

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL090518\
 Data File : VL032460.D
 Acq On : 5 Sep 2018 16:41
 Operator : SY/AP
 Sample : QC 082718 CAN 10292
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 QC 082718 CAN 10292

Quant Time: Sep 06 05:00:03 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL083118AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 31 21:33:46 2018
 QLast Update : Fri Aug 31 21:33:46 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.80	49	1621411	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.33	114	3215876	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.29	117	2989911	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.63	95	2304004	10.38	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.80%

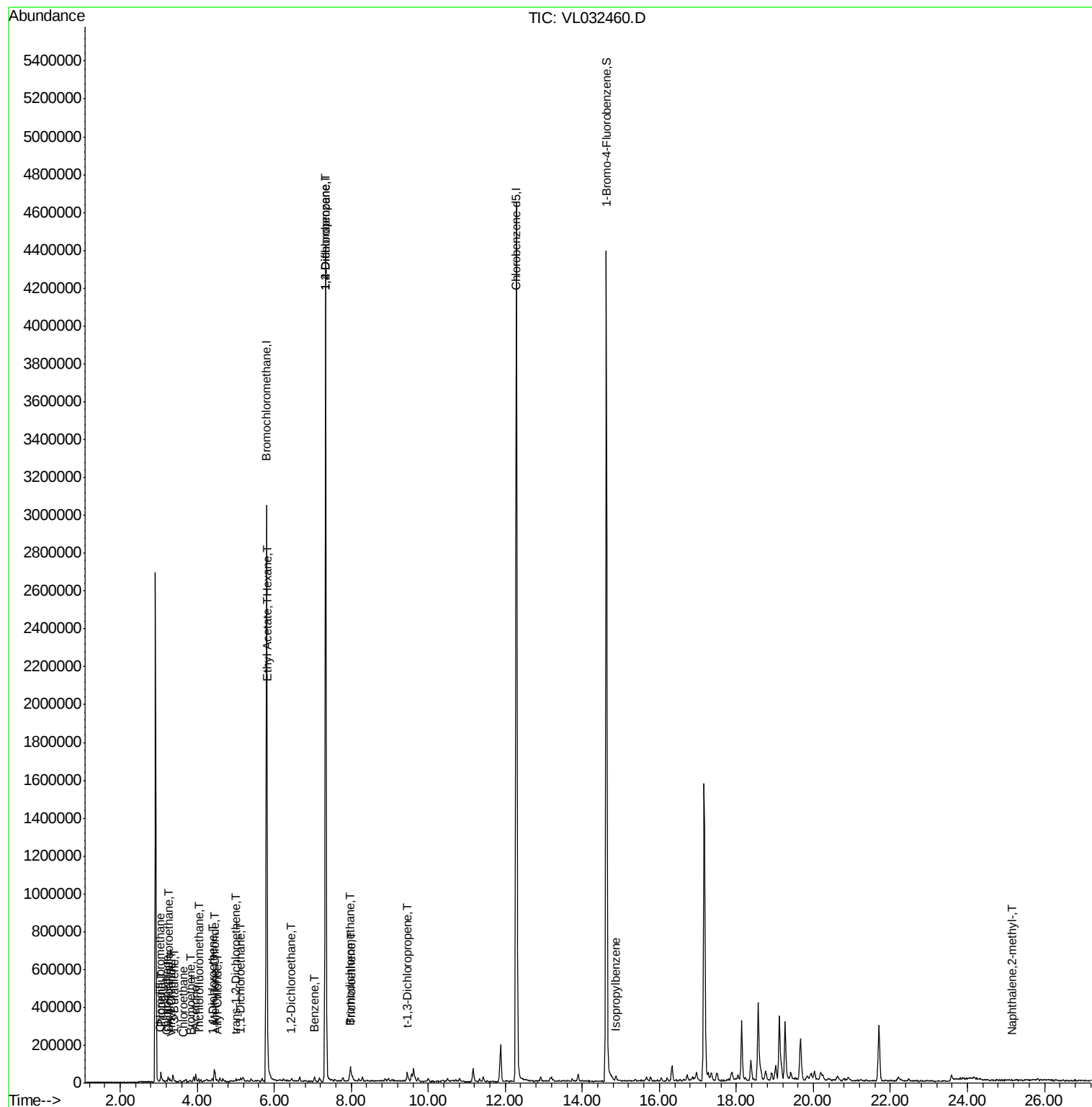
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	3.04	51	9688	0.066	ppbv	98
4) Chloromethane	3.21	50	6078	0.068	ppbv #	86
5) Vinyl Chloride	3.32	62	4346	0.050	ppbv #	74
7) Chloroethane	3.63	64	995	0.033	ppbv #	62
8) Dichlorotetrafluoroethane	3.24	85	10323	0.056	ppbv	100
9) Propene	3.06	41	12322	0.208	ppbv	96
11) Trichlorofluoromethane	4.04	101	8154	0.044	ppbv	85
14) Bromoethene	3.83	108	1755	0.033	ppbv #	36
15) Acetone	3.96	43	37909	0.260	ppbv	97
16) 1,3-Butadiene	3.40	39	2099	0.031	ppbv #	1
18) 1,1-Dichloroethene	4.39	96	3769	0.065	ppbv #	75
20) Methylene Chloride	4.44	84	17067	0.307	ppbv	97
21) Allyl Chloride	4.51	41	3696	0.038	ppbv #	23
22) trans-1,2-Dichloroethene	5.00	96	2386	0.038	ppbv #	17
24) 1,1-Dichloroethane	5.13	63	11323	0.057	ppbv #	92
25) Ethyl Acetate	5.82	43	12865	0.037	ppbv #	75
26) Hexane	5.82	57	14765	0.096	ppbv #	76
36) Benzene	7.04	78	12983	0.047	ppbv #	90
37) 1,2-Dichloroethane	6.46	62	7459	0.044	ppbv #	87
38) Trichloroethene	8.00	130	3227	0.031	ppbv #	58
39) 1,2-Dichloropropane	7.33	63	862553	7.366	ppbv #	26
42) Bromodichloromethane	7.96	83	7701	0.033	ppbv #	98
45) t-1,3-Dichloropropene	9.47	75	4274	0.034	ppbv #	50
62) Isopropylbenzene	14.88	105	16685	0.038	ppbv	95
80) Naphthalene,2-methyl-	25.17	142	2497	0.031	ppbv	86

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

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QLast Update : Fri Aug 31 21:33:46 2018
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.80 min Scan# 1466

Delta R.T. -0.01 min

Lab File: VL032460.D

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Instrument :

MSVOA_L

ClientSampleId :

QC 082718 CAN 10292

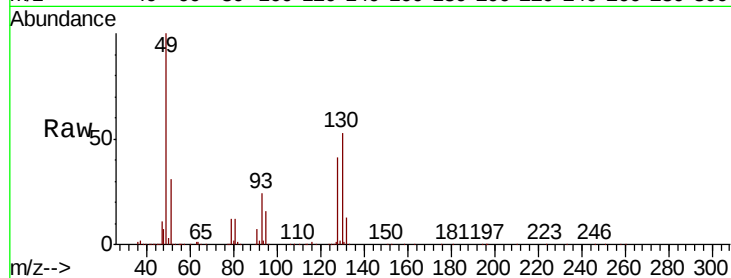
Tgt Ion: 49 Resp: 1621411

Ion Ratio Lower Upper

49 100

128 41.4 20.7 62.1

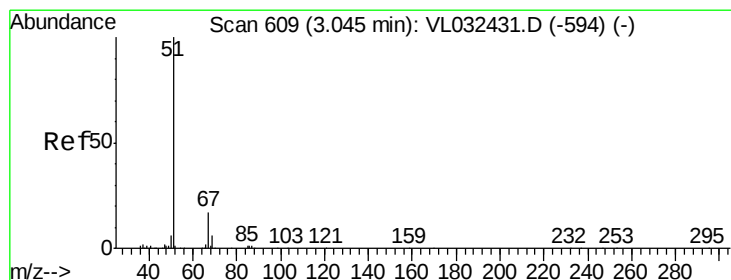
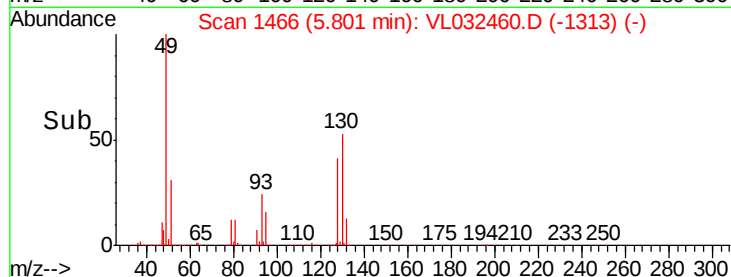
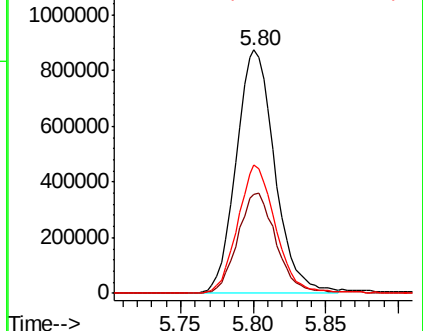
130 52.1 26.6 79.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.066 ppbv

RT: 3.04 min Scan# 608

Delta R.T. -0.00 min

Lab File: VL032460.D

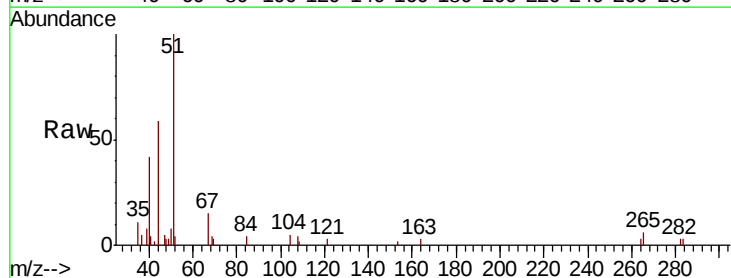
Acq: 5 Sep 2018 16:41

Tgt Ion: 51 Resp: 9688

Ion Ratio Lower Upper

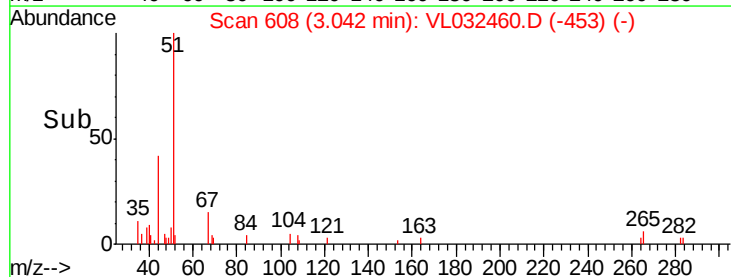
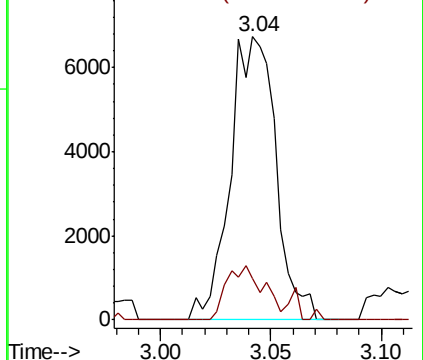
51 100

