

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101818\
 Data File : VL032675.D
 Acq On : 19 Oct 2018 9:01
 Operator : SY/AP
 Sample : J5581-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Manual Integrations
 APPROVED

MMDadoda
 10/24/2018 12:06:14 PM

Quant Time: Oct 23 10:02:32 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Oct 19 2018
 QLast Update : Fri Oct 19 01:25:37 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1339306	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3245833	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3143597	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	2297870	9.82	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.09	85	36692	0.269	ppbv	94
3) Chlorodifluoromethane	3.02	51	362575	3.462	ppbv	94
4) Chloromethane	3.18	50	30806	0.526	ppbv	98
9) Propene	3.05	41	30396	0.705	ppbv #	81
10) Heptane	8.26	43	46126	0.278	ppbv	92
11) Trichlorofluoromethane	4.02	101	52737	0.296	ppbv #	81
13) Ethanol	3.67	45	1046814	84.971	ppbv	97
15) Acetone	3.91	43	1194316	9.657	ppbv	99
19) Isopropyl Alcohol	4.05	45	742880	8.435	ppbv #	98
20) Methylene Chloride	4.42	84	121070	1.929	ppbv	95
26) Hexane	5.79	57	282490	2.097	ppbv #	54
34) 2-Butanone	5.35	43	122908	0.706	ppbv	97
35) Carbon Tetrachloride	7.15	117	18554	0.081	ppbv #	82
36) Benzene	7.02	78	40738	0.155	ppbv	97
52) Tetrachloroethene	11.39	164	2802m	0.030	ppbv	
53) Toluene	9.96	91	1262456	4.178	ppbv	97
59) m/p-Xylene	13.14	91	40034m	0.123	ppbv	
74) 1,2,4-Trimethylbenzene	16.94	105	34913	0.100	ppbv #	79

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

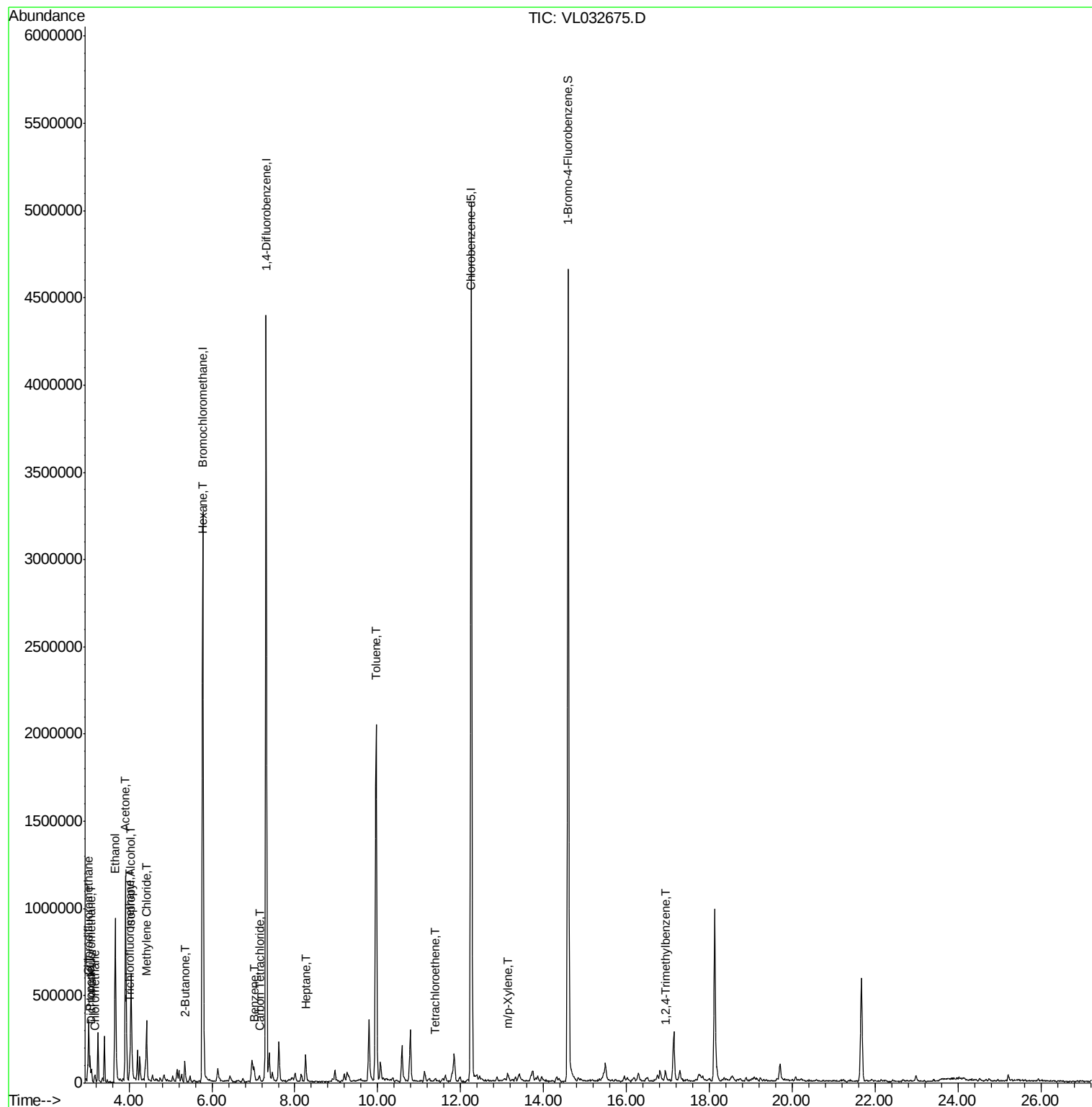
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101818\
Data File : VL032675.D
Acq On : 19 Oct 2018 9:01
Operator : SY/AP
Sample : J5581-04
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

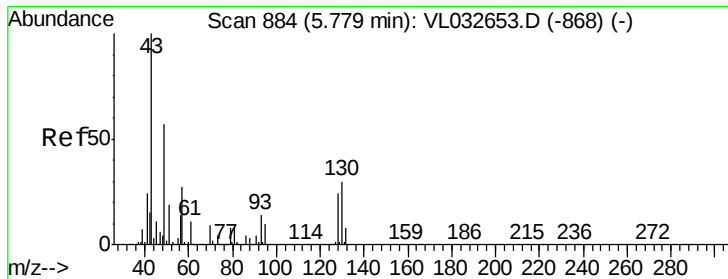
Instrument :
MSVOA_L
ClientSampled :
A-4

Manual Integrations
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10/24/2018 12:06:14 PM

Quant Time: Oct 23 10:02:32 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Oct
QLast Update : Fri Oct 19 01:25:37 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL032675.D

Acq: 19 Oct 2018 9:01

Instrument :

MSVOA_L

ClientSampleId :

A-4

Tot Ion: 49 Resp: 1339306

Ion Ratio Lower Upper

49 100

128 48.8 22.3 66.8

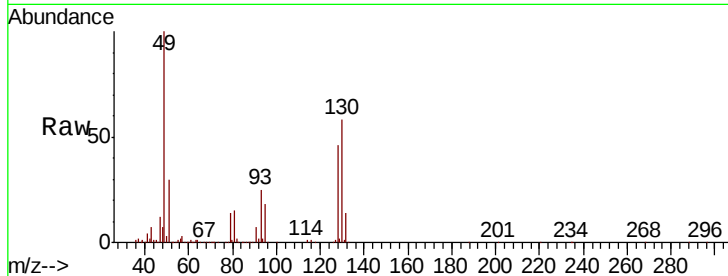
130 62.3 28.4 85.3

Manual Integrations

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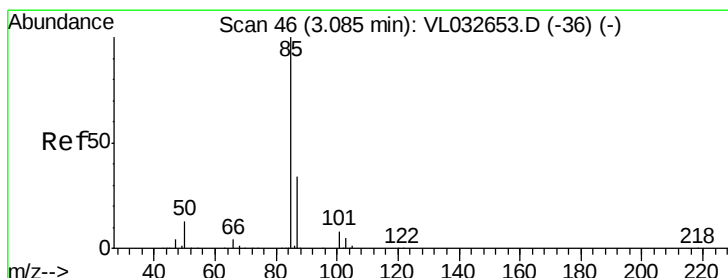
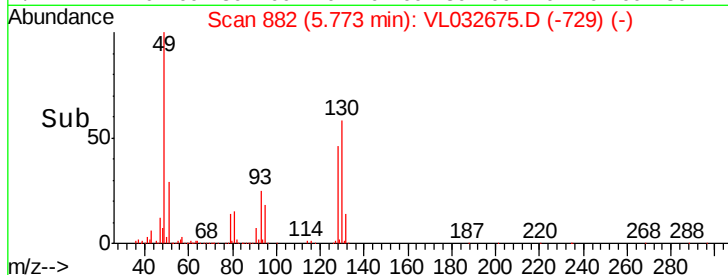
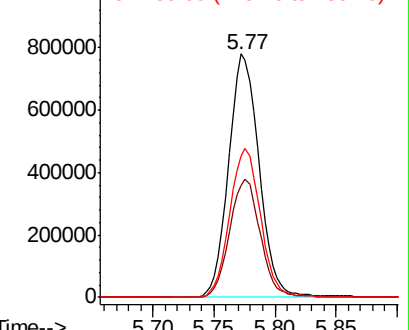
10/24/2018 12:06:14 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.269 ppbv

