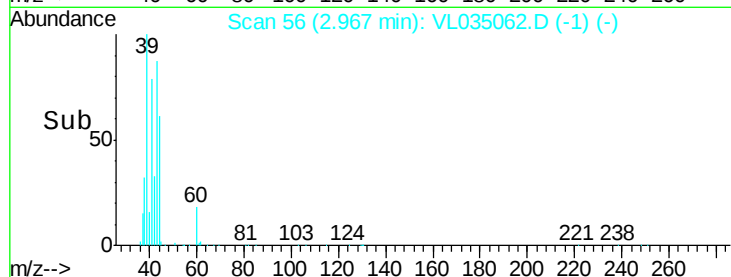
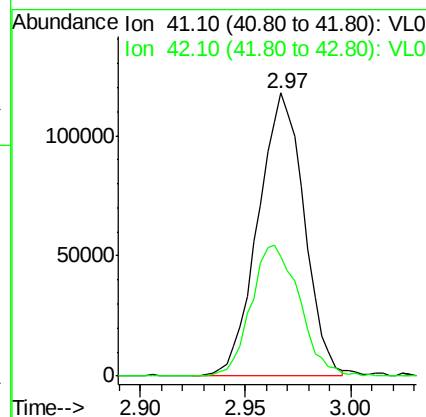
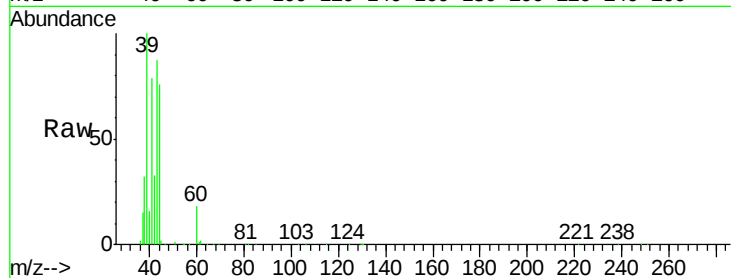
Ion Ratio Lower Upper

41 100

42 48.8 54.5 81.7#

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#10

Heptane

Concen: 0.388 ppbv m

RT: 8.11 min Scan# 1657

Delta R.T. -0.02 min

Lab File: VL035062.D

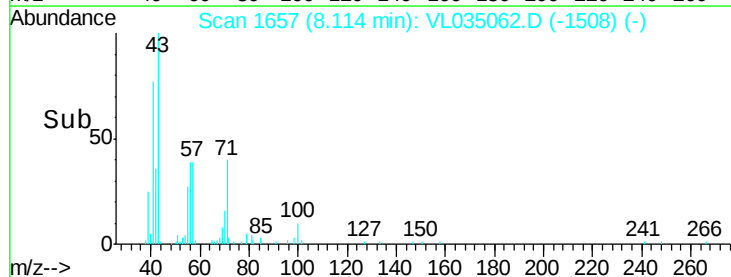
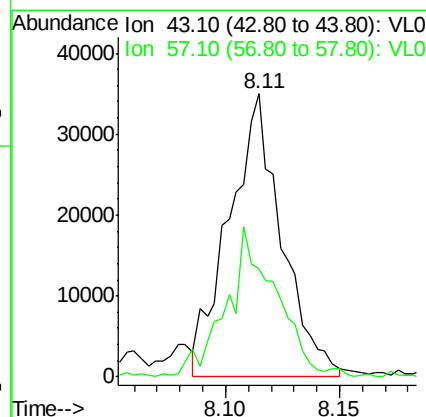
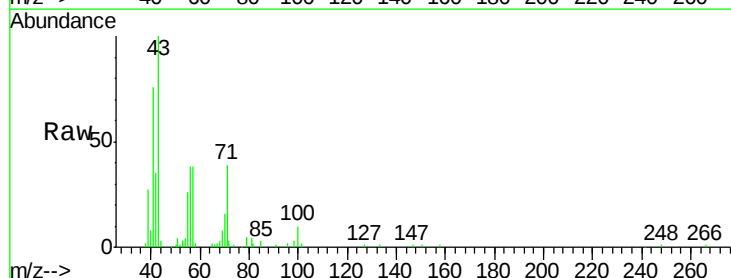
Acq: 20 May 2020 2:50

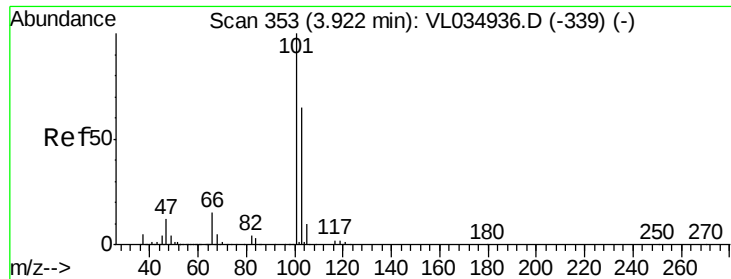
Tgt Ion: 43 Resp: 56056

Ion Ratio Lower Upper

43 100

57 51.6 41.1 61.7





#11

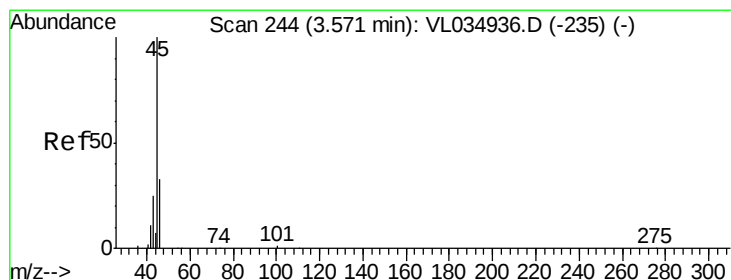
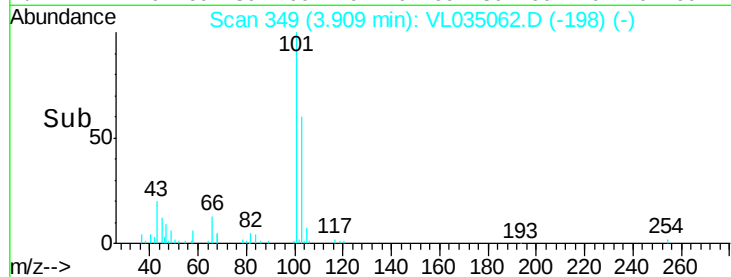
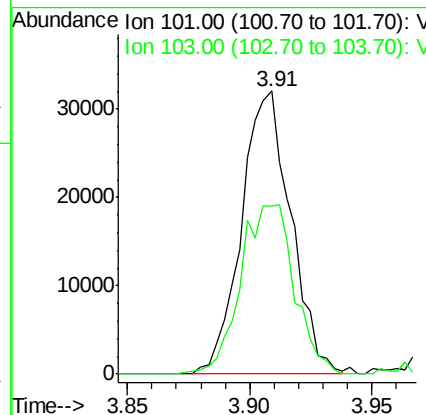
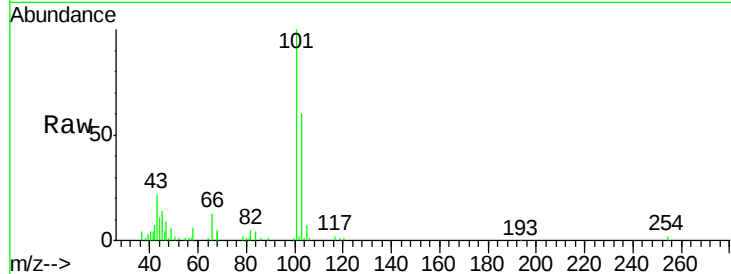
Trichlorofluoromethane
Concen: 0.264 ppbv
RT: 3.91 min Scan# 349
Delta R.T. -0.01 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Instrument :
MSVOA_L
ClientSampleId :
IR-PR-SS