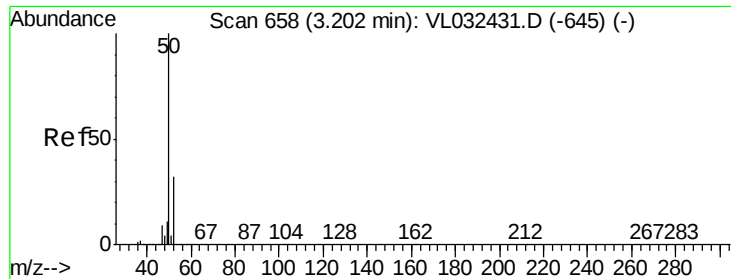
67 18.3 13.8 20.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.068 ppbv

RT: 3.21 min Scan# 659

Delta R.T. 0.00 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

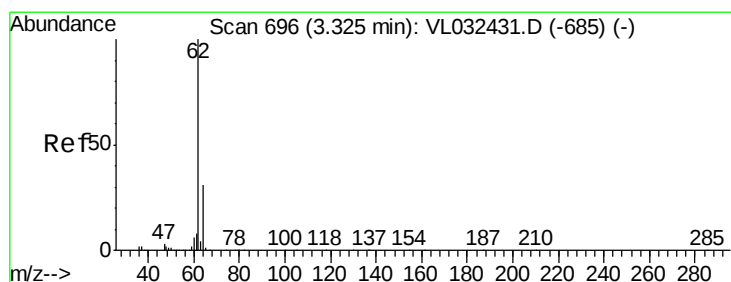
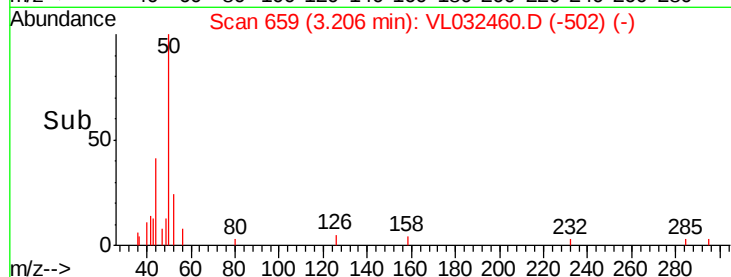
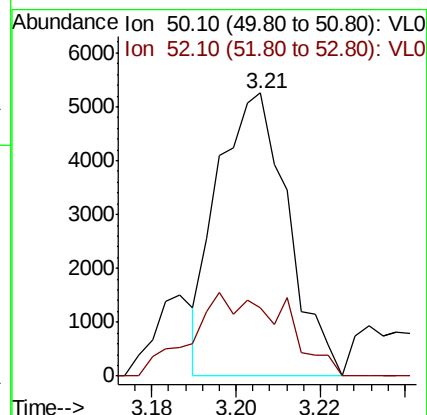
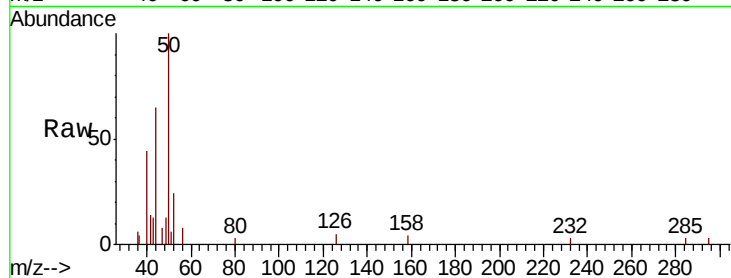
QC 082718 CAN 10292

Tgt Ion: 50 Resp: 6078

Ion Ratio Lower Upper

50 100

52 24.4 25.6 38.4#



#5

Vinyl Chloride

Concen: 0.050 ppbv

RT: 3.32 min Scan# 695

Delta R.T. -0.00 min

Lab File: VL032460.D

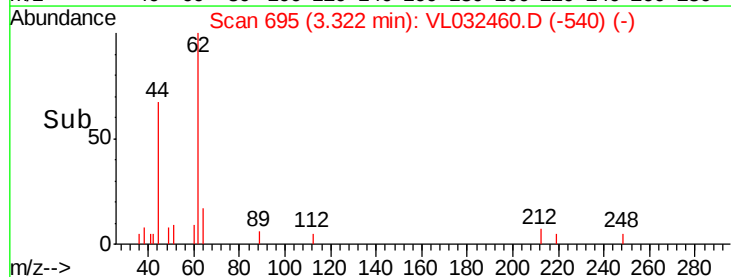
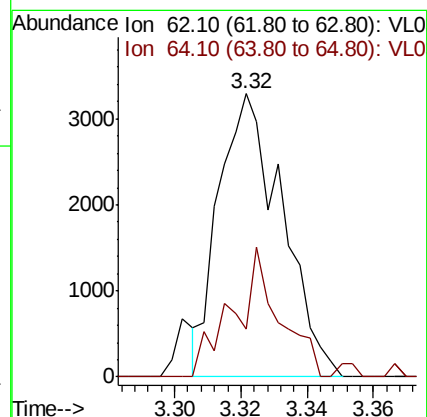
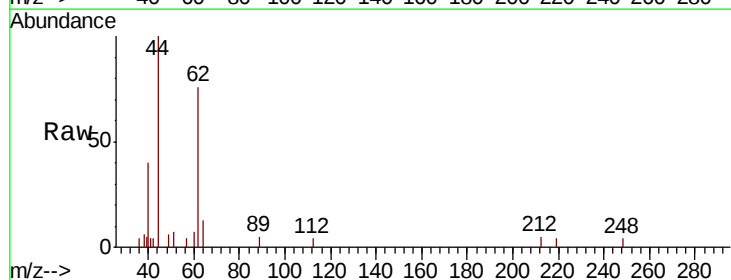
Acq: 5 Sep 2018 16:41

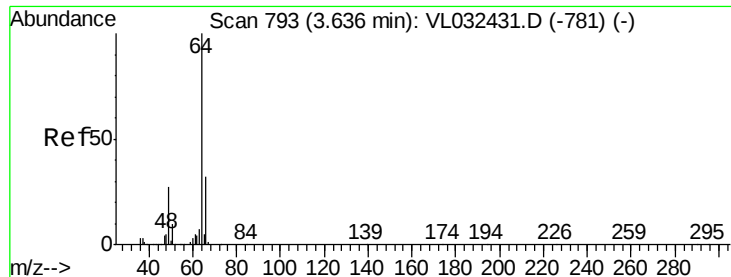
Tgt Ion: 62 Resp: 4346

Ion Ratio Lower Upper

62 100

64 16.8 25.0 37.6#





#7

Chloroethane

Concen: 0.033 ppbv

RT: 3.63 min Scan# 791

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

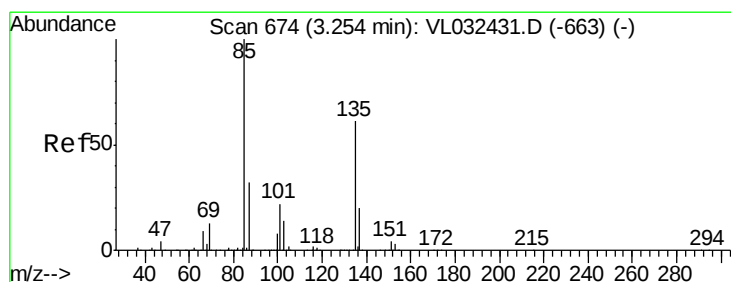
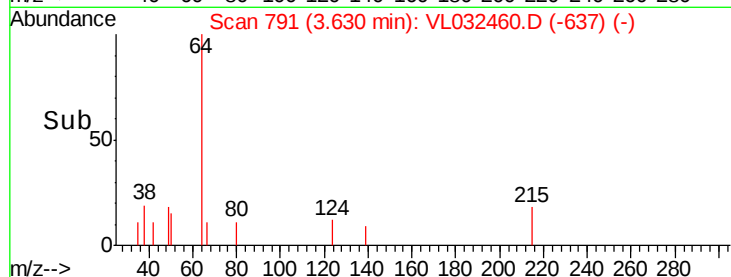
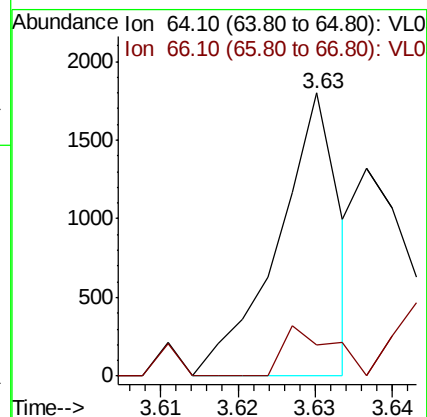
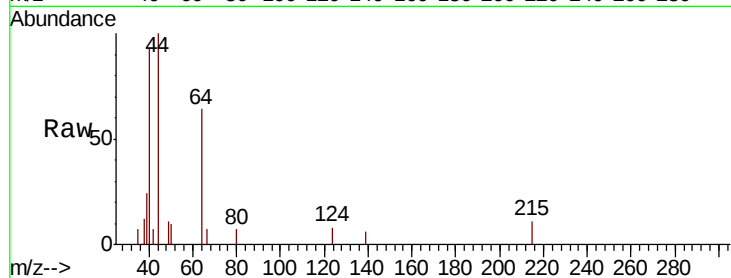
QC 082718 CAN 10292

Tgt Ion: 64 Resp: 995

Ion Ratio Lower Upper

64 100

66 11.0 25.8 38.6#



#8

Dichlorotetrafluoroethane

Concen: 0.056 ppbv

RT: 3.24 min Scan# 671

Delta R.T. -0.01 min

Lab File: VL032460.D

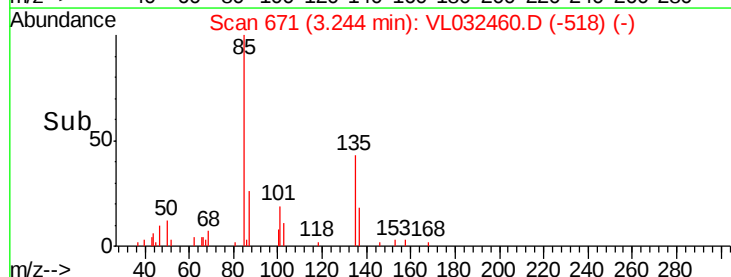
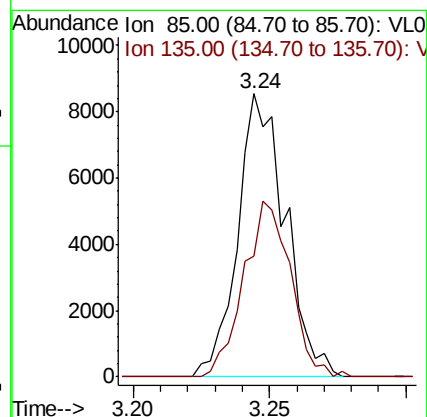
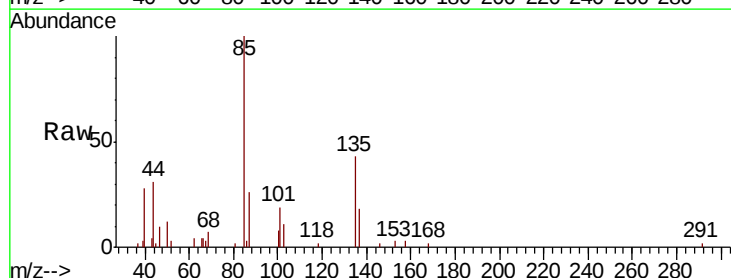
Acq: 5 Sep 2018 16:41