RT: 3.09 min Scan# 47

Delta R.T. 0.00 min

Lab File: VL032675.D

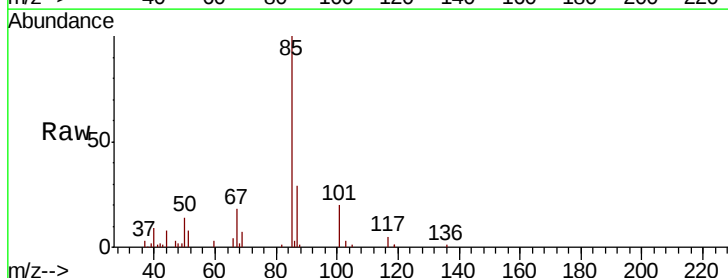
Acq: 19 Oct 2018 9:01

Tgt Ion: 85 Resp: 36692

Ion Ratio Lower Upper

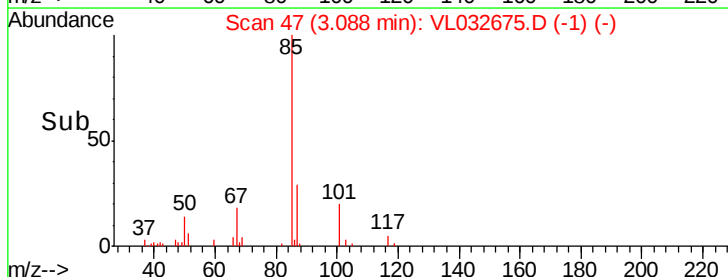
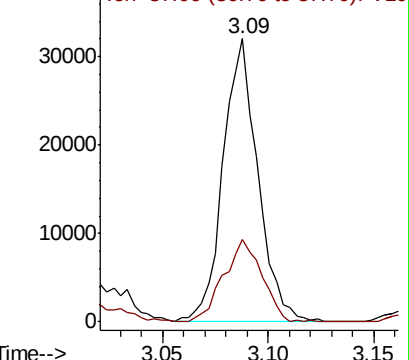
85 100

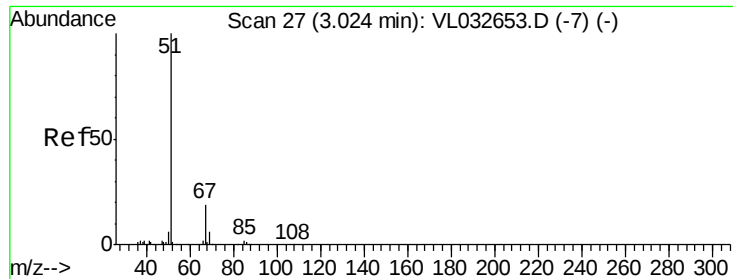
87 29.3 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





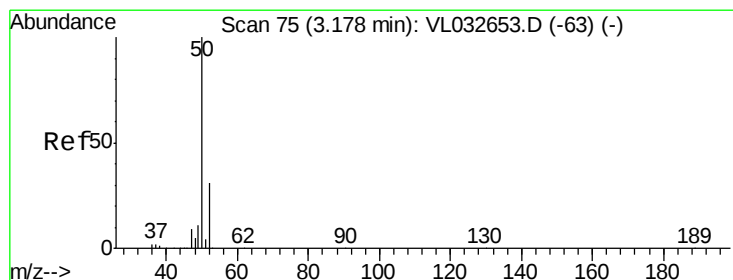
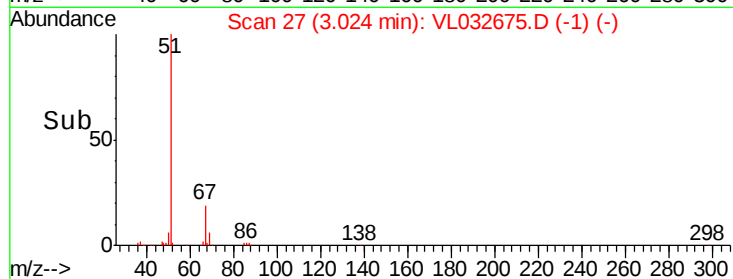
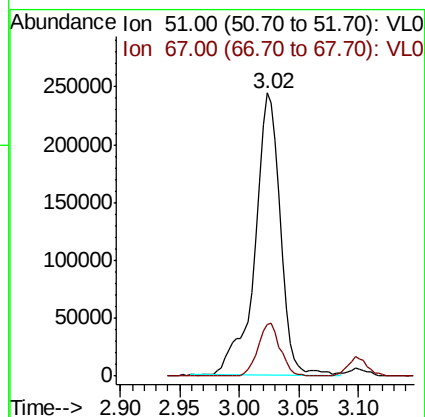
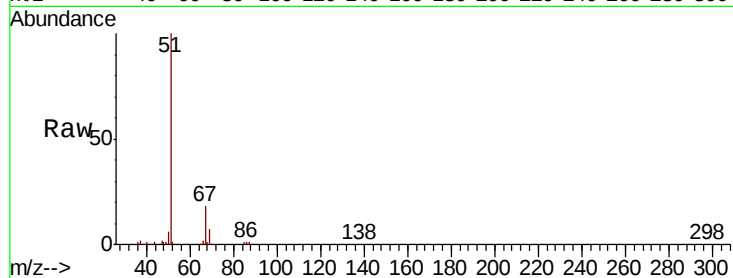
#3
Chlorodifluoromethane
Concen: 3.462 ppbv
RT: 3.02 min Scan# 27
Delta R.T. -0.00 min
Lab File: VL032675.D
Acq: 19 Oct 2018 9:01

Instrument :
MSVOA_L
ClientSampled :
A-4

Tot Ion	Ratio	Lower	Upper
51	100		
67	16.3	15.2	22.8

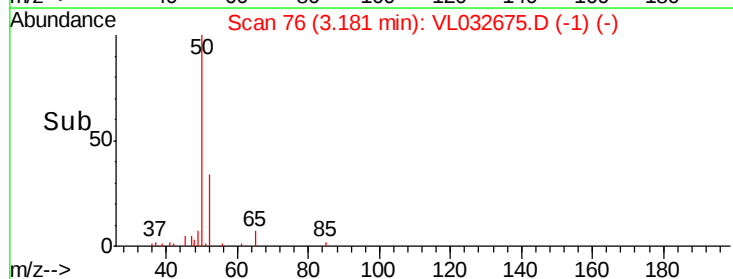
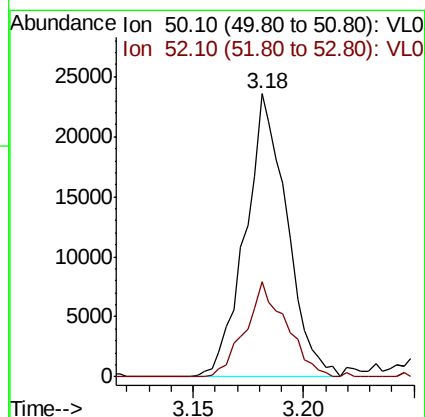
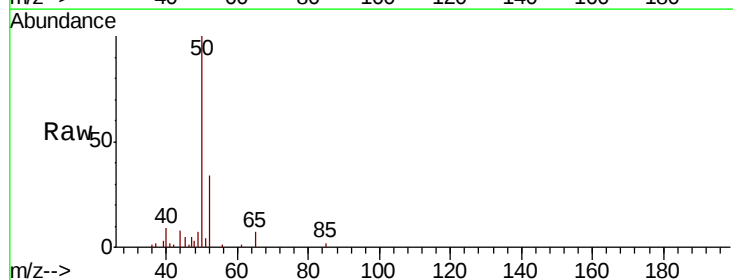
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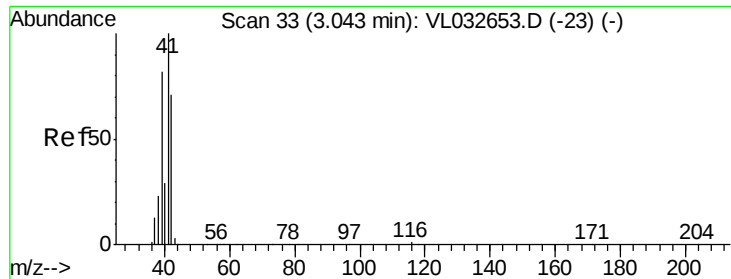
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#4
Chloromethane
Concen: 0.526 ppbv
RT: 3.18 min Scan# 76
Delta R.T. 0.00 min
Lab File: VL032675.D
Acq: 19 Oct 2018 9:01