Tot Ion	Ratio	Lower	Upper
101	100		
103	59.5	51.9	77.9

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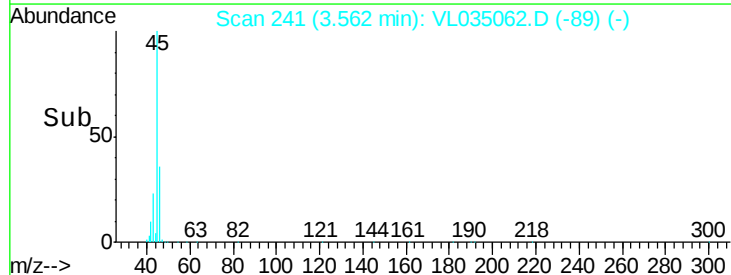
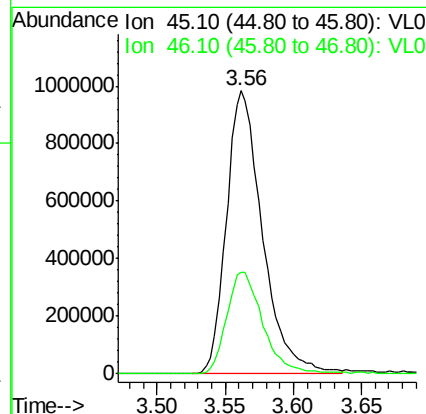
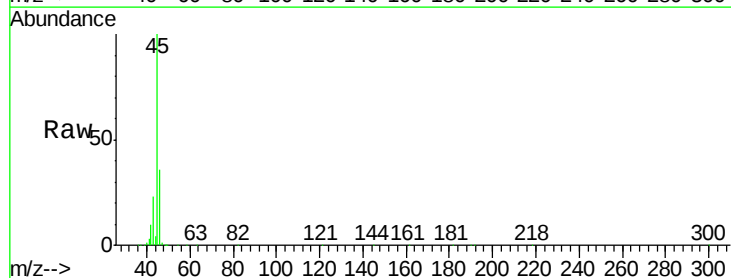
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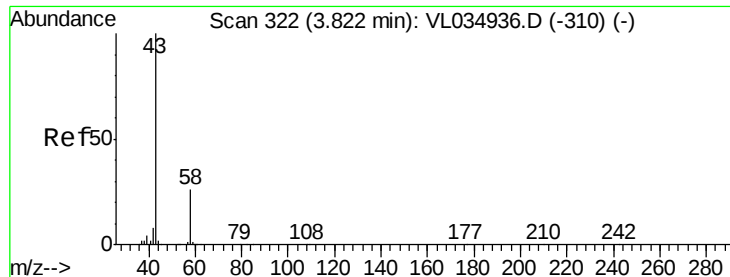


#13

Ethanol
Concen: 94.725 ppbv
RT: 3.56 min Scan# 241
Delta R.T. -0.01 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Tgt Ion	Ratio	Lower	Upper
45	100		
46	37.2	14.3	57.3





#15

Acetone

Concen: 23.111 ppbv

RT: 3.80 min Scan# 315

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 43 Resp: 3557713

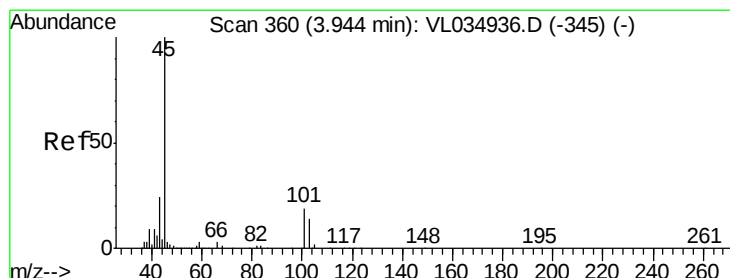
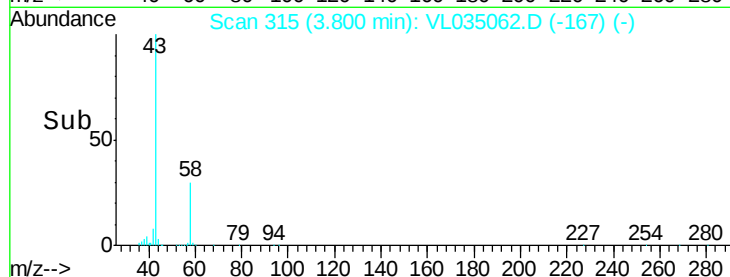
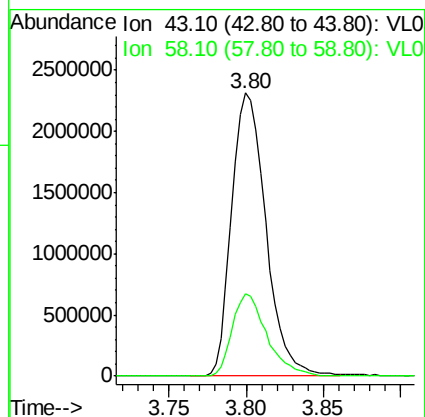
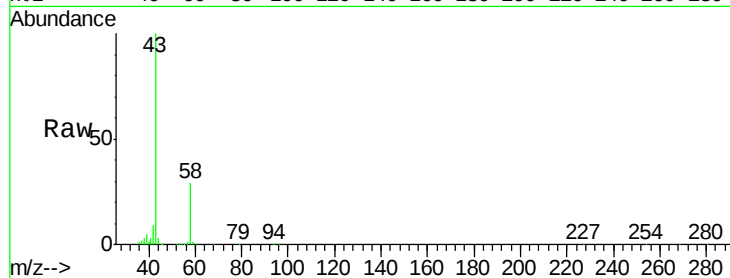
Ion Ratio Lower Upper

43 100

58 29.5 21.7 32.5

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#19

Isopropyl Alcohol

Concen: 1.955 ppbv

RT: 3.94 min Scan# 358

Delta R.T. -0.01 min

Lab File: VL035062.D

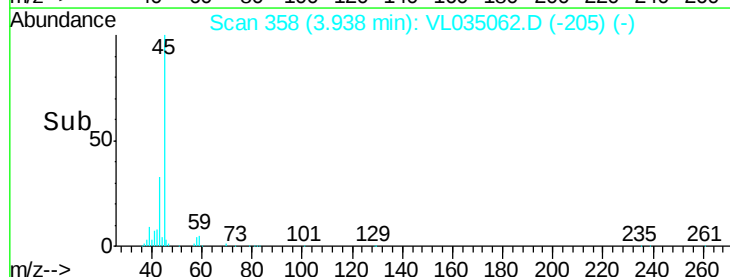
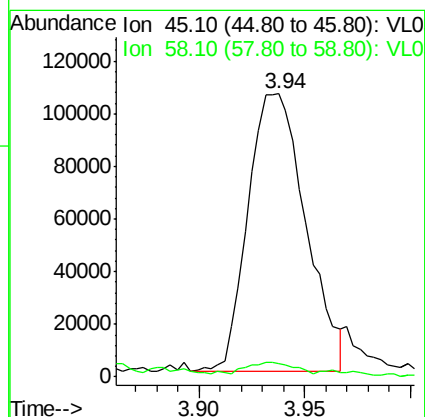
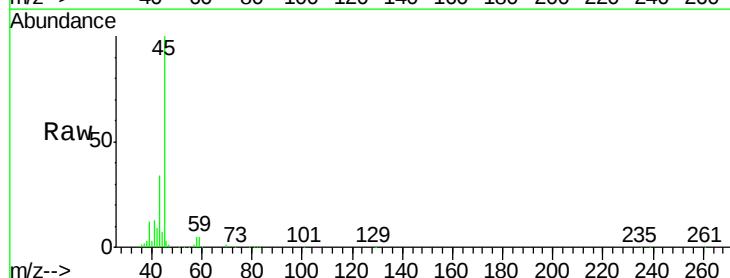
Acq: 20 May 2020 2:50

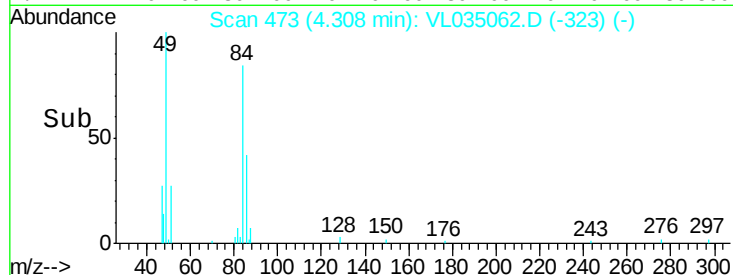
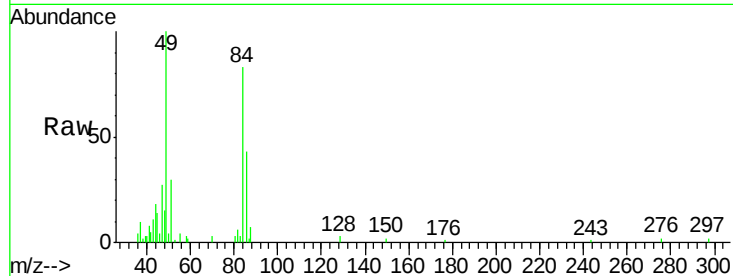
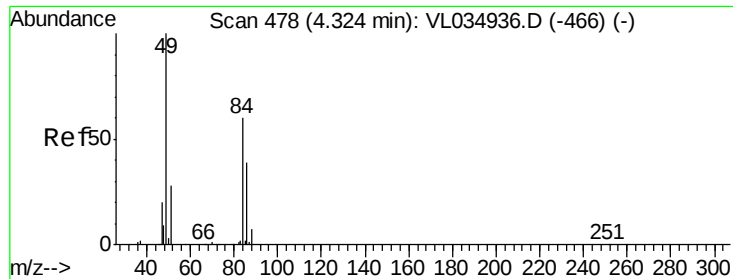
Tgt Ion: 45 Resp: 200723