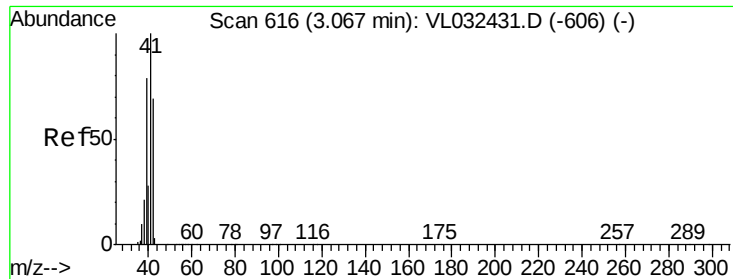
Tgt Ion: 85 Resp: 10323

Ion Ratio Lower Upper

85 100

135 60.9 48.6 72.8





#9

Propene

Concen: 0.208 ppbv

RT: 3.06 min Scan# 615

Delta R.T. -0.00 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

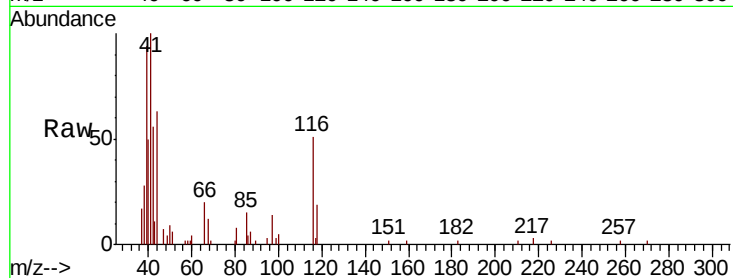
QC 082718 CAN 10292

Tgt Ion: 41 Resp: 12322

Ion Ratio Lower Upper

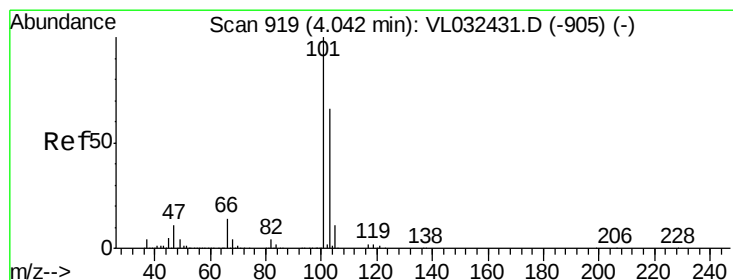
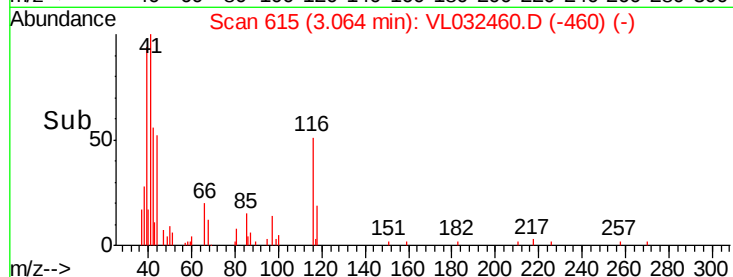
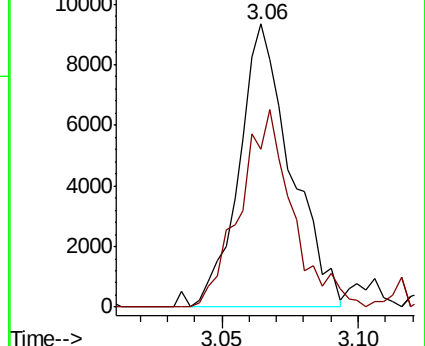
41 100

42 73.6 56.6 84.8



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.044 ppbv

RT: 4.04 min Scan# 918

Delta R.T. -0.00 min

Lab File: VL032460.D

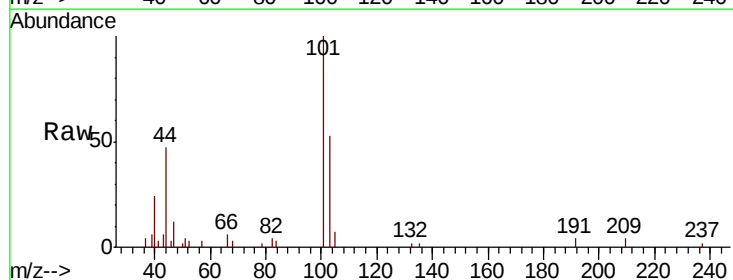
Acq: 5 Sep 2018 16:41

Tgt Ion: 101 Resp: 8154

Ion Ratio Lower Upper

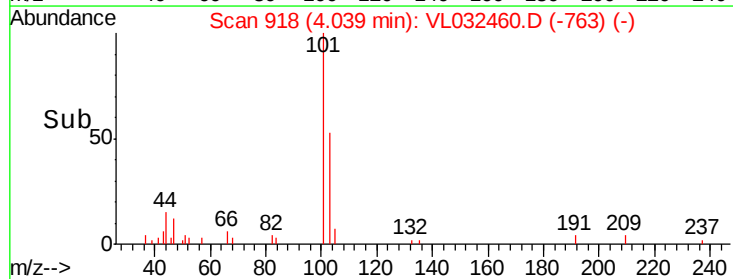
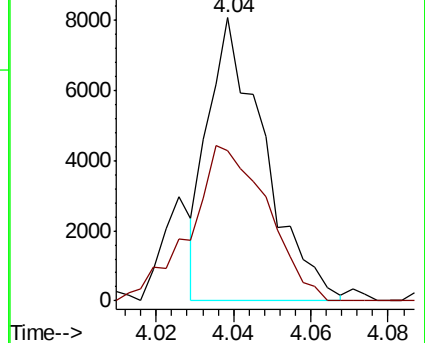
101 100

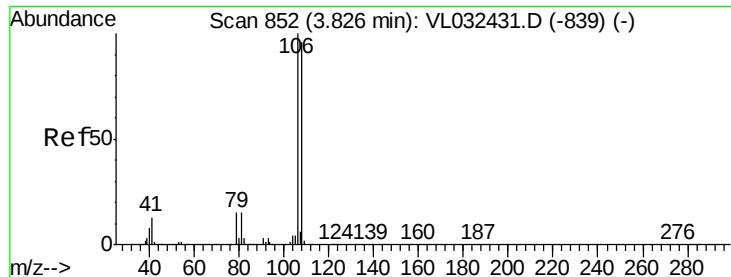
103 54.0 52.8 79.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





#14

Bromoethene

Concen: 0.033 ppbv

RT: 3.83 min Scan# 852

Delta R.T. 0.00 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

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ClientSampleId :

QC 082718 CAN 10292

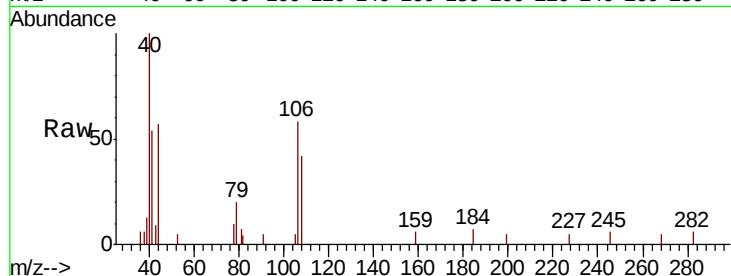
Tgt Ion: 108 Resp: 1755

Ion Ratio Lower Upper

108 100

106 174.5 85.5 128.3#

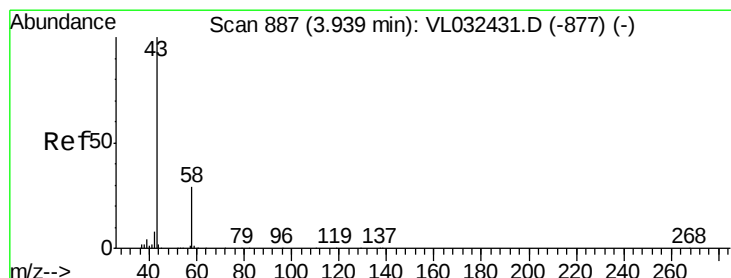
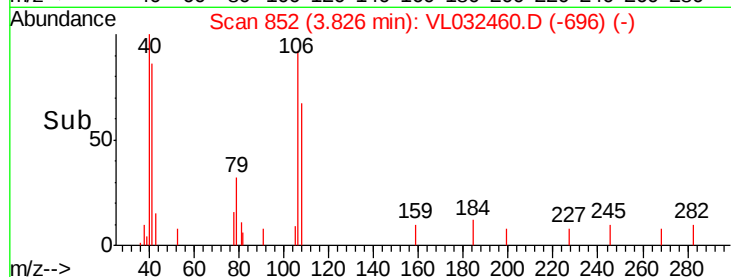
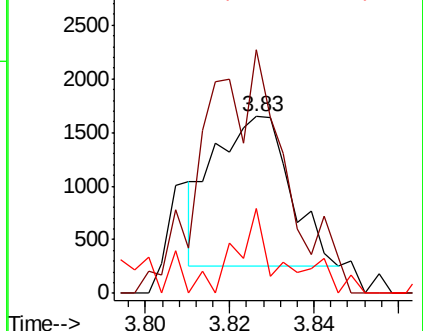
79 39.3 13.0 19.6#



Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VLO



#15

Acetone

Concen: 0.260 ppbv

RT: 3.96 min Scan# 893

Delta R.T. 0.02 min

Lab File: VL032460.D

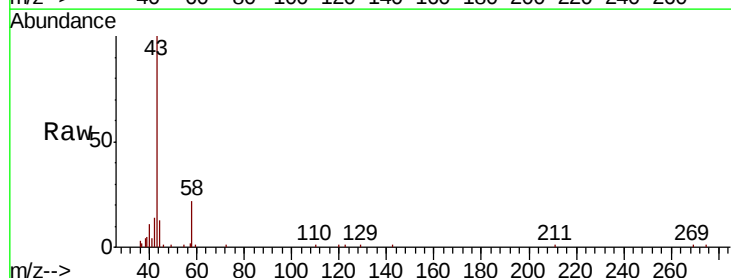
Acq: 5 Sep 2018 16:41

Tgt Ion: 43 Resp: 37909

Ion Ratio Lower Upper

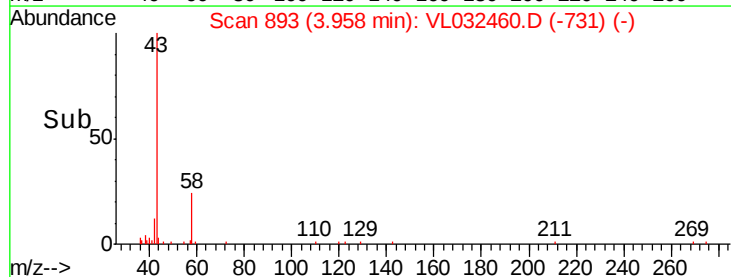
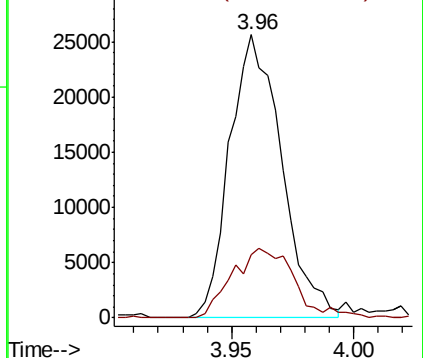
43 100

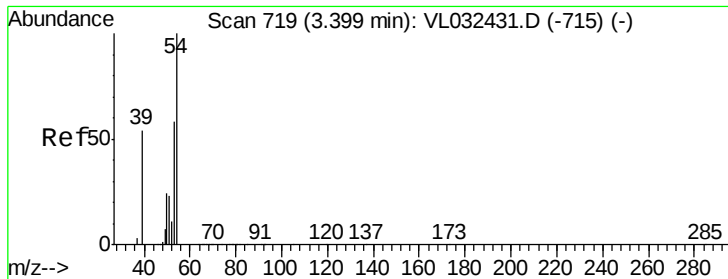
58 29.8 22.6 33.8



Abundance Ion 43.10 (42.80 to 43.80): VLO

Ion 58.10 (57.80 to 58.80): VLO

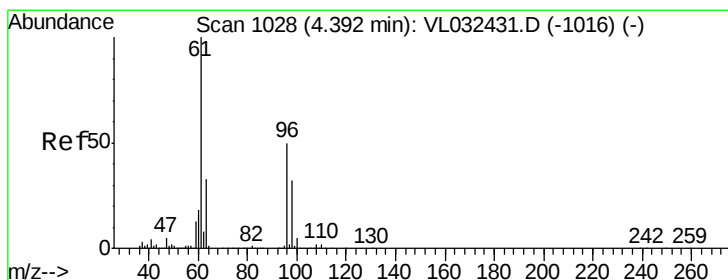
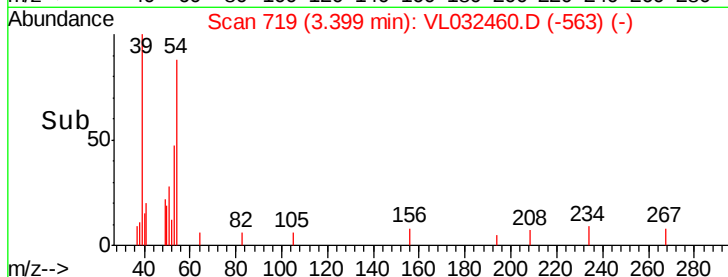
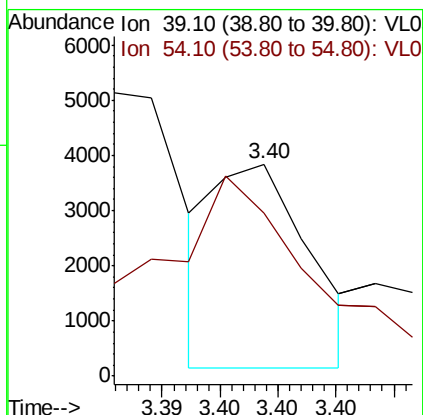
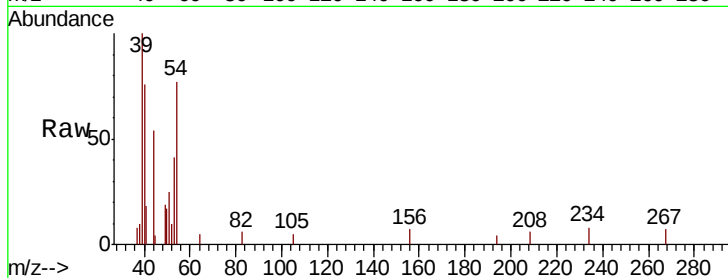




#16
 1,3-Butadiene
 Concen: 0.031 ppbv
 RT: 3.40 min Scan# 719
 Delta R.T. 0.00 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

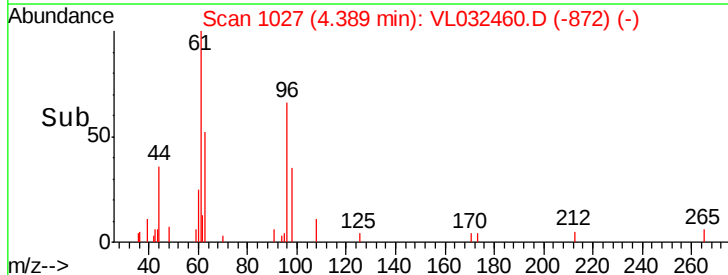
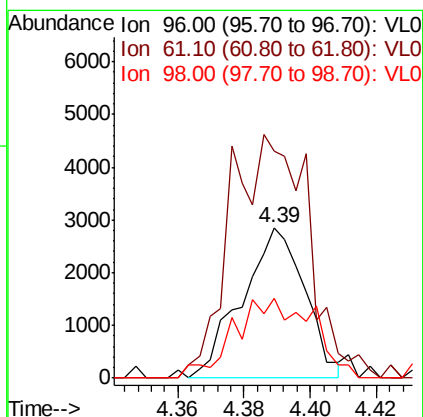
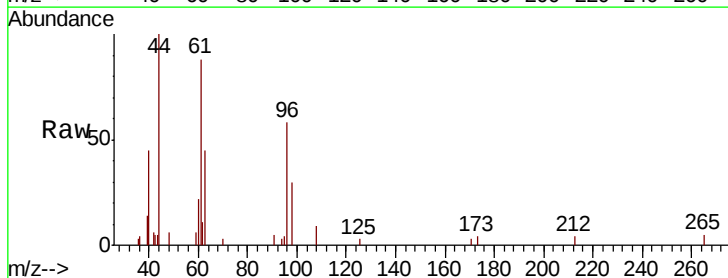
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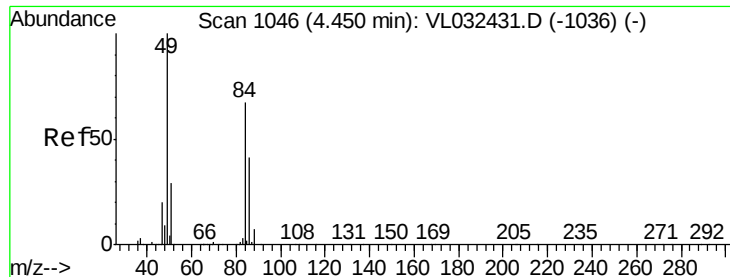
Tgt Ion: 39 Resp: 2099
 Ion Ratio Lower Upper
 39 100
 54 211.2 80.8 121.2#



#18
 1,1-Dichloroethene
 Concen: 0.065 ppbv
 RT: 4.39 min Scan# 1027
 Delta R.T. -0.00 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

Tgt Ion: 96 Resp: 3769
 Ion Ratio Lower Upper
 96 100
 61 161.2 159.2 238.8
 98 43.7 51.0 76.4#

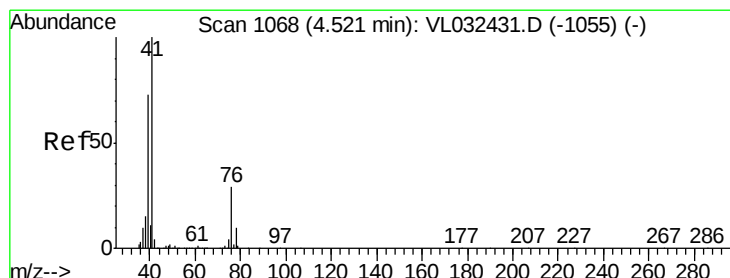
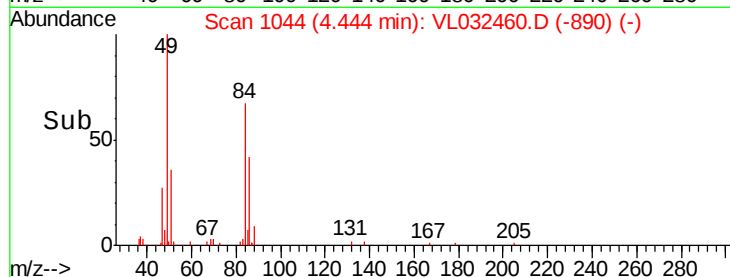
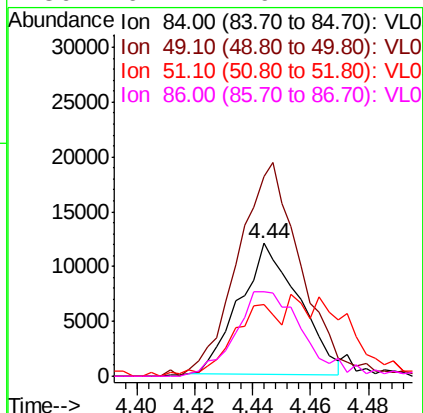
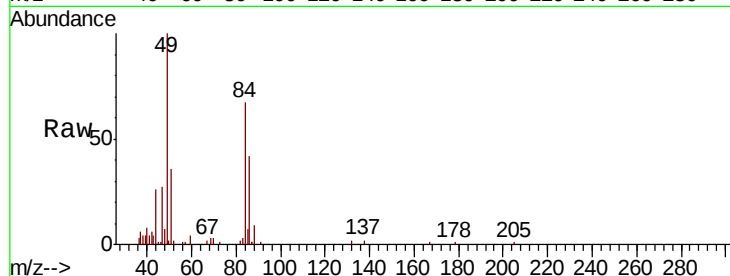




#20
Methylene Chloride
Concen: 0.307 ppbv
RT: 4.44 min Scan# 1044
Delta R.T. -0.01 min
Lab File: VL032460.D
Acq: 5 Sep 2018 16:41

