

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL021419\
 Data File : VL033210.D
 Acq On : 14 Feb 2019 22:54
 Operator : SY/AP
 Sample : K1483-04DL 10X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Feb 15 04:19:45 2019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL020519AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 06 09:13:11 2019

QLast Update : Wed Feb 06 09:13:11 2019

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	953961	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2115025	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2175014	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1741572	10.40	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.00%

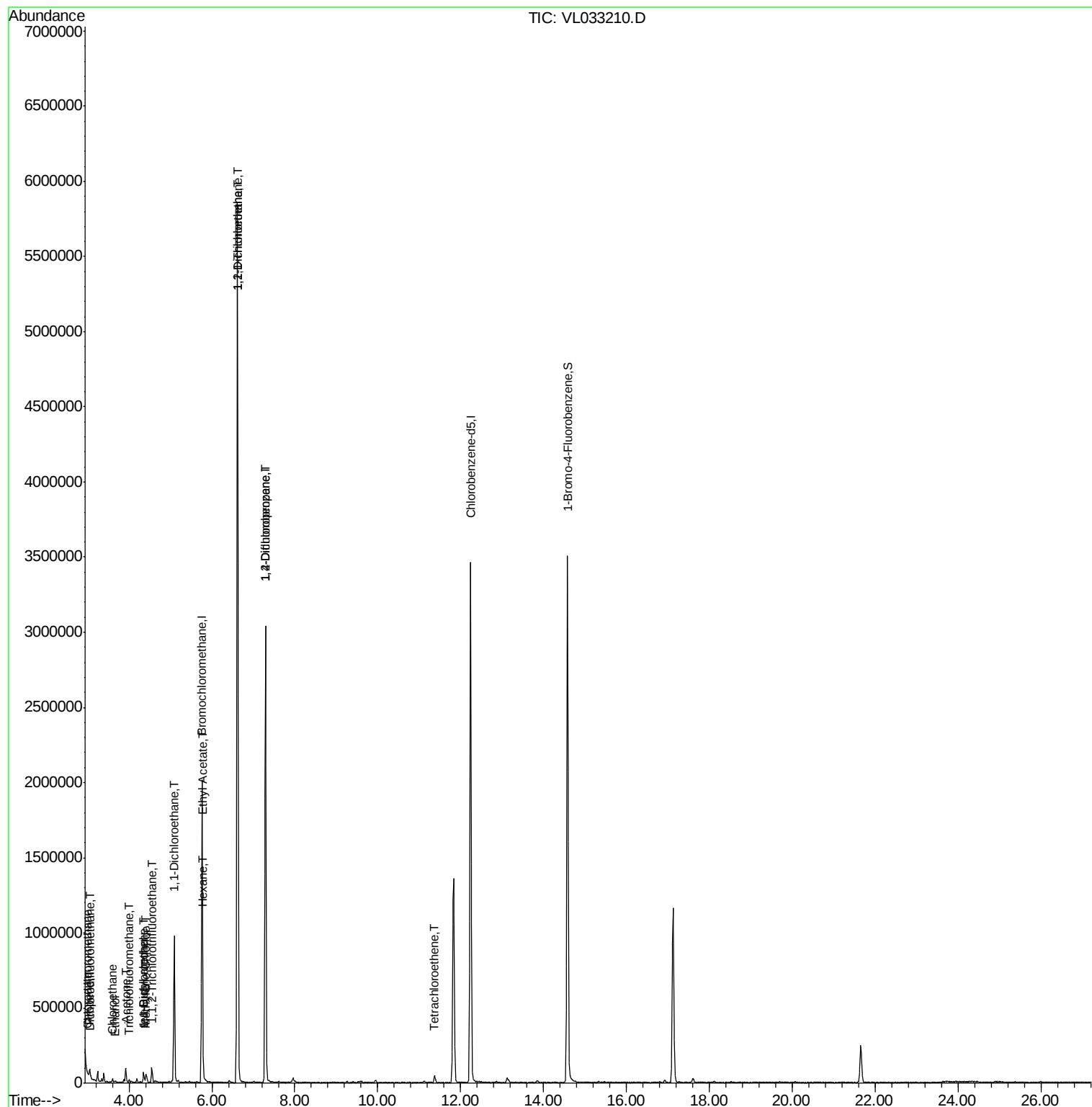
Target Compounds

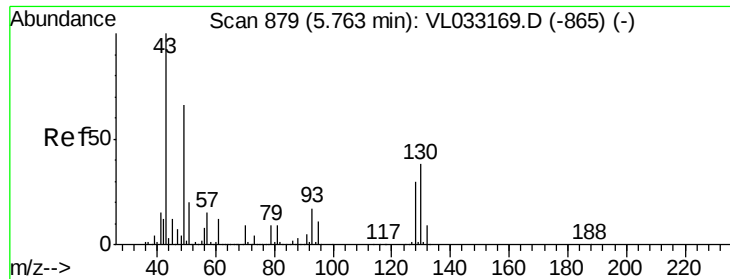
					Qvalue
2) Dichlorodifluoromethane	3.08	85	9786	0.054 ppbv	98
3) Chlorodifluoromethane	3.01	51	6114	0.053 ppbv	96
7) Chloroethane	3.60	64	11730	0.567 ppbv	96
9) Propene	3.05	41	6416	0.116 ppbv #	79