Ion Ratio Lower Upper

45 100

58 522.5 1.7 2.5#





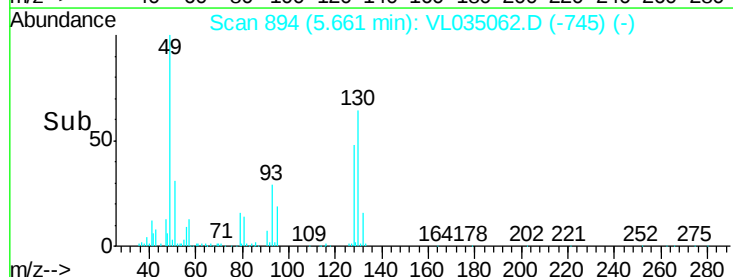
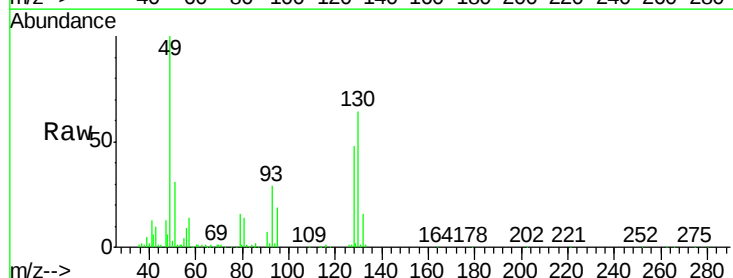
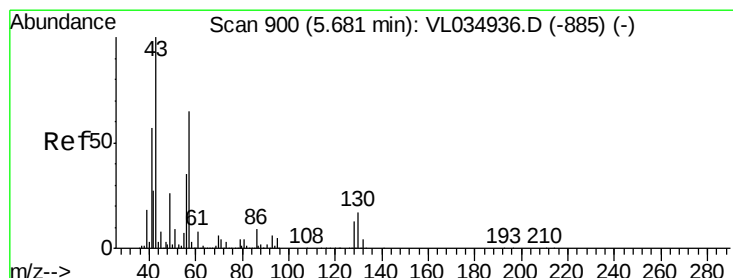
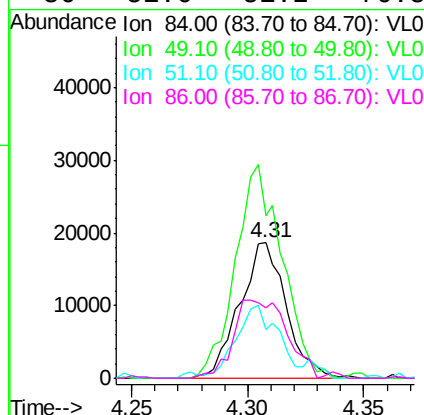
#20
Methvlene Chloride
Concen: 0.509 ppbv
RT: 4.31 min Scan# 473
Delta R.T. -0.02 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Tot Ion	84	Resp	25913
Ion Ratio	Lower	Upper	
84	100		
49	119.9	132.5	198.7#
51	36.2	38.4	57.6#
86	51.6	51.2	76.8

Instrument :
MSVOA_L
ClientSampleId :
IR-PR-SS

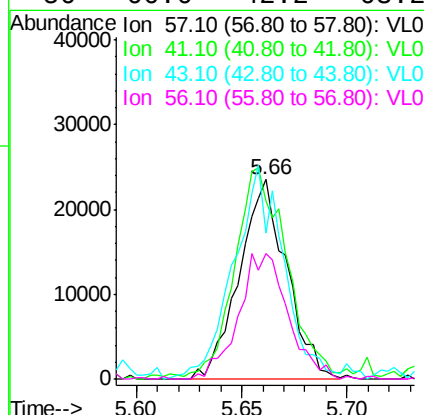
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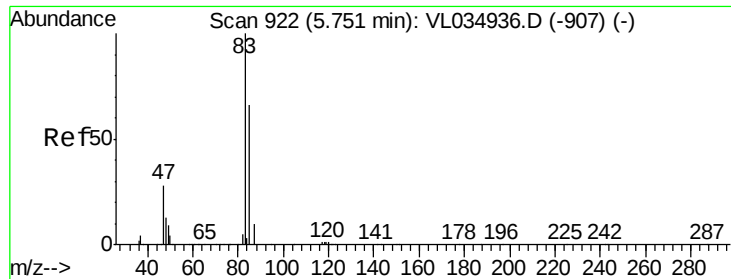
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#26
Hexane
Concen: 0.328 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.02 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Tgt Ion	57	Resp	36744
Ion Ratio	Lower	Upper	
57	100		
41	124.3	72.7	109.1#
43	116.1	182.1	273.1#
56	66.6	42.2	63.2#





#29

Chloroform

Concen: 0.215 ppbv m

RT: 5.73 min Scan# 915

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 83 Resp: 39390

Ion Ratio Lower Upper

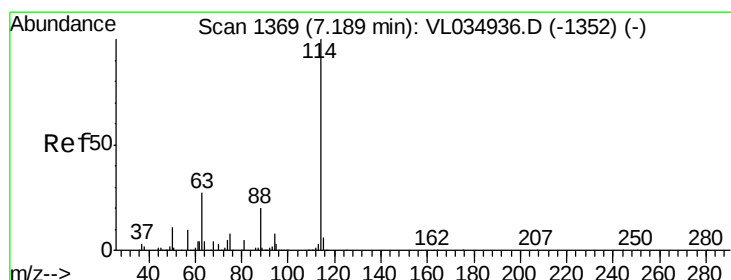
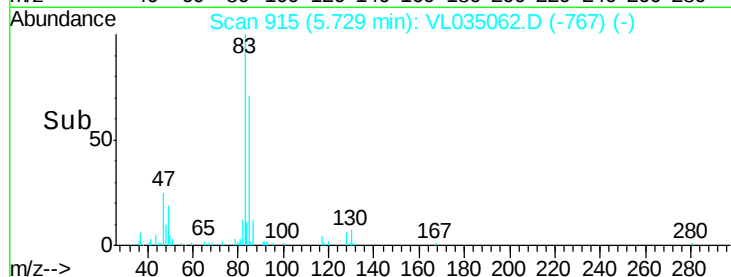
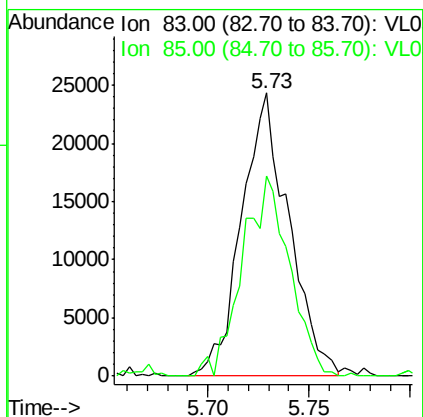
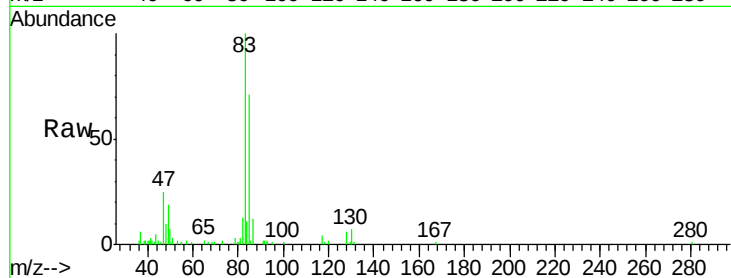
83 100

