

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL120718\
 Data File : VL032935.D
 Acq On : 7 Dec 2018 15:14
 Operator : SY/AP
 Sample : J6262-01DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

Manual Integrations
 APPROVED

MMDadoda
 12/11/2018 10:08:49 AM

Quant Time: Dec 10 20:05:53 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 0
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1246124	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3144587	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3045703	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	2459938	10.93	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	109.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	31902	0.192	ppbv	96
3) Chlorodifluoromethane	3.02	51	46206m	0.490	ppbv	
4) Chloromethane	3.18	50	45927	0.836	ppbv	97
9) Propene	3.05	41	74539m	1.997	ppbv	
10) Heptane	8.26	43	54366	0.388	ppbv	94
11) Trichlorofluoromethane	4.00	101	39039	0.249	ppbv	99
13) Ethanol	3.66	45	1538815	119.767	ppbv	96
15) Acetone	3.90	43	2302754	21.529	ppbv	99
19) Isopropyl Alcohol	4.03	45	851846	12.682	ppbv #	1
20) Methylene Chloride	4.41	84	142796	2.732	ppbv	97
26) Hexane	5.78	57	722889	6.197	ppbv #	58
29) Chloroform	5.85	83	24618	0.118	ppbv	92
30) Cyclohexane	7.26	84	27909m	0.289	ppbv	
31) cis-1,2-Dichloroethene	5.64	61	21821	0.204	ppbv	88
34) 2-Butanone	5.34	43	283370	2.069	ppbv	98
35) Carbon Tetrachloride	7.13	117	19710	0.080	ppbv #	91
36) Benzene	7.01	78	87103	0.377	ppbv	95
38) Trichloroethene	7.97	130	45390m	0.472	ppbv	
43) Methyl Methacrylate	8.14	69	276066m	3.221	ppbv	
44) 2,2,4-Trimethylpentane	7.99	57	148748	0.379	ppbv #	81
52) Tetrachloroethene	11.38	164	280887	3.339	ppbv	96
53) Toluene	9.95	91	2386958	9.731	ppbv	99
58) Ethyl Benzene	12.86	91	68769m	0.212	ppbv	
59) m/p-Xylene	13.13	91	210800	0.716	ppbv #	100
60) o-Xylene	13.85	91	68850m	0.231	ppbv	
72) 4-Ethyltoluene	16.00	105	49334m	0.149	ppbv	
73) 1,3,5-Trimethylbenzene	16.17	105	40514m	0.125	ppbv	
74) 1,2,4-Trimethylbenzene	16.94	105	176096	0.481	ppbv #	68
79) Naphthalene	22.43	128	35453m	0.150	ppbv	

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

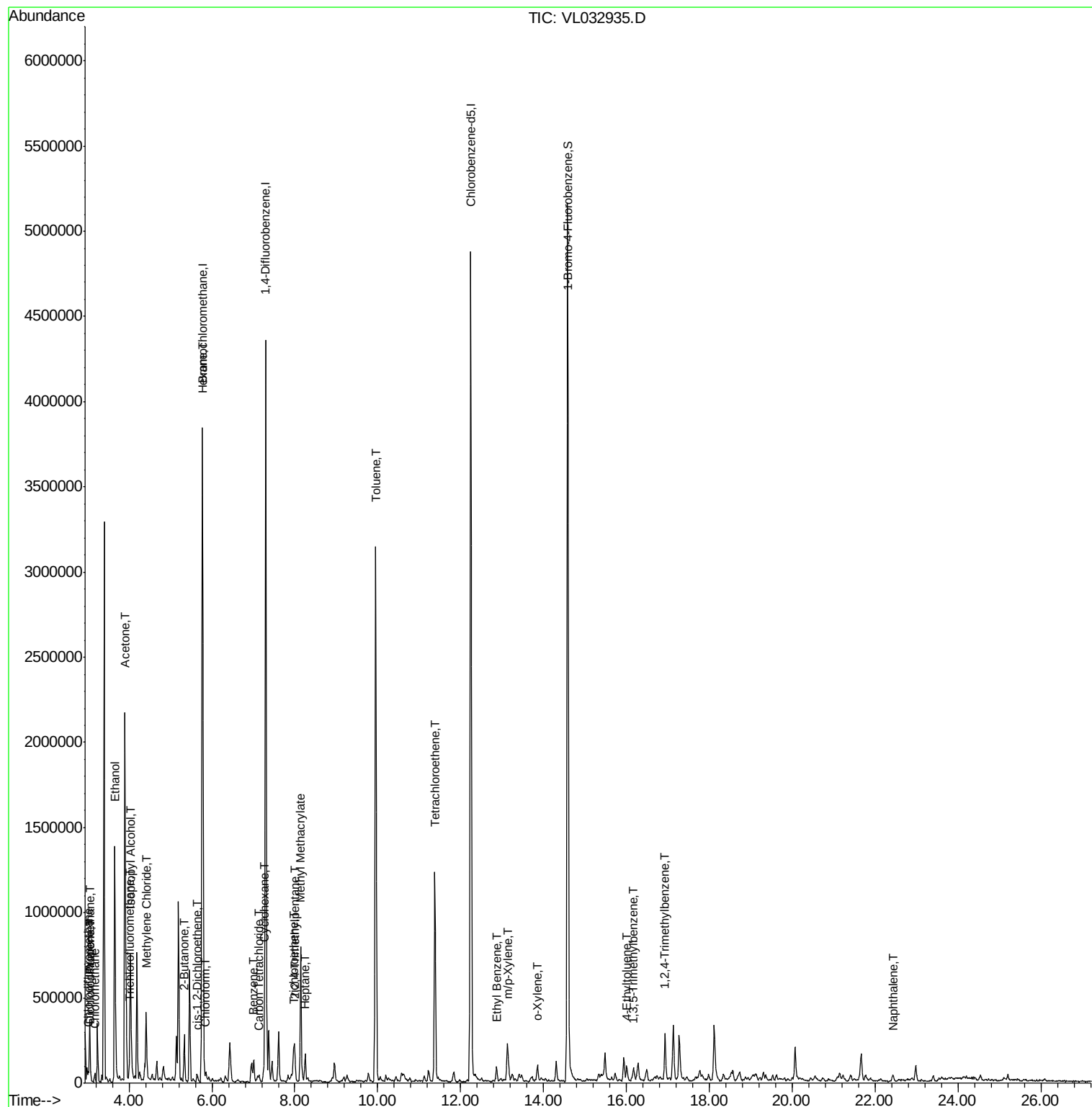
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL120718\
Data File : VL032935.D
Acq On : 7 Dec 2018 15:14
Operator : SY/AP
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Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

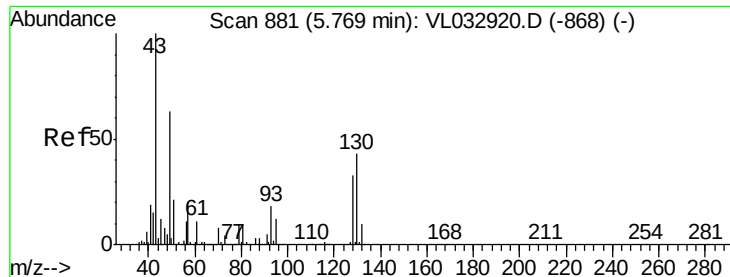
Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

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12/11/2018 10:08:49 AM

Quant Time: Dec 10 20:05:53 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL120718AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec
QLast Update : Fri Dec 07 09:35:17 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

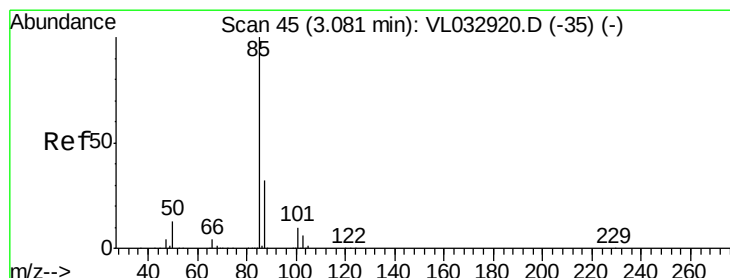
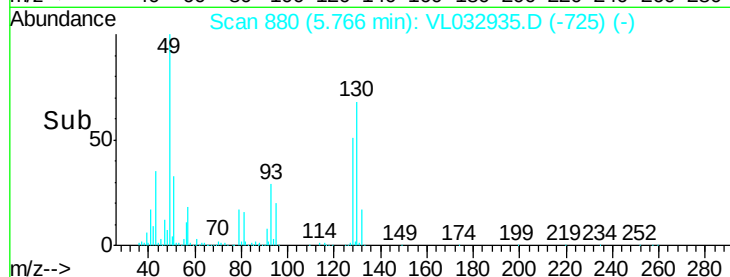
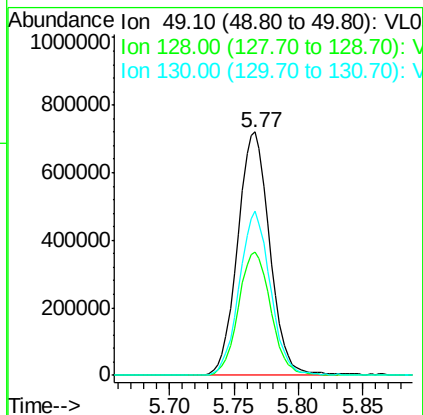
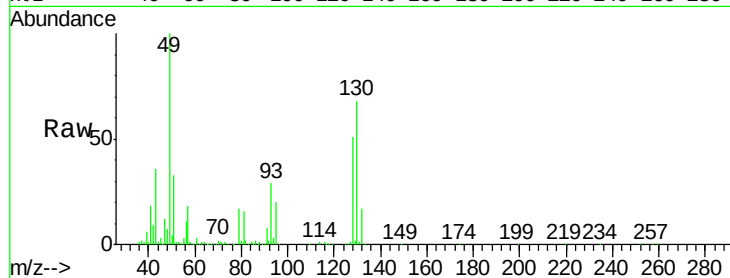
IA1DUP

Tgt Ion: 49 Resp: 1246124

Ion	Ratio	Lower	Upper
49	100		
128	51.3	26.3	78.8
130	65.9	33.9	101.7

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#2

Dichlorodifluoromethane

Concen: 0.192 ppbv

RT: 3.08 min Scan# 44

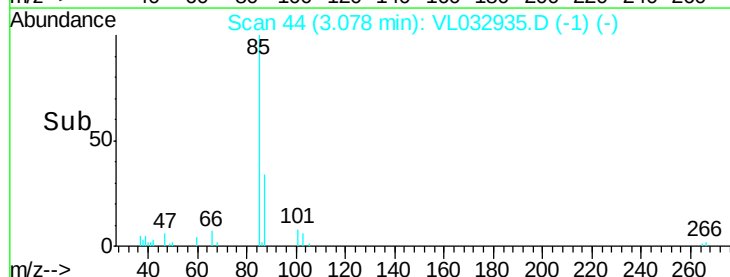
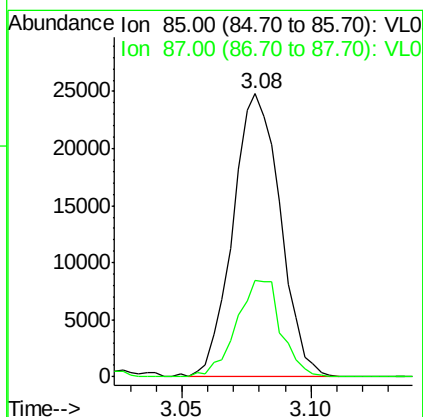
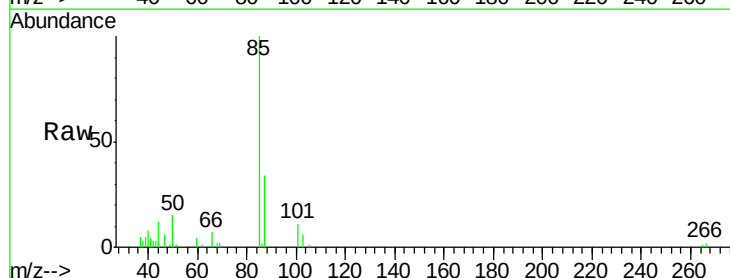
Delta R.T. -0.00 min