11) Trichlorofluoromethane	4.00	101	11018	0.075 ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.55	101	19780	0.193 ppbv #	39
13) Ethanol	3.66	45	4130	0.223 ppbv #	37
15) Acetone	3.91	43	73992	0.688 ppbv #	86
17) tert-Butyl alcohol	4.35	59	789	0.039 ppbv #	74
18) 1,1-Dichloroethene	4.35	96	19105	0.417 ppbv	89
20) Methylene Chloride	4.41	84	15923	0.372 ppbv #	87
24) 1,1-Dichloroethane	5.09	63	805380	6.113 ppbv	99
25) Ethyl Acetate	5.78	43	9341	0.039 ppbv #	80
26) Hexane	5.79	57	4557	0.040 ppbv #	23
32) 1,1,1-Trichloroethane	6.62	97	3772336	19.707 ppbv	99
37) 1,2-Dichloroethane	6.62	62	261664	2.203 ppbv #	1
39) 1,2-Dichloropropane	7.29	63	577552	6.822 ppbv #	25
52) Tetrachloroethene	11.37	164	6727	0.082 ppbv #	81

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

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

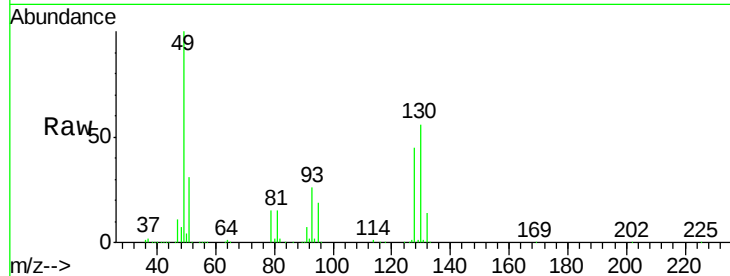
Tgt Ion: 49 Resp: 953961

Ion Ratio Lower Upper

49 100

128 45.8 23.6 71.0

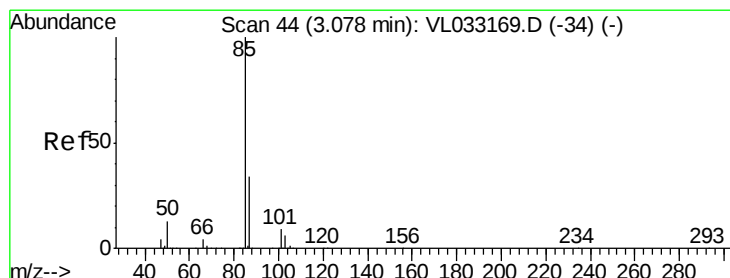
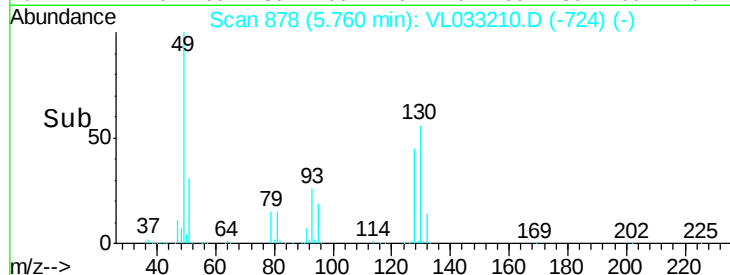
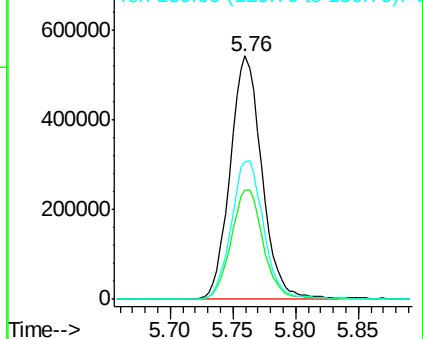
130 58.7 30.3 91.0