Tgt Ion	Ratio	Lower	Upper
50	100		
52	33.7	25.9	38.9





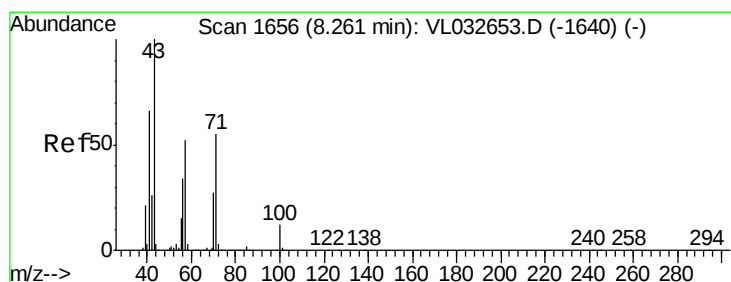
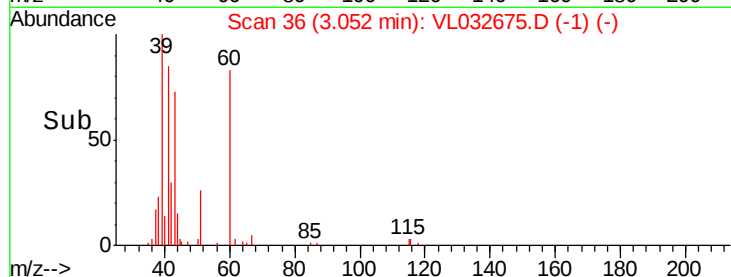
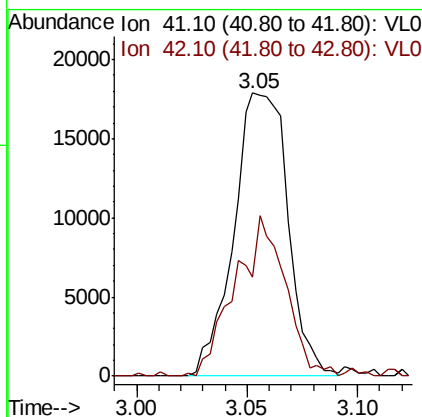
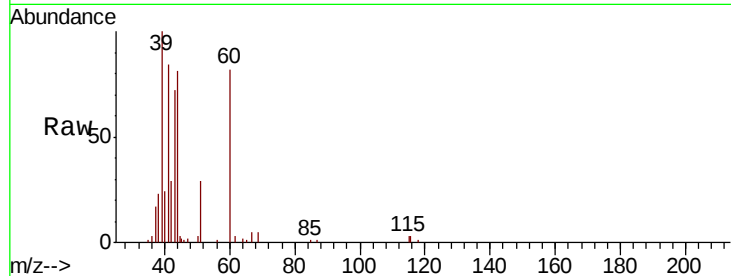
#9
 Propene
 Concen: 0.705 ppbv
 RT: 3.05 min Scan# 36
 Delta R.T. 0.01 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Tot Ion: 41 Resp: 30396
 Ion Ratio Lower Upper
 41 100
 42 54.0 55.4 83.0#

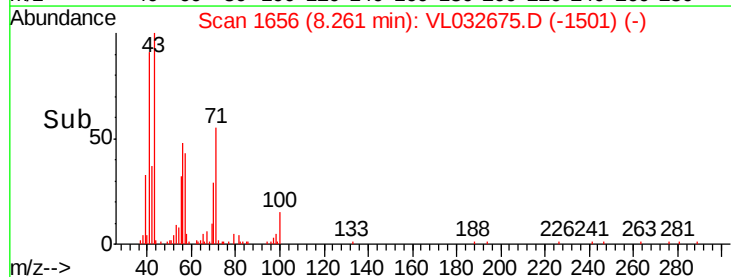
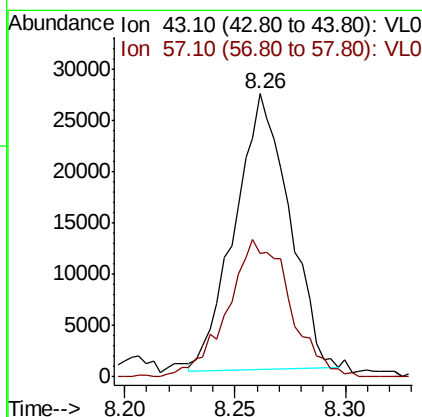
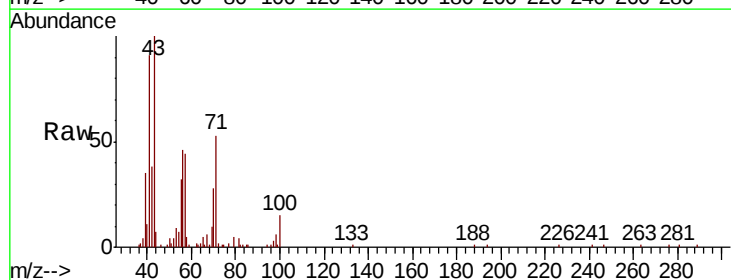
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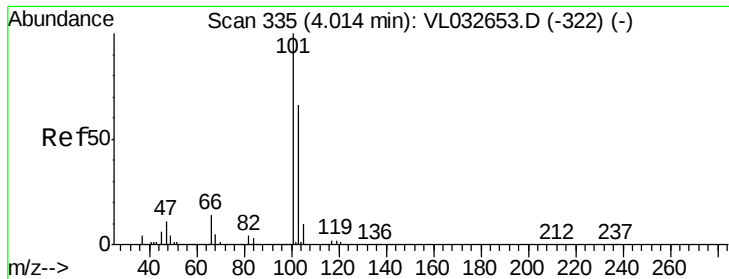
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#10
 Heptane
 Concen: 0.278 ppbv
 RT: 8.26 min Scan# 1656
 Delta R.T. -0.00 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Tgt Ion: 43 Resp: 46126
 Ion Ratio Lower Upper
 43 100
 57 57.2 41.5 62.3





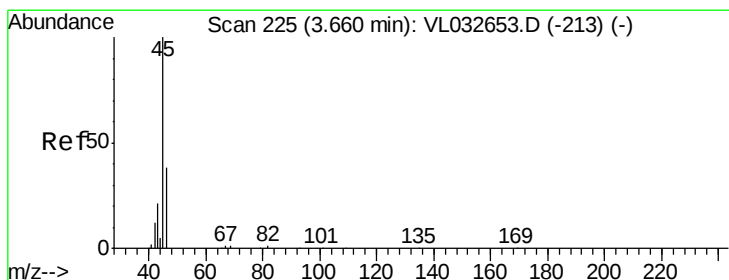
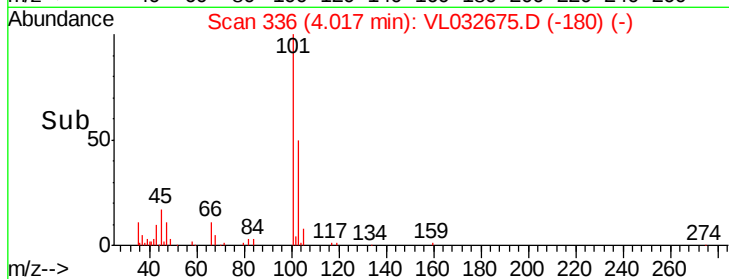
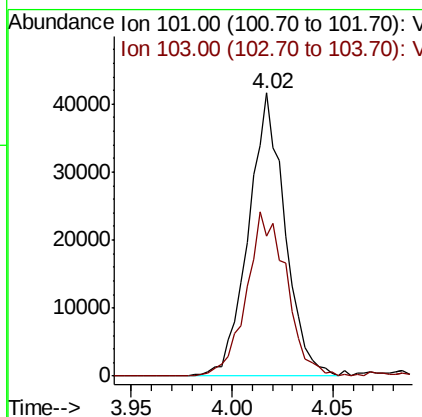
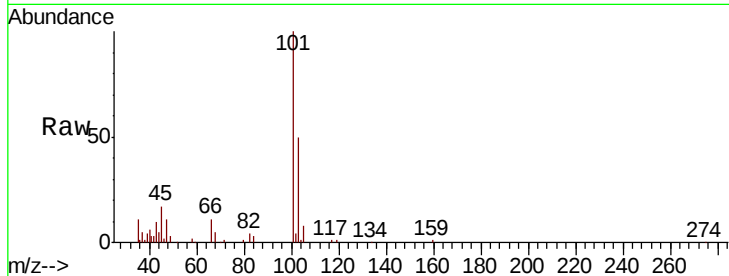
#11
 Trichlorofluoromethane
 Concen: 0.296 ppbv
 RT: 4.02 min Scan# 336
 Delta R.T. 0.00 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Instrument :
 MSVOA_L
 ClientSampled :
 A-4

