

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120720\
 Data File : VL036085.D
 Acq On : 8 Dec 2020 4:25
 Operator : SY/AP
 Sample : L4948-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5B

Manual Integrations
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 12/11/2020 5:45:25 PM

Quant Time: Dec 08 21:28:32 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 0
 QLast Update : Mon Dec 07 16:56:49 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1202861	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	2576133	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2299488	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.45	95	1922808	10.53	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	39414	0.281	ppbv	100
3) Chlorodifluoromethane	2.99	51	66290	0.483	ppbv	94
4) Chloromethane	3.14	50	36673m	0.544	ppbv	
9) Propene	3.02	41	613661m	8.926	ppbv	
10) Heptane	8.15	43	419925	2.392	ppbv	98
11) Trichlorofluoromethane	3.96	101	82026m	0.498	ppbv	
13) Ethanol	3.62	45	3243885	342.272	ppbv	85
15) Acetone	3.86	43	1729586m	11.964	ppbv	
20) Methylene Chloride	4.36	84	473305	7.990	ppbv	96
26) Hexane	5.71	57	929221	7.149	ppbv #	40
30) Cyclohexane	7.15	84	749276	7.847	ppbv	95
34) 2-Butanone	5.27	43	111107	0.650	ppbv	95
35) Carbon Tetrachloride	7.04	117	10127m	0.067	ppbv	
36) Benzene	6.91	78	258896	1.186	ppbv	93
44) 2,2,4-Trimethylpentane	7.89	57	646615	1.635	ppbv #	82
52) Tetrachloroethene	11.25	164	3791m	0.048	ppbv	
53) Toluene	9.83	91	1541397	6.287	ppbv	99
58) Ethyl Benzene	12.74	91	797005	2.529	ppbv	96
59) m/p-Xylene	12.99	91	2915155	10.983	ppbv	97
60) o-Xylene	13.72	91	1136944	4.546	ppbv	99
64) n-propylbenzene	15.59	120	24490m	0.275	ppbv	
70) n-Butylbenzene	18.59	91	50338m	0.151	ppbv	
72) 4-Ethyltoluene	15.88	105	143104m	0.528	ppbv	
73) 1,3,5-Trimethylbenzene	16.03	105	115343	0.446	ppbv	97
74) 1,2,4-Trimethylbenzene	16.79	105	427831	1.647	ppbv #	67
79) Naphthalene	22.25	128	90166m	0.683	ppbv	

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

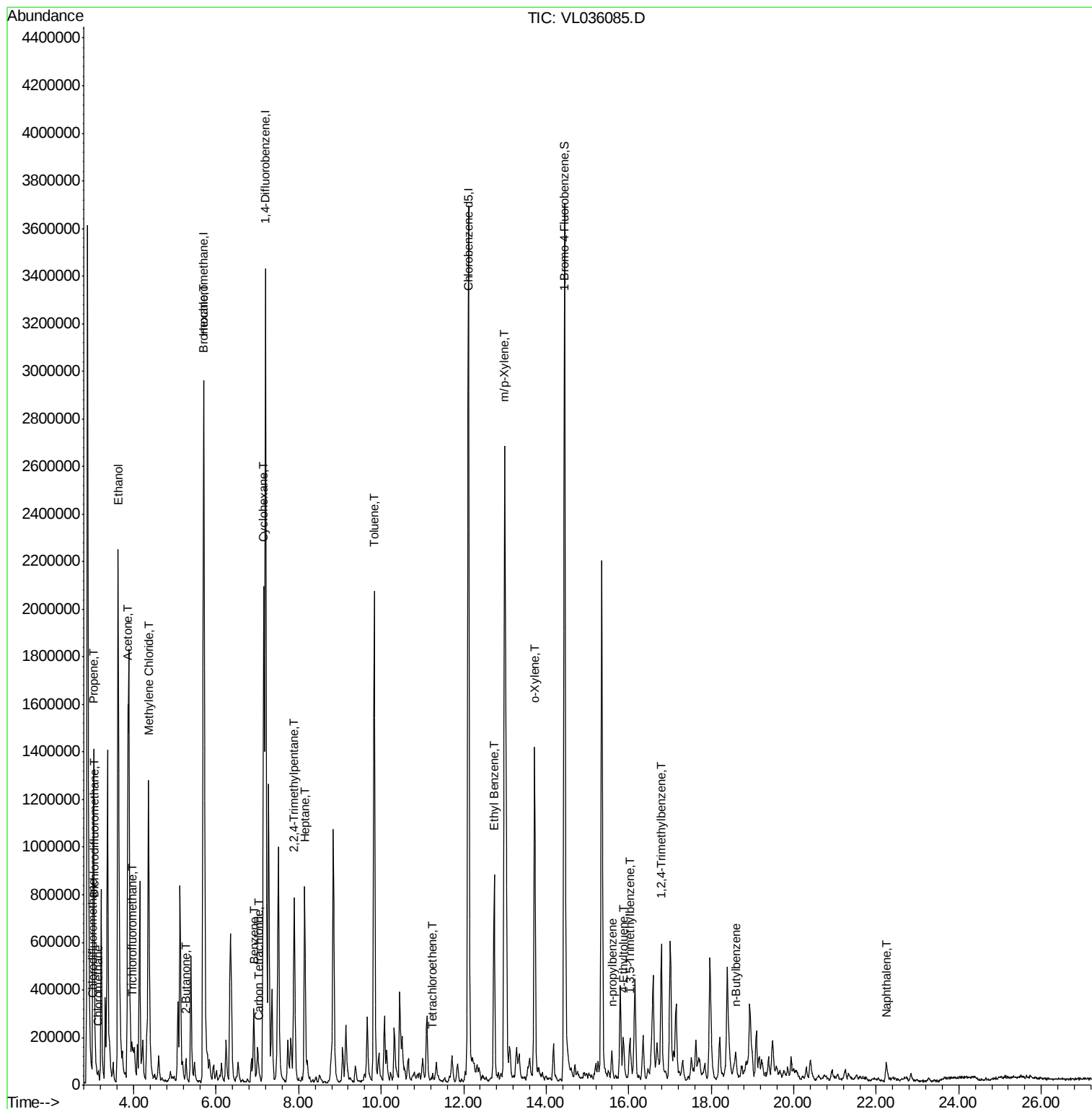
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120720\
Data File : VL036085.D
Acq On : 8 Dec 2020 4:25
Operator : SY/AP
Sample : L4948-04
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

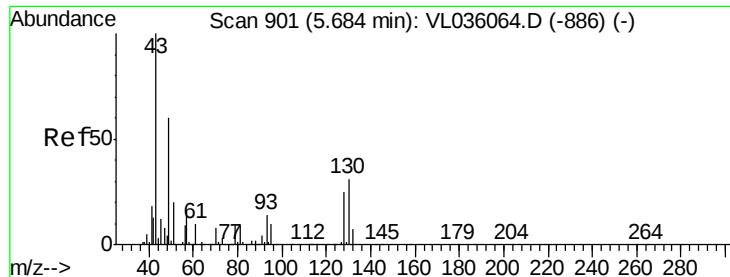
Instrument :
MSVOA_L
ClientSampleId :
IA-5B

Manual Integrations
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Quant Time: Dec 08 21:28:32 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec
QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

IA-5B

Tot Ion: 49 Resp: 1202861

Ion Ratio Lower Upper

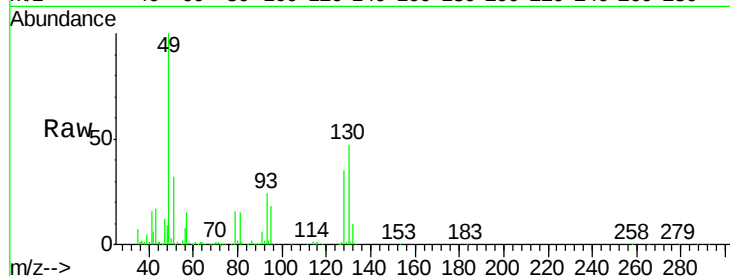
49 100

128 38.0 21.1 63.1

130 49.0 27.1 81.3

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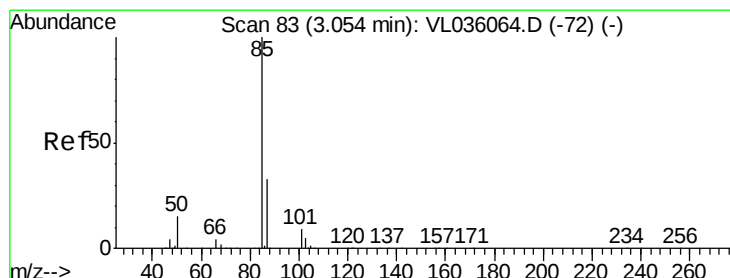
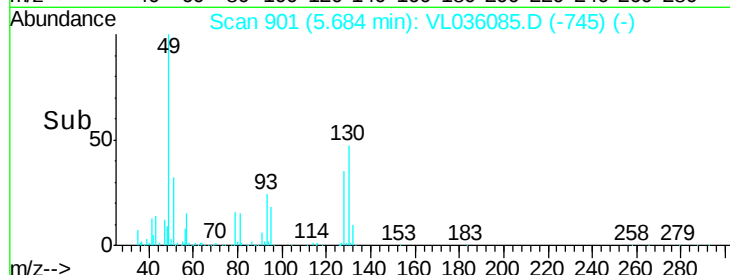
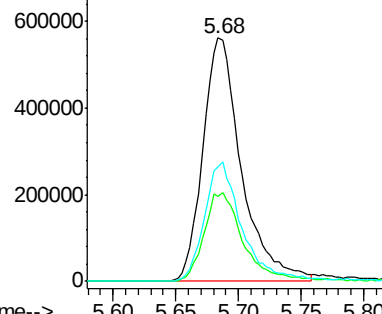
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.281 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL036085.D

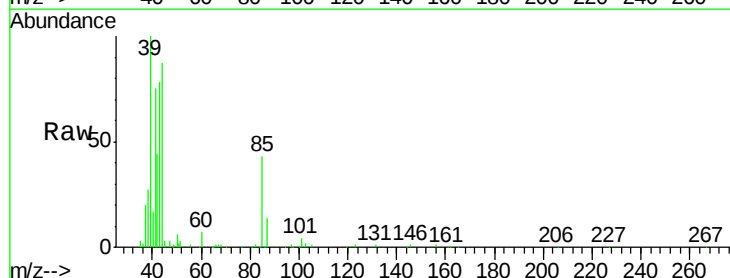
Acq: 8 Dec 2020 4:25

Tgt Ion: 85 Resp: 39414

Ion Ratio Lower Upper

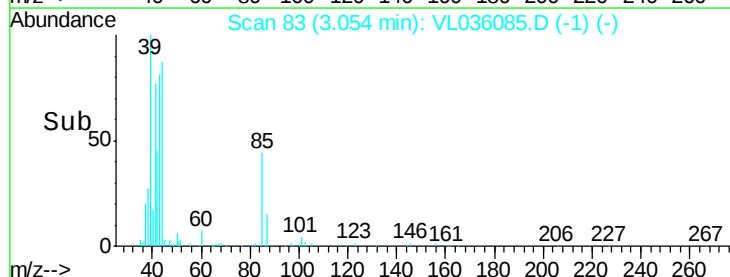
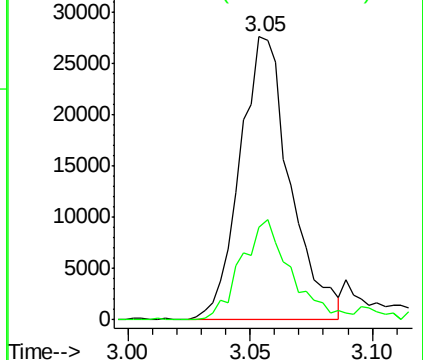
85 100

