

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL111220\
 Data File : VL035928.D
 Acq On : 13 Nov 2020 00:38
 Operator : SY/AP
 Sample : L4721-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LA-3

Manual Integrations
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MMDadoda
 11/16/2020 2:31:21 PM

Quant Time: Nov 13 03:44:44 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov 0
 QLast Update : Wed Nov 04 02:40:06 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1128354	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3977789	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3608401	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2703207	10.54	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	45979	0.216	ppbv	96
3) Chlorodifluoromethane	2.98	51	57256m	0.424	ppbv	
4) Chloromethane	3.13	50	35717	0.544	ppbv #	88
9) Propene	3.01	41	65135	1.317	ppbv #	79
10) Heptane	8.12	43	16205	0.119	ppbv	97
11) Trichlorofluoromethane	3.94	101	67651	0.254	ppbv	92
13) Ethanol	3.63	45	17746254	1653.981	ppbv	96
15) Acetone	3.84	43	1561546	12.945	ppbv	94
17) tert-Butyl alcohol	4.34	59	138964m	0.869	ppbv	
19) Isopropyl Alcohol	4.01	45	6834275	92.191	ppbv #	97
20) Methylene Chloride	4.34	84	102538	1.207	ppbv	96
26) Hexane	5.68	57	424584	3.240	ppbv #	47
29) Chloroform	5.74	83	50197	0.195	ppbv	88
30) Cyclohexane	7.15	84	37358m	0.262	ppbv	
34) 2-Butanone	5.24	43	55923	0.433	ppbv	92
35) Carbon Tetrachloride	7.01	117	13530m	0.064	ppbv	
36) Benzene	6.88	78	109965	0.372	ppbv	95
44) 2,2,4-Trimethylpentane	7.86	57	99204	0.254	ppbv #	73
50) 4-Methyl-2-Pentanone	8.74	43	19300m	0.098	ppbv	
52) Tetrachloroethene	11.22	164	5318m	0.038	ppbv	
53) Toluene	9.80	91	962907	2.699	ppbv	97
59) m/p-Xylene	12.97	91	126829	0.341	ppbv	99
60) o-Xylene	13.69	91	49762	0.138	ppbv	98
74) 1,2,4-Trimethylbenzene	16.76	105	61590	0.143	ppbv #	67

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

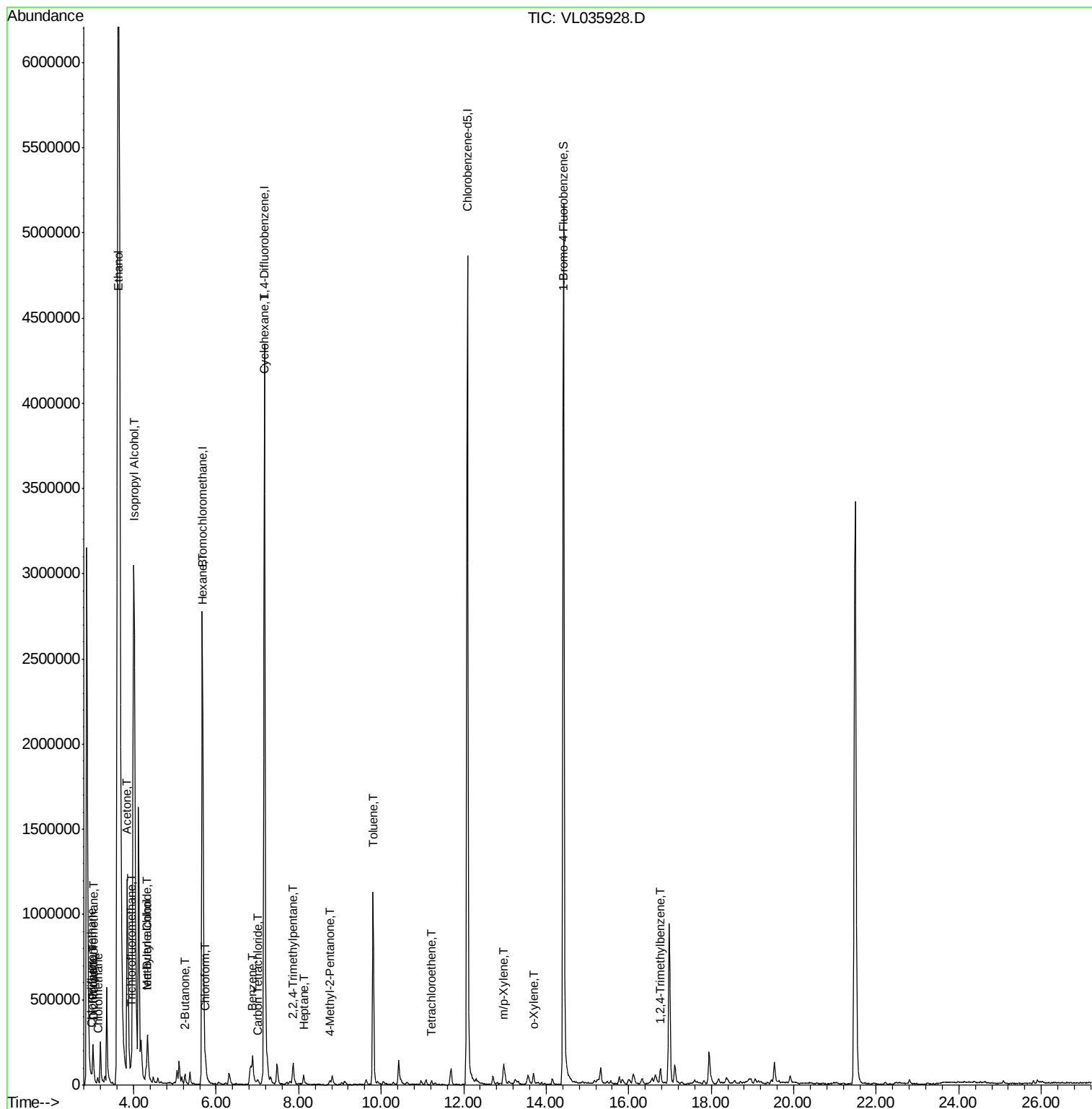
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL111220\
Data File : VL035928.D
Acq On : 13 Nov 2020 00:38
Operator : SY/AP
Sample : L4721-03
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

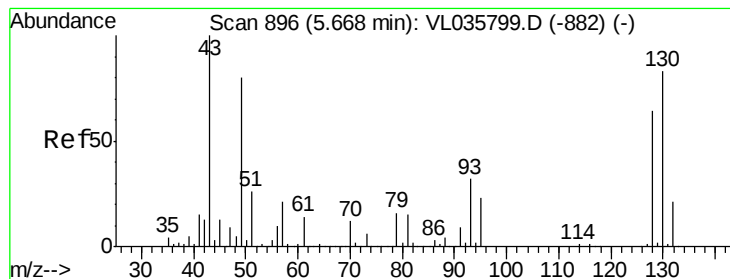
Instrument :
MSVOA_L
ClientSampleId :
LA-3

Manual Integrations

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Quant Time: Nov 13 03:44:44 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Nov
QLast Update : Wed Nov 04 02:40:06 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampleId :

LA-3

Tot Ion: 49 Resp: 1128354

Ion Ratio Lower Upper

49 100

128 75.9 41.5 124.6

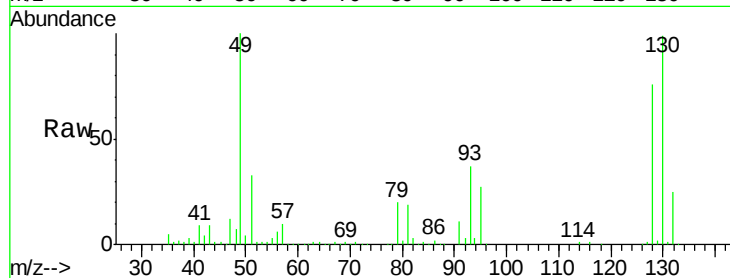
130 98.2 53.7 161.1

Manual Integrations

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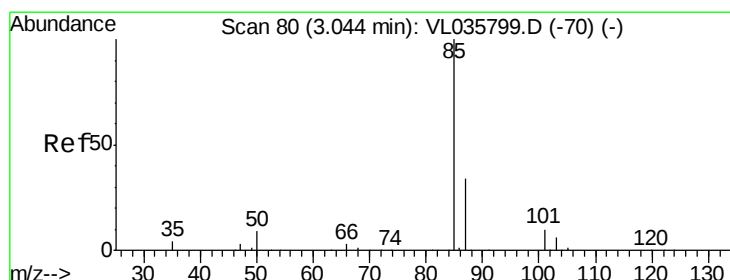
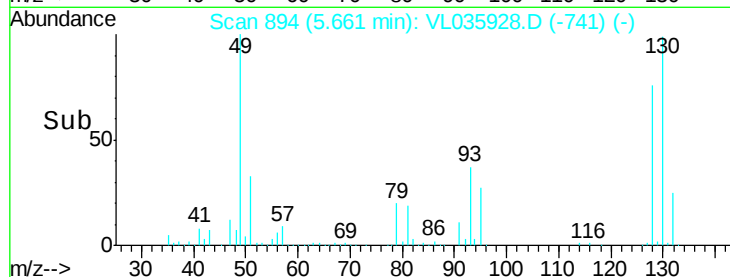
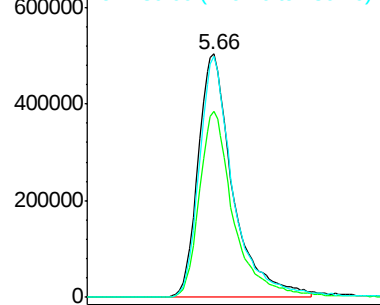
11/16/2020 2:31:21 PM



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: 0.216 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL035928.D

