

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL092418\
 Data File : VL032543.D
 Acq On : 25 Sep 2018 13:34
 Operator : SY/AP
 Sample : J5034-07DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF1-092018DL

Quant Time: Sep 25 15:44:45 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL092418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Sep 25 05:17:15 2018
 QLast Update : Tue Sep 25 05:17:15 2018
 Response via : Initial Calibration

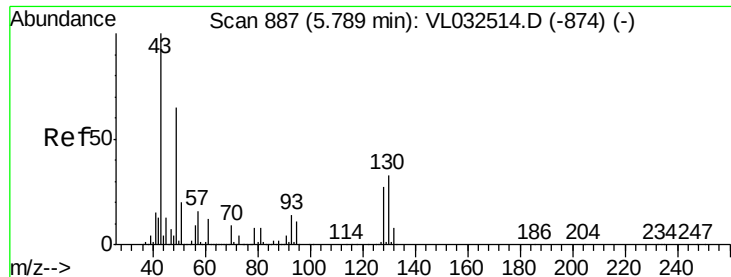
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1450510	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	3176199	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.27	117	3253702	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.61	95	2527526	10.30	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	3.03	51	24506	0.203	ppbv	97
4) Chloromethane	3.19	50	21441	0.305	ppbv	92
5) Vinyl Chloride	3.31	62	22234	0.313	ppbv	92
7) Chloroethane	3.62	64	36074	1.425	ppbv	94
9) Propene	3.05	41	14630	0.280	ppbv	98
11) Trichlorofluoromethane	4.02	101	18654	0.117	ppbv	89
12) 1,1,2-Trichlorotrifluoroet	4.58	101	229605	1.761	ppbv	99
13) Ethanol	3.66	45	1038	0.066	ppbv #	39
15) Acetone	3.93	43	179831	1.412	ppbv	99
16) 1,3-Butadiene	3.41	39	3857	0.075	ppbv #	1
17) tert-Butyl alcohol	4.40	59	9572	0.598	ppbv #	100
18) 1,1-Dichloroethene	4.38	96	3784	0.062	ppbv #	86
20) Methylene Chloride	4.43	84	114374	1.855	ppbv	98
23) Vinyl Acetate	5.17	43	18389	0.082	ppbv #	81
24) 1,1-Dichloroethane	5.11	63	2297712	12.264	ppbv	99
25) Ethyl Acetate	5.80	43	24655	0.080	ppbv #	82
26) Hexane	5.81	57	28681	0.206	ppbv #	45
31) cis-1,2-Dichloroethene	5.66	61	1019096	7.668	ppbv	100
32) 1,1,1-Trichloroethane	6.64	97	2460470	10.783	ppbv	97
34) 2-Butanone	5.37	43	23468	0.124	ppbv	92
36) Benzene	7.04	78	63656	0.248	ppbv #	93
37) 1,2-Dichloroethane	6.64	62	93038	0.601	ppbv #	1
38) Trichloroethene	7.99	130	1618296	16.471	ppbv	98
39) 1,2-Dichloropropane	7.32	63	854403	7.386	ppbv #	25
52) Tetrachloroethene	11.40	164	64674	0.724	ppbv	97
53) Toluene	9.98	91	24606	0.079	ppbv #	59

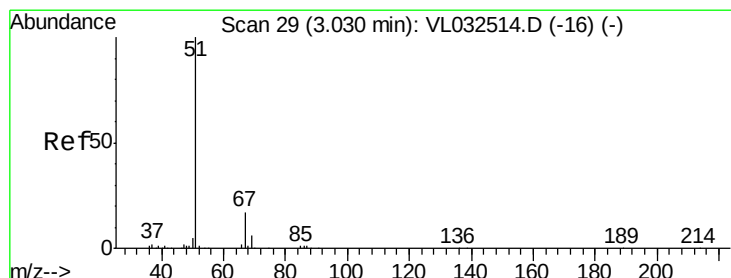
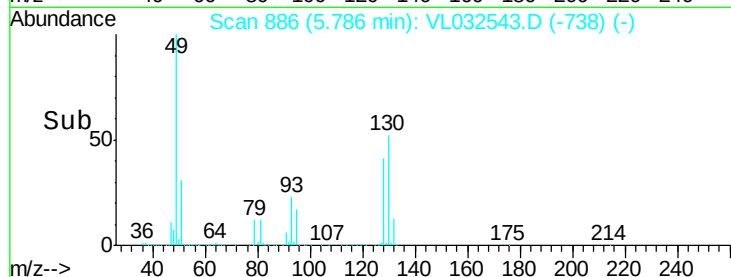
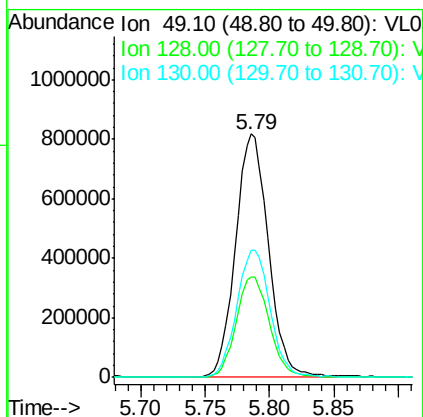
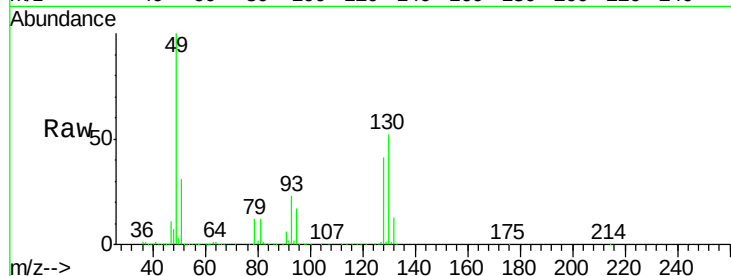
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.79 min Scan# 886
 Delta R.T. -0.02 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

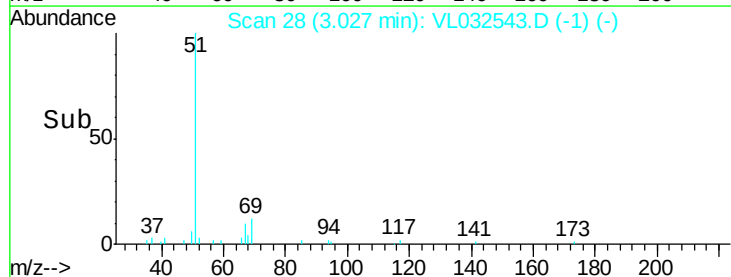
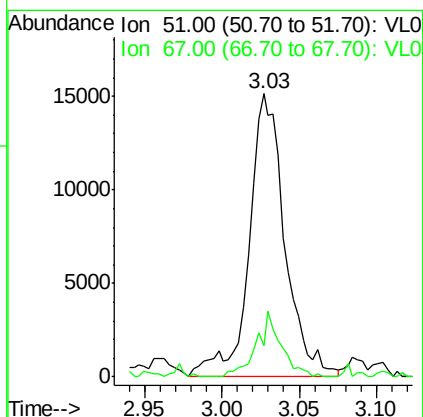
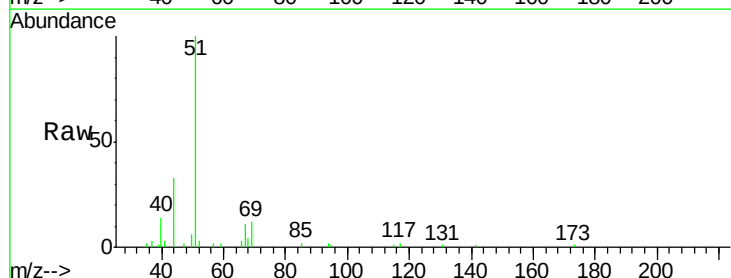
Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF1-092018DL

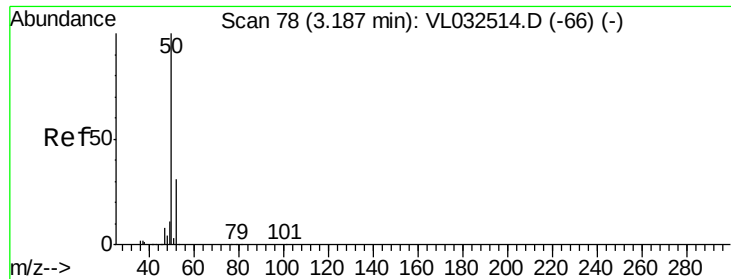
Tgt Ion: 49 Resp: 1450510
 Ion Ratio Lower Upper
 49 100
 128 42.1 20.7 62.1
 130 53.5 26.6 79.7



#3
 Chlorodifluoromethane
 Concen: 0.203 ppbv
 RT: 3.03 min Scan# 28
 Delta R.T. -0.02 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

Tgt Ion: 51 Resp: 24506
 Ion Ratio Lower Upper
 51 100
 67 16.0 13.8 20.8





#4

Chloromethane

Concen: 0.305 ppbv

RT: 3.19 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

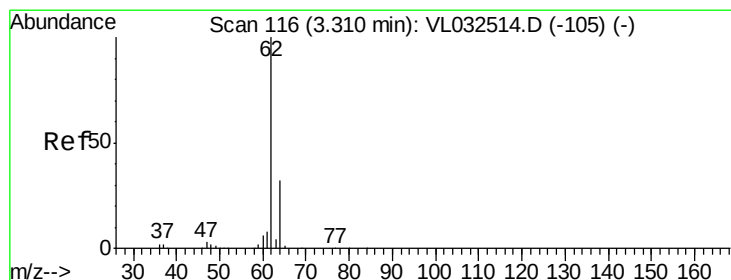
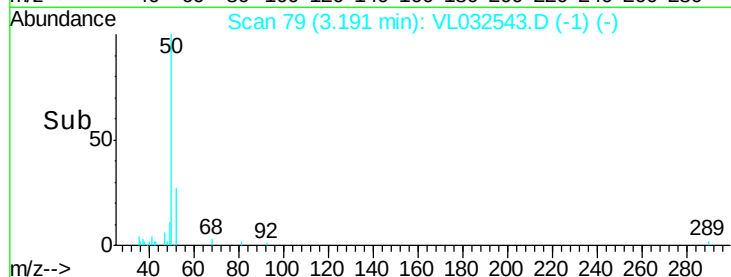
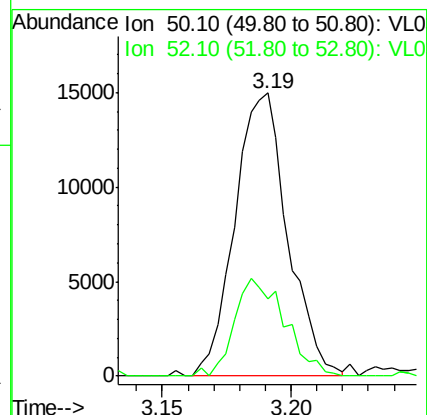
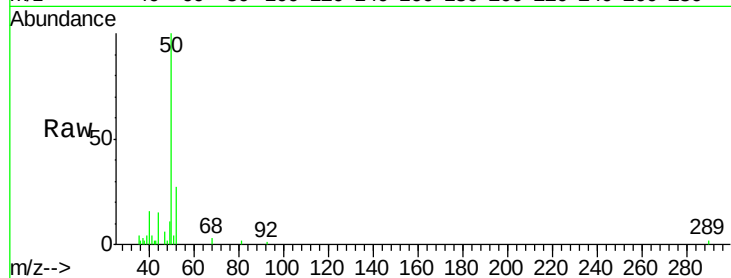
SVE-INF1-092018DL

