

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033552.D
 Acq On : 5 Apr 2019 3:30
 Operator : SY/AP
 Sample : K2226-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Manual Integrations
 APPROVED

MMDadoda
 4/8/2019 3:22:30 AM

Quant Time: Apr 05 06:50:49 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 2
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1075275	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2399046	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2607363	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	2187839	10.70	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.07	85	46298	0.295	ppbv	93
4) Chloromethane	3.16	50	11810	0.180	ppbv	93
9) Propene	3.04	41	399168	7.678	ppbv	89
10) Heptane	8.24	43	103587	0.745	ppbv	100
11) Trichlorofluoromethane	4.00	101	25543	0.132	ppbv	94
13) Ethanol	3.65	45	374055	27.805	ppbv	65
15) Acetone	3.89	43	7605987	58.828	ppbv	95
17) tert-Butyl alcohol	4.36	59	210861	8.870	ppbv #	94
19) Isopropyl Alcohol	4.04	45	55104m	0.674	ppbv	
20) Methylene Chloride	4.41	84	350368	6.384	ppbv	97
26) Hexane	5.78	57	488964	4.584	ppbv	81
29) Chloroform	5.85	83	42763	0.234	ppbv	100
34) 2-Butanone	5.33	43	215214	1.493	ppbv	98
36) Benzene	7.00	78	62491	0.310	ppbv #	91
50) 4-Methyl-2-Pentanone	8.88	43	43535m	0.206	ppbv	
52) Tetrachloroethene	11.36	164	8712m	0.115	ppbv	
53) Toluene	9.94	91	708560	3.029	ppbv	99
58) Ethyl Benzene	12.86	91	259266	0.745	ppbv	100
59) m/p-Xylene	13.12	91	651667	2.095	ppbv #	100
60) o-Xylene	13.84	91	211211	0.702	ppbv	100
61) Styrene	13.68	104	79649	0.386	ppbv	95
72) 4-Ethyltoluene	16.00	105	74920	0.222	ppbv #	86
73) 1,3,5-Trimethylbenzene	16.15	105	60371m	0.187	ppbv	
74) 1,2,4-Trimethylbenzene	16.93	105	212824	0.614	ppbv #	69
75) 1,3-Dichlorobenzene	17.17	146	63407	0.296	ppbv #	62
79) Naphthalene	22.42	128	52961m	0.178	ppbv	

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

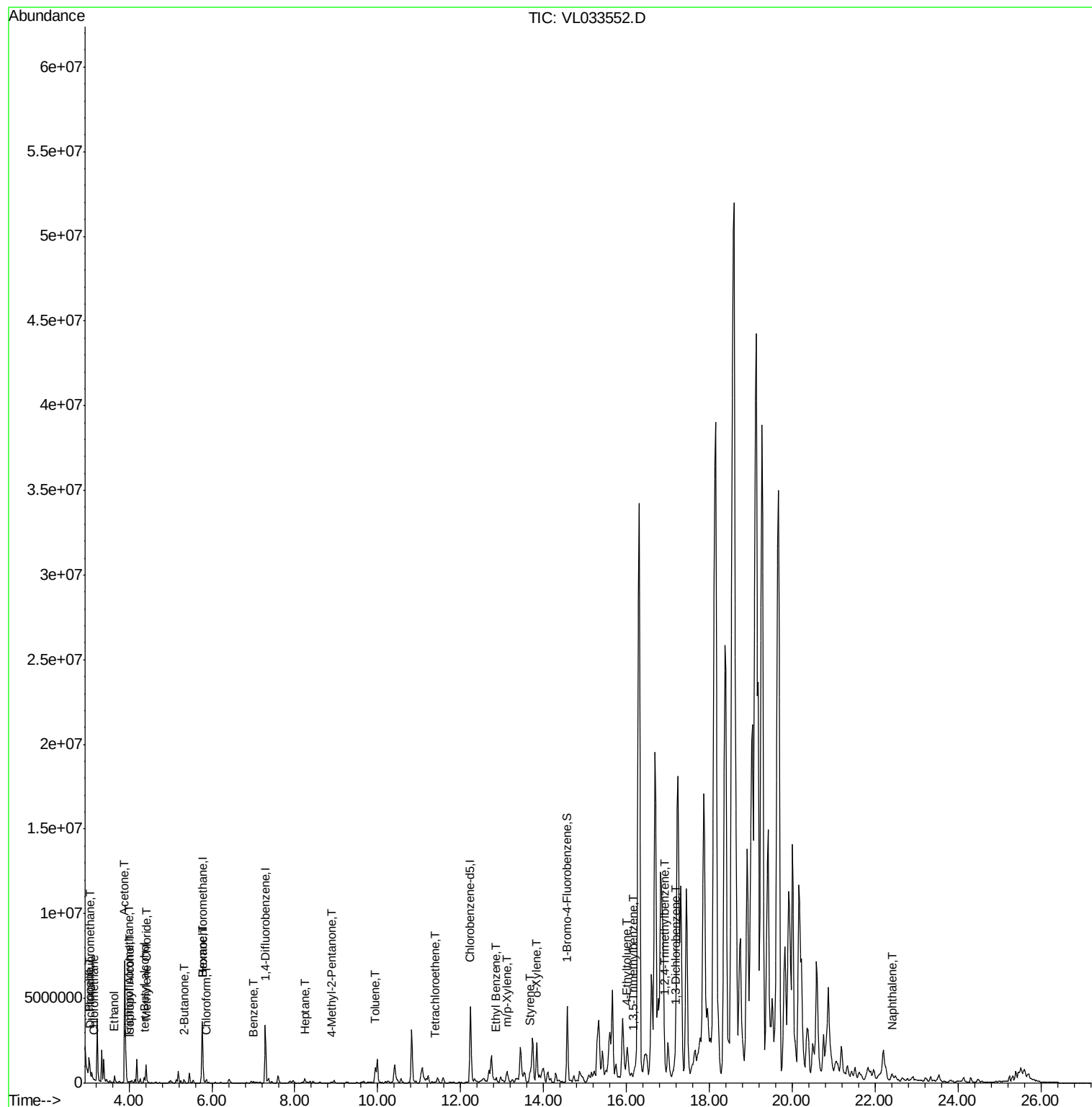
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040419\
Data File : VL033552.D
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Operator : SY/AP
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Misc : 400ml/MSVOA L
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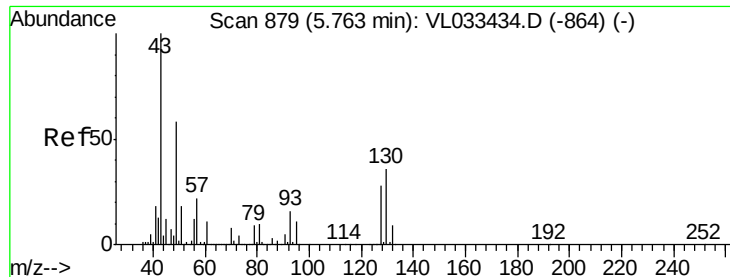
Instrument :
MSVOA_L
ClientSampleId :
SV2

Manual Integrations
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4/8/2019 3:22:30 AM

Quant Time: Apr 05 06:50:49 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampled :

SV2

Tot Ion: 49 Resp: 1075275

Ion Ratio Lower Upper

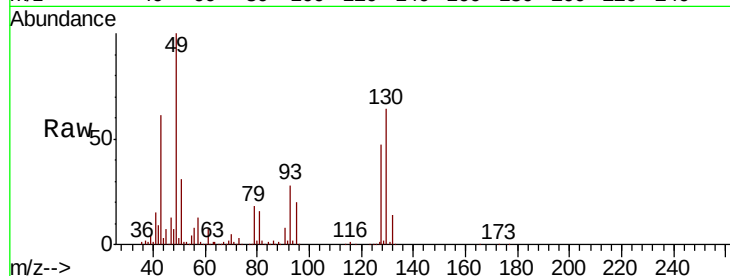
49 100

128 49.3 24.0 72.0

130 63.5 31.2 93.6

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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

800000

600000

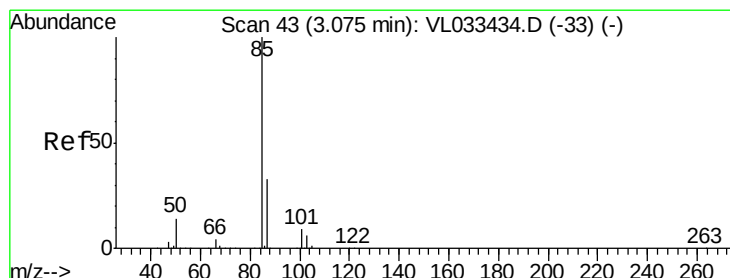
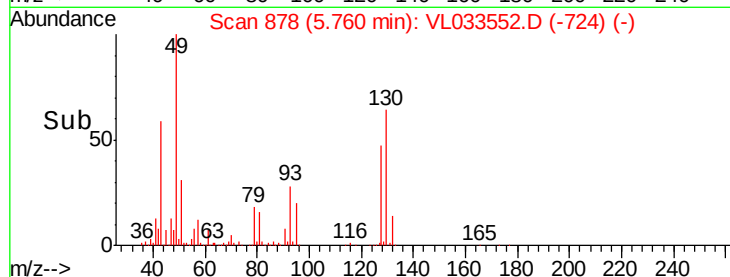
400000

200000

0

5.70 5.75 5.80 5.85

Time-->



#2

Dichlorodifluoromethane

Concen: 0.295 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033552.D

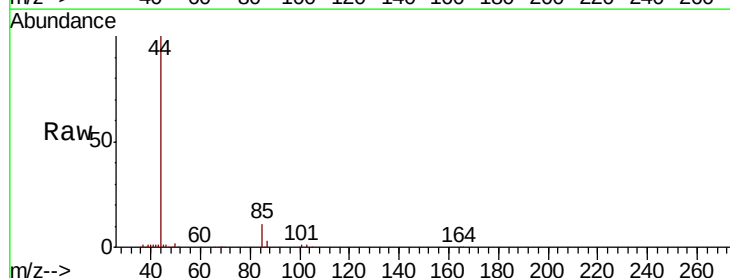
Acq: 5 Apr 2019 3:30

Tgt Ion: 85 Resp: 46298

Ion Ratio Lower Upper

85 100

87 29.4 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

40000

30000

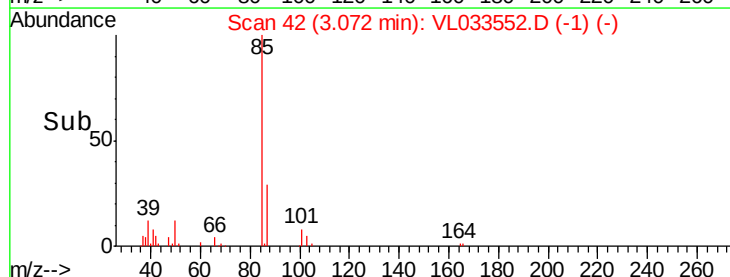
20000

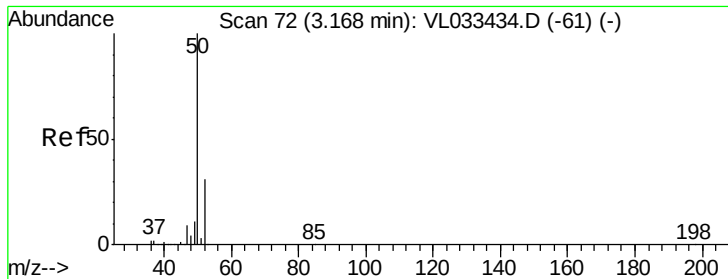
10000

0

3.05 3.10

Time-->





#4

Chloromethane

Concen: 0.180 ppbv

RT: 3.16 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampled :