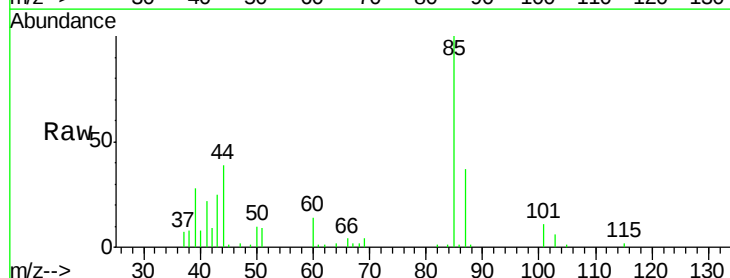
Acq: 13 Nov 2020 00:38

Tgt Ion: 85 Resp: 45979

Ion Ratio Lower Upper

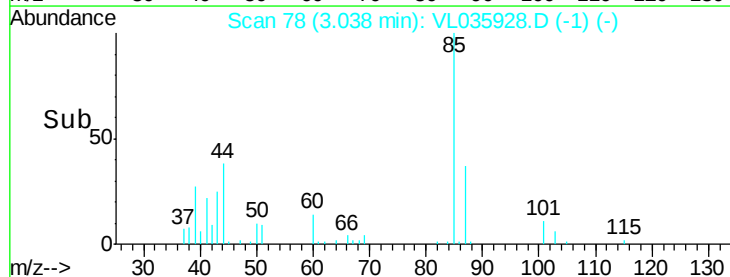
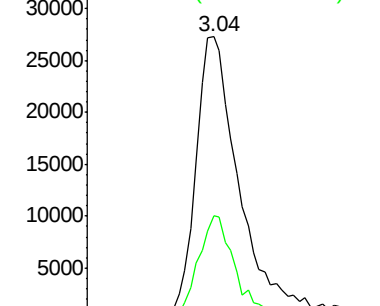
85 100

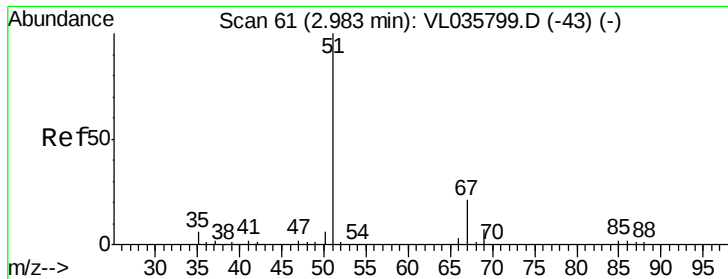
87 36.2 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.424 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampled :

LA-3

Tot Ion: 51 Resp: 57256

Ion Ratio Lower Upper

51 100

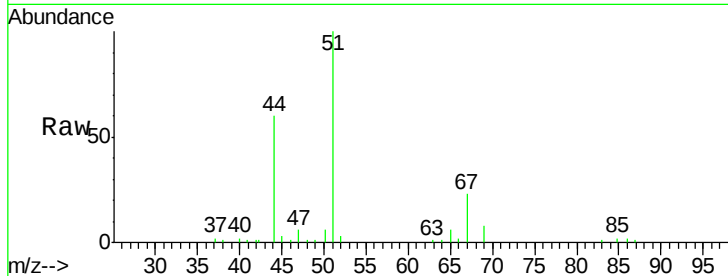
67 20.5 17.0 25.4

Manual Integrations

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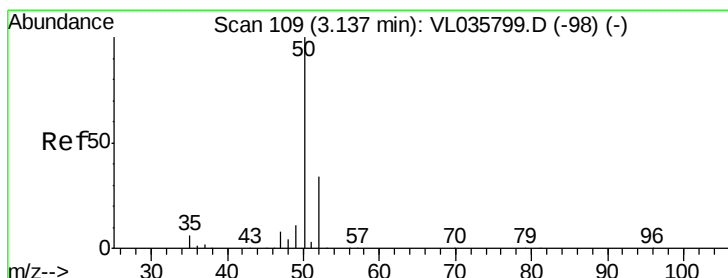
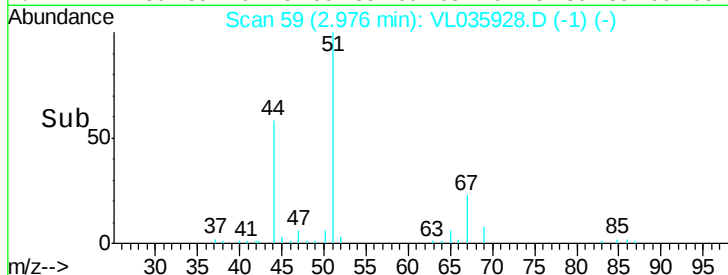
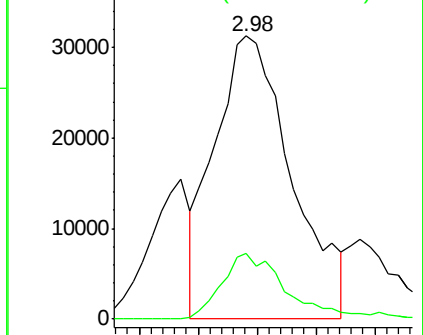
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.544 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL035928.D

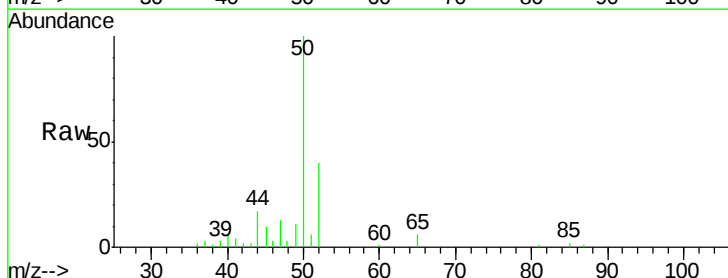
Acq: 13 Nov 2020 00:38

Tgt Ion: 50 Resp: 35717

Ion Ratio Lower Upper

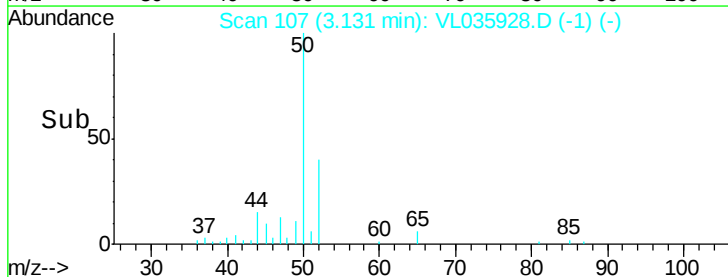
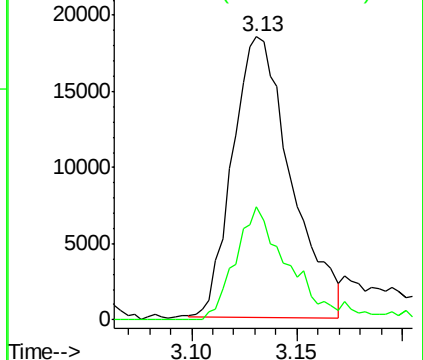
50 100

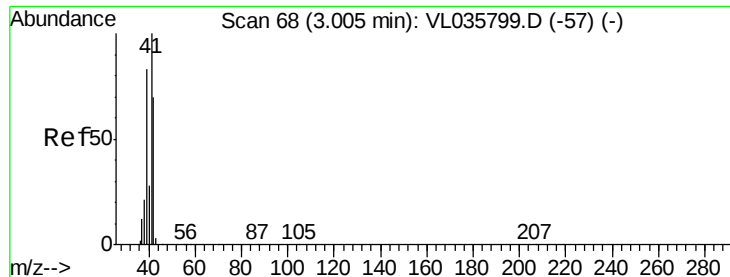
52 40.7 27.1 40.7#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





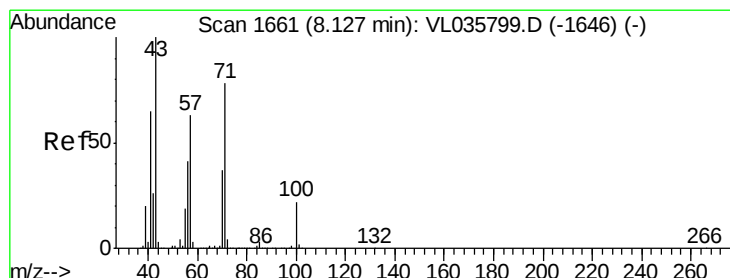
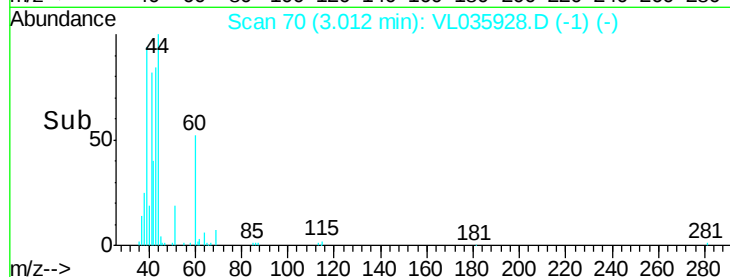
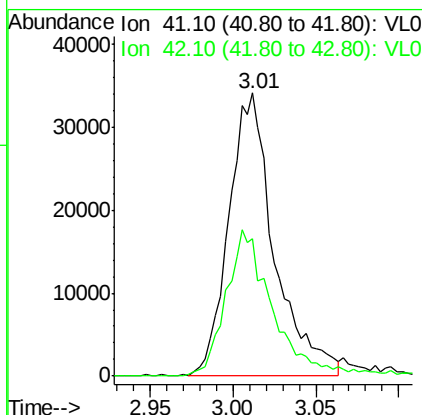
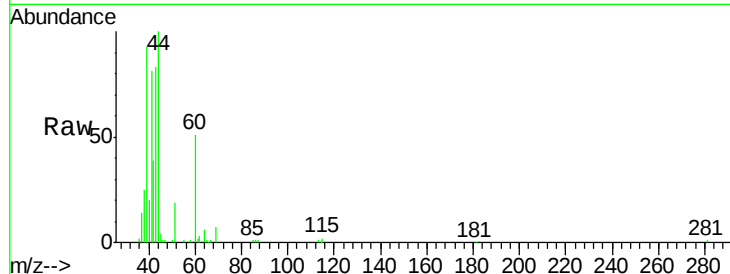
#9
 Propene
 Concen: 1.317 ppbv
 RT: 3.01 min Scan# 70
 Delta R.T. 0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Instrument :
 MSVOA_L
 ClientSampled :
 LA-3