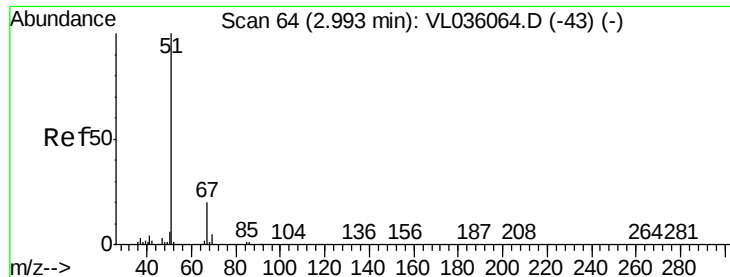
87 32.9 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.483 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

IA-5B

Tot Ion: 51 Resp: 66290

Ion Ratio Lower Upper

51 100

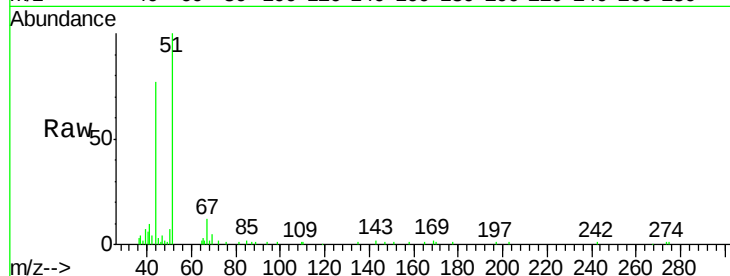
67 15.4 14.3 21.5

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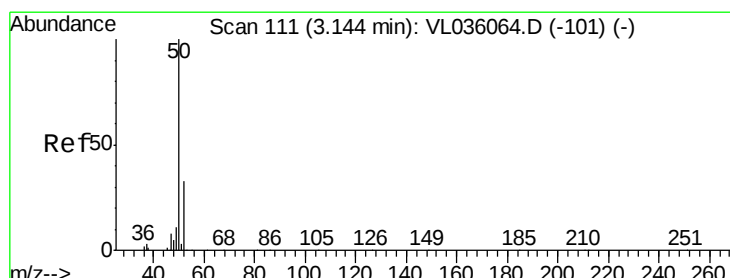
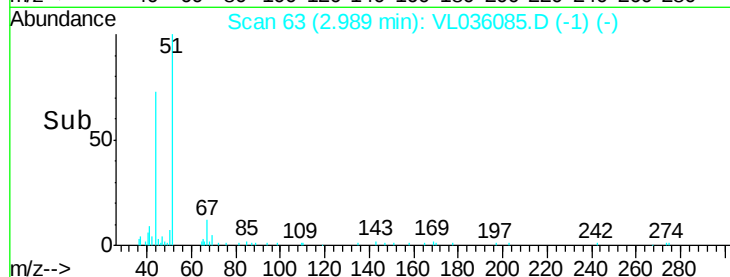
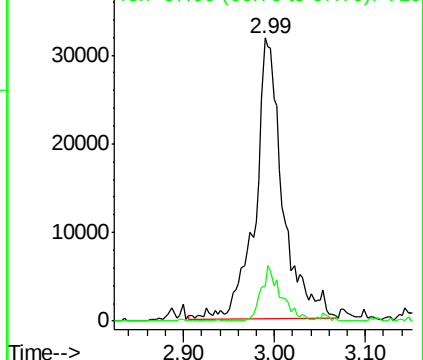
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.544 ppbv m

RT: 3.14 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL036085.D

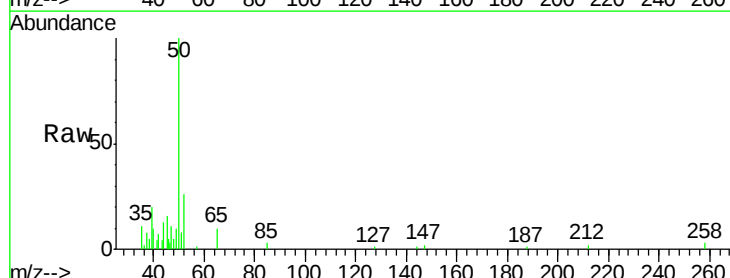
Acq: 8 Dec 2020 4:25

Tgt Ion: 50 Resp: 36673

Ion Ratio Lower Upper

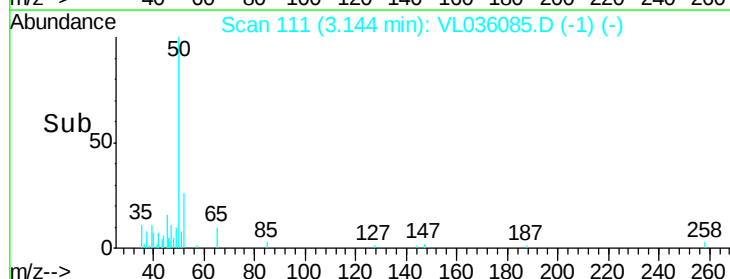
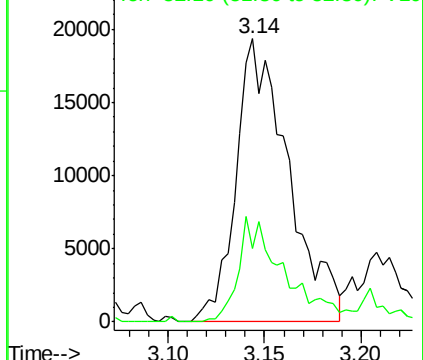
50 100

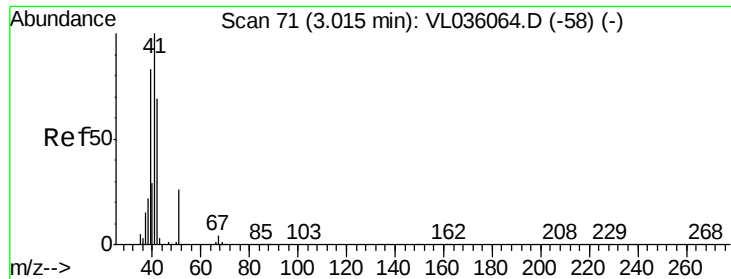
52 25.8 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





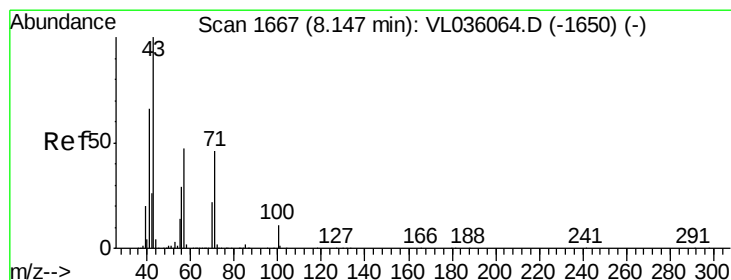
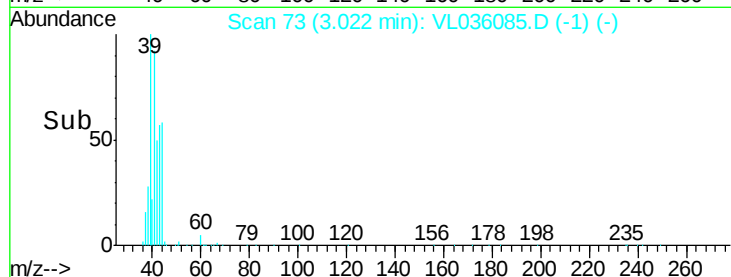
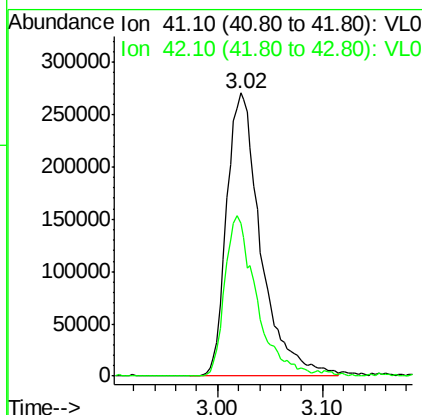
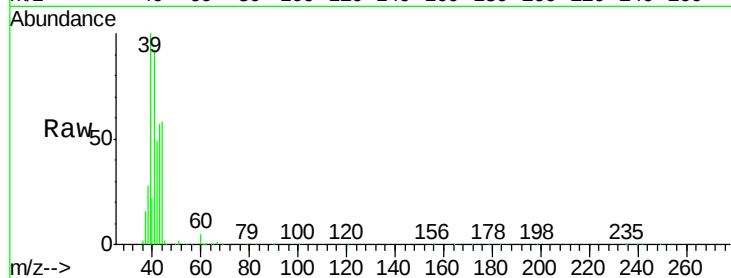
#9
 Propene
 Concen: 8.926 ppbv m
 RT: 3.02 min Scan# 73
 Delta R.T. 0.01 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5B

Tot Ion: 41 Resp: 613661
 Ion Ratio Lower Upper
 41 100
 42 29.3 57.0 85.6#

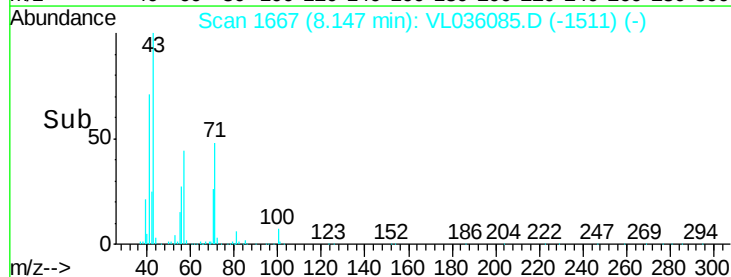
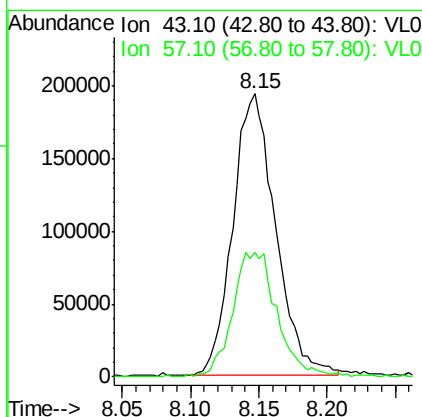
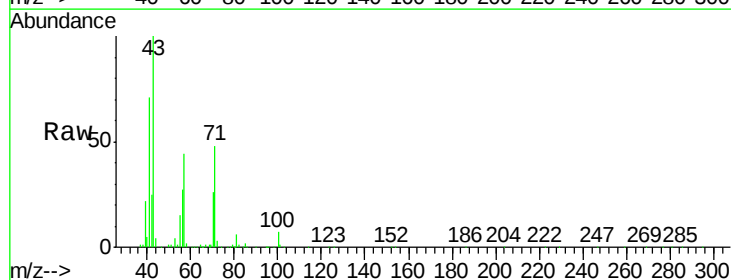
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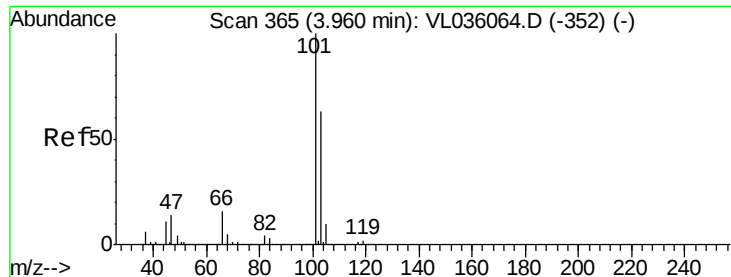
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#10
 Heptane
 Concen: 2.392 ppbv
 RT: 8.15 min Scan# 1667
 Delta R.T. 0.00 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Tgt Ion: 43 Resp: 419925
 Ion Ratio Lower Upper
 43 100
 57 46.1 37.9 56.9