SV2

Tot Ion: 50 Resp: 11810

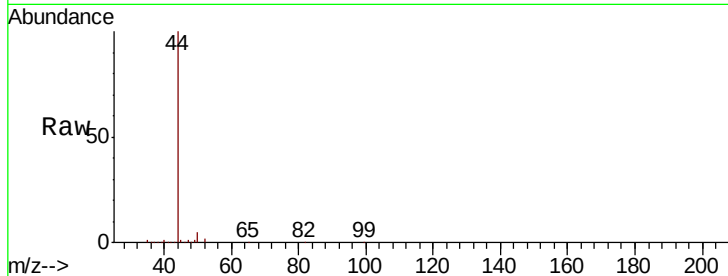
Ion Ratio Lower Upper

50 100

52 35.4 25.0 37.6

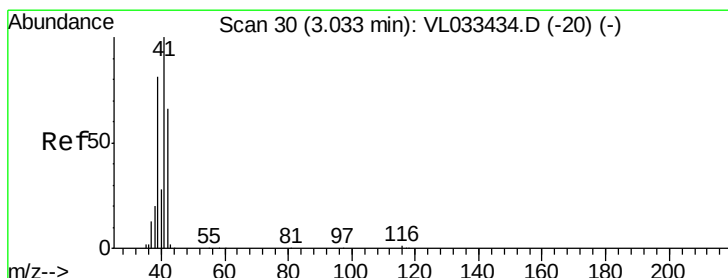
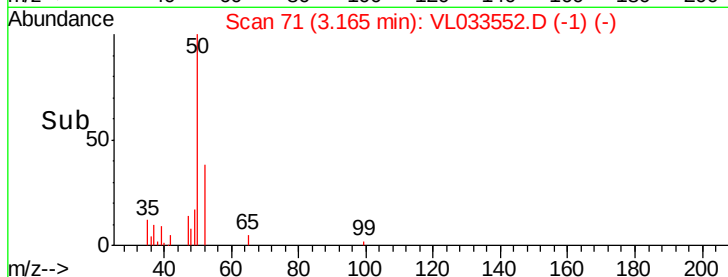
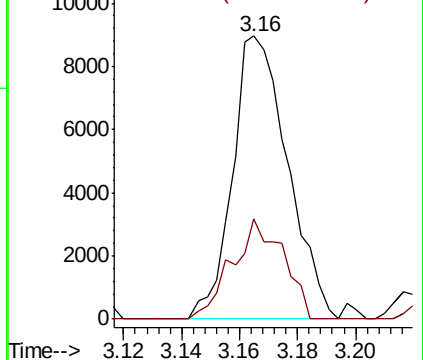
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Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0



#9

Propene

Concen: 7.678 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033552.D

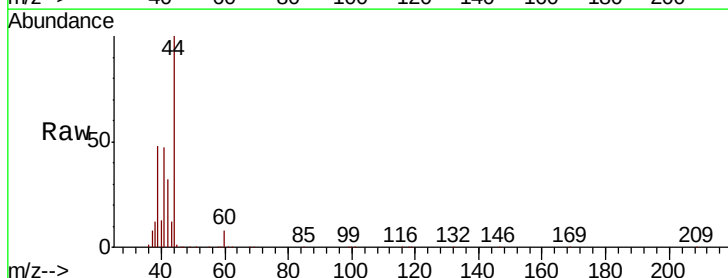
Acq: 5 Apr 2019 3:30

Tgt Ion: 41 Resp: 399168

Ion Ratio Lower Upper

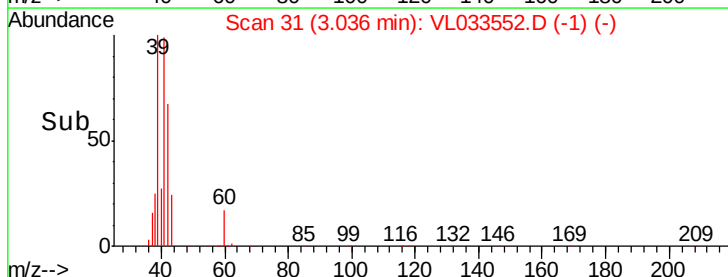
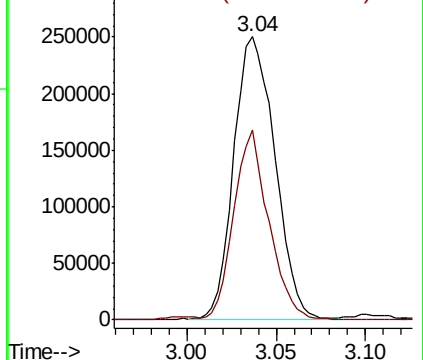
41 100

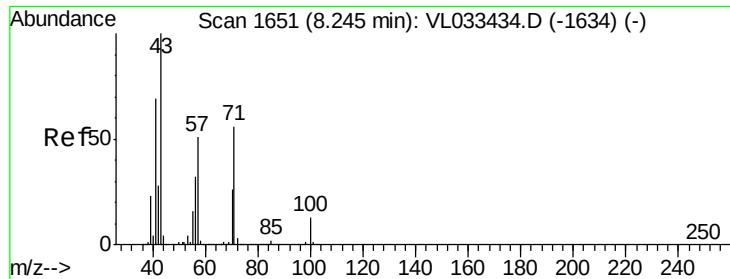
42 58.8 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#10

Heptane

Concen: 0.745 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampled :

SV2

Tot Ion: 43 Resp: 103587

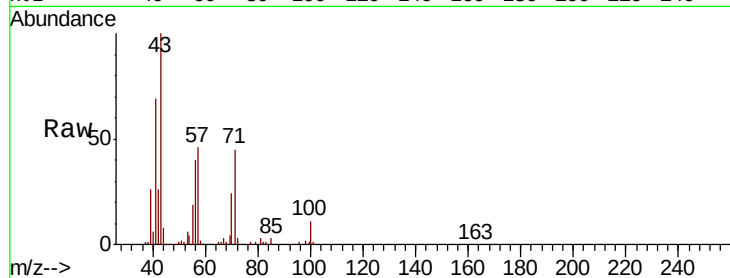
Ion Ratio Lower Upper

43 100

57 51.0 40.6 60.8

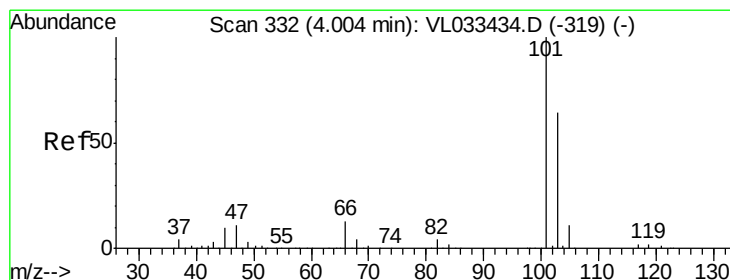
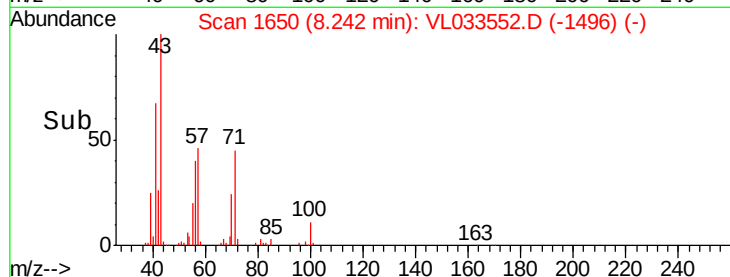
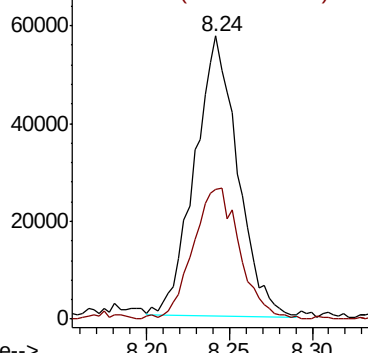
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#11

Trichlorofluoromethane

Concen: 0.132 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033552.D

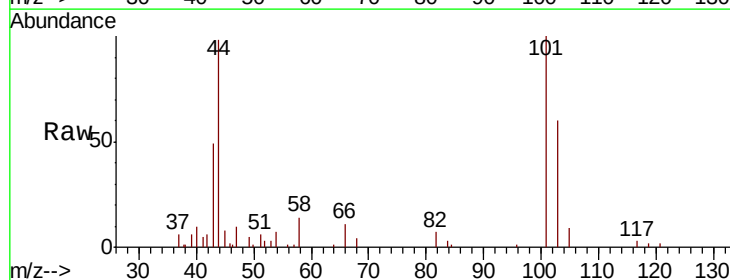
Acq: 5 Apr 2019 3:30

Tgt Ion:101 Resp: 25543

Ion Ratio Lower Upper

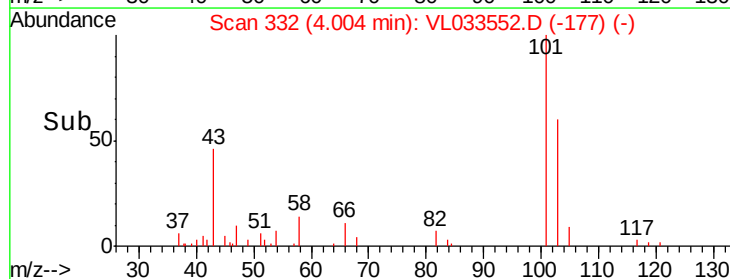
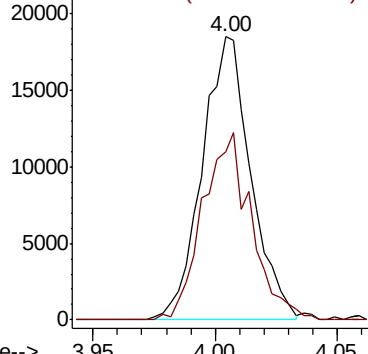
101 100