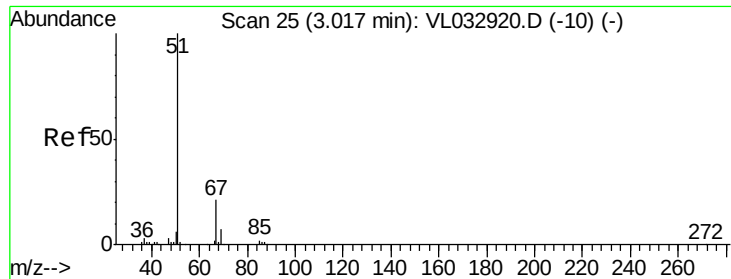
Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Tgt Ion: 85 Resp: 31902

Ion	Ratio	Lower	Upper
85	100		
87	34.2	25.7	38.5





#3

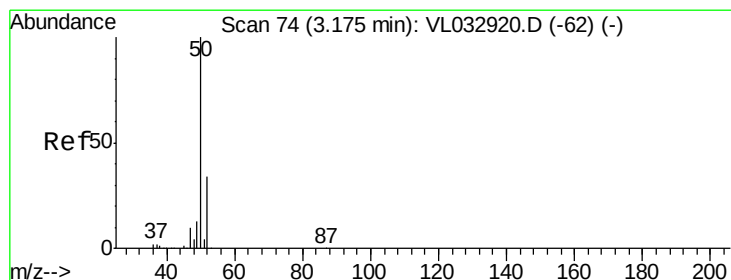
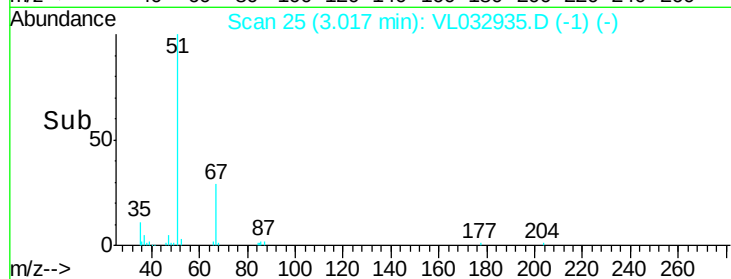
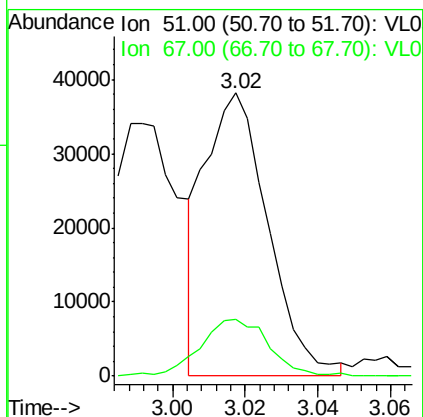
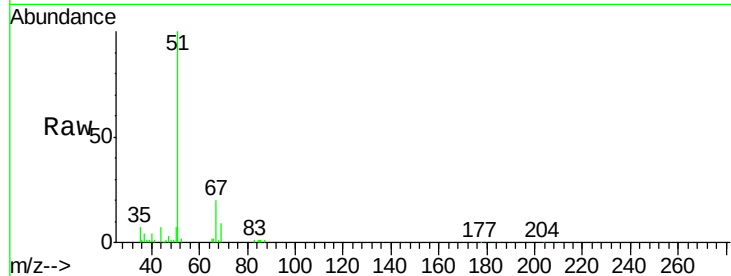
Chlorodifluoromethane
 Concen: 0.490 ppbv
 RT: 3.02 min Scan# 25
 Delta R.T. 0.00 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Instrument :
 MSVOA_L
 ClientSampled :
 IA1DUP

Tgt Ion: 51 Resp: 46206
 Ion Ratio Lower Upper
 51 100
 67 21.8 16.8 25.2

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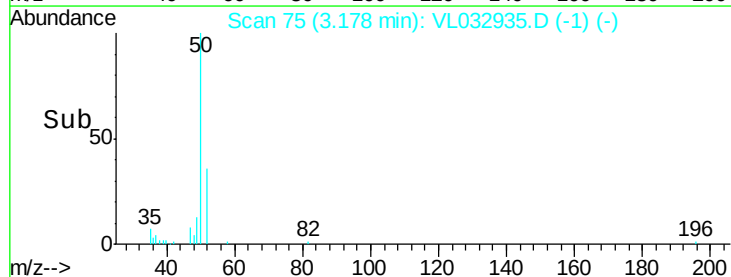
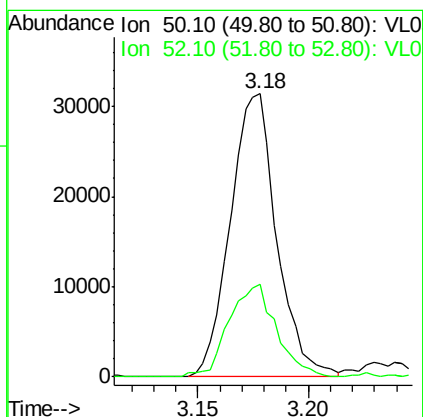
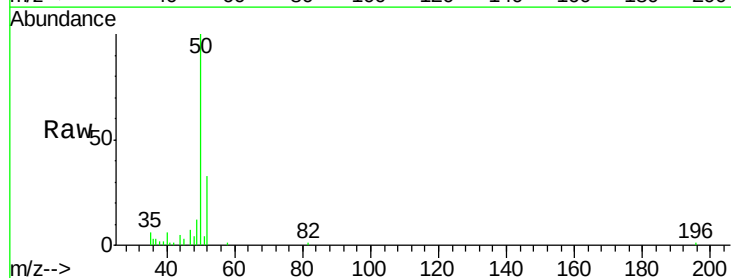
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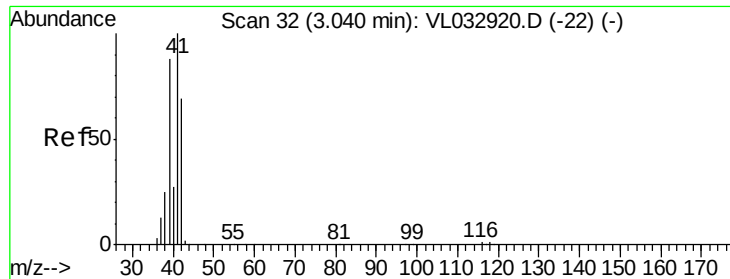


#4

Chloromethane
 Concen: 0.836 ppbv
 RT: 3.18 min Scan# 75
 Delta R.T. 0.00 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Tgt Ion: 50 Resp: 45927
 Ion Ratio Lower Upper
 50 100
 52 32.6 27.3 40.9





#9

Propene

Concen: 1.997 ppbv m

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 41 Resp: 74539

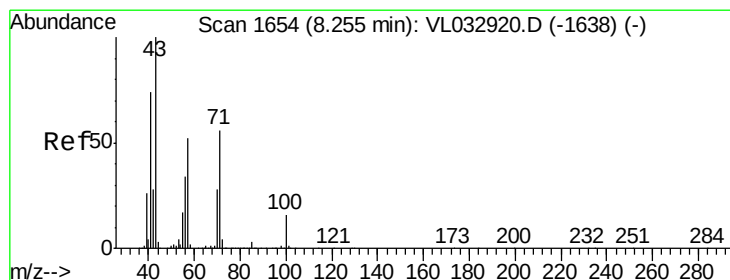
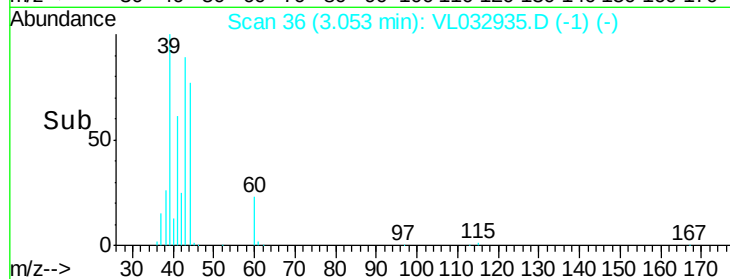
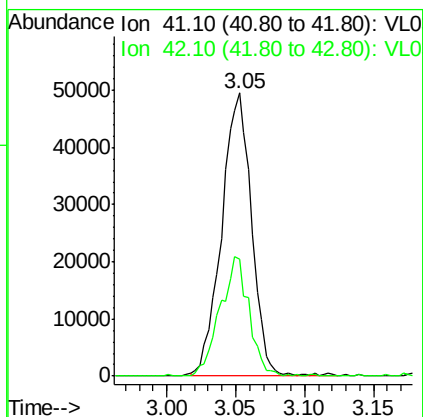
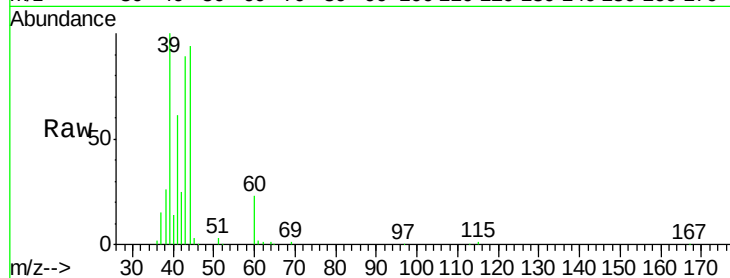
Ion Ratio Lower Upper

41 100

42 77.1 56.2 84.2

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#10

Heptane

Concen: 0.388 ppbv

RT: 8.26 min Scan# 1654

Delta R.T. 0.00 min

Lab File: VL032935.D

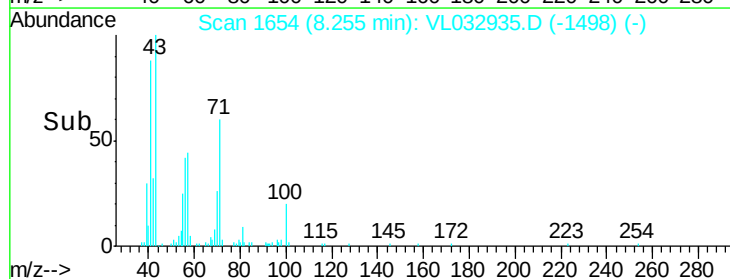
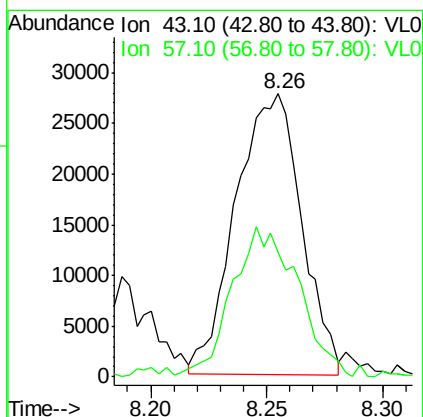
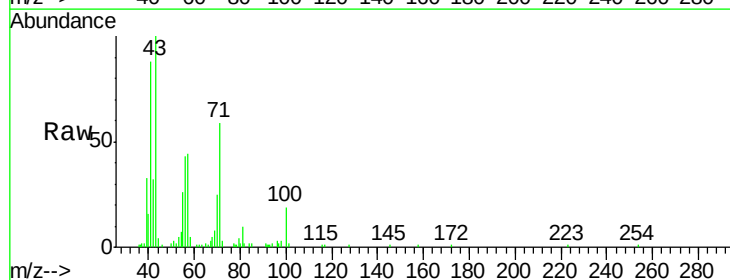
Acq: 7 Dec 2018 15:14