Tot Ion: 41 Resp: 65135
 Ion Ratio Lower Upper
 41 100
 42 53.2 56.2 84.4#

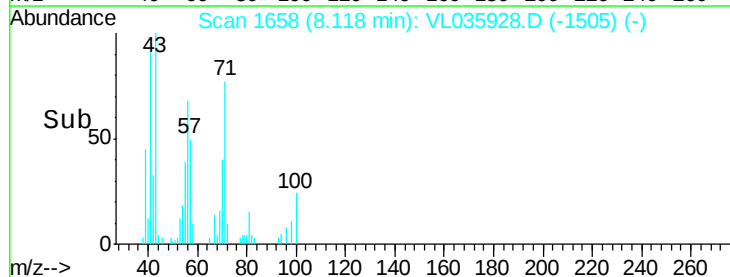
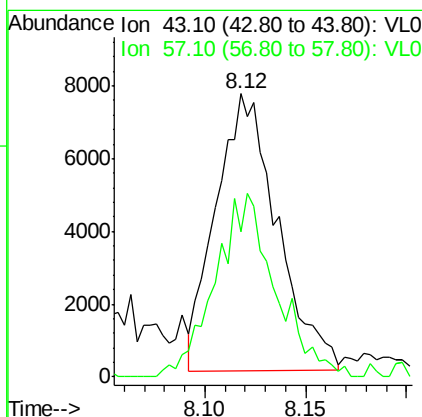
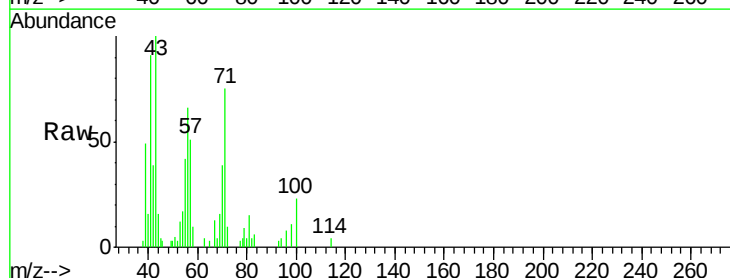
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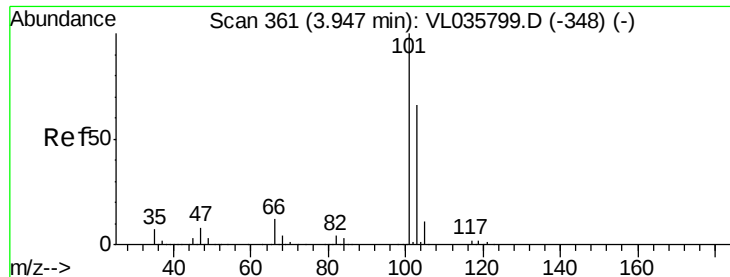
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#10
 Heptane
 Concen: 0.119 ppbv
 RT: 8.12 min Scan# 1658
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 43 Resp: 16205
 Ion Ratio Lower Upper
 43 100
 57 64.5 50.0 75.0





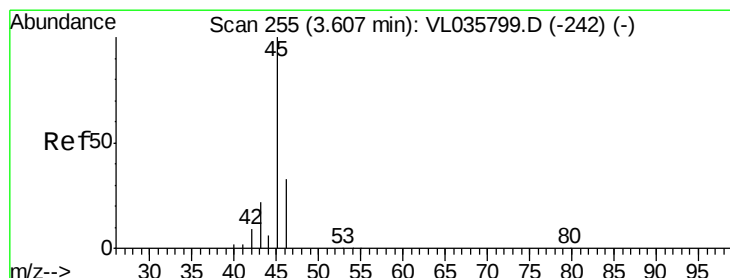
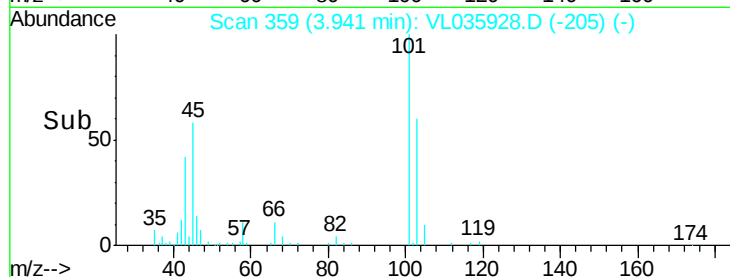
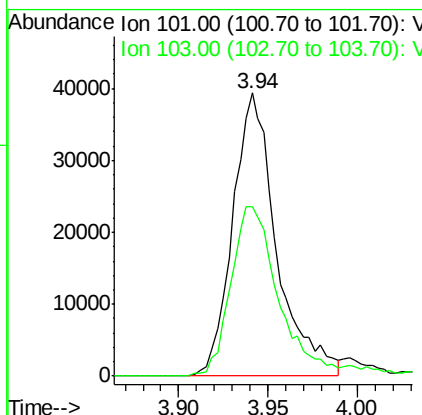
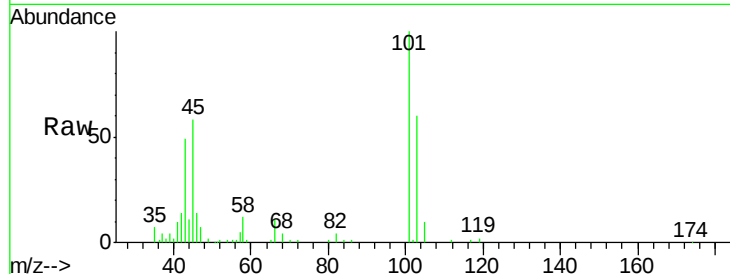
#11
Trichlorofluoromethane
Concen: 0.254 ppbv
RT: 3.94 min Scan# 359
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion	Ratio	Lower	Upper
101	100		
103	60.1	53.0	79.4

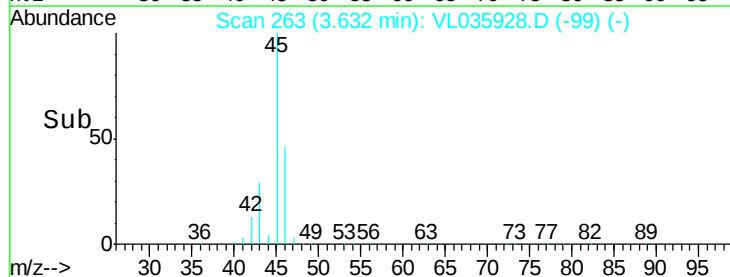
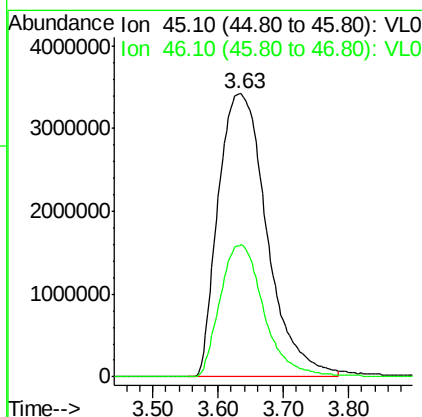
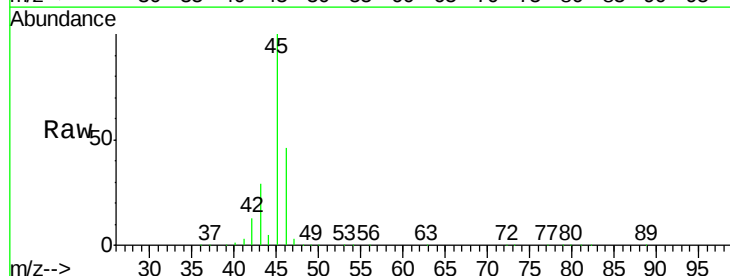
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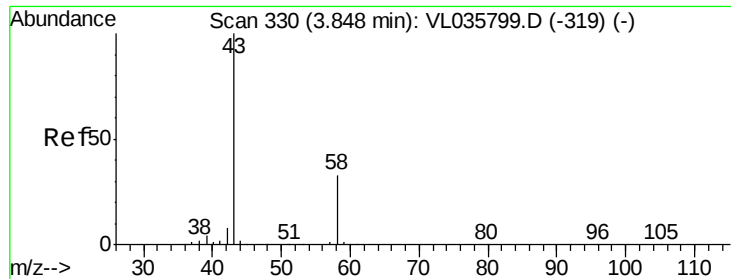
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#13
Ethanol
Concen: 1653.981 ppbv
RT: 3.63 min Scan# 263
Delta R.T. 0.03 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion	Ratio	Lower	Upper
45	100		
46	42.5	16.1	64.5





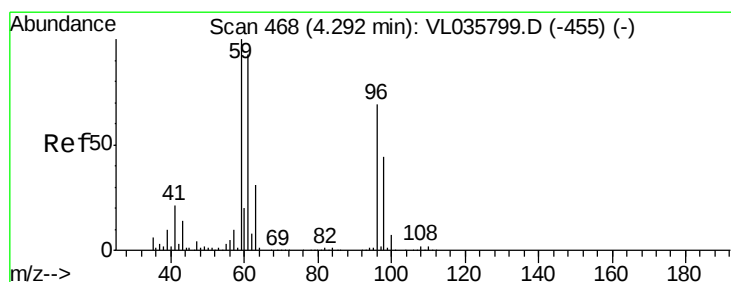
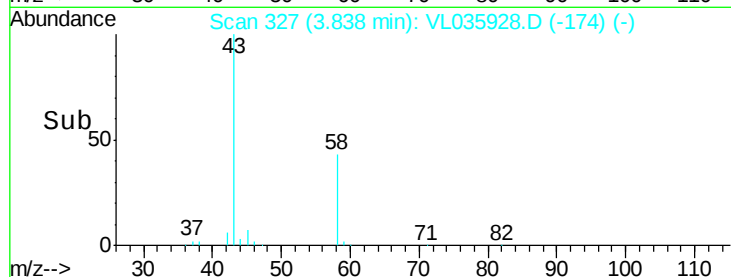
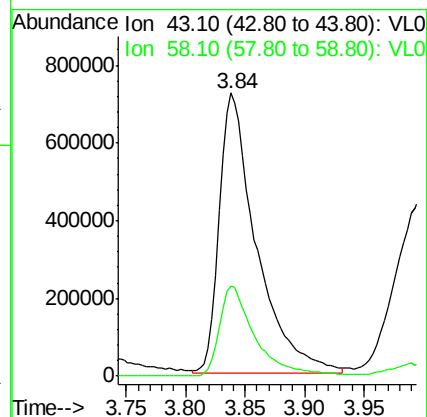
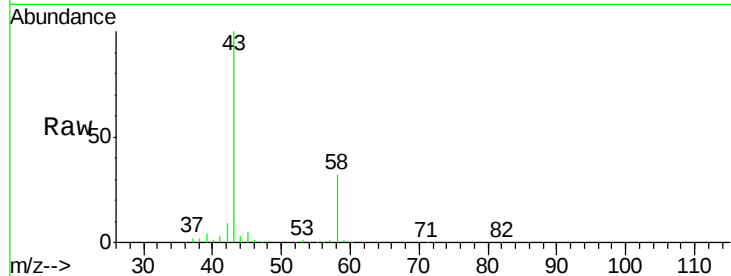
#15
Acetone
Concen: 12.945 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampleId :
LA-3