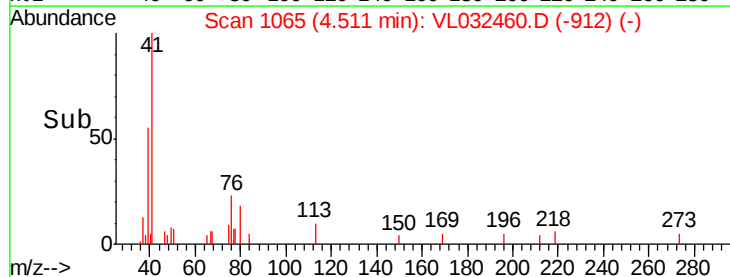
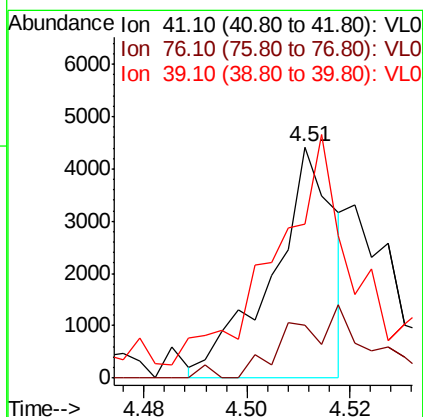
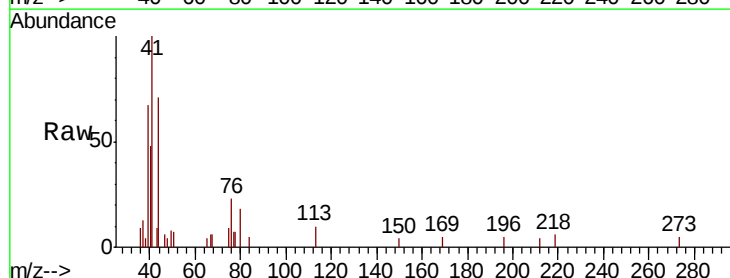
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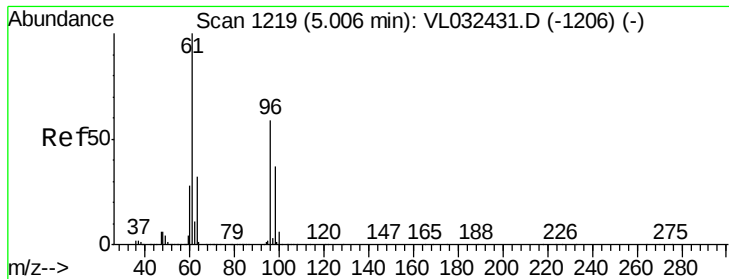
Tgt Ion:	84	Resp:	17067
Ion	Ratio	Lower	Upper
84	100		
49	147.8	119.1	178.7
51	50.6	35.2	52.8
86	62.7	49.4	74.2



#21
Allyl Chloride
Concen: 0.038 ppbv
RT: 4.51 min Scan# 1065
Delta R.T. -0.01 min
Lab File: VL032460.D
Acq: 5 Sep 2018 16:41

Tgt Ion:	41	Resp:	3696
Ion	Ratio	Lower	Upper
41	100		
76	0.0	23.6	35.4#
39	0.0	57.7	86.5#





#22

trans-1,2-Dichloroethene

Concen: 0.038 ppbv

RT: 5.00 min Scan# 1217

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

QC 082718 CAN 10292

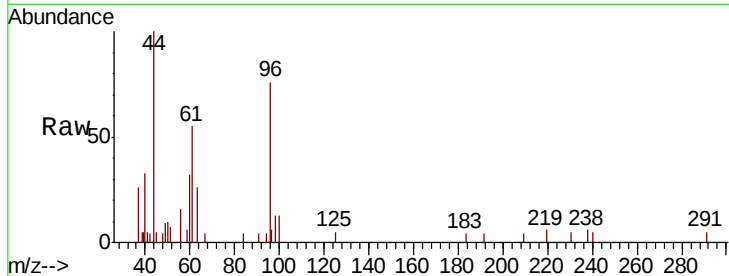
Tgt Ion: 96 Resp: 2386

Ion Ratio Lower Upper

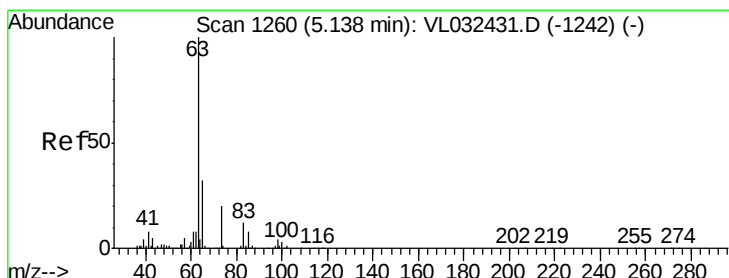
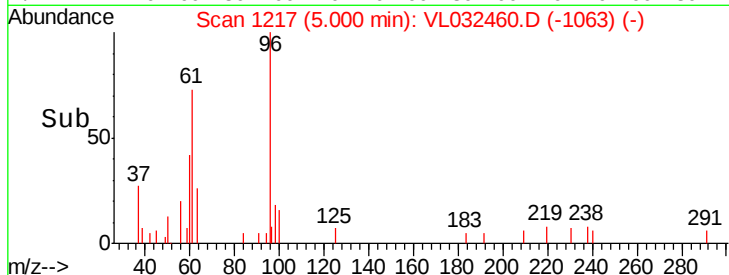
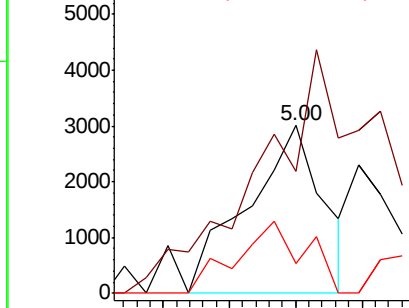
96 100

61 44.1 136.2 204.4#

98 16.5 50.4 75.6#



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



#24

1,1-Dichloroethane

Concen: 0.057 ppbv

RT: 5.13 min Scan# 1257

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

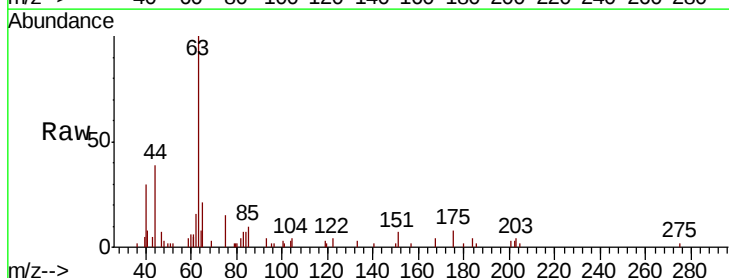
Tgt Ion: 63 Resp: 11323

Ion Ratio Lower Upper

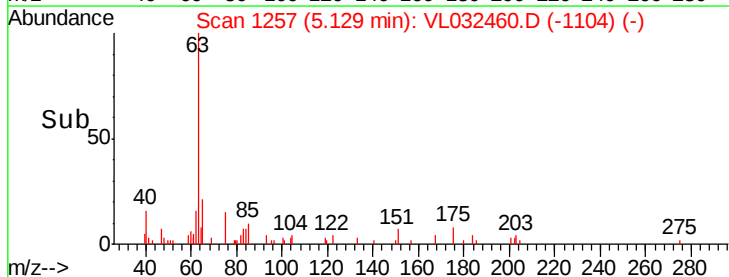
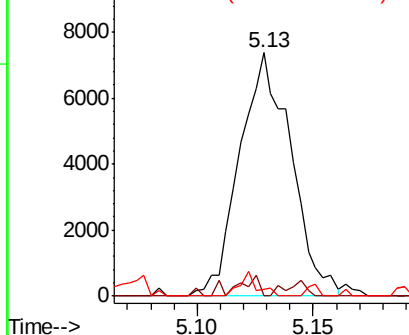
63 100

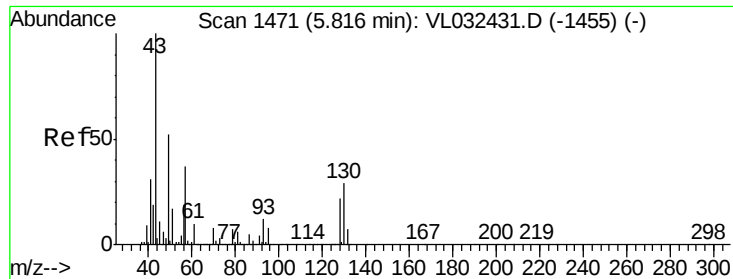
98 0.0 2.1 6.5#

100 2.9 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

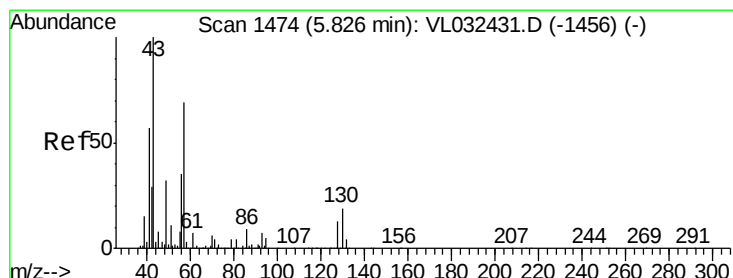
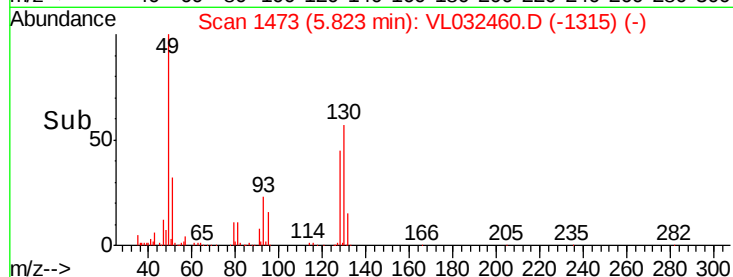
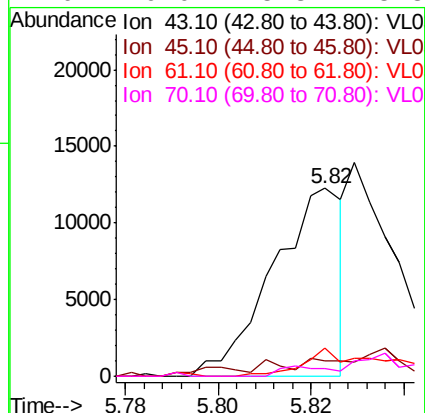
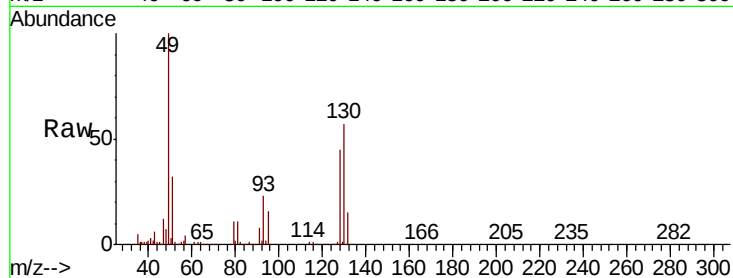




#25
Ethyl Acetate
Concen: 0.037 ppbv
RT: 5.82 min Scan# 1473
Delta R.T. 0.01 min
Lab File: VL032460.D
Acq: 5 Sep 2018 16:41