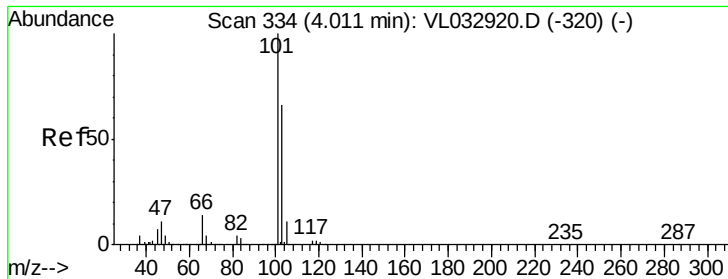
Tgt Ion: 43 Resp: 54366

Ion Ratio Lower Upper

43 100

57 56.5 41.8 62.6





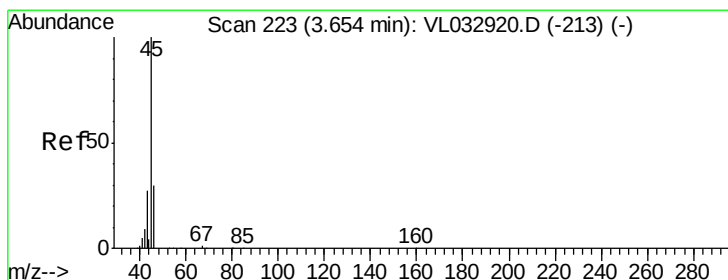
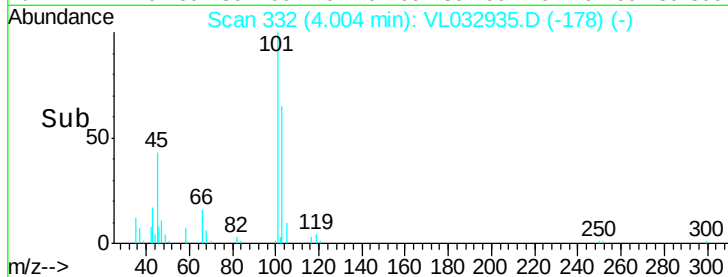
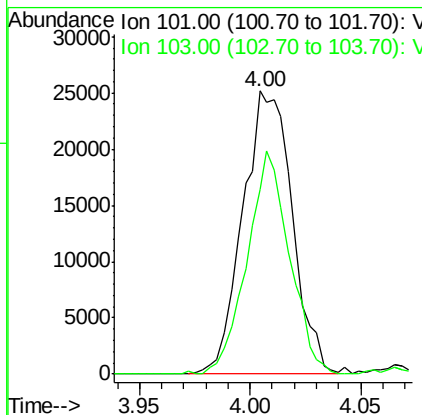
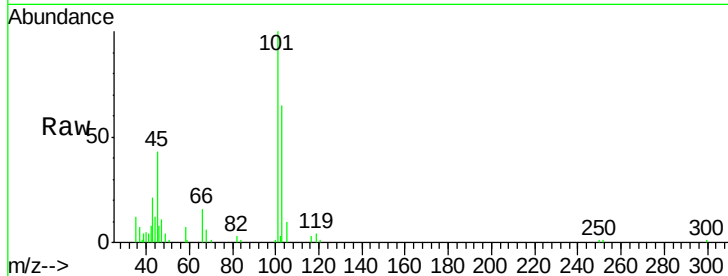
#11
 Trichlorofluoromethane
 Concen: 0.249 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.01 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1DUP

Tgt Ion: 101 Resp: 39039
 Ion Ratio Lower Upper
 101 100
 103 65.1 52.7 79.1

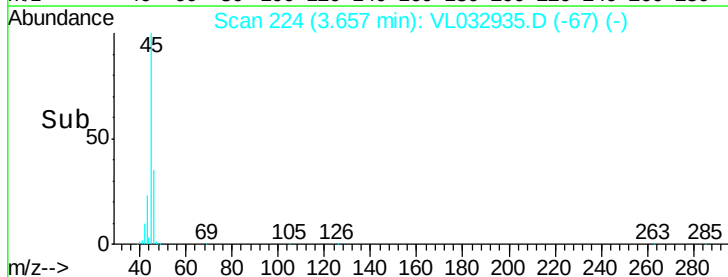
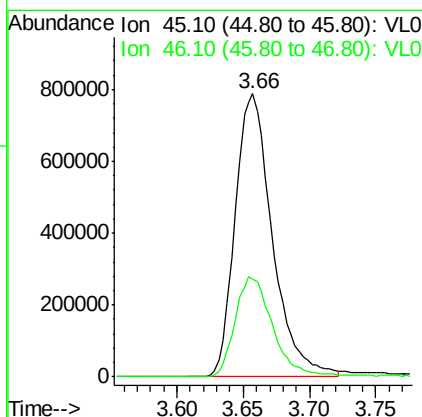
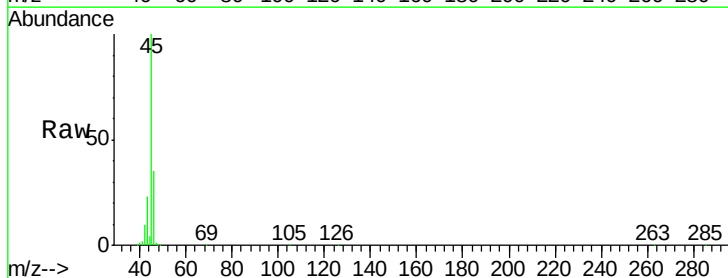
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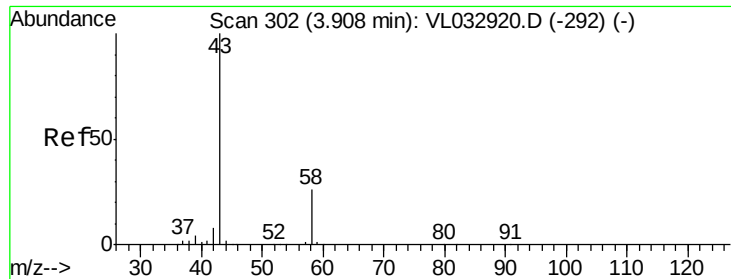
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#13
 Ethanol
 Concen: 119.767 ppbv
 RT: 3.66 min Scan# 224
 Delta R.T. 0.00 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Tgt Ion: 45 Resp: 1538815
 Ion Ratio Lower Upper
 45 100
 46 36.9 13.8 55.4





#15

Acetone

Concen: 21.529 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.01 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 43 Resp: 2302754

Ion Ratio Lower Upper

43 100

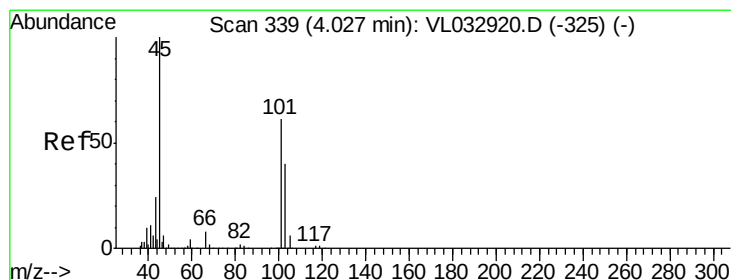
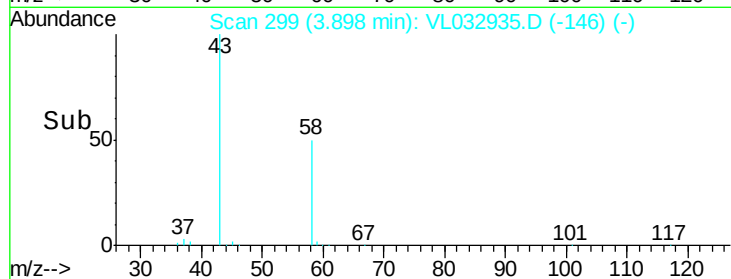
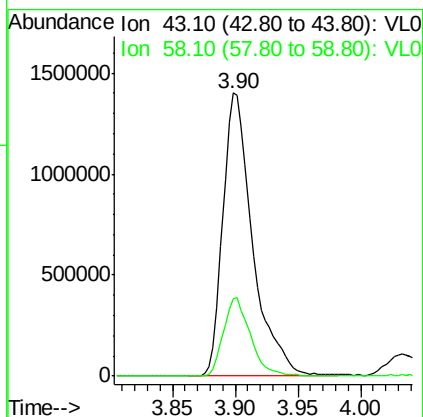
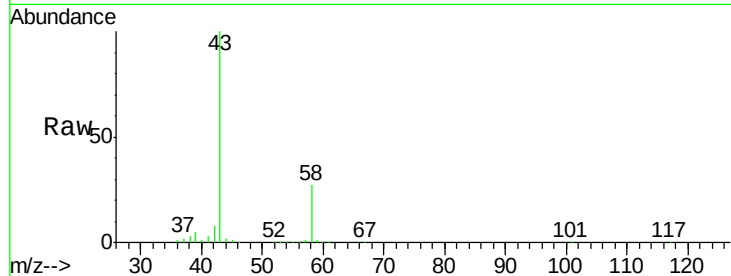
58 25.2 20.6 30.8

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#19

Isopropyl Alcohol

Concen: 12.682 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL032935.D

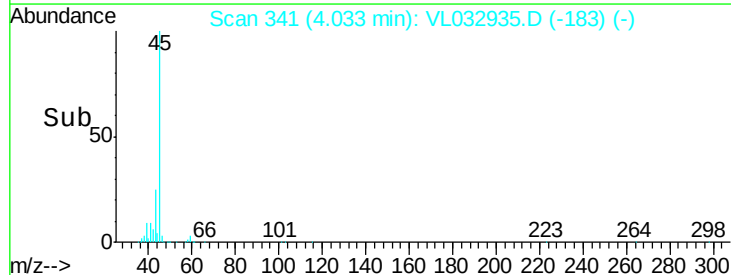
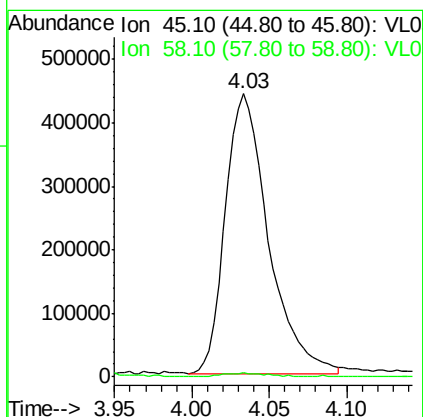
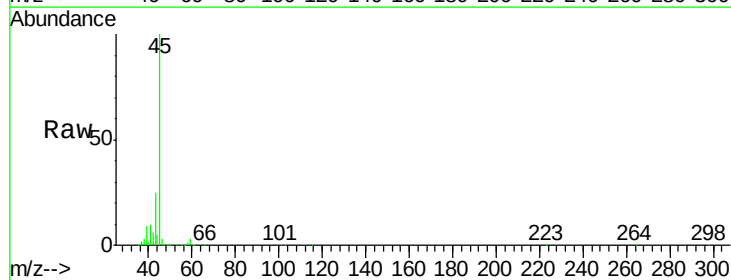
Acq: 7 Dec 2018 15:14

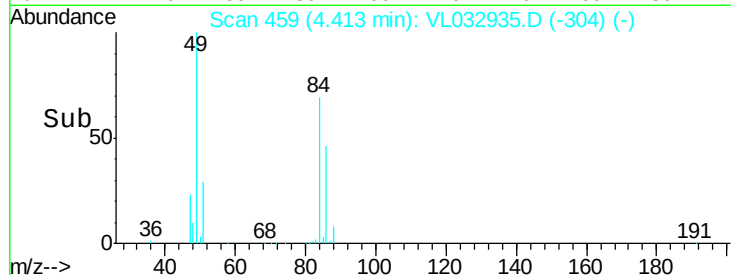
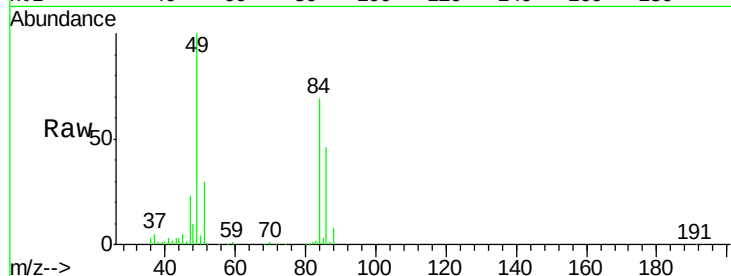
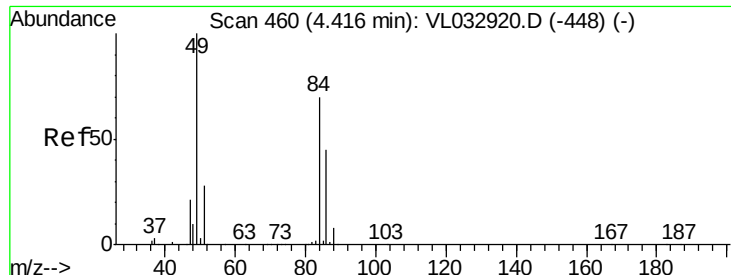
Tgt Ion: 45 Resp: 851846

Ion Ratio Lower Upper

45 100

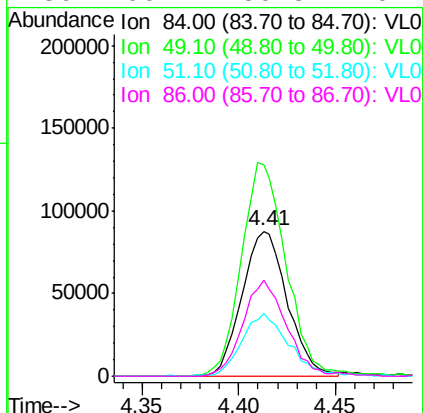
58 68.0 1.4 2.2#





#20
Methylene Chloride
Concen: 2.732 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