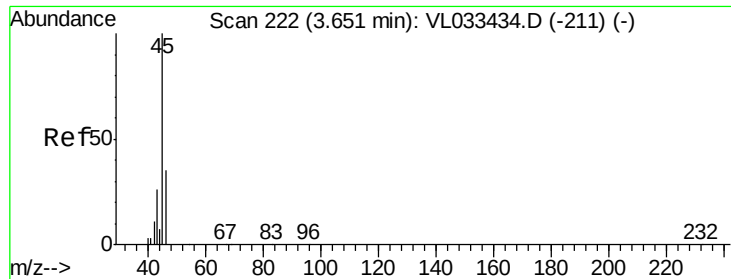
103 59.6 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#13

Ethanol

Concen: 27.805 ppbv

RT: 3.65 min Scan# 222

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tot Ion: 45 Resp: 374055

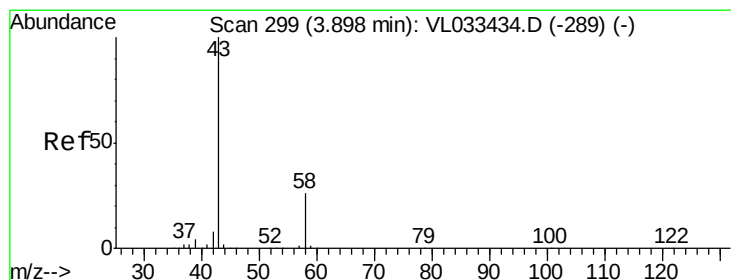
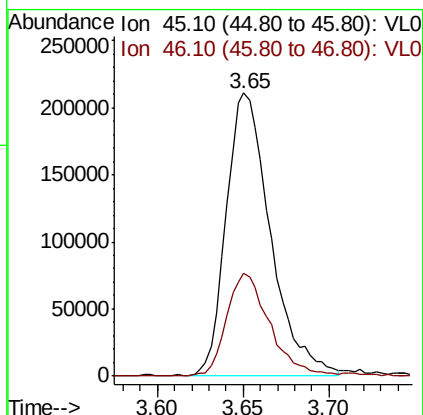
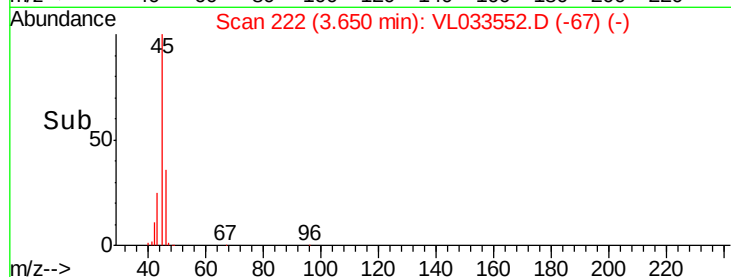
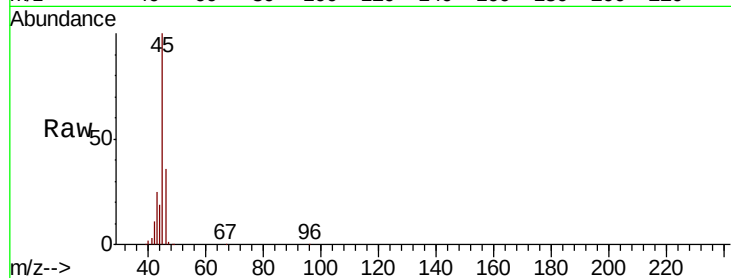
Ion Ratio Lower Upper

45 100

46 36.5 25.4 101.8

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#15

Acetone

Concen: 58.828 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033552.D

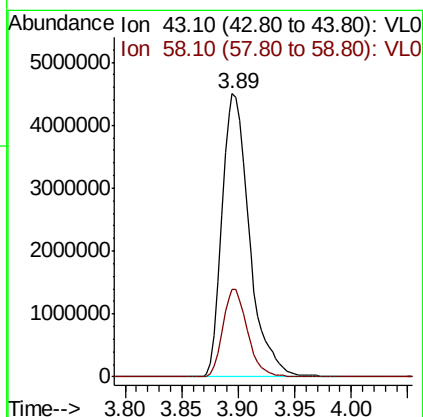
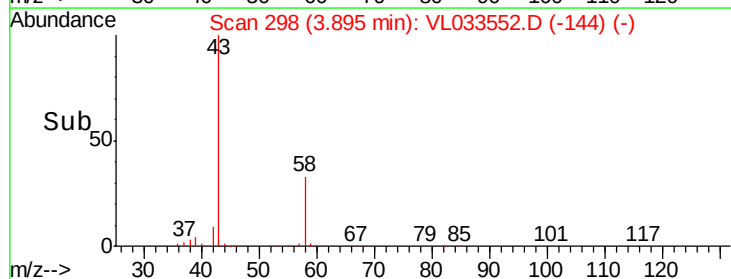
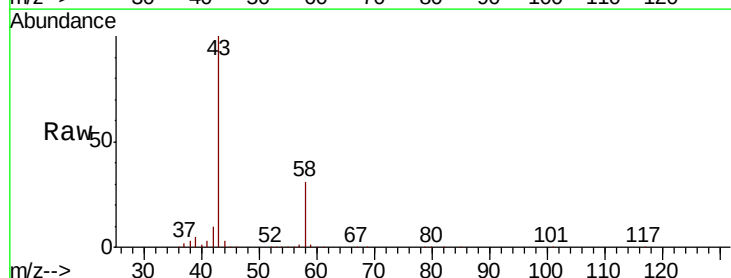
Acq: 5 Apr 2019 3:30

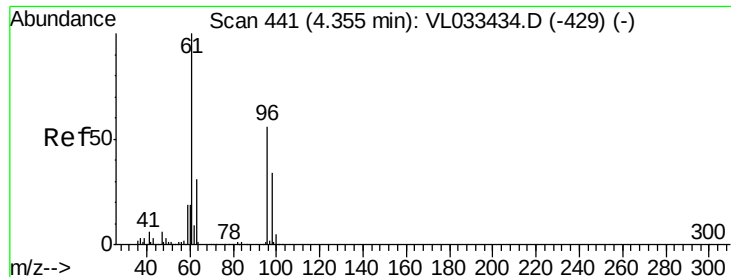
Tgt Ion: 43 Resp: 7605987

Ion Ratio Lower Upper

43 100

58 28.1 20.5 30.7





#17

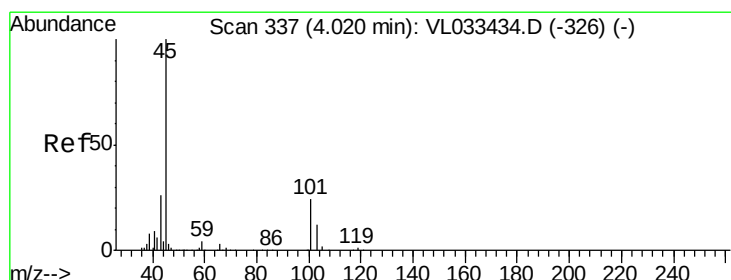
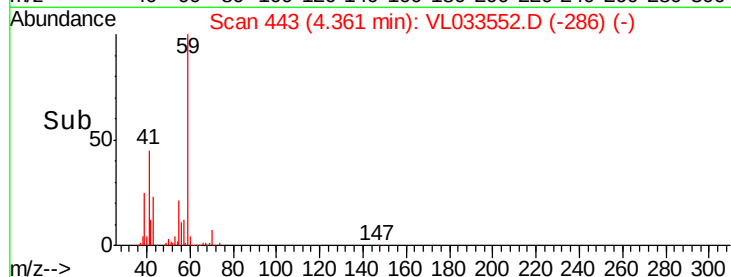
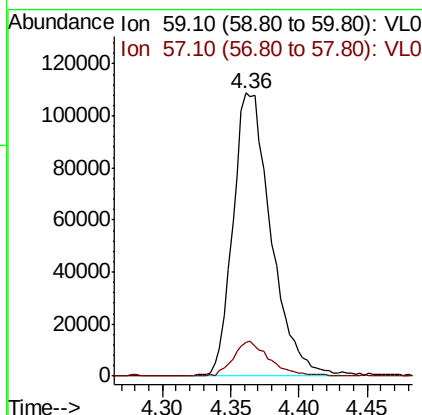
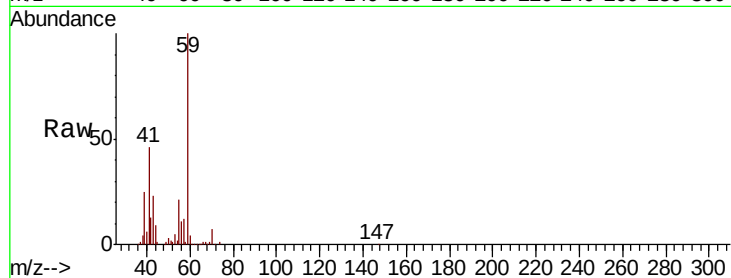
tert-Butyl alcohol
 Concen: 8.870 ppbv
 RT: 4.36 min Scan# 443
 Delta R.T. 0.01 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Tot Ion	Ratio	Lower	Upper
59	100		
57	11.9	7.8	11.8#

Manual Integrations
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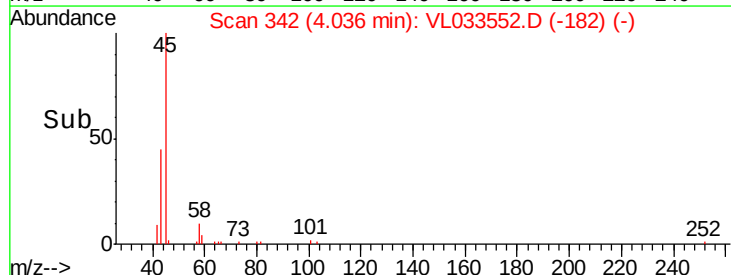
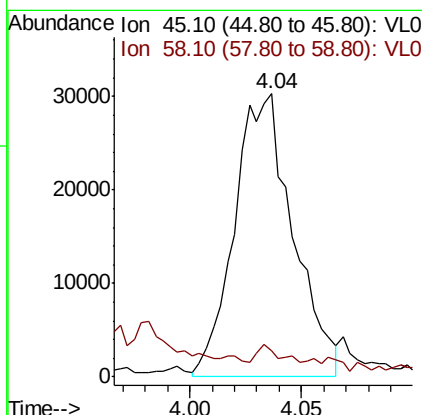
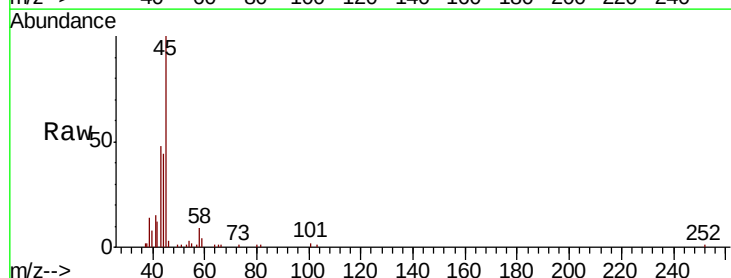
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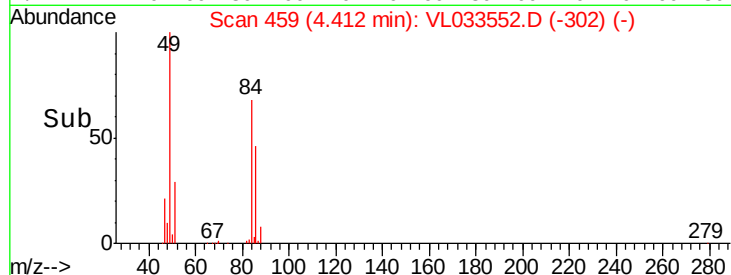
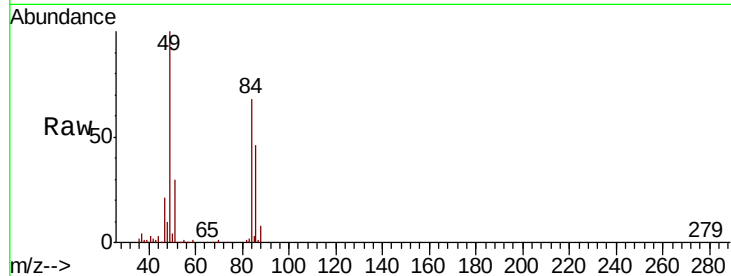
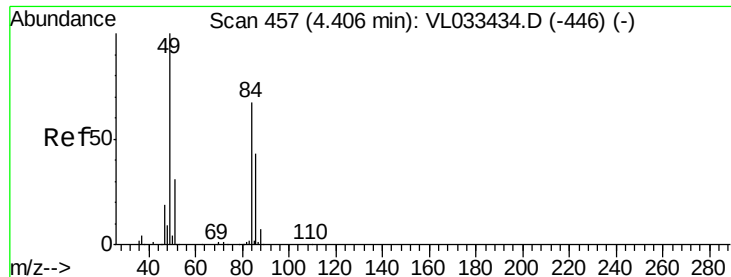


