

Data File : VL032681.D
Acq On : 19 Oct 2018 12:58
Operator : SY/AP
Sample : J5581-07
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
D-2

Quant Time: Oct 19 23:13:42 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	5.78	49	1430793	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.31	114	3285064	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.26	117	3263776	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.59 95 2441422 10.05 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 100.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.09	85	40494	0.278	ppbv	96
3) Chlorodifluoromethane	3.00	51	2608825	23.315	ppbv #	58
4) Chloromethane	3.18	50	33926	0.543	ppbv	93
9) Propene	3.25	41	162526	3.529	ppbv	95
10) Heptane	8.26	43	6983	0.039	ppbv #	23
11) Trichlorofluoromethane	4.02	101	40481	0.213	ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.56	101	4722	0.030	ppbv #	17
13) Ethanol	3.68	45	5473017	415.846	ppbv	97
15) Acetone	3.91	43	1167371	8.836	ppbv	100
16) 1,3-Butadiene	3.35	39	3313	0.068	ppbv #	27
17) tert-Butyl alcohol	4.39	59	10281	0.265	ppbv #	100
19) Isopropyl Alcohol	4.05	45	2050310	21.790	ppbv #	97
20) Methylene Chloride	4.42	84	154589	2.305	ppbv	96
21) Allyl Chloride	4.43	41	2639	0.024	ppbv #	21
23) Vinyl Acetate	5.16	43	55346	0.236	ppbv #	68
25) Ethyl Acetate	5.80	43	430820	1.417	ppbv #	87
26) Hexane	5.79	57	460604	3.201	ppbv #	52
34) 2-Butanone	5.35	43	80863	0.459	ppbv	97
35) Carbon Tetrachloride	7.15	117	12504	0.054	ppbv	95
36) Benzene	7.02	78	41031	0.154	ppbv #	92
37) 1,2-Dichloroethane	6.43	62	5747	0.035	ppbv #	62
39) 1,2-Dichloropropane	7.31	63	822047	7.980	ppbv #	26
41) Tetrahydrofuran	5.79	42	183875	1.874	ppbv #	49
44) 2,2,4-Trimethylpentane	8.00	57	9139	0.020	ppbv #	1
53) Toluene	9.96	91	2381268	7.787	ppbv	98
58) Ethyl Benzene	12.88	91	12067	0.032	ppbv	99
59) m/p-Xylene	13.16	91	9747	0.029	ppbv #	31
74) 1,2,4-Trimethylbenzene	16.95	105	27884	0.077	ppbv #	78

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

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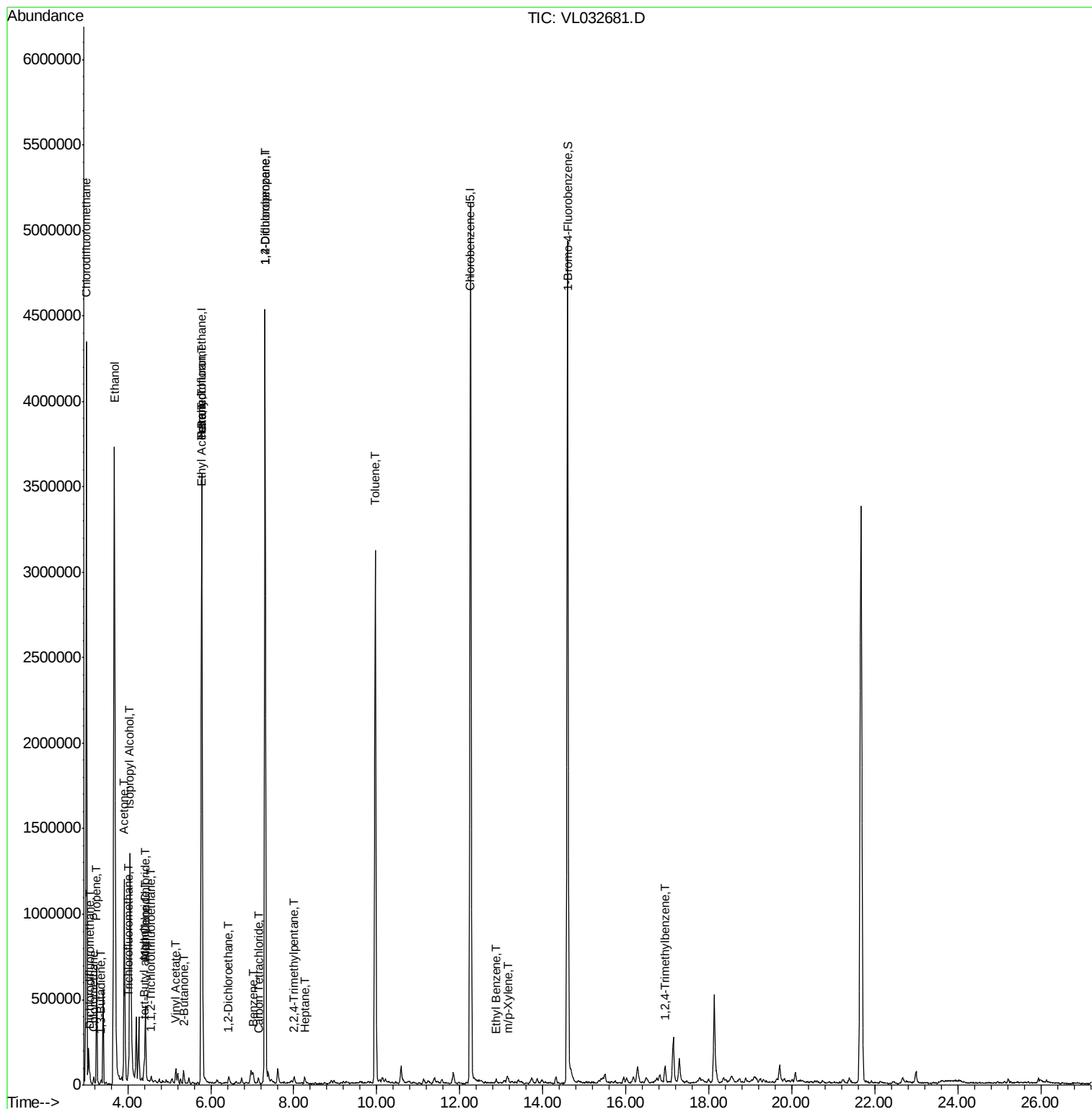
Quant Time: Oct 19 23:13:42 2018

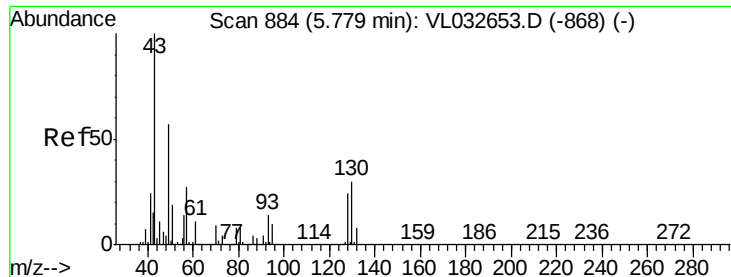
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL101818AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LFri Oct 19 01:25:37 2018

QLast Update : Fri Oct 19 01:25:37 2018

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

D-2

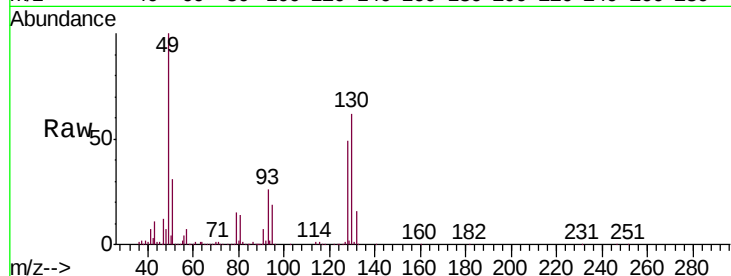
Tgt Ion: 49 Resp: 1430793

Ion Ratio Lower Upper

49 100

128 49.1 22.3 66.8

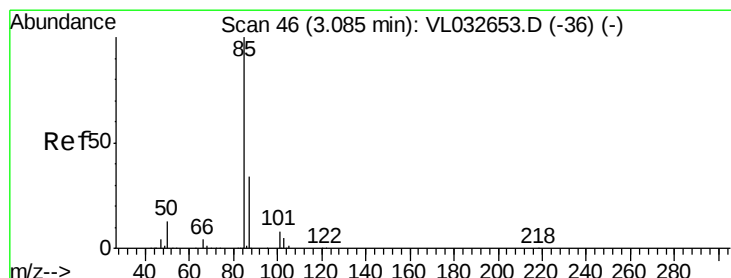
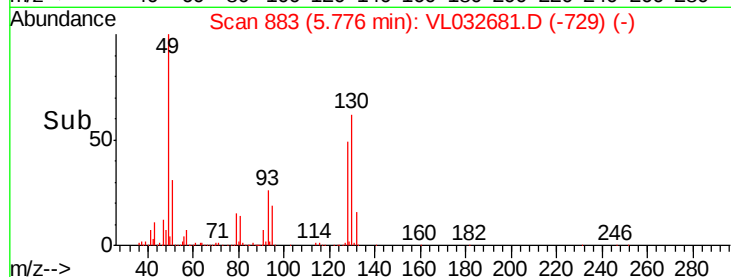
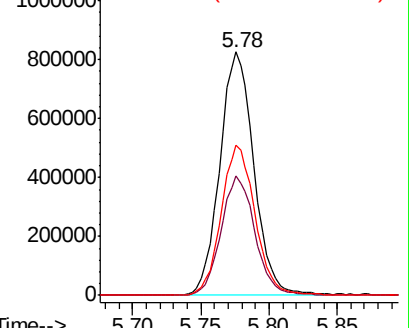
130 62.1 28.4 85.3



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



#2

Dichlorodifluoromethane

Concen: 0.278 ppbv

RT: 3.09 min Scan# 47

Delta R.T. 0.00 min

Lab File: VL032681.D

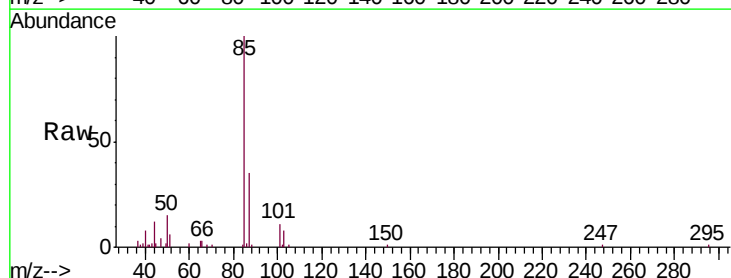
Acq: 19 Oct 2018 12:58

Tgt Ion: 85 Resp: 40494

Ion Ratio Lower Upper

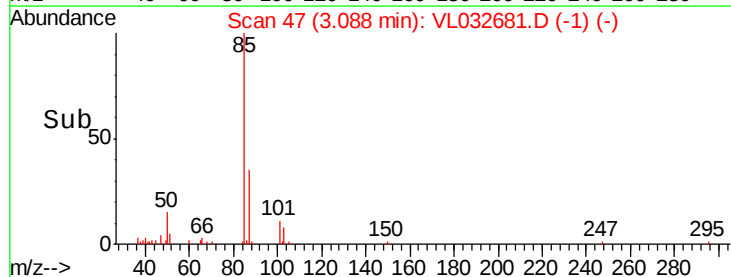
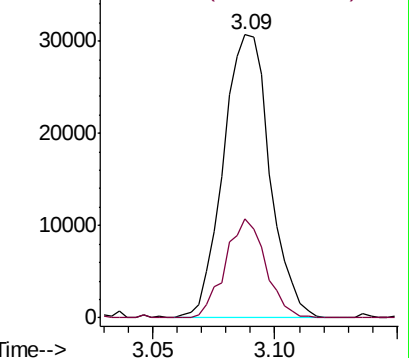
85 100