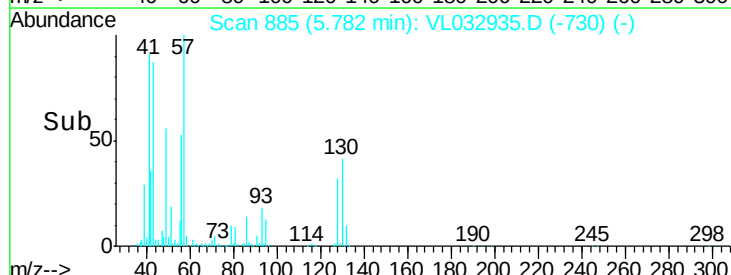
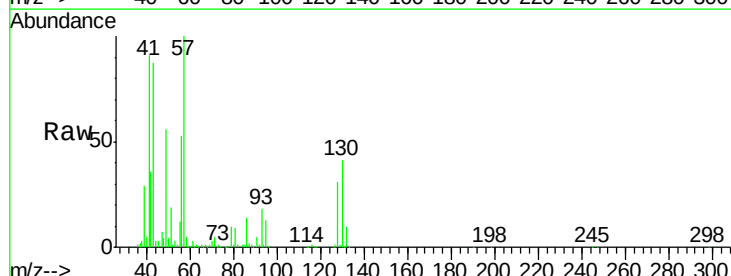
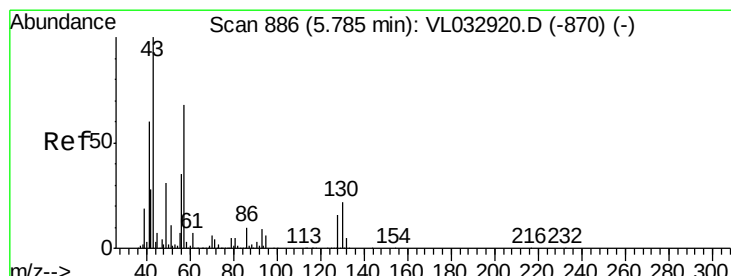
Tgt Ion	Ratio	Lower	Upper
84	100		
49	145.5	113.8	170.8
51	43.3	31.8	47.8
86	66.2	50.8	76.2



Instrument :
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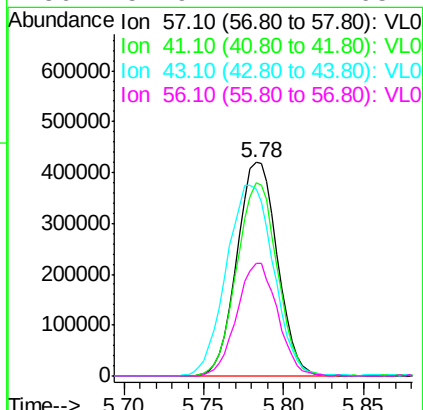
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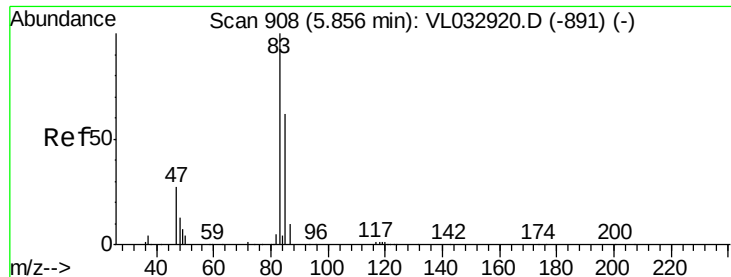
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#26
Hexane
Concen: 6.197 ppbv
RT: 5.78 min Scan# 885
Delta R.T. -0.00 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Tgt Ion	Ratio	Lower	Upper
57	100		
41	90.7	72.2	108.2
43	105.0	171.9	257.9#
56	52.9	42.2	63.2





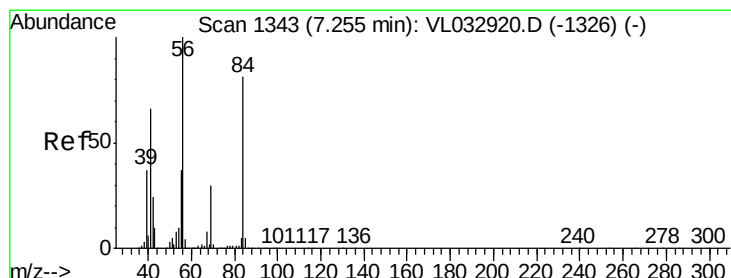
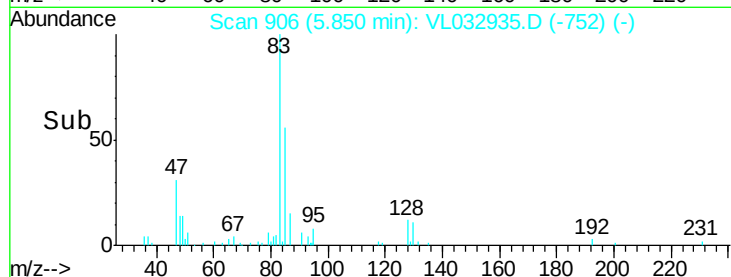
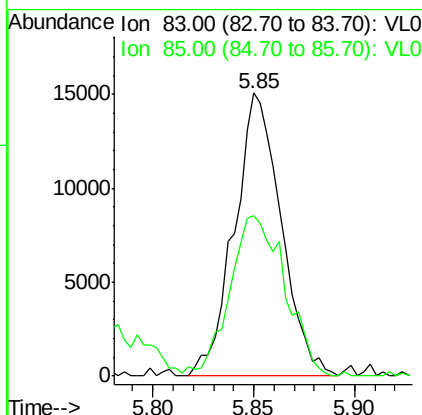
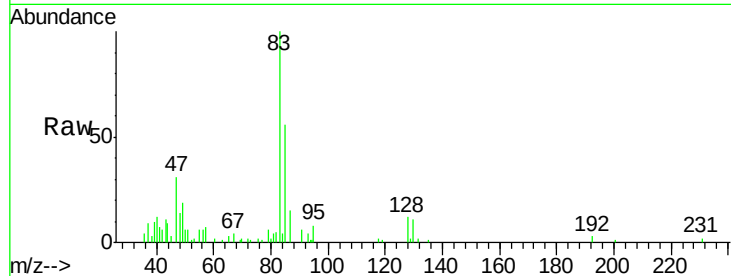
#29
Chloroform
Concen: 0.118 ppbv
RT: 5.85 min Scan# 906
Delta R.T. -0.01 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Instrument :
MSVOA_L
ClientSampled :
IA1DUP

Tgt Ion: 83 Resp: 24618
Ion Ratio Lower Upper
83 100
85 56.5 49.8 74.8

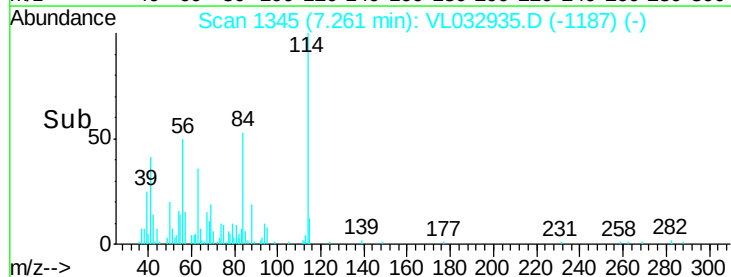
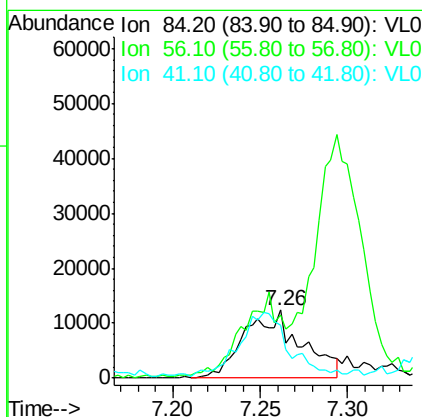
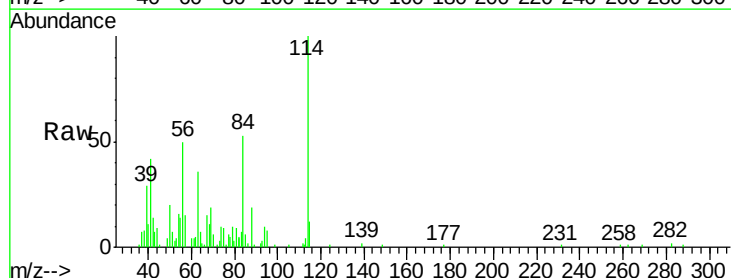
Manual Integrations
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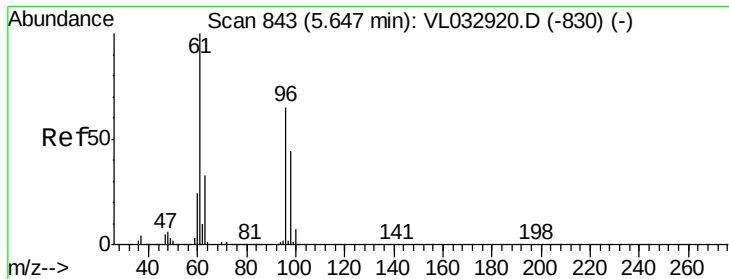
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#30
Cyclohexane
Concen: 0.289 ppbv m
RT: 7.26 min Scan# 1345
Delta R.T. 0.01 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Tgt Ion: 84 Resp: 27909
Ion Ratio Lower Upper
84 100
56 0.0 102.5 153.7#
41 78.1 64.1 96.1





#31

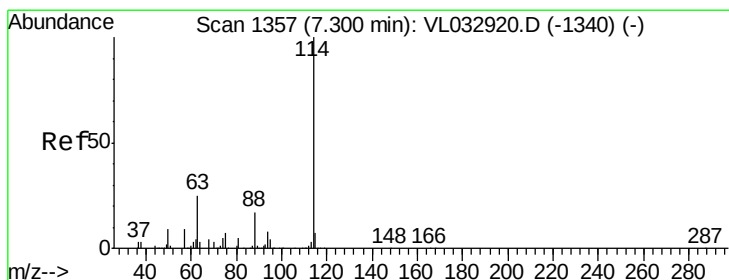
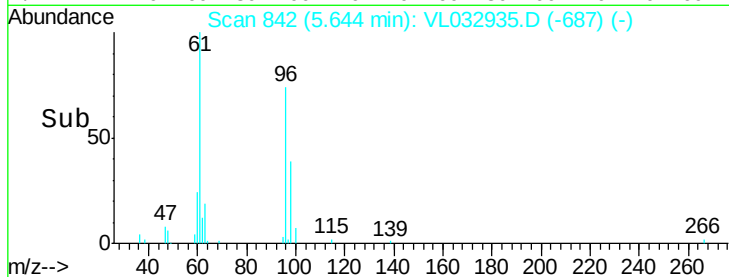
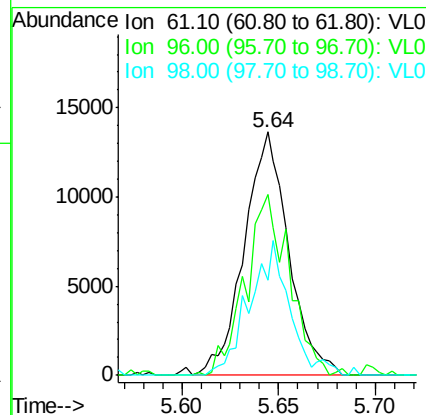
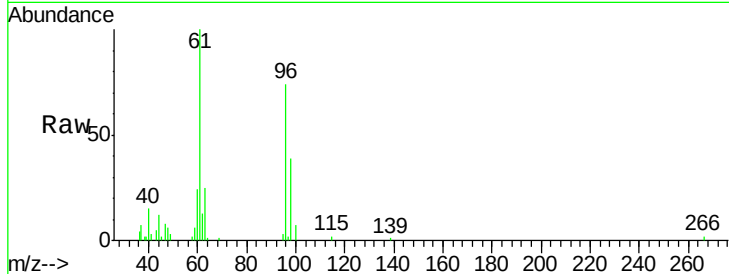
cis-1,2-Dichloroethene
Concen: 0.204 ppbv
RT: 5.64 min Scan# 842
Delta R.T. -0.00 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Instrument :
MSVOA_L
ClientSampleId :
IA1DUP