Tgt Ion: 50 Resp: 21441

Ion Ratio Lower Upper

50 100

52 27.5 25.6 38.4



#5

Vinyl Chloride

Concen: 0.313 ppbv

RT: 3.31 min Scan# 115

Delta R.T. -0.02 min

Lab File: VL032543.D

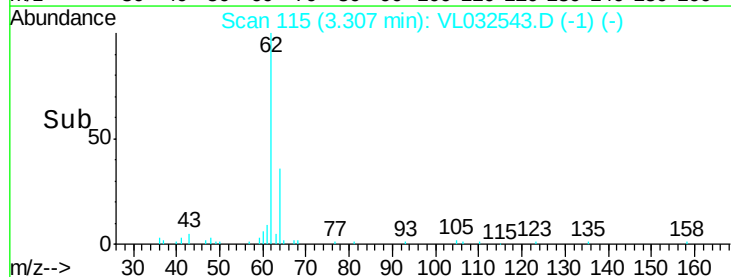
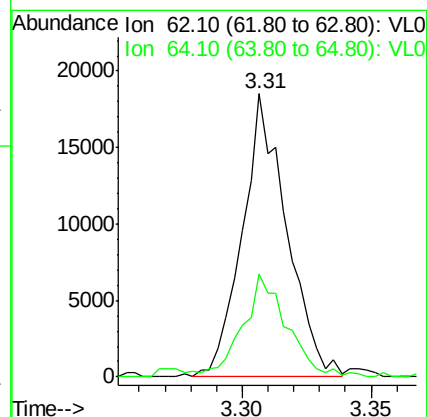
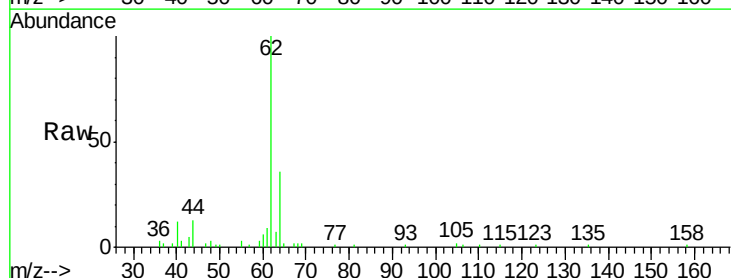
Acq: 25 Sep 2018 13:34

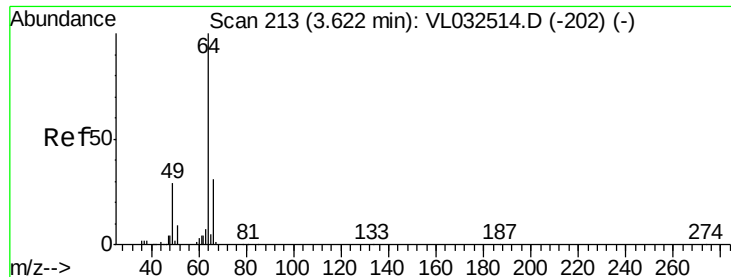
Tgt Ion: 62 Resp: 22234

Ion Ratio Lower Upper

62 100

64 35.5 25.0 37.6





#7

Chloroethane

Concen: 1.425 ppbv

RT: 3.62 min Scan# 212

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

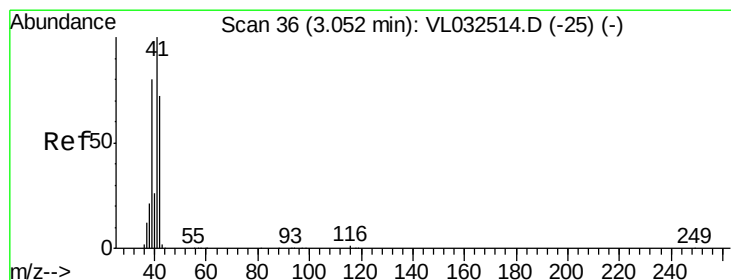
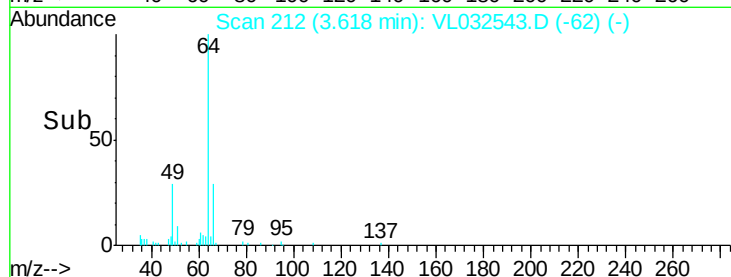
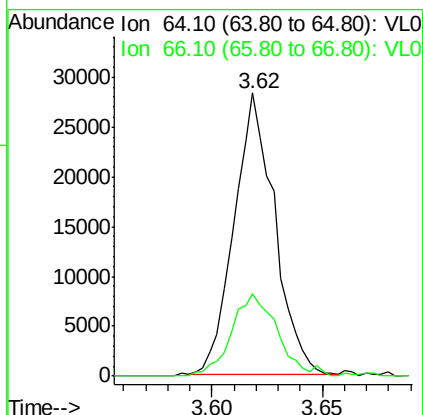
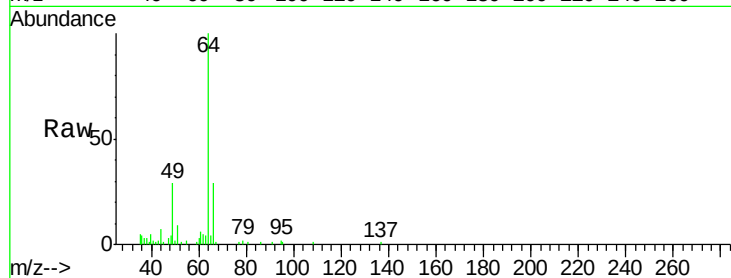
SVE-INF1-092018DL

Tgt Ion: 64 Resp: 36074

Ion Ratio Lower Upper

64 100

66 29.1 25.8 38.6



#9

Propene

Concen: 0.280 ppbv

RT: 3.05 min Scan# 36

Delta R.T. -0.01 min

Lab File: VL032543.D

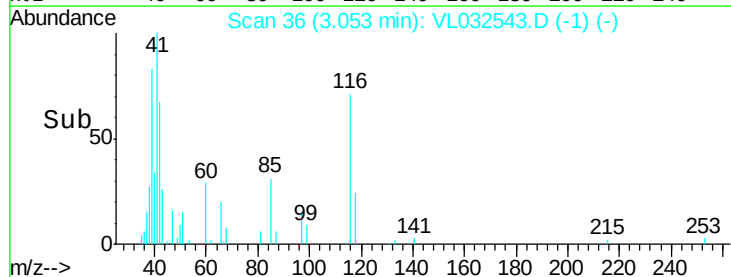
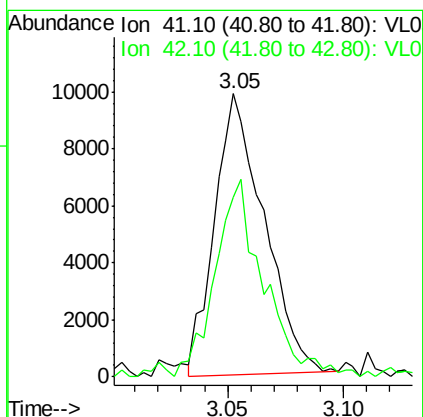
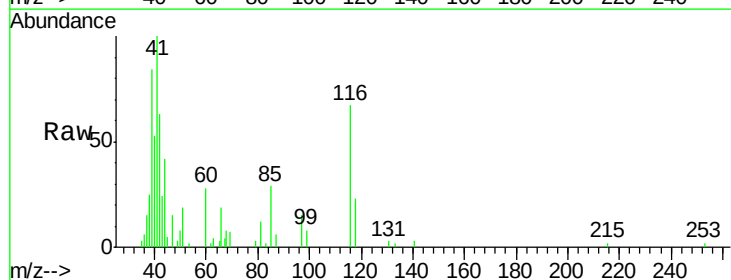
Acq: 25 Sep 2018 13:34

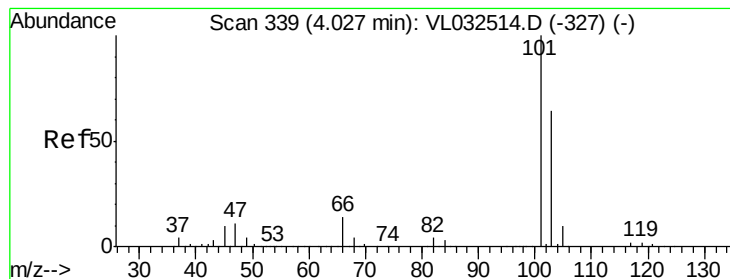
Tgt Ion: 41 Resp: 14630

Ion Ratio Lower Upper

41 100

42 72.3 56.6 84.8





#11

Trichlorofluoromethane

Concen: 0.117 ppbv

RT: 4.02 min Scan# 338

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

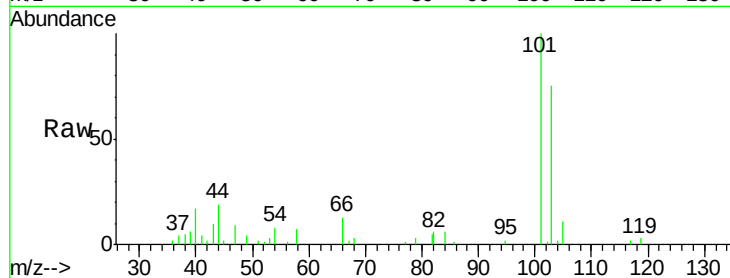
SVE-INF1-092018DL

Tgt Ion:101 Resp: 18654

Ion Ratio Lower Upper

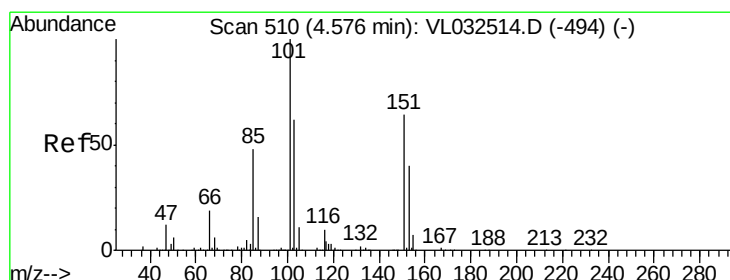
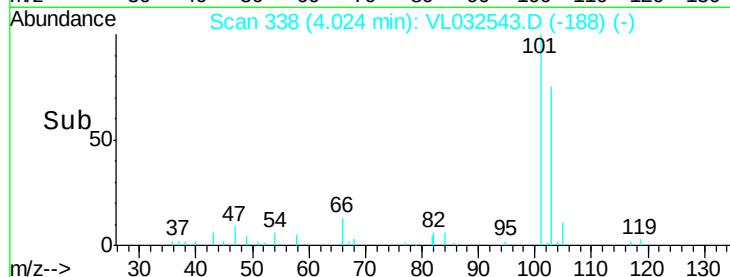
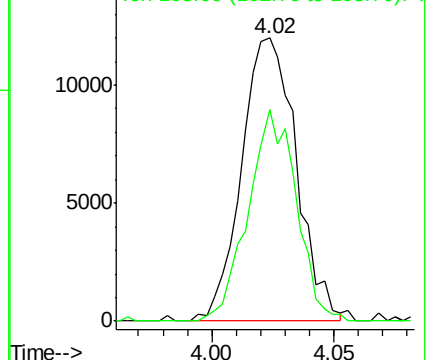
101 100