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



#2

Dichlorodifluoromethane

Concen: 0.054 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL033210.D

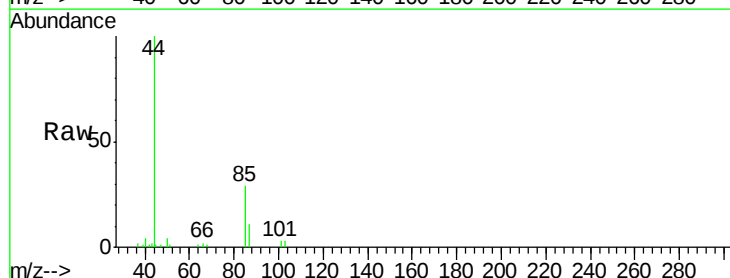
Acq: 14 Feb 2019 22:54

Tgt Ion: 85 Resp: 9786

Ion Ratio Lower Upper

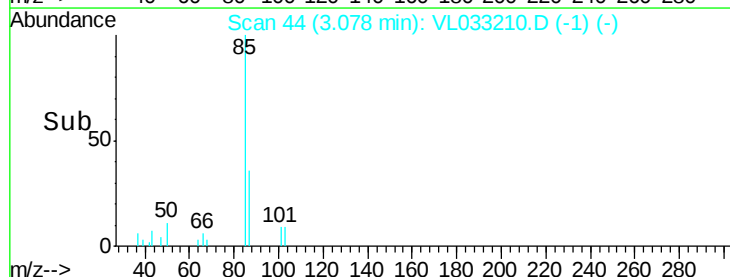
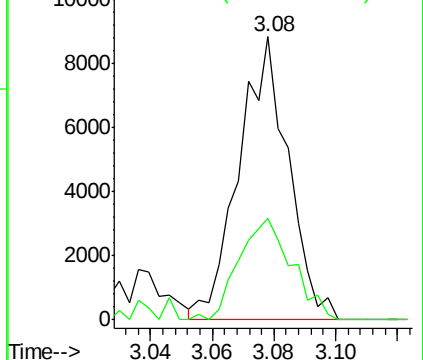
85 100

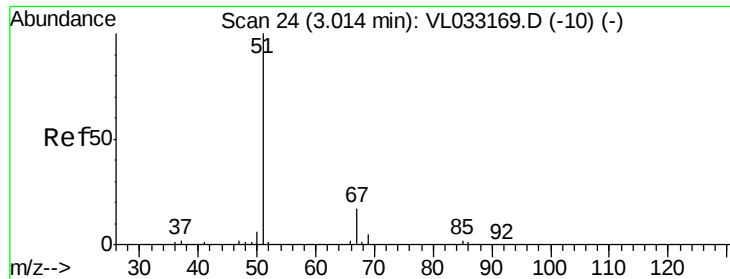
87 35.7 27.4 41.2



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.053 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033210.D