#11

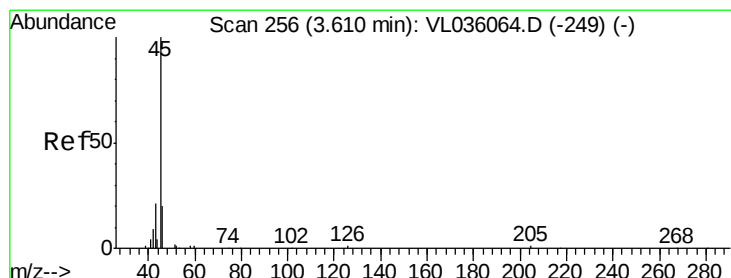
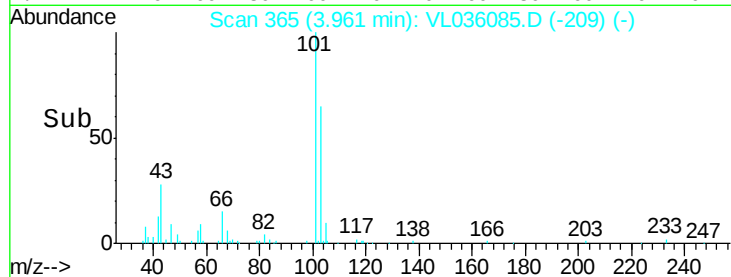
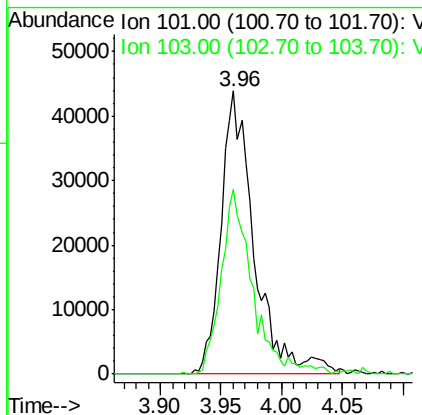
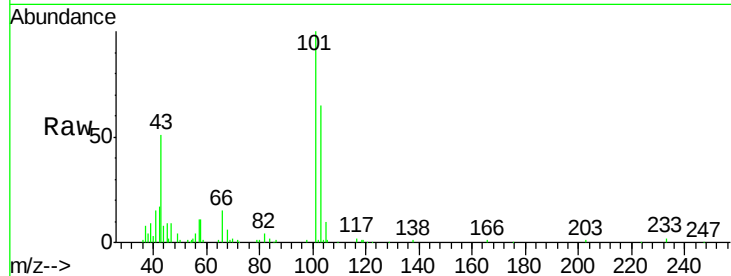
Trichlorofluoromethane
 Concen: 0.498 ppbv m
 RT: 3.96 min Scan# 365
 Delta R.T. 0.00 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5B

Tot Ion	Ratio	Lower	Upper
101	100		
103	65.3	50.3	75.5

Manual Integrations
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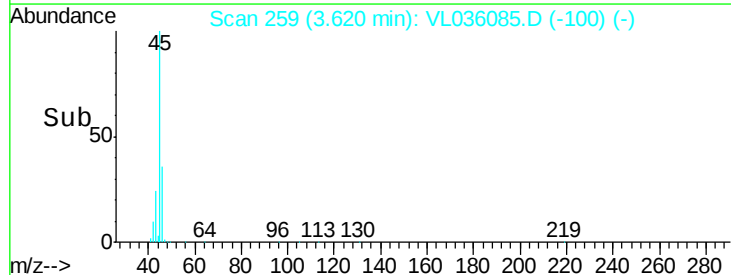
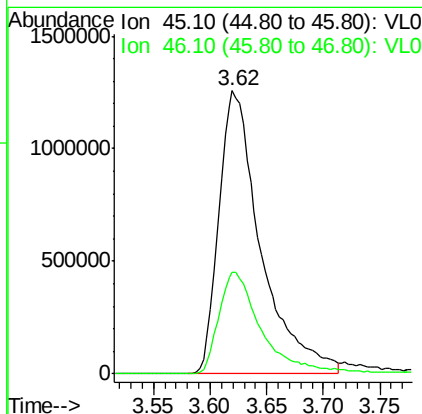
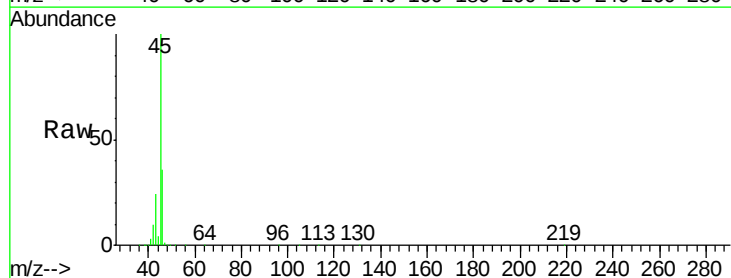
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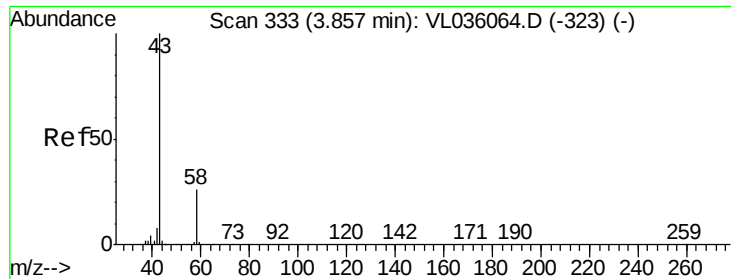


#13

Ethanol
 Concen: 342.272 ppbv
 RT: 3.62 min Scan# 259
 Delta R.T. 0.01 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Tgt Ion	Ratio	Lower	Upper
45	100		
46	37.5	19.0	75.8





#15

Acetone

Concen: 11.964 ppbv m

RT: 3.86 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

IA-5B

Tot Ion: 43 Resp: 1729586

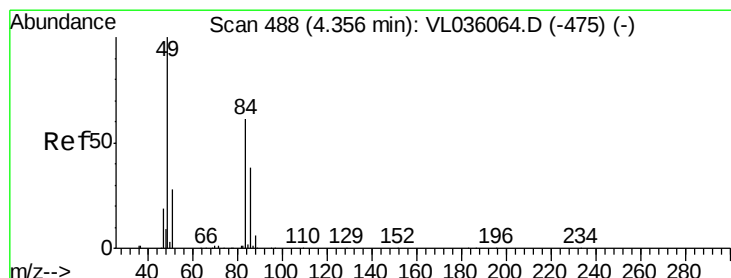
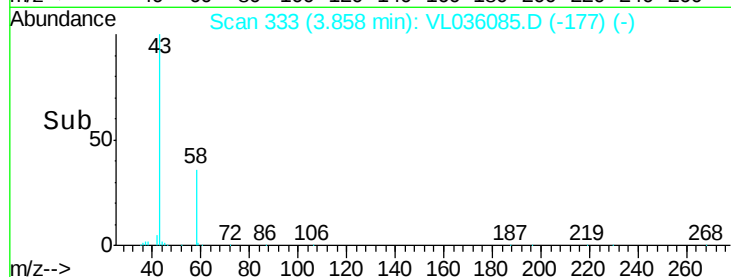
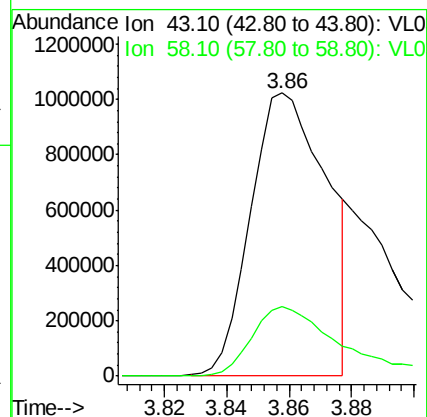
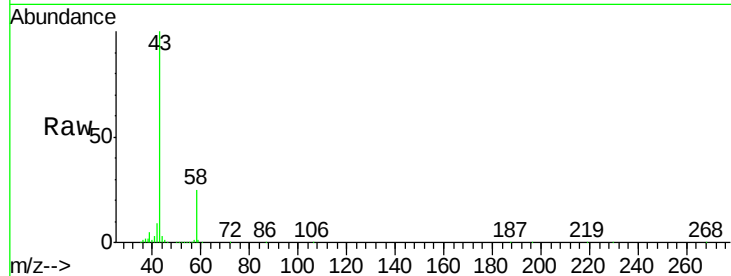
Ion Ratio Lower Upper

43 100

58 31.1 20.9 31.3

Manual Integrations
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#20

Methylene Chloride

Concen: 7.990 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Tgt Ion: 84 Resp: 473305

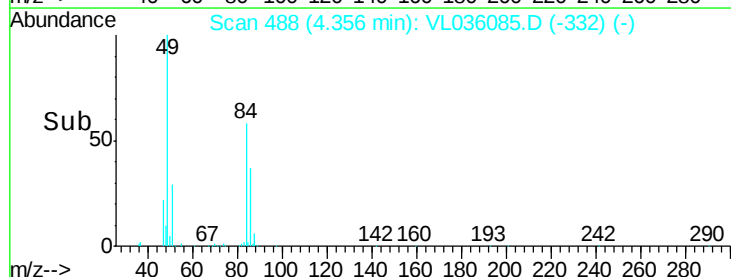
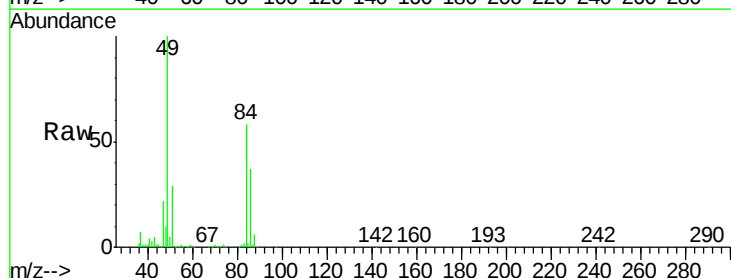
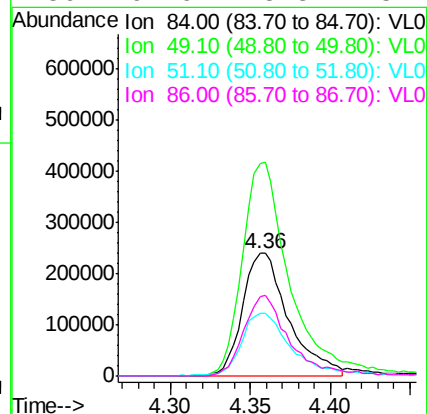
Ion Ratio Lower Upper

