

Data File : VL032679.D
Acq On : 19 Oct 2018 11:39
Operator : SY/AP
Sample : J5581-06
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
D-1

Quant Time: Oct 19 23:13:06 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 01:25:37 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	1473364	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.31	114	3377183	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.26	117	3245199	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.59 95 2359023 9.76 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 97.60%

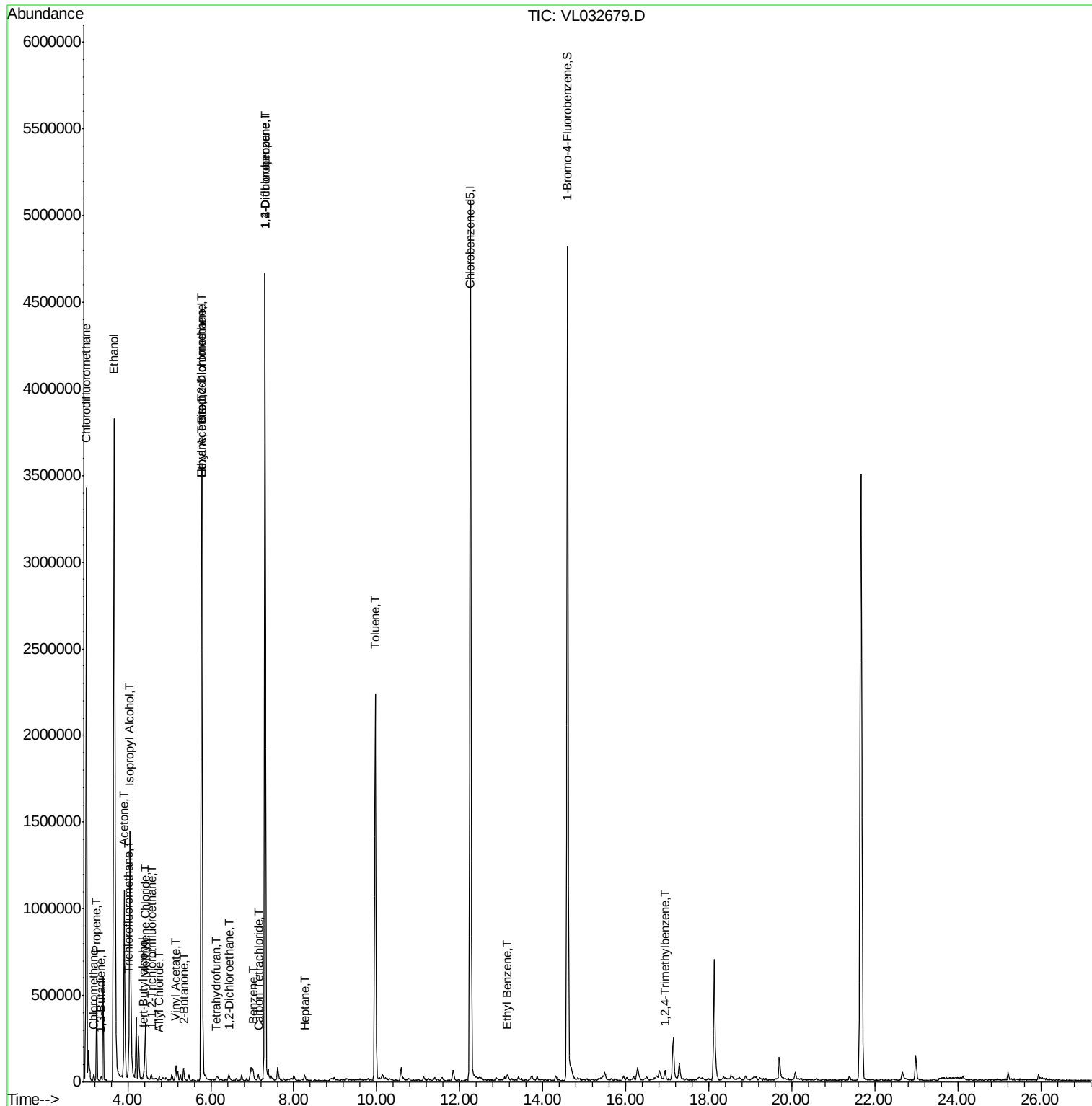
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	3.00	51	2059164	17.871	ppbv #	59
4) Chloromethane	3.18	50	19979	0.310	ppbv	95
9) Propene	3.25	41	104443	2.203	ppbv	85
10) Heptane	8.26	43	5708	0.031	ppbv #	23
11) Trichlorofluoromethane	4.02	101	39834	0.203	ppbv	87
12) 1,1,2-Trichlorotrifluoroet	4.56	101	5175	0.032	ppbv #	17
13) Ethanol	3.67	45	5644403	416.476	ppbv	98
15) Acetone	3.91	43	1078088	7.924	ppbv	100
16) 1,3-Butadiene	3.35	39	7811	0.156	ppbv #	1
17) tert-Butyl alcohol	4.38	59	2740	0.068	ppbv #	100
19) Isopropyl Alcohol	4.05	45	2055294	21.212	ppbv #	96
20) Methylene Chloride	4.42	84	105305	1.525	ppbv	96
21) Allyl Chloride	4.75	41	2319	0.021	ppbv #	1
23) Vinyl Acetate	5.16	43	45798	0.190	ppbv #	51
25) Ethyl Acetate	5.79	43	330521	1.055	ppbv #	88
26) Hexane	5.79	57	326951	2.207	ppbv #	55
31) cis-1,2-Dichloroethene	5.77	61	2987	0.022	ppbv #	51
34) 2-Butanone	5.35	43	76068	0.420	ppbv	95
35) Carbon Tetrachloride	7.15	117	11455	0.048	ppbv #	79
36) Benzene	7.02	78	14509	0.053	ppbv	94
37) 1,2-Dichloroethane	6.43	62	4784	0.028	ppbv #	84
39) 1,2-Dichloropropane	7.31	63	848800	8.015	ppbv #	25
41) Tetrahydrofuran	6.15	42	4950	0.049	ppbv #	47
53) Toluene	9.96	91	1648980	5.245	ppbv	99
58) Ethyl Benzene	13.13	91	10153	0.027	ppbv	98
74) 1,2,4-Trimethylbenzene	16.94	105	10031	0.028	ppbv #	65

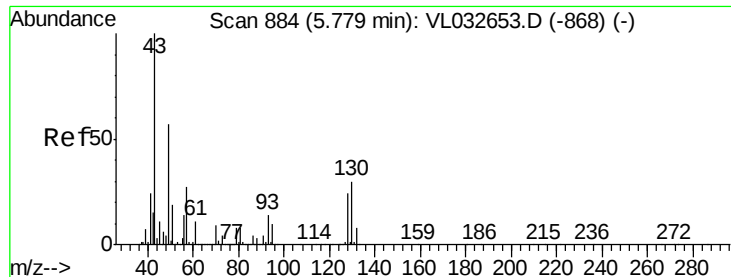
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL032679.D

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MSVOA_L

ClientSampleId :

D-1

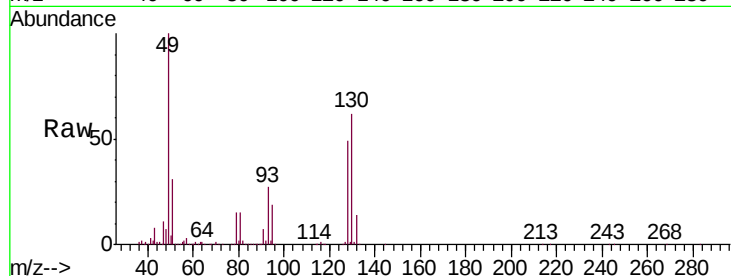
Tgt Ion: 49 Resp: 1473364

Ion Ratio Lower Upper

49 100

128 49.1 22.3 66.8

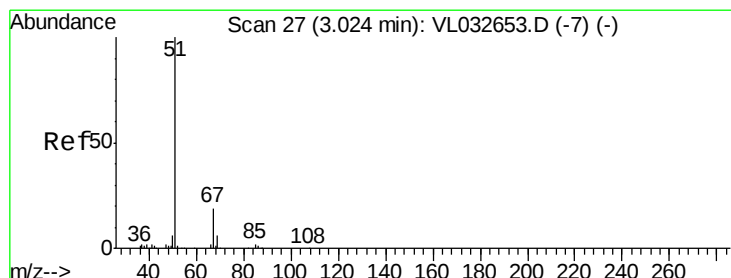
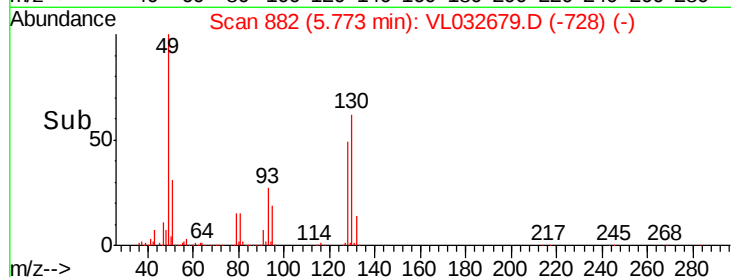
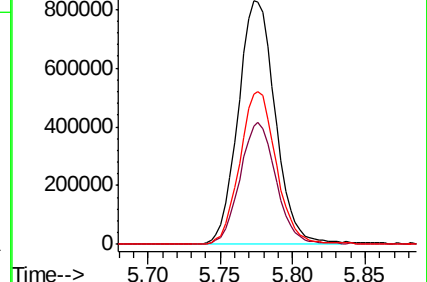
130 62.1 28.4 85.3



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



#3

Chlorodifluoromethane

Concen: 17.871 ppbv

RT: 3.00 min Scan# 19

Delta R.T. -0.03 min

Lab File: VL032679.D

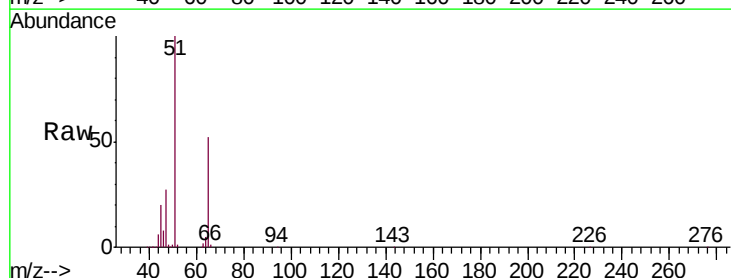
Acq: 19 Oct 2018 11:39

Tgt Ion: 51 Resp: 2059164

Ion Ratio Lower Upper

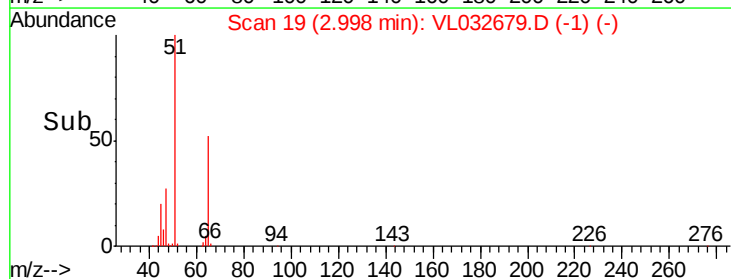
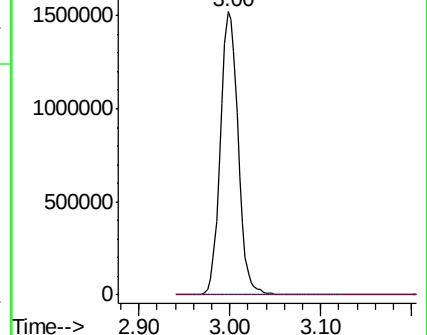
51 100