#19

Isopropyl Alcohol
 Concen: 0.674 ppbv m
 RT: 4.04 min Scan# 342
 Delta R.T. 0.02 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
45	100		
58	0.0	1.4	2.2#





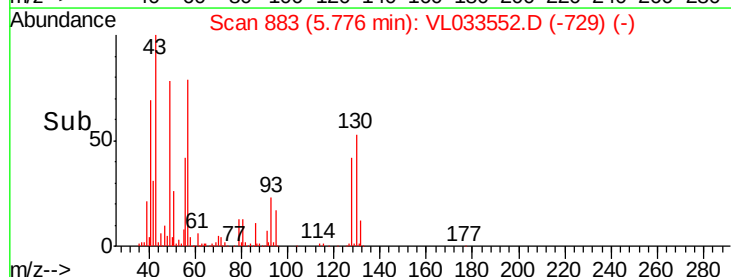
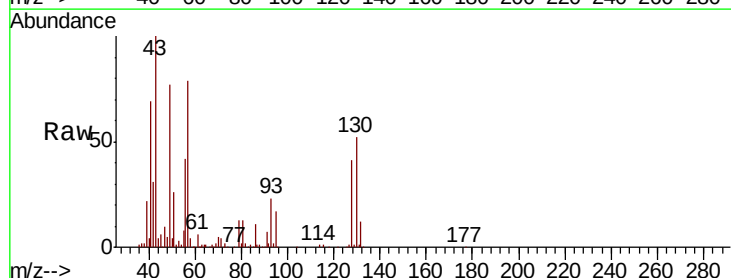
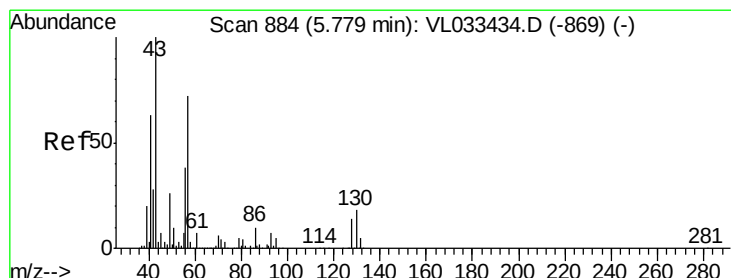
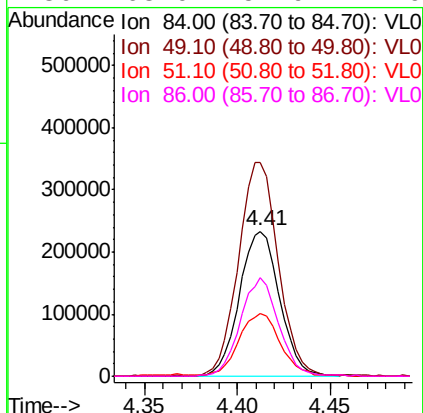
#20
Methvlene Chloride
Concen: 6.384 ppbv
RT: 4.41 min Scan# 459
Delta R.T. 0.01 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tot Ion	Ratio	Lower	Upper
84	100		
49	146.8	120.0	180.0
51	42.9	36.7	55.1
86	68.0	51.9	77.9

Instrument :
MSVOA_L
ClientSampled :
SV2

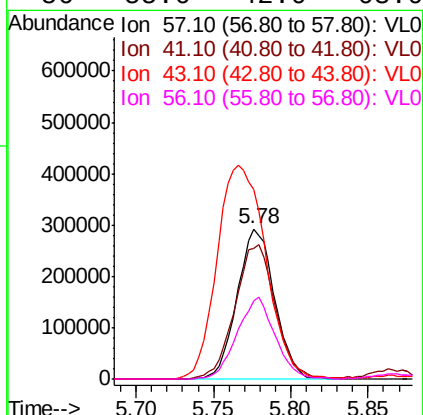
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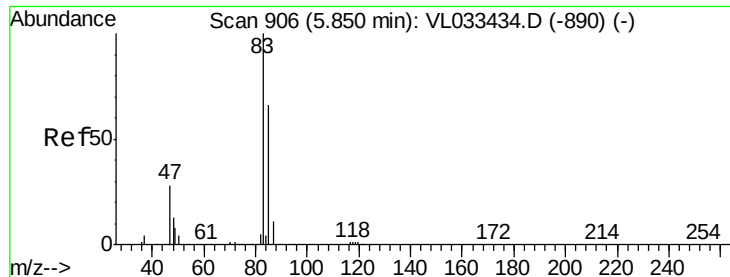
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#26
Hexane
Concen: 4.584 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
57	100		
41	97.4	70.7	106.1
43	186.1	182.6	274.0
56	55.6	42.0	63.0





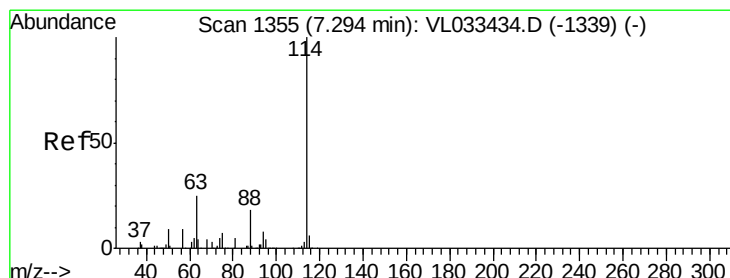
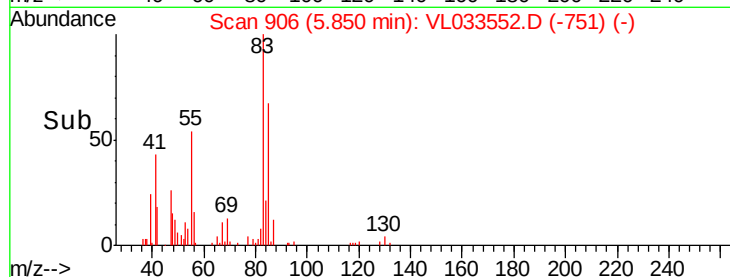
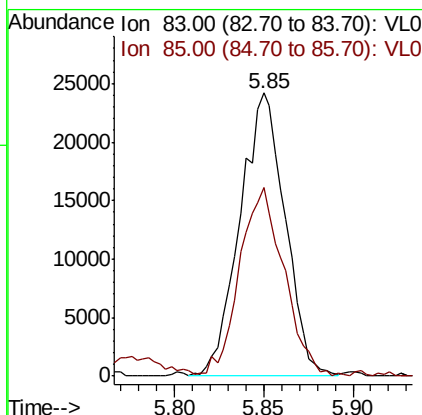
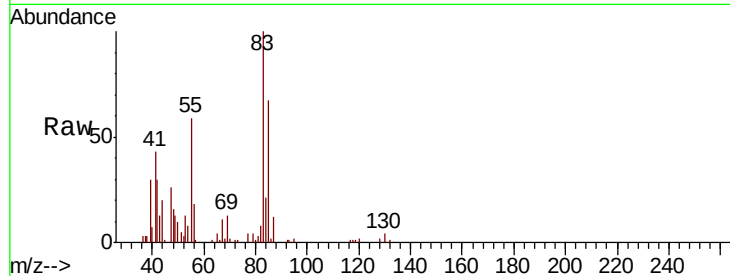
#29
Chloroform
Concen: 0.234 ppbv
RT: 5.85 min Scan# 906
Delta R.T. -0.00 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Instrument :
MSVOA_L
ClientSampled :
SV2

Tot Ion	83	Resp	42763
Ion Ratio	100	Lower	Upper
83	100		
85	65.8	52.6	79.0

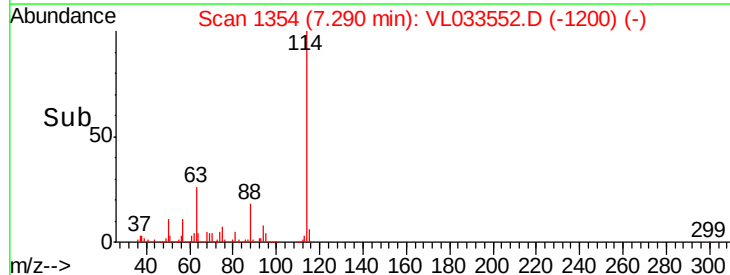
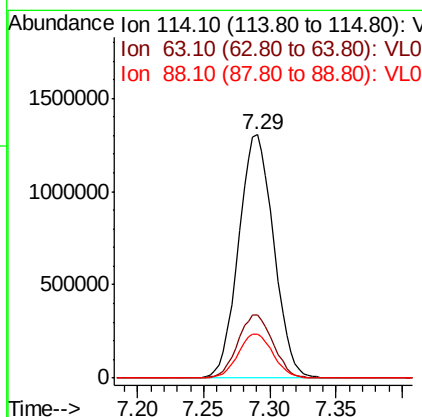
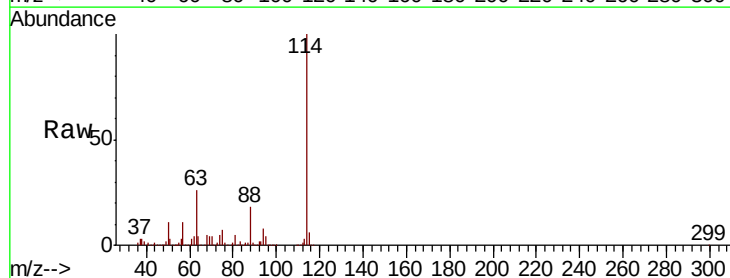
Manual Integrations
APPROVED