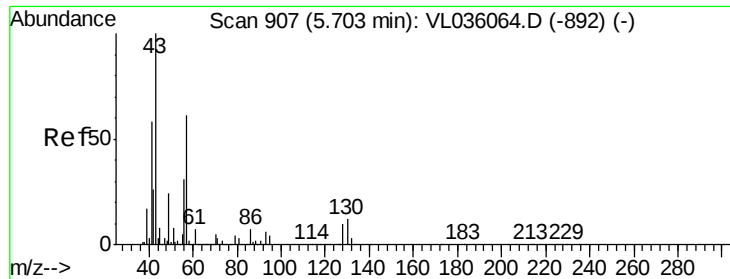
84 100

49 173.2 133.0 199.4

51 49.8 38.9 58.3

86 64.6 48.8 73.2





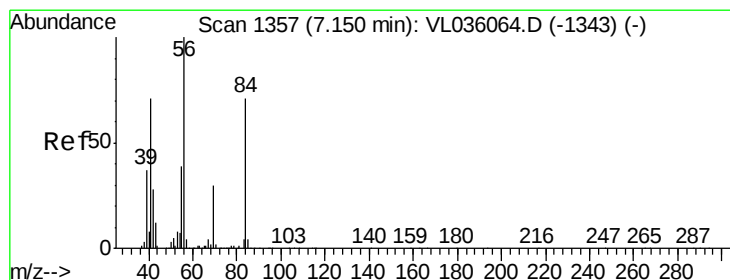
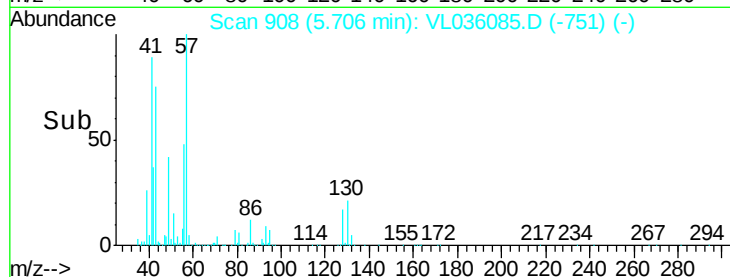
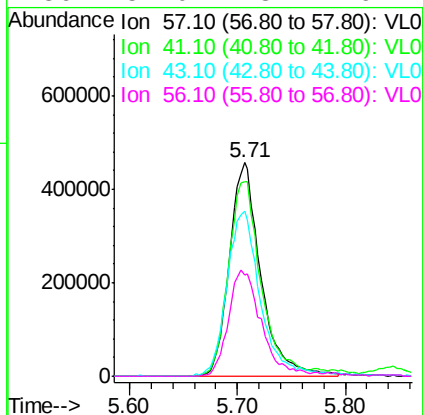
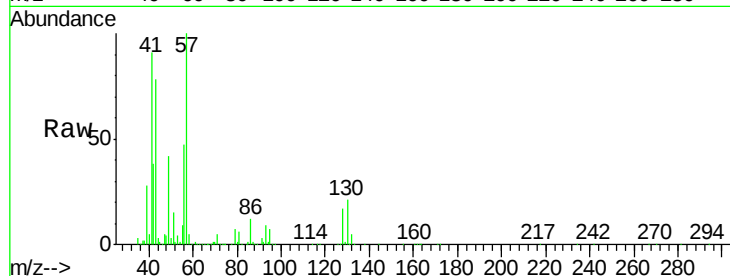
#26
Hexane
Concen: 7.149 ppbv
RT: 5.71 min Scan# 908
Delta R.T. 0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampled :
IA-5B

Tot Ion	57	Resp	929221
Ion	Ratio	Lower	Upper
57	100		
41	98.5	82.9	124.3
43	83.0	199.9	299.9#
56	54.0	43.1	64.7

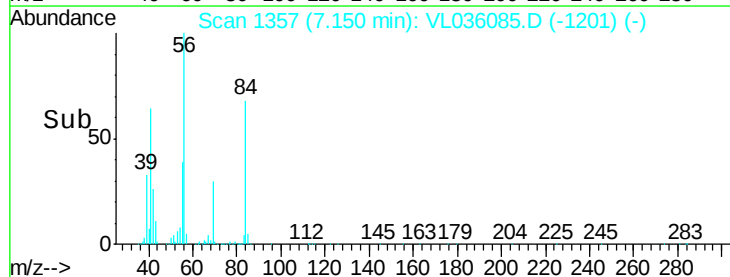
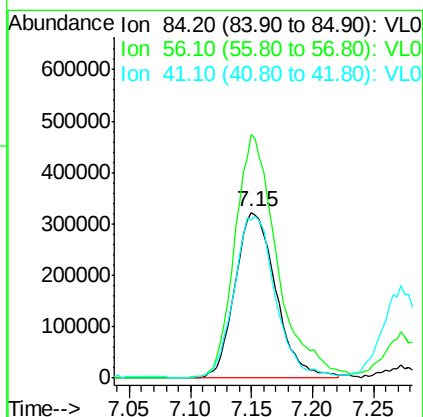
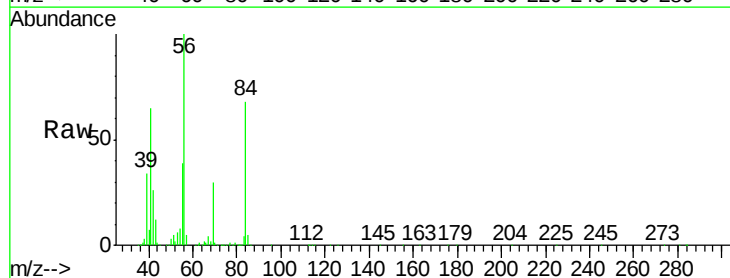
Manual Integrations
APPROVED

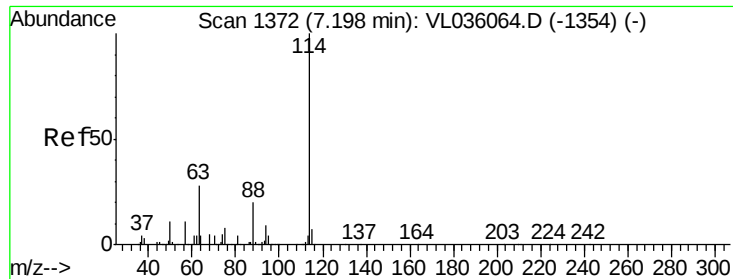
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#30
Cyclohexane
Concen: 7.847 ppbv
RT: 7.15 min Scan# 1357
Delta R.T. 0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Tgt Ion	84	Resp	749276
Ion	Ratio	Lower	Upper
84	100		
56	152.5	128.0	192.0
41	97.2	81.3	121.9





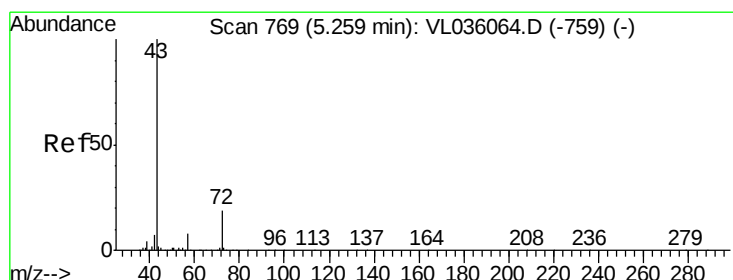
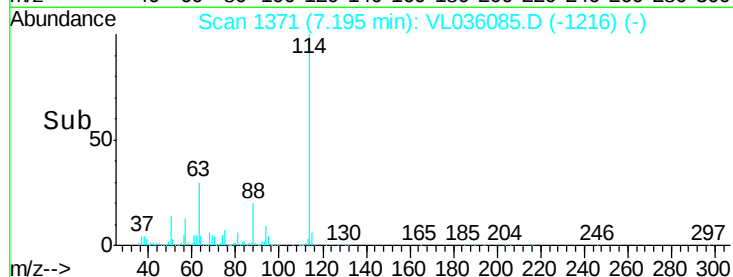
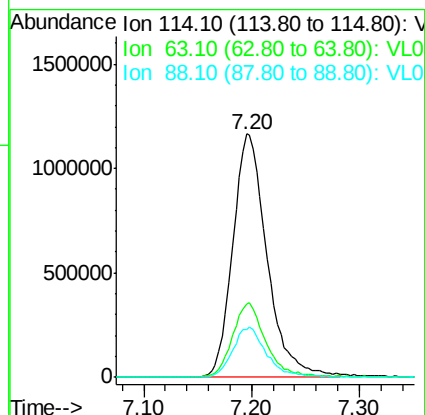
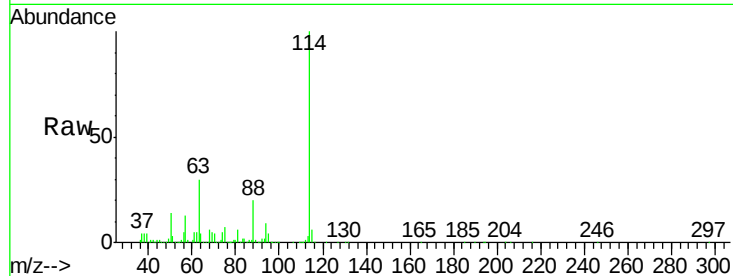
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.20 min Scan# 1371
 Delta R.T. -0.00 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-5B

Tot Ion:114 Resp: 2576133
 Ion Ratio Lower Upper
 114 100
 63 30.5 23.6 35.4
 88 20.6 15.8 23.6

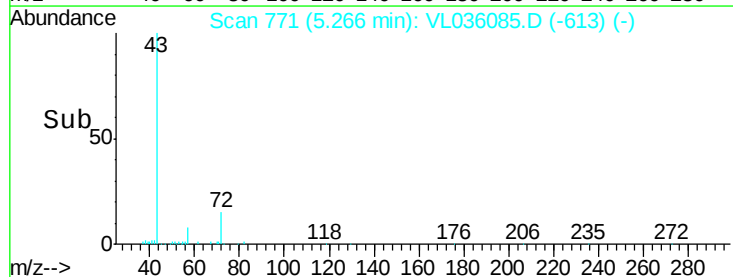
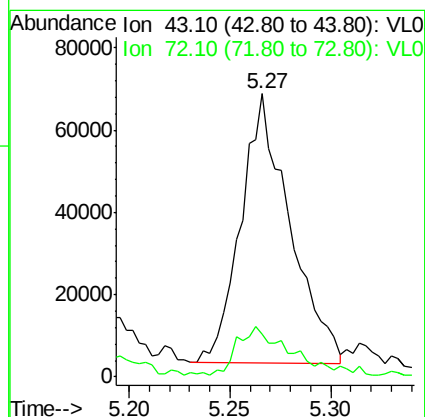
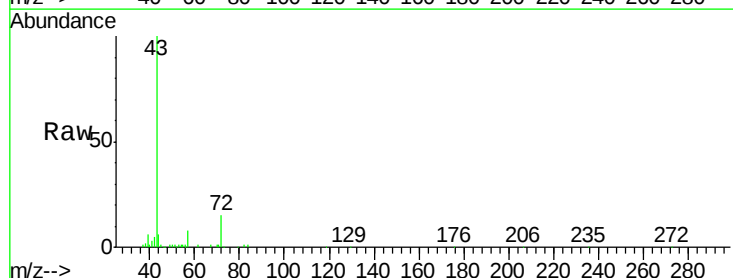
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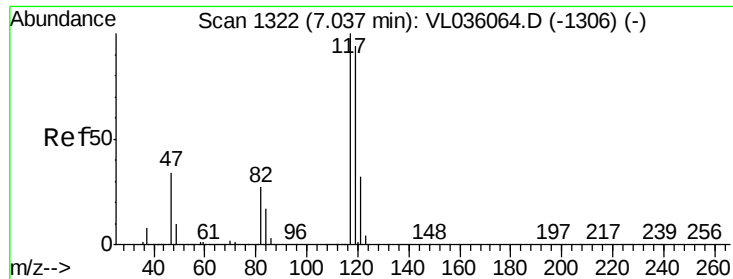
MMDadoda
 12/11/2020 5:45:25 PM