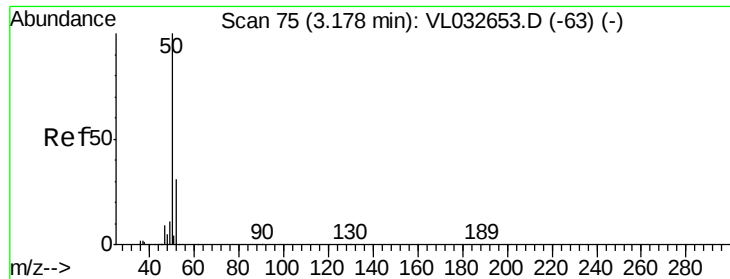
67 0.4 15.2 22.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.310 ppbv

RT: 3.18 min Scan# 75

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

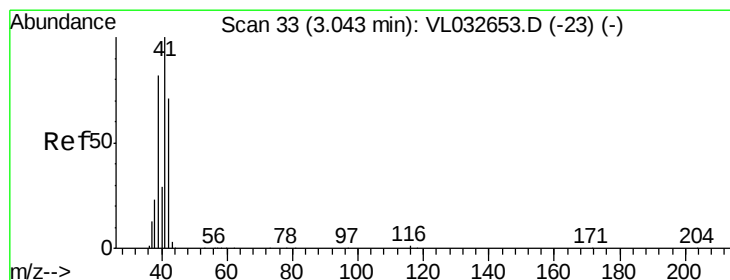
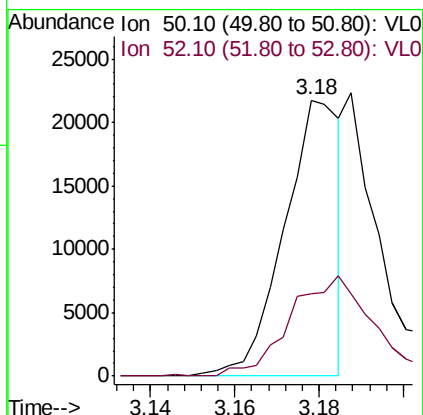
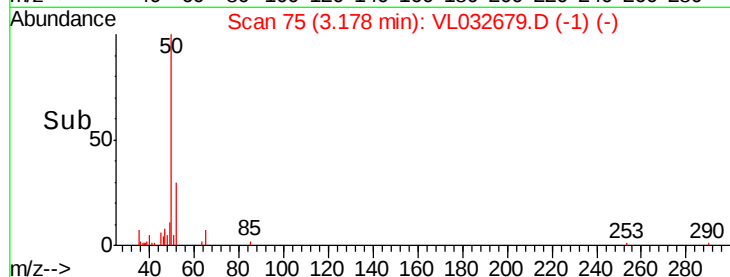
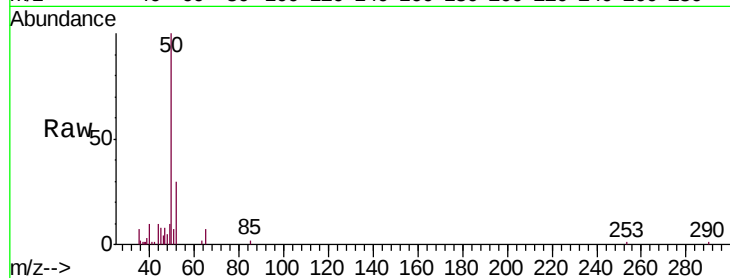
D-1

Tgt Ion: 50 Resp: 19979

Ion Ratio Lower Upper

50 100

52 29.7 25.9 38.9



#9

Propene

Concen: 2.203 ppbv

RT: 3.25 min Scan# 97

Delta R.T. 0.21 min

Lab File: VL032679.D

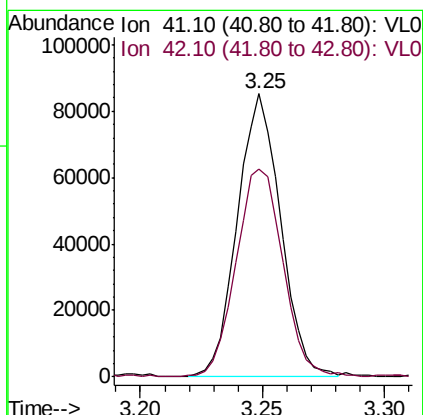
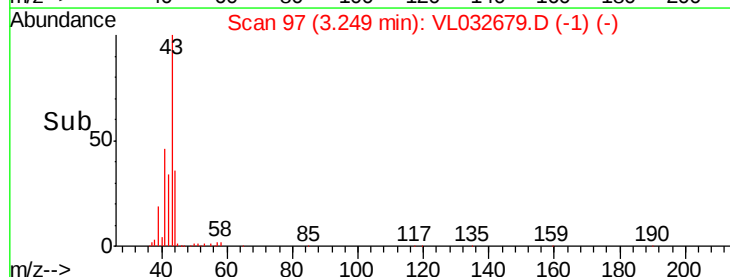
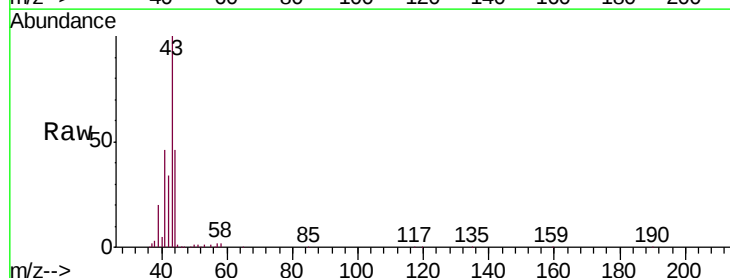
Acq: 19 Oct 2018 11:39

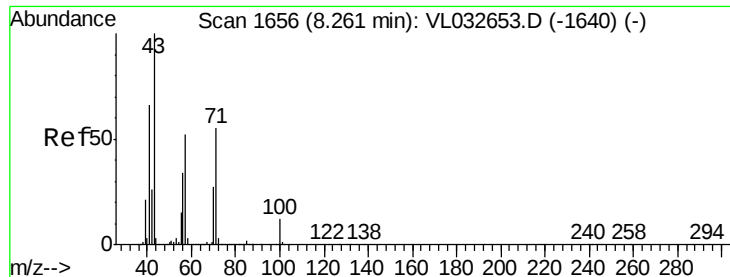
Tgt Ion: 41 Resp: 104443

Ion Ratio Lower Upper

41 100

42 81.6 55.4 83.0

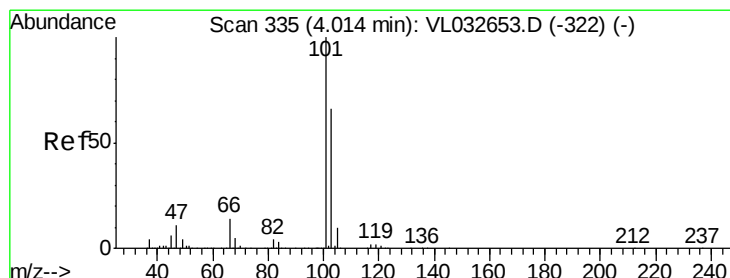
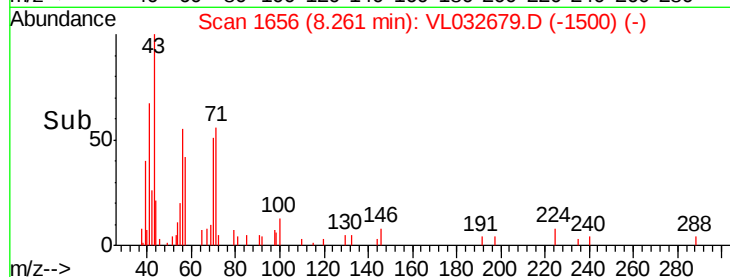
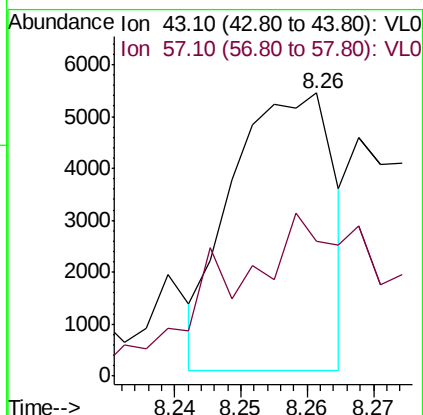
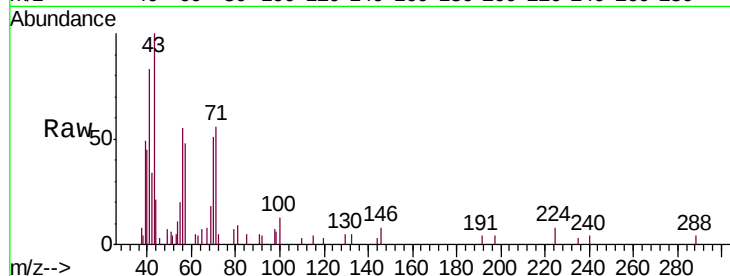




#10
Heptane
Concen: 0.031 ppbv
RT: 8.26 min Scan# 1656
Delta R.T. 0.00 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

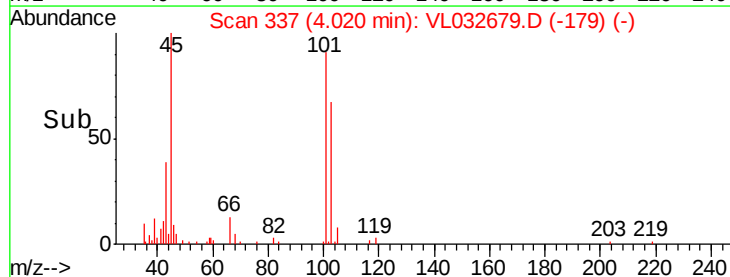
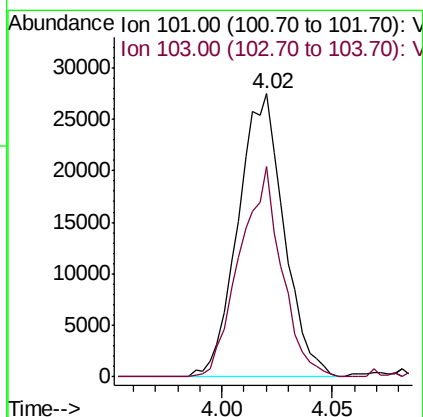
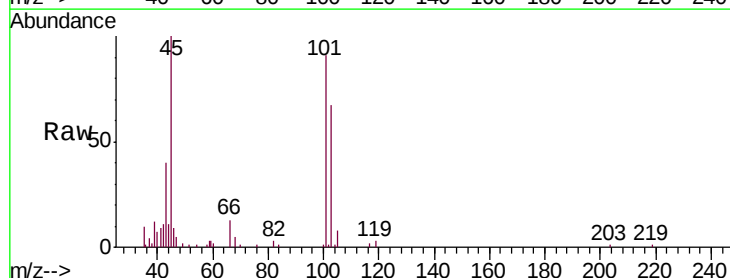
Instrument :
MSVOA_L
ClientSampleId :
D-1