85 70.7 53.0 79.6

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1361

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

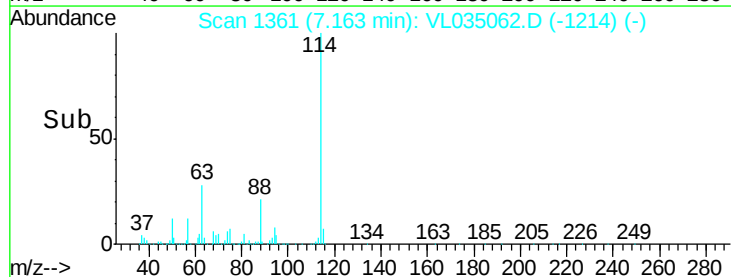
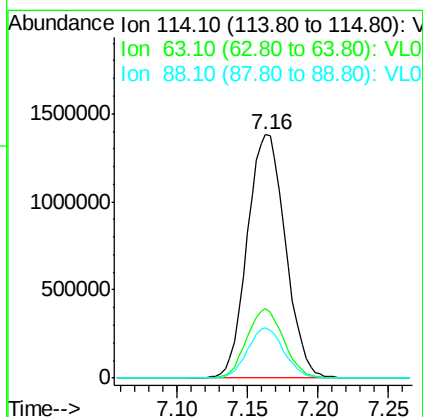
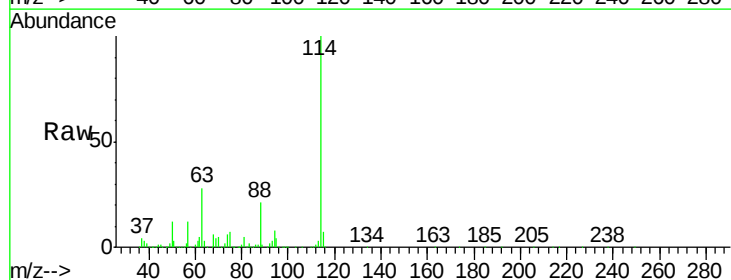
Tgt Ion: 114 Resp: 2612560

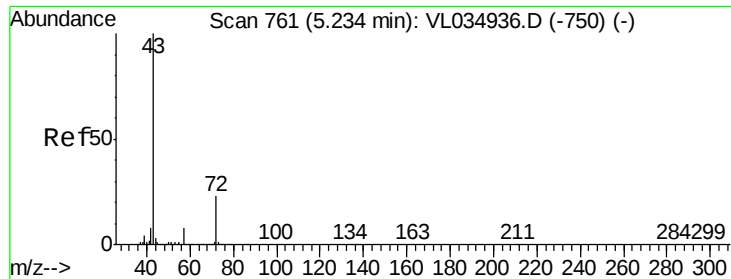
Ion Ratio Lower Upper

114 100

63 27.6 22.2 33.4

88 19.7 15.5 23.3





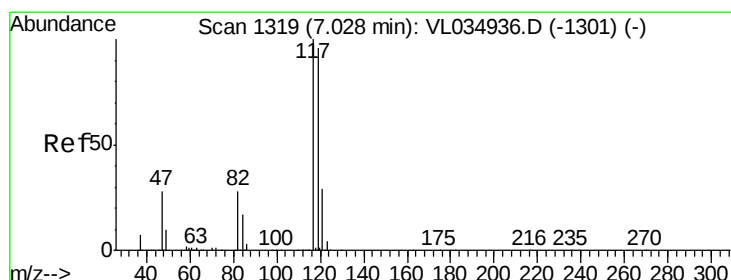
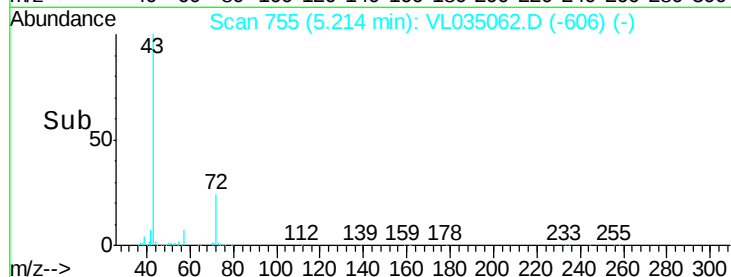
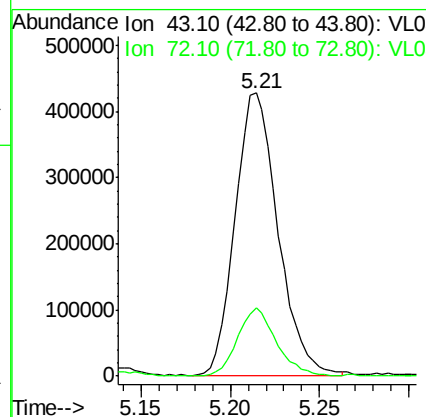
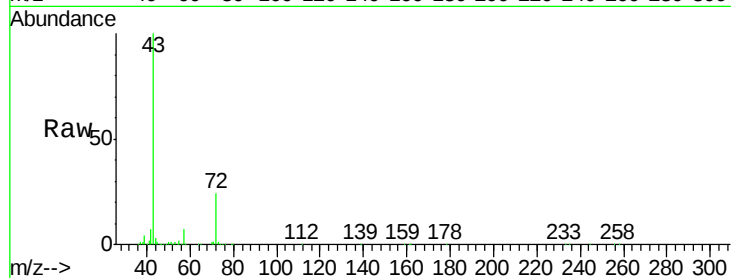
#34
2-Butanone
Concen: 4.403 ppbv
RT: 5.21 min Scan# 755
Delta R.T. -0.02 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Instrument :
MSVOA_L
ClientSampled :
IR-PR-SS

Tot Ion	Ratio	Lower	Upper
43	100		
72	22.2	18.0	27.0

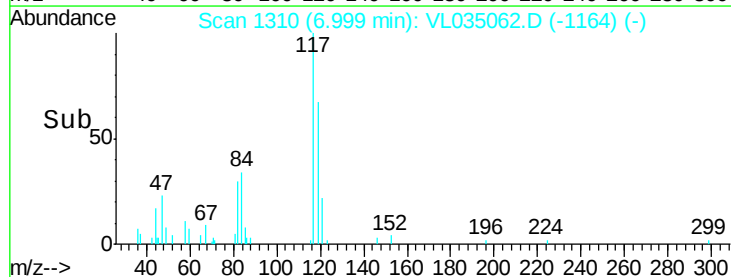
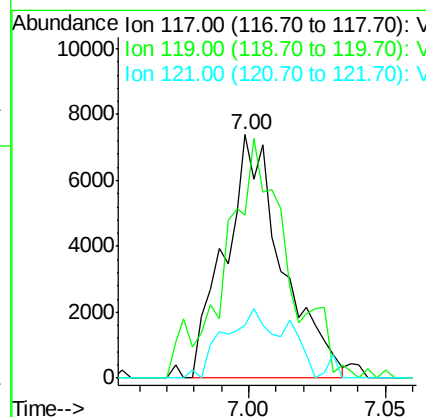
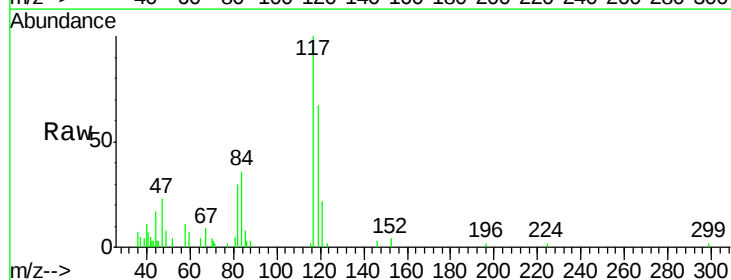
Manual Integrations
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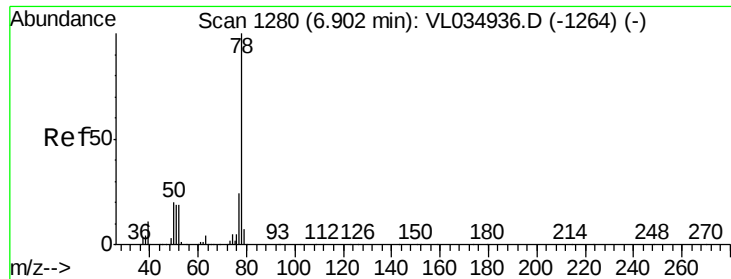
MMDadoda
5/20/2020 4:28:06 PM