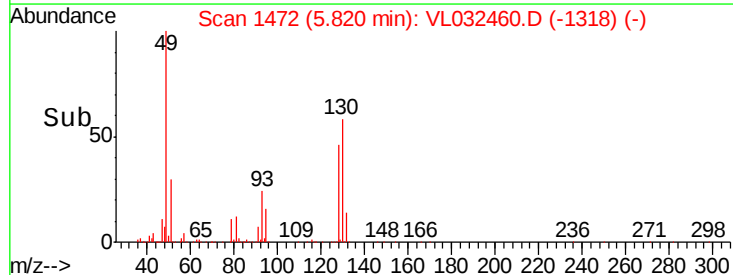
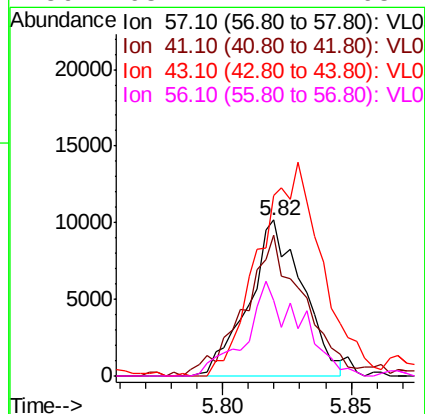
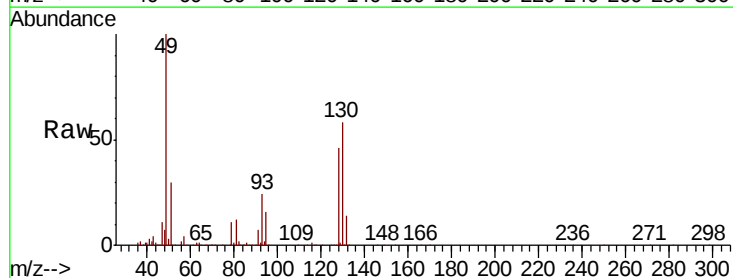
Instrument :
MSVOA_L
ClientSampleId :
QC 082718 CAN 10292

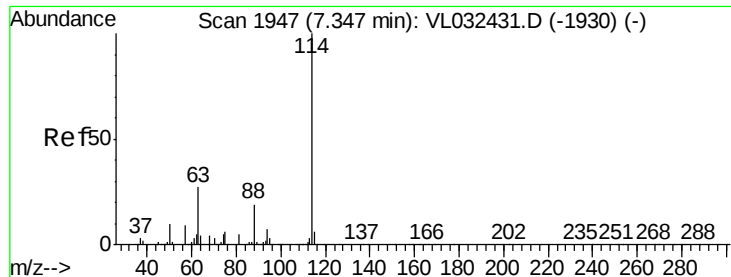
Tgt Ion:	43	Resp:	12865
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.0	12.0#
61	19.5	7.6	11.4#
70	0.0	5.8	8.8#



#26
Hexane
Concen: 0.096 ppbv
RT: 5.82 min Scan# 1472
Delta R.T. -0.01 min
Lab File: VL032460.D
Acq: 5 Sep 2018 16:41

Tgt Ion:	57	Resp:	14765
Ion	Ratio	Lower	Upper
57	100		
41	103.8	69.0	103.4#
43	169.7	172.1	258.1#
56	63.7	42.2	63.2#

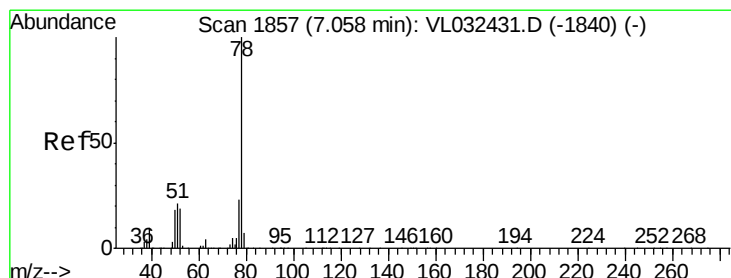
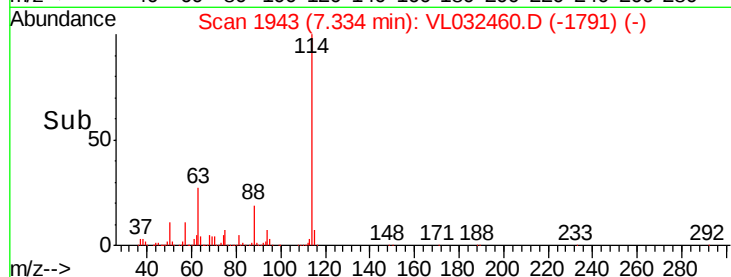
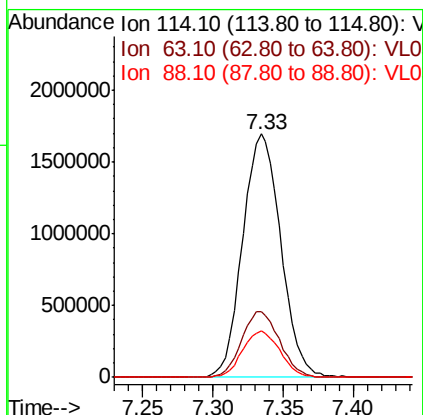
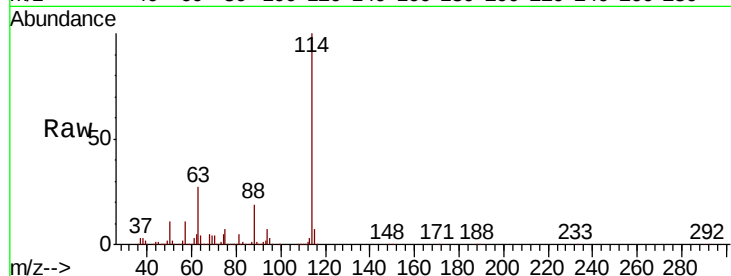




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.33 min Scan# 1943
 Delta R.T. -0.01 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

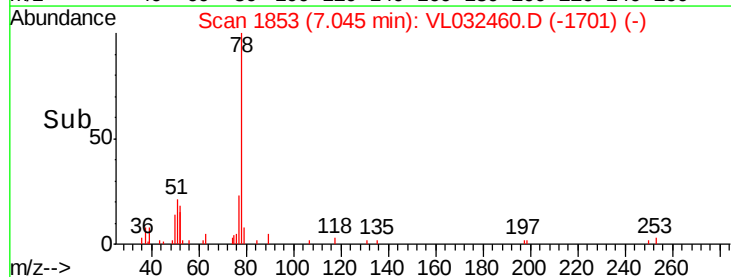
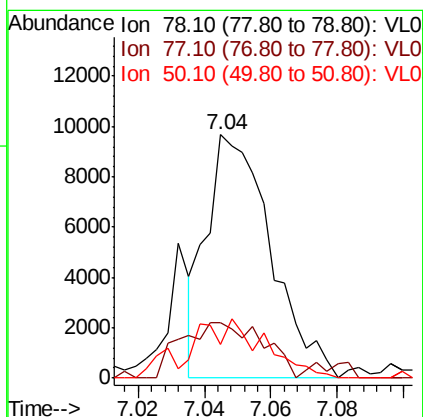
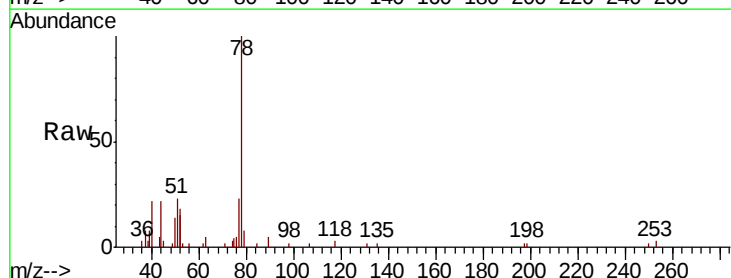
Instrument :
 MSVOA_L
 ClientSampleId :
 QC 082718 CAN 10292

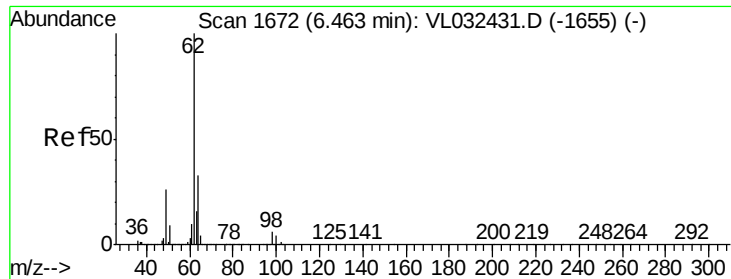
Tgt Ion: 114 Resp: 3215876
 Ion Ratio Lower Upper
 114 100
 63 27.0 22.2 33.4
 88 18.9 15.0 22.4



#36
 Benzene
 Concen: 0.047 ppbv
 RT: 7.04 min Scan# 1853
 Delta R.T. -0.01 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

Tgt Ion: 78 Resp: 12983
 Ion Ratio Lower Upper
 78 100
 77 17.6 18.4 27.6#
 50 14.6 14.4 21.6

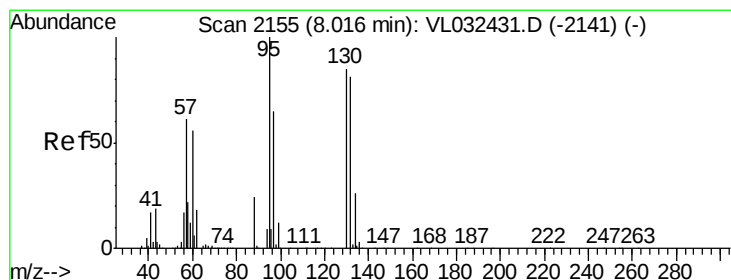
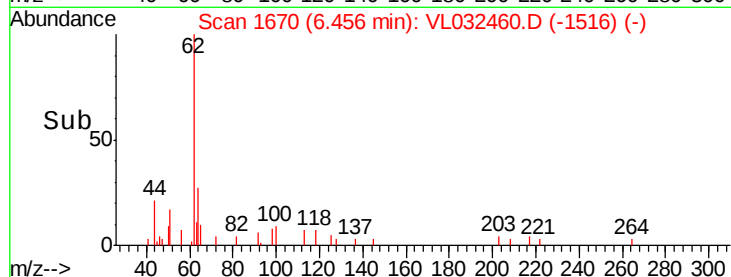
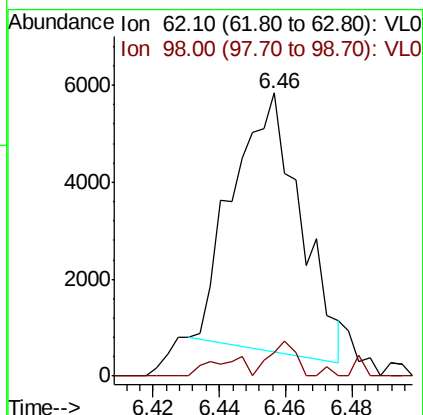
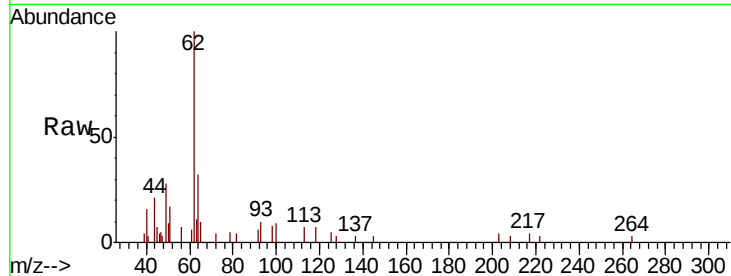