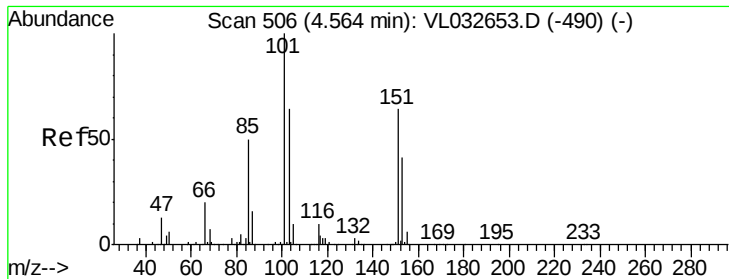
Tgt Ion: 43 Resp: 5708
Ion Ratio Lower Upper
43 100
57 105.7 41.5 62.3#



#11
Trichlorofluoromethane
Concen: 0.203 ppbv
RT: 4.02 min Scan# 337
Delta R.T. 0.01 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Tgt Ion: 101 Resp: 39834
Ion Ratio Lower Upper
101 100
103 74.2 51.4 77.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.032 ppbv

RT: 4.56 min Scan# 505

Delta R.T. -0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

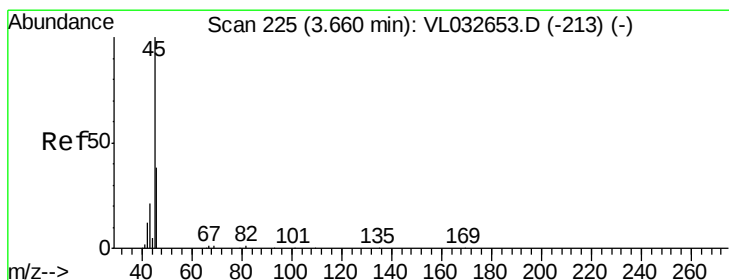
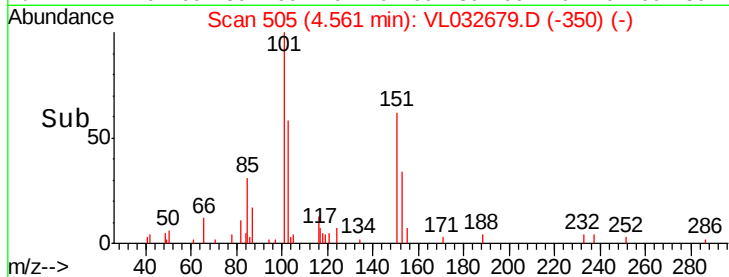
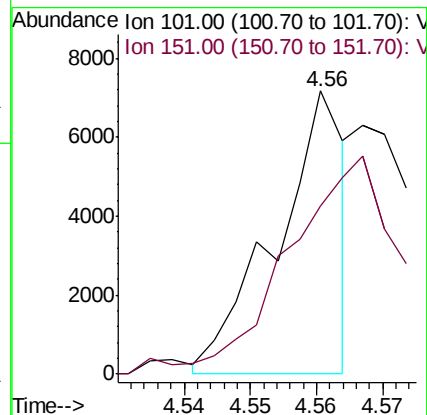
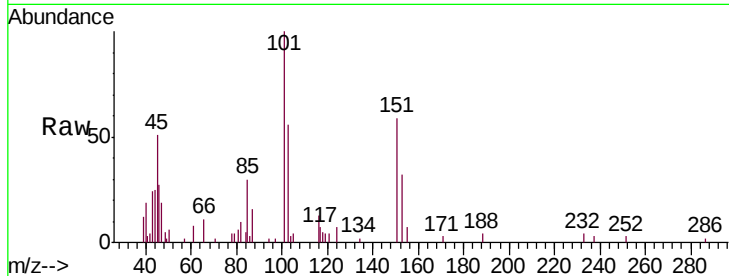
D-1

Tgt Ion: 101 Resp: 5175

Ion Ratio Lower Upper

101 100

151 0.0 52.3 78.5#



#13

Ethanol

Concen: 416.476 ppbv

RT: 3.67 min Scan# 229

Delta R.T. 0.01 min

Lab File: VL032679.D

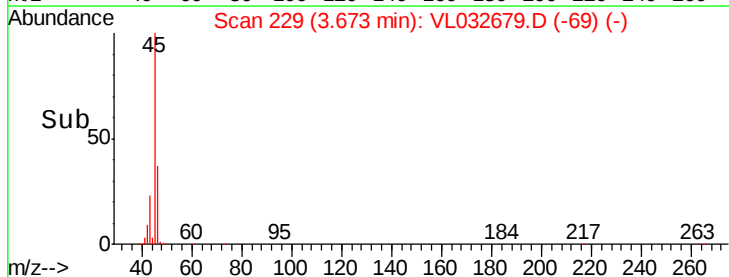
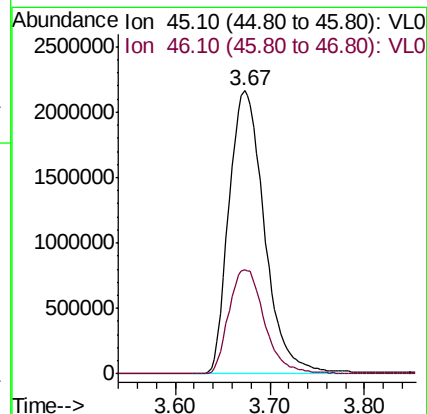
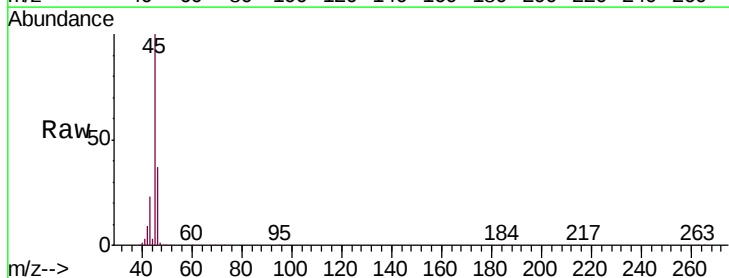
Acq: 19 Oct 2018 11:39

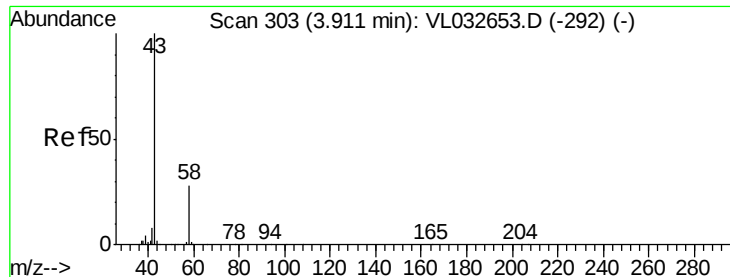
Tgt Ion: 45 Resp: 5644403

Ion Ratio Lower Upper

45 100

46 37.6 15.4 61.8





#15

Acetone

Concen: 7.924 ppbv

RT: 3.91 min Scan# 303

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

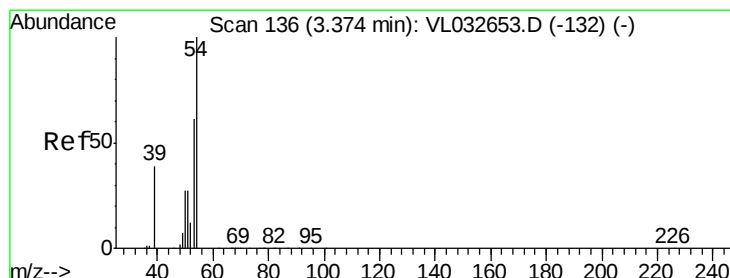
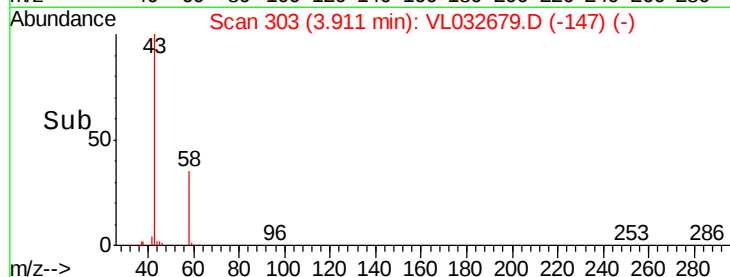
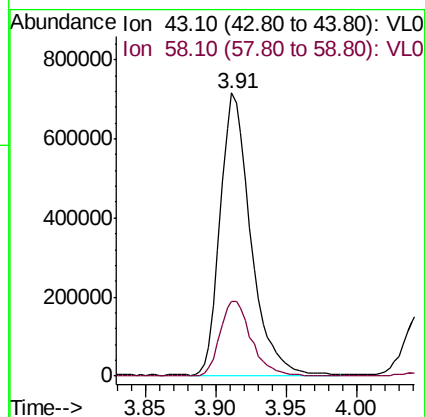
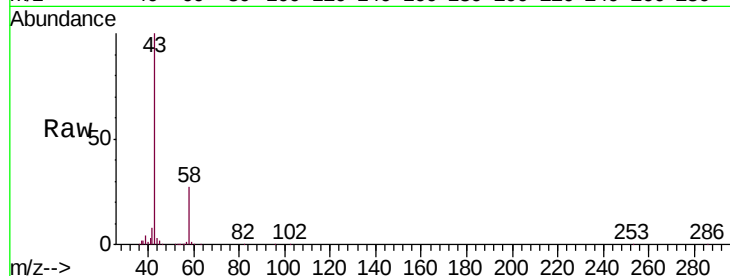
D-1

Tgt Ion: 43 Resp: 1078088

Ion Ratio Lower Upper

43 100

58 27.4 22.1 33.1



#16

1,3-Butadiene

Concen: 0.156 ppbv

RT: 3.35 min Scan# 130

Delta R.T. -0.02 min

Lab File: VL032679.D

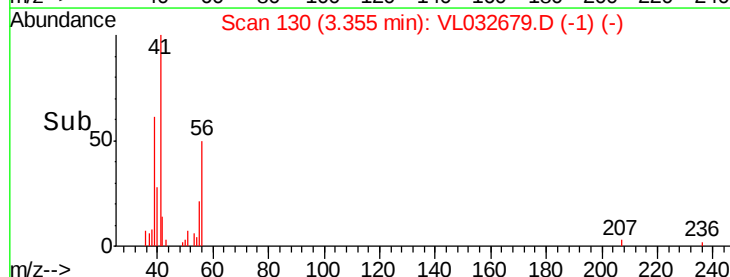
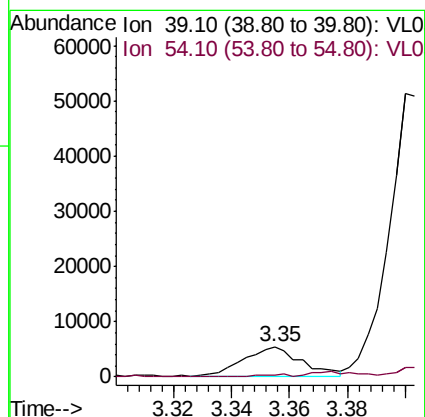
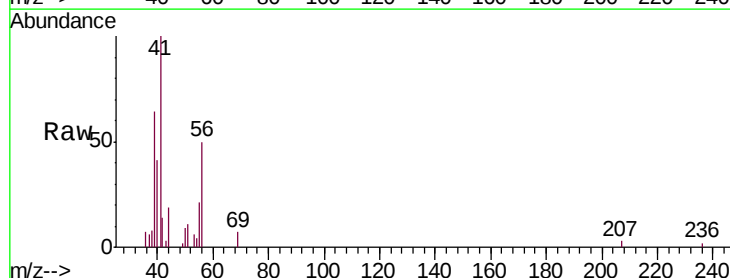
Acq: 19 Oct 2018 11:39