Tot Ion: 43 Resp: 1561546
Ion Ratio Lower Upper
43 100
58 30.8 27.5 41.3

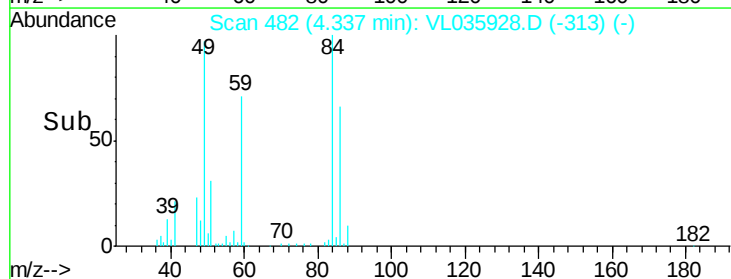
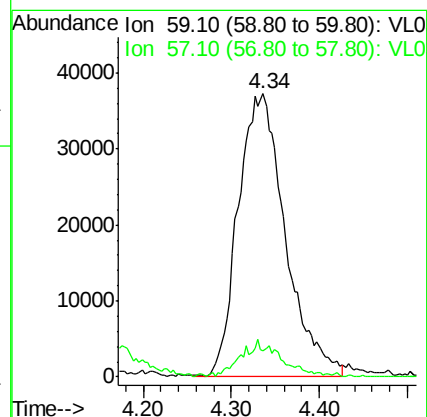
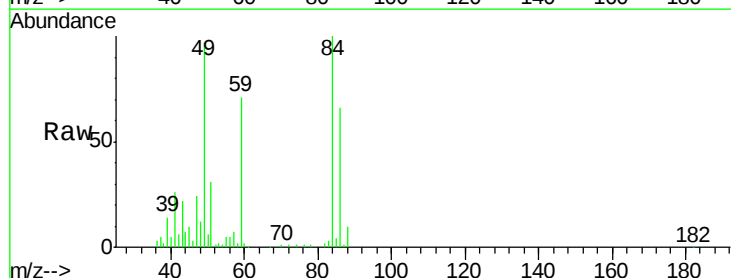
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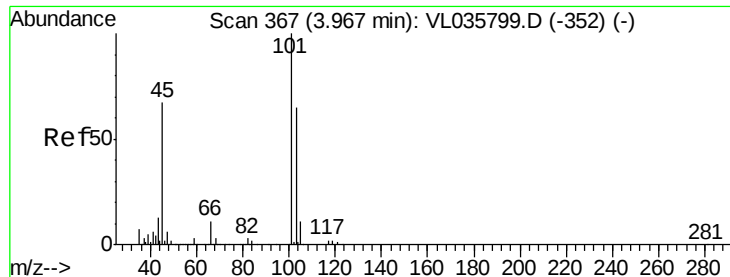
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#17
tert-Butyl alcohol
Concen: 0.869 ppbv m
RT: 4.34 min Scan# 482
Delta R.T. 0.04 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 59 Resp: 138964
Ion Ratio Lower Upper
59 100
57 23.7 8.2 12.4#





#19

Isopropyl Alcohol

Concen: 92.191 ppbv

RT: 4.01 min Scan# 379

Delta R.T. 0.04 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampled :

LA-3

Tot Ion: 45 Resp: 6834275

Ion Ratio Lower Upper

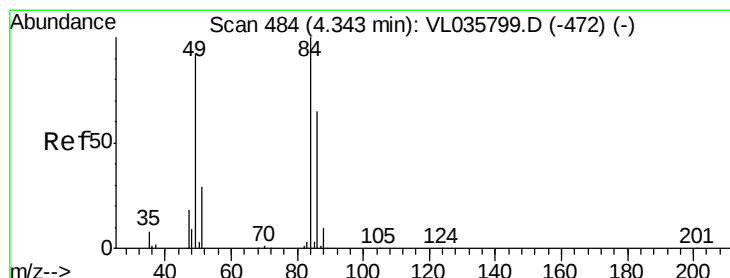
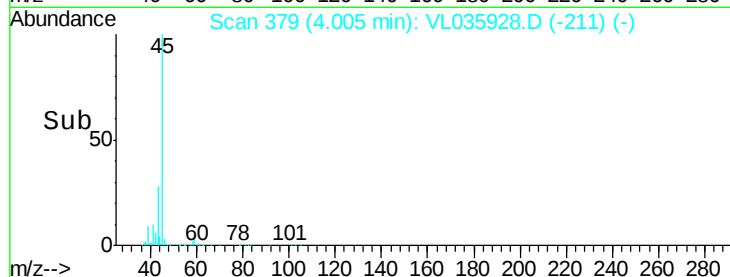
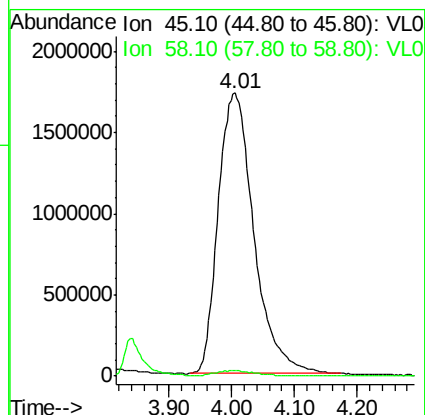
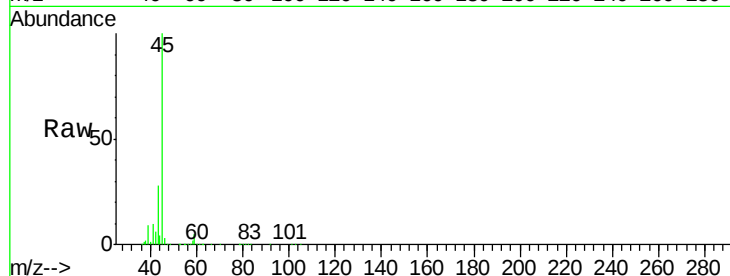
45 100

58 2.3 2.6 3.8#

Manual Integrations
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11/16/2020 2:31:21 PM



#20

Methylene Chloride

Concen: 1.207 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Tgt Ion: 84 Resp: 102538

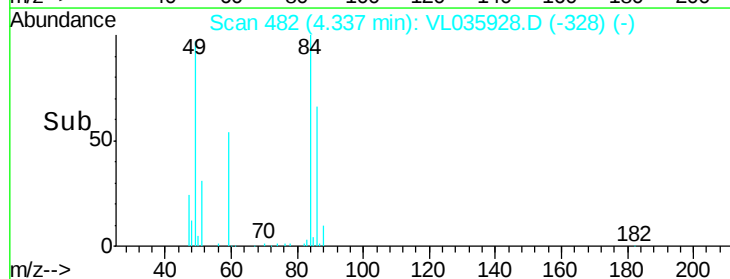
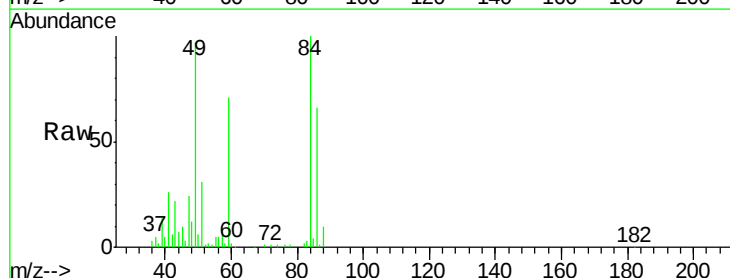
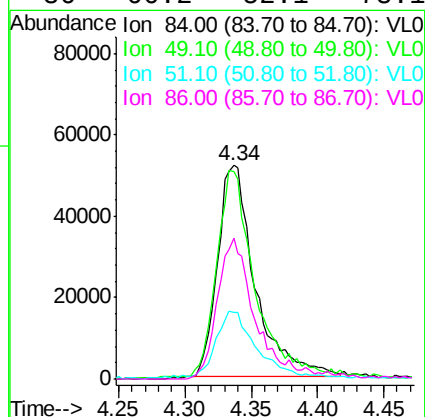
Ion Ratio Lower Upper