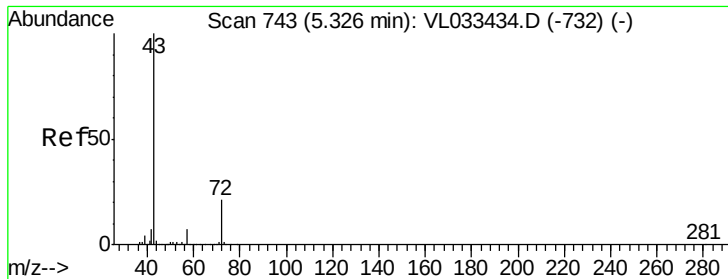
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.00 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tgt Ion	114	Resp	2399046
Ion Ratio	100	Lower	Upper
114	100		
63	26.3	21.5	32.3
88	18.1	14.5	21.7





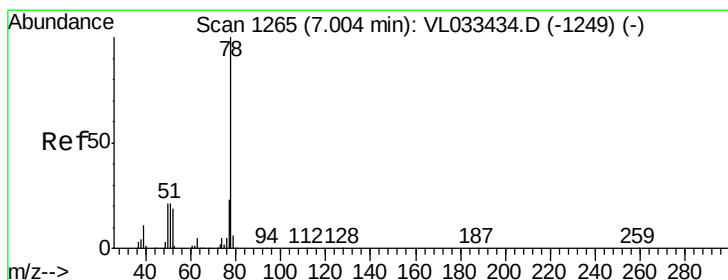
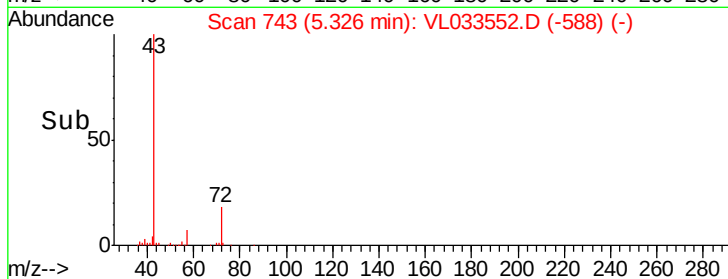
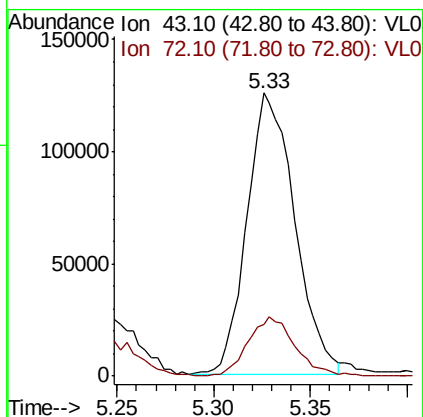
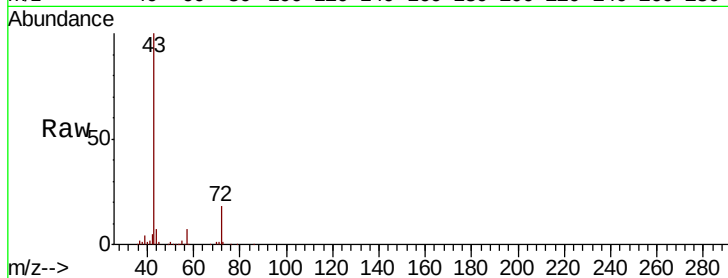
#34
2-Butanone
Concen: 1.493 ppbv
RT: 5.33 min Scan# 743
Delta R.T. -0.00 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Instrument :
MSVOA_L
ClientSampled :
SV2

Tot Ion	Ratio	Lower	Upper
43	100		
72	21.0	17.4	26.2

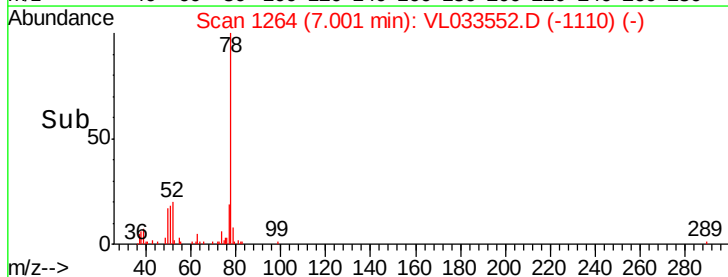
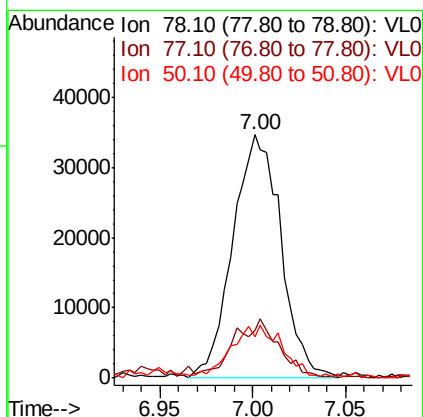
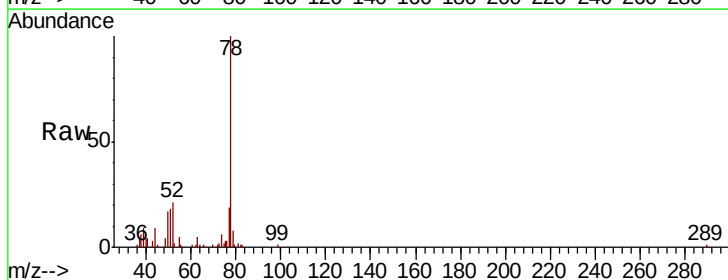
Manual Integrations
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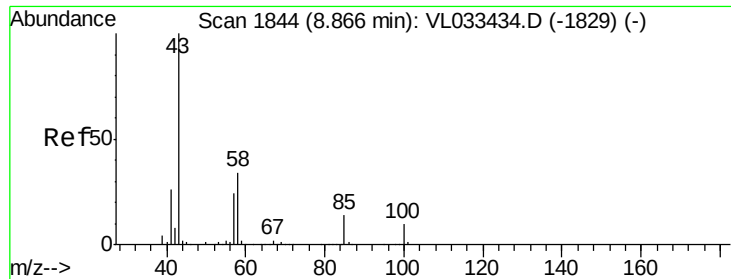
MMDadoda
4/8/2019 3:22:30 AM



#36
Benzene
Concen: 0.310 ppbv
RT: 7.00 min Scan# 1264
Delta R.T. -0.00 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
78	100		
77	19.4	18.1	27.1
50	15.5	16.7	25.1





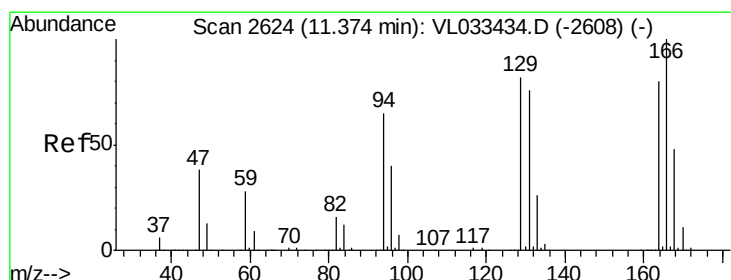
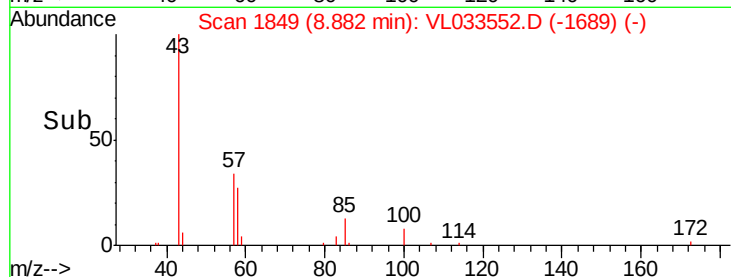
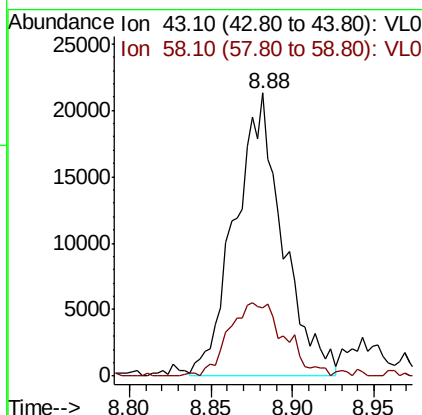
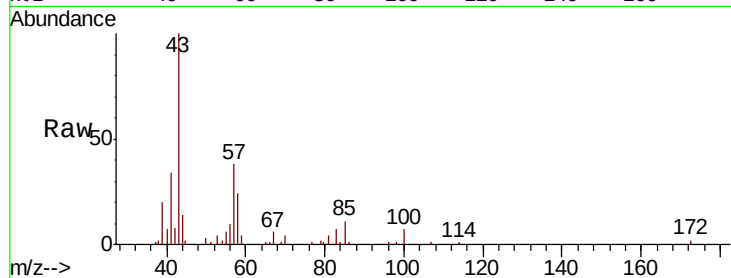
#50
4-Methyl-2-Pentanone
Concen: 0.206 ppbv m
RT: 8.88 min Scan# 1849
Delta R.T. 0.02 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Instrument :
MSVOA_L
ClientSampled :
SV2

Tot Ion	Ratio	Lower	Upper
43	100		
58	31.1	28.0	42.0

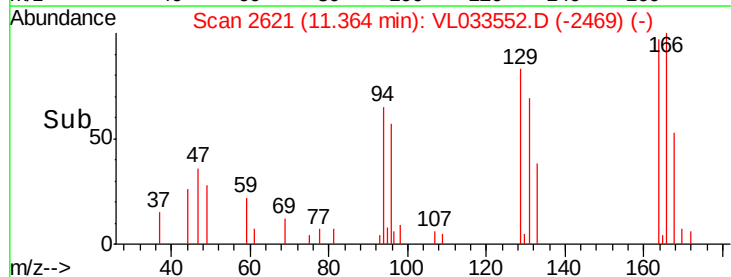
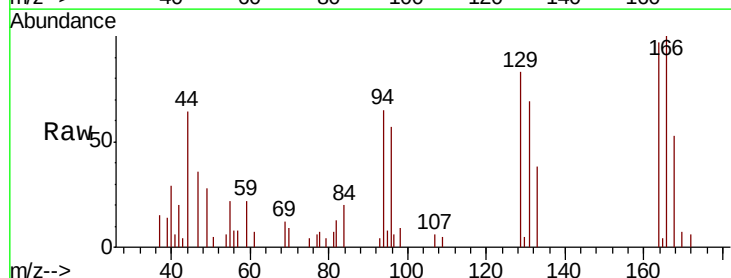
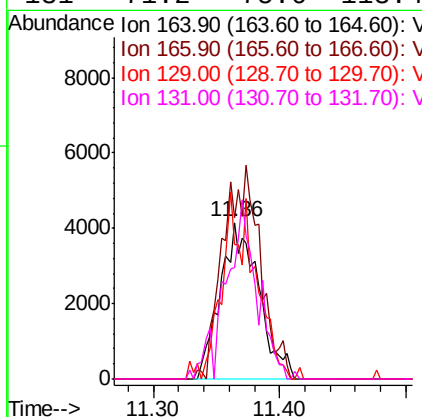
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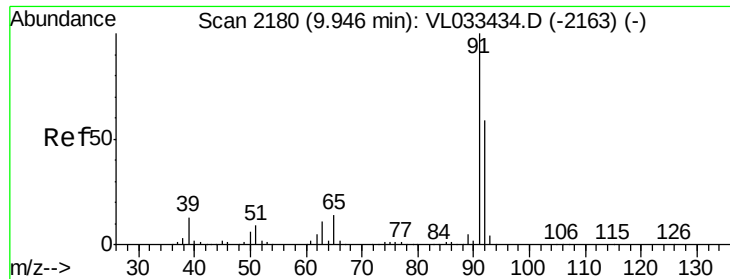
MMDadoda
4/8/2019 3:22:30 AM