Tot Ion	Ratio	Lower	Upper
101	100		
103	49.6	51.4	77.2#

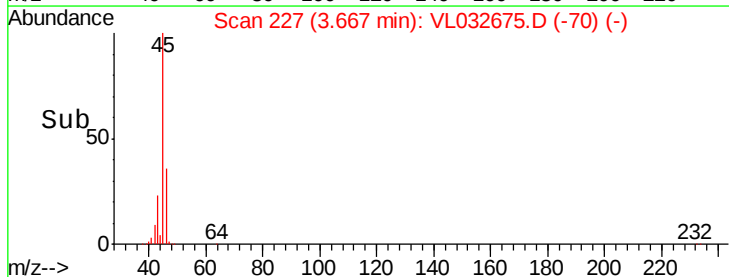
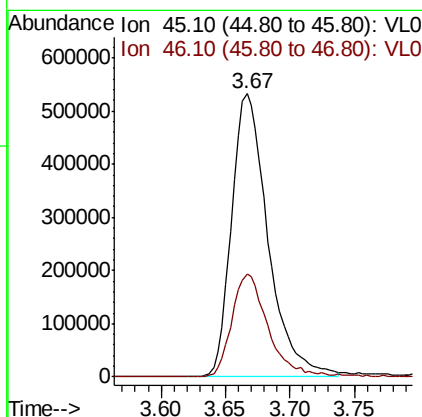
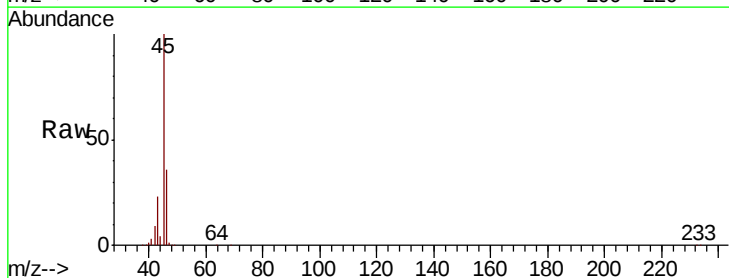
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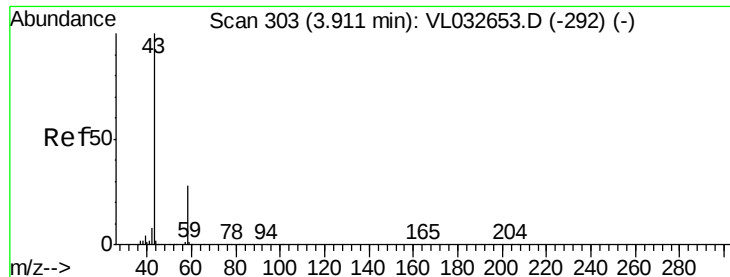
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#13
 Ethanol
 Concen: 84.971 ppbv
 RT: 3.67 min Scan# 227
 Delta R.T. 0.01 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Tgt Ion	Ratio	Lower	Upper
45	100		
46	36.5	15.4	61.8





#15

Acetone

Concen: 9.657 ppbv

RT: 3.91 min Scan# 303

Delta R.T. -0.00 min

Lab File: VL032675.D

Acq: 19 Oct 2018 9:01

Instrument :

MSVOA_L

ClientSampleId :

A-4

Tot Ion: 43 Resp: 1194316

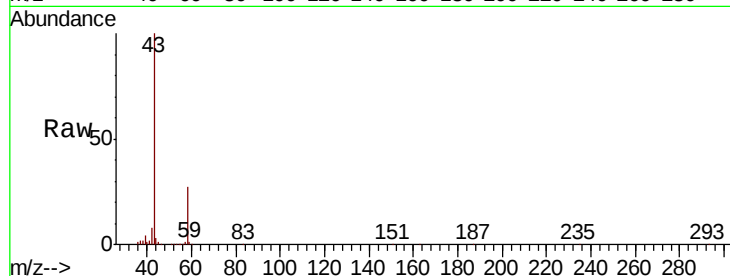
Ion Ratio Lower Upper

43 100

58 28.2 22.1 33.1

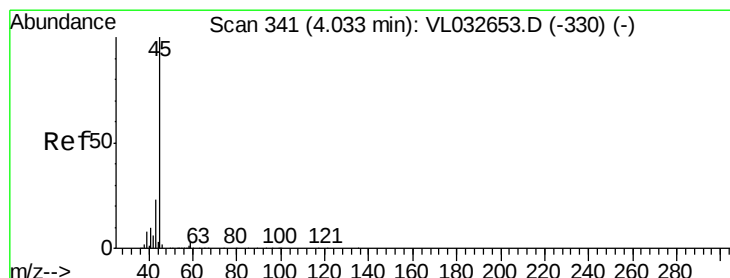
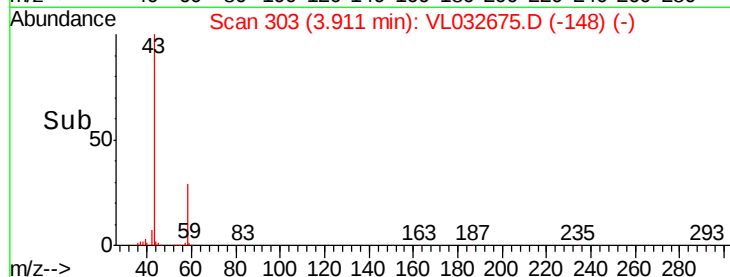
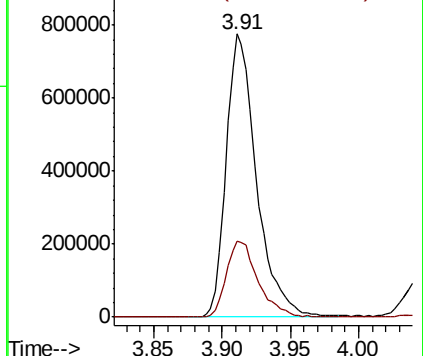
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 8.435 ppbv

RT: 4.05 min Scan# 345

Delta R.T. 0.01 min

Lab File: VL032675.D

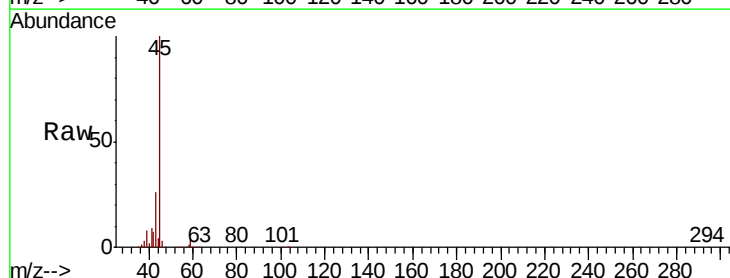
Acq: 19 Oct 2018 9:01

Tgt Ion: 45 Resp: 742880

Ion Ratio Lower Upper

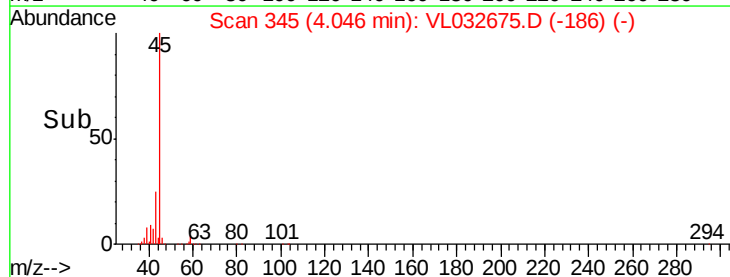
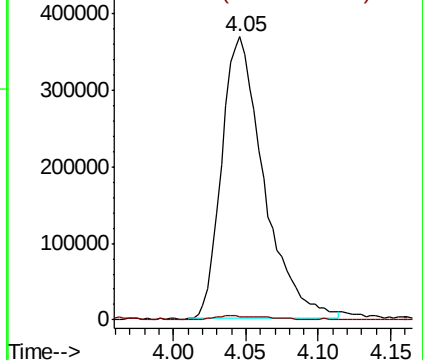
45 100