Tgt Ion	Ratio	Lower	Upper
61	100		
96	76.6	51.9	77.9
98	39.2	35.0	52.4

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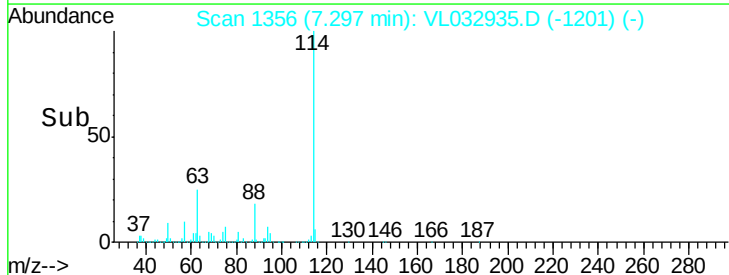
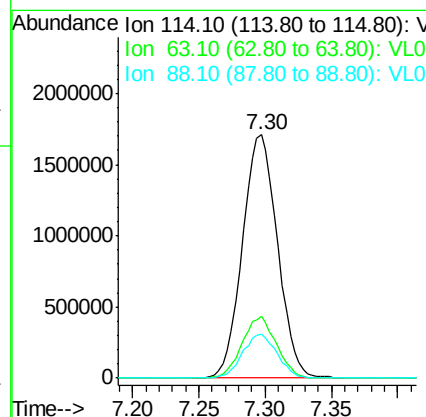
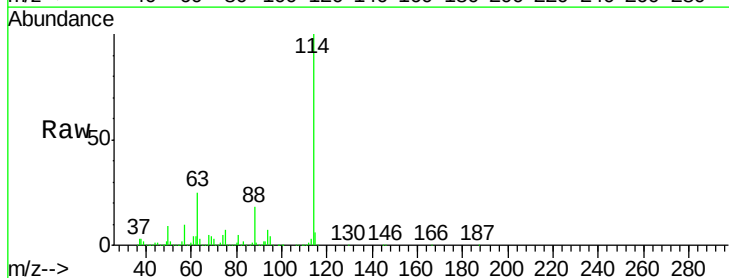
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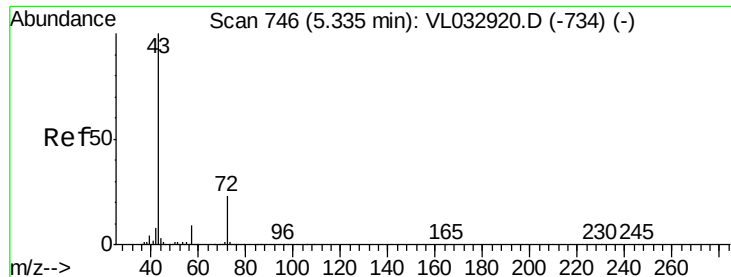


#33

1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.30 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.8	20.1	30.1
88	17.8	14.2	21.4





#34

2-Butanone

Concen: 2.069 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 43 Resp: 283370

Ion Ratio Lower Upper

43 100

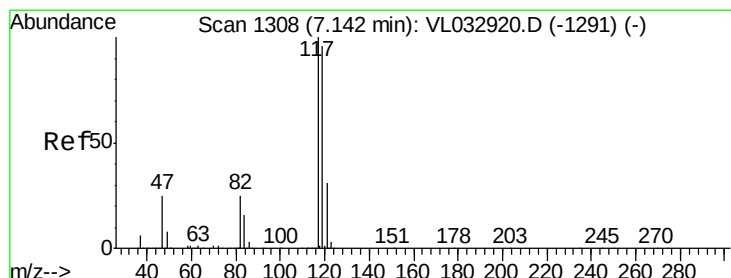
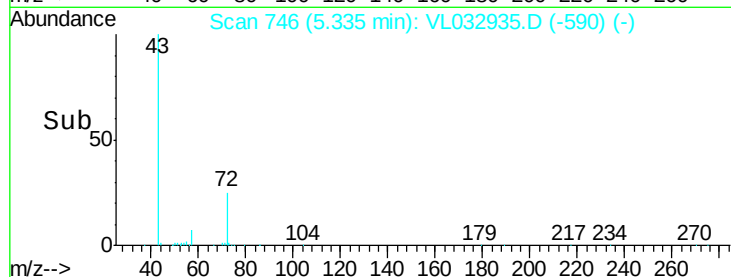
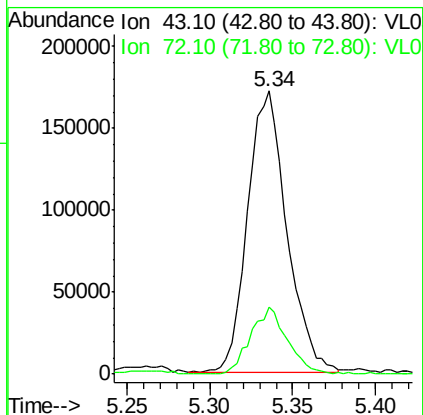
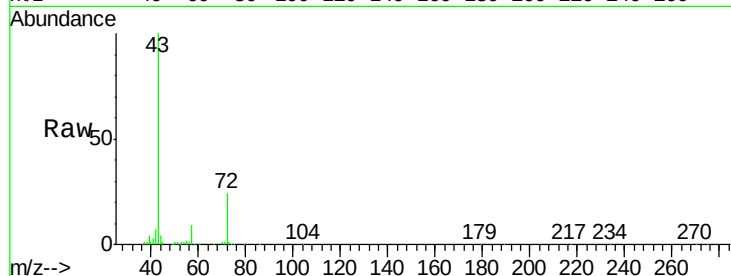
72 22.5 18.8 28.2

Manual Integrations

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#35

Carbon Tetrachloride

Concen: 0.080 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. -0.01 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

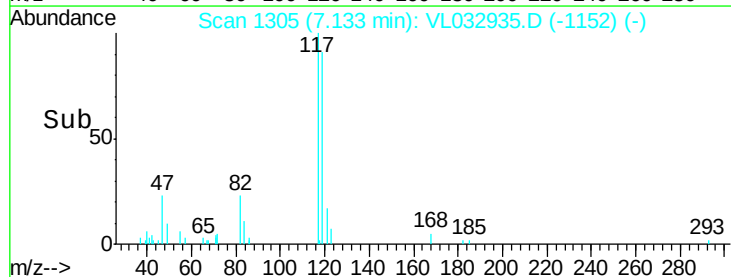
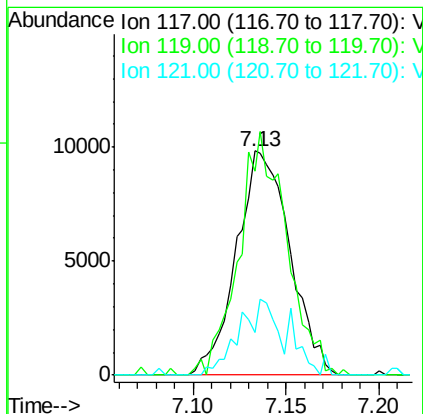
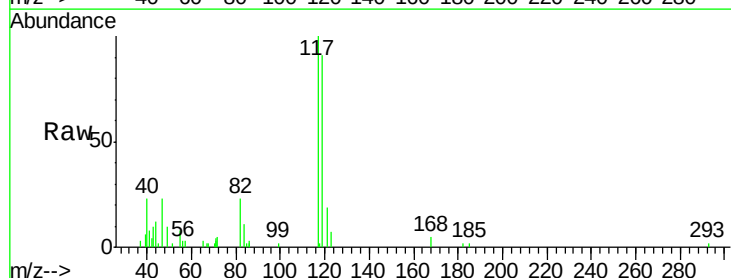
Tgt Ion: 117 Resp: 19710

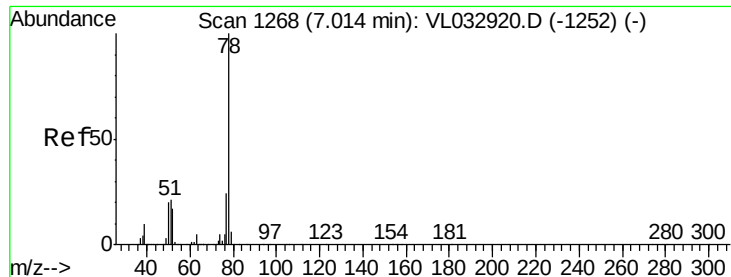
Ion Ratio Lower Upper

117 100

119 91.3 76.5 114.7

121 18.9 24.5 36.7#





#36

Benzene

Concen: 0.377 ppbv

RT: 7.01 min Scan# 1267

Delta R.T. -0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

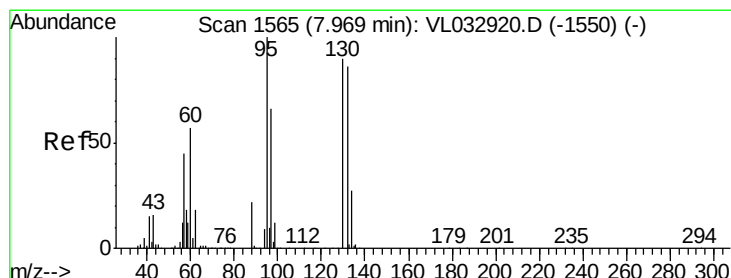
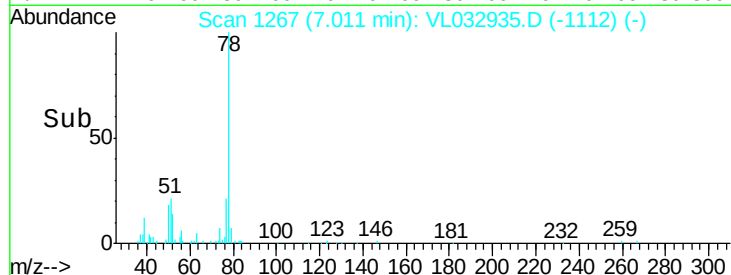
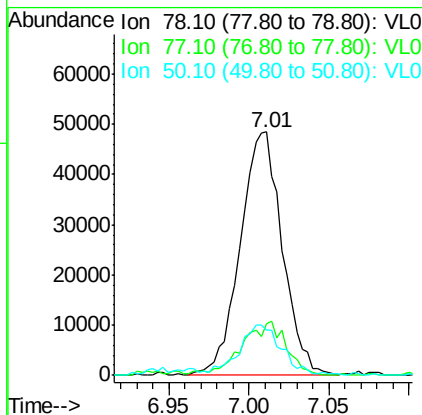
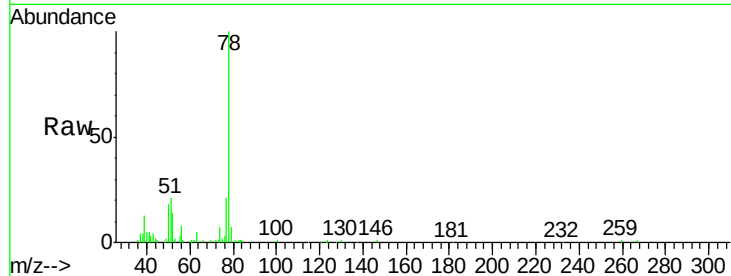
ClientSampleId :

IA1DUP

Tgt Ion:	78	Resp:	87103
Ion Ratio		Lower	Upper
78	100		
77	21.4	18.9	28.3
50	17.7	16.1	24.1

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#38

Trichloroethene

Concen: 0.472 ppbv m

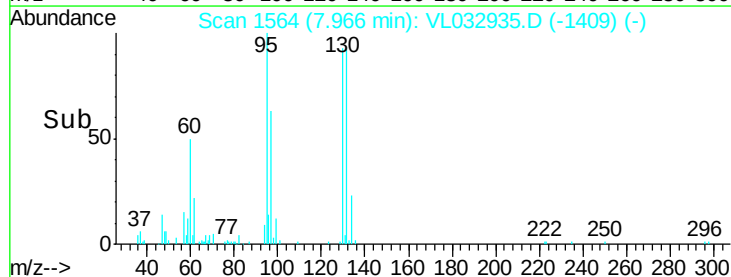
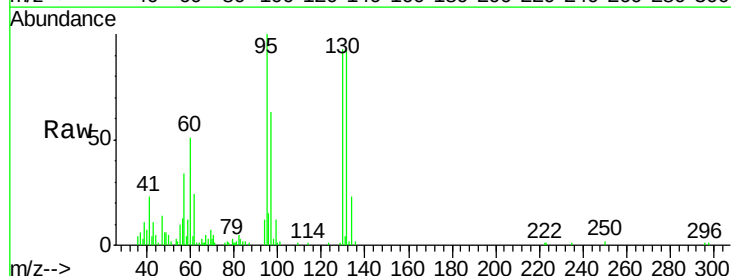
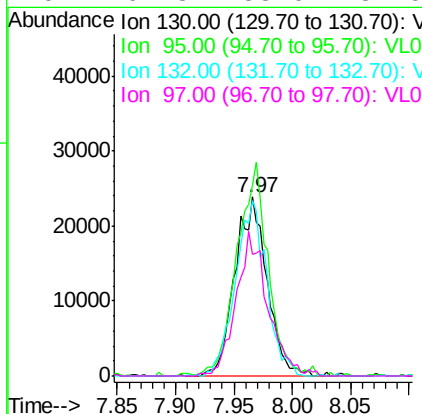
RT: 7.97 min Scan# 1564