#35
Carbon Tetrachloride
Concen: 0.065 ppbv
RT: 7.00 min Scan# 1310
Delta R.T. -0.03 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Tgt Ion	Ratio	Lower	Upper
117	100		
119	61.5	77.0	115.6#
121	21.6	23.0	34.6#





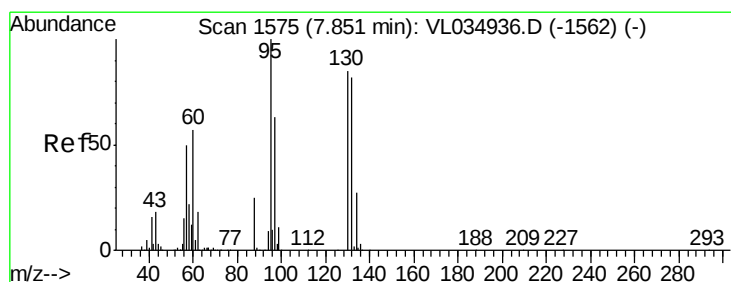
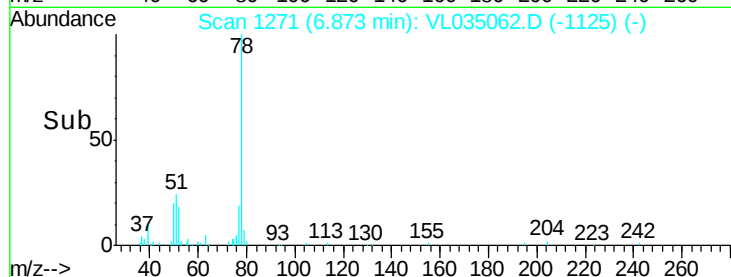
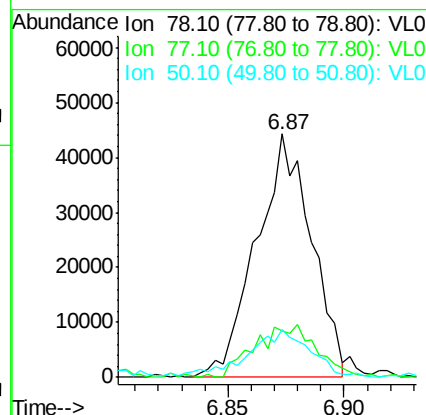
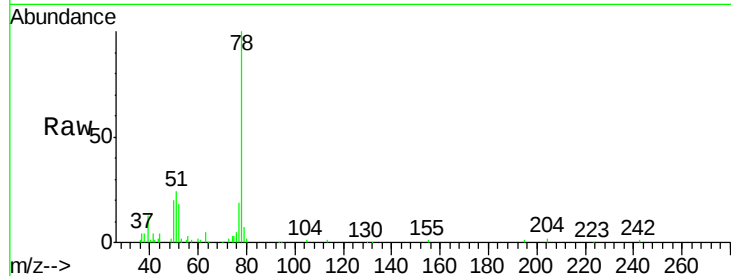
#36
Benzene
Concen: 0.336 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. -0.03 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Instrument :
MSVOA_L
ClientSampleId :
IR-PR-SS

Tot Ion	Ratio	Lower	Upper
78	100		
77	18.6	19.0	28.6#
50	18.7	15.8	23.8

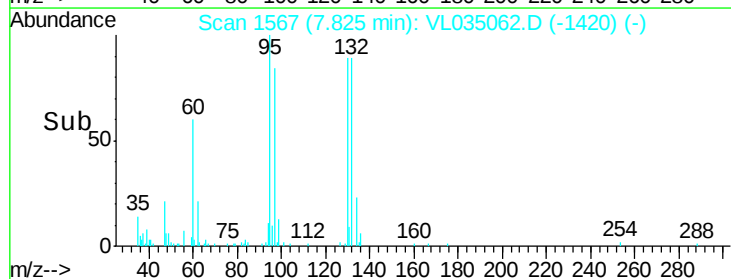
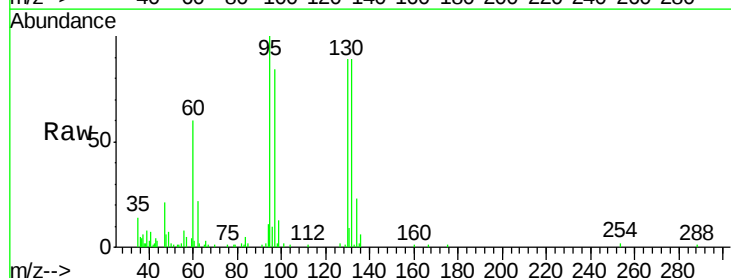
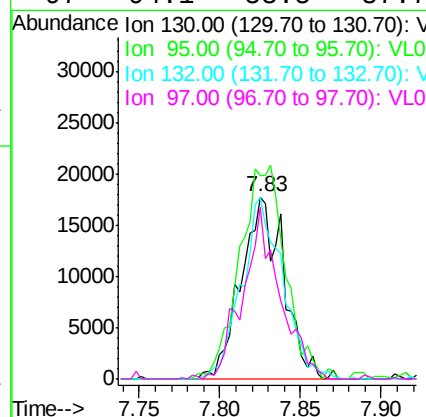
Manual Integrations
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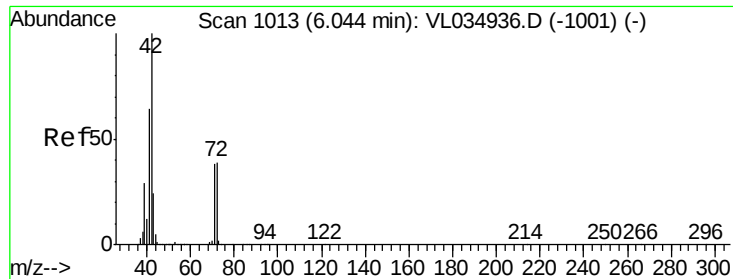
MMDadoda
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#38
Trichloroethene
Concen: 0.393 ppbv m
RT: 7.83 min Scan# 1567
Delta R.T. -0.03 min
Lab File: VL035062.D
Acq: 20 May 2020 2:50

Tgt Ion	Ratio	Lower	Upper
130	100		
95	112.0	93.4	140.0
132	100.2	76.4	114.6
97	94.1	58.5	87.7#





#41

Tetrahydrofuran

Concen: 0.270 ppbv m

RT: 6.04 min Scan# 1012

Delta R.T. -0.00 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 42 Resp: 23092

Ion Ratio Lower Upper

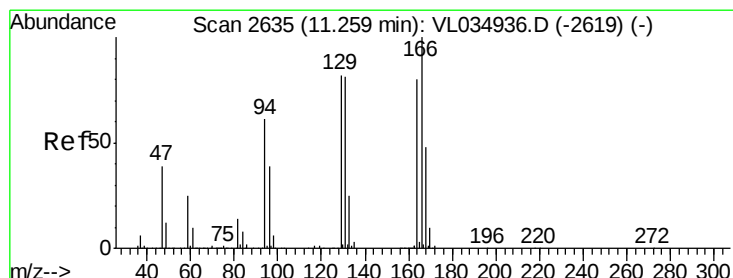
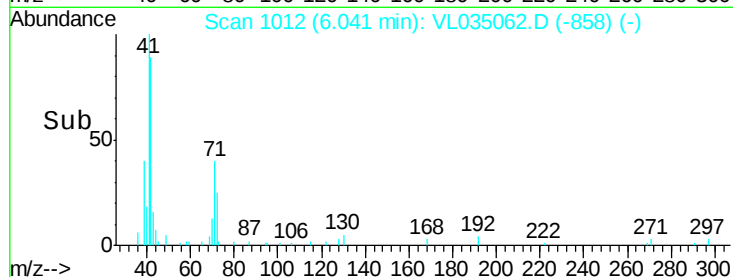
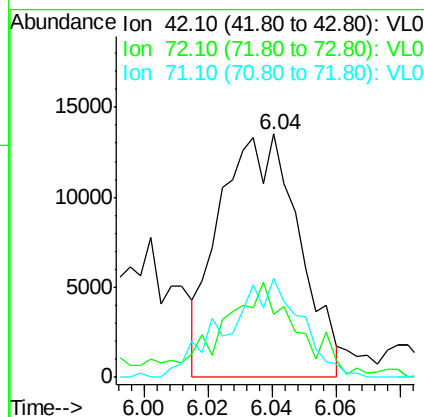
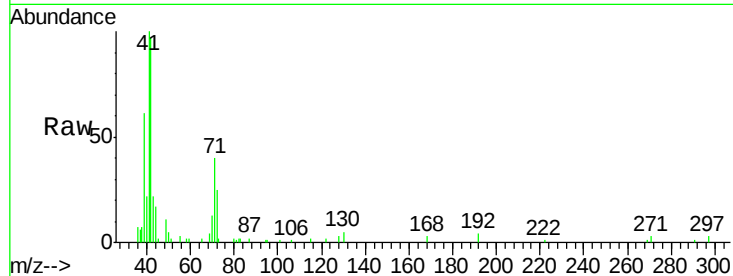
42 100