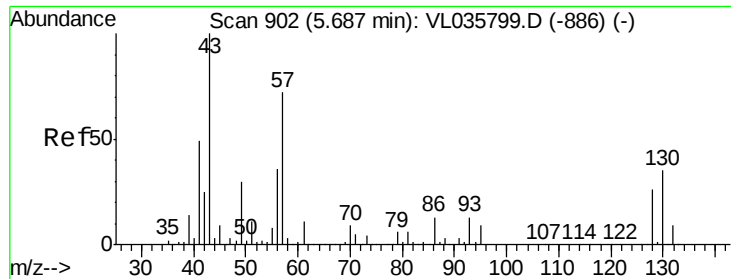
84 100

49 97.1 73.8 110.8

51 30.6 23.0 34.4

86 66.2 52.1 78.1





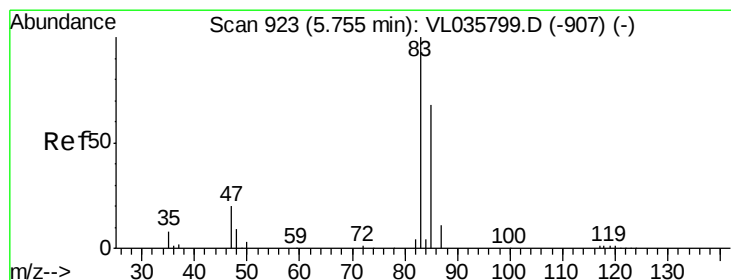
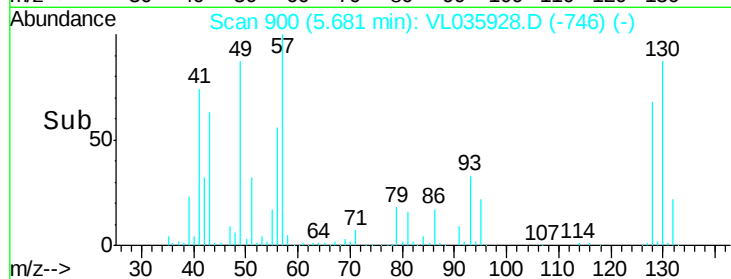
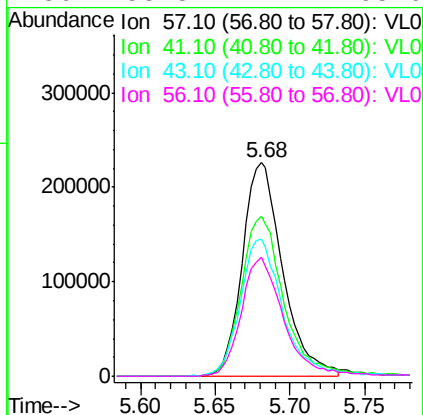
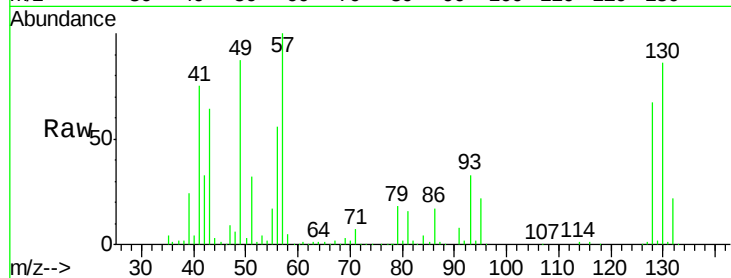
#26
Hexane
Concen: 3.240 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion	Ratio	Lower	Upper
57	100		
41	81.2	58.9	88.3
43	67.9	150.2	225.2#
56	58.8	42.4	63.6

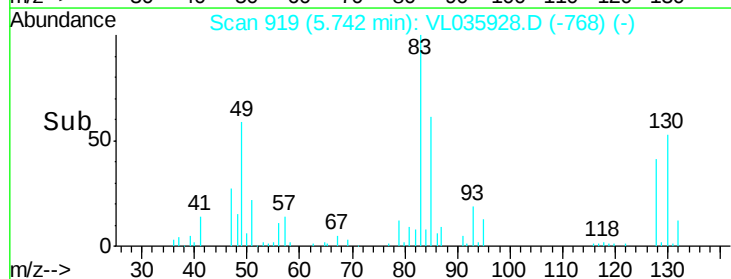
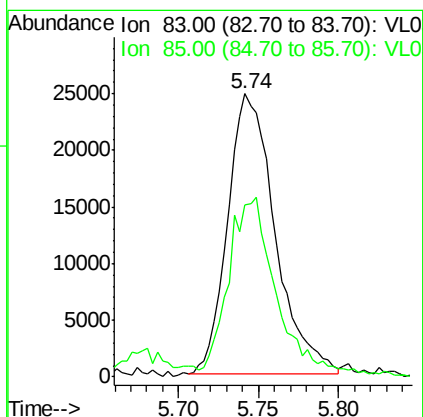
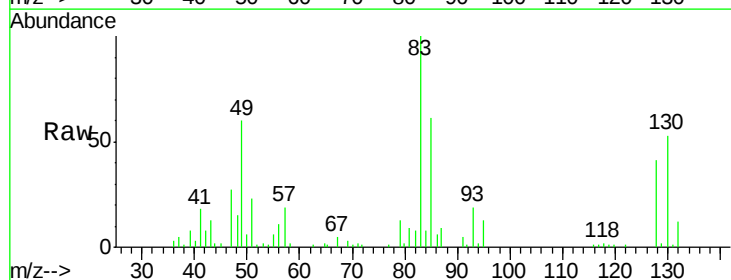
Manual Integrations
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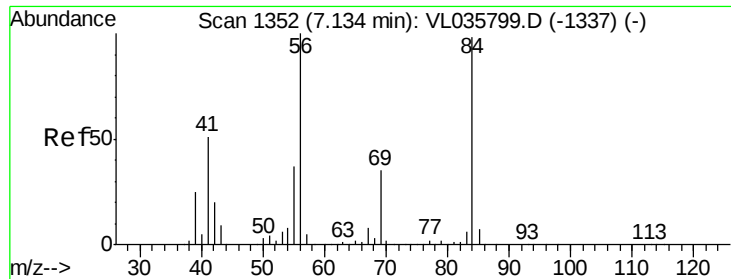
MMDadoda
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#29
Chloroform
Concen: 0.195 ppbv
RT: 5.74 min Scan# 919
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion	Ratio	Lower	Upper
83	100		
85	58.6	54.6	81.8





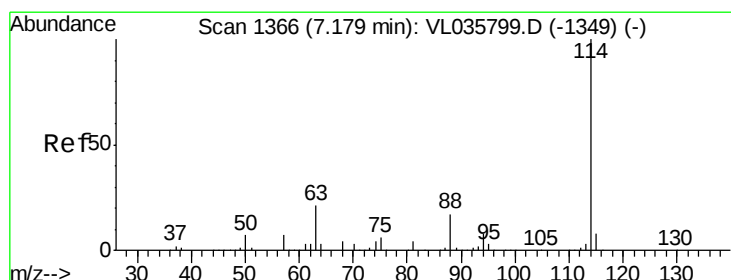
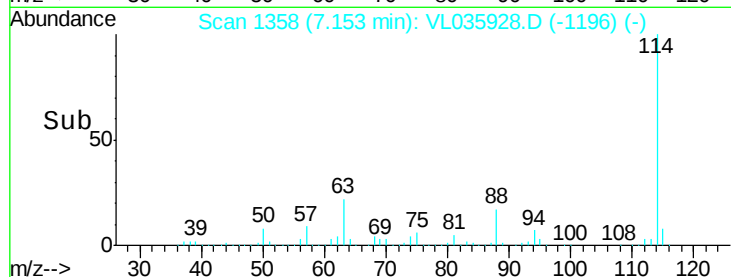
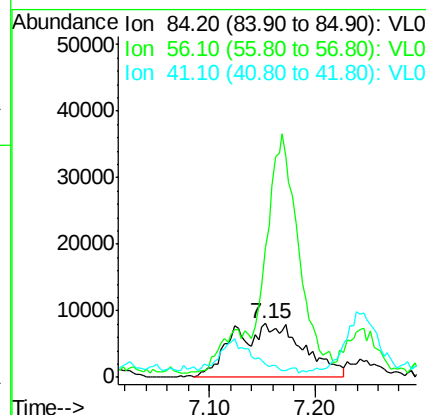
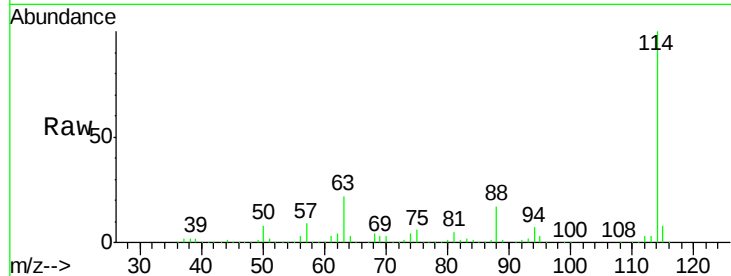
#30
Cyclohexane
Concen: 0.262 ppbv m
RT: 7.15 min Scan# 1358
Delta R.T. 0.02 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	86.4	129.6#
41	35.3	42.1	63.1#

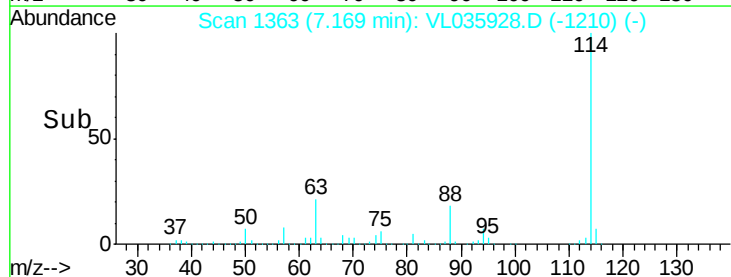
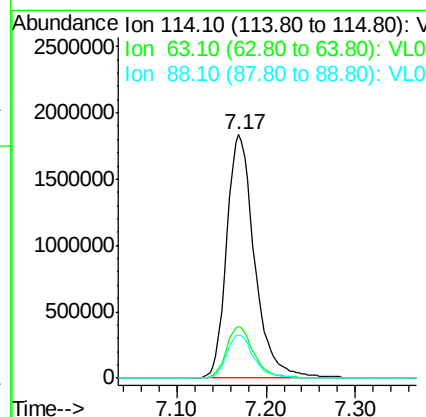
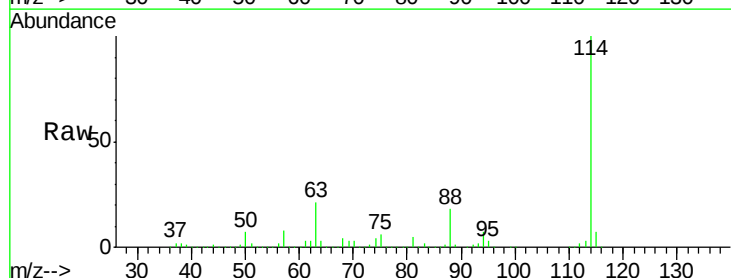
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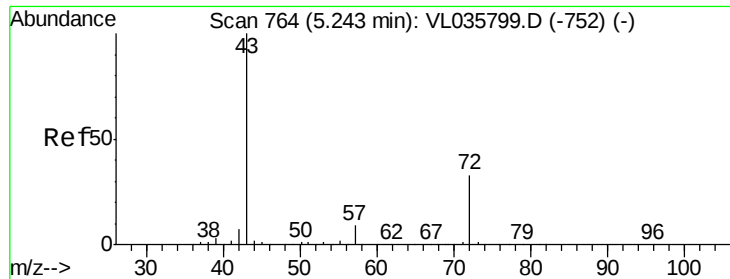
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion	Ratio	Lower	Upper
114	100		
63	20.9	16.1	24.1
88	17.4	13.7	20.5