103 74.8 52.8 79.2



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: 1.761 ppbv

RT: 4.58 min Scan# 510

Delta R.T. -0.02 min

Lab File: VL032543.D

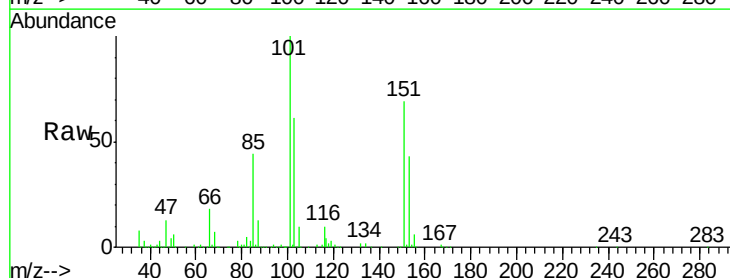
Acq: 25 Sep 2018 13:34

Tgt Ion:101 Resp: 229605

Ion Ratio Lower Upper

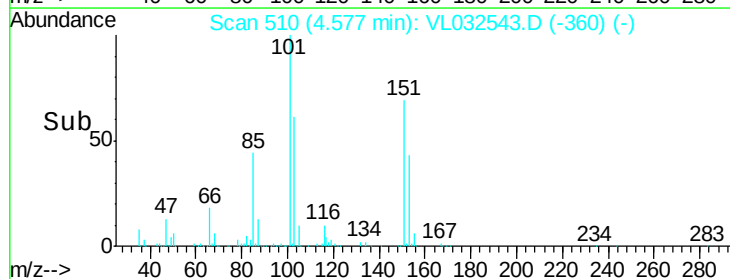
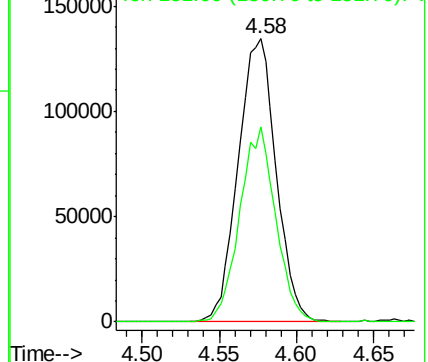
101 100

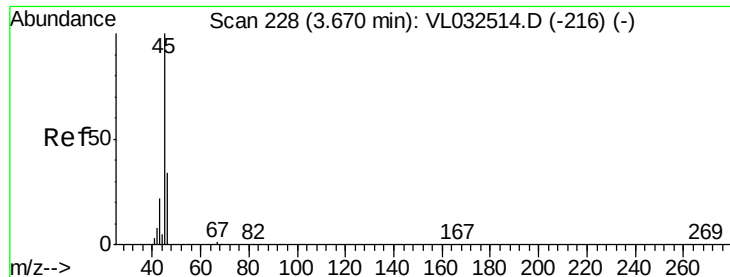
151 65.1 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 0.066 ppbv

RT: 3.66 min Scan# 226

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

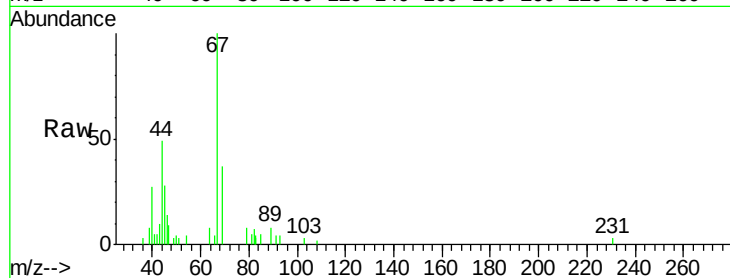
SVE-INF1-092018DL

Tgt Ion: 45 Resp: 1038

Ion Ratio Lower Upper

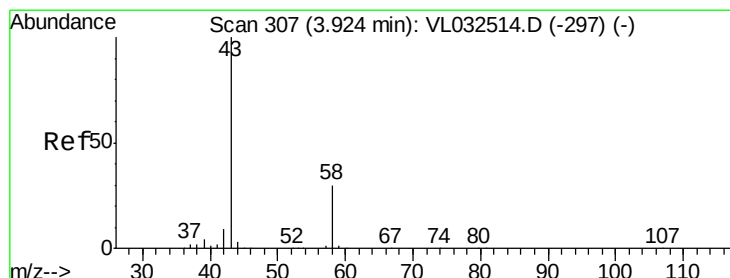
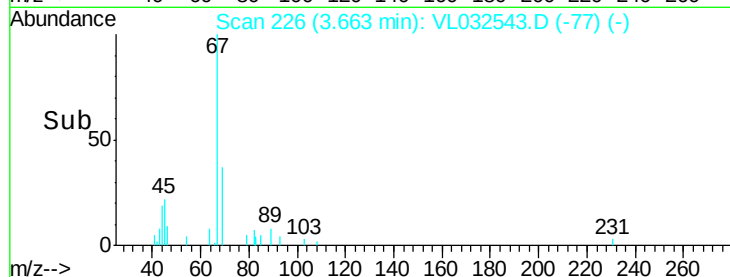
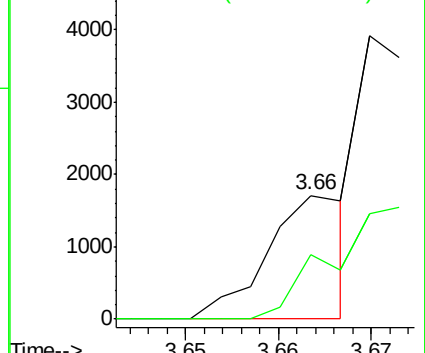
45 100

46 0.0 14.2 56.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#15

Acetone

Concen: 1.412 ppbv

RT: 3.93 min Scan# 308

Delta R.T. -0.01 min

Lab File: VL032543.D

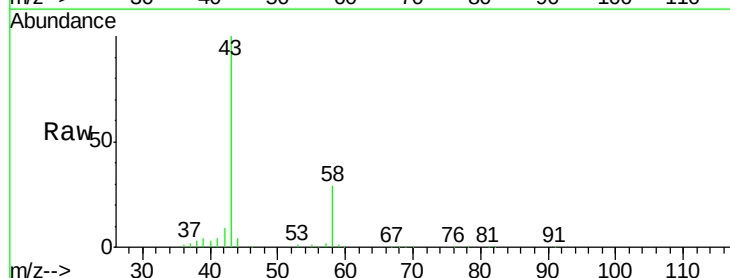
Acq: 25 Sep 2018 13:34

Tgt Ion: 43 Resp: 179831

Ion Ratio Lower Upper

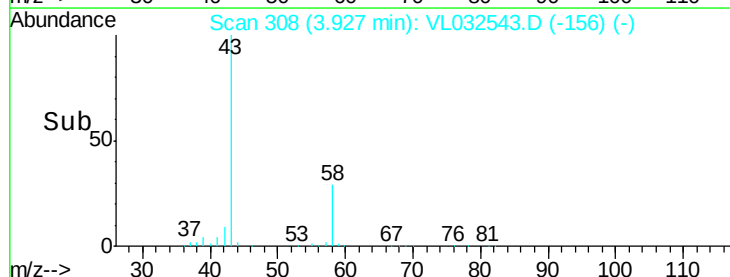
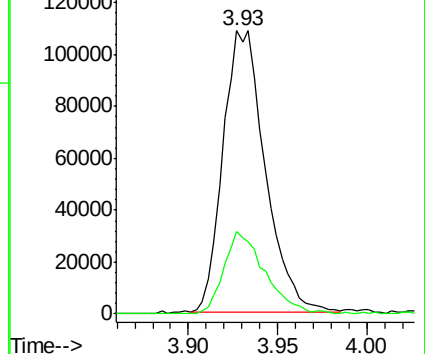
43 100

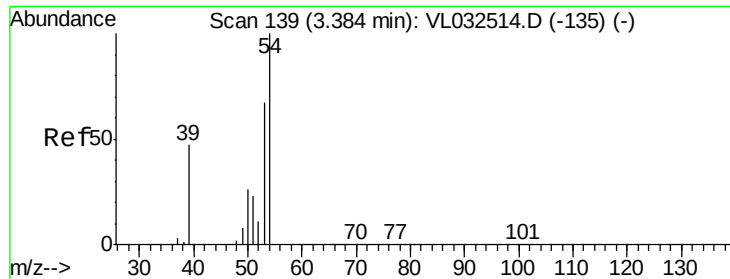
58 28.5 22.6 33.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