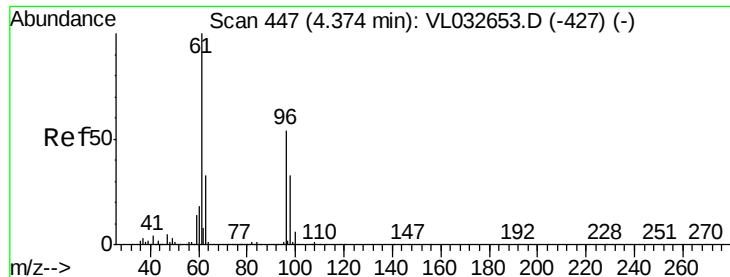
Tgt Ion: 39 Resp: 7811

Ion Ratio Lower Upper

39 100

54 0.0 90.4 135.6#



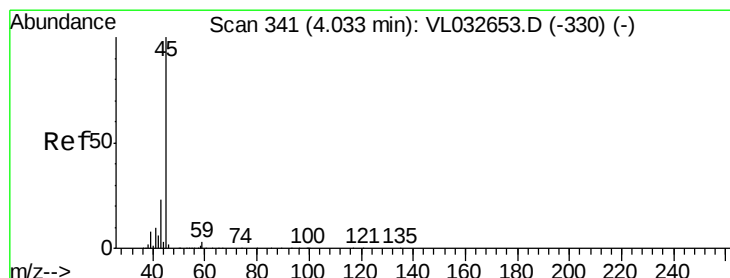
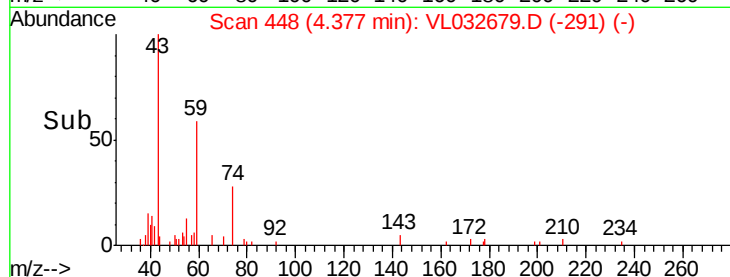
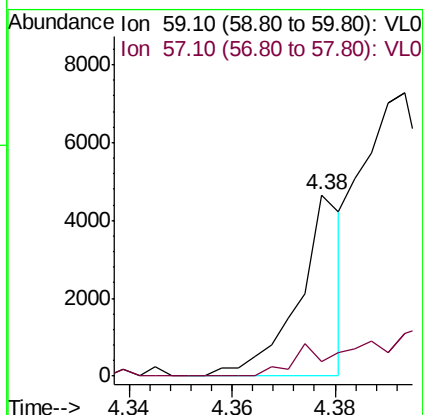
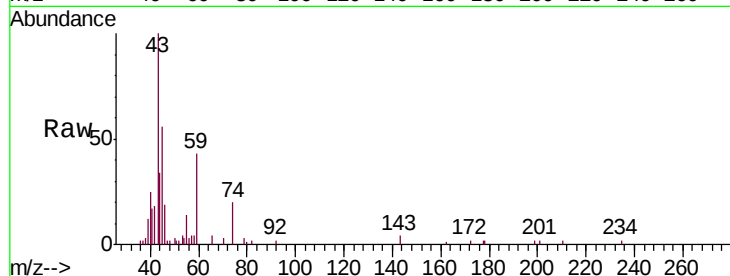


#17

tert-Butyl alcohol
Concen: 0.068 ppbv
RT: 4.38 min Scan# 448
Delta R.T. 0.00 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Instrument :
MSVOA_L
ClientSampleId :
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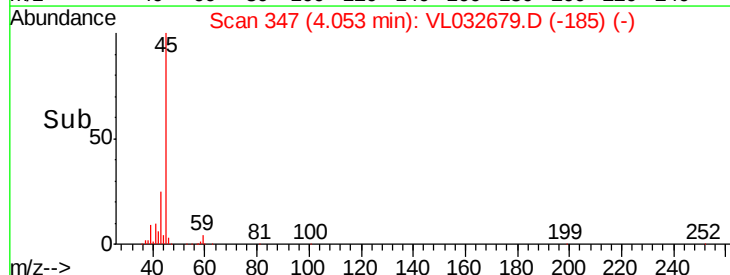
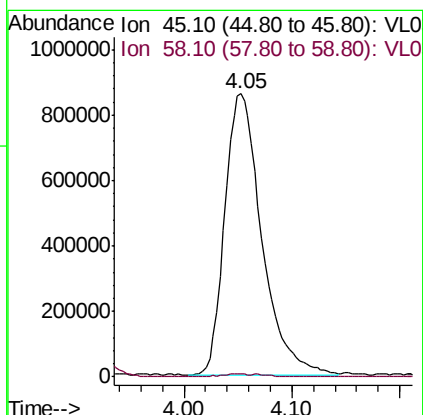
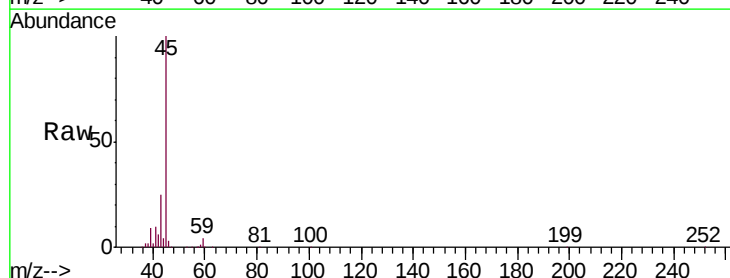
Tgt Ion: 59 Resp: 2740
Ion Ratio Lower Upper
59 100
57 0.0 0.0 0.0

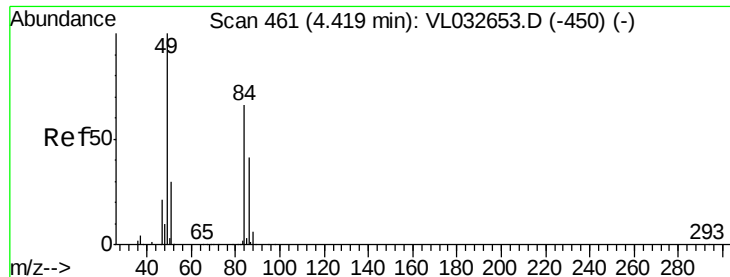


#19

Isopropyl Alcohol
Concen: 21.212 ppbv
RT: 4.05 min Scan# 347
Delta R.T. 0.02 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Tgt Ion: 45 Resp: 2055294
Ion Ratio Lower Upper
45 100
58 1.3 2.0 3.0#

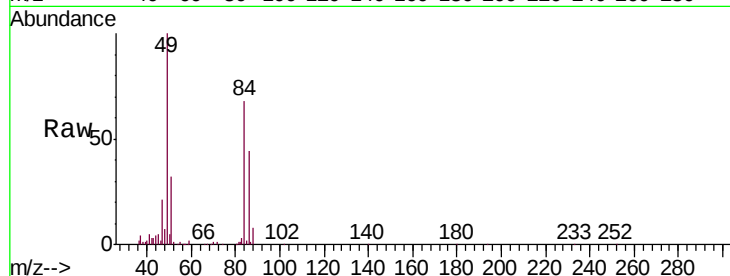




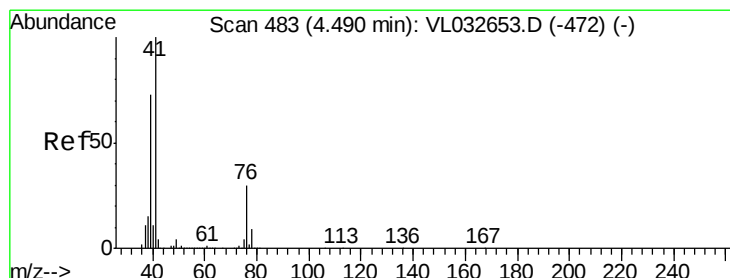
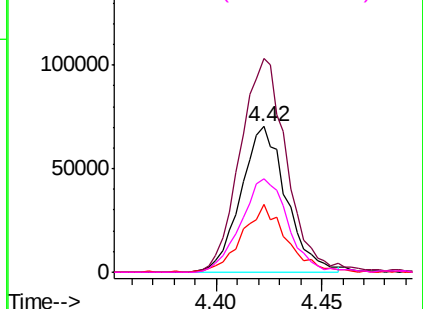
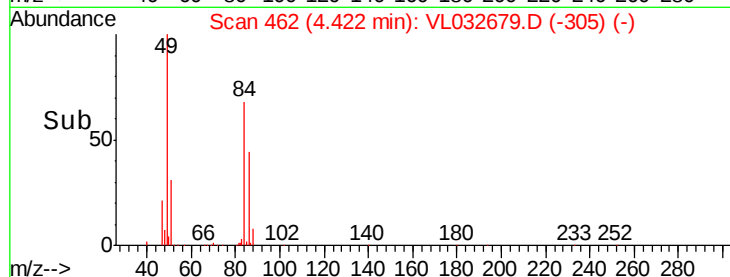
#20
Methylene Chloride
Concen: 1.525 ppbv
RT: 4.42 min Scan# 462
Delta R.T. 0.00 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Instrument :
MSVOA_L
ClientSampleId :
D-1

Tgt Ion: 84 Resp: 105305
Ion Ratio Lower Upper
84 100
49 146.1 113.5 170.3
51 46.2 34.8 52.2
86 64.6 47.9 71.9

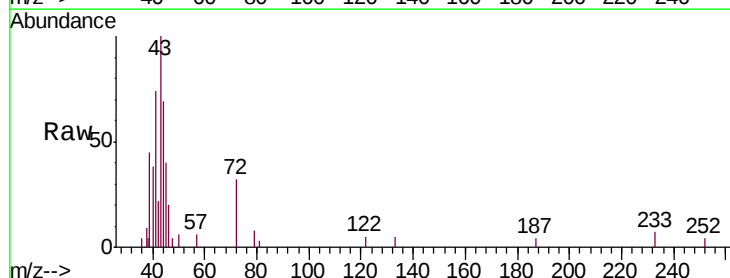


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

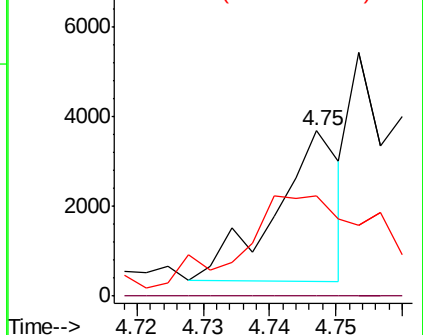
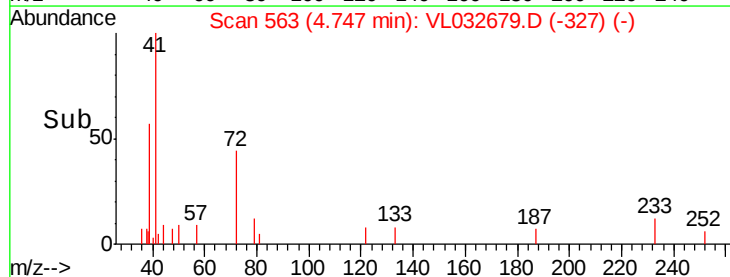