#52
Tetrachloroethene
Concen: 0.115 ppbv m
RT: 11.36 min Scan# 2621
Delta R.T. -0.01 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
164	100		
166	103.3	99.5	149.3
129	85.8	81.4	122.2
131	71.2	75.6	113.4





#53

Toluene

Concen: 3.029 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tot Ion: 91 Resp: 708560

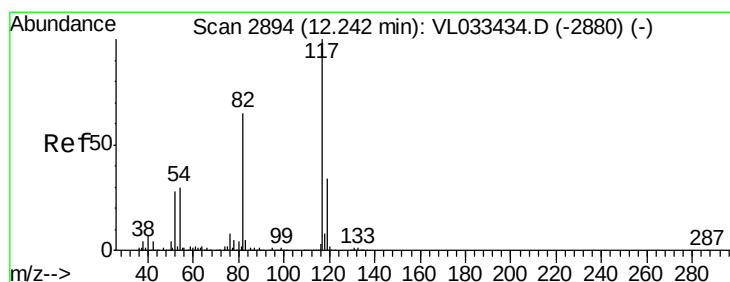
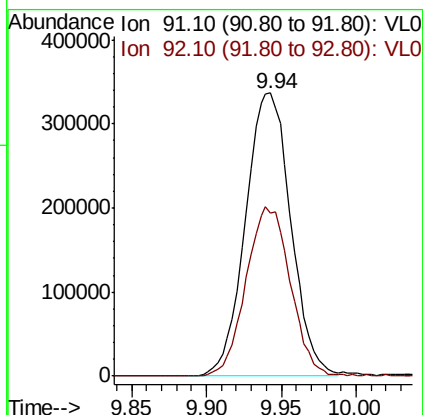
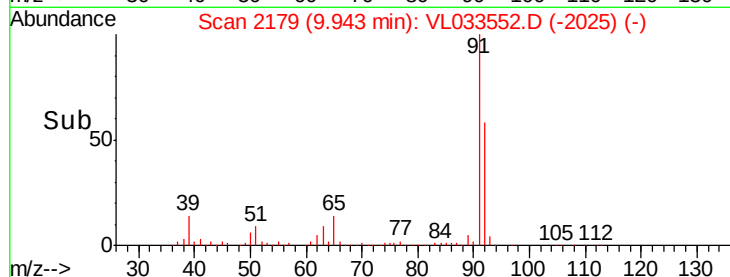
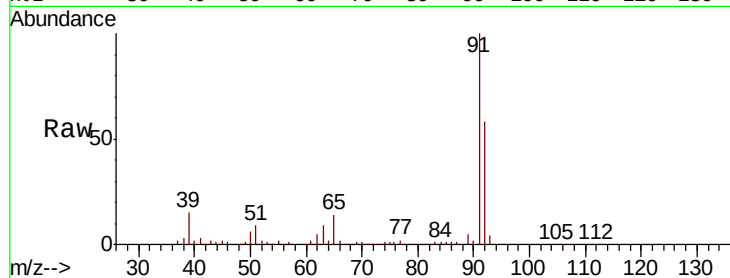
Ion Ratio Lower Upper

91 100

92 58.8 47.4 71.0

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. -0.01 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

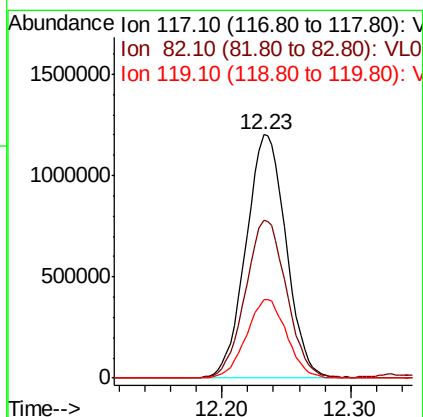
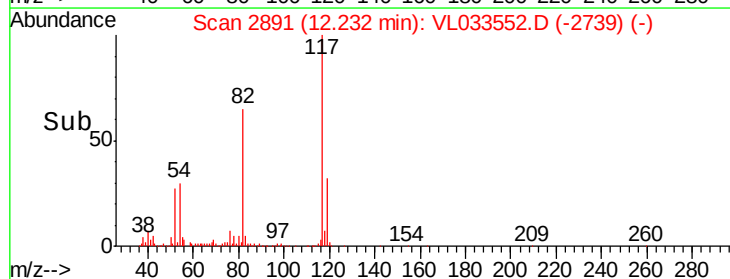
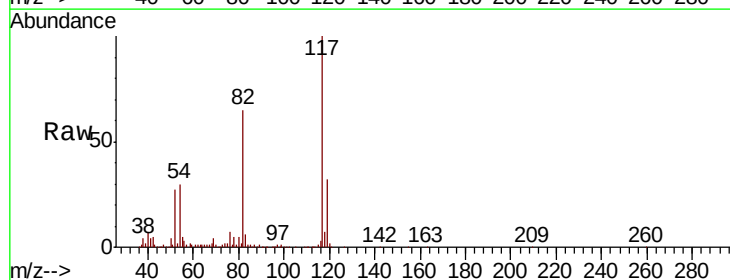
Tgt Ion: 117 Resp: 2607363

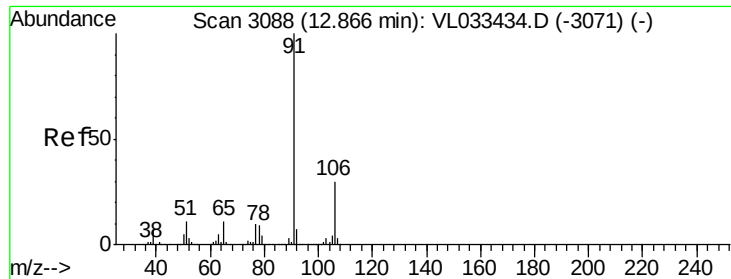
Ion Ratio Lower Upper

117 100

82 66.5 51.5 77.3

119 32.5 25.5 38.3





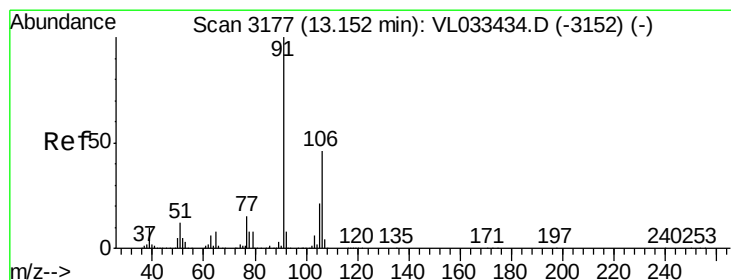
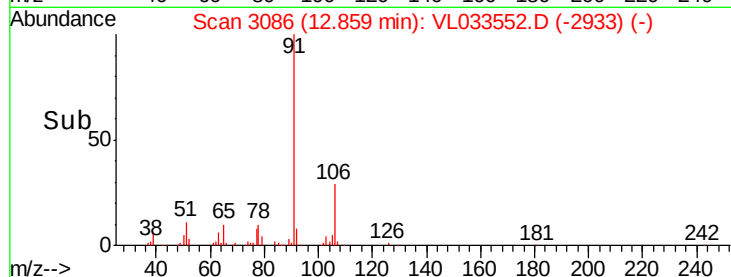
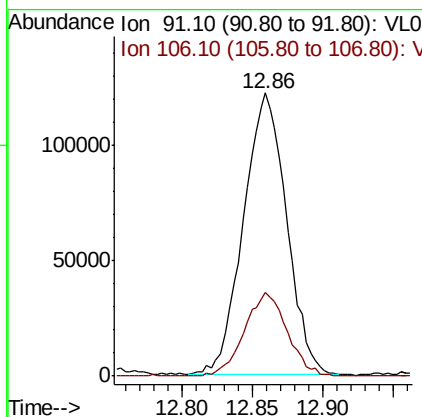
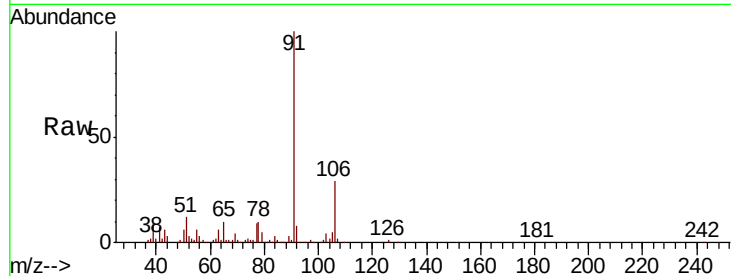
#58
Ethyl Benzene
Concen: 0.745 ppbv
RT: 12.86 min Scan# 3086
Delta R.T. -0.01 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Instrument :
MSVOA_L
ClientSampled :
SV2