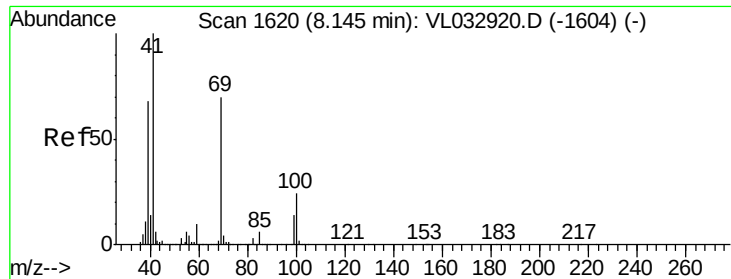
Delta R.T. -0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Tgt Ion:	130	Resp:	45390
Ion Ratio		Lower	Upper
130	100		
95	107.0	88.6	132.8
132	98.4	76.1	114.1
97	67.8	58.0	87.0





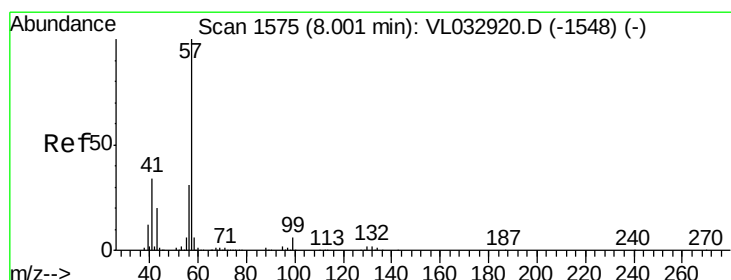
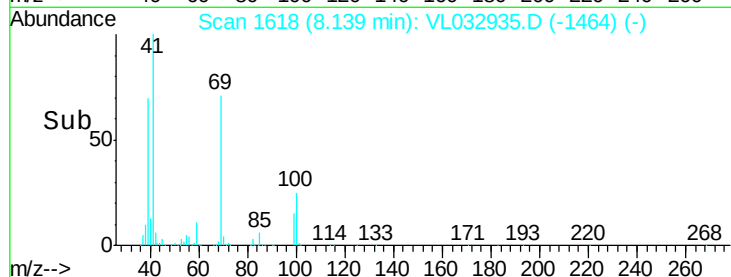
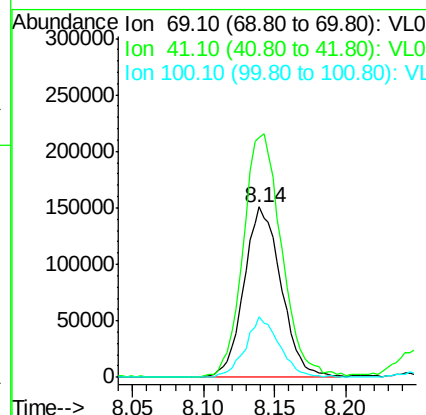
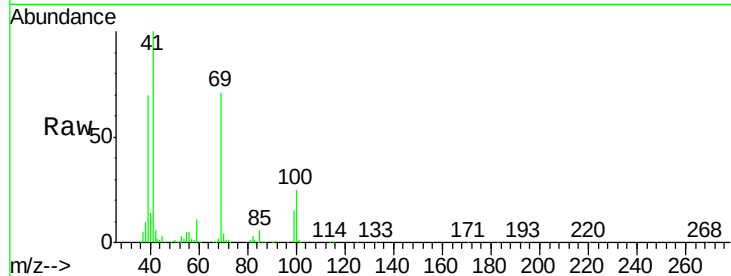
#43
Methyl Methacrylate
Concen: 3.221 ppbv m
RT: 8.14 min Scan# 1618
Delta R.T. -0.01 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Instrument :
MSVOA_L
ClientSampled :
IA1DUP

Tgt Ion	Ratio	Lower	Upper
69	100		
41	0.0	116.6	175.0#
100	0.0	26.5	39.7#

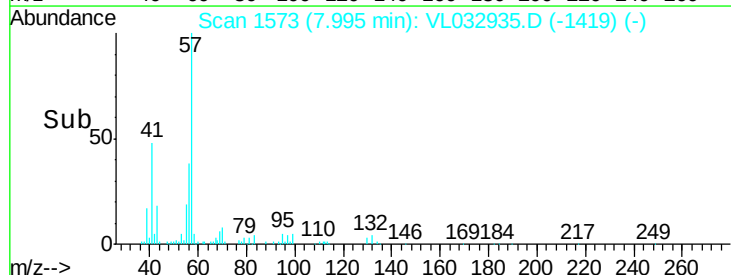
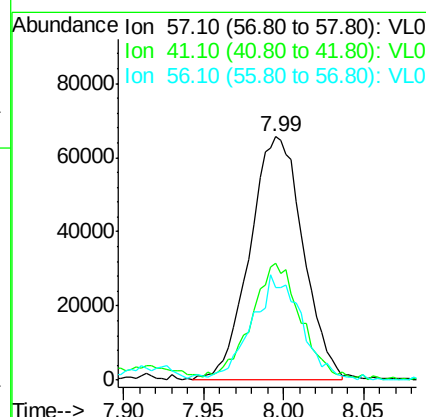
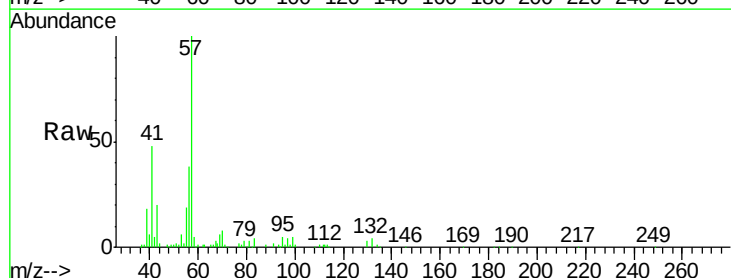
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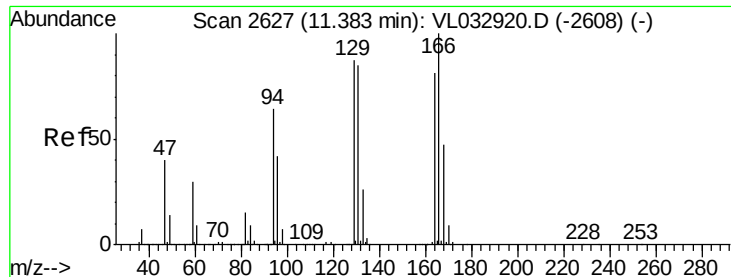
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#44
2,2,4-Trimethylpentane
Concen: 0.379 ppbv
RT: 7.99 min Scan# 1573
Delta R.T. -0.01 min
Lab File: VL032935.D
Acq: 7 Dec 2018 15:14

Tgt Ion	Ratio	Lower	Upper
57	100		
41	44.5	27.0	40.4#
56	41.0	24.6	37.0#





#52

Tetrachloroethene

Concen: 3.339 ppbv

RT: 11.38 min Scan# 2626

Delta R.T. -0.00 min

Lab File: VL032935.D

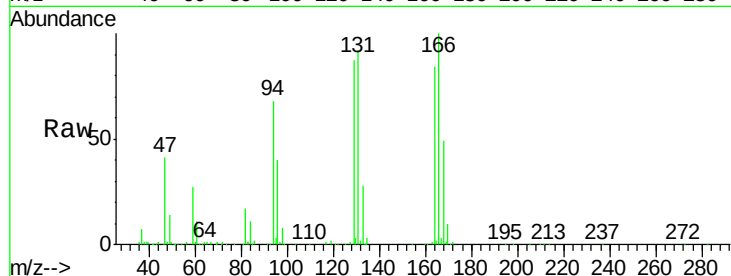
Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP



Tgt Ion: 164 Resp: 280887

Ion Ratio Lower Upper

164 100

166 117.5 98.8 148.2

129 102.2 85.5 128.3

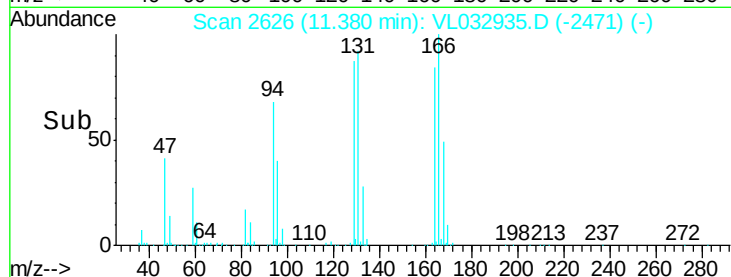
131 108.8 84.4 126.6

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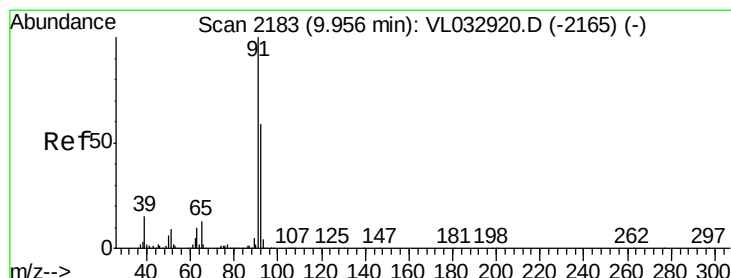
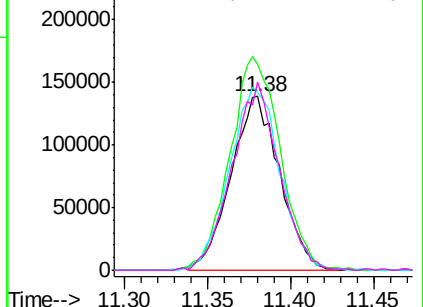


Abundance Ion 163.90 (163.60 to 164.60): V

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



#53

Toluene

Concen: 9.731 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL032935.D

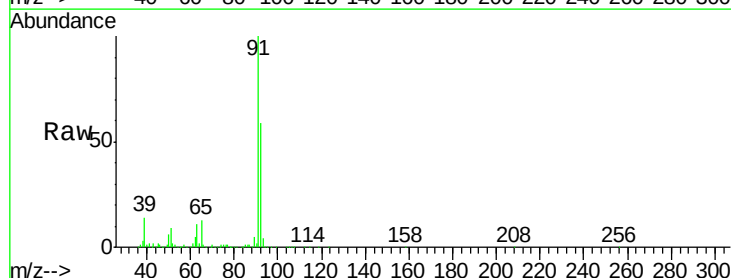
Acq: 7 Dec 2018 15:14

Tgt Ion: 91 Resp: 2386958

Ion Ratio Lower Upper

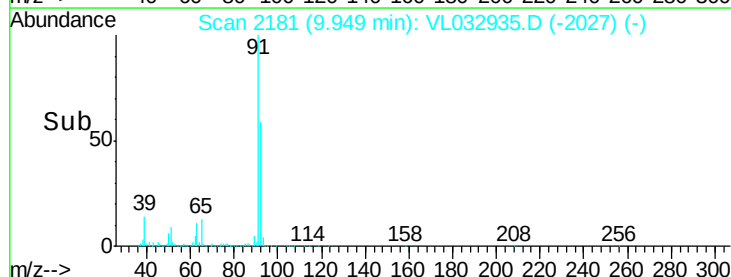
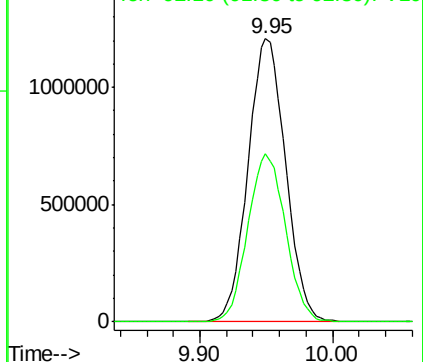
91 100