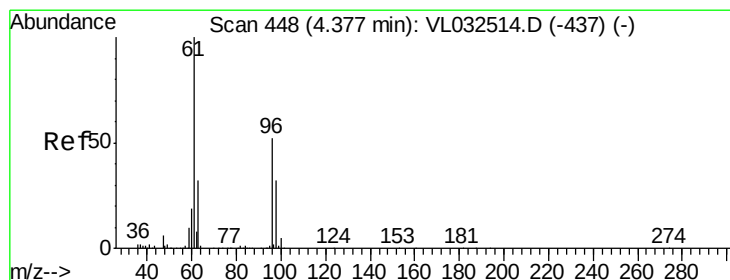
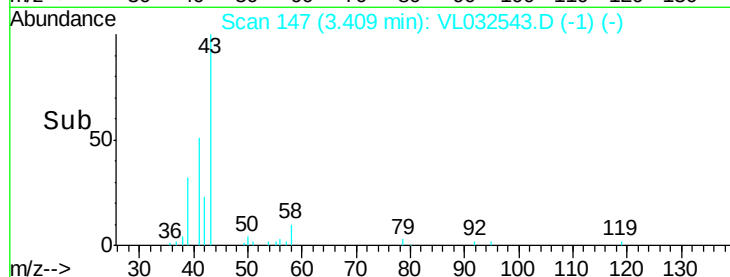
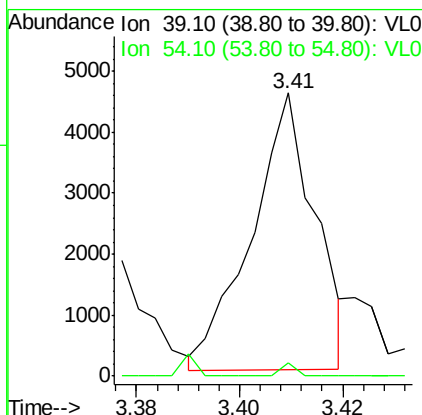
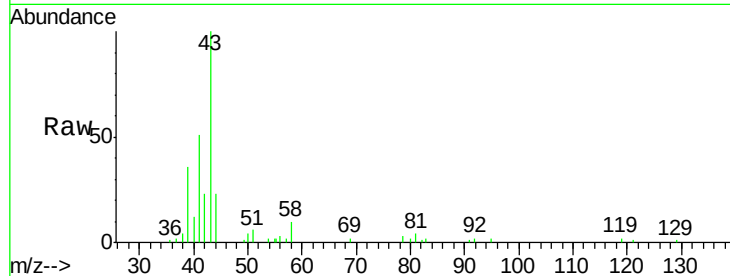




#16
1,3-Butadiene
Concen: 0.075 ppbv
RT: 3.41 min Scan# 147
Delta R.T. 0.01 min
Lab File: VL032543.D
Acq: 25 Sep 2018 13:34

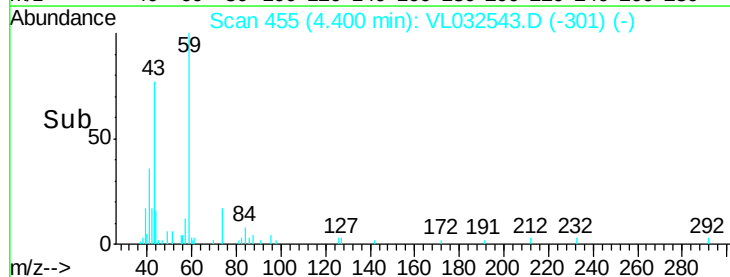
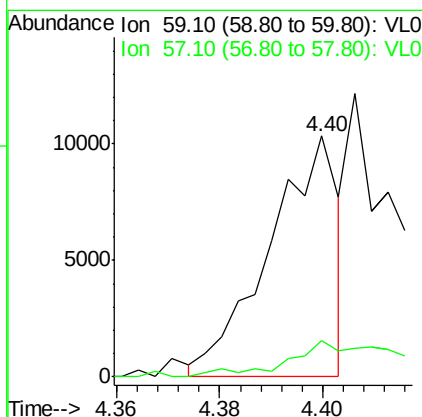
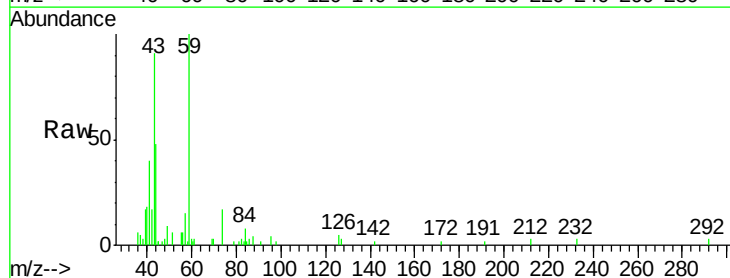
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SVE-INF1-092018DL

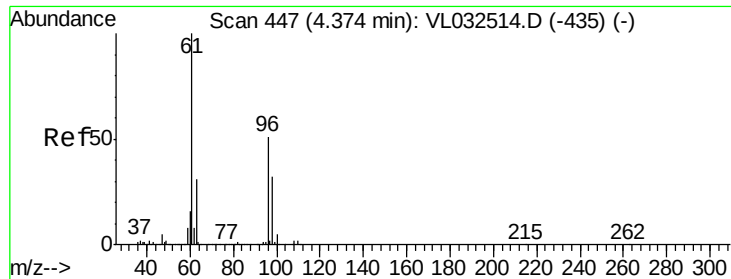
Tgt Ion: 39 Resp: 3857
Ion Ratio Lower Upper
39 100
54 0.0 80.8 121.2#



#17
tert-Butyl alcohol
Concen: 0.598 ppbv
RT: 4.40 min Scan# 455
Delta R.T. -0.01 min
Lab File: VL032543.D
Acq: 25 Sep 2018 13:34

Tgt Ion: 59 Resp: 9572
Ion Ratio Lower Upper
59 100
57 34.8 0.0 0.0#

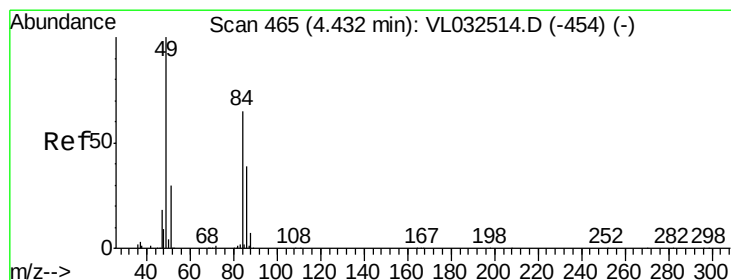
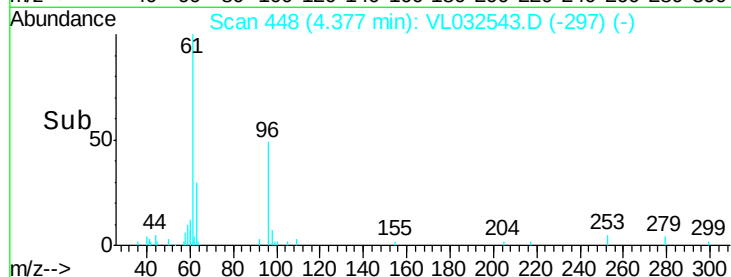
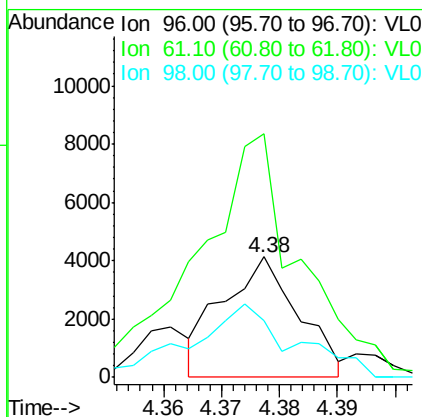
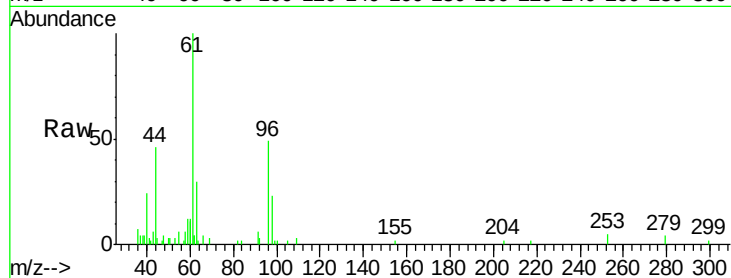




#18
 1,1-Dichloroethene
 Concen: 0.062 ppbv
 RT: 4.38 min Scan# 448
 Delta R.T. -0.01 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

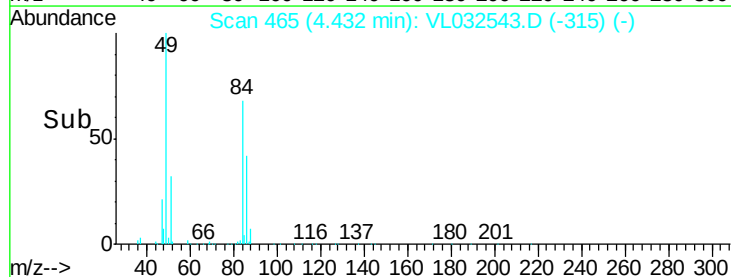
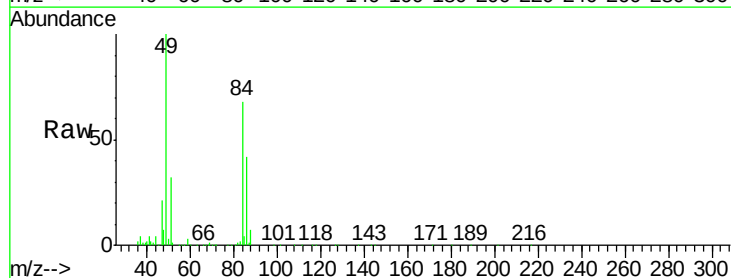
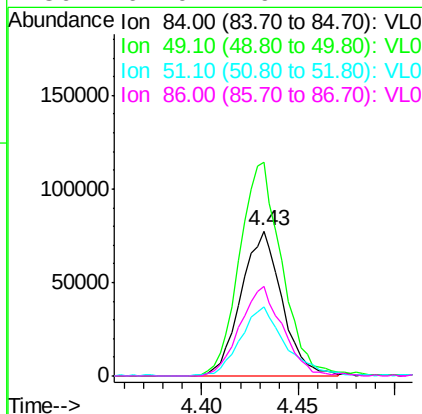
Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF1-092018DL

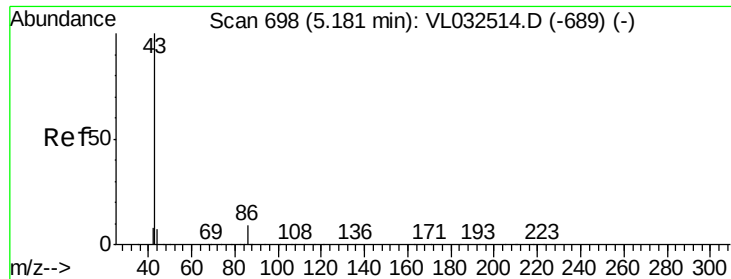
Tgt Ion: 96 Resp: 3784
 Ion Ratio Lower Upper
 96 100
 61 188.4 159.2 238.8
 98 35.8 51.0 76.4#



#20
 Methylene Chloride
 Concen: 1.855 ppbv
 RT: 4.43 min Scan# 465
 Delta R.T. -0.02 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

Tgt Ion: 84 Resp: 114374
 Ion Ratio Lower Upper
 84 100
 49 147.1 119.1 178.7
 51 47.8 35.2 52.8
 86 62.0 49.4 74.2