#34
 2-Butanone
 Concen: 0.650 ppbv
 RT: 5.27 min Scan# 771
 Delta R.T. 0.01 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Tgt Ion: 43 Resp: 111107
 Ion Ratio Lower Upper
 43 100
 72 23.1 16.5 24.7





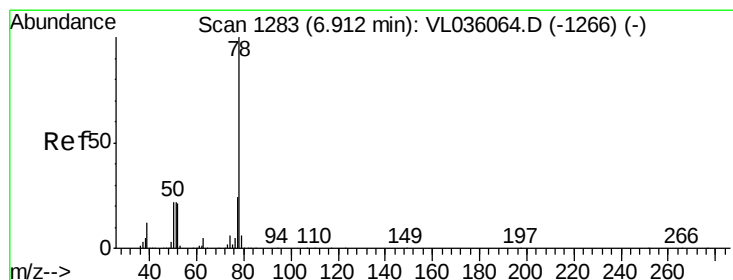
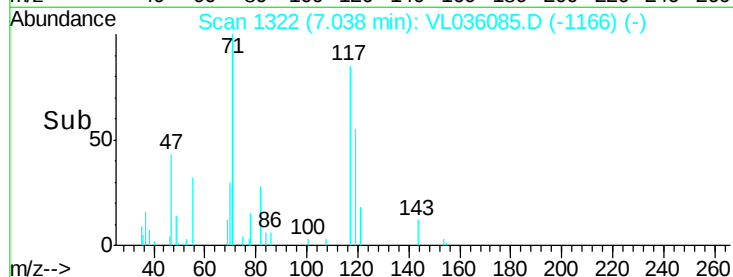
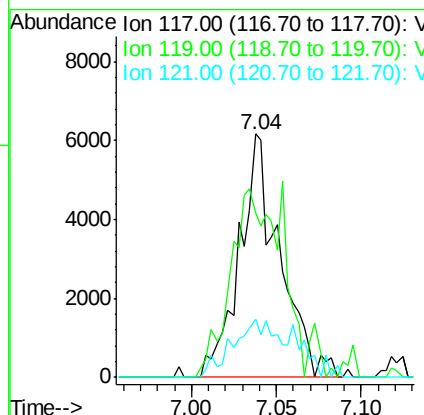
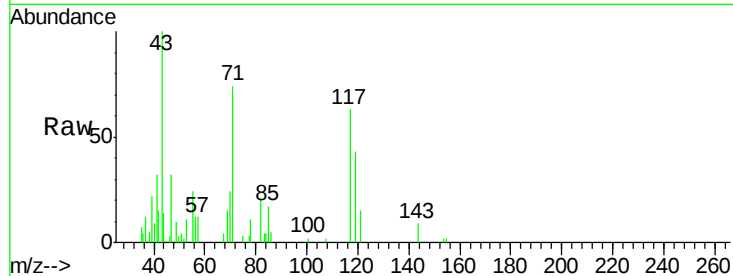
#35
Carbon Tetrachloride
Concen: 0.067 ppbv m
RT: 7.04 min Scan# 1322
Delta R.T. 0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampled :
IA-5B

Tot Ion	Ratio	Lower	Upper
117	100		
119	67.5	75.1	112.7#
121	24.1	25.6	38.4#

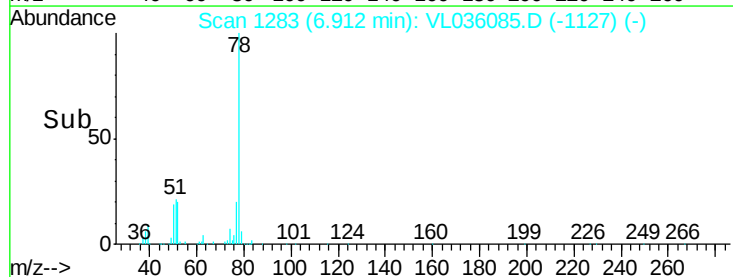
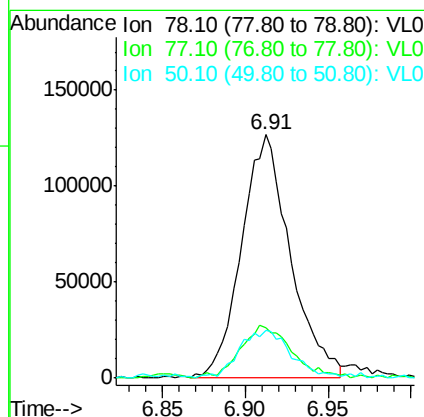
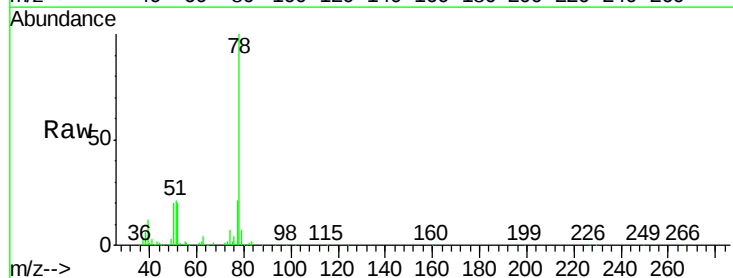
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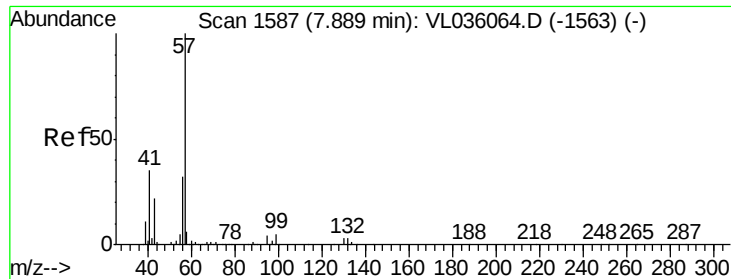
MMDadoda
12/11/2020 5:45:25 PM



#36
Benzene
Concen: 1.186 ppbv
RT: 6.91 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.4	19.4	29.2
50	19.0	17.8	26.8





#44

2,2,4-Trimethylpentane

Concen: 1.635 ppbv

RT: 7.89 min Scan# 1588

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

IA-5B

Tot Ion: 57 Resp: 646615

Ion Ratio Lower Upper

57 100

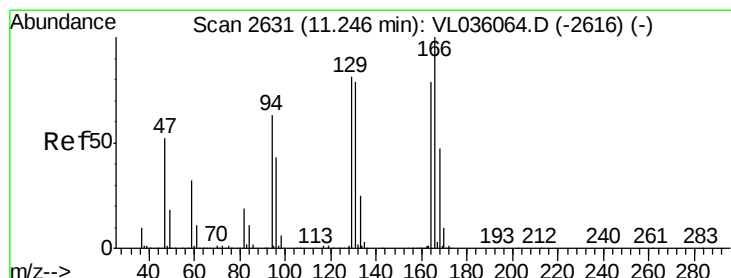
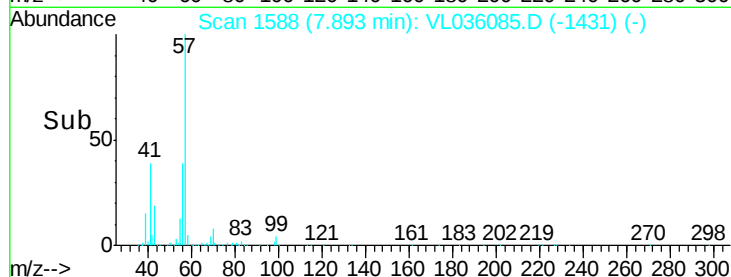
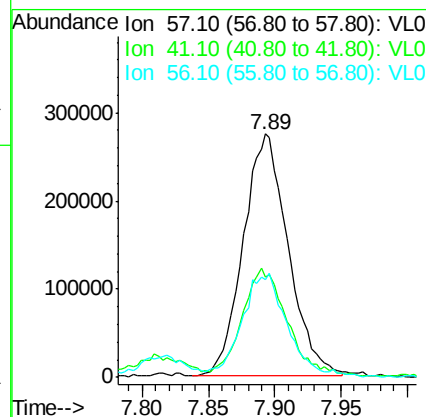
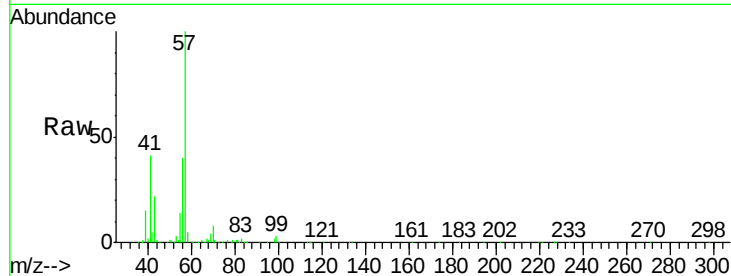
41 45.1 28.9 43.3#

56 43.8 25.3 37.9#

Manual Integrations
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#52

Tetrachloroethene

Concen: 0.048 ppbv m

RT: 11.25 min Scan# 2632

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Tgt Ion: 164 Resp: 3791

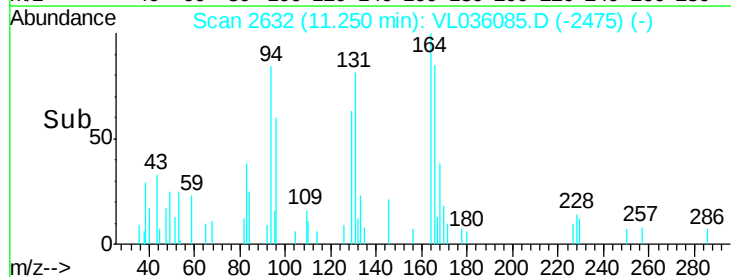
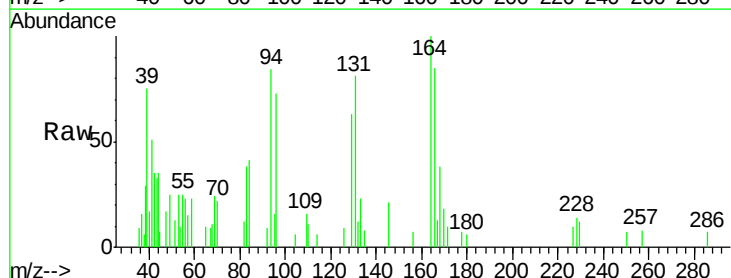
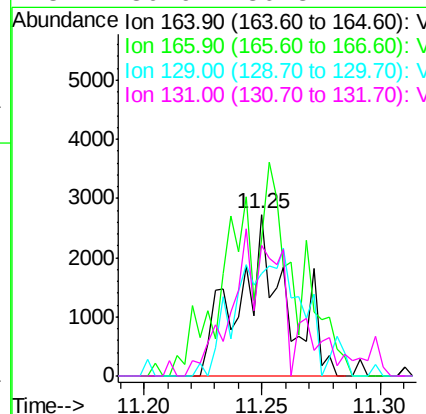
Ion Ratio Lower Upper