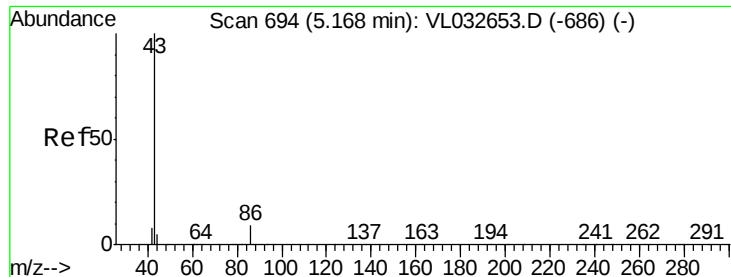
#21
Allyl Chloride
Concen: 0.021 ppbv
RT: 4.75 min Scan# 563
Delta R.T. 0.26 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Tgt Ion: 41 Resp: 2319
Ion Ratio Lower Upper
41 100
76 120.7 24.3 36.5#
39 0.0 60.3 90.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.190 ppbv

RT: 5.16 min Scan# 691

Delta R.T. -0.01 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

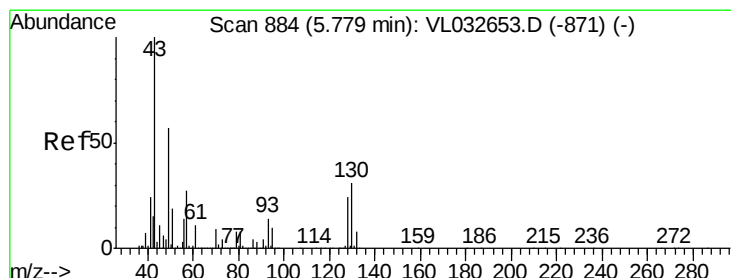
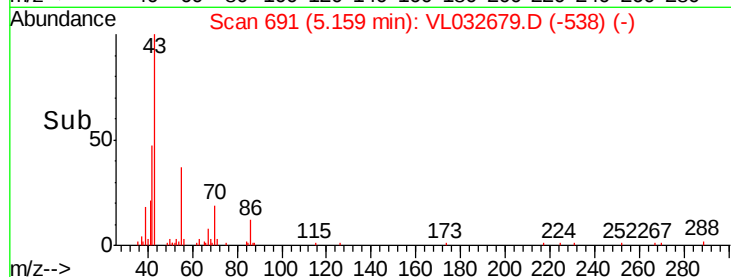
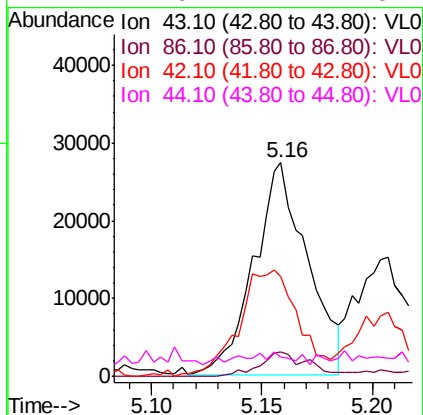
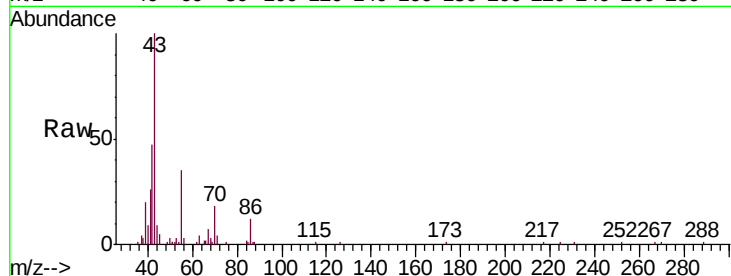
Instrument :

MSVOA_L

ClientSampleId :

D-1

Tgt Ion:	43	Resp:	45798
Ion	Ratio	Lower	Upper
43	100		
86	12.7	6.1	9.1#
42	45.7	7.4	11.2#
44	2.0	4.2	6.2#



#25

Ethyl Acetate

Concen: 1.055 ppbv

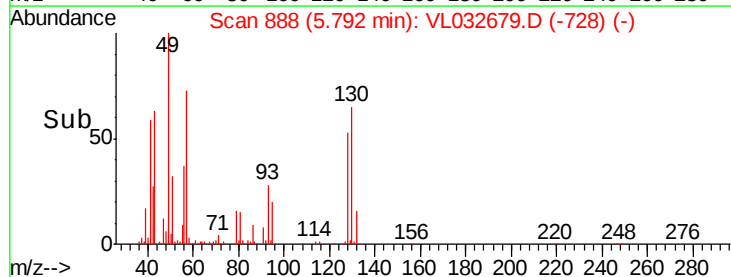
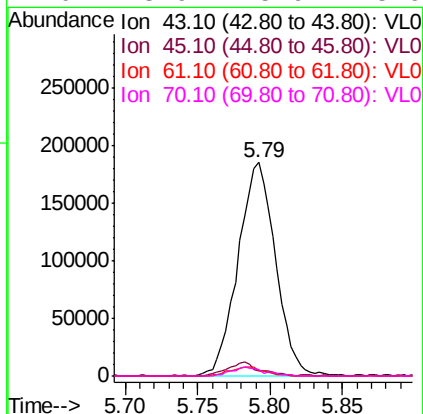
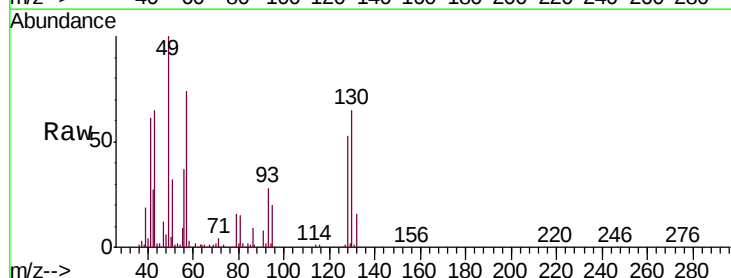
RT: 5.79 min Scan# 888

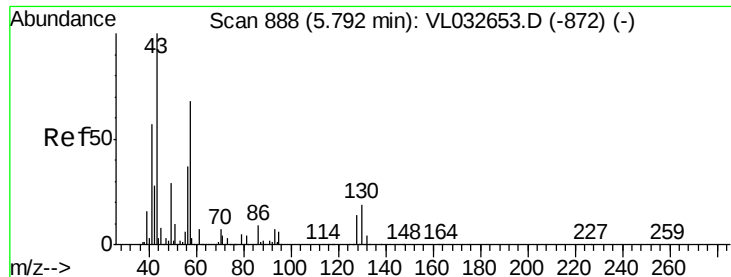
Delta R.T. 0.01 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Tgt Ion:	43	Resp:	330521
Ion	Ratio	Lower	Upper
43	100		
45	6.2	8.0	12.0#
61	4.1	8.0	12.0#
70	3.9	5.9	8.9#

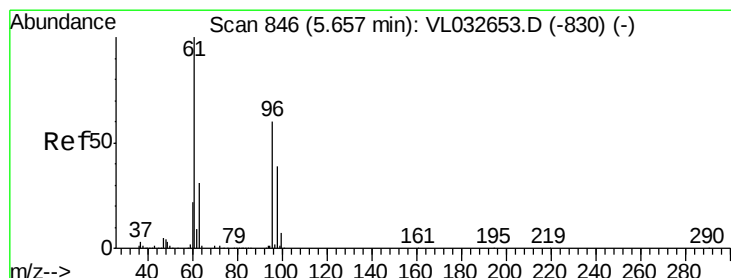
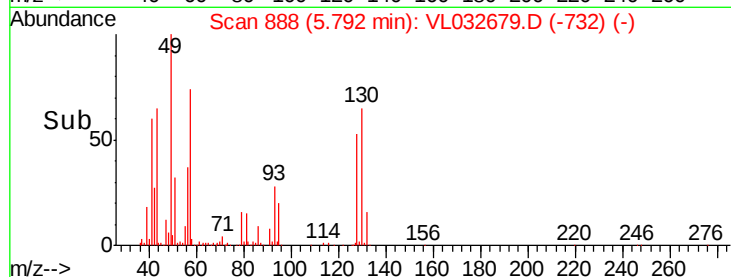
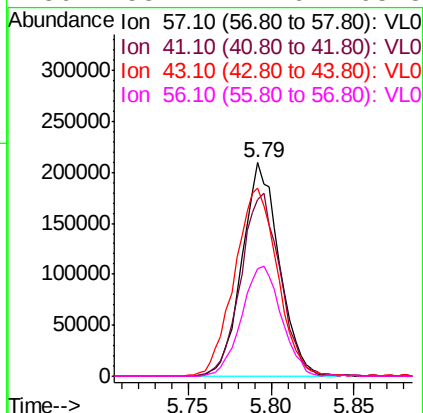
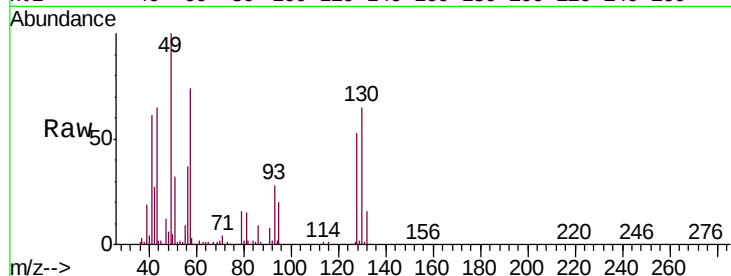




#26
Hexane
Concen: 2.207 ppbv
RT: 5.79 min Scan# 888
Delta R.T. 0.00 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

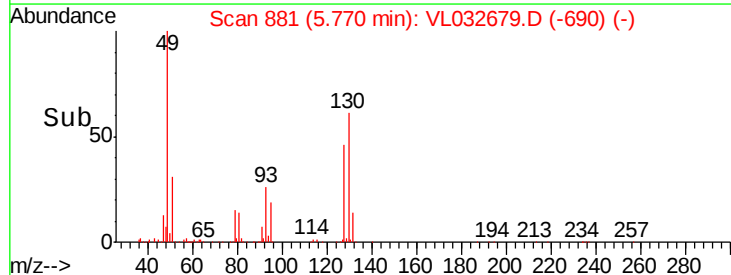
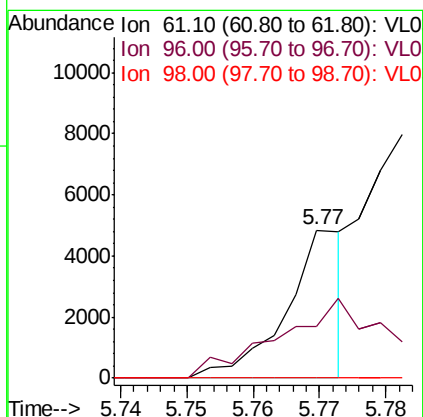
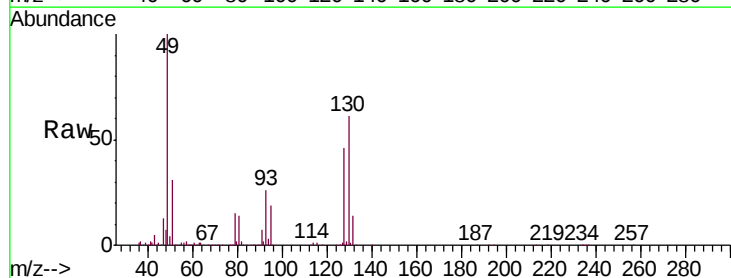
Instrument :
MSVOA_L
ClientSampleId :
D-1