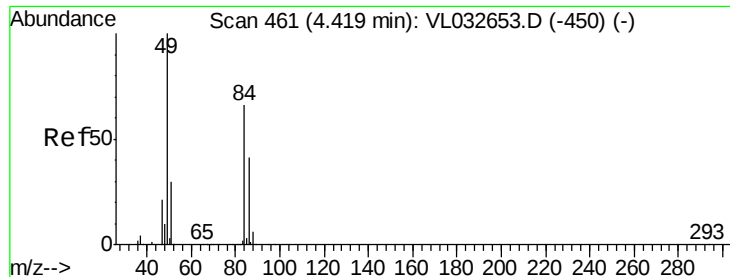
58 1.7 2.0 3.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





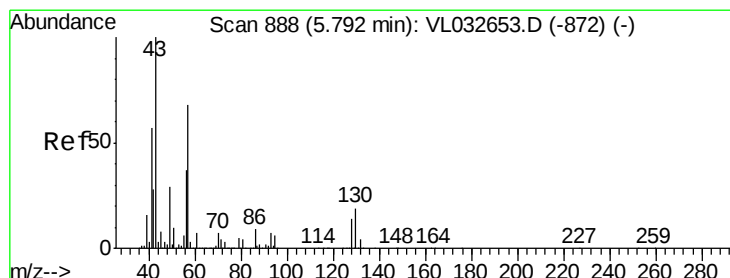
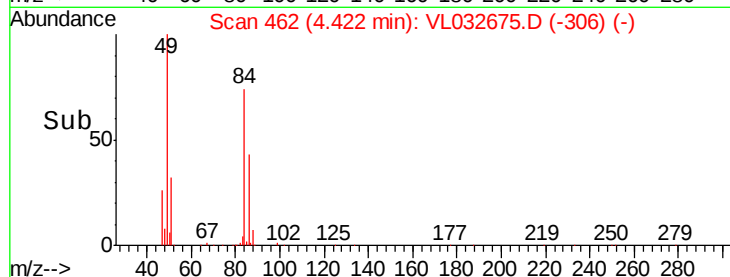
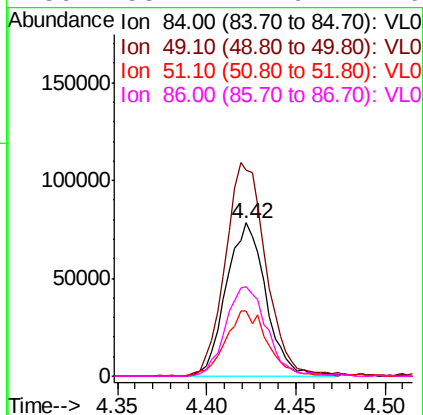
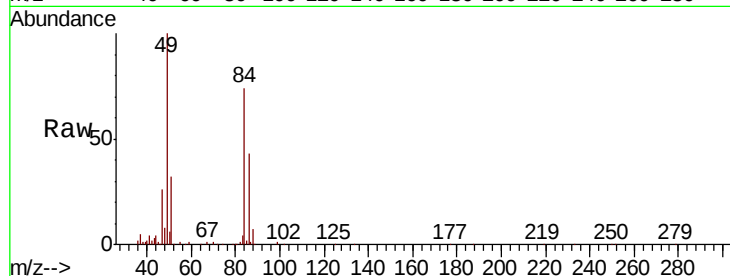
#20
Methvlene Chloride
Concen: 1.929 ppbv
RT: 4.42 min Scan# 462
Delta R.T. 0.00 min
Lab File: VL032675.D
Acq: 19 Oct 2018 9:01

Instrument :
MSVOA_L
ClientSampleId :
A-4

Tot Ion:	84	Resp:	121070
Ion	Ratio	Lower	Upper
84	100		
49	133.8	113.5	170.3
51	42.8	34.8	52.2
86	58.4	47.9	71.9

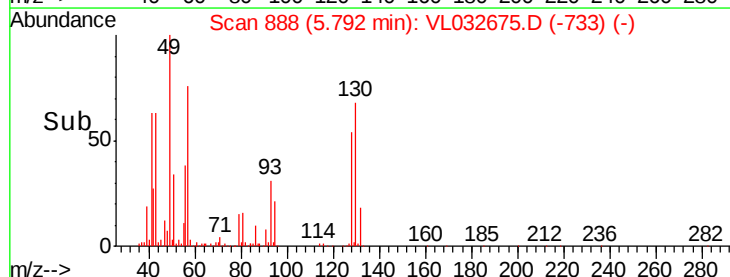
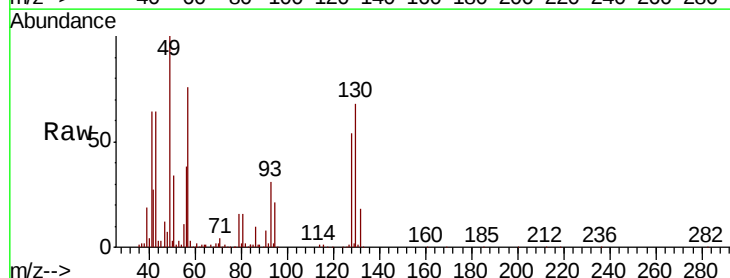
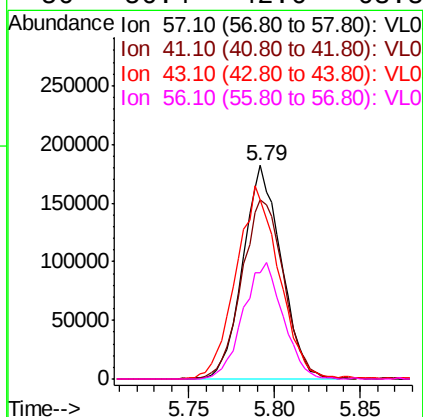
Manual Integrations
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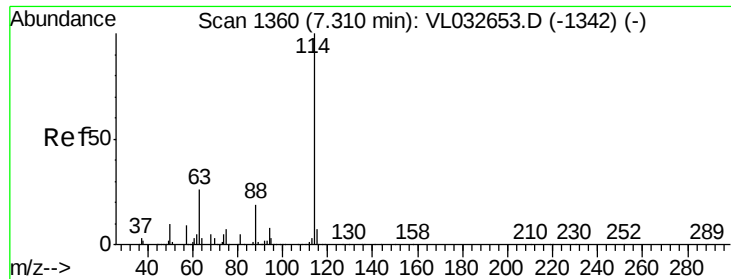
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#26
Hexane
Concen: 2.097 ppbv
RT: 5.79 min Scan# 888
Delta R.T. -0.00 min
Lab File: VL032675.D
Acq: 19 Oct 2018 9:01

Tgt Ion:	57	Resp:	282490
Ion	Ratio	Lower	Upper
57	100		
41	92.5	67.4	101.0
43	102.2	171.9	257.9#
56	56.4	42.6	63.8