#23

Vinyl Acetate

Concen: 0.082 ppbv

RT: 5.17 min Scan# 696

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF1-092018DL

Tgt Ion: 43 Resp: 18389

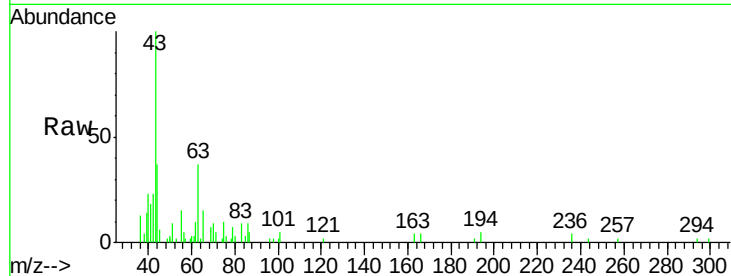
Ion Ratio Lower Upper

43 100

86 15.0 5.9 8.9#

42 19.0 6.9 10.3#

44 5.7 4.6 7.0

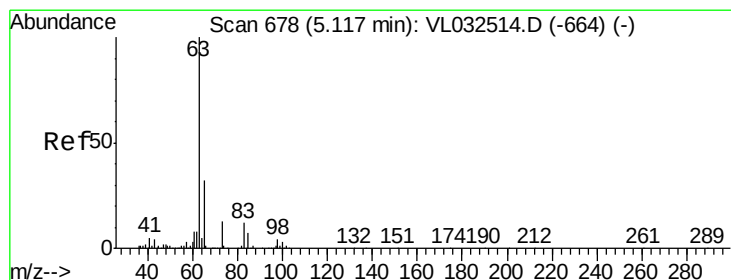
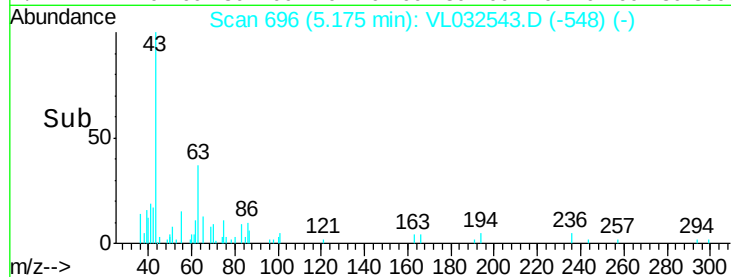
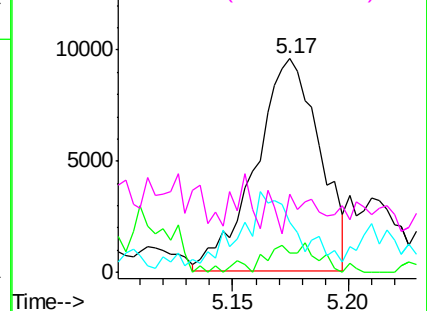


Abundance Ion 43.10 (42.80 to 43.80): VL0

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



#24

1,1-Dichloroethane

Concen: 12.264 ppbv

RT: 5.11 min Scan# 677

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

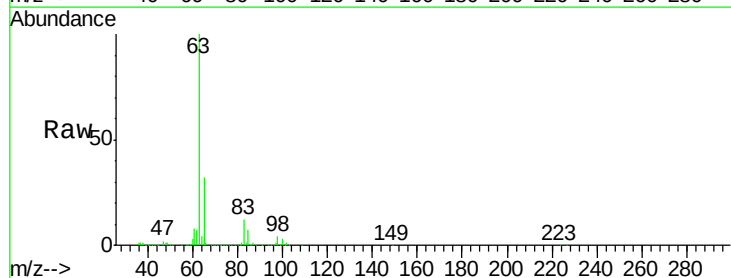
Tgt Ion: 63 Resp: 2297712

Ion Ratio Lower Upper

63 100

98 4.1 2.1 6.5

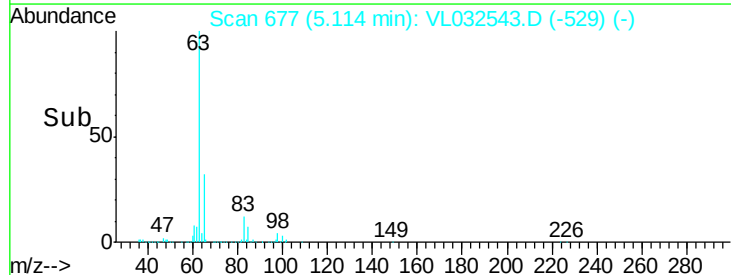
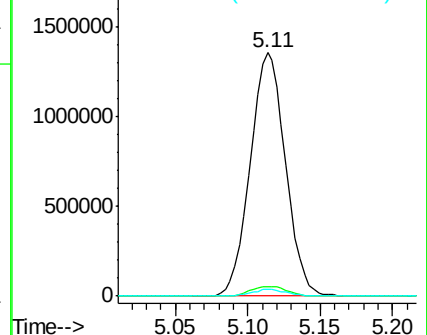
100 2.7 1.5 4.4

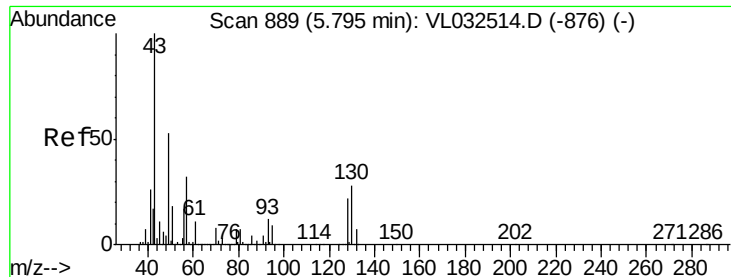


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

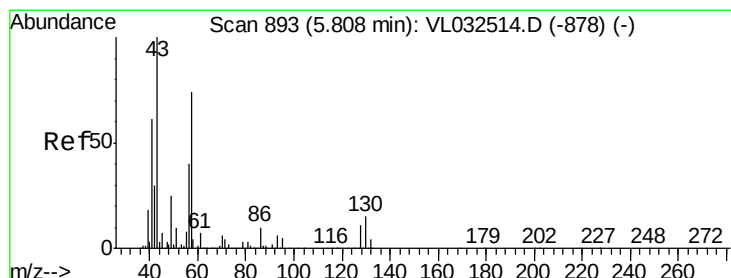
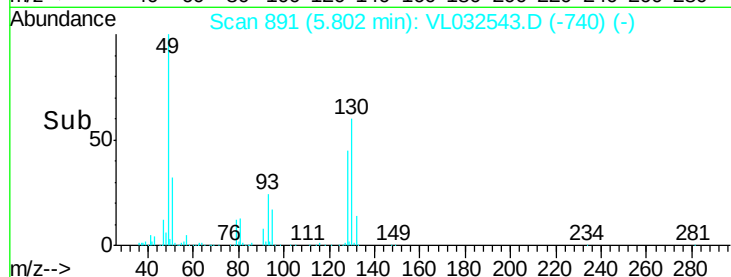
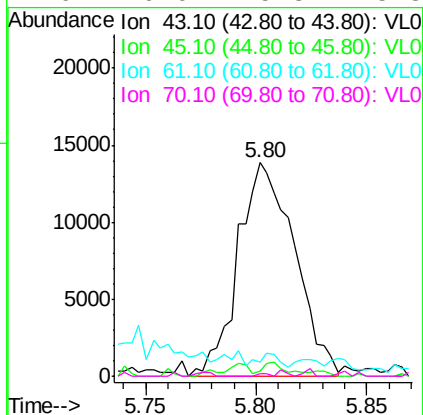
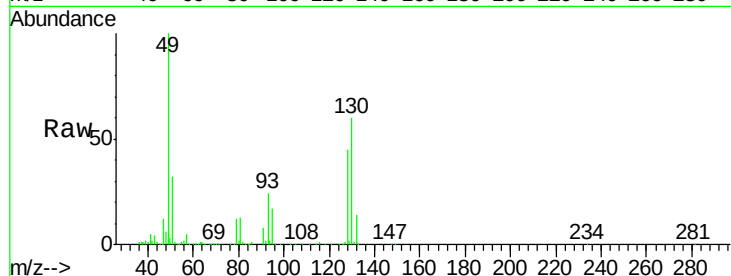




#25
Ethyl Acetate
Concen: 0.080 ppbv
RT: 5.80 min Scan# 891
Delta R.T. -0.01 min
Lab File: VL032543.D
Acq: 25 Sep 2018 13:34

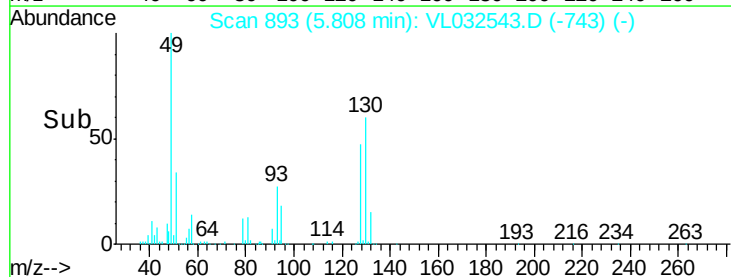
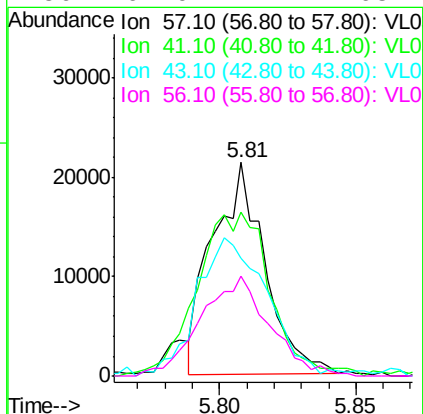
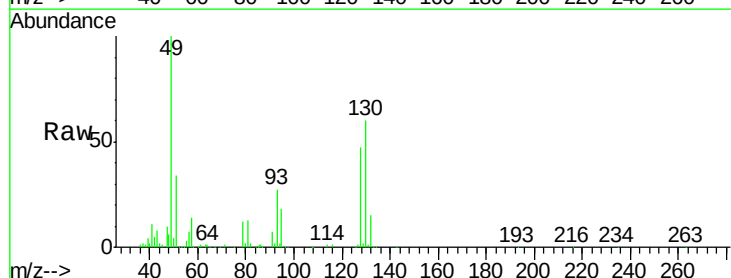
Instrument :
MSVOA_L
ClientSampleId :
SVE-INF1-092018DL

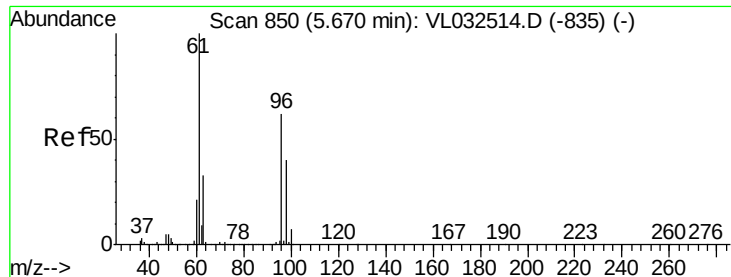
Tgt Ion:	43	Resp:	24655
Ion	Ratio	Lower	Upper
43	100		
45	7.1	8.0	12.0#
61	0.0	7.6	11.4#
70	0.0	5.8	8.8#