Tot Ion	Ratio	Lower	Upper
91	100		
106	29.6	23.8	35.6

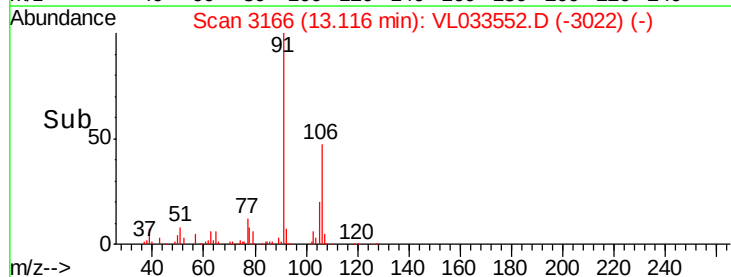
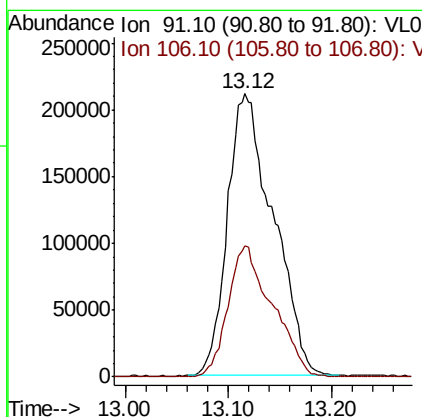
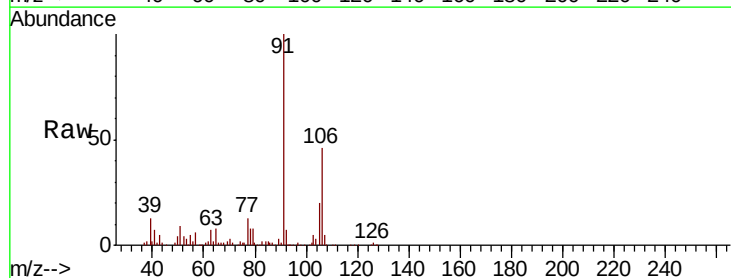
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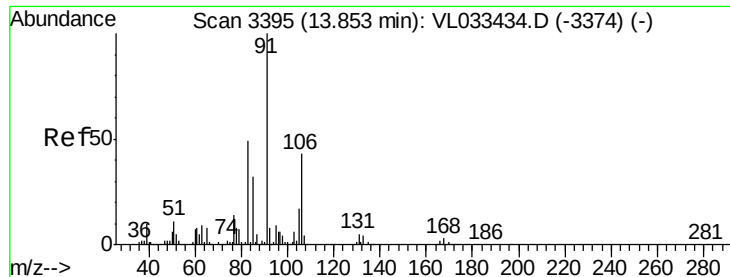
MMDadoda
4/8/2019 3:22:30 AM



#59
m/p-Xylene
Concen: 2.095 ppbv
RT: 13.12 min Scan# 3166
Delta R.T. -0.04 min
Lab File: VL033552.D
Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
91	100		
106	45.0	0.0	0.0#





#60

o-Xylene

Concen: 0.702 ppbv

RT: 13.84 min Scan# 3392

Delta R.T. -0.01 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampled :

SV2

Tot Ion: 91 Resp: 211211

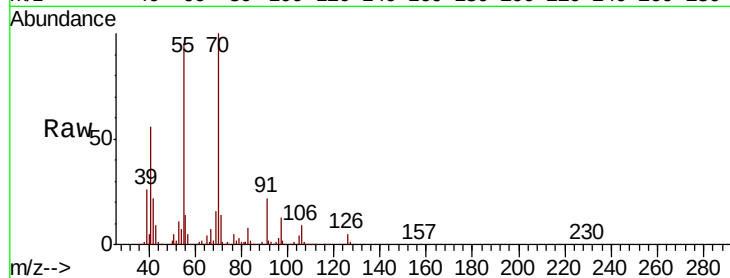
Ion Ratio Lower Upper

91 100

106 42.9 21.4 64.3

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4/8/2019 3:22:30 AM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.84

100000

80000

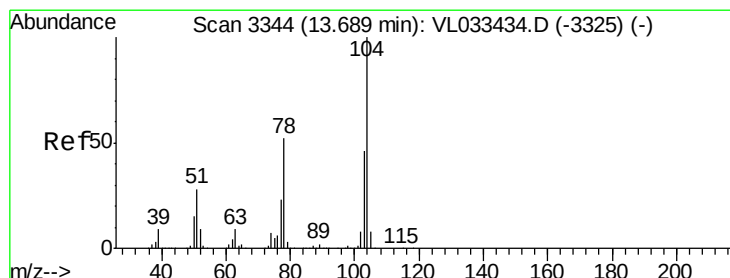
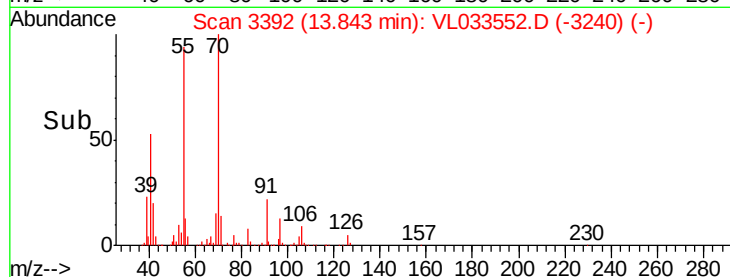
60000

40000

20000

0

Time--> 13.75 13.80 13.85 13.90



#61

Styrene

Concen: 0.386 ppbv

RT: 13.68 min Scan# 3341

Delta R.T. -0.01 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

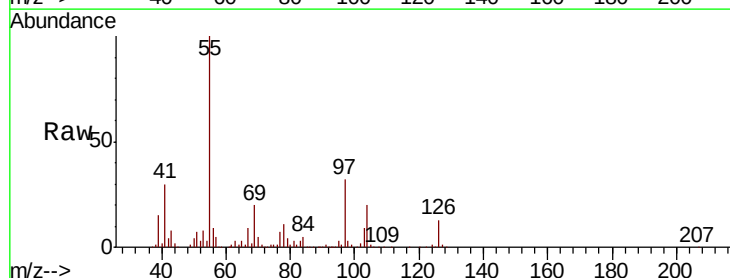
Tgt Ion: 104 Resp: 79649

Ion Ratio Lower Upper

104 100

78 59.9 43.2 64.8

103 47.6 37.8 56.8



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V

13.68

50000

40000

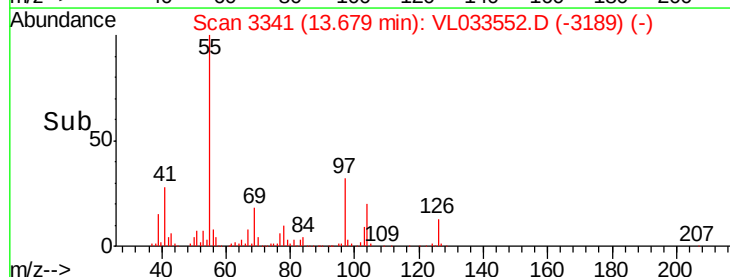
30000

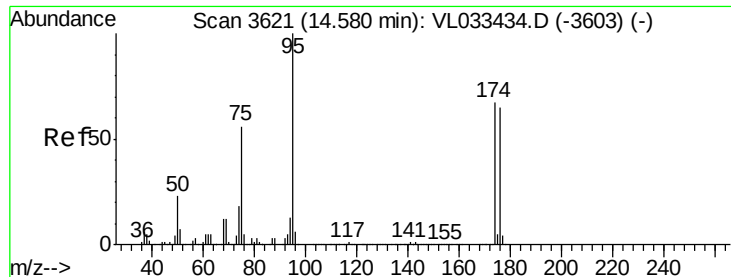
20000

10000

0

Time--> 13.60 13.65 13.70 13.75





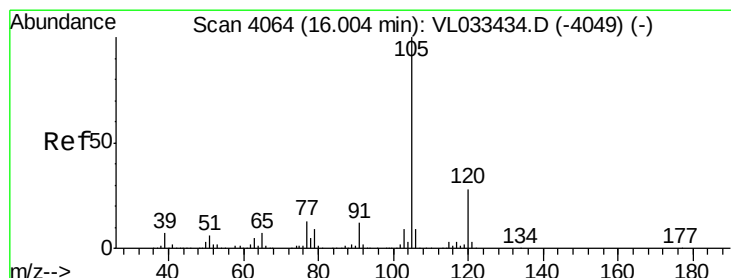
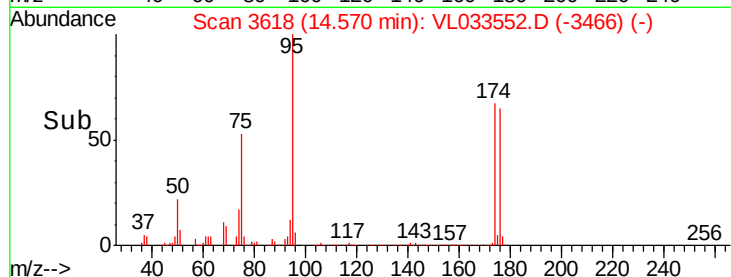
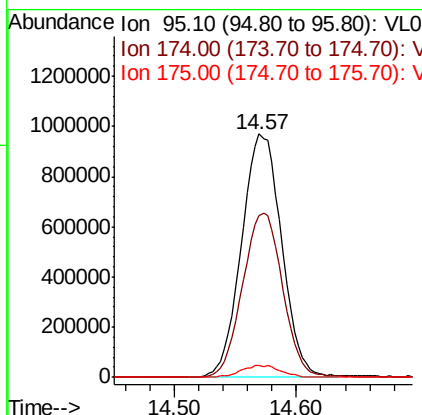
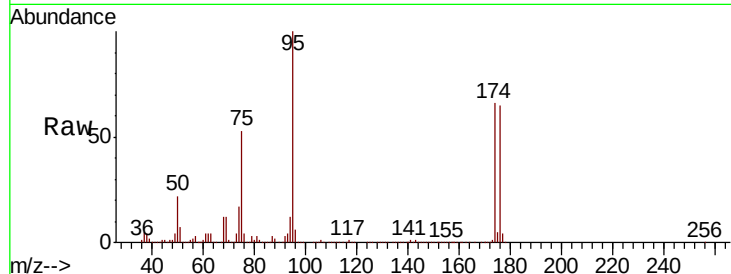
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.703 ppbv
 RT: 14.57 min Scan# 3618
 Delta R.T. -0.01 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Instrument :
 MSVOA_L
 ClientSampled :
 SV2

Tot Ion: 95 Resp: 2187839
 Ion Ratio Lower Upper
 95 100
 174 68.3 52.9 79.3
 175 5.0 3.8 5.6