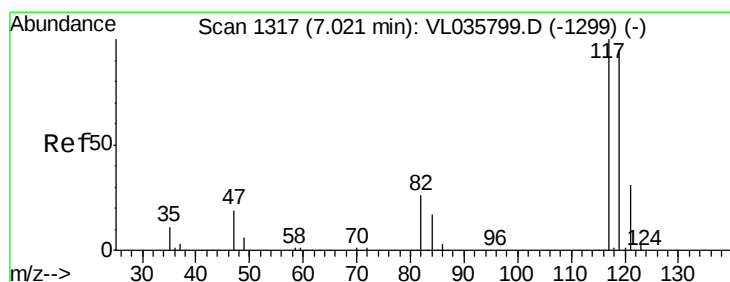
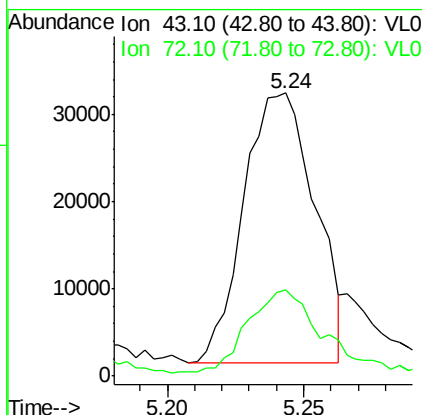
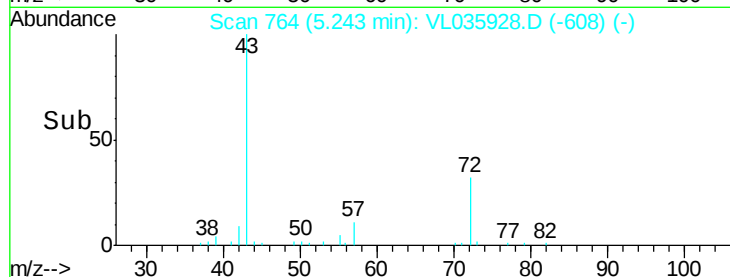
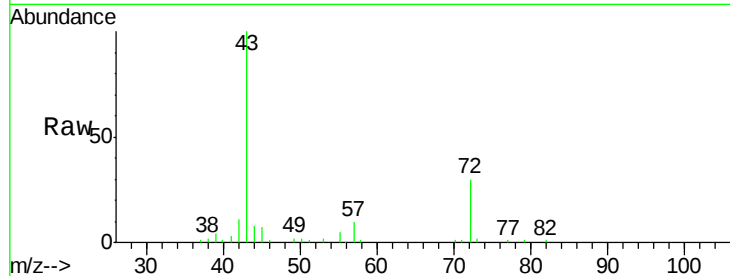
#34
2-Butanone
Concen: 0.433 ppbv
RT: 5.24 min Scan# 764
Delta R.T. -0.00 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion: 43 Resp: 55923
Ion Ratio Lower Upper
43 100
72 37.9 26.5 39.7

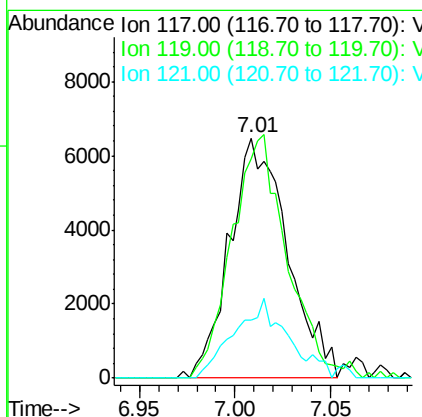
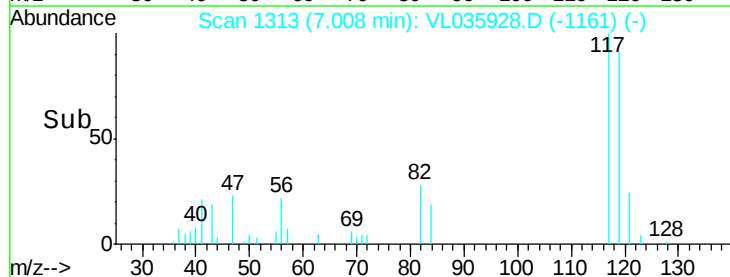
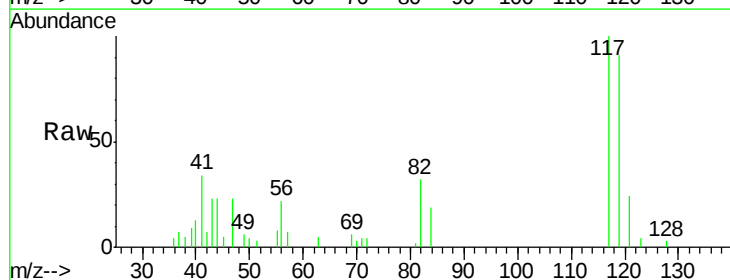
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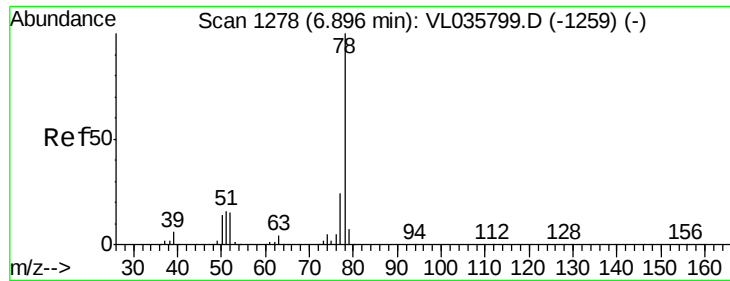
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#35
Carbon Tetrachloride
Concen: 0.064 ppbv m
RT: 7.01 min Scan# 1313
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion: 117 Resp: 13530
Ion Ratio Lower Upper
117 100
119 91.3 75.6 113.4
121 23.9 25.1 37.7#





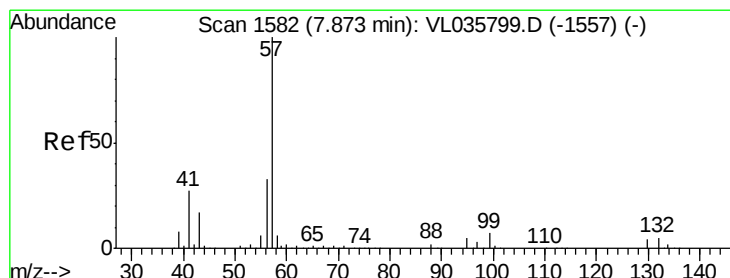
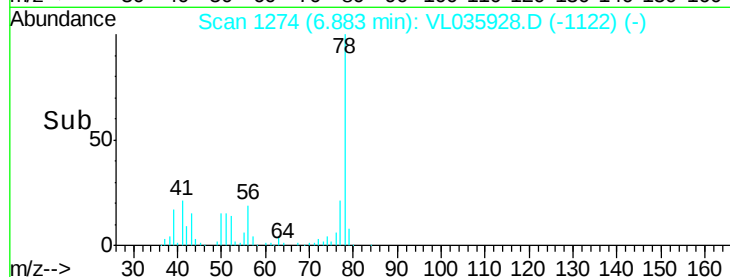
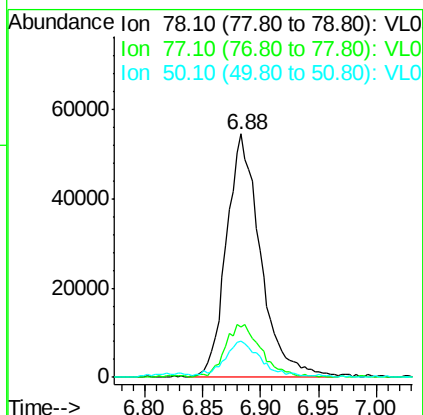
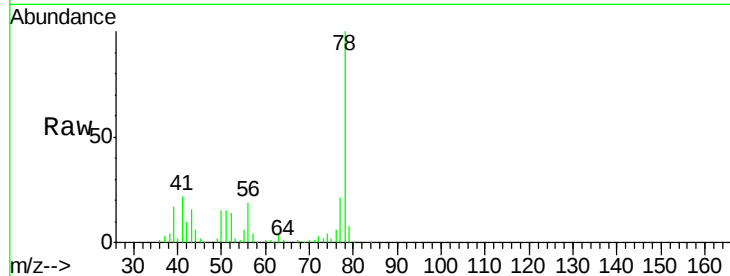
#36
Benzene
Concen: 0.372 ppbv
RT: 6.88 min Scan# 1274
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.5	19.3	28.9
50	14.4	11.4	17.2