#26
Hexane
Concen: 0.206 ppbv
RT: 5.81 min Scan# 893
Delta R.T. -0.02 min
Lab File: VL032543.D
Acq: 25 Sep 2018 13:34

Tgt Ion:	57	Resp:	28681
Ion	Ratio	Lower	Upper
57	100		
41	108.4	69.0	103.4#
43	91.1	172.1	258.1#
56	61.0	42.2	63.2





#31

cis-1,2-Dichloroethene

Concen: 7.668 ppbv

RT: 5.66 min Scan# 848

Delta R.T. -0.03 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF1-092018DL

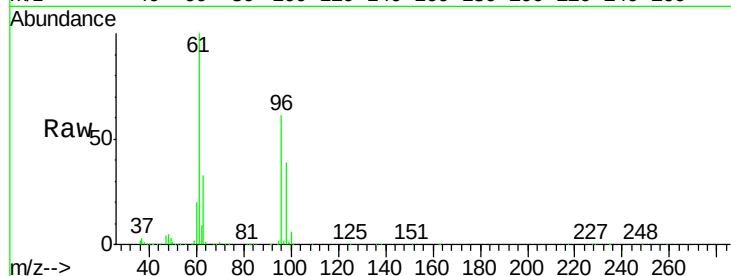
Tgt Ion: 61 Resp: 1019096

Ion Ratio Lower Upper

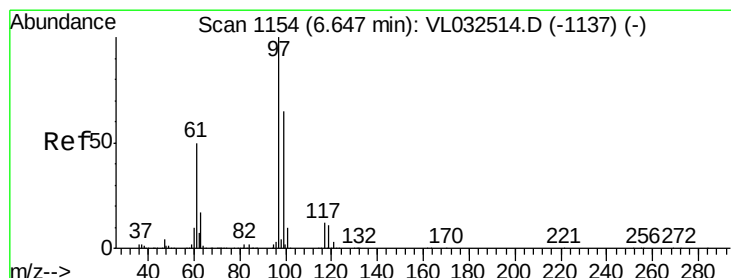
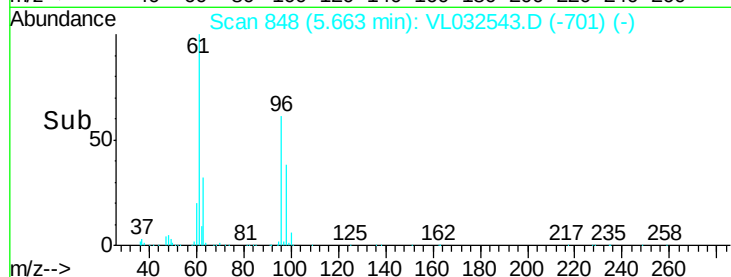
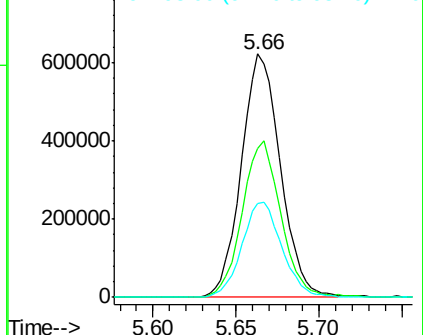
61 100

96 61.3 49.2 73.8

98 38.5 30.7 46.1



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 10.783 ppbv

RT: 6.64 min Scan# 1153

Delta R.T. -0.03 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

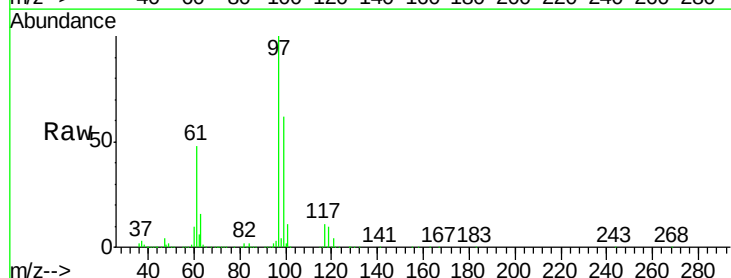
Tgt Ion: 97 Resp: 2460470

Ion Ratio Lower Upper

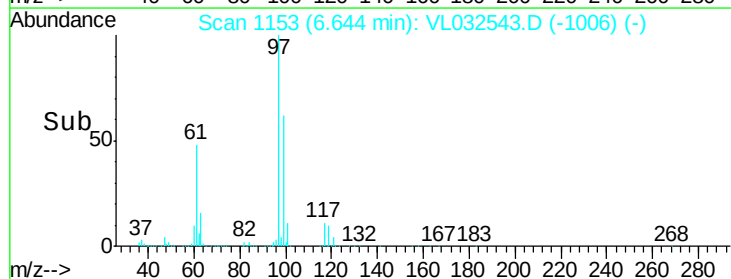
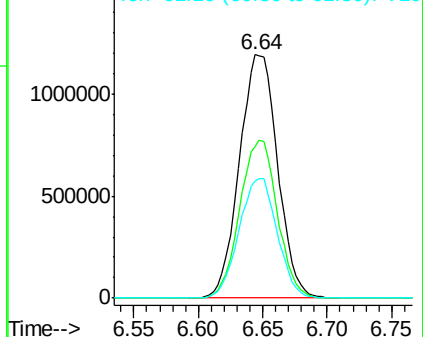
97 100

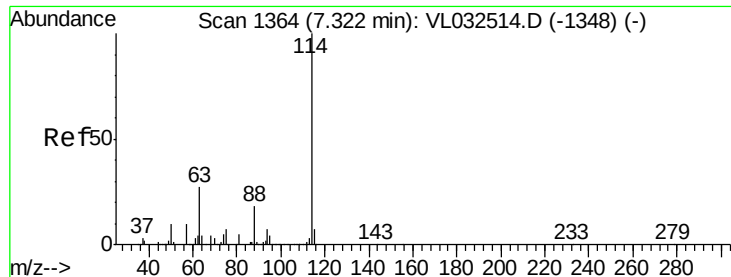
99 63.9 52.1 78.1

61 49.2 42.5 63.7



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0

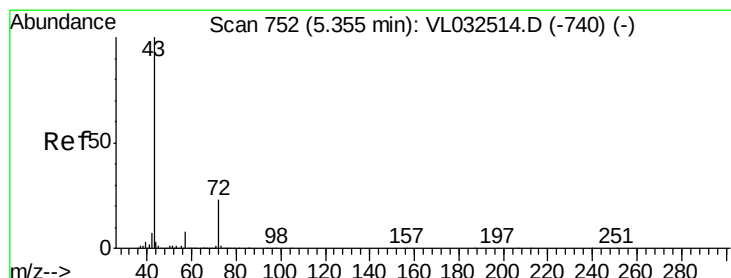
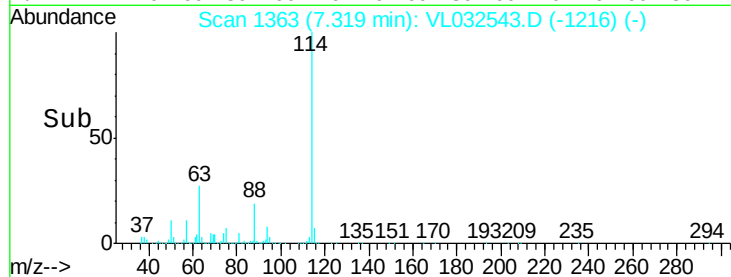
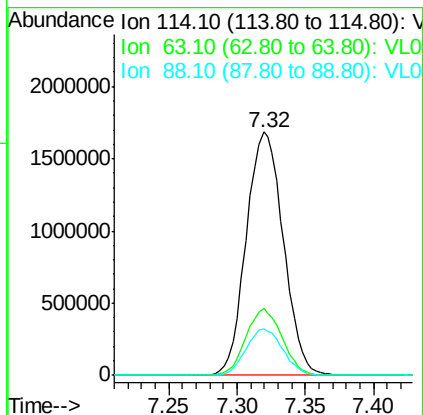
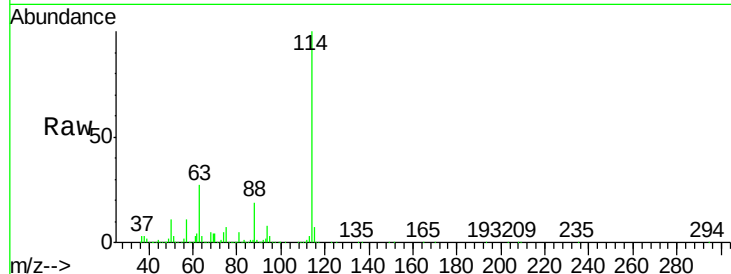




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.32 min Scan# 1363
 Delta R.T. -0.03 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

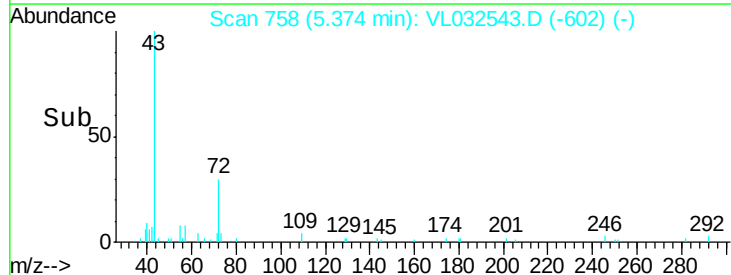
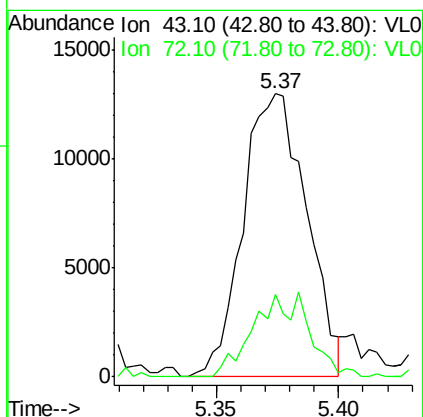
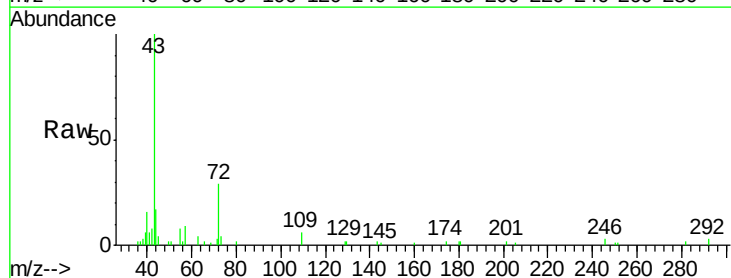
Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF1-092018DL