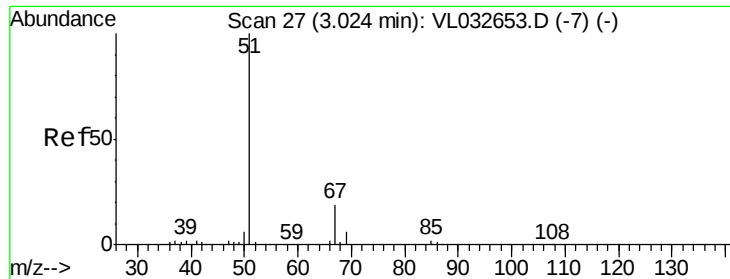
87 35.2 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 23.315 ppbv

RT: 3.00 min Scan# 20

Delta R.T. -0.02 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

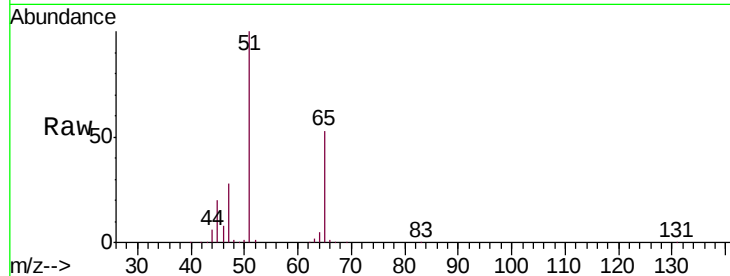
D-2

Tgt Ion: 51 Resp: 2608825

Ion Ratio Lower Upper

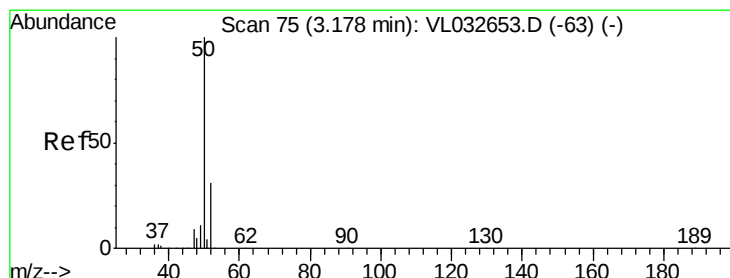
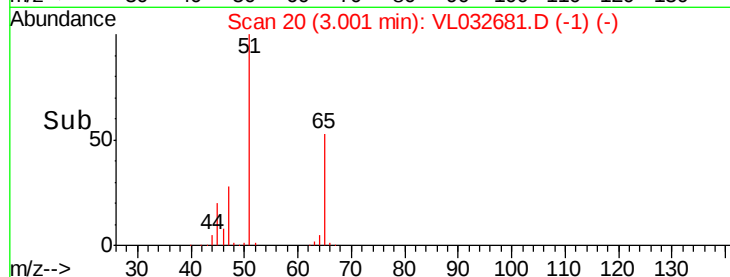
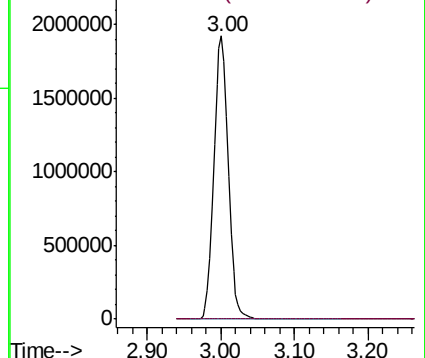
51 100

67 0.3 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: 0.543 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032681.D

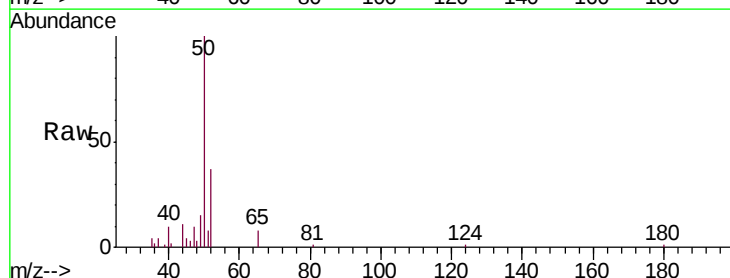
Acq: 19 Oct 2018 12:58

Tgt Ion: 50 Resp: 33926

Ion Ratio Lower Upper

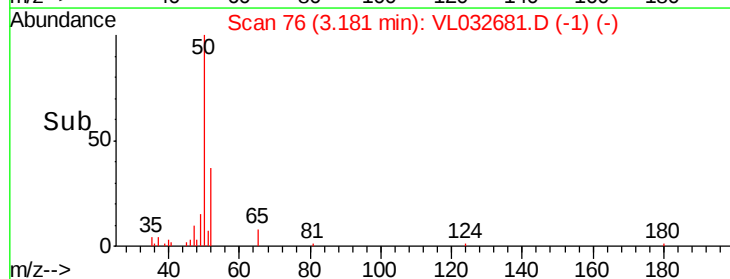
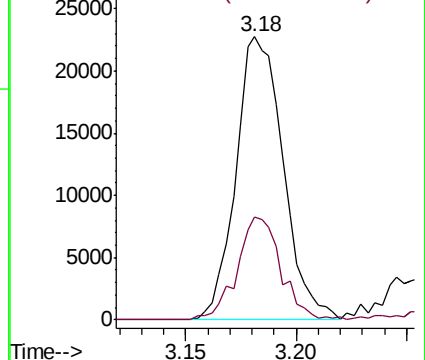
50 100

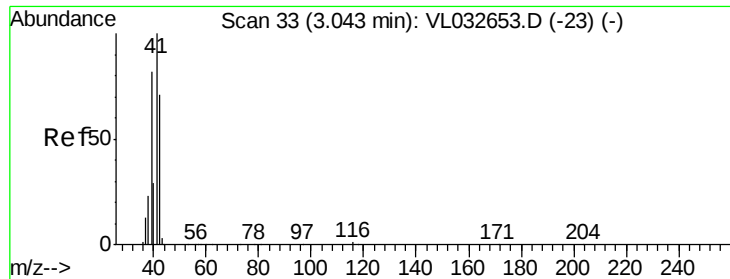
52 36.6 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.529 ppbv

RT: 3.25 min Scan# 97

Delta R.T. 0.21 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

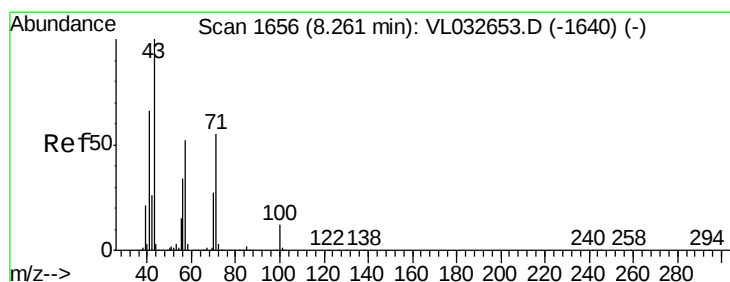
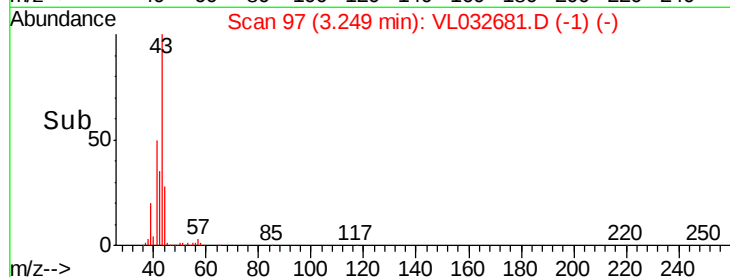
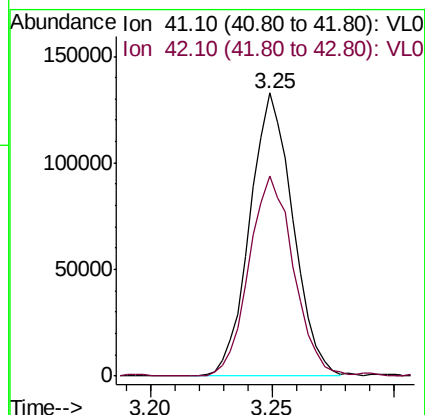
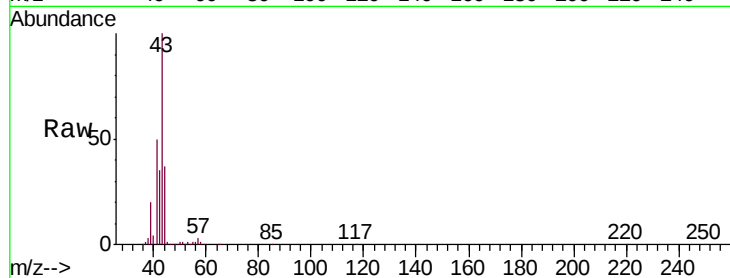
D-2

Tgt Ion: 41 Resp: 162526

Ion Ratio Lower Upper

41 100

42 72.9 55.4 83.0



#10

Heptane

Concen: 0.039 ppbv

RT: 8.26 min Scan# 1655

Delta R.T. -0.00 min

Lab File: VL032681.D

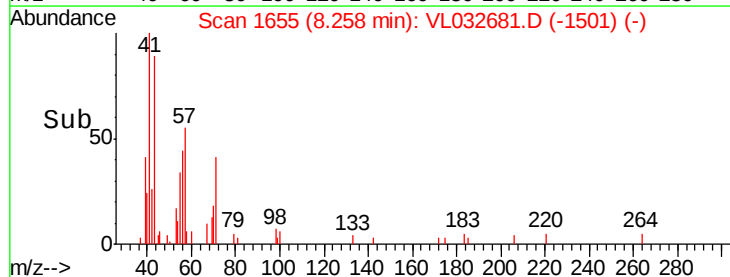
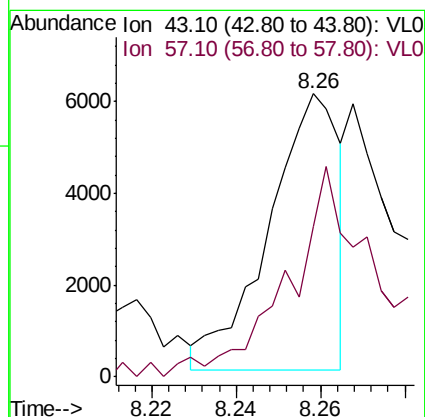
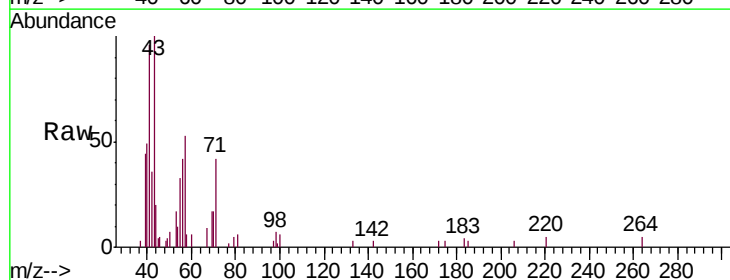
Acq: 19 Oct 2018 12:58