72 0.0 31.4 47.0#

71 0.0 29.8 44.8#

Manual Integrations
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#52

Tetrachloroethene

Concen: 21.721 ppbv

RT: 11.23 min Scan# 2627

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Tgt Ion: 164 Resp: 1663637

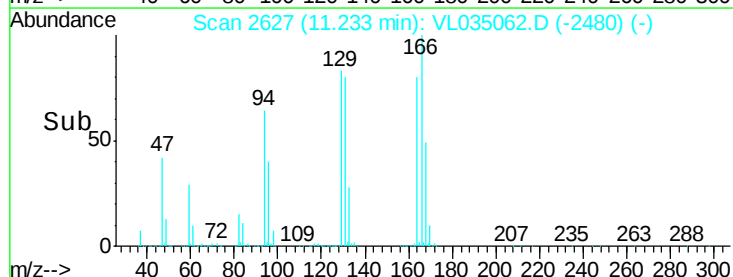
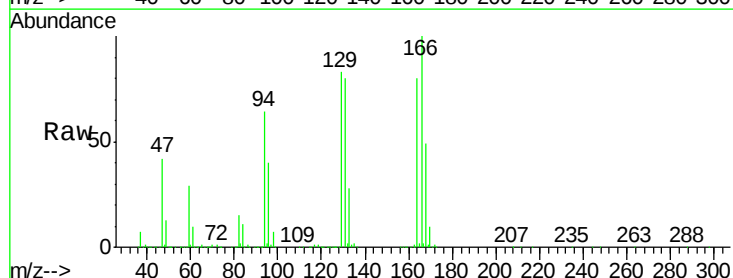
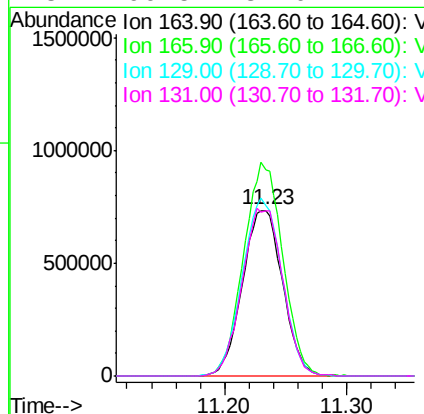
Ion Ratio Lower Upper

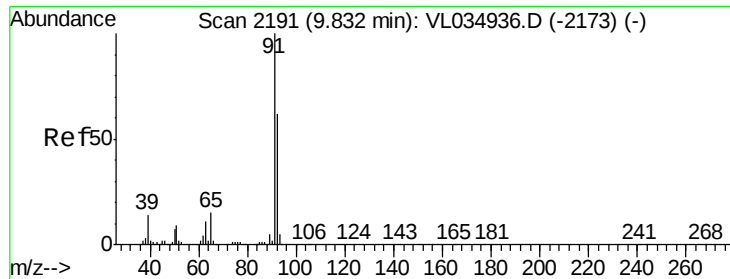
164 100

166 124.4 100.7 151.1

129 102.8 83.0 124.4

131 99.5 81.0 121.4





#53

Toluene

Concen: 1.579 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampleId :

IR-PR-SS

Tot Ion: 91 Resp: 360642

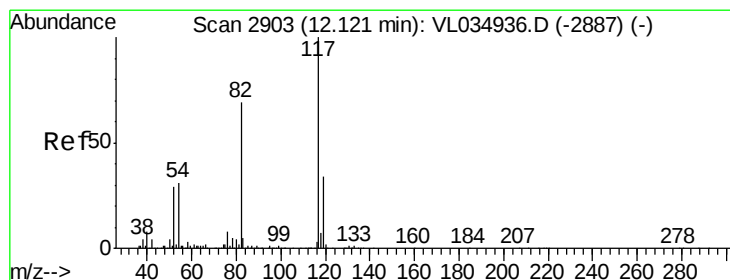
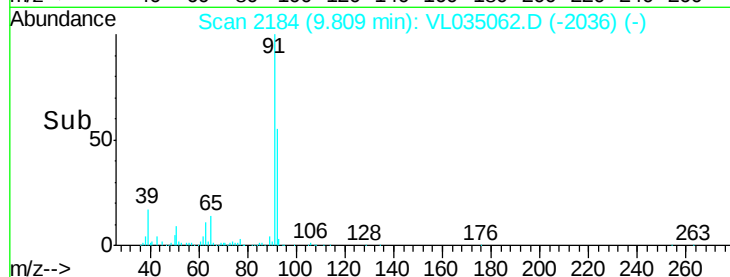
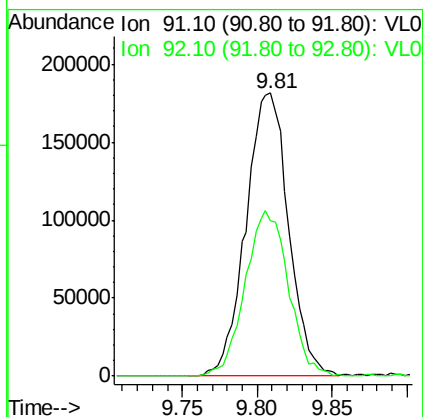
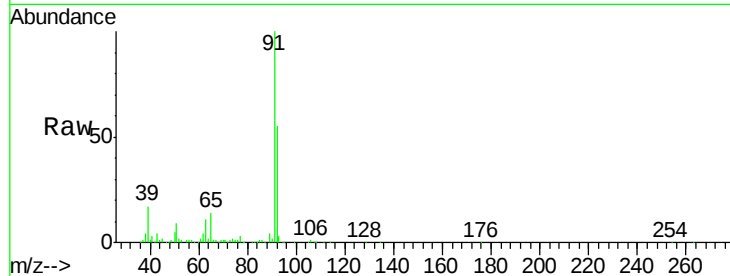
Ion Ratio Lower Upper

91 100

92 59.1 48.6 73.0

Manual Integrations
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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2895

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

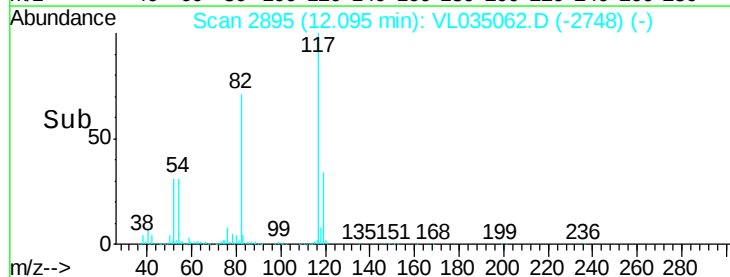
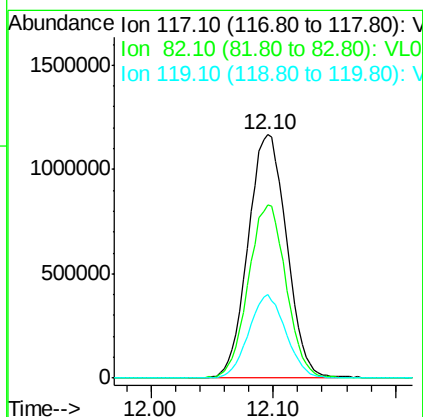
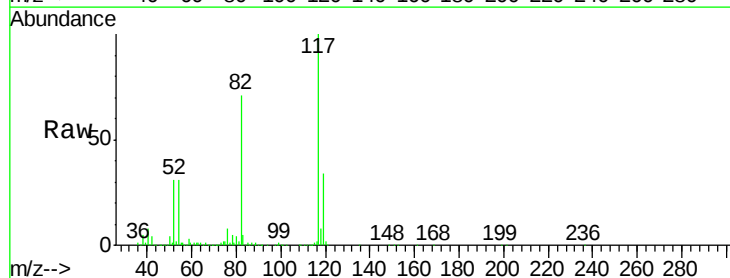
Tgt Ion: 117 Resp: 2547381