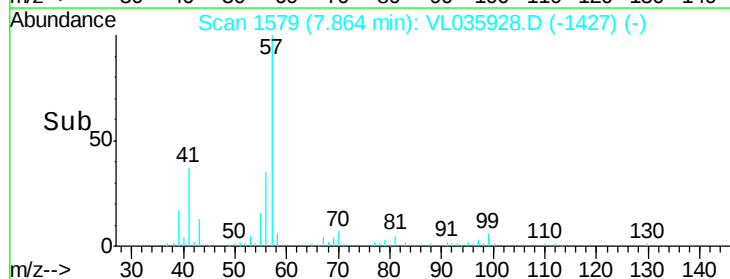
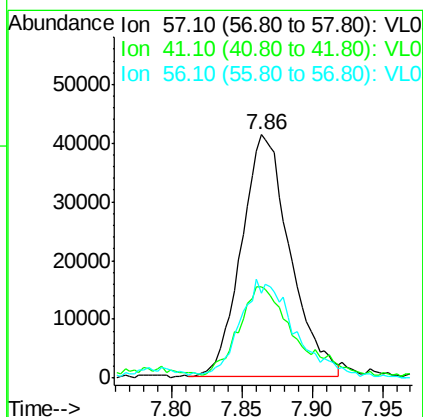
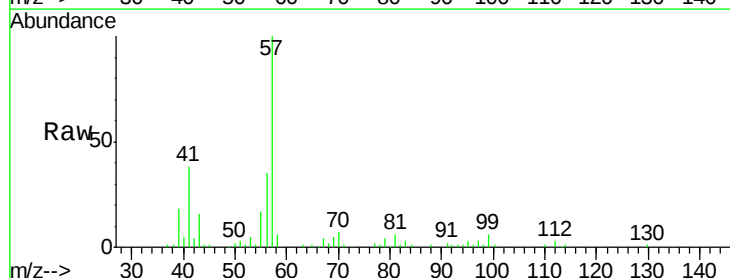
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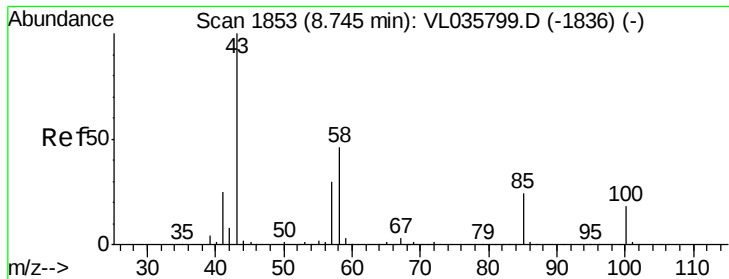
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#44
2,2,4-Trimethylpentane
Concen: 0.254 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion	Ratio	Lower	Upper
57	100		
41	41.6	21.0	31.4#
56	45.2	25.4	38.0#





#50

4-Methyl-2-Pentanone

Concen: 0.098 ppbv m

RT: 8.74 min Scan# 1853

Delta R.T. -0.00 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampled :

LA-3

Tot Ion: 43 Resp: 19300

Ion Ratio Lower Upper

43 100

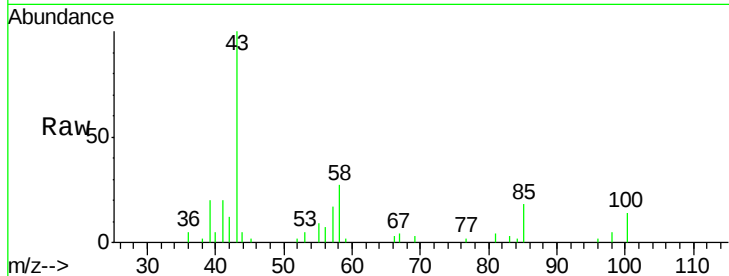
58 0.0 36.0 54.0#

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

8.74

10000

8000

6000

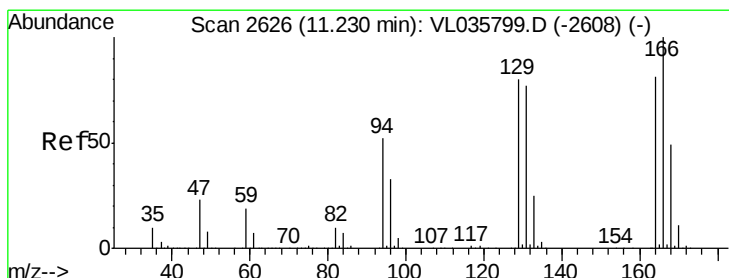
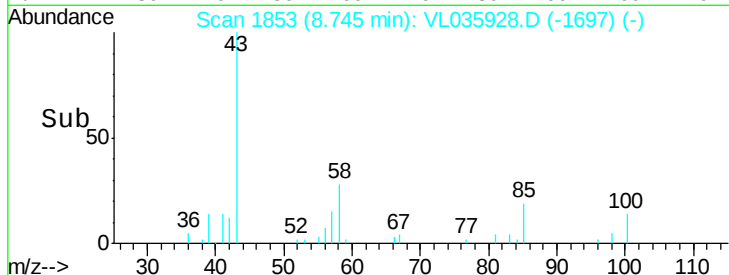
4000

2000

0

Time-->

8.70 8.75 8.80



#52

Tetrachloroethene

Concen: 0.038 ppbv m

RT: 11.22 min Scan# 2622

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Tgt Ion: 164 Resp: 5318

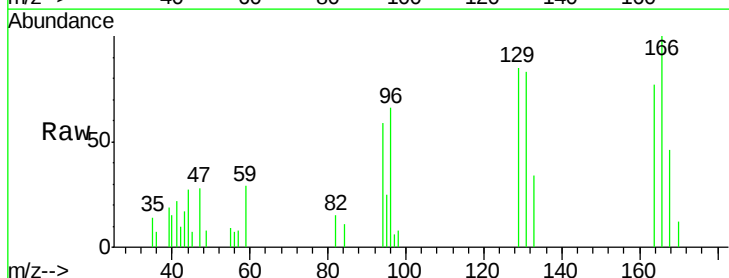
Ion Ratio Lower Upper

164 100

166 129.5 99.3 148.9

129 110.7 79.3 118.9

131 108.1 76.5 114.7



Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

5000

4000

3000

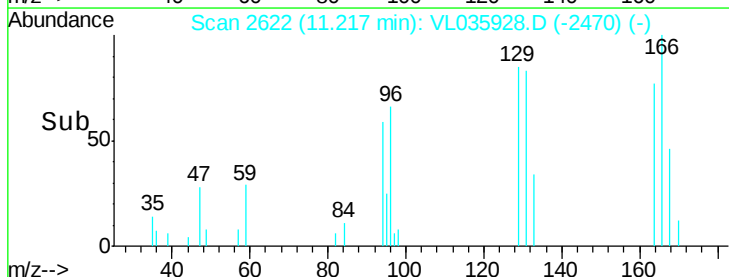
2000

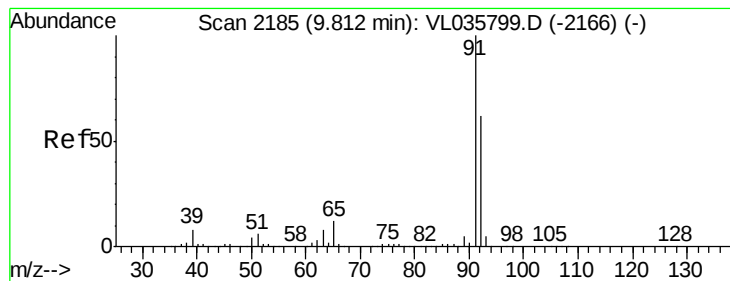
1000

0

Time-->

11.10 11.20 11.30





#53

Toluene

Concen: 2.699 ppbv

RT: 9.80 min Scan# 2182

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

Instrument :

MSVOA_L

ClientSampled :

LA-3

Tot Ion: 91 Resp: 962907

Ion Ratio Lower Upper

91 100

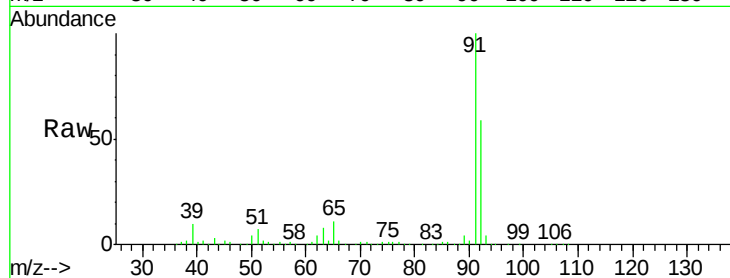
92 59.9 49.8 74.6

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.80

500000

400000

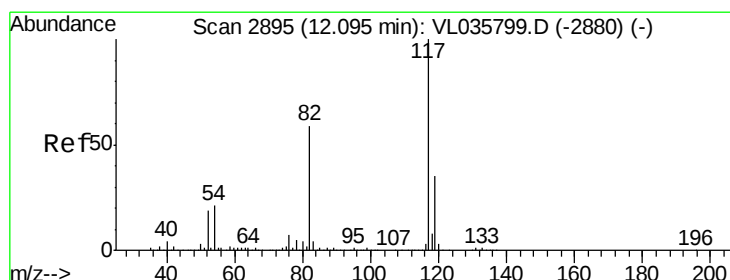
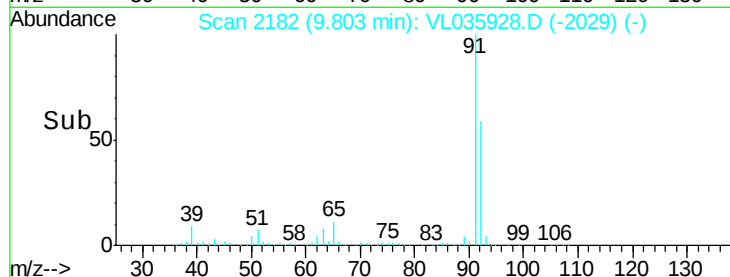
300000