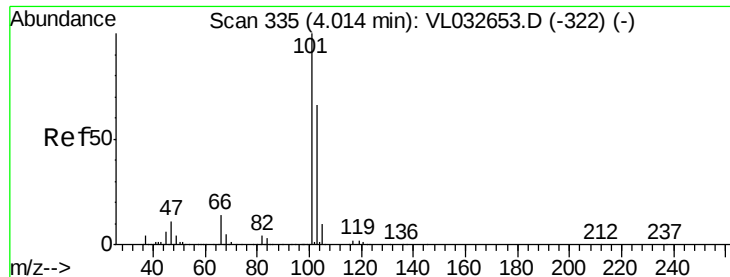
Tgt Ion: 43 Resp: 6983

Ion Ratio Lower Upper

43 100

57 105.7 41.5 62.3#





#11

Trichlorofluoromethane

Concen: 0.213 ppbv

RT: 4.02 min Scan# 337

Delta R.T. 0.01 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

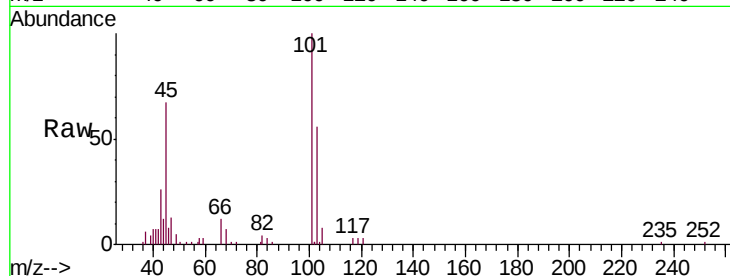
D-2

Tgt Ion:101 Resp: 40481

Ion Ratio Lower Upper

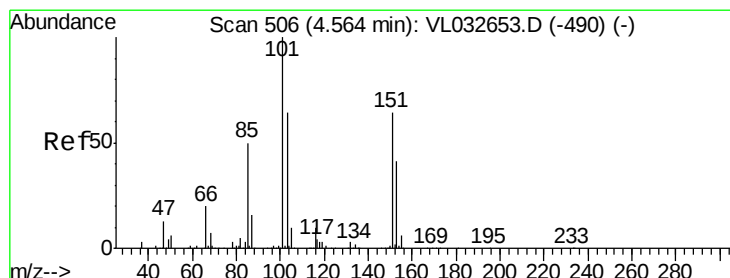
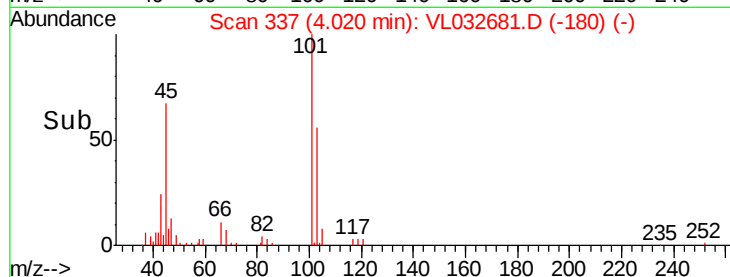
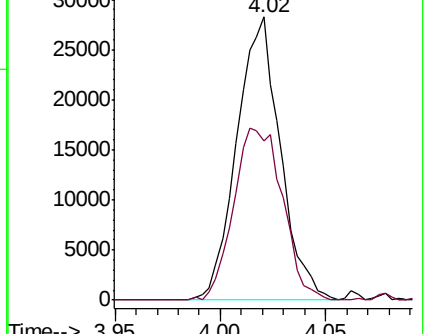
101 100

103 56.1 51.4 77.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.030 ppbv

RT: 4.56 min Scan# 504

Delta R.T. -0.01 min

Lab File: VL032681.D

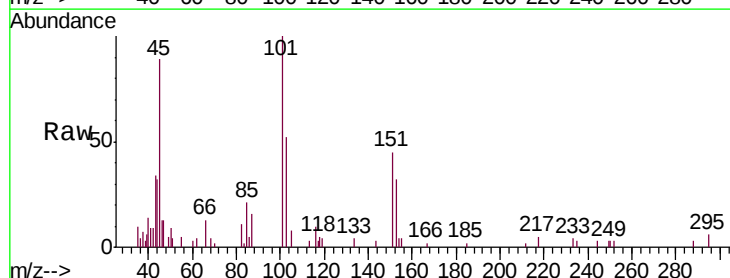
Acq: 19 Oct 2018 12:58

Tgt Ion:101 Resp: 4722

Ion Ratio Lower Upper

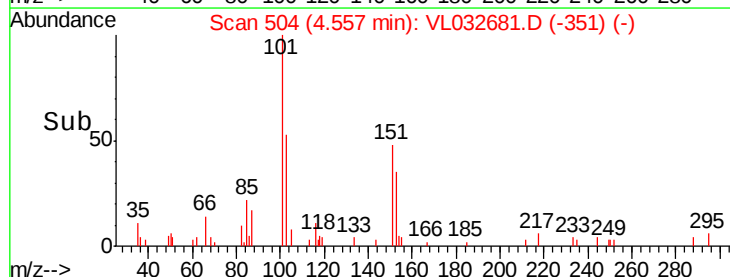
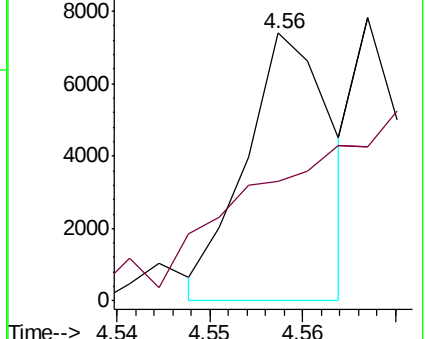
101 100

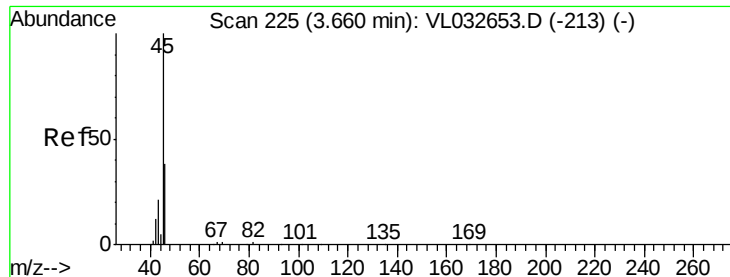
151 0.0 52.3 78.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 415.846 ppbv

RT: 3.68 min Scan# 230

Delta R.T. 0.02 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

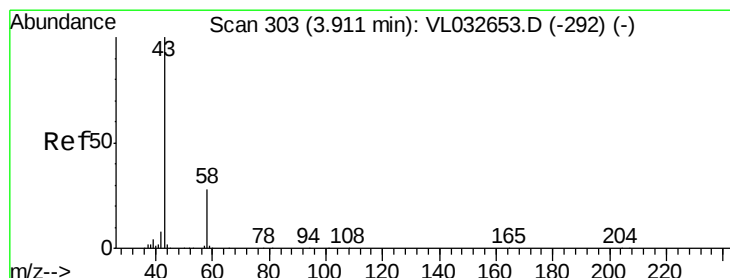
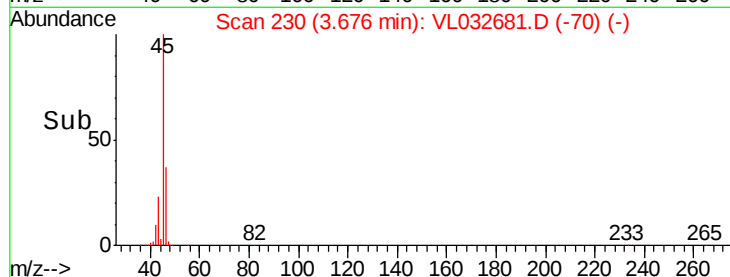
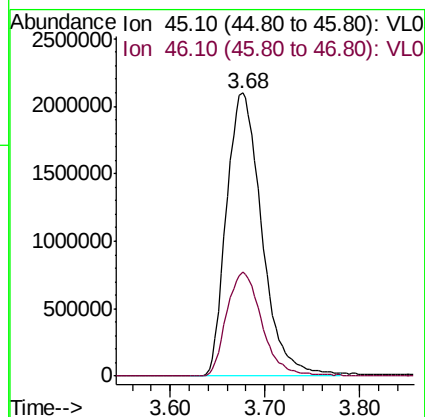
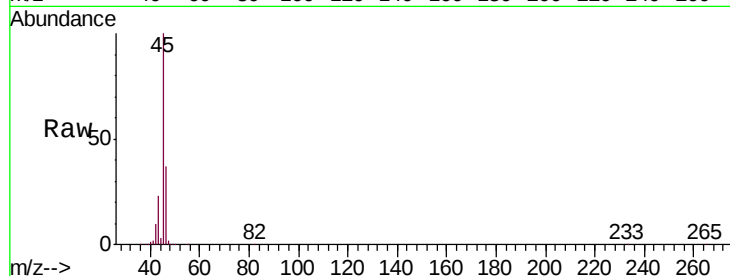
D-2

Tgt Ion: 45 Resp: 5473017

Ion Ratio Lower Upper

45 100

46 36.7 15.4 61.8



#15

Acetone

Concen: 8.836 ppbv

RT: 3.91 min Scan# 304

Delta R.T. 0.00 min

Lab File: VL032681.D

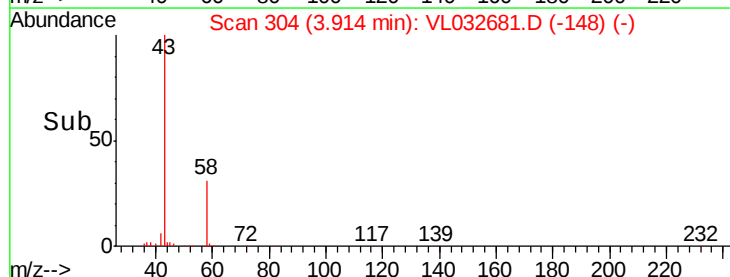
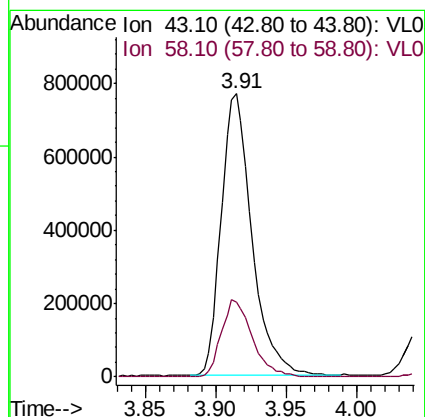
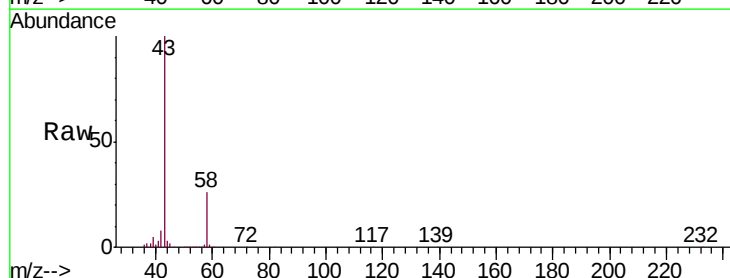
Acq: 19 Oct 2018 12:58

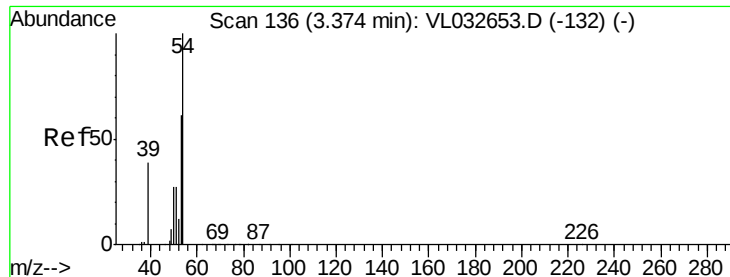
Tgt Ion: 43 Resp: 1167371

Ion Ratio Lower Upper

43 100

58 27.7 22.1 33.1

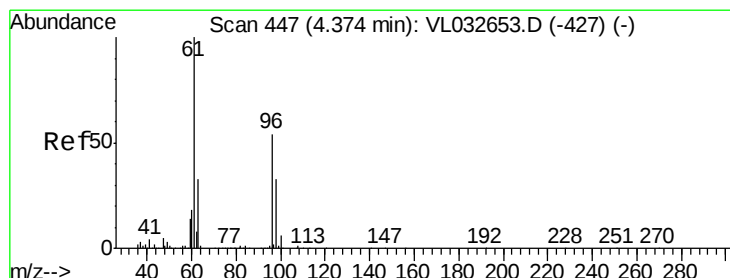
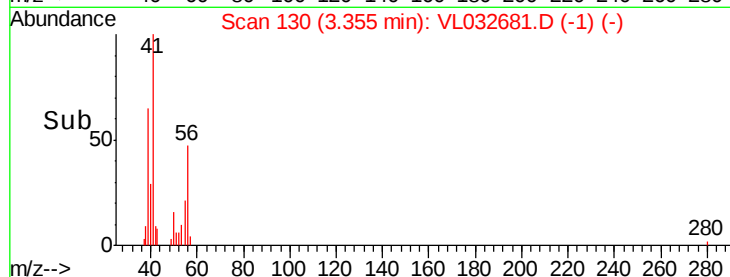
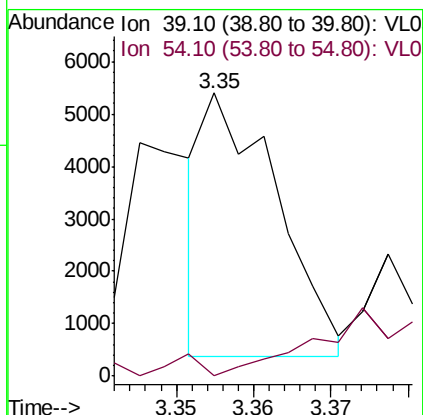
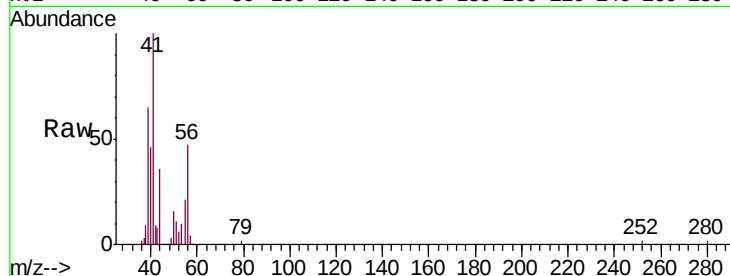