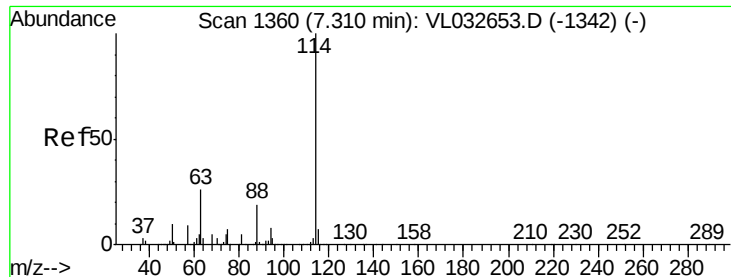
Tgt Ion: 57 Resp: 326951
Ion Ratio Lower Upper
57 100
41 90.9 67.4 101.0
43 102.9 171.9 257.9#
56 55.1 42.6 63.8



#31
cis-1,2-Dichloroethene
Concen: 0.022 ppbv
RT: 5.77 min Scan# 881
Delta R.T. 0.11 min
Lab File: VL032679.D
Acq: 19 Oct 2018 11:39

Tgt Ion: 61 Resp: 2987
Ion Ratio Lower Upper
61 100
96 35.0 51.8 77.6#
98 0.0 33.8 50.6#

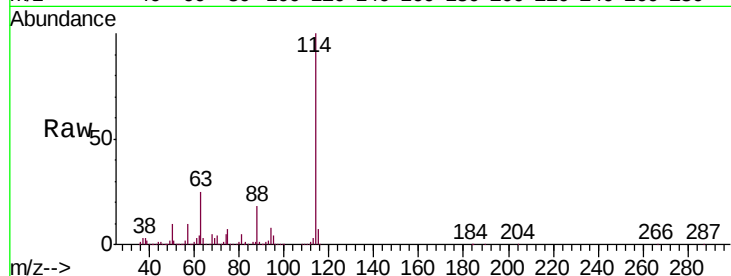




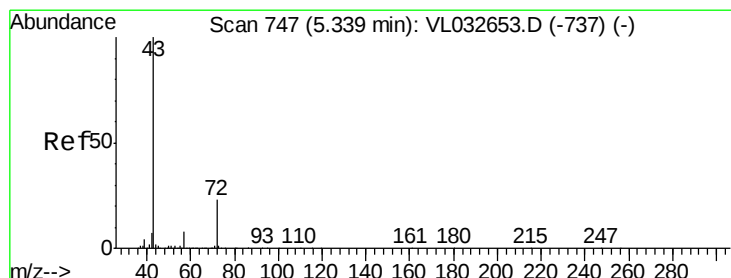
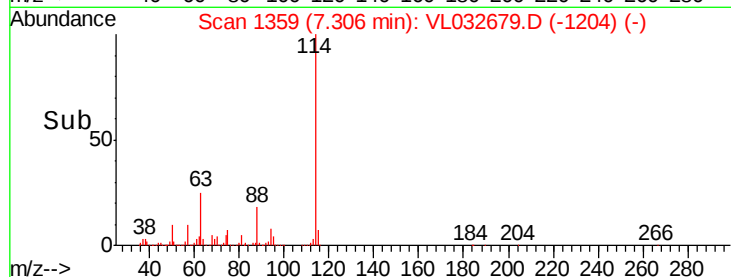
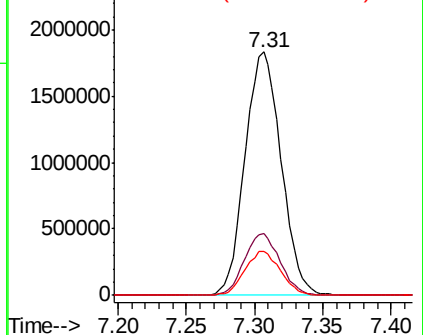
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.31 min Scan# 1359
 Delta R.T. -0.00 min
 Lab File: VL032679.D
 Acq: 19 Oct 2018 11:39

Instrument :
 MSVOA_L
 ClientSampleId :
 D-1

Tgt Ion:114 Resp: 3377183
 Ion Ratio Lower Upper
 114 100
 63 25.1 21.7 32.5
 88 17.9 14.9 22.3

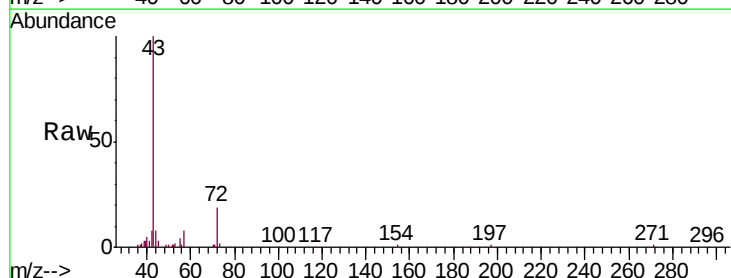


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

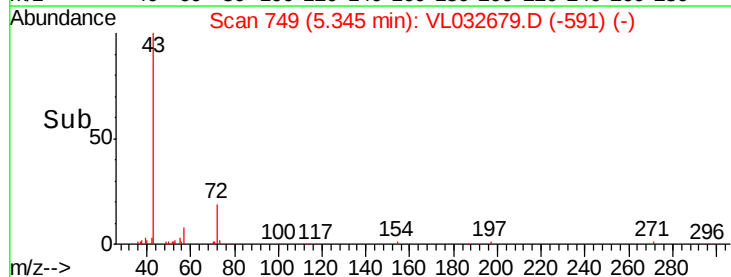
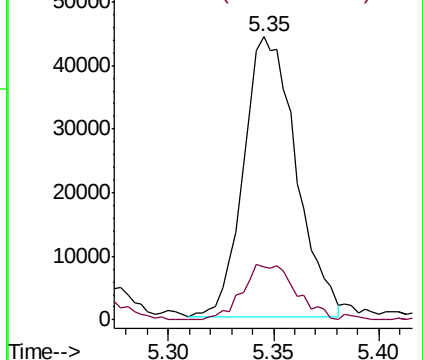


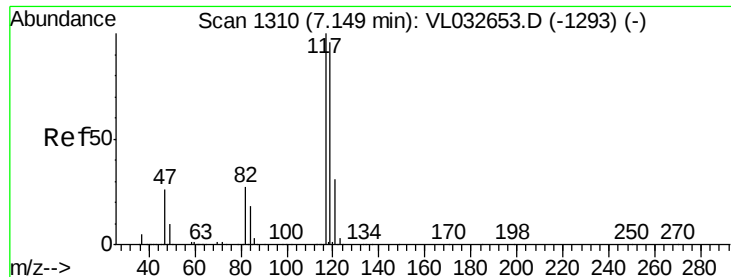
#34
 2-Butanone
 Concen: 0.420 ppbv
 RT: 5.35 min Scan# 749
 Delta R.T. 0.01 min
 Lab File: VL032679.D
 Acq: 19 Oct 2018 11:39

Tgt Ion: 43 Resp: 76068
 Ion Ratio Lower Upper
 43 100
 72 20.6 18.6 27.8



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.048 ppbv

RT: 7.15 min Scan# 1310

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampled :

D-1

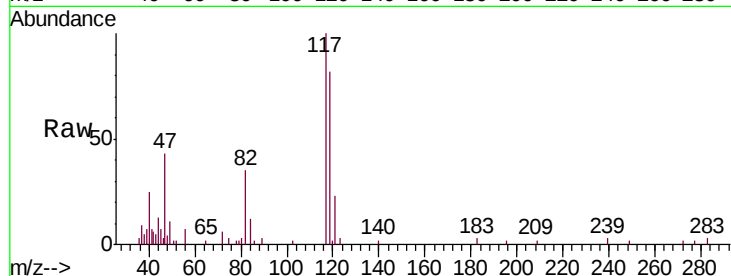
Tgt Ion: 117 Resp: 11455

Ion Ratio Lower Upper

117 100

119 74.9 75.7 113.5#

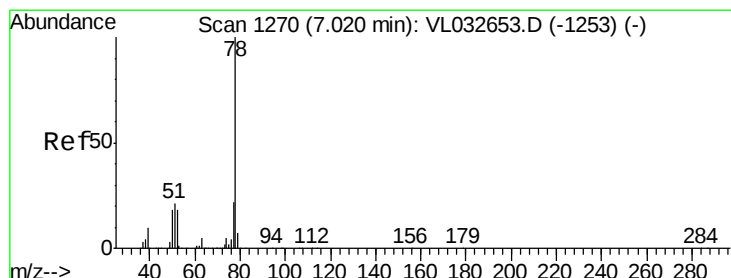
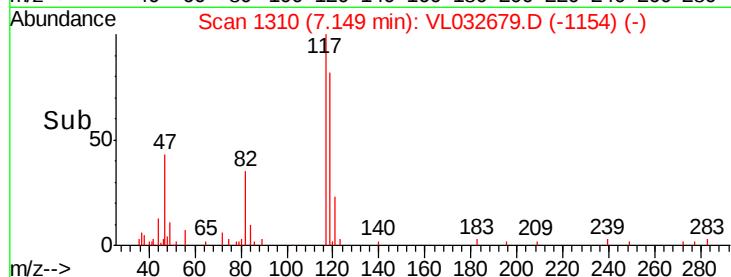
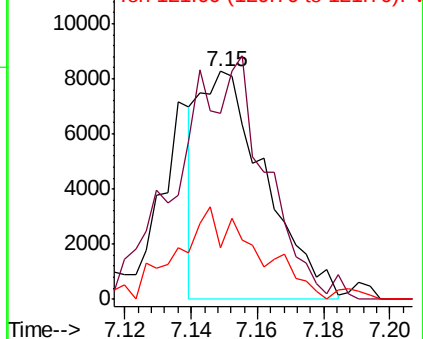
121 19.0 24.7 37.1#