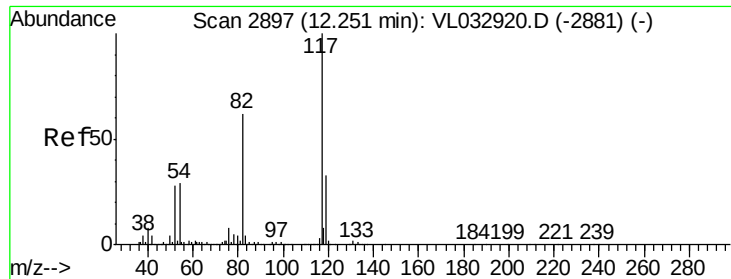
92 59.6 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 117 Resp: 3045703

Ion Ratio Lower Upper

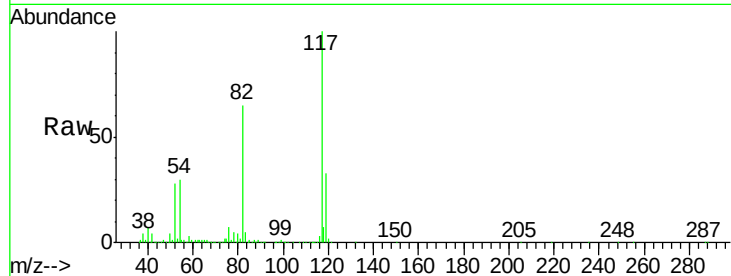
117 100

82 64.2 47.8 71.8

119 32.5 43.1 64.7#

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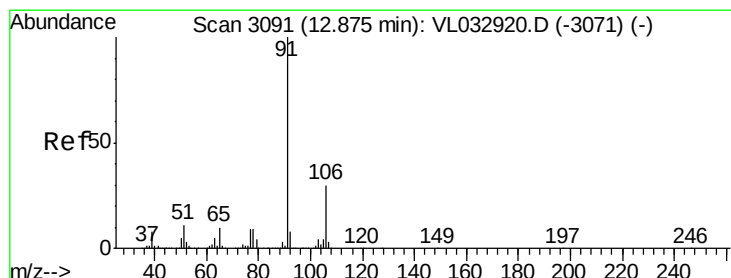
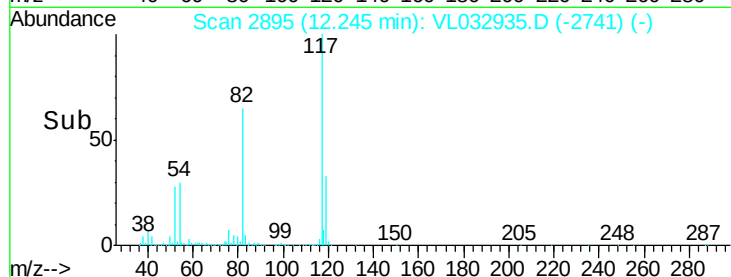
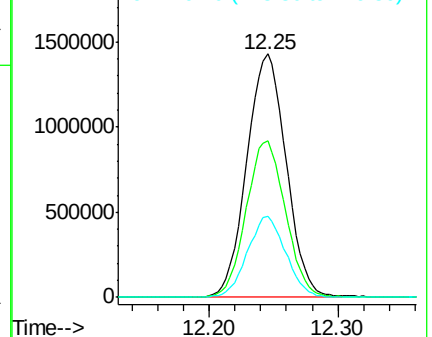
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.212 ppbv m

RT: 12.86 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL032935.D

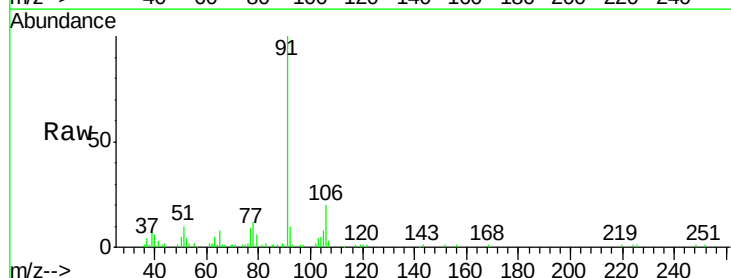
Acq: 7 Dec 2018 15:14

Tgt Ion: 91 Resp: 68769

Ion Ratio Lower Upper

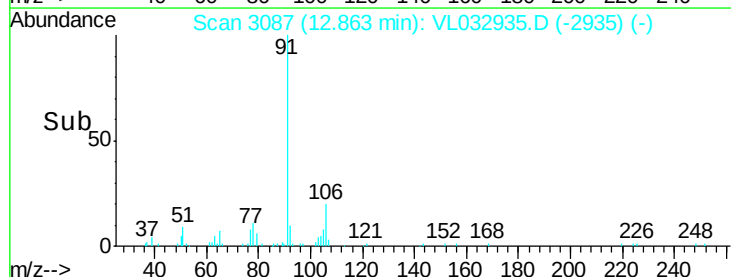
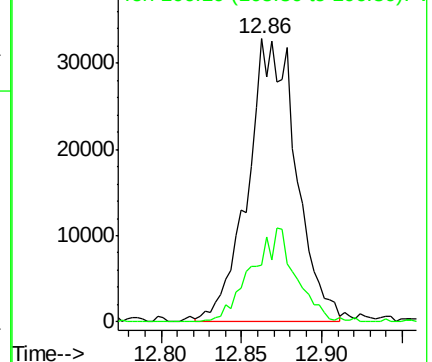
91 100

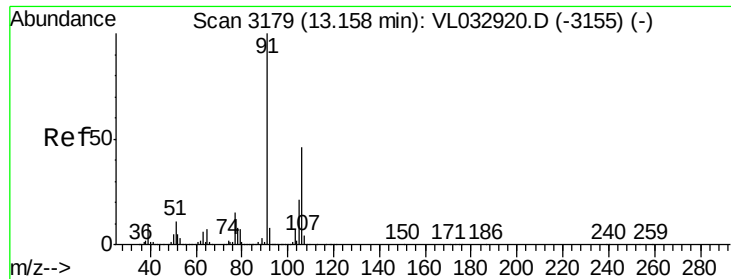
106 19.9 23.9 35.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 0.716 ppbv

RT: 13.13 min Scan# 3170

Delta R.T. -0.03 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion: 91 Resp: 210800

Ion Ratio Lower Upper

91 100

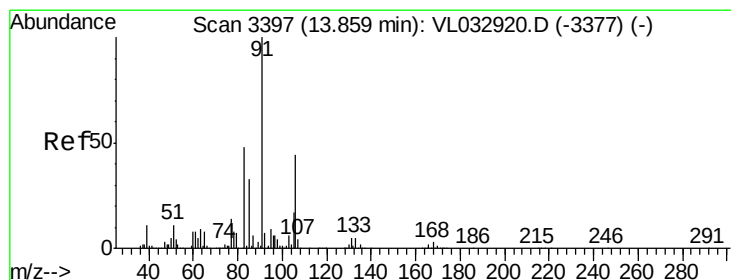
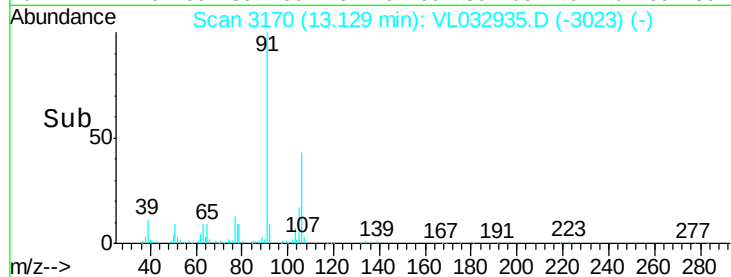
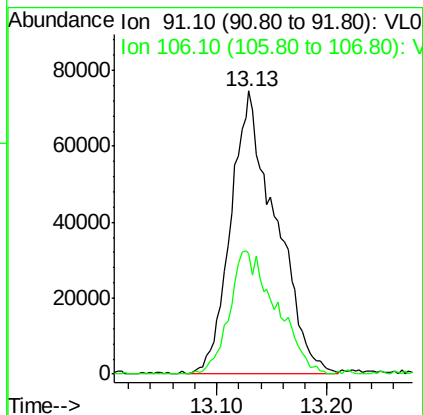
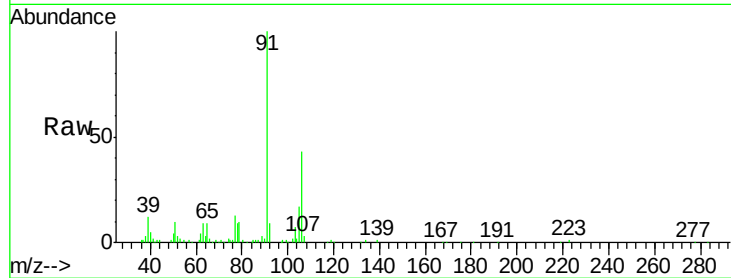
106 45.4 0.0 0.0#

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#60

o-Xylene

Concen: 0.231 ppbv m

RT: 13.85 min Scan# 3395

Delta R.T. -0.01 min

Lab File: VL032935.D

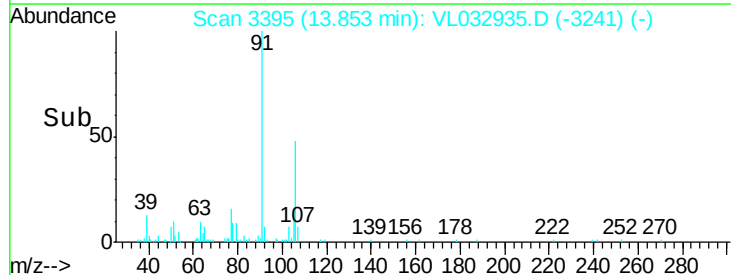
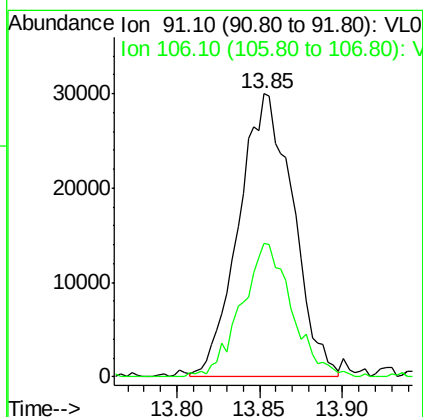
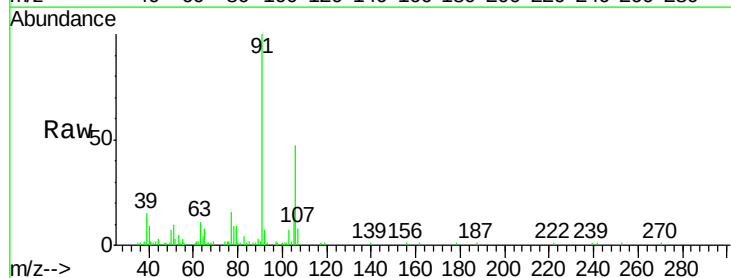
Acq: 7 Dec 2018 15:14