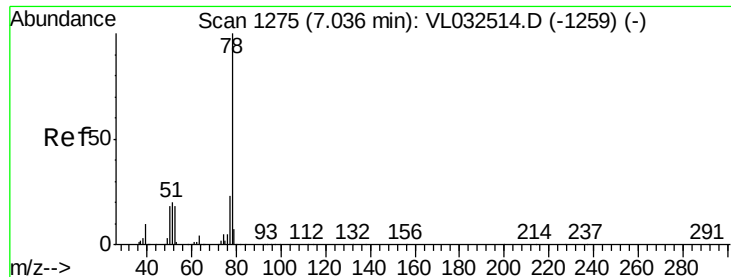
Tgt Ion:114 Resp: 3176199
 Ion Ratio Lower Upper
 114 100
 63 26.9 22.2 33.4
 88 18.9 15.0 22.4



#34
 2-Butanone
 Concen: 0.124 ppbv
 RT: 5.37 min Scan# 758
 Delta R.T. 0.00 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

Tgt Ion: 43 Resp: 23468
 Ion Ratio Lower Upper
 43 100
 72 26.1 17.8 26.6





#36

Benzene

Concen: 0.248 ppbv

RT: 7.04 min Scan# 1275

Delta R.T. -0.02 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF1-092018DL

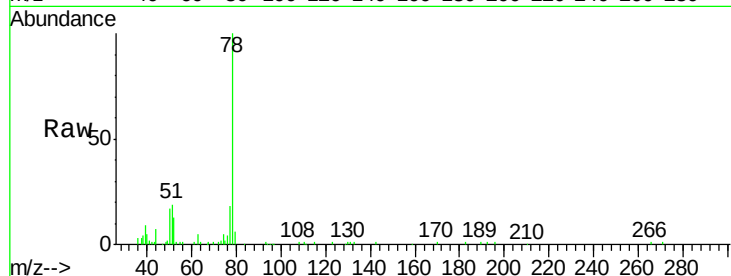
Tgt Ion: 78 Resp: 63656

Ion Ratio Lower Upper

78 100

77 17.4 18.4 27.6#

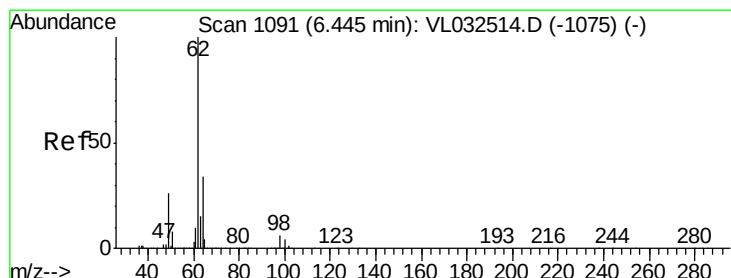
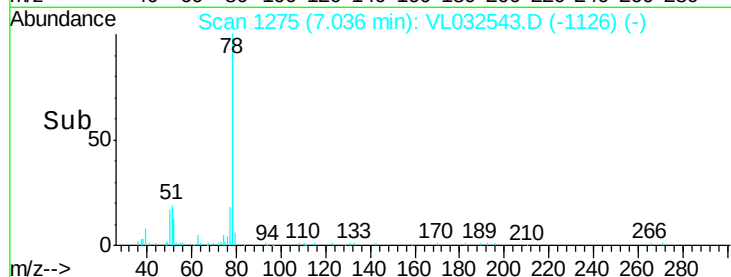
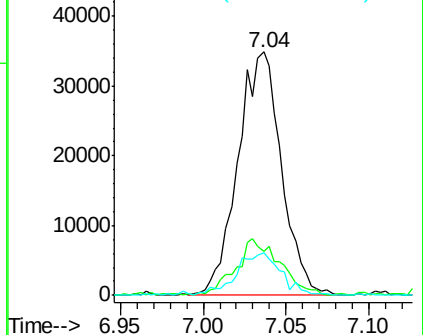
50 17.5 14.4 21.6



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: 0.601 ppbv

RT: 6.64 min Scan# 1153

Delta R.T. 0.18 min

Lab File: VL032543.D

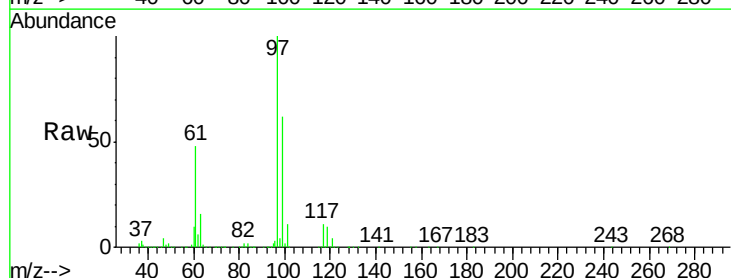
Acq: 25 Sep 2018 13:34

Tgt Ion: 62 Resp: 93038

Ion Ratio Lower Upper

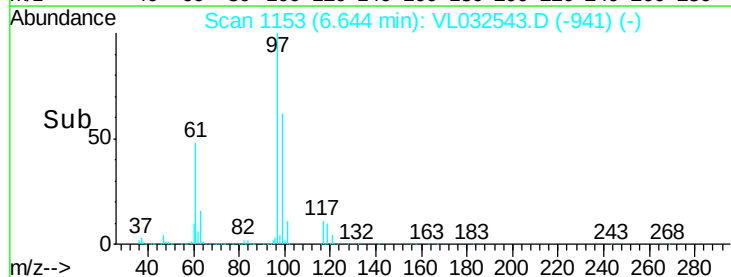
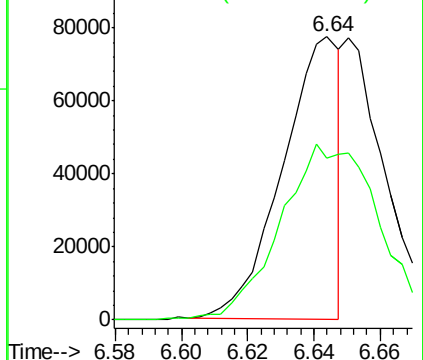
62 100

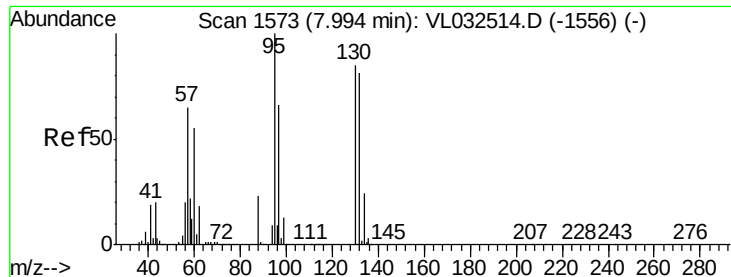
98 107.3 5.0 7.6#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

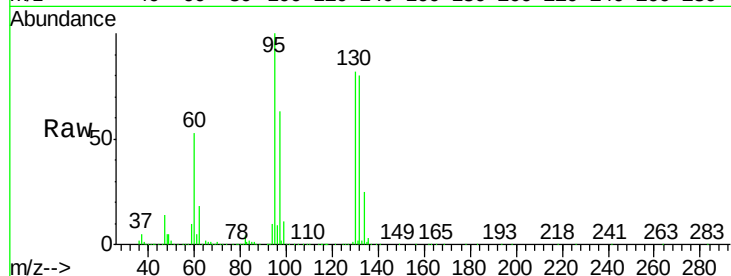




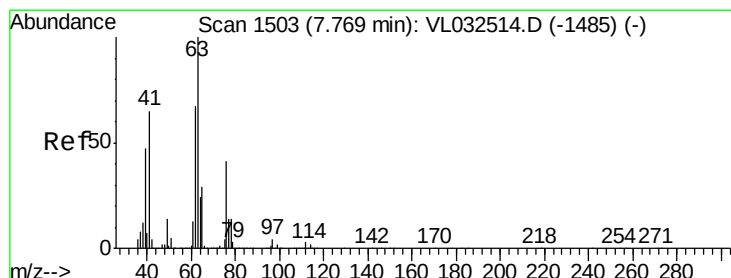
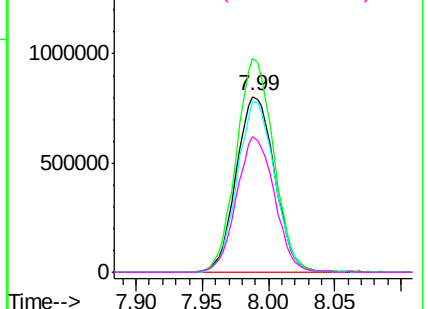
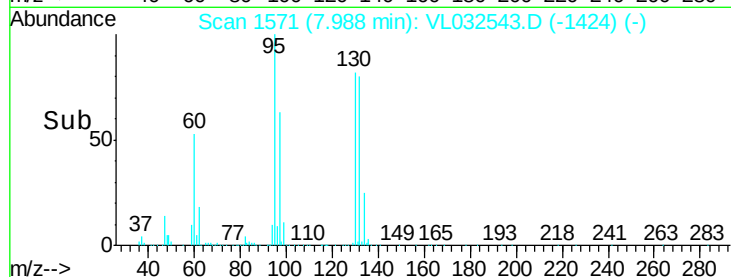
#38
 Trichloroethene
 Concen: 16.471 ppbv
 RT: 7.99 min Scan# 1571
 Delta R.T. -0.03 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-INF1-092018DL

Tgt Ion: 130 Resp: 1618296
 Ion Ratio Lower Upper
 130 100
 95 121.7 94.2 141.4
 132 97.1 76.2 114.4
 97 77.1 60.8 91.2

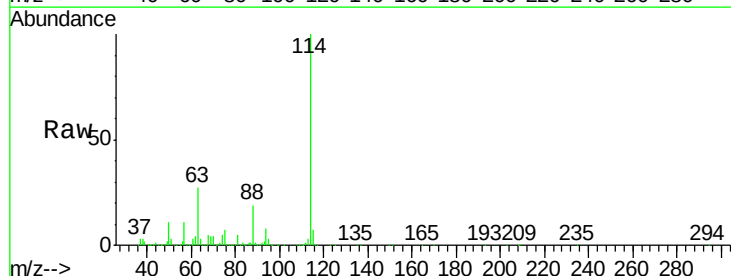


Abundance Ion 130.00 (129.70 to 130.70): V
 1500000 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

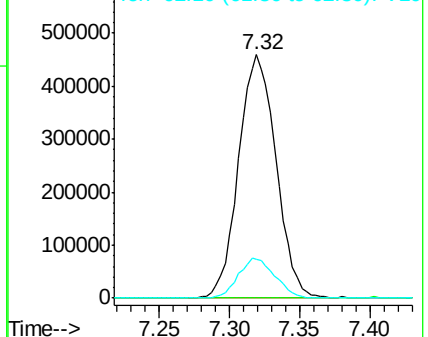
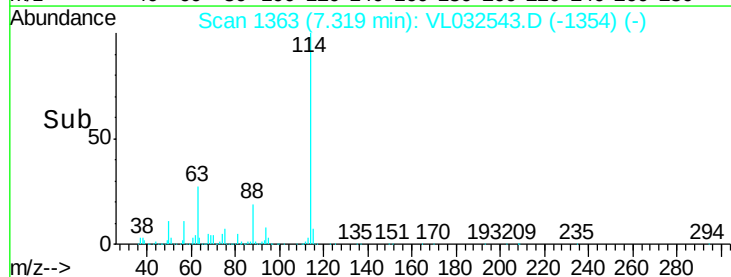