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: 0.053 ppbv

RT: 7.02 min Scan# 1271

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

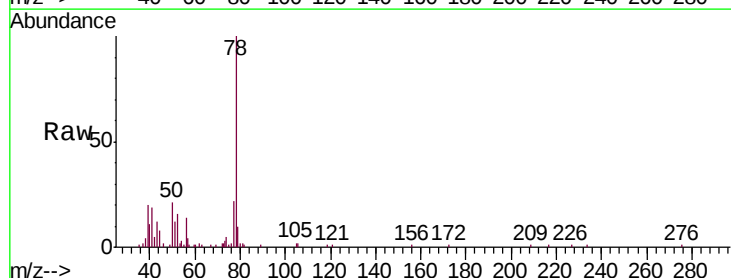
Tgt Ion: 78 Resp: 14509

Ion Ratio Lower Upper

78 100

77 18.4 18.1 27.1

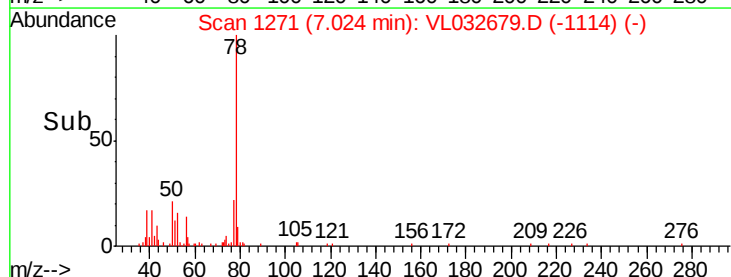
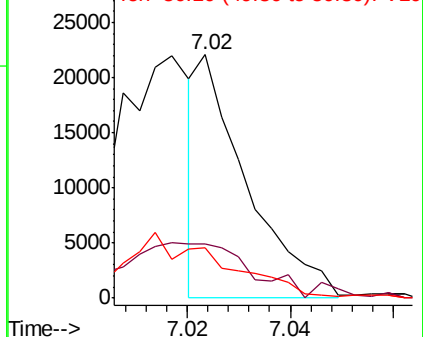
50 20.2 15.1 22.7

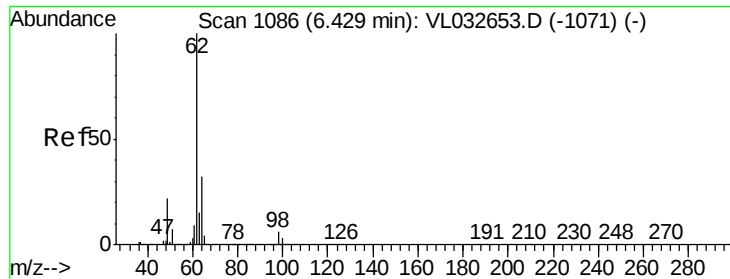


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#37

1,2-Dichloroethane

Concen: 0.028 ppbv

RT: 6.43 min Scan# 1087

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

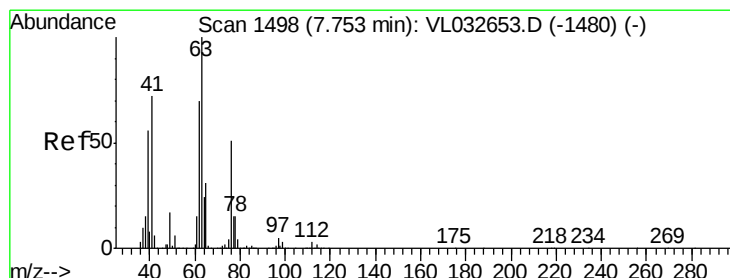
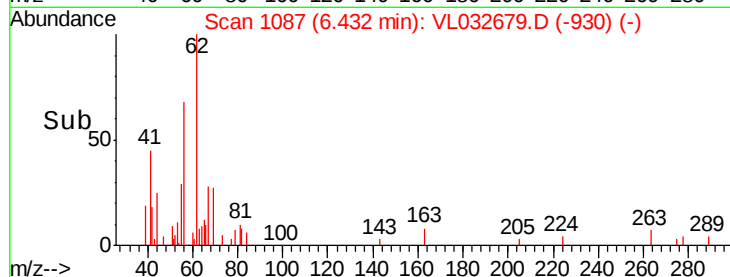
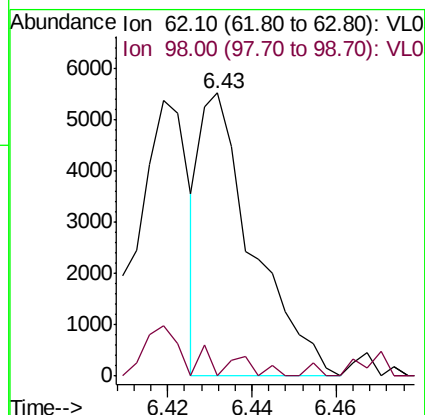
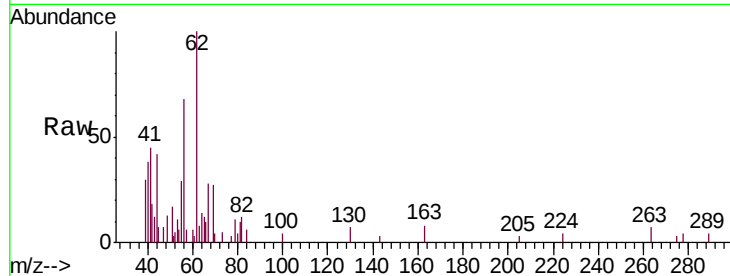
D-1

Tgt Ion: 62 Resp: 4784

Ion Ratio Lower Upper

62 100

98 0.0 4.4 6.6#



#39

1,2-Dichloropropane

Concen: 8.015 ppbv

RT: 7.31 min Scan# 1359

Delta R.T. -0.45 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

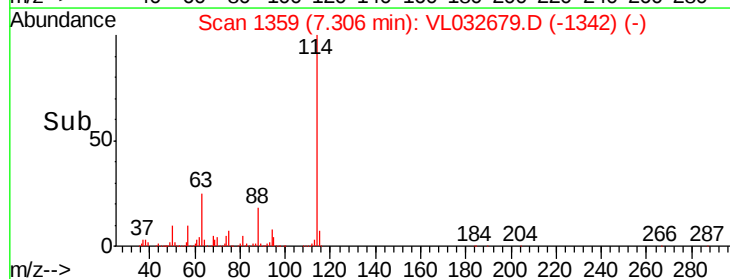
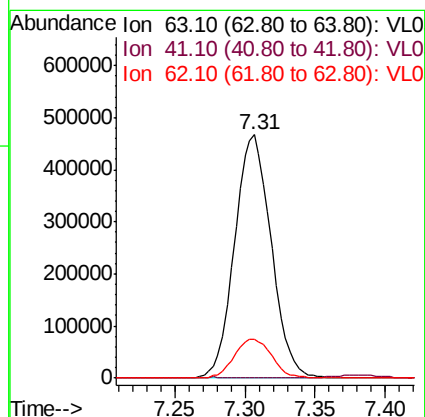
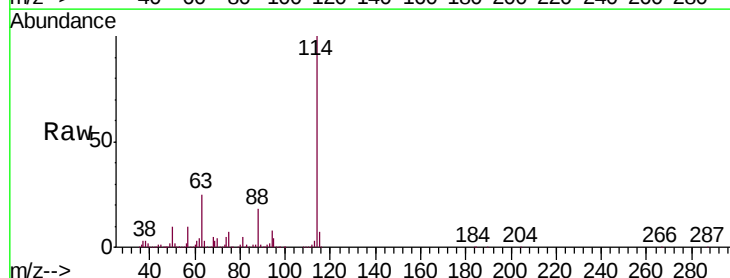
Tgt Ion: 63 Resp: 848800

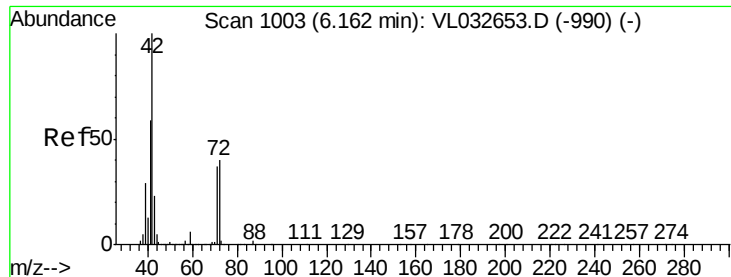
Ion Ratio Lower Upper

63 100

41 0.0 56.2 84.4#

62 15.7 54.4 81.6#





#41

Tetrahydrofuran

Concen: 0.049 ppbv

RT: 6.15 min Scan# 999

Delta R.T. -0.01 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

D-1

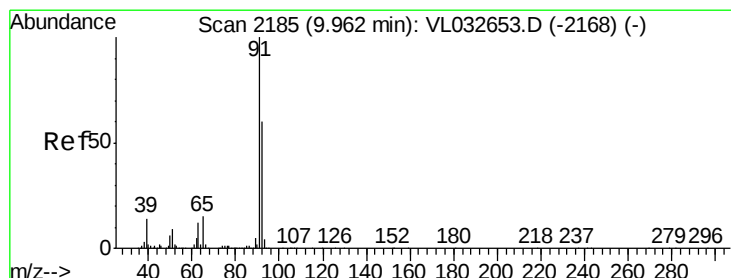
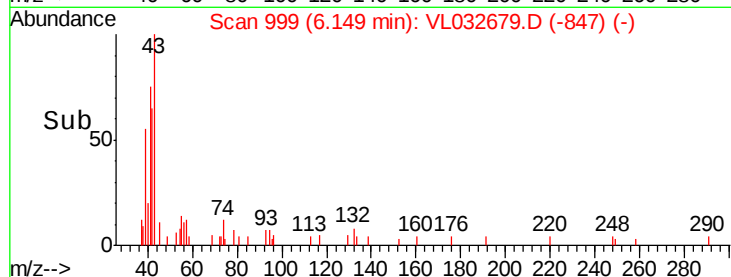
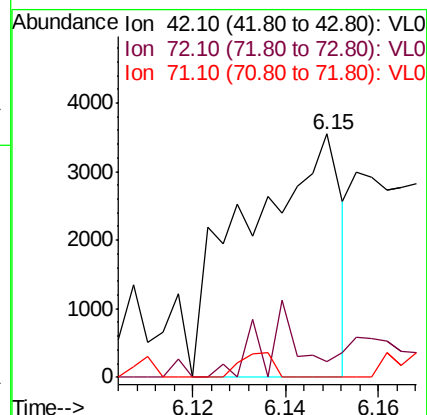
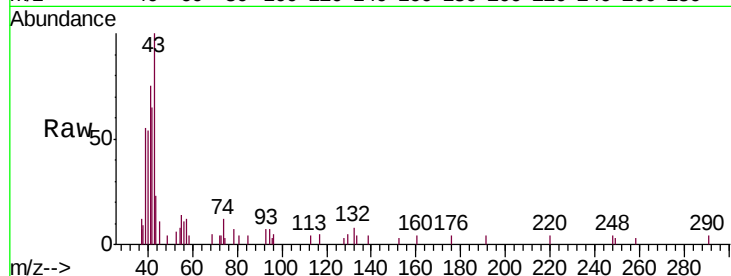
Tgt Ion: 42 Resp: 4950