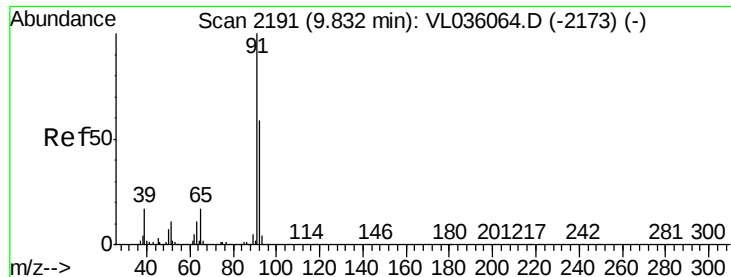
164 100

166 84.8 101.9 152.9#

129 63.4 82.1 123.1#

131 80.9 80.8 121.2





#53

Toluene

Concen: 6.287 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. -0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

IA-5B

Tot Ion: 91 Resp: 1541397

Ion Ratio Lower Upper

91 100

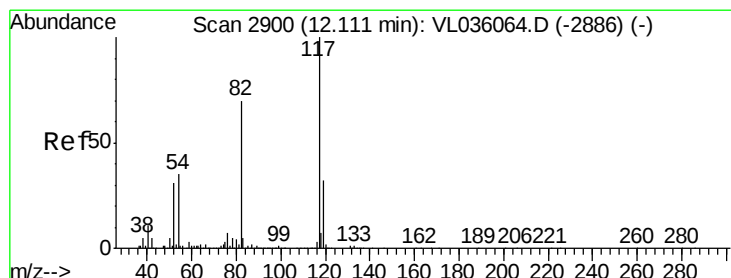
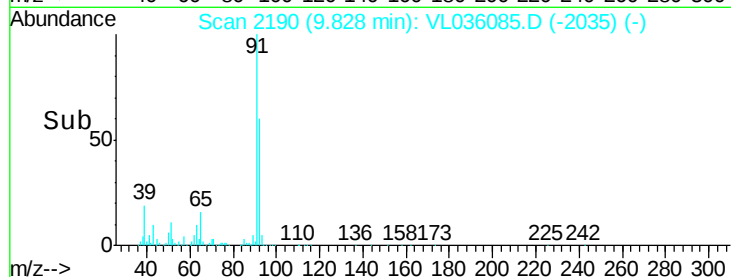
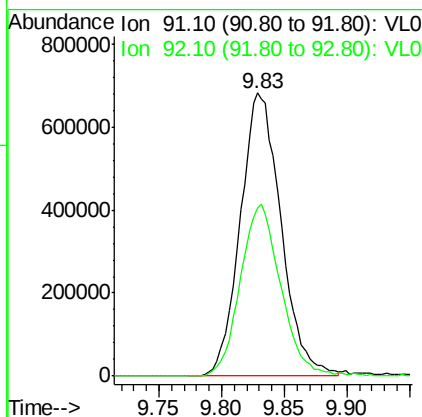
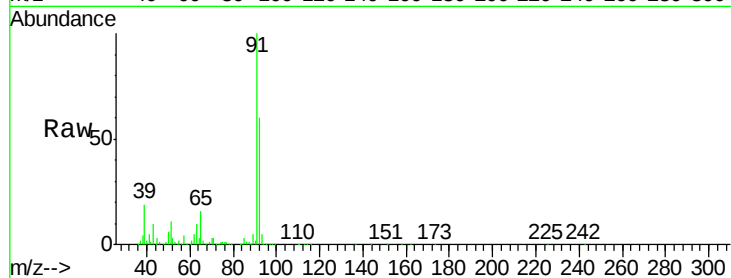
92 61.0 48.2 72.2

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2901

Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

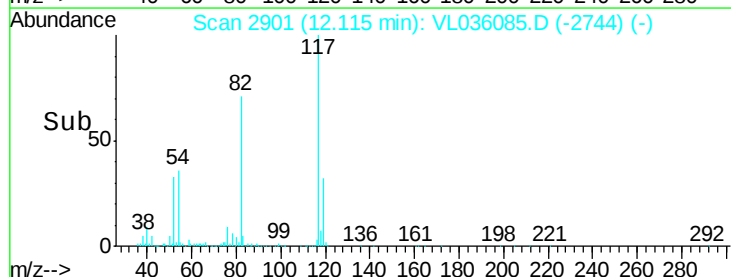
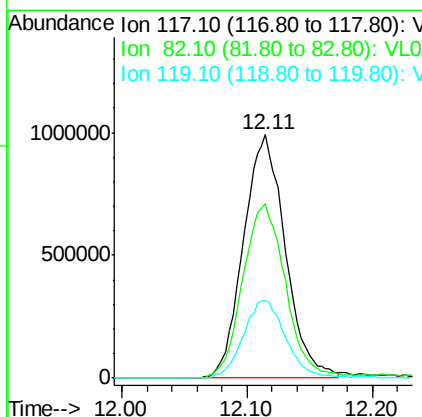
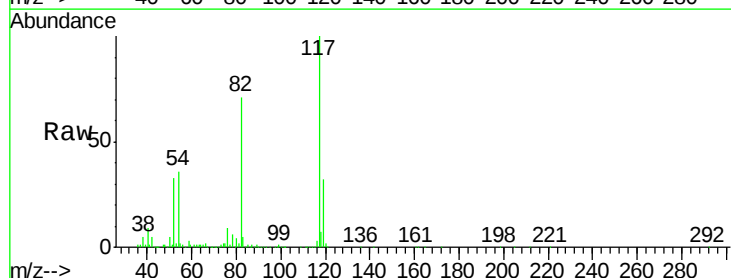
Tgt Ion: 117 Resp: 2299488

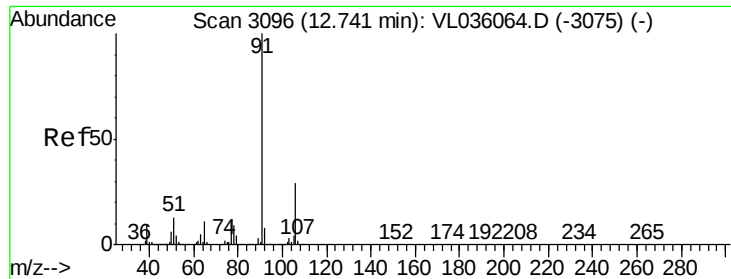
Ion Ratio Lower Upper

117 100

82 75.8 0.0 0.0#

119 32.7 0.0 0.0#





#58

Ethyl Benzene

Concen: 2.529 ppbv

RT: 12.74 min Scan# 3095

Delta R.T. -0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

IA-5B

Tot Ion: 91 Resp: 797005

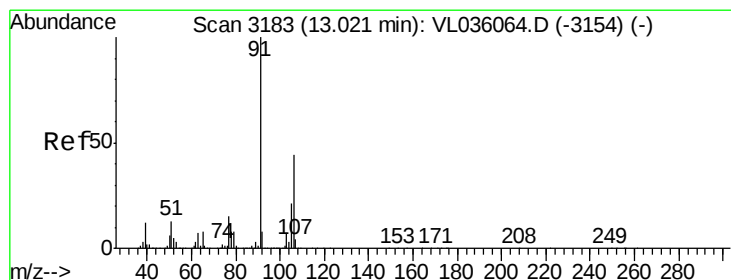
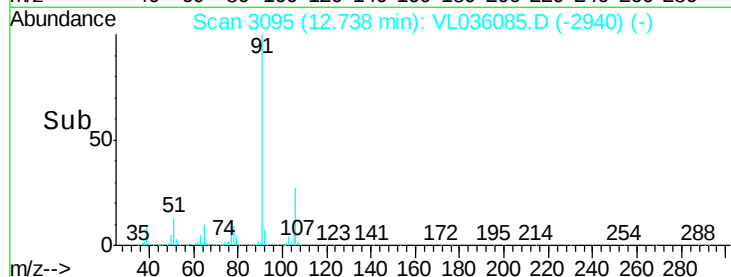
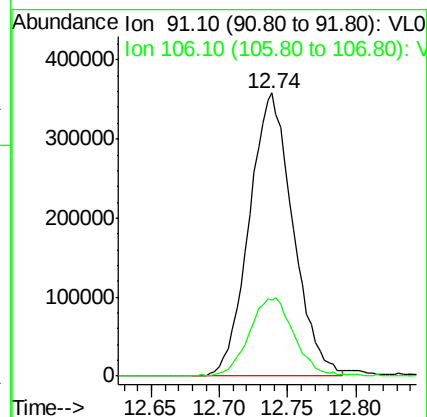
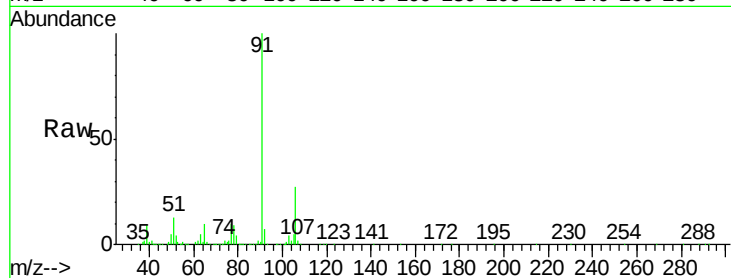
Ion Ratio Lower Upper

91 100

106 26.7 23.0 34.4

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#59

m/p-Xylene

Concen: 10.983 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. -0.03 min

Lab File: VL036085.D

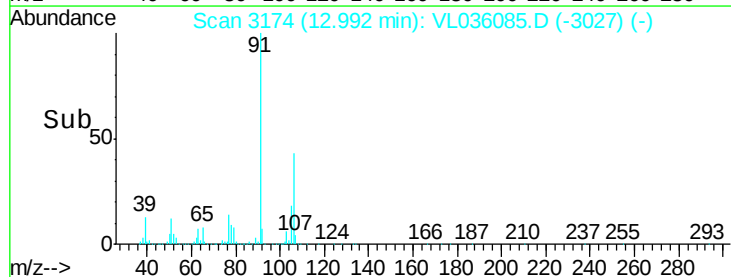
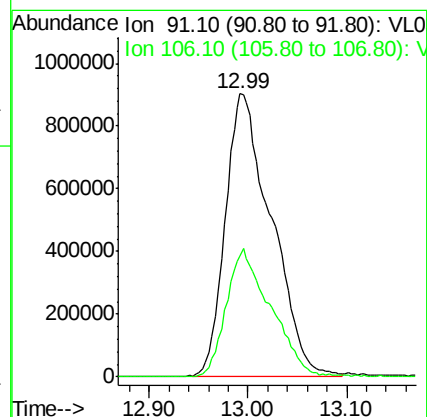
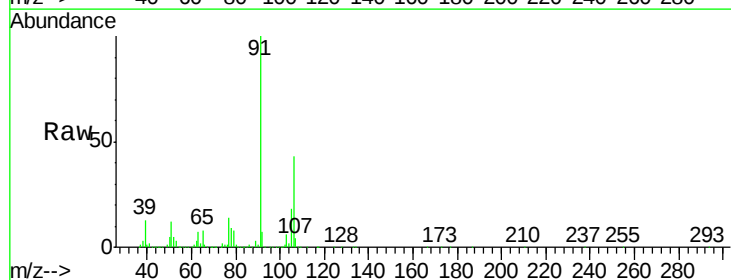
Acq: 8 Dec 2020 4:25