#16
1,3-Butadiene
Concen: 0.068 ppbv
RT: 3.35 min Scan# 130
Delta R.T. -0.02 min
Lab File: VL032681.D
Acq: 19 Oct 2018 12:58

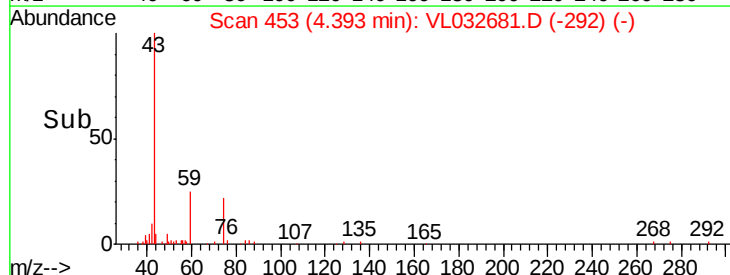
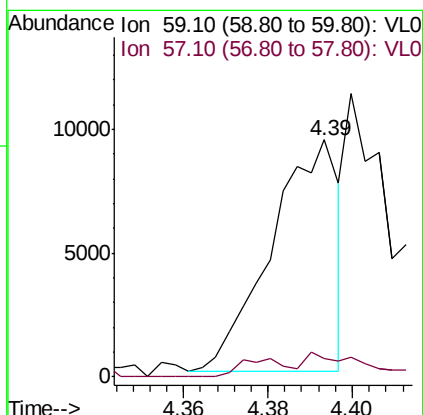
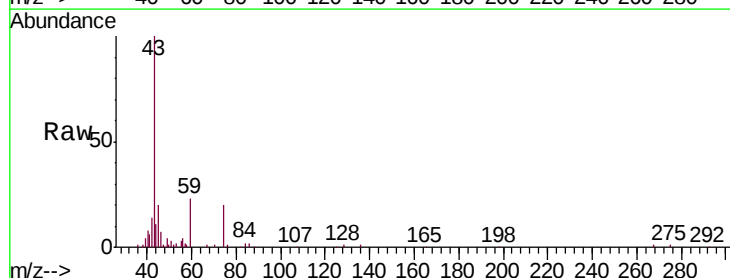
Instrument :
MSVOA_L
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D-2

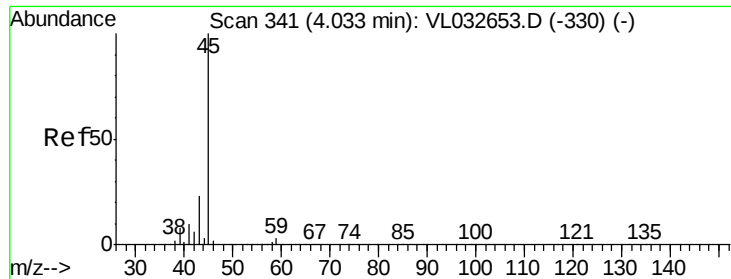
Tgt Ion: 39 Resp: 3313
Ion Ratio Lower Upper
39 100
54 34.8 90.4 135.6#



#17
tert-Butyl alcohol
Concen: 0.265 ppbv
RT: 4.39 min Scan# 453
Delta R.T. 0.02 min
Lab File: VL032681.D
Acq: 19 Oct 2018 12:58

Tgt Ion: 59 Resp: 10281
Ion Ratio Lower Upper
59 100
57 17.4 0.0 0.0#





#19

Isopropyl Alcohol

Concen: 21.790 ppbv

RT: 4.05 min Scan# 347

Delta R.T. 0.02 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

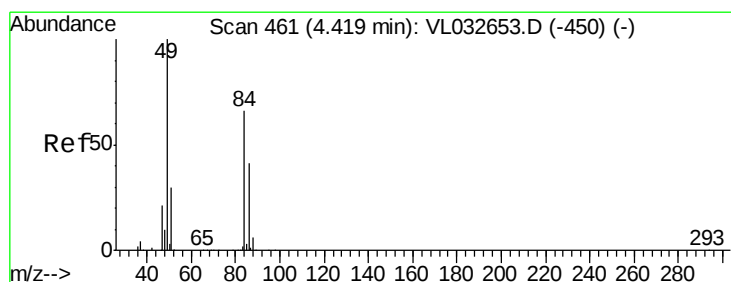
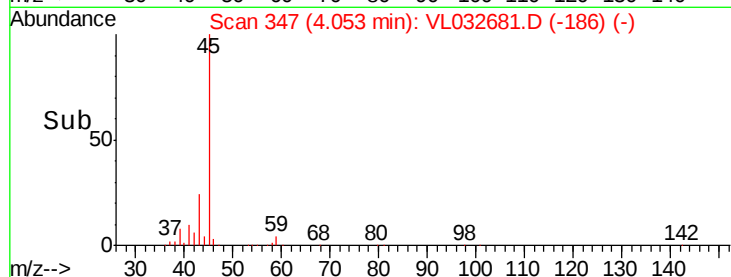
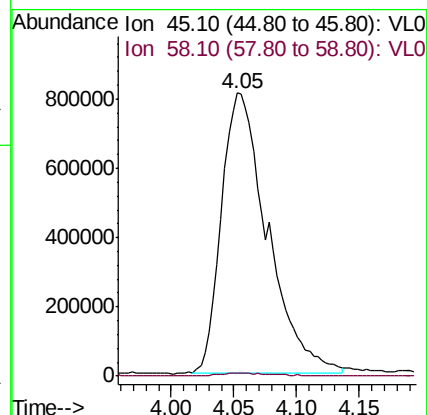
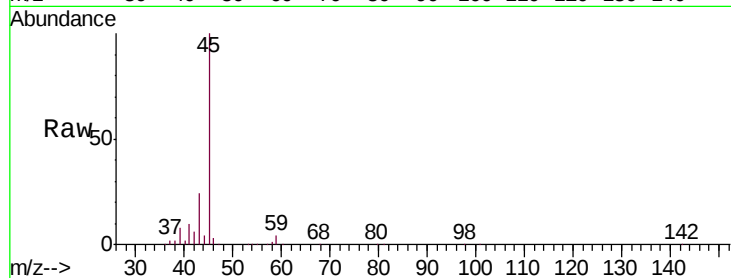
D-2

Tgt Ion: 45 Resp: 2050310

Ion Ratio Lower Upper

45 100

58 1.4 2.0 3.0#



#20

Methylene Chloride

Concen: 2.305 ppbv

RT: 4.42 min Scan# 462

Delta R.T. 0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Tgt Ion: 84 Resp: 154589

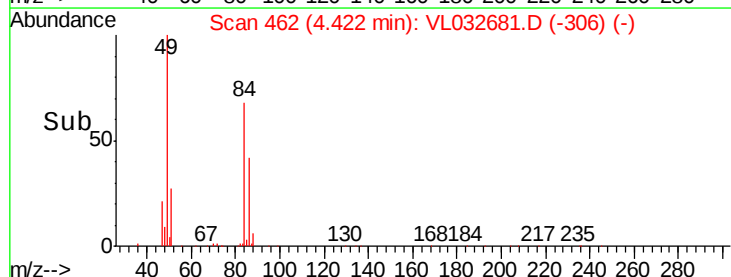
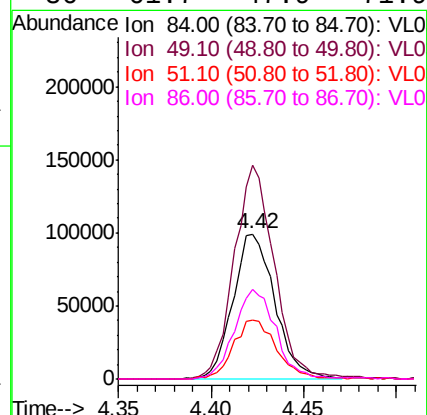
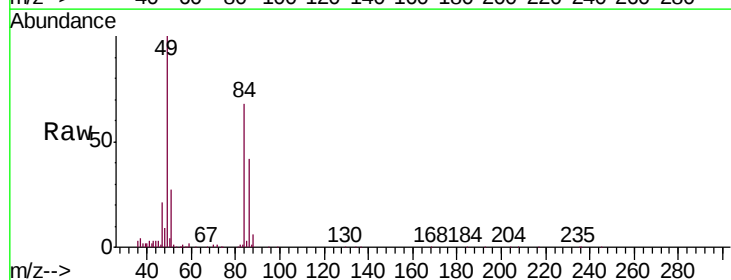
Ion Ratio Lower Upper

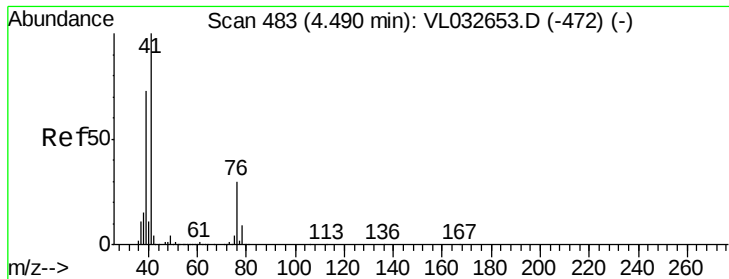
84 100

49 147.2 113.5 170.3

51 40.3 34.8 52.2

86 61.7 47.9 71.9





#21

Allyl Chloride

Concen: 0.024 ppbv

RT: 4.43 min Scan# 464

Delta R.T. -0.06 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

D-2

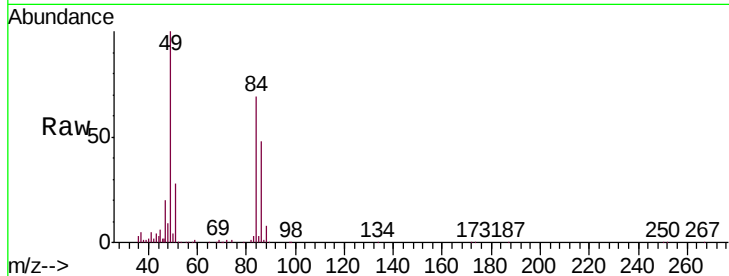
Tgt Ion: 41 Resp: 2639

Ion Ratio Lower Upper

41 100

76 0.0 24.3 36.5#

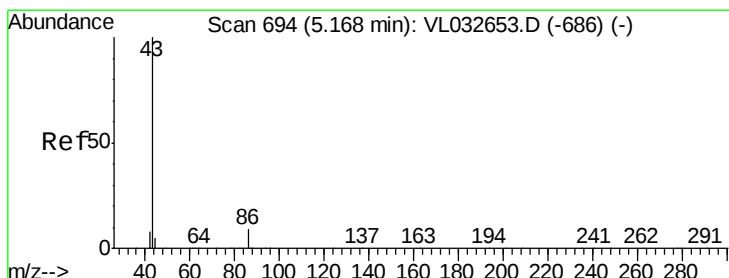
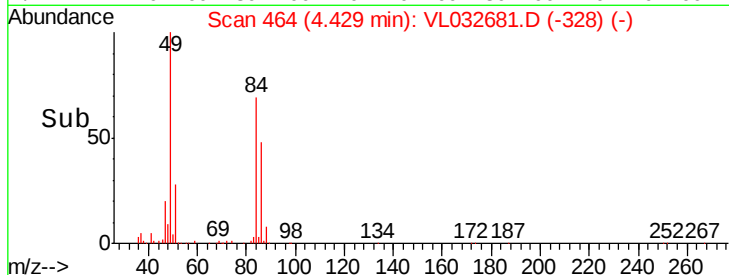
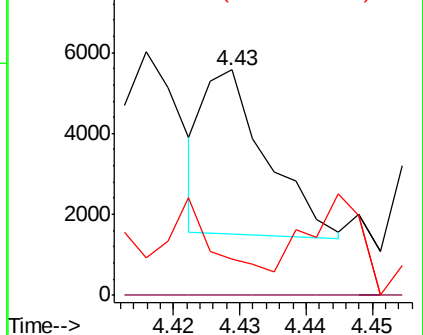
39 0.0 60.3 90.5#