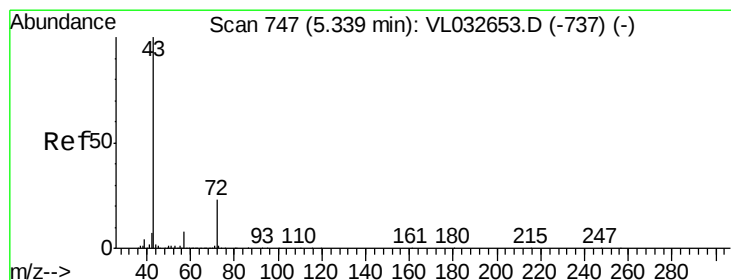
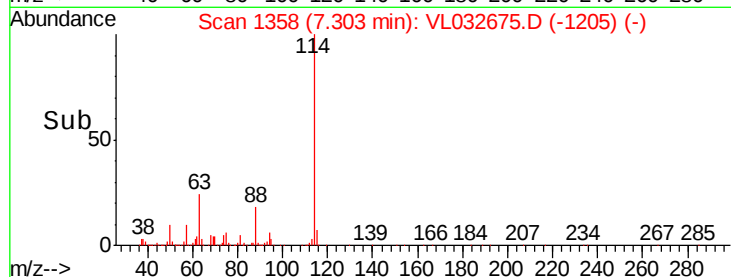
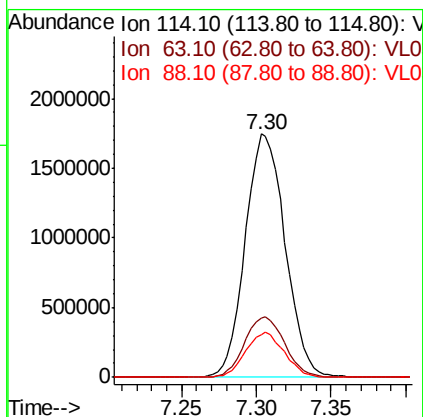
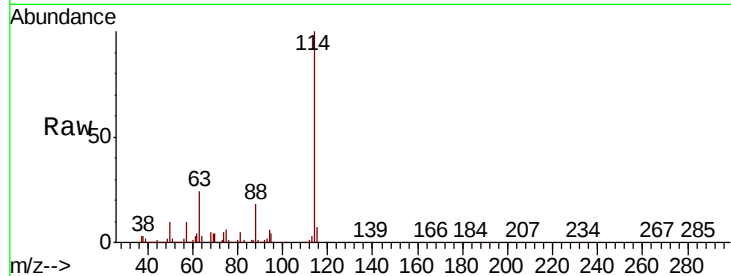
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1358
 Delta R.T. -0.01 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Tot Ion	Ratio	Lower	Upper
114	100		
63	25.1	21.7	32.5
88	18.0	14.9	22.3

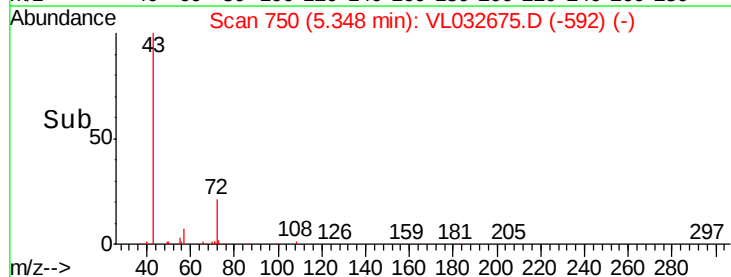
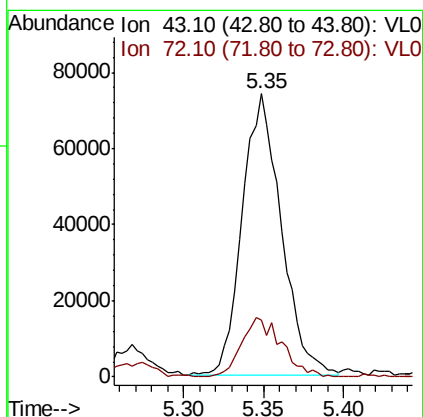
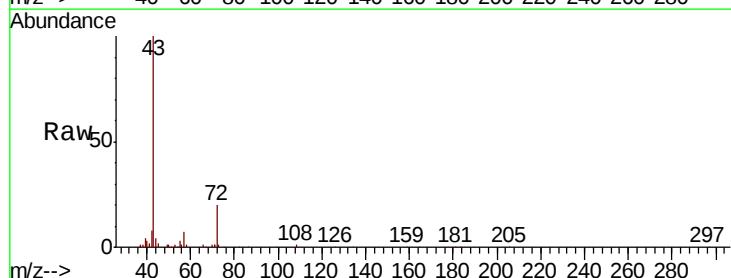
Manual Integrations
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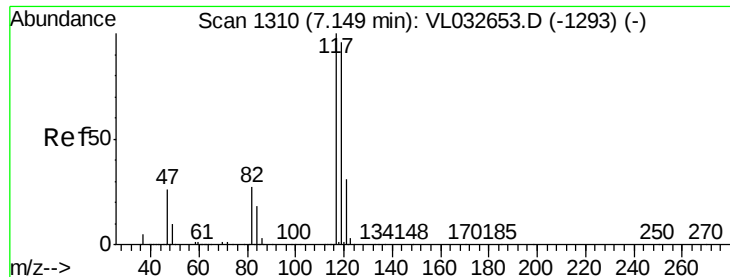
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#34
 2-Butanone
 Concen: 0.706 ppbv
 RT: 5.35 min Scan# 750
 Delta R.T. 0.01 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.6	18.6	27.8





#35

Carbon Tetrachloride

Concen: 0.081 ppbv

RT: 7.15 min Scan# 1309

Delta R.T. -0.00 min

Lab File: VL032675.D

Acq: 19 Oct 2018 9:01

Instrument :

MSVOA_L

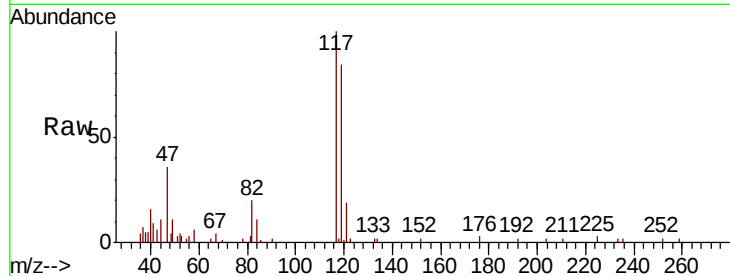
ClientSampled :

A-4

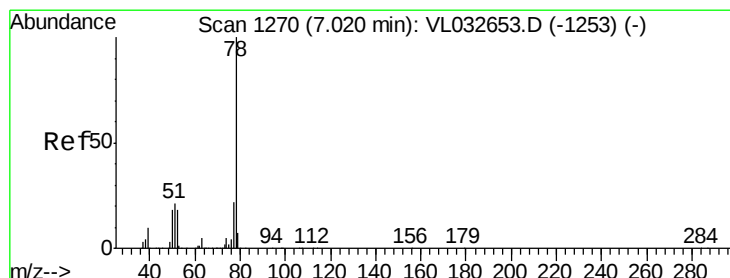
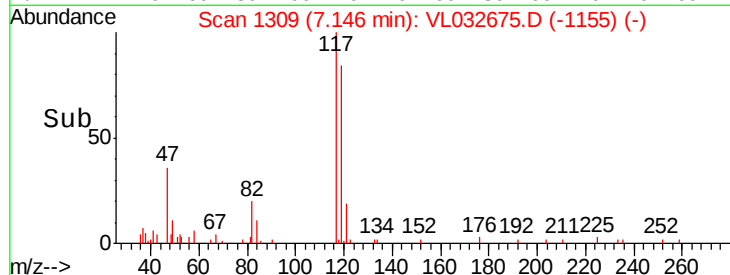
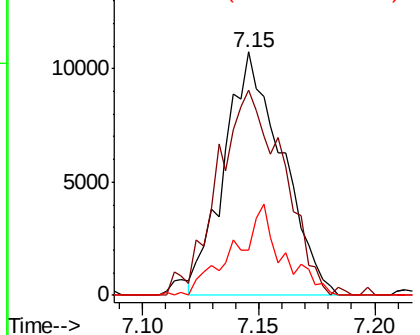
Tot Ion:	117	Resp:	18554
Ion Ratio	Lower	Upper	
117	100		
119	79.3	75.7	113.5
121	18.2	24.7	37.1#

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Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.155 ppbv