Ion Ratio Lower Upper

42 100

72 14.2 32.4 48.6#

71 0.0 31.3 46.9#



#53

Toluene

Concen: 5.245 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL032679.D

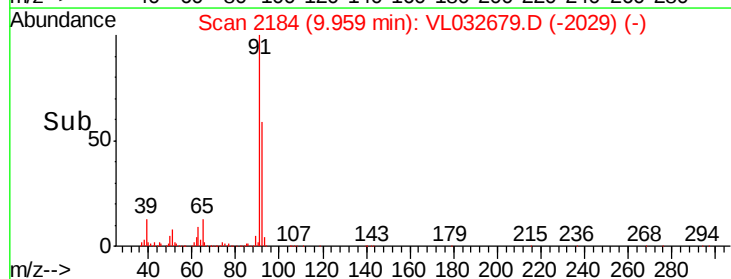
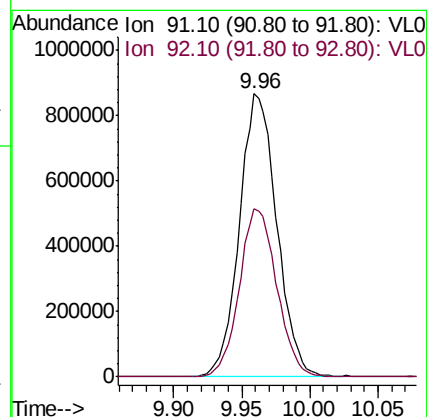
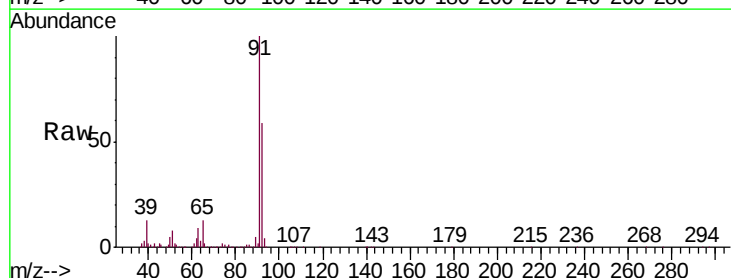
Acq: 19 Oct 2018 11:39

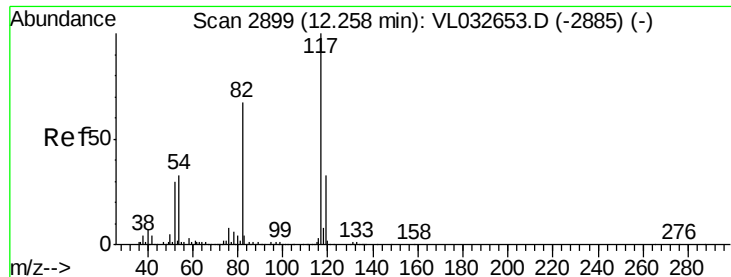
Tgt Ion: 91 Resp: 1648980

Ion Ratio Lower Upper

91 100

92 59.6 48.4 72.6





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.26 min Scan# 2899

Delta R.T. 0.00 min

Lab File: VL032679.D

Acq: 19 Oct 2018 11:39

Instrument :

MSVOA_L

ClientSampleId :

D-1

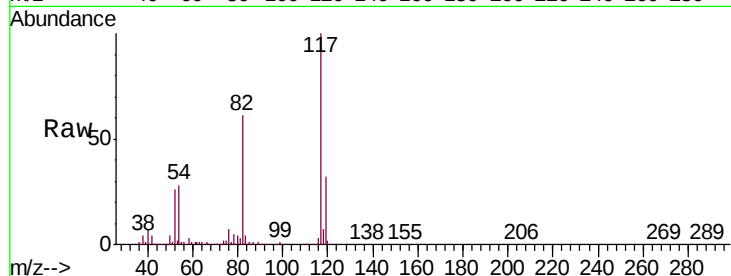
Tgt Ion:117 Resp: 3245199

Ion Ratio Lower Upper

117 100

82 64.2 52.7 79.1

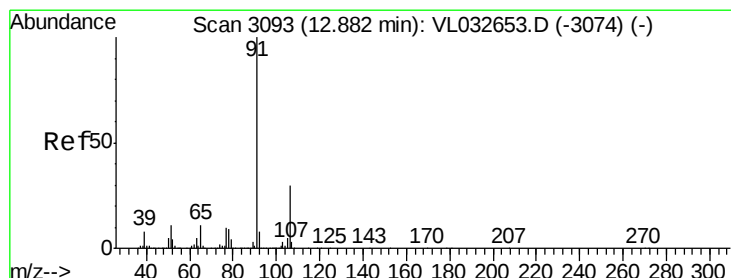
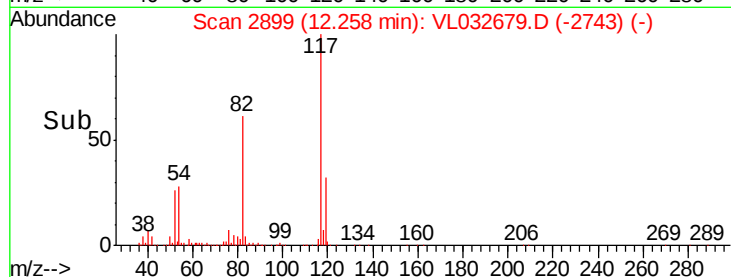
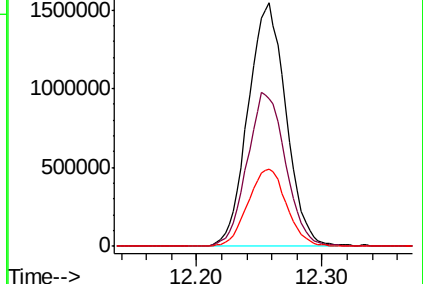
119 32.5 26.7 40.1



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: 0.027 ppbv

RT: 13.13 min Scan# 3171

Delta R.T. 0.25 min

Lab File: VL032679.D

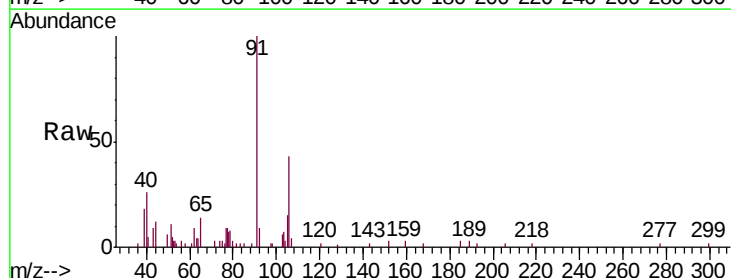
Acq: 19 Oct 2018 11:39

Tgt Ion: 91 Resp: 10153

Ion Ratio Lower Upper

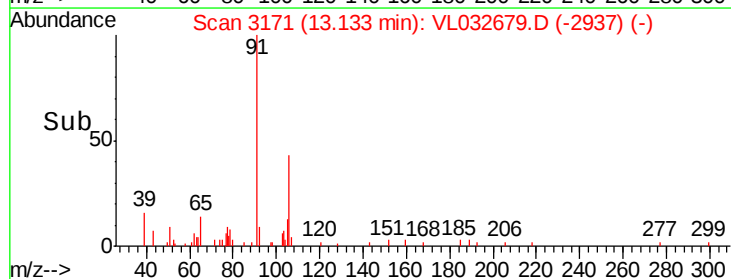
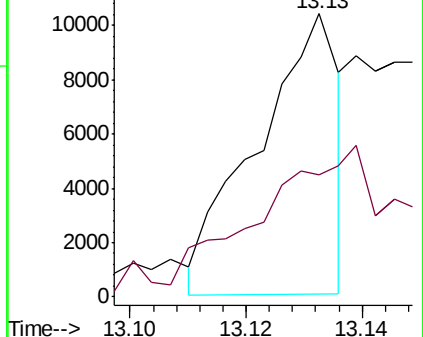
91 100

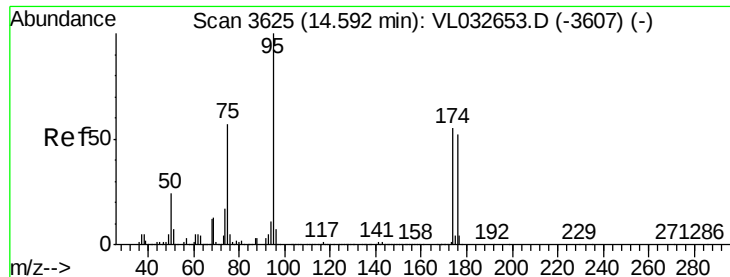
106 28.9 24.2 36.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

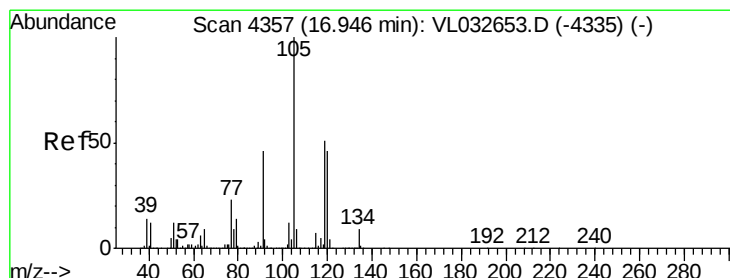
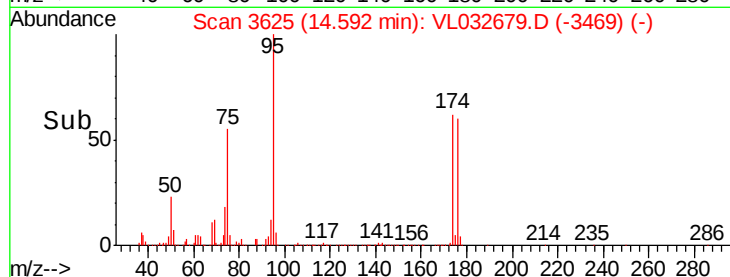
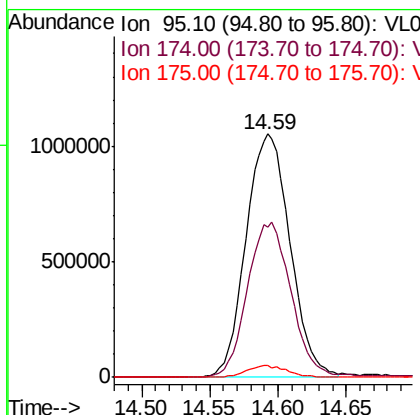
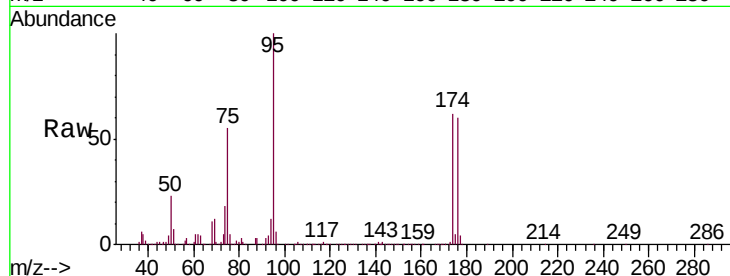




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.763 ppbv
 RT: 14.59 min Scan# 3625
 Delta R.T. 0.00 min
 Lab File: VL032679.D
 Acq: 19 Oct 2018 11:39

Instrument :
 MSVOA_L
 ClientSampleId :
 D-1

Tgt Ion: 95 Resp: 2359023
 Ion Ratio Lower Upper
 95 100
 174 64.4 46.0 69.0
 175 4.7 3.4 5.0



#74
 1,2,4-Trimethylbenzene
 Concen: 0.028 ppbv
 RT: 16.94 min Scan# 4356
 Delta R.T. -0.00 min
 Lab File: VL032679.D
 Acq: 19 Oct 2018 11:39

Tgt Ion: 105 Resp: 10031
 Ion Ratio Lower Upper
 105 100
 120 45.6 35.8 53.8
 91 0.0 33.2 49.8#
 77 0.1 16.2 24.4#