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: 0.236 ppbv

RT: 5.16 min Scan# 692

Delta R.T. -0.01 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Tgt Ion: 43 Resp: 55346

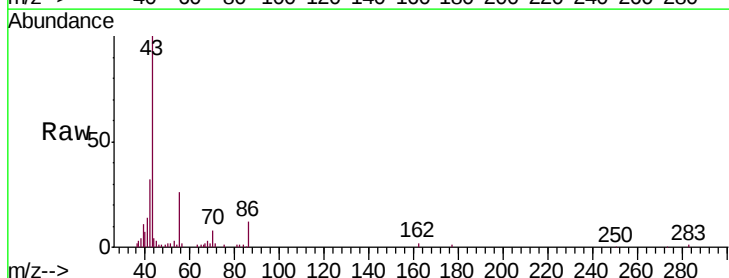
Ion Ratio Lower Upper

43 100

86 11.8 6.1 9.1#

42 30.6 7.4 11.2#

44 0.5 4.2 6.2#

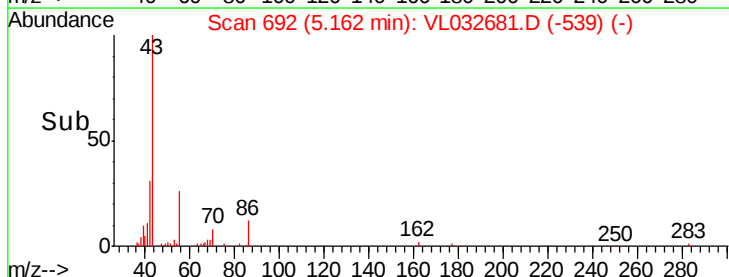
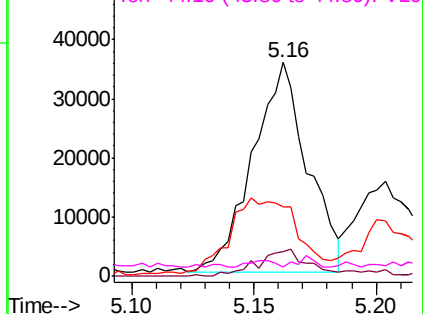


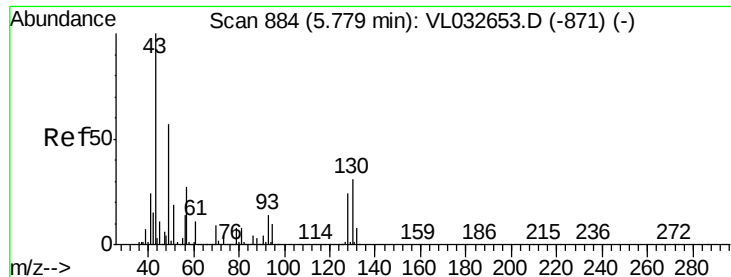
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0

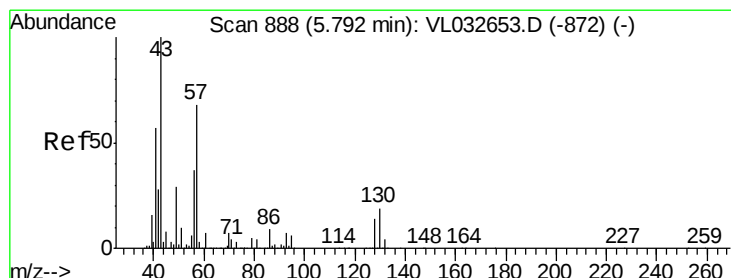
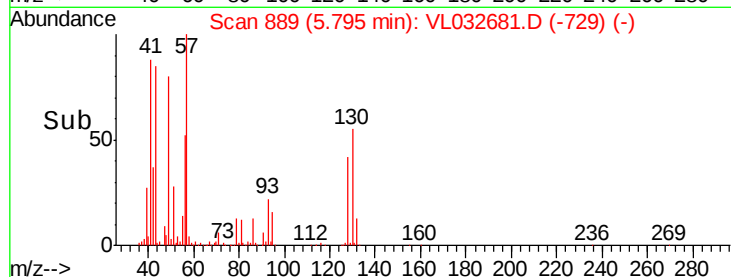
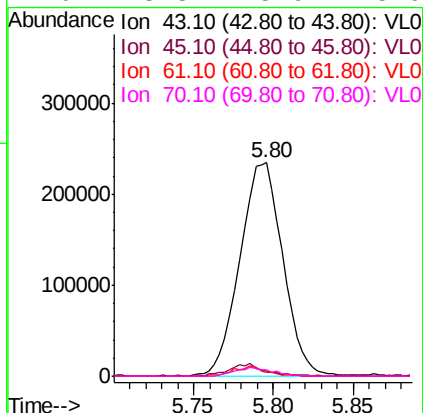
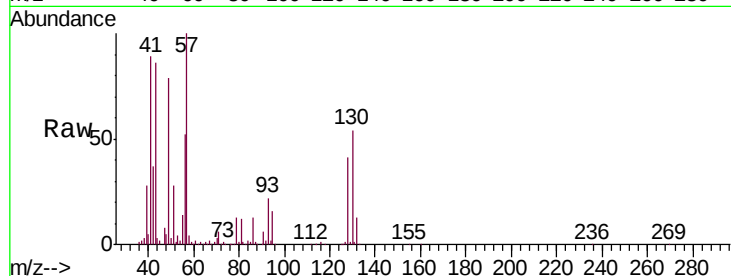




#25
Ethyl Acetate
Concen: 1.417 ppbv
RT: 5.80 min Scan# 889
Delta R.T. 0.02 min
Lab File: VL032681.D
Acq: 19 Oct 2018 12:58

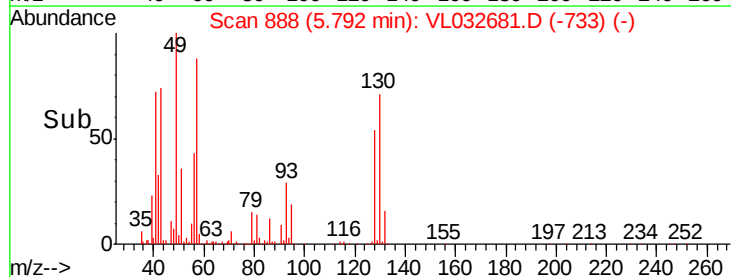
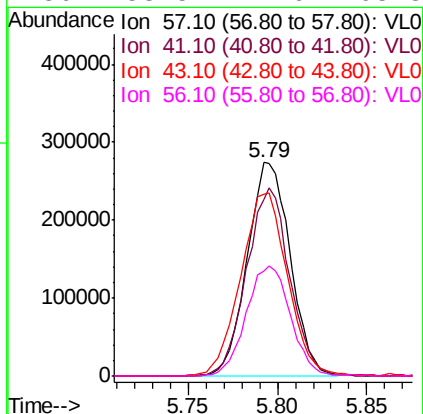
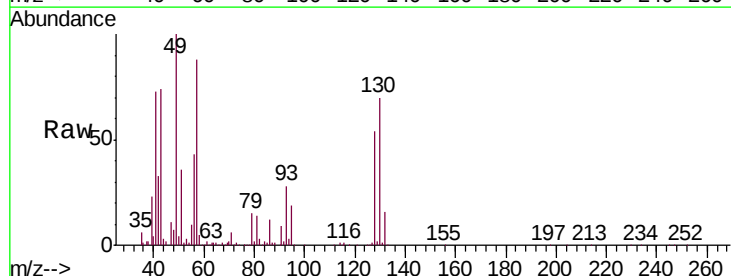
Instrument :
MSVOA_L
ClientSampleId :
D-2

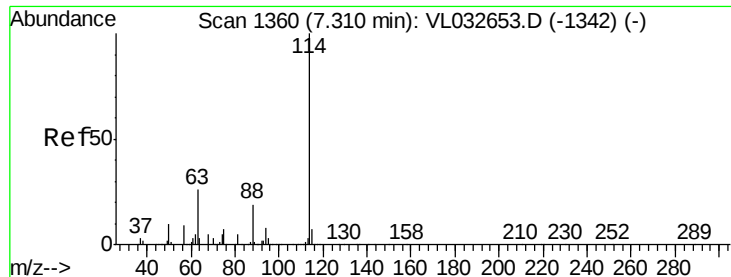
Tgt Ion:	43	Resp:	430820
Ion	Ratio	Lower	Upper
43	100		
45	5.5	8.0	12.0#
61	3.7	8.0	12.0#
70	3.8	5.9	8.9#



#26
Hexane
Concen: 3.201 ppbv
RT: 5.79 min Scan# 888
Delta R.T. -0.00 min
Lab File: VL032681.D
Acq: 19 Oct 2018 12:58

Tgt Ion:	57	Resp:	460604
Ion	Ratio	Lower	Upper
57	100		
41	88.8	67.4	101.0
43	93.9	171.9	257.9#
56	53.5	42.6	63.8

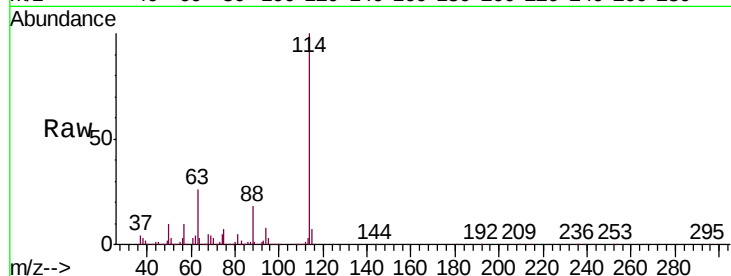




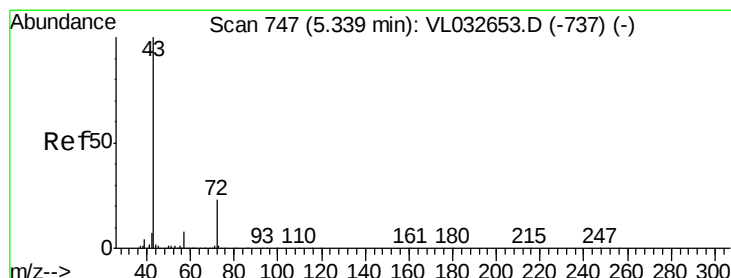
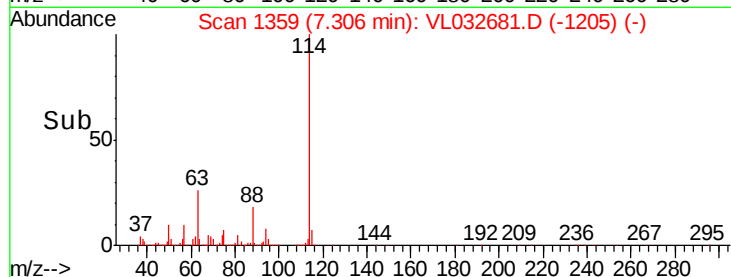
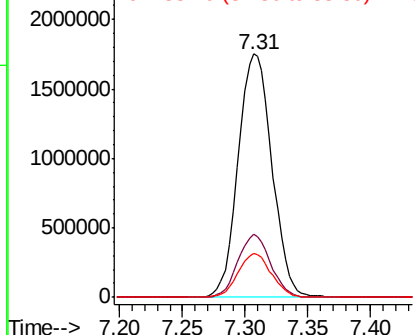
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.31 min Scan# 1359
 Delta R.T. -0.00 min
 Lab File: VL032681.D
 Acq: 19 Oct 2018 12:58