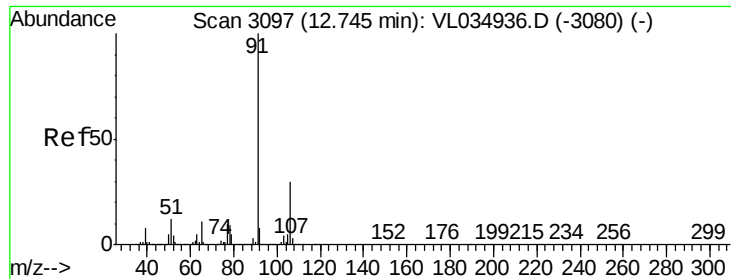
Ion Ratio Lower Upper

117 100

82 69.6 53.1 79.7

119 33.0 26.7 40.1





#58

Ethyl Benzene

Concen: 0.166 ppbv m

RT: 12.72 min Scan# 3089

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 91 Resp: 52260

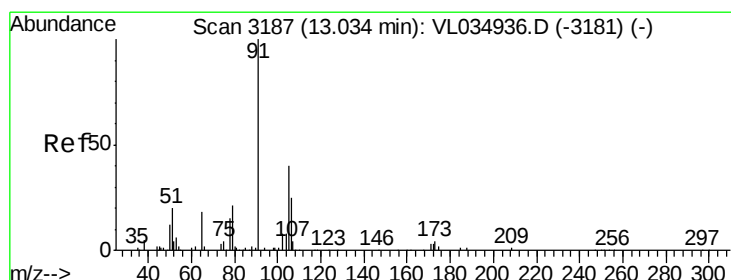
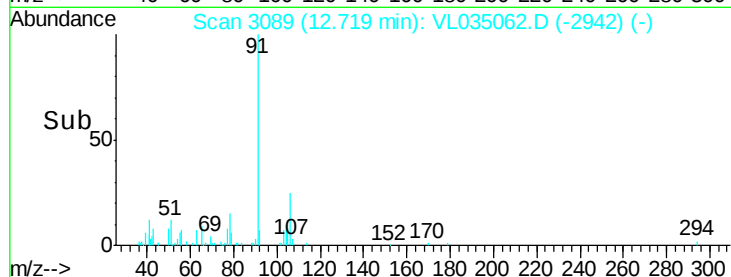
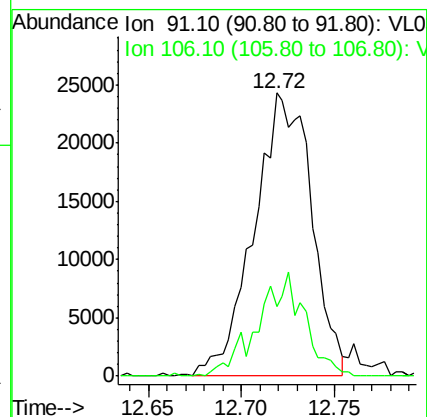
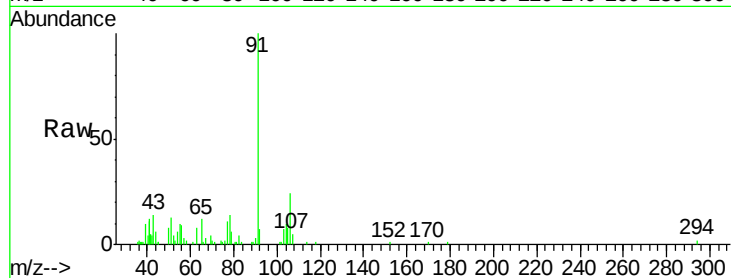
Ion Ratio Lower Upper

91 100

106 24.4 24.2 36.4

Manual Integrations
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#59

m/p-Xylene

Concen: 0.446 ppbv m

RT: 12.98 min Scan# 3170

Delta R.T. -0.05 min

Lab File: VL035062.D

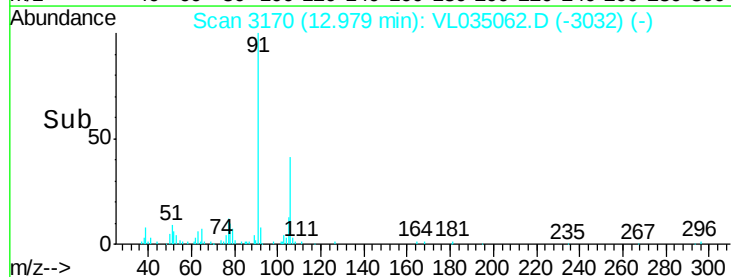
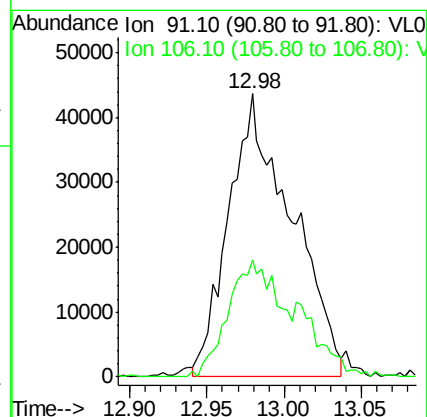
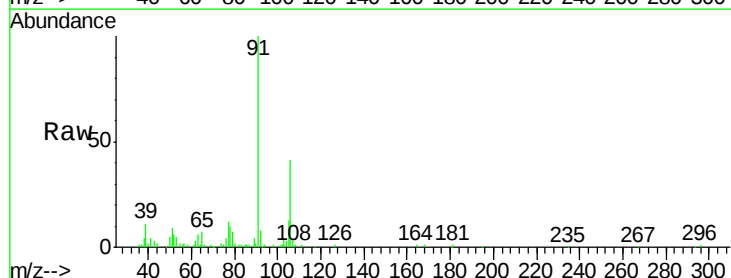
Acq: 20 May 2020 2:50

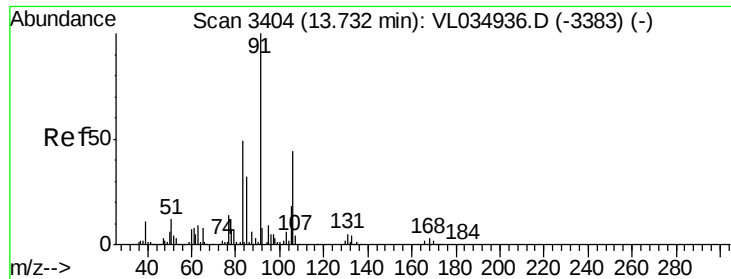
Tgt Ion: 91 Resp: 123743

Ion Ratio Lower Upper

91 100

106 0.0 66.0 99.0#





#60

o-Xylene

Concen: 0.179 ppbv m

RT: 13.72 min Scan# 3399

Delta R.T. -0.02 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 91 Resp: 49056

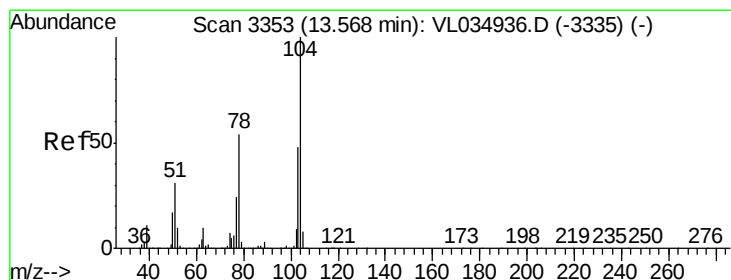
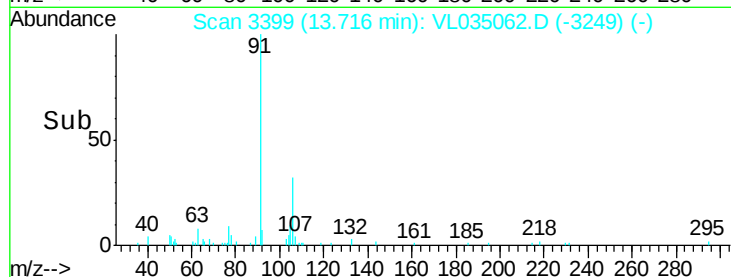
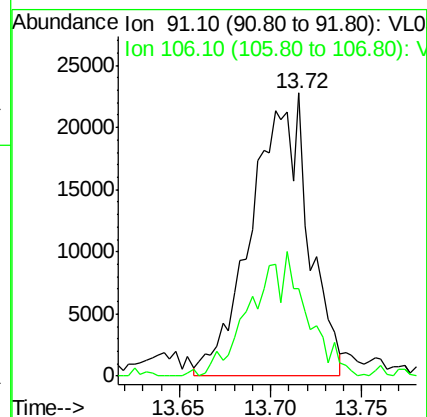
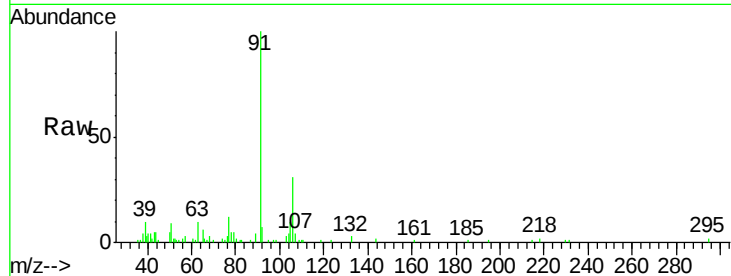
Ion Ratio Lower Upper