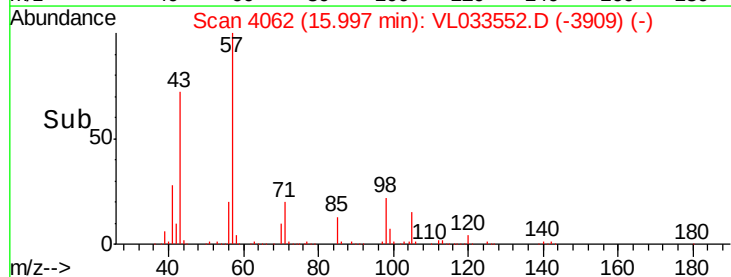
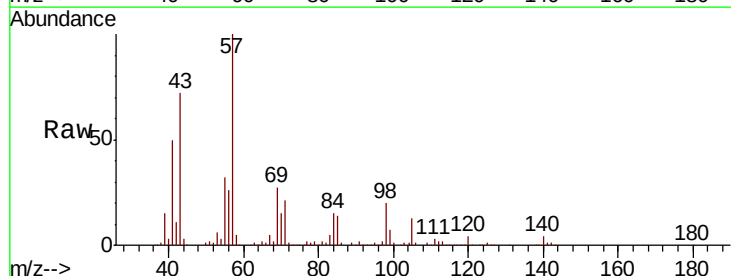
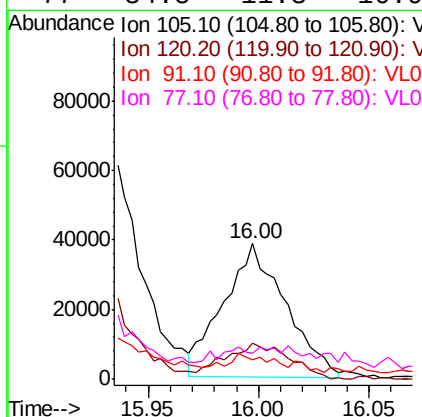
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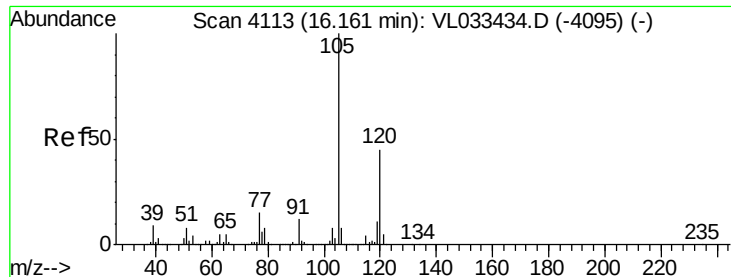
MMDadoda
 4/8/2019 3:22:30 AM



#72
 4-Ethyltoluene
 Concen: 0.222 ppbv
 RT: 16.00 min Scan# 4062
 Delta R.T. -0.01 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Tgt Ion: 105 Resp: 74920
 Ion Ratio Lower Upper
 105 100
 120 29.1 23.2 34.8
 91 11.4 10.4 15.6
 77 34.5 11.3 16.9#





#73

1,3,5-Trimethylbenzene

Concen: 0.187 ppbv m

RT: 16.15 min Scan# 4110

Delta R.T. -0.01 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Instrument :

MSVOA_L

ClientSampled :

SV2

Tot Ion:105 Resp: 60371

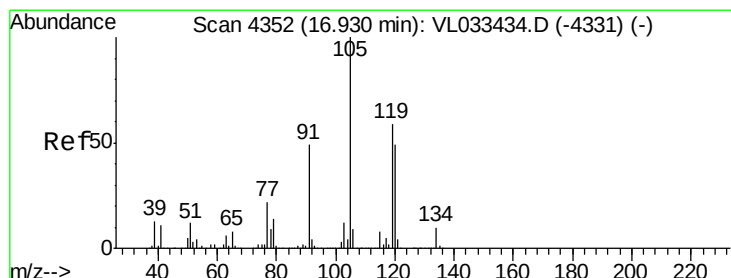
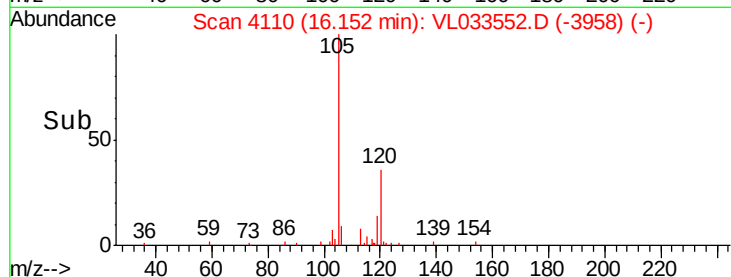
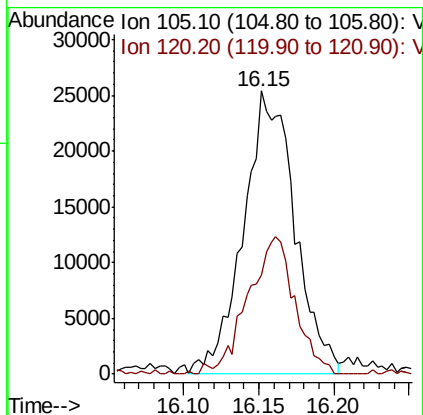
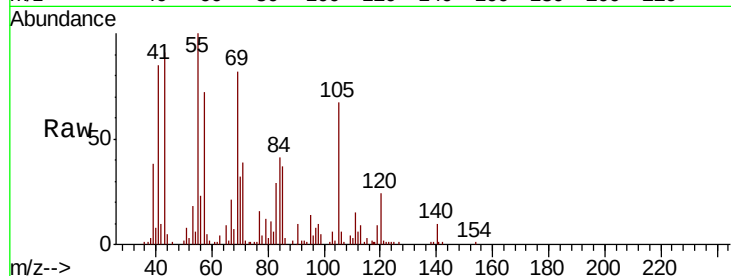
Ion Ratio Lower Upper

105 100

120 35.0 35.7 53.5#

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#74

1,2,4-Trimethylbenzene

Concen: 0.614 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.00 min

Lab File: VL033552.D

Acq: 5 Apr 2019 3:30

Tgt Ion:105 Resp: 212824

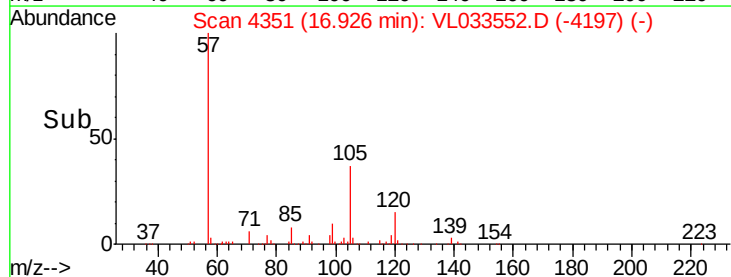
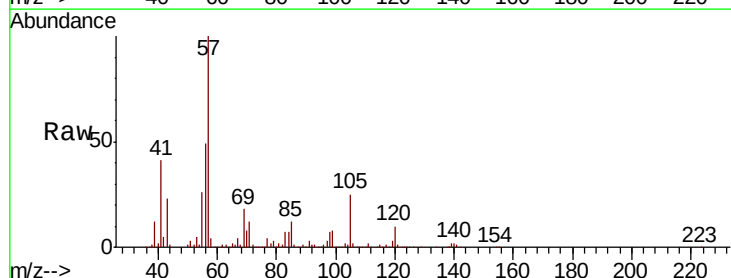
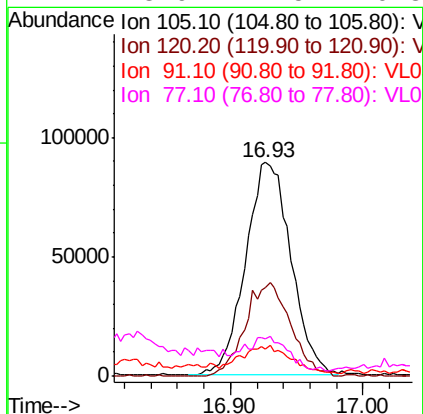
Ion Ratio Lower Upper

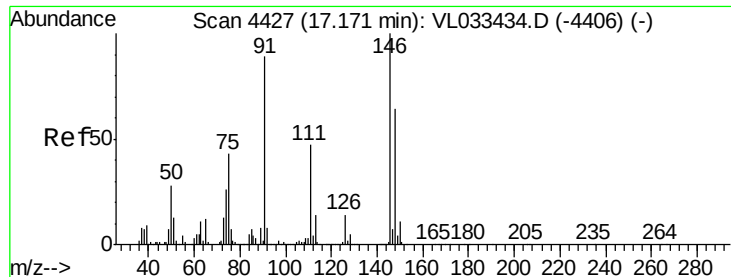
105 100

120 41.5 39.0 58.6

91 11.4 40.0 60.0#

77 13.9 17.5 26.3#





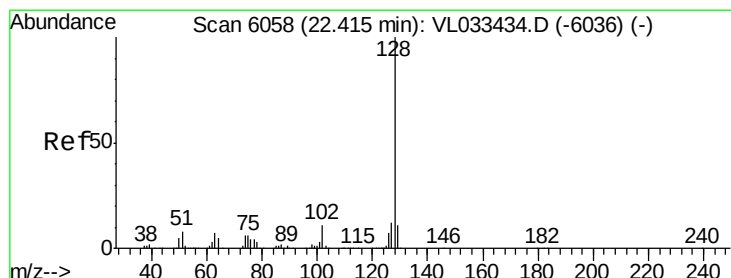
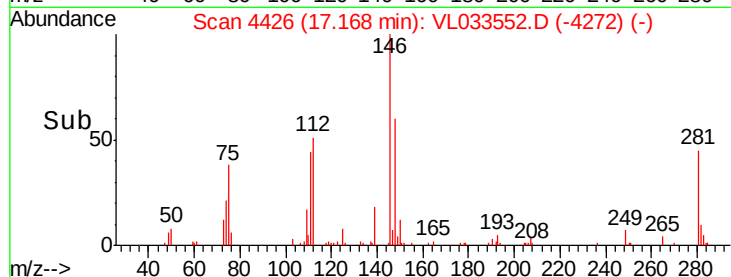
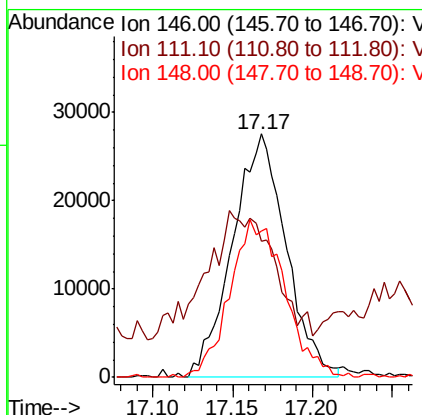
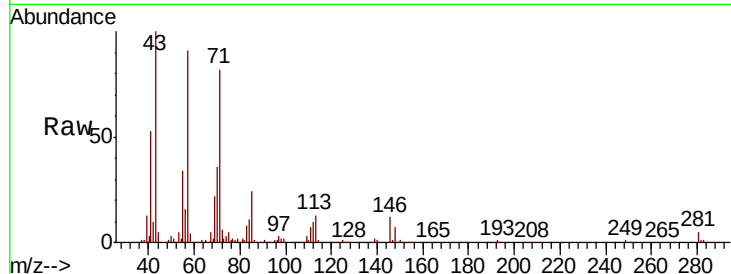
#75
 1,3-Dichlorobenzene
 Concen: 0.296 ppbv
 RT: 17.17 min Scan# 4426
 Delta R.T. -0.00 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Instrument :
 MSVOA_L
 ClientSampled :
 SV2

Tot Ion	Ratio	Lower	Upper
146	100		
111	103.8	22.9	68.8#
148	66.5	32.0	96.2

Manual Integrations
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#79
 Naphthalene
 Concen: 0.178 ppbv m
 RT: 22.42 min Scan# 6060
 Delta R.T. 0.01 min
 Lab File: VL033552.D
 Acq: 5 Apr 2019 3:30

Tgt Ion	Ratio	Lower	Upper
128	100		
127	13.1	9.8	14.8
129	10.2	8.6	12.8