Instrument :
 MSVOA_L
 ClientSampleId :
 D-2

Tgt Ion:114 Resp: 3285064
 Ion Ratio Lower Upper
 114 100
 63 25.1 21.7 32.5
 88 17.7 14.9 22.3

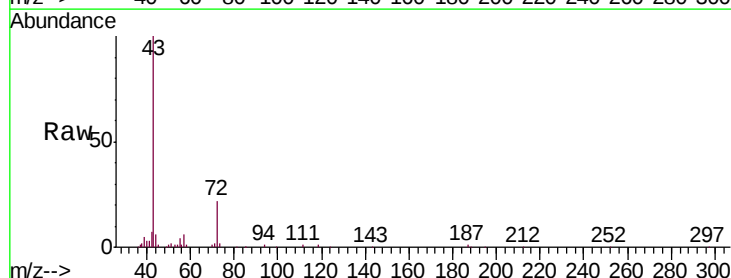


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

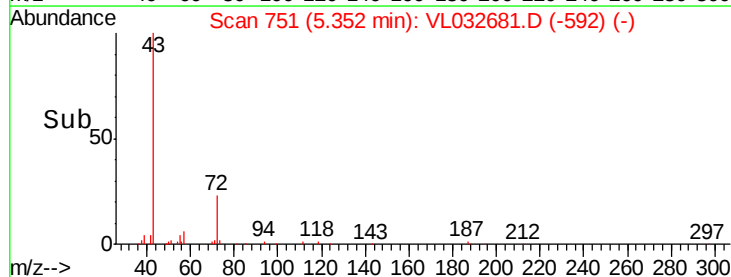
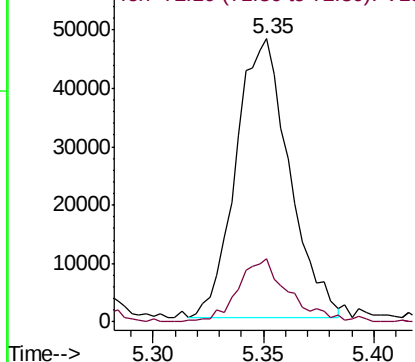


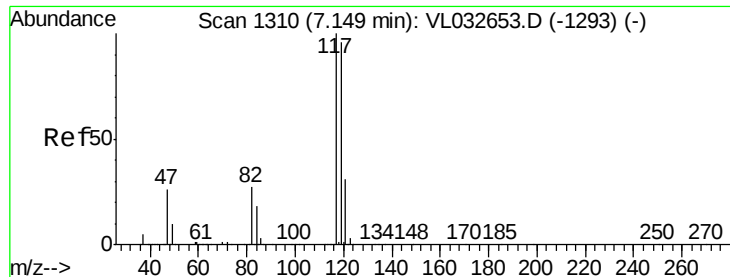
#34
 2-Butanone
 Concen: 0.459 ppbv
 RT: 5.35 min Scan# 751
 Delta R.T. 0.01 min
 Lab File: VL032681.D
 Acq: 19 Oct 2018 12:58

Tgt Ion: 43 Resp: 80863
 Ion Ratio Lower Upper
 43 100
 72 21.7 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: 0.054 ppbv

RT: 7.15 min Scan# 1310

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

D-2

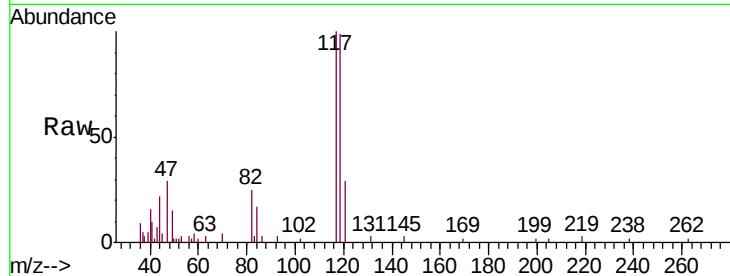
Tgt Ion:117 Resp: 12504

Ion Ratio Lower Upper

117 100

119 89.1 75.7 113.5

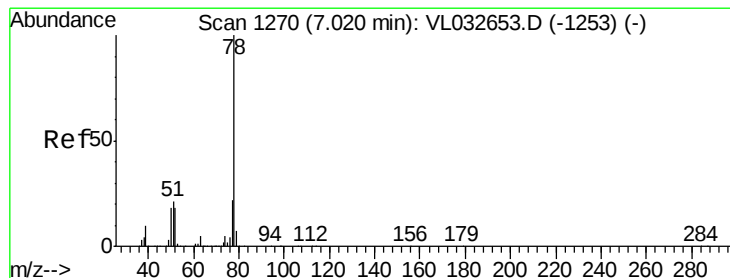
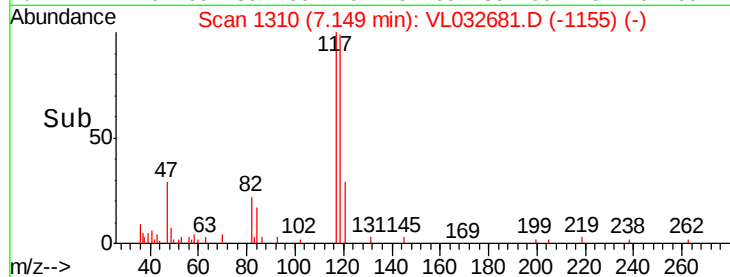
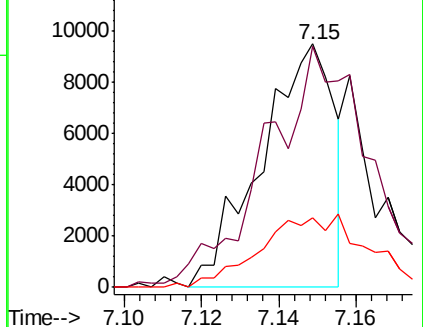
121 28.7 24.7 37.1



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: 0.154 ppbv

RT: 7.02 min Scan# 1270

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

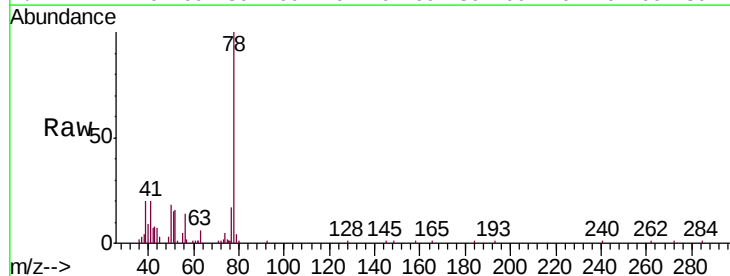
Tgt Ion: 78 Resp: 41031

Ion Ratio Lower Upper

78 100

77 16.9 18.1 27.1#

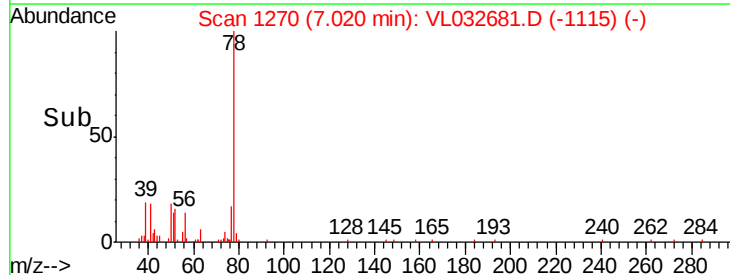
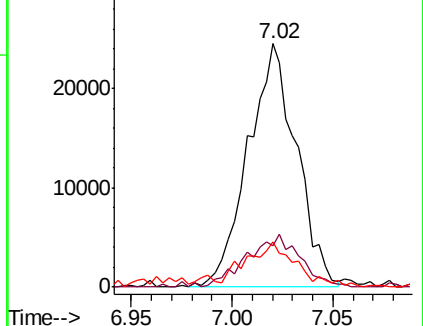
50 16.9 15.1 22.7

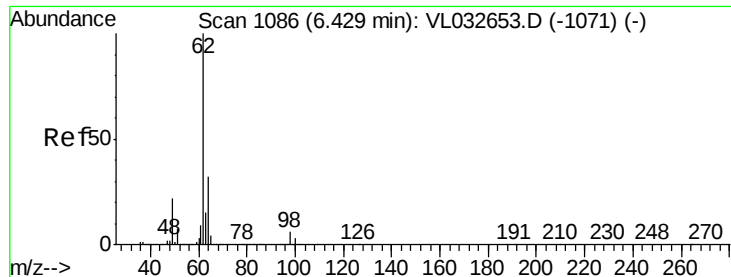


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

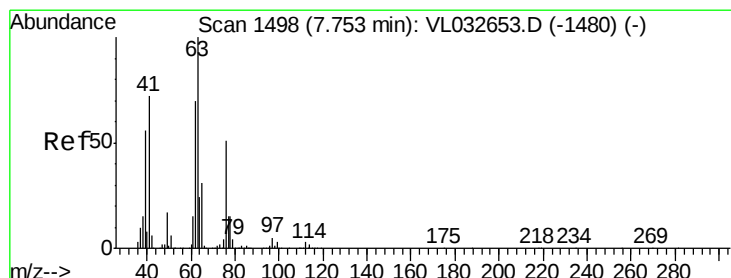
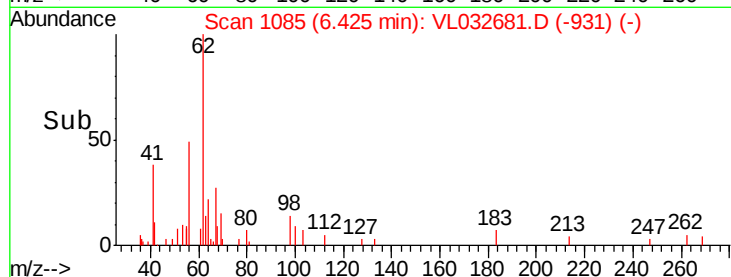
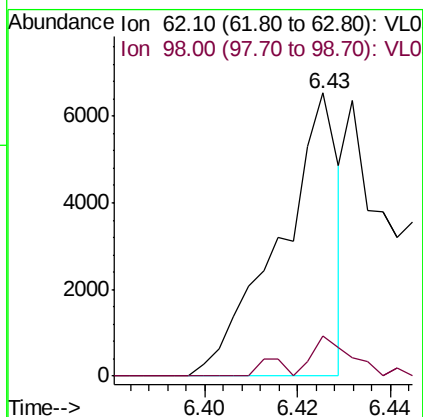
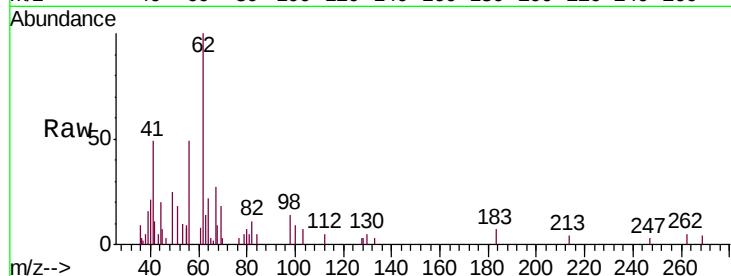




#37
 1,2-Dichloroethane
 Concen: 0.035 ppbv
 RT: 6.43 min Scan# 1085
 Delta R.T. -0.00 min
 Lab File: VL032681.D
 Acq: 19 Oct 2018 12:58