91 100

106 0.0 21.9 65.5#

Manual Integrations
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#61

Styrene

Concen: 0.110 ppbv m

RT: 13.54 min Scan# 3345

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

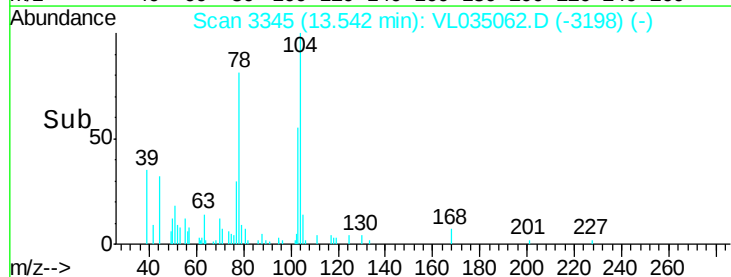
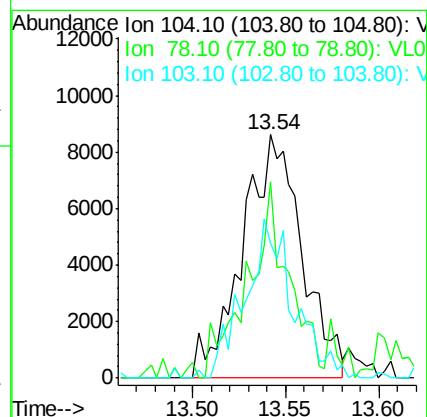
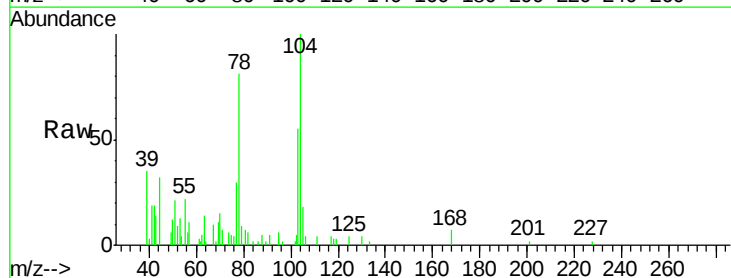
Tgt Ion: 104 Resp: 19040

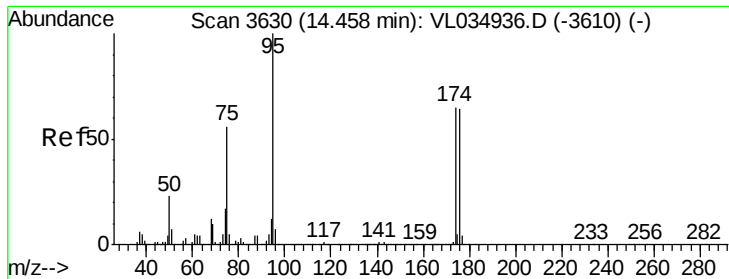
Ion Ratio Lower Upper

104 100

78 60.6 43.7 65.5

103 54.0 38.8 58.2





#68

1-Bromo-4-Fluorobenzene

Concen: 10.604 ppbv

RT: 14.43 min Scan# 3622

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

Instrument :

MSVOA_L

ClientSampled :

IR-PR-SS

Tot Ion: 95 Resp: 2186531

Ion Ratio Lower Upper

95 100

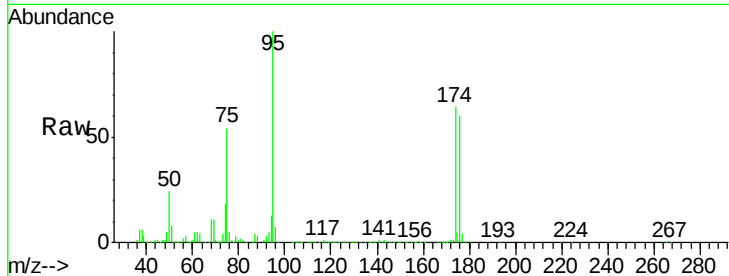
174 63.6 51.5 77.3

175 4.6 3.8 5.8

Manual Integrations
APPROVED

MMDadoda

5/20/2020 4:28:06 PM



Abundance Ion 95.10 (94.80 to 95.80): VL034936.D (-3610) (-)

Ion 174.00 (173.70 to 174.70): VL034936.D (-3610) (-)

Ion 175.00 (174.70 to 175.70): VL034936.D (-3610) (-)

14.43

1200000

1000000

800000

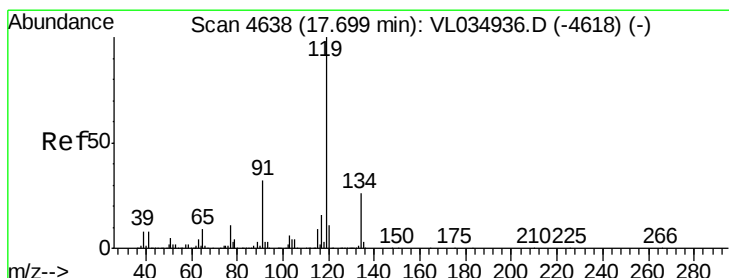
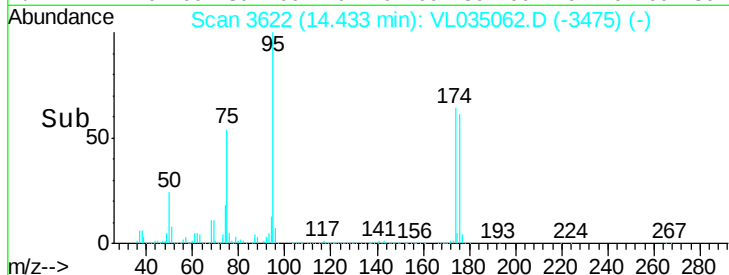
600000

400000

200000

0

Time-->



#69

p-Isopropyltoluene

Concen: 0.122 ppbv m

RT: 17.67 min Scan# 4629

Delta R.T. -0.03 min

Lab File: VL035062.D

Acq: 20 May 2020 2:50

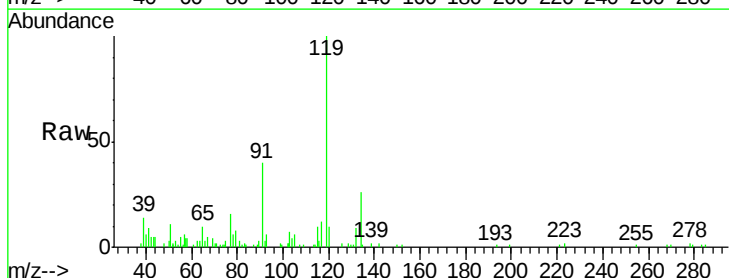
Tgt Ion: 119 Resp: 49806

Ion Ratio Lower Upper

119 100

134 27.3 20.3 30.5

91 40.7 24.6 36.8#



Abundance Ion 119.10 (118.80 to 119.80): VL034936.D (-4618) (-)

Ion 134.20 (133.90 to 134.90): VL034936.D (-4618) (-)

Ion 91.10 (90.80 to 91.80): VL034936.D (-4618) (-)

17.67

30000

25000

20000

15000

10000

5000

0

Time-->