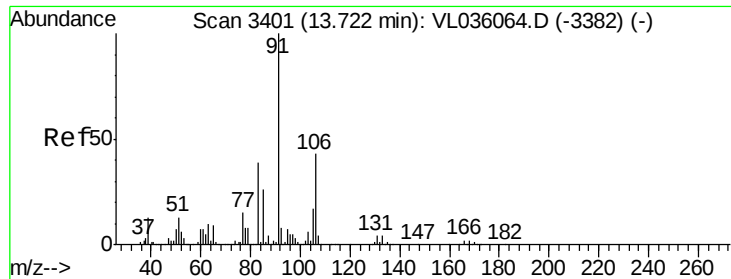
Tgt Ion: 91 Resp: 2915155

Ion Ratio Lower Upper

91 100

106 44.0 33.6 50.4





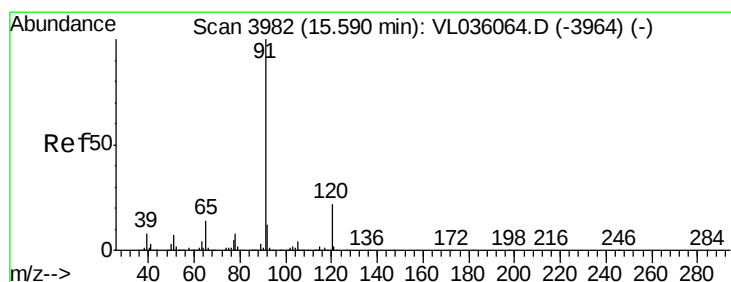
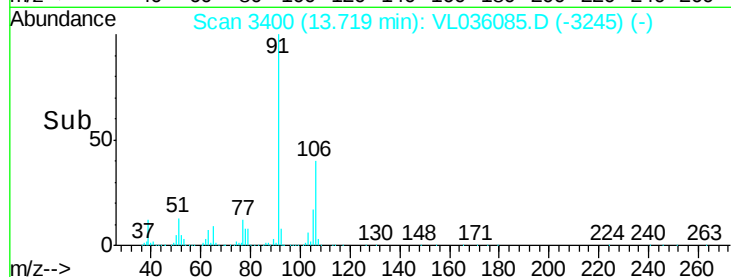
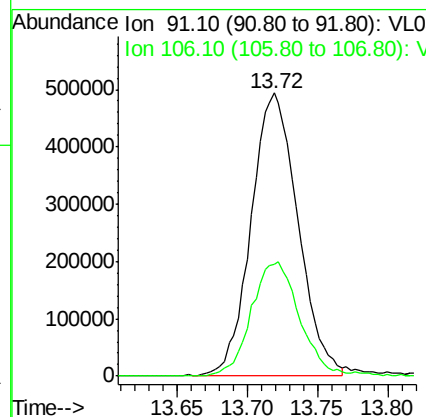
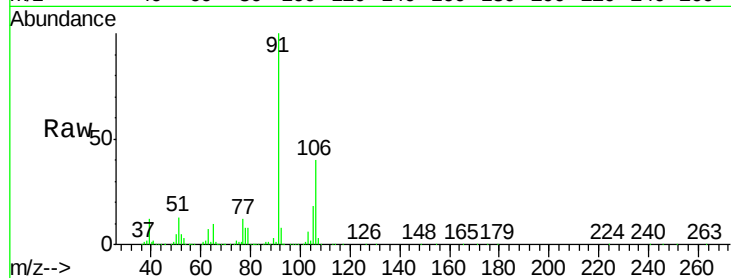
#60
o-Xylene
Concen: 4.546 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Instrument :
MSVOA_L
Client Sampled :
IA-5B

Tot Ion: 91 Resp: 1136944
Ion Ratio Lower Upper
91 100
106 42.2 21.6 64.6

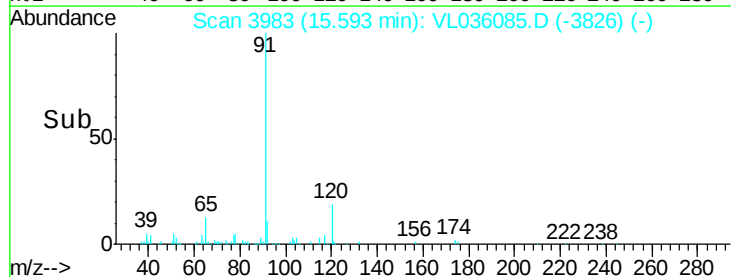
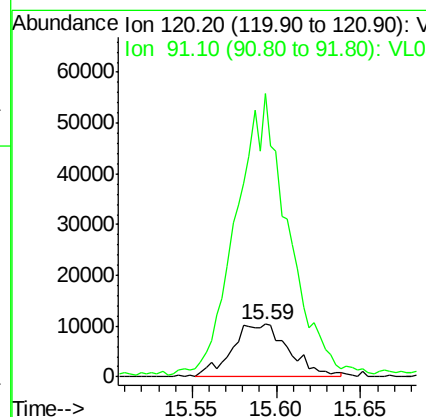
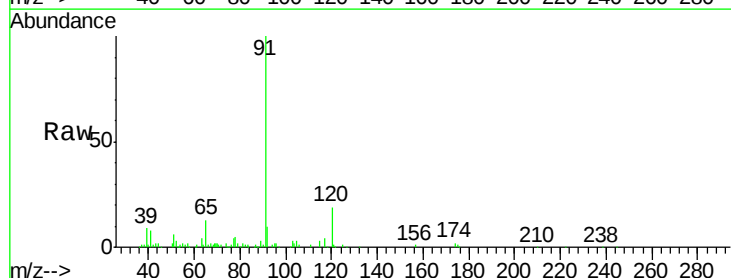
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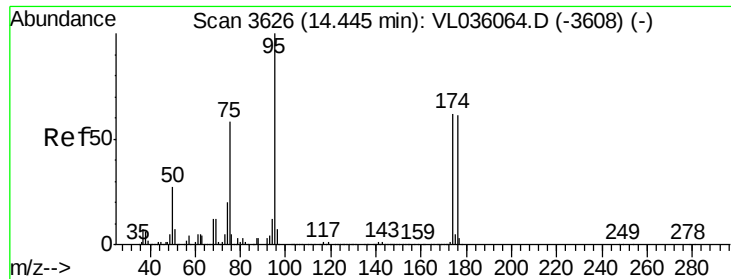
MMDadoda
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#64
n-propylbenzene
Concen: 0.275 ppbv m
RT: 15.59 min Scan# 3983
Delta R.T. 0.00 min
Lab File: VL036085.D
Acq: 8 Dec 2020 4:25

Tgt Ion: 120 Resp: 24490
Ion Ratio Lower Upper
120 100
91 487.3 388.9 583.3





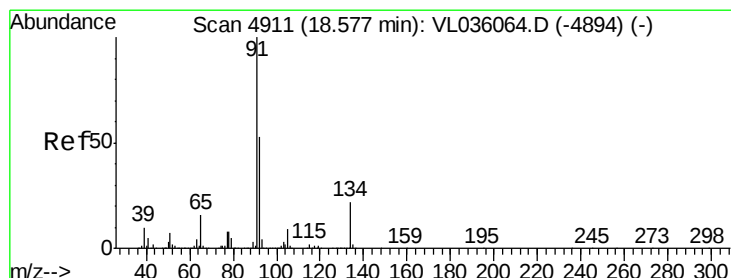
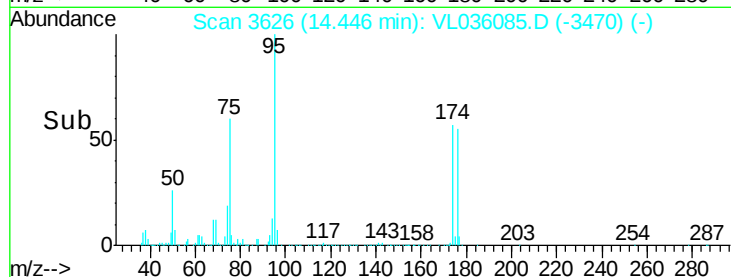
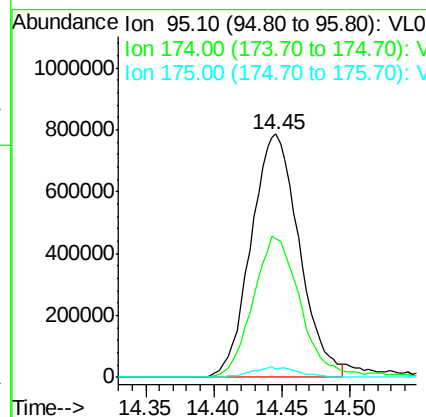
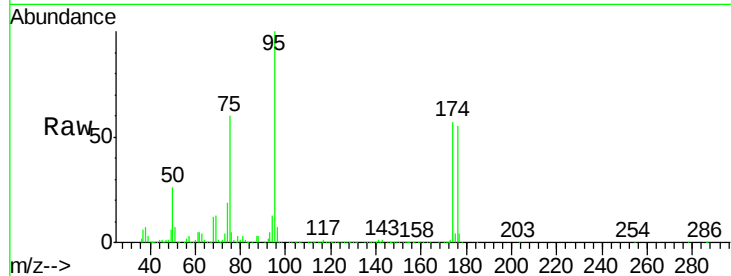
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.531 ppbv
 RT: 14.45 min Scan# 3626
 Delta R.T. 0.00 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampled :
 IA-5B

Tot Ion: 95 Resp: 1922808
 Ion Ratio Lower Upper
 95 100
 174 58.2 50.7 76.1
 175 4.3 4.0 6.0