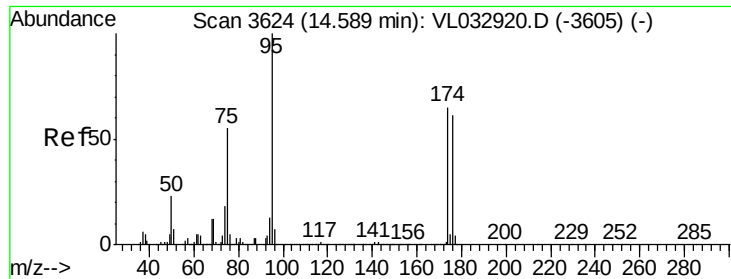
Tgt Ion: 91 Resp: 68850

Ion Ratio Lower Upper

91 100

106 43.7 21.9 65.8





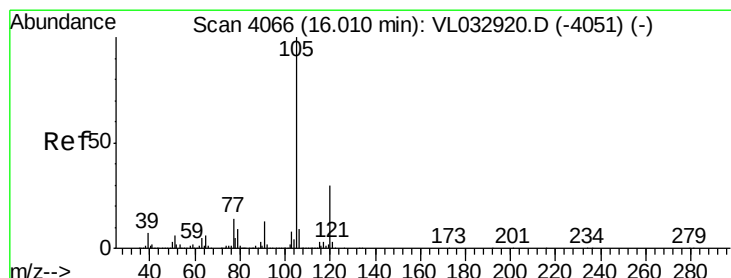
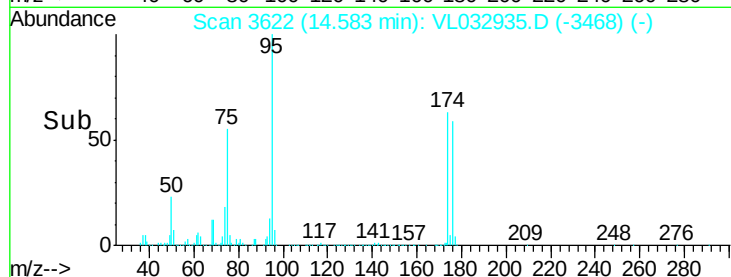
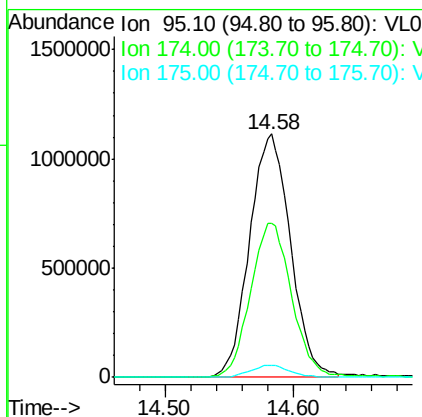
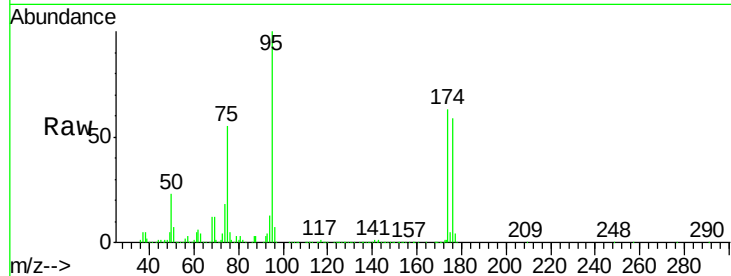
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.932 ppbv
 RT: 14.58 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Instrument :
 MSVOA_L
 ClientSampleID :
 IA1DUP

Tgt Ion: 95 Resp: 2459938
 Ion Ratio Lower Upper
 95 100
 174 64.6 51.4 77.0
 175 5.0 3.8 5.6

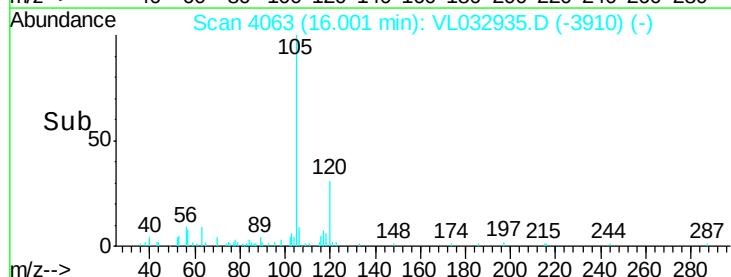
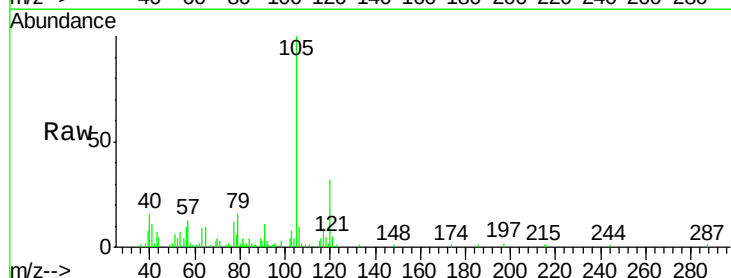
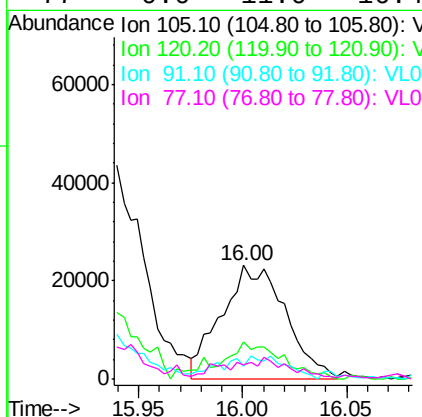
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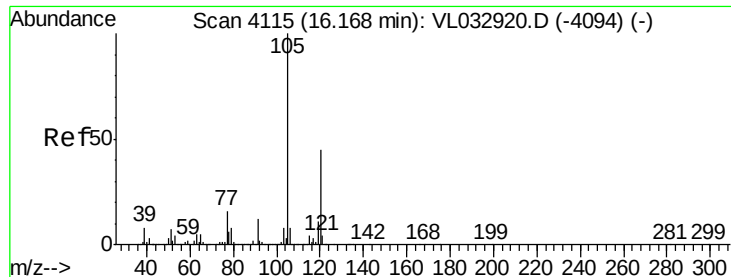
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#72
 4-Ethyltoluene
 Concen: 0.149 ppbv m
 RT: 16.00 min Scan# 4063
 Delta R.T. -0.01 min
 Lab File: VL032935.D
 Acq: 7 Dec 2018 15:14

Tgt Ion: 105 Resp: 49334
 Ion Ratio Lower Upper
 105 100
 120 33.3 23.0 34.4
 91 0.0 10.4 15.6#
 77 0.0 11.0 16.4#





#73

1,3,5-Trimethylbenzene

Concen: 0.125 ppbv m

RT: 16.17 min Scan# 4115

Delta R.T. 0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP

Tgt Ion:105 Resp: 40514

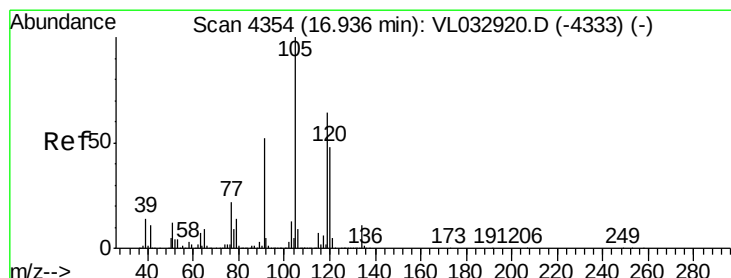
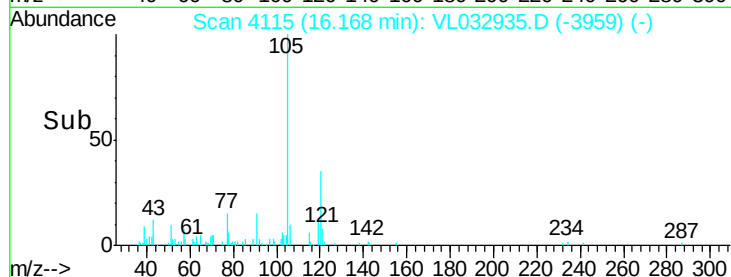
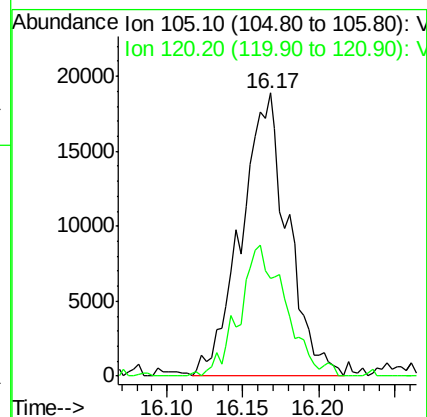
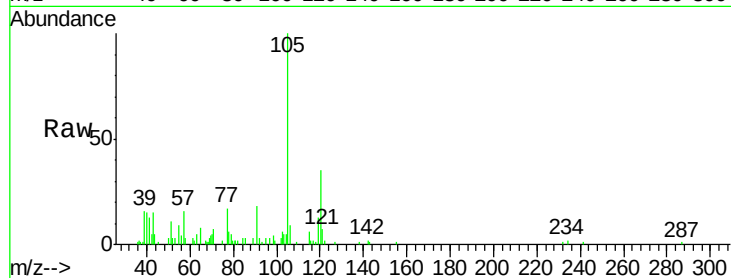
Ion Ratio Lower Upper

105 100

120 34.5 36.0 54.0#

Manual Integrations
APPROVED

MMDadoda
12/11/2018 10:08:49 AM



#74

1,2,4-Trimethylbenzene

Concen: 0.481 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. 0.00 min

Lab File: VL032935.D

Acq: 7 Dec 2018 15:14

Tgt Ion:105 Resp: 176096

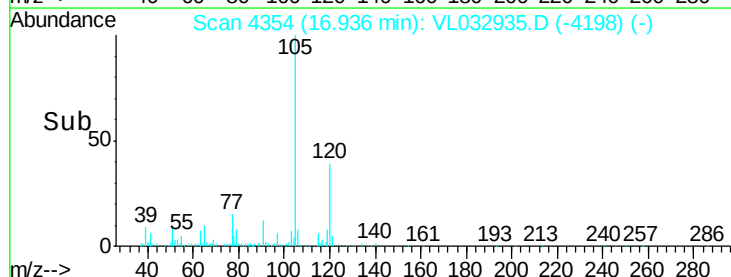
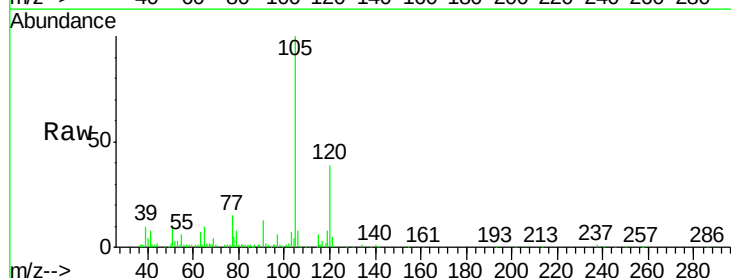
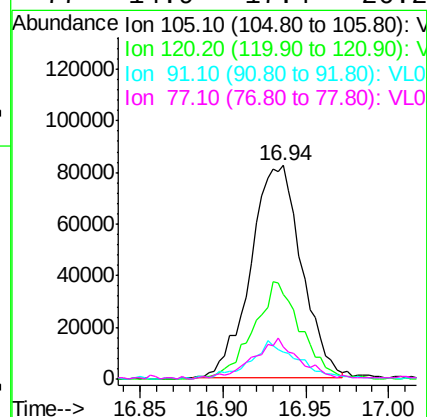
Ion Ratio Lower Upper

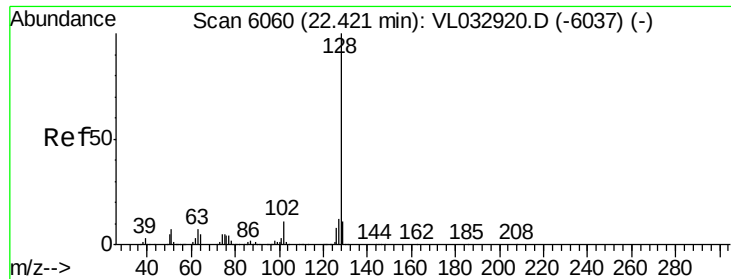
105 100

120 39.4 38.6 58.0

91 12.3 41.7 62.5#

77 14.9 17.4 26.2#





#79

Naphthalene

Concen: 0.150 ppbv m

RT: 22.43 min Scan# 6062

Delta R.T. 0.01 min

Lab File: VL032935.D

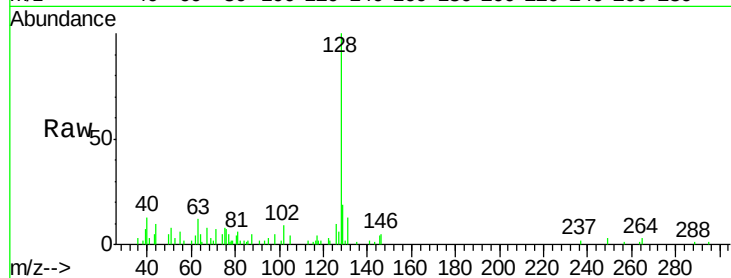
Acq: 7 Dec 2018 15:14

Instrument :

MSVOA_L

ClientSampleId :

IA1DUP



Tgt Ion:	128	Resp:	35453
Ion Ratio	Lower	Upper	
128	100		
127	6.4	9.9	14.9#
129	19.4	8.6	13.0#

Manual Integrations
APPROVED

MMDadoda
12/11/2018 10:08:49 AM