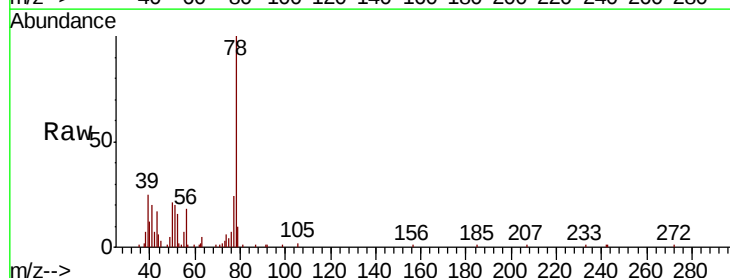
RT: 7.02 min Scan# 1269

Delta R.T. -0.00 min

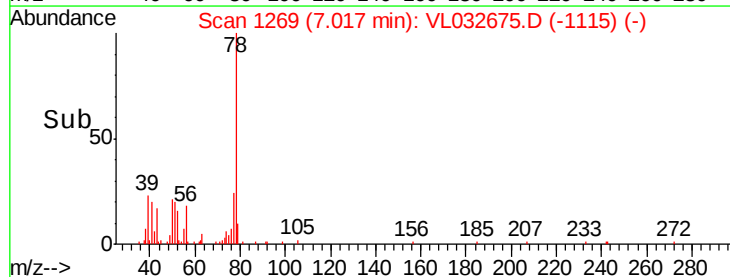
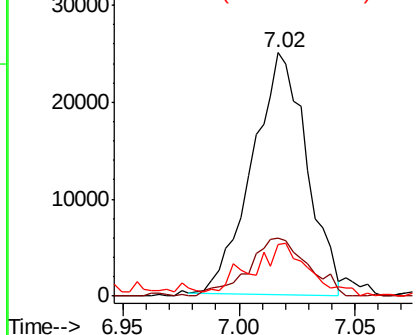
Lab File: VL032675.D

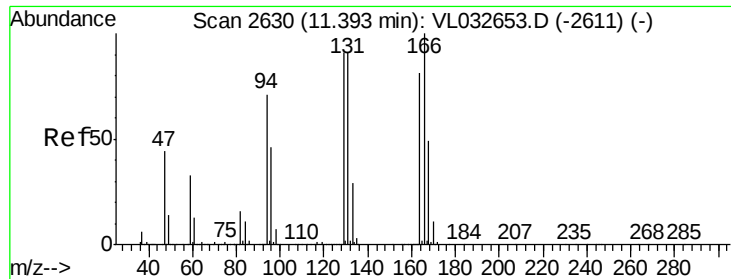
Acq: 19 Oct 2018 9:01

Tgt Ion:	78	Resp:	40738
Ion Ratio	Lower	Upper	
78	100		
77	24.5	18.1	27.1
50	18.4	15.1	22.7



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0





#52

Tetrachloroethene

Concen: 0.030 ppbv m

RT: 11.39 min Scan# 2628

Delta R.T. -0.01 min

Lab File: VL032675.D

Acq: 19 Oct 2018 9:01

Instrument :

MSVOA_L

ClientSampleId :

A-4

Tot Ion:164 Resp: 2802

Ion Ratio Lower Upper

164 100

166 74.9 100.5 150.7#

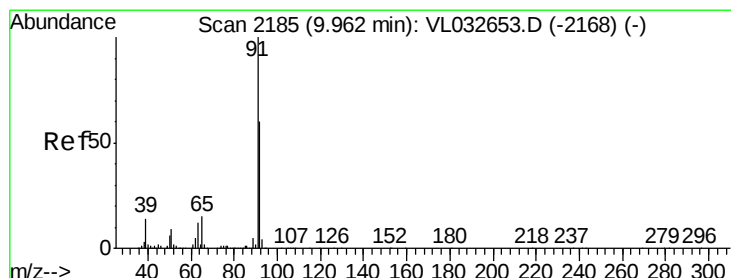
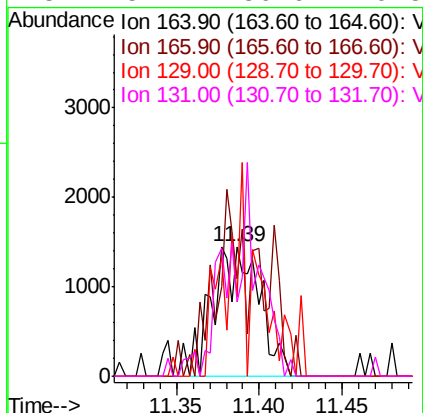
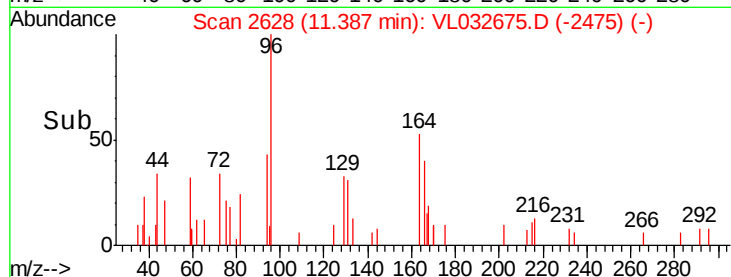
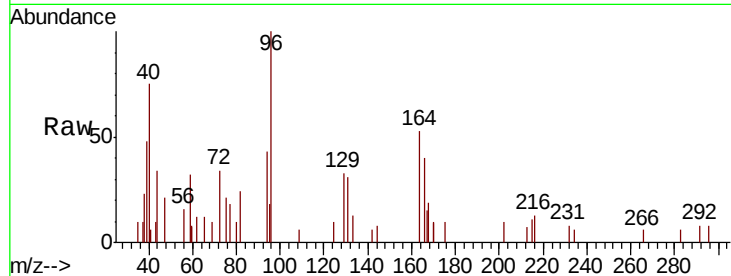
129 61.5 90.0 135.0#

131 57.2 86.6 129.8#

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#53

Toluene

Concen: 4.178 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL032675.D

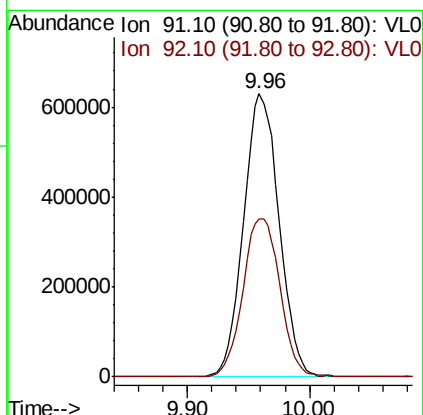
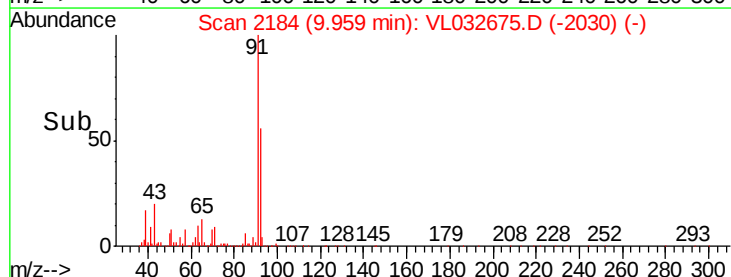
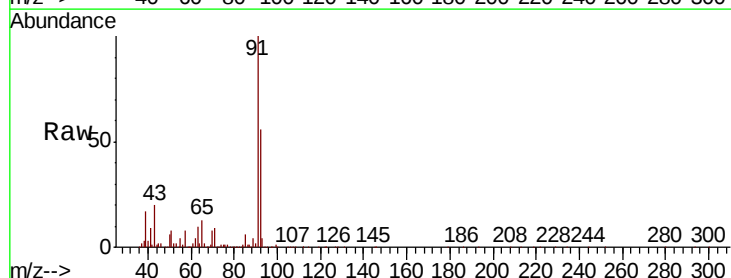
Acq: 19 Oct 2018 9:01

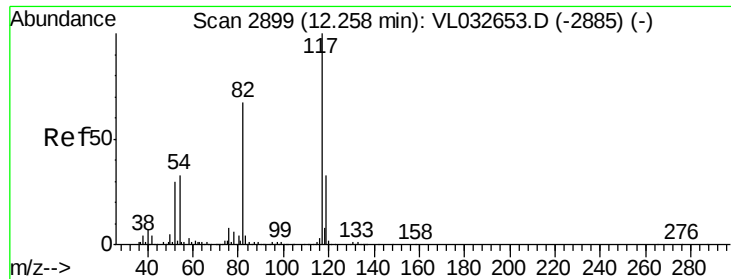
Tgt Ion: 91 Resp: 1262456

Ion Ratio Lower Upper

91 100

92 58.4 48.4 72.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2898

Delta R.T. -0.00 min

Lab File: VL032675.D

Acq: 19 Oct 2018 9:01

Instrument :

MSVOA_L

ClientSampled :