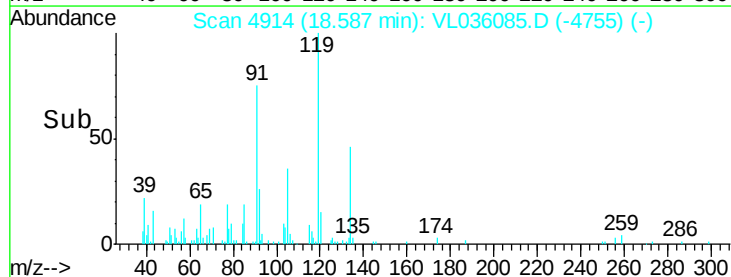
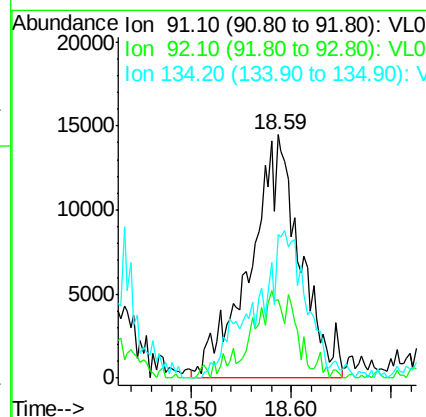
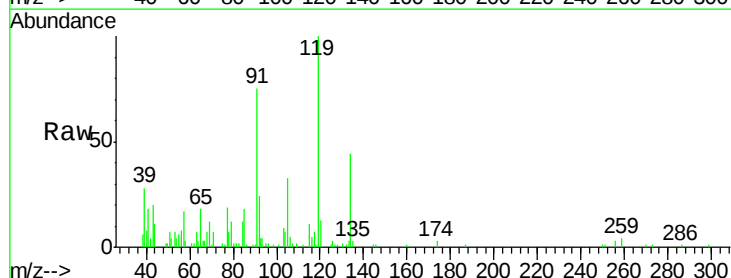
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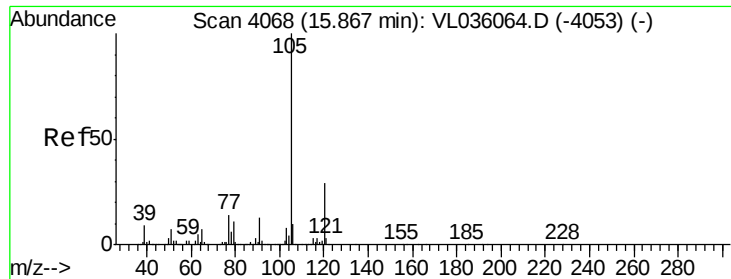
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#70
 n-Butylbenzene
 Concen: 0.151 ppbv m
 RT: 18.59 min Scan# 4914
 Delta R.T. 0.01 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Tgt Ion: 91 Resp: 50338
 Ion Ratio Lower Upper
 91 100
 92 32.8 43.3 64.9#
 134 0.0 17.1 25.7#





#72

4-Ethyltoluene

Concen: 0.528 ppbv m

RT: 15.88 min Scan# 4071

Delta R.T. 0.01 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Instrument :

MSVOA_L

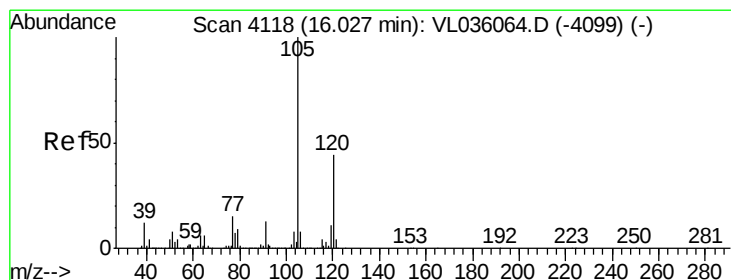
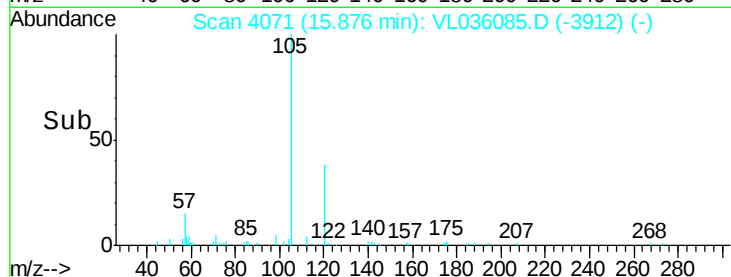
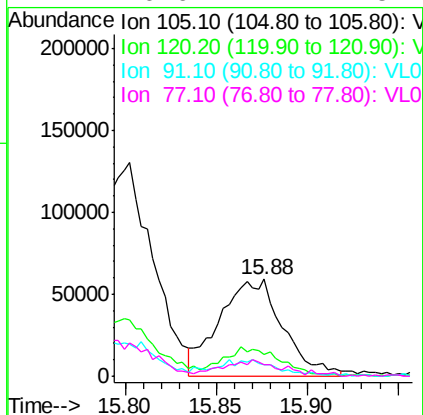
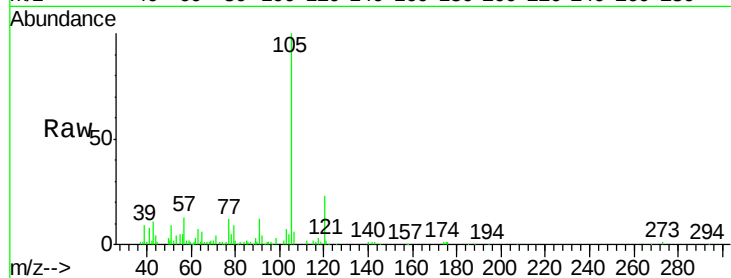
ClientSampleId :

IA-5B

Tot Ion:	105	Resp:	143104
Ion Ratio	Lower	Upper	
105	100		
120	29.5	23.6	35.4
91	16.5	11.4	17.0
77	16.6	12.1	18.1

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#73

1,3,5-Trimethylbenzene

Concen: 0.446 ppbv

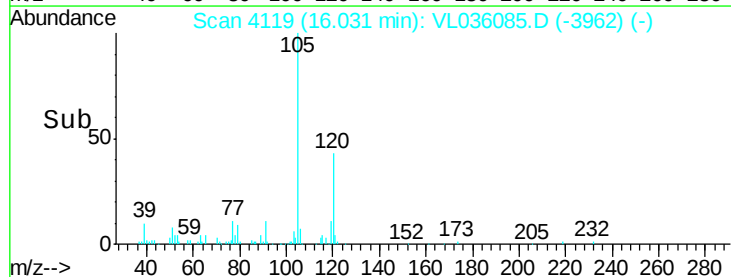
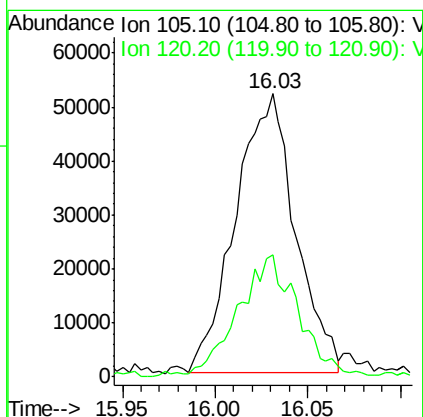
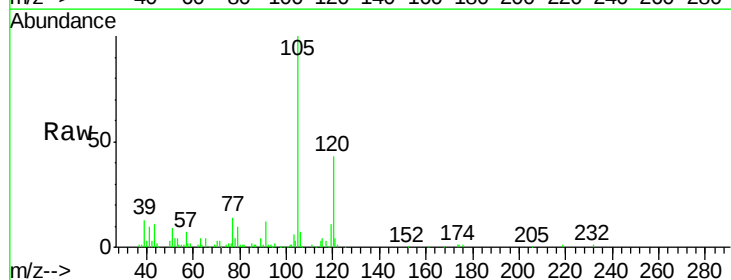
RT: 16.03 min Scan# 4119

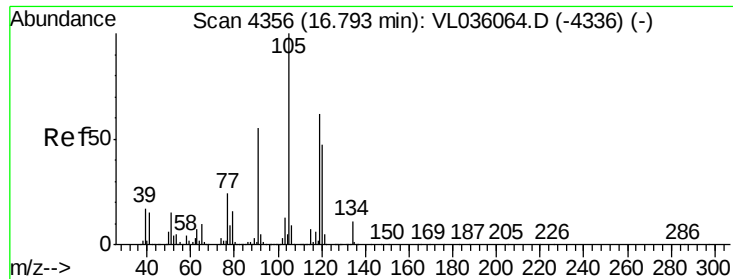
Delta R.T. 0.00 min

Lab File: VL036085.D

Acq: 8 Dec 2020 4:25

Tgt Ion:	105	Resp:	115343
Ion Ratio	Lower	Upper	
105	100		
120	42.5	35.4	53.2





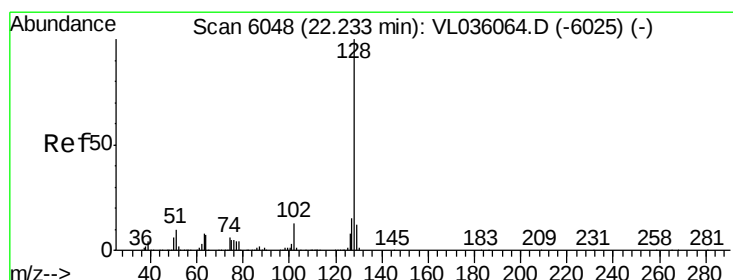
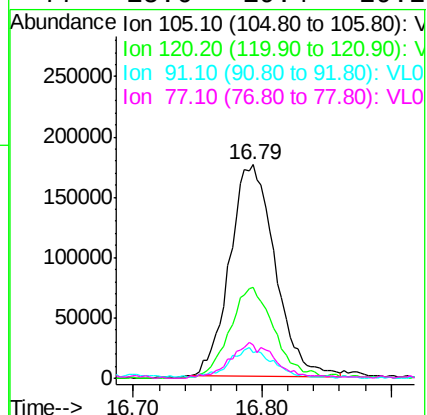
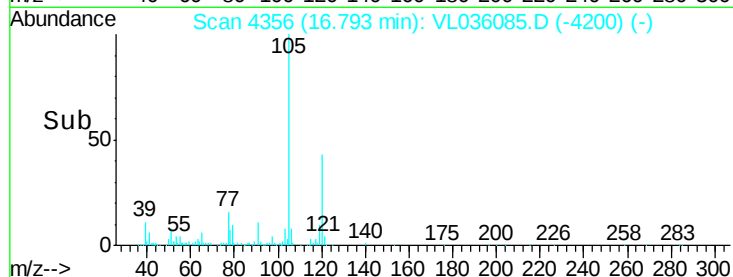
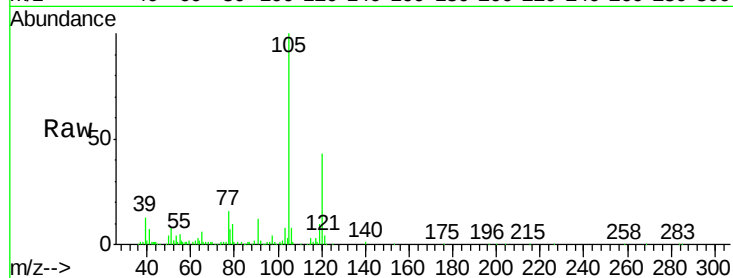
#74
 1,2,4-Trimethylbenzene
 Concen: 1.647 ppbv
 RT: 16.79 min Scan# 4356
 Delta R.T. 0.00 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampled :
 IA-5B

Tot Ion	Ratio	Resp	Lower	Upper
105	100	427831		
120	42.4	37.4	56.0	
91	11.7	45.6	68.4#	
77	15.6	19.4	29.2#	

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#79
 Naphthalene
 Concen: 0.683 ppbv m
 RT: 22.25 min Scan# 6053
 Delta R.T. 0.02 min
 Lab File: VL036085.D
 Acq: 8 Dec 2020 4:25

Tgt Ion	Ratio	Resp	Lower	Upper
128	100	90166		
127	15.1	11.7	17.5	
129	9.3	9.3	13.9	