#37
 1,2-Dichloroethane
 Concen: 0.044 ppbv
 RT: 6.46 min Scan# 1670
 Delta R.T. -0.01 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

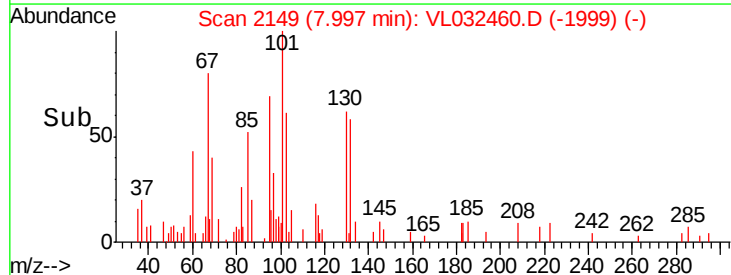
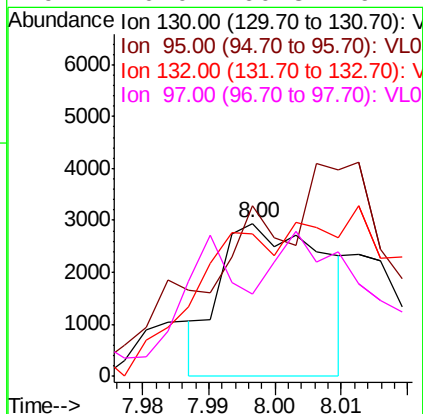
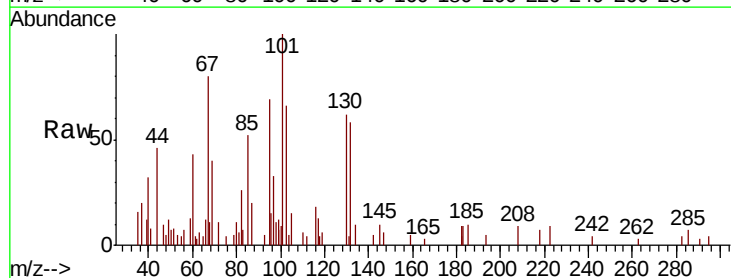
Instrument :
 MSVOA_L
 ClientSampleId :
 QC 082718 CAN 10292

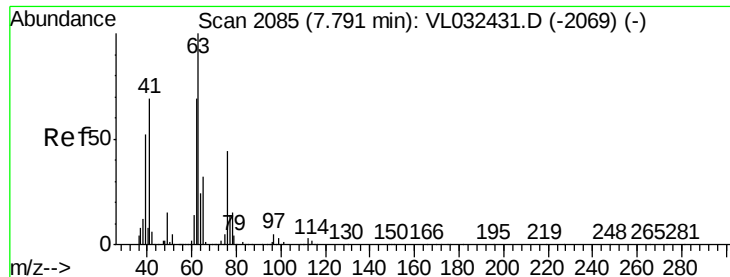
Tgt Ion: 62 Resp: 7459
 Ion Ratio Lower Upper
 62 100
 98 10.7 5.0 7.6#



#38
 Trichloroethene
 Concen: 0.031 ppbv
 RT: 8.00 min Scan# 2149
 Delta R.T. -0.02 min
 Lab File: VL032460.D
 Acq: 5 Sep 2018 16:41

Tgt Ion: 130 Resp: 3227
 Ion Ratio Lower Upper
 130 100
 95 86.2 94.2 141.4#
 132 74.4 76.2 114.4#
 97 0.0 60.8 91.2#





#39

1,2-Dichloropropane

Concen: 7.366 ppbv

RT: 7.33 min Scan# 1943

Delta R.T. -0.46 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

QC 082718 CAN 10292

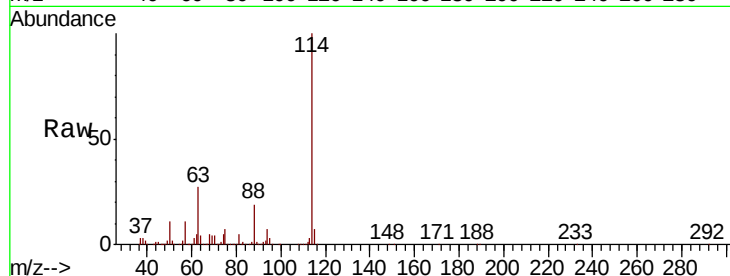
Tgt Ion: 63 Resp: 862553

Ion Ratio Lower Upper

63 100

41 0.0 55.4 83.0#

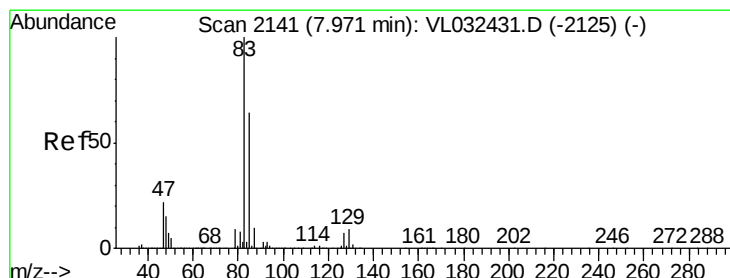
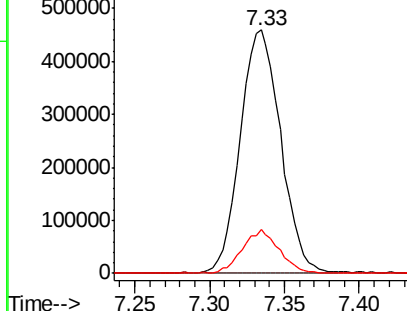
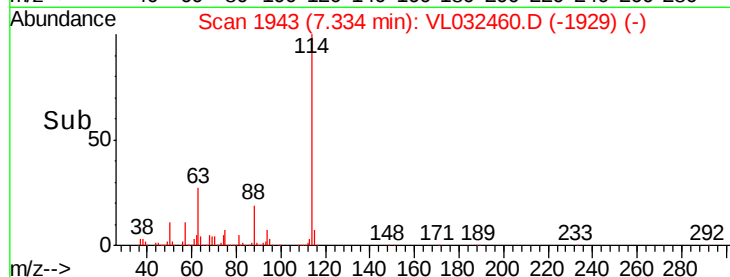
62 17.8 55.4 83.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#42

Bromodichloromethane

Concen: 0.033 ppbv

RT: 7.96 min Scan# 2137

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

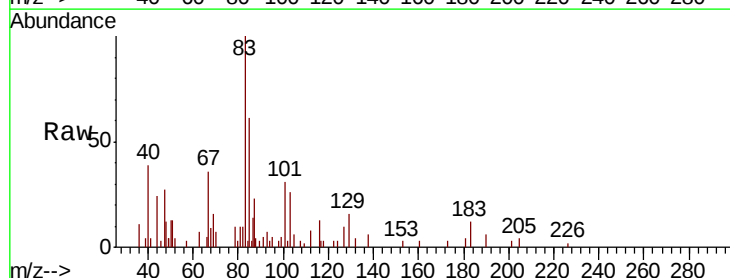
Tgt Ion: 83 Resp: 7701

Ion Ratio Lower Upper

83 100

85 63.3 51.1 76.7

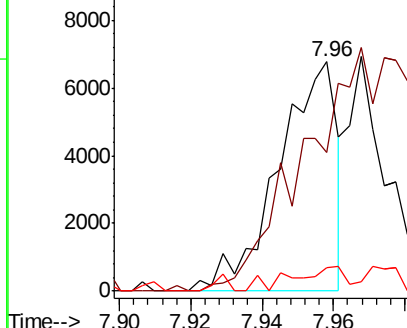
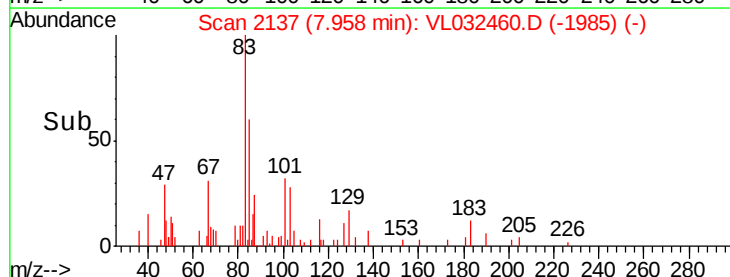
127 10.1 5.8 8.8#

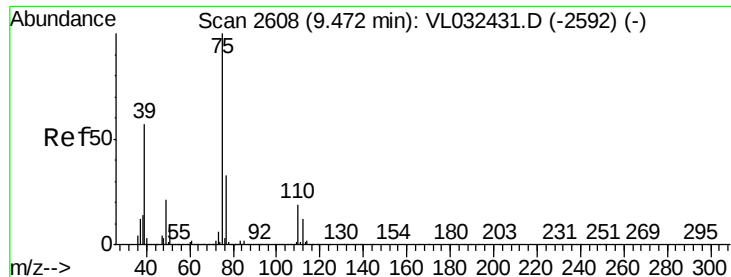


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V





#45

t-1,3-Dichloropropene

Concen: 0.034 ppbv

RT: 9.47 min Scan# 2606

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

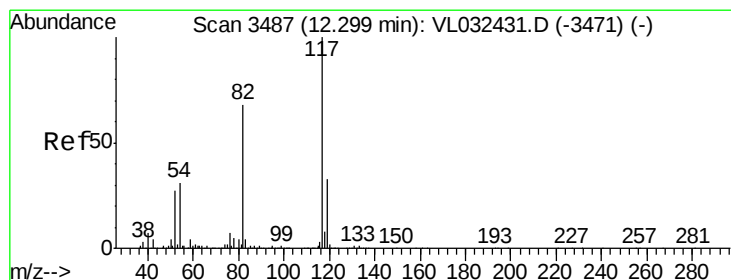
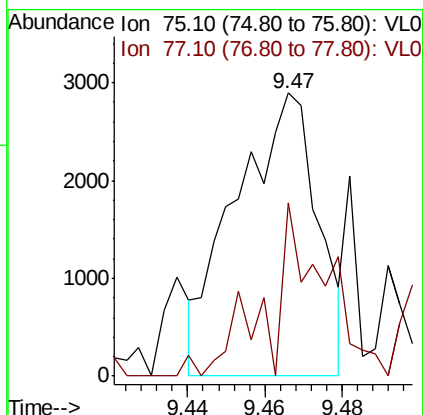
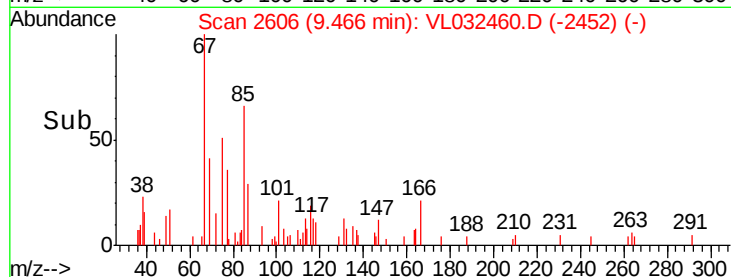
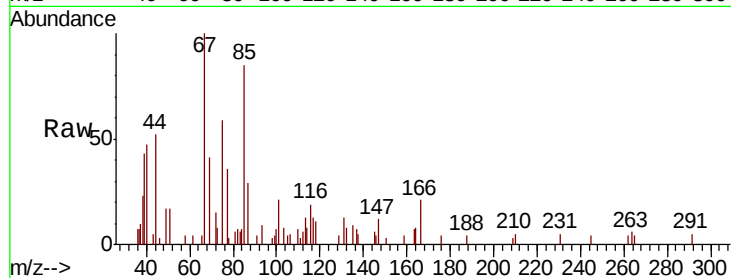
QC 082718 CAN 10292