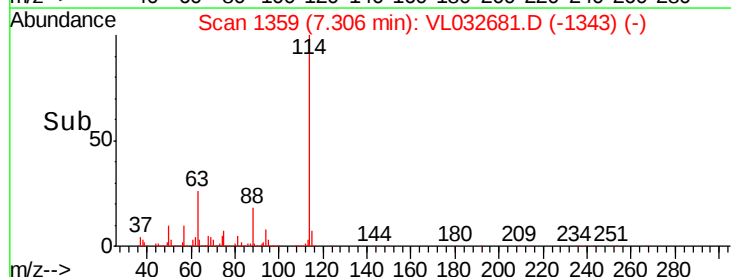
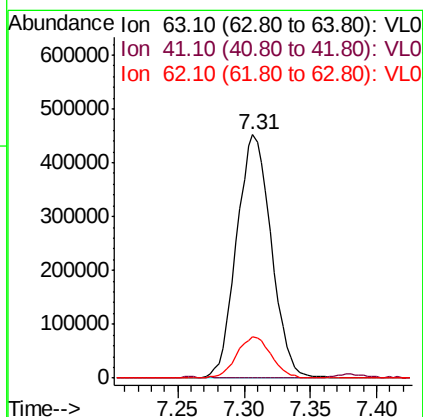
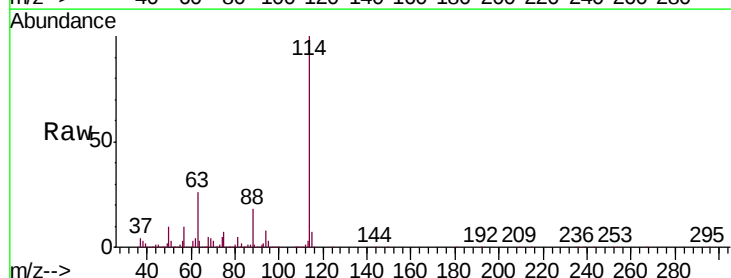
Instrument :
 MSVOA_L
 ClientSampled :
 D-2

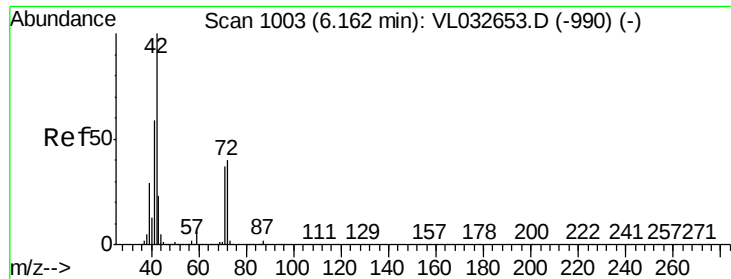
Tgt Ion: 62 Resp: 5747
 Ion Ratio Lower Upper
 62 100
 98 18.2 4.4 6.6#



#39
 1,2-Dichloropropane
 Concen: 7.980 ppbv
 RT: 7.31 min Scan# 1359
 Delta R.T. -0.45 min
 Lab File: VL032681.D
 Acq: 19 Oct 2018 12:58

Tgt Ion: 63 Resp: 822047
 Ion Ratio Lower Upper
 63 100
 41 0.0 56.2 84.4#
 62 17.0 54.4 81.6#





#41

Tetrahydrofuran

Concen: 1.874 ppbv

RT: 5.79 min Scan# 888

Delta R.T. -0.37 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

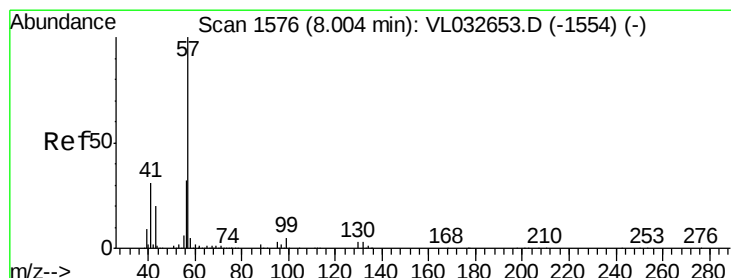
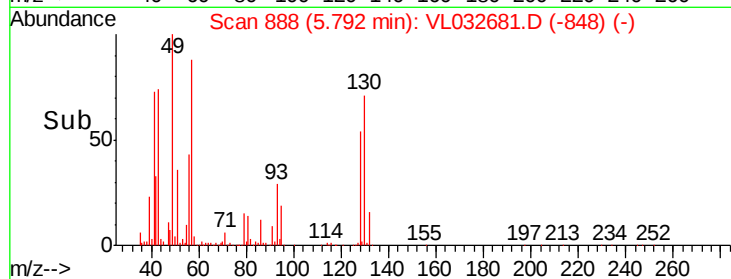
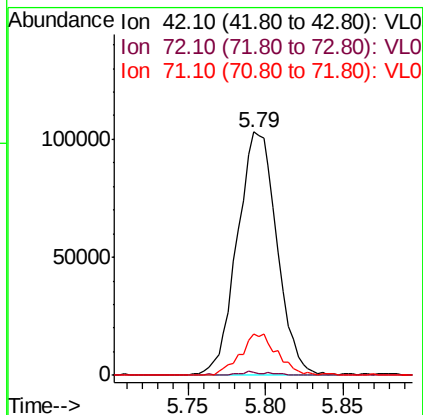
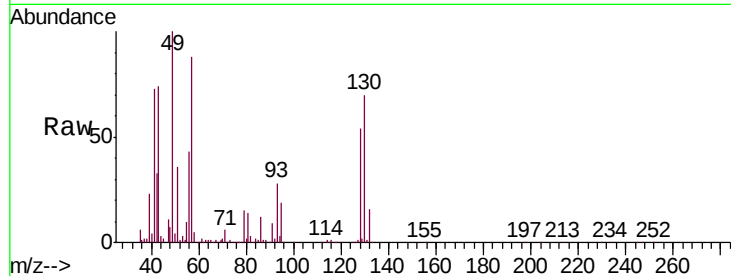
Instrument :

MSVOA_L

ClientSampled :

D-2

Tgt Ion:	42	Resp:	183875
Ion	Ratio	Lower	Upper
42	100		
72	1.2	32.4	48.6#
71	16.2	31.3	46.9#



#44

2,2,4-Trimethylpentane

Concen: 0.020 ppbv

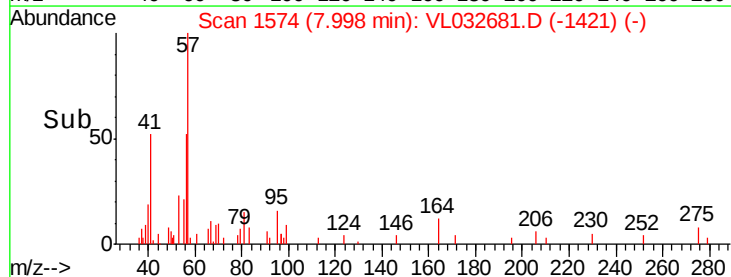
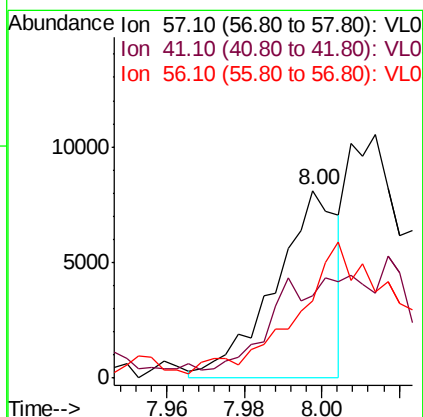
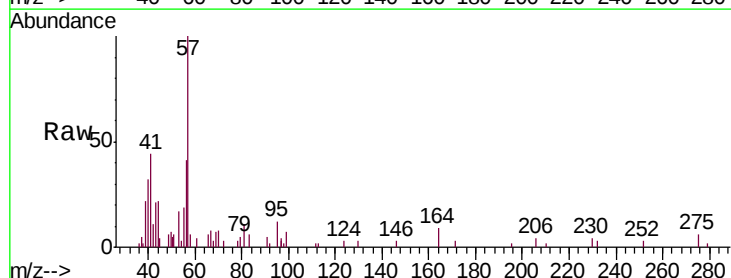
RT: 8.00 min Scan# 1574

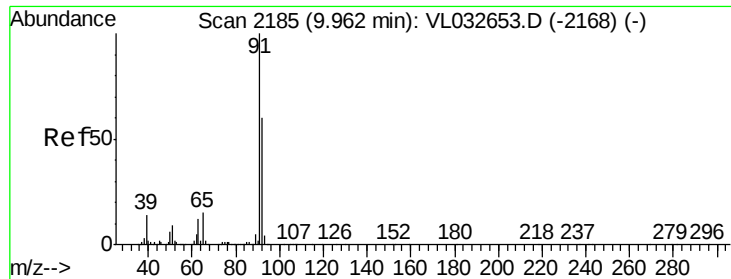
Delta R.T. -0.01 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Tgt Ion:	57	Resp:	9139
Ion	Ratio	Lower	Upper
57	100		
41	0.0	24.7	37.1#
56	130.4	25.0	37.4#





#53

Toluene

Concen: 7.787 ppbv

RT: 9.96 min Scan# 2185

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

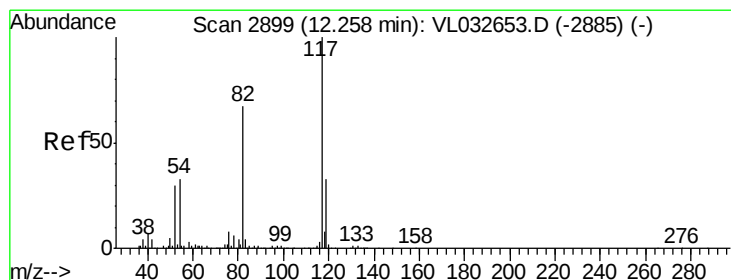
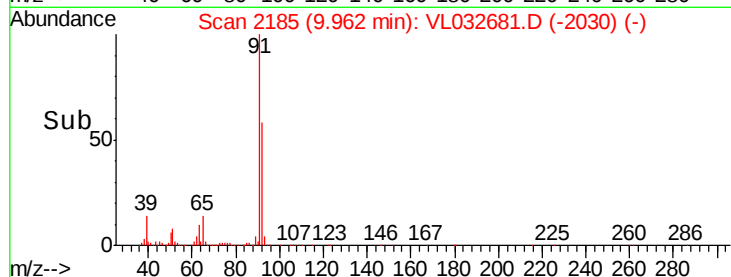
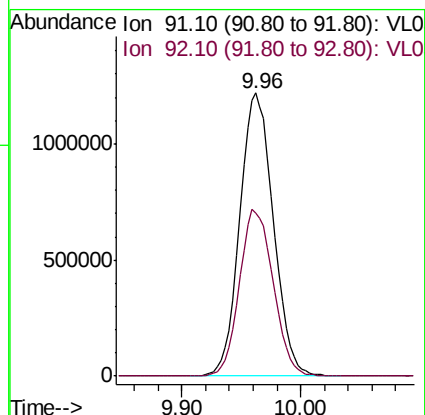
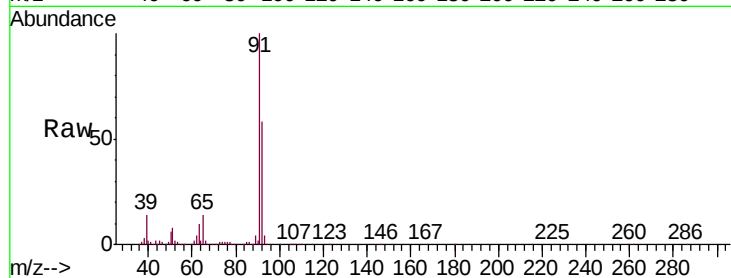
D-2