A-4

Tot Ion:117 Resp: 3143597

Ion Ratio Lower Upper

117 100

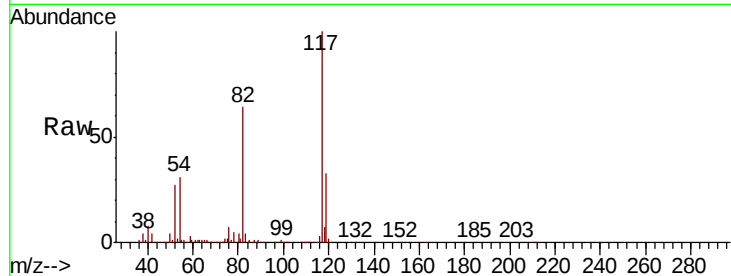
82 64.8 52.7 79.1

119 32.7 26.7 40.1

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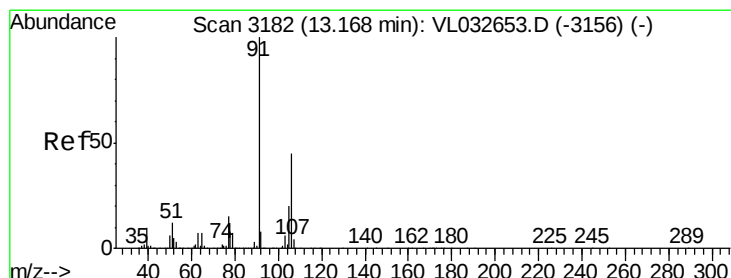
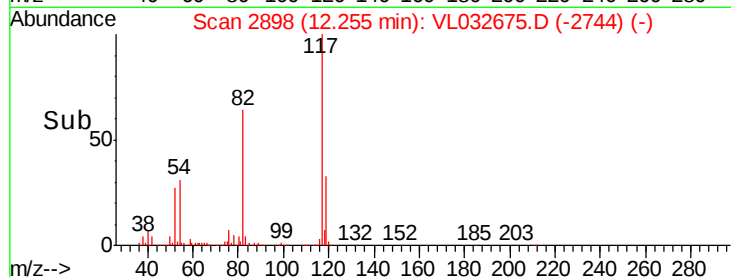
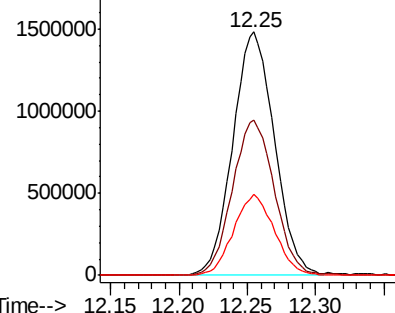
10/24/2018 12:06:14 PM



Abundance Ion 117.10 (116.80 to 117.80): V

2000000 Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#59

m/p-Xylene

Concen: 0.123 ppbv m

RT: 13.14 min Scan# 3172

Delta R.T. -0.03 min

Lab File: VL032675.D

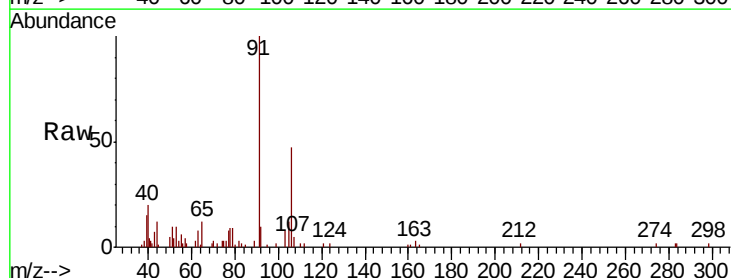
Acq: 19 Oct 2018 9:01

Tgt Ion: 91 Resp: 40034

Ion Ratio Lower Upper

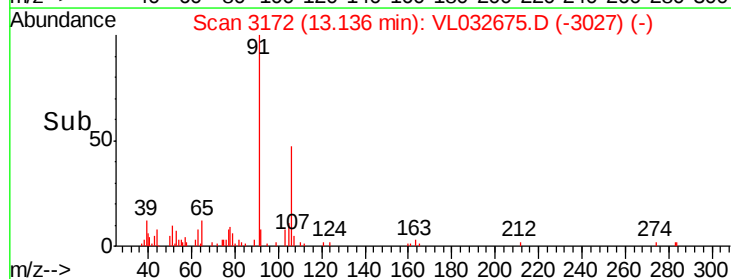
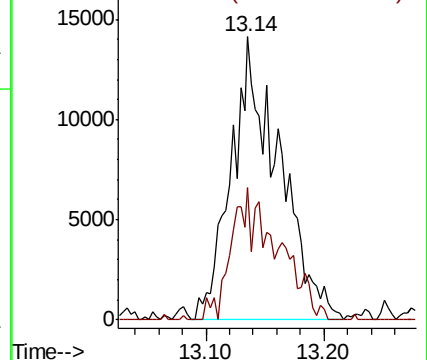
91 100

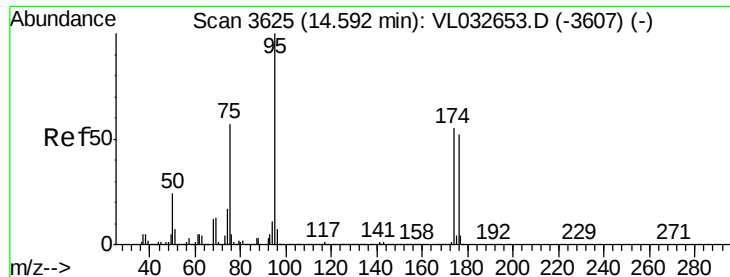
106 0.0 35.9 53.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





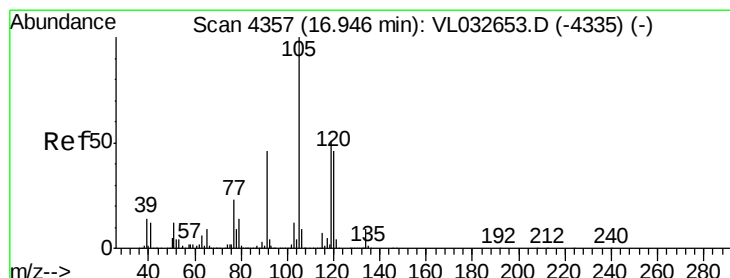
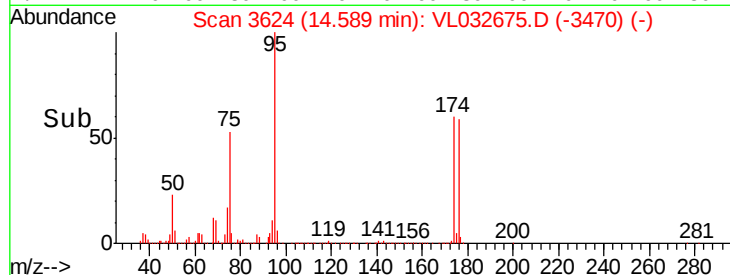
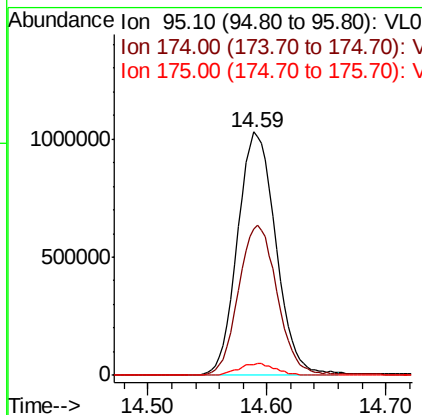
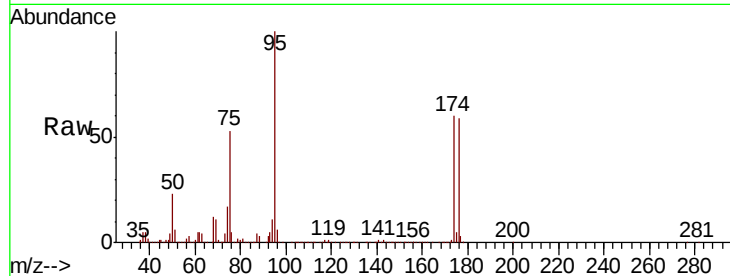
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.817 ppbv
 RT: 14.59 min Scan# 3624
 Delta R.T. -0.00 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Instrument :
 MSVOA_L
 ClientSampled :
 A-4

Tot Ion: 95 Resp: 2297870
 Ion Ratio Lower Upper
 95 100
 174 63.4 46.0 69.0
 175 4.8 3.4 5.0

Manual Integrations
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#74
 1,2,4-Trimethylbenzene
 Concen: 0.100 ppbv
 RT: 16.94 min Scan# 4355
 Delta R.T. -0.01 min
 Lab File: VL032675.D
 Acq: 19 Oct 2018 9:01

Tgt Ion: 105 Resp: 34913
 Ion Ratio Lower Upper
 105 100
 120 36.3 35.8 53.8
 91 18.4 33.2 49.8#
 77 18.5 16.2 24.4