Tgt Ion: 75 Resp: 4274

Ion Ratio Lower Upper

75 100

77 61.0 26.2 39.2#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.29 min Scan# 3483

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

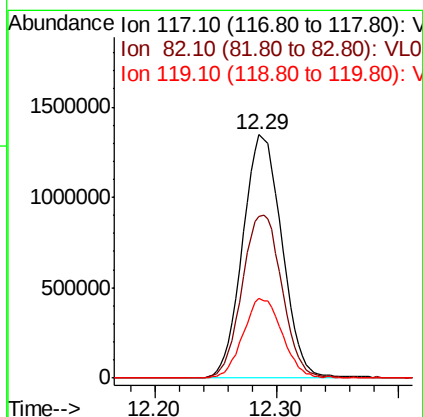
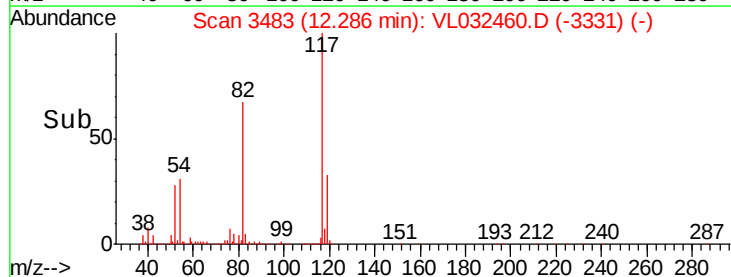
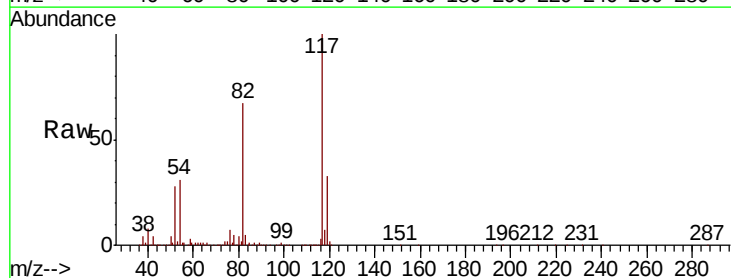
Tgt Ion: 117 Resp: 2989911

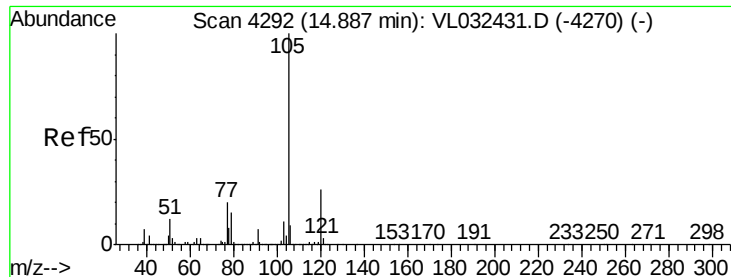
Ion Ratio Lower Upper

117 100

82 68.9 53.0 79.6

119 32.9 45.9 68.9#





#62

Isopropylbenzene

Concen: 0.038 ppbv

RT: 14.88 min Scan# 4289

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

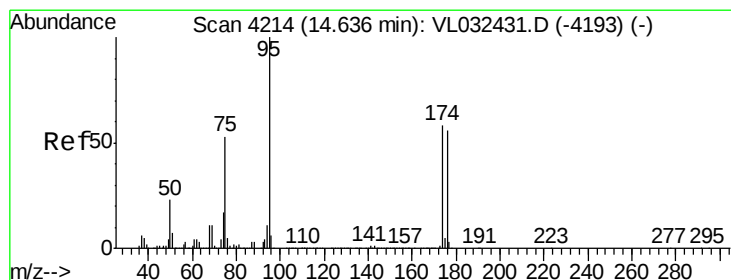
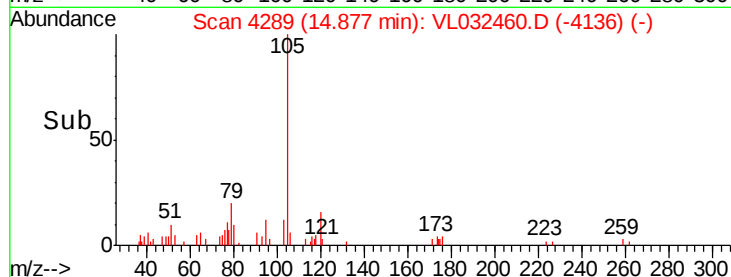
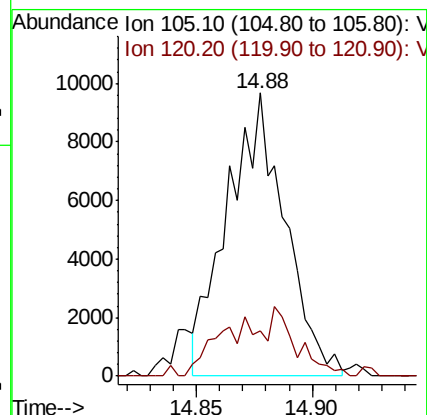
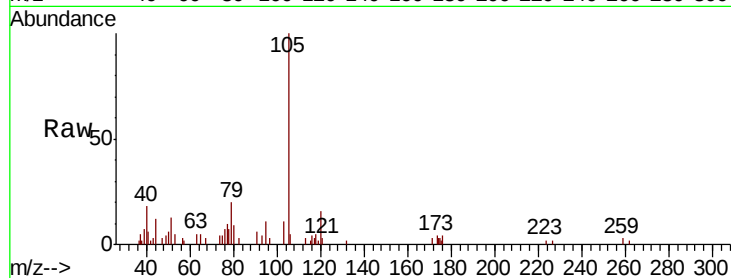
QC 082718 CAN 10292

Tgt Ion: 105 Resp: 16685

Ion Ratio Lower Upper

105 100

120 28.2 20.6 31.0



#68

1-Bromo-4-Fluorobenzene

Concen: 10.379 ppbv

RT: 14.63 min Scan# 4211

Delta R.T. -0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

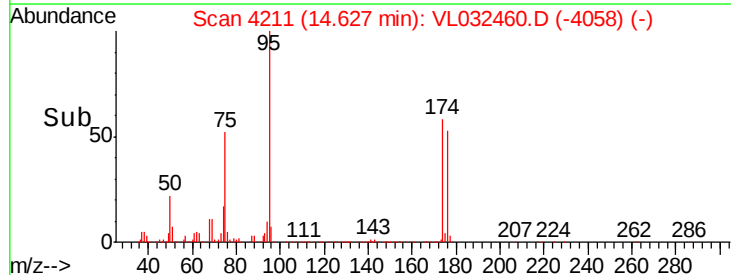
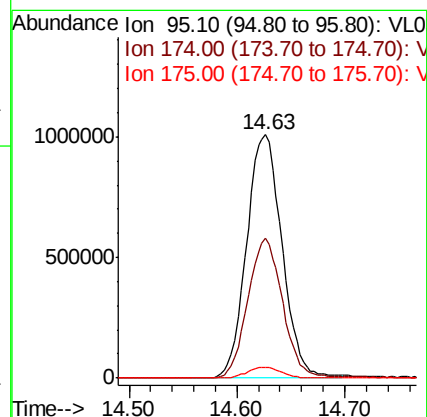
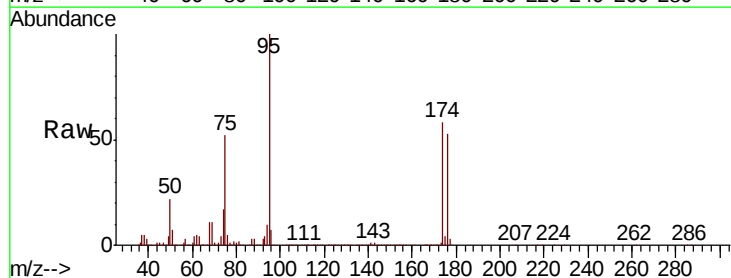
Tgt Ion: 95 Resp: 2304004

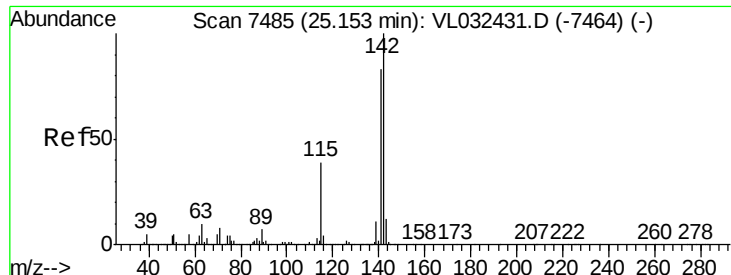
Ion Ratio Lower Upper

95 100

174 57.3 46.3 69.5

175 4.3 3.4 5.0





#80

Naphthalene, 2-methyl-

Concen: 0.031 ppbv

RT: 25.17 min Scan# 7489

Delta R.T. 0.01 min

Lab File: VL032460.D

Acq: 5 Sep 2018 16:41

Instrument :

MSVOA_L

ClientSampleId :

QC 082718 CAN 10292

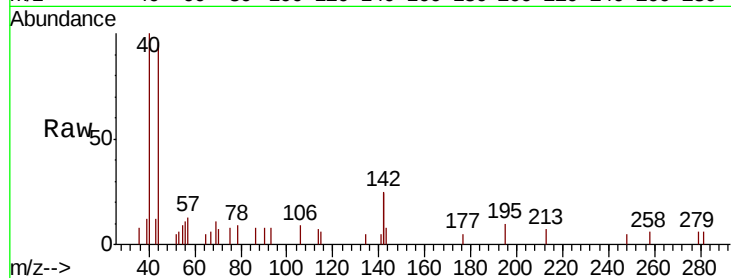
Tgt Ion:142 Resp: 2497

Ion Ratio Lower Upper

142 100

141 67.5 67.0 100.6

115 42.1 31.3 46.9



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