Tgt Ion: 91 Resp: 2381268

Ion Ratio Lower Upper

91 100

92 59.2 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: VL032681.D

Acq: 19 Oct 2018 12:58

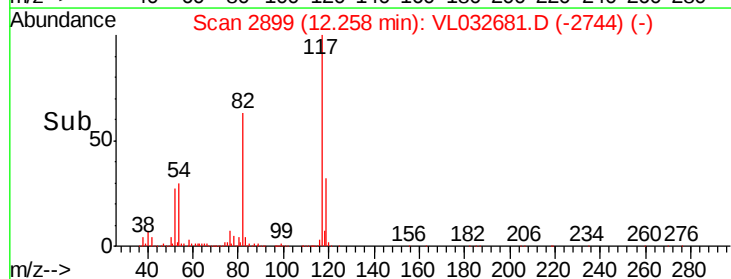
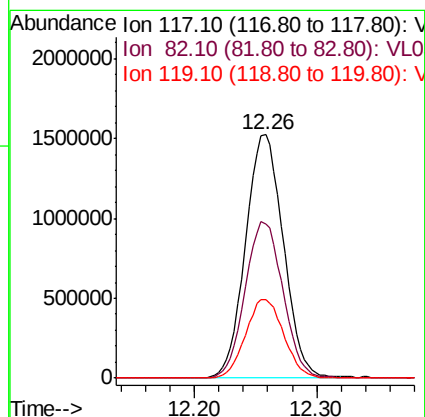
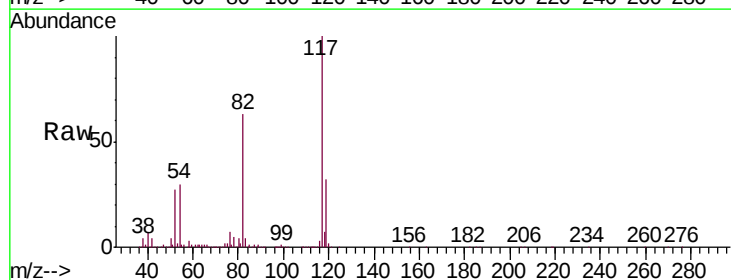
Tgt Ion: 117 Resp: 3263776

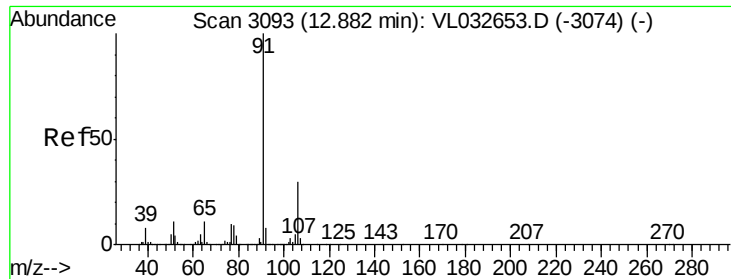
Ion Ratio Lower Upper

117 100

82 64.6 52.7 79.1

119 32.8 26.7 40.1





#58

Ethyl Benzene

Concen: 0.032 ppbv

RT: 12.88 min Scan# 3093

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

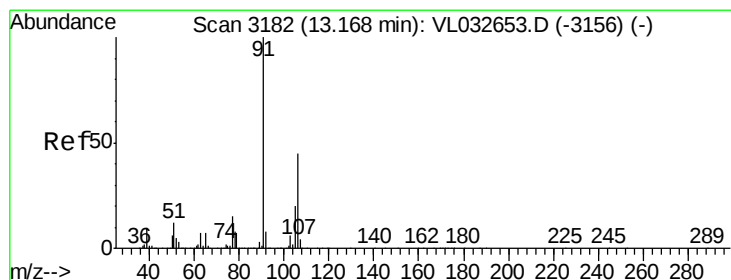
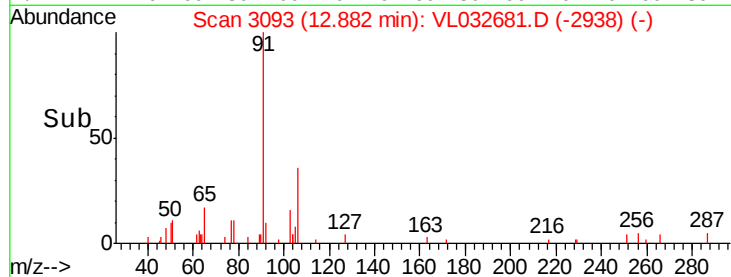
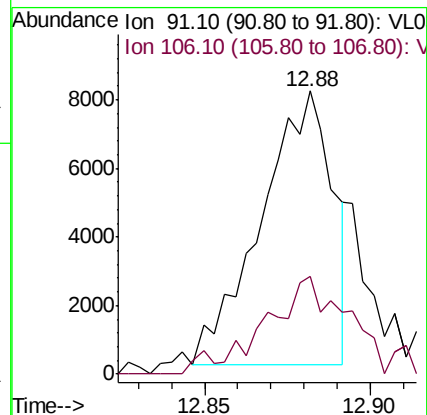
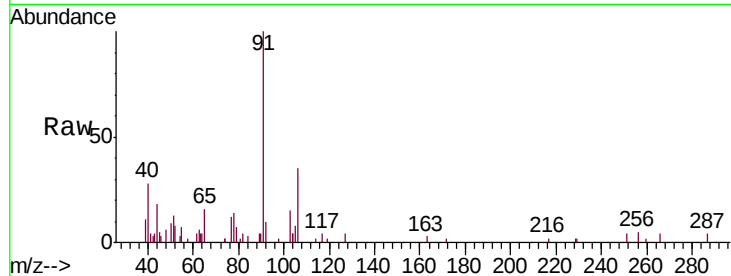
D-2

Tgt Ion: 91 Resp: 12067

Ion Ratio Lower Upper

91 100

106 31.0 24.2 36.2



#59

m/p-Xylene

Concen: 0.029 ppbv

RT: 13.16 min Scan# 3181

Delta R.T. -0.00 min

Lab File: VL032681.D

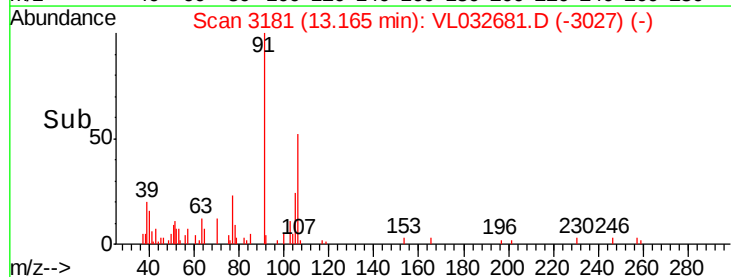
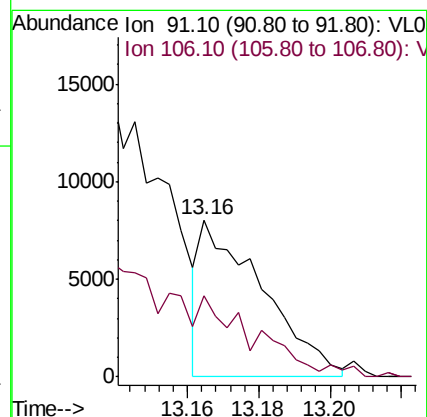
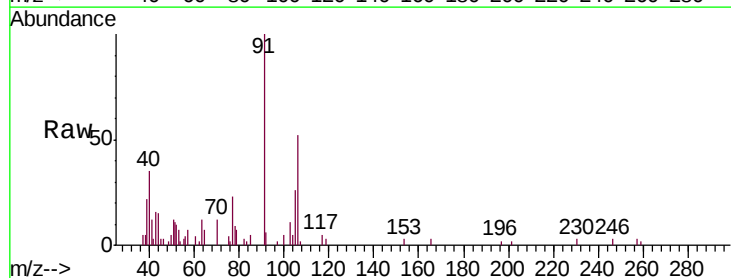
Acq: 19 Oct 2018 12:58

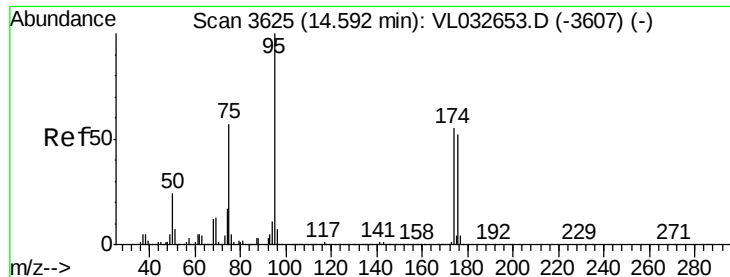
Tgt Ion: 91 Resp: 9747

Ion Ratio Lower Upper

91 100

106 0.0 35.9 53.9#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.046 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Instrument :

MSVOA_L

ClientSampleId :

D-2

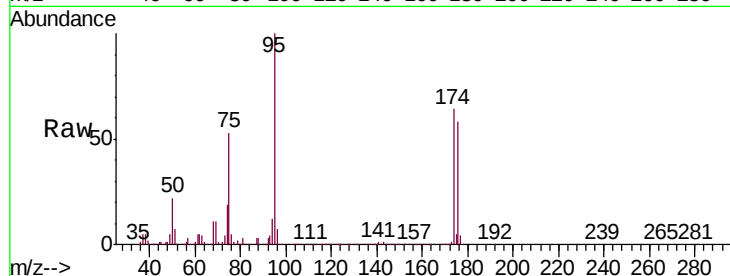
Tgt Ion: 95 Resp: 2441422

Ion Ratio Lower Upper

95 100

174 63.8 46.0 69.0

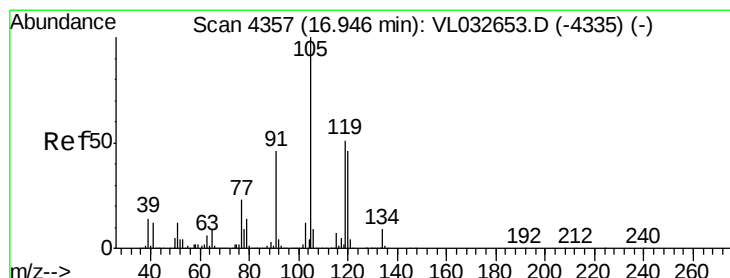
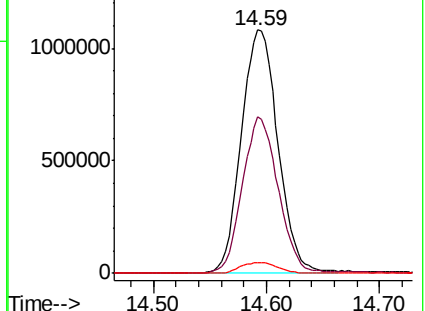
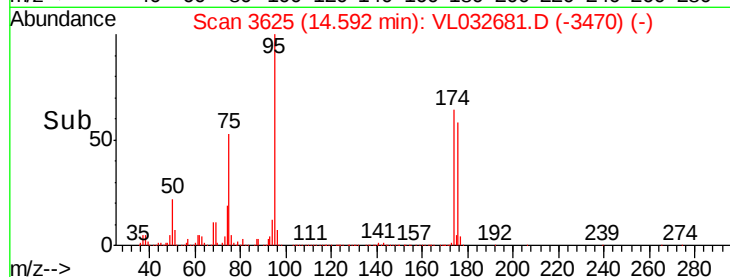
175 4.7 3.4 5.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.077 ppbv

RT: 16.95 min Scan# 4358

Delta R.T. 0.00 min

Lab File: VL032681.D

Acq: 19 Oct 2018 12:58

Tgt Ion: 105 Resp: 27884

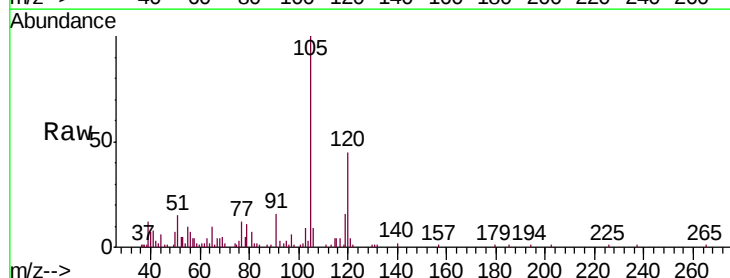
Ion Ratio Lower Upper

105 100

120 42.7 35.8 53.8

91 15.1 33.2 49.8#

77 9.5 16.2 24.4#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