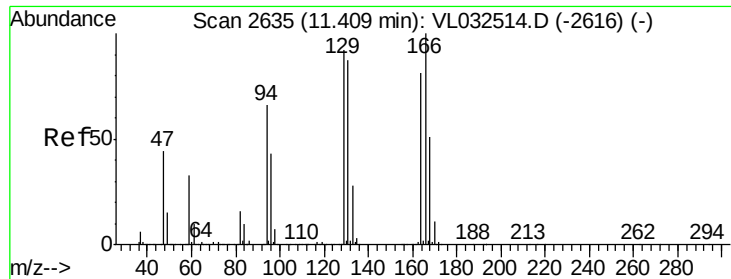
#39
 1,2-Dichloropropane
 Concen: 7.386 ppbv
 RT: 7.32 min Scan# 1363
 Delta R.T. -0.47 min
 Lab File: VL032543.D
 Acq: 25 Sep 2018 13:34

Tgt Ion: 63 Resp: 854403
 Ion Ratio Lower Upper
 63 100
 41 0.1 55.4 83.0#
 62 16.0 55.4 83.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0
 600000 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0





#52

Tetrachloroethene

Concen: 0.724 ppbv

RT: 11.40 min Scan# 2633

Delta R.T. -0.03 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF1-092018DL

Tgt Ion:164 Resp: 64674

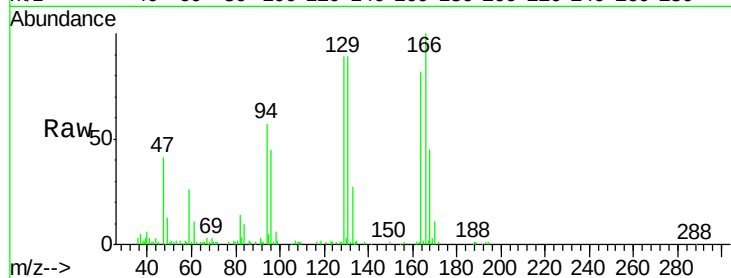
Ion Ratio Lower Upper

164 100

166 122.5 100.6 150.8

129 108.6 89.9 134.9

131 110.3 85.9 128.9

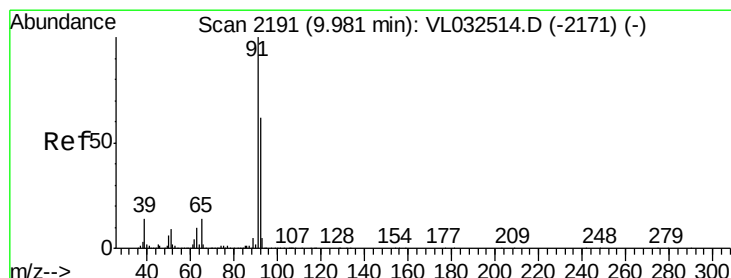
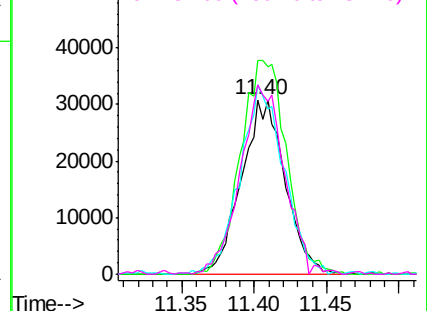
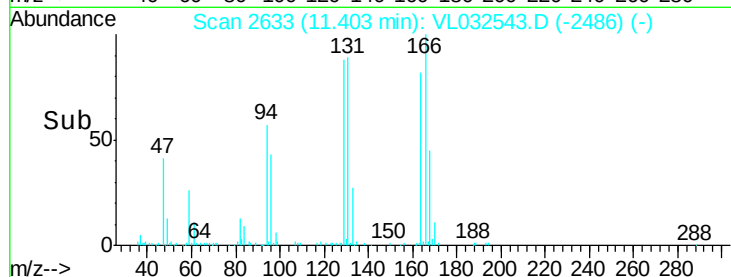


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.079 ppbv

RT: 9.98 min Scan# 2189

Delta R.T. -0.03 min

Lab File: VL032543.D

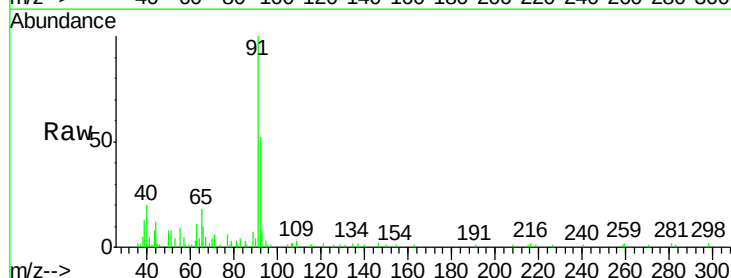
Acq: 25 Sep 2018 13:34

Tgt Ion: 91 Resp: 24606

Ion Ratio Lower Upper

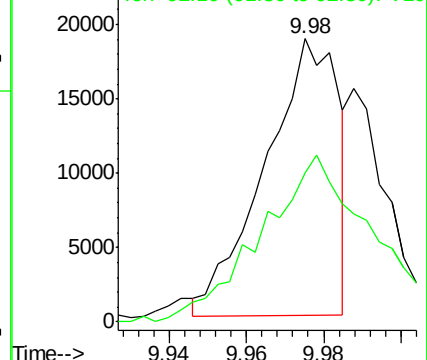
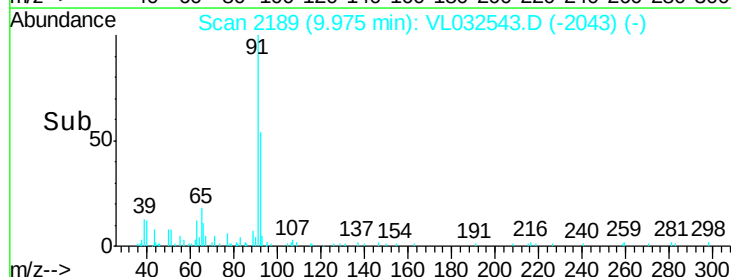
91 100

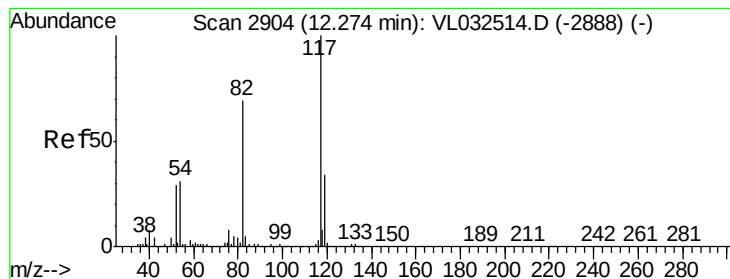
92 91.1 48.1 72.1#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.27 min Scan# 2903

Delta R.T. -0.03 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

Instrument :

MSVOA_L

ClientSampleId :

SVE-INF1-092018DL

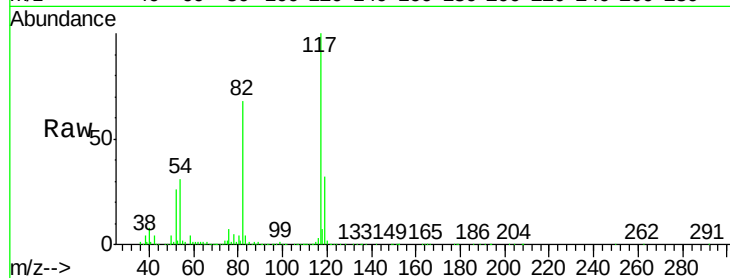
Tgt Ion: 117 Resp: 3253702

Ion Ratio Lower Upper

117 100

82 67.6 53.0 79.6

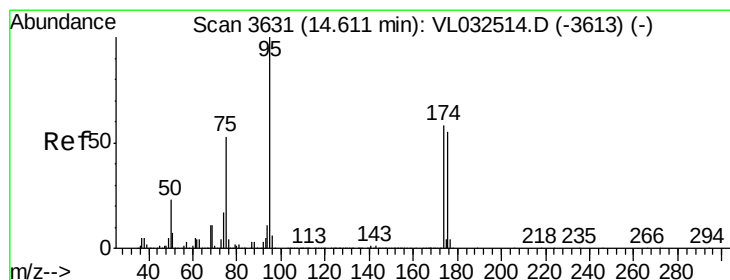
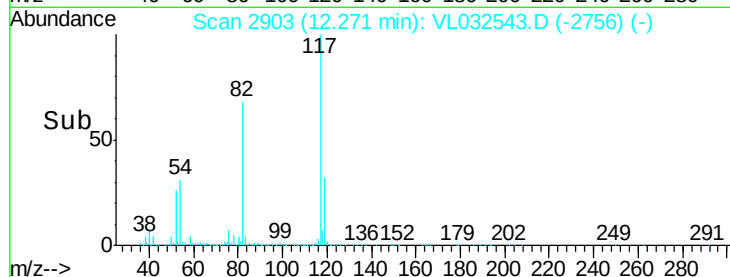
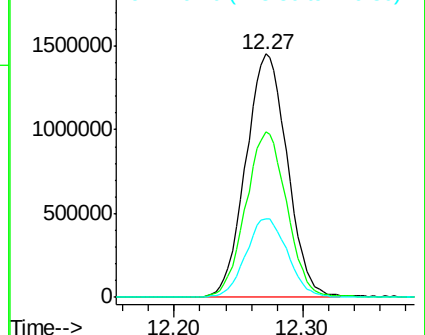
119 33.0 45.9 68.9#



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



#68

1-Bromo-4-Fluorobenzene

Concen: 10.301 ppbv

RT: 14.61 min Scan# 3630

Delta R.T. -0.03 min

Lab File: VL032543.D

Acq: 25 Sep 2018 13:34

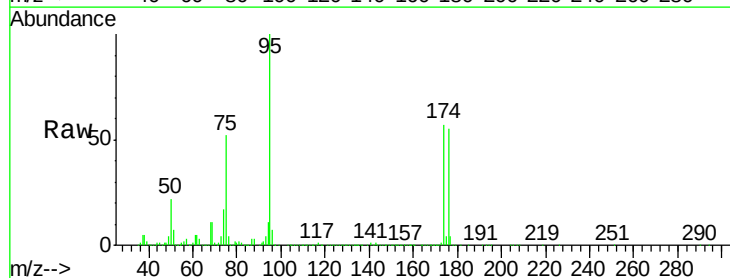
Tgt Ion: 95 Resp: 2527526

Ion Ratio Lower Upper

95 100

174 57.4 46.3 69.5

175 4.2 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