200000

100000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL035928.D

Acq: 13 Nov 2020 00:38

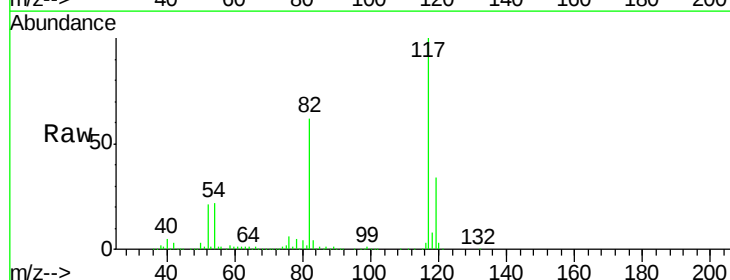
Tgt Ion: 117 Resp: 3608401

Ion Ratio Lower Upper

117 100

82 61.4 50.6 76.0

119 33.8 52.6 78.8#



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

12.09

2000000

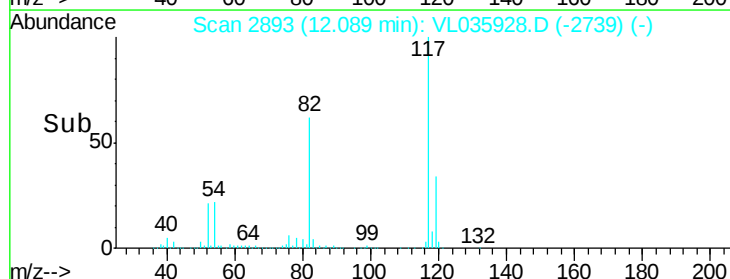
1500000

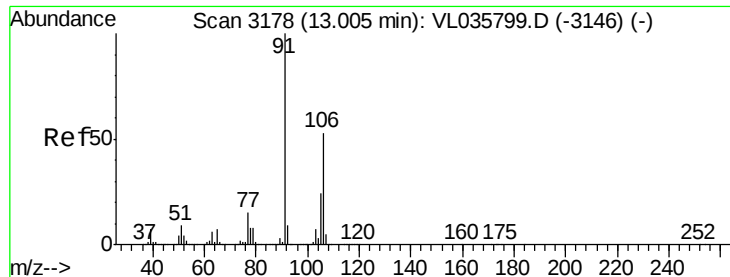
1000000

500000

0

Time-->





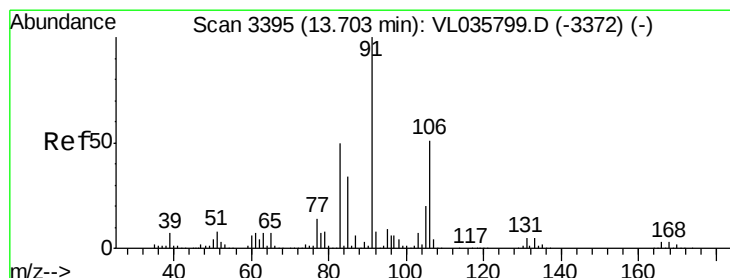
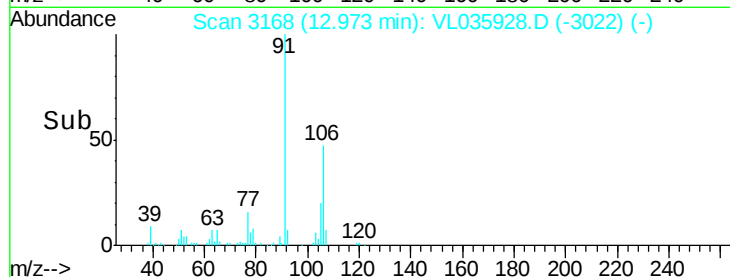
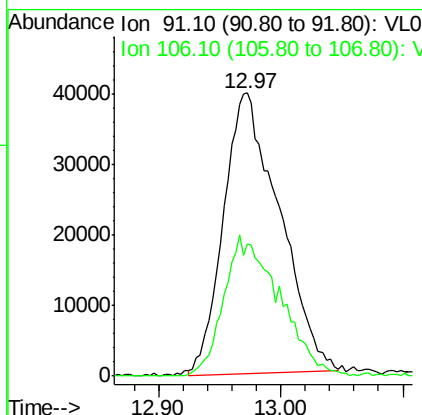
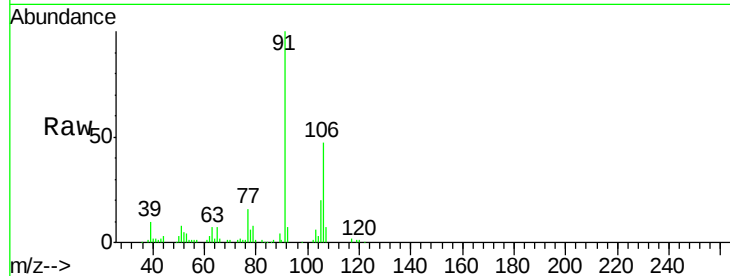
#59
m/p-Xylene
Concen: 0.341 ppbv
RT: 12.97 min Scan# 3168
Delta R.T. -0.03 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Instrument :
MSVOA_L
ClientSampled :
LA-3

Tot Ion	Ratio	Lower	Upper
91	100		
106	50.0	39.5	59.3

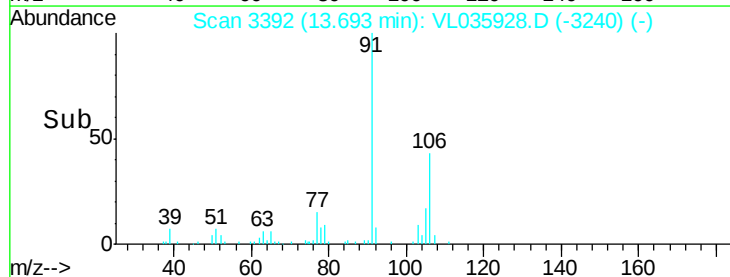
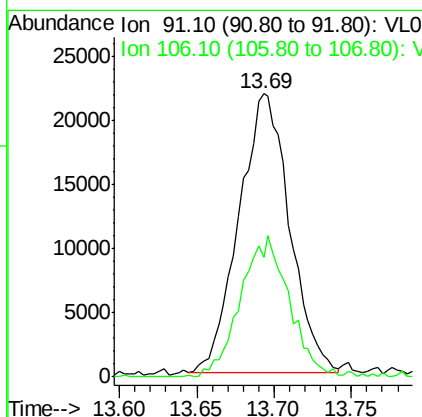
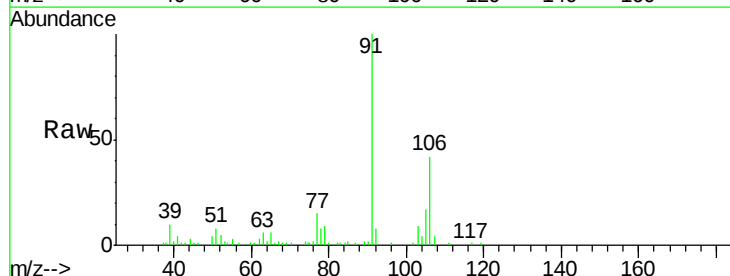
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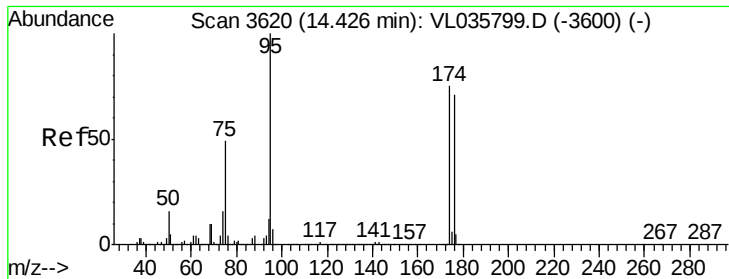
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#60
o-Xylene
Concen: 0.138 ppbv
RT: 13.69 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL035928.D
Acq: 13 Nov 2020 00:38

Tgt Ion	Ratio	Lower	Upper
91	100		
106	48.3	24.8	74.4





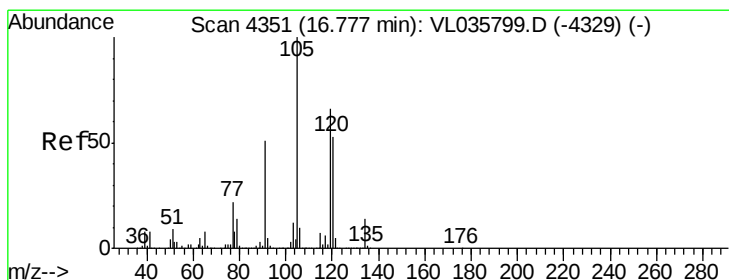
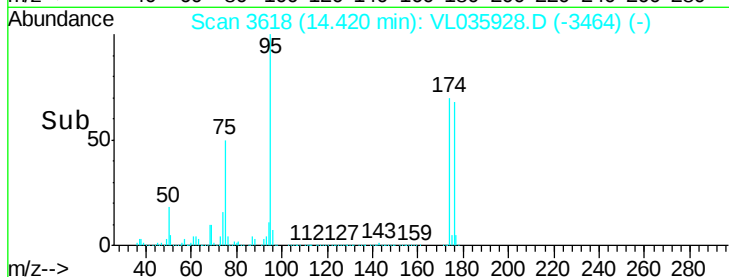
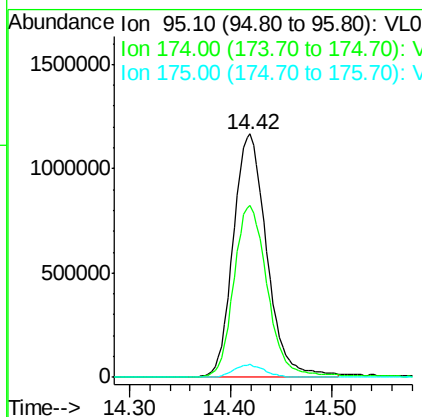
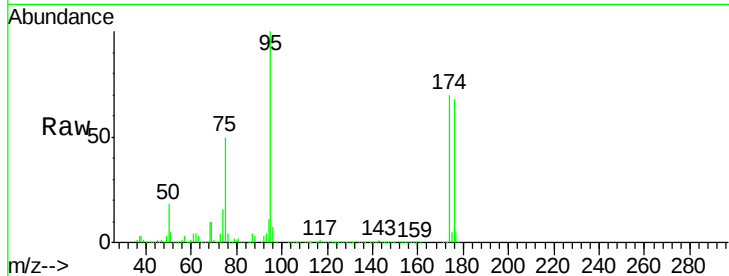
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.544 ppbv
 RT: 14.42 min Scan# 3618
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Instrument :
 MSVOA_L
 ClientSampled :
 LA-3

Tot Ion: 95 Resp: 2703207
 Ion Ratio Lower Upper
 95 100
 174 72.1 59.8 89.6
 175 5.1 4.3 6.5

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#74
 1,2,4-Trimethylbenzene
 Concen: 0.143 ppbv
 RT: 16.76 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL035928.D
 Acq: 13 Nov 2020 00:38

Tgt Ion: 105 Resp: 61590
 Ion Ratio Lower Upper
 105 100
 120 39.1 42.0 63.0#
 91 14.9 41.0 61.6#
 77 12.3 17.3 25.9#