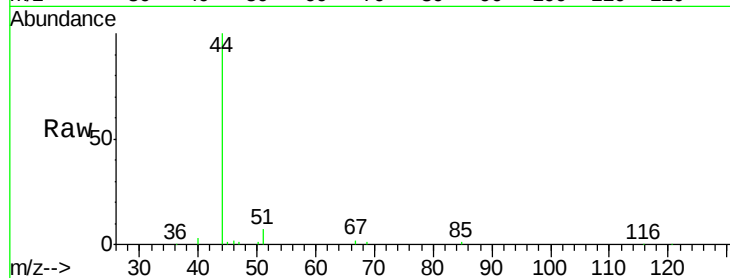
Acq: 14 Feb 2019 22:54

Tgt Ion: 51 Resp: 6114

Ion Ratio Lower Upper

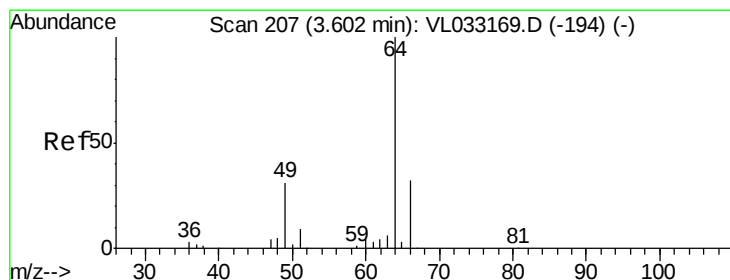
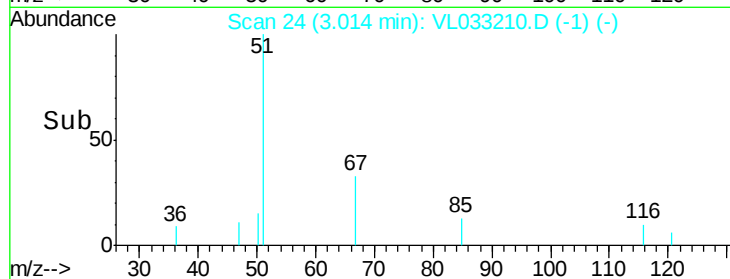
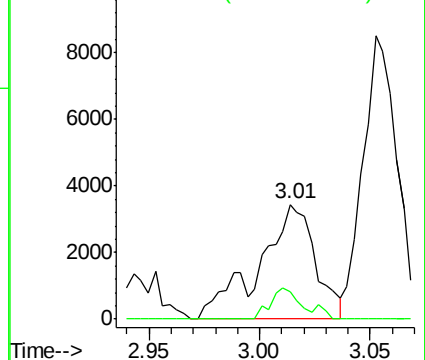
51 100

67 15.7 14.0 21.0



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#7

Chloroethane

Concen: 0.567 ppbv

RT: 3.60 min Scan# 207

Delta R.T. -0.00 min

Lab File: VL033210.D

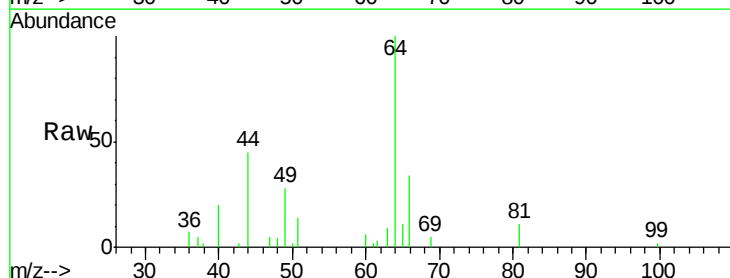
Acq: 14 Feb 2019 22:54

Tgt Ion: 64 Resp: 11730

Ion Ratio Lower Upper

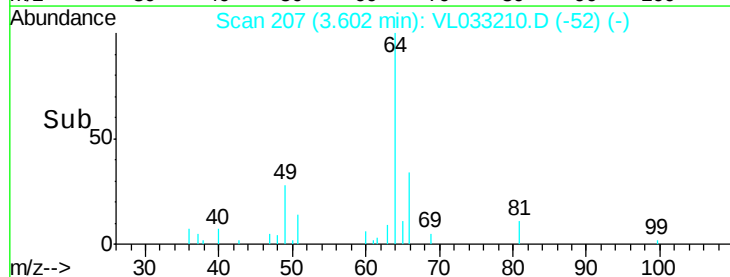
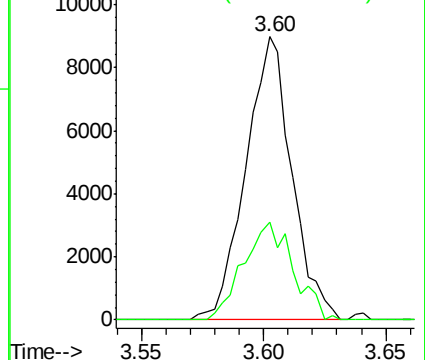
64 100

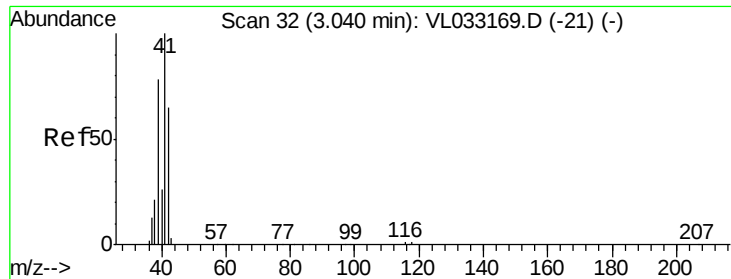
66 34.5 26.0 39.0



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.116 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033210.D

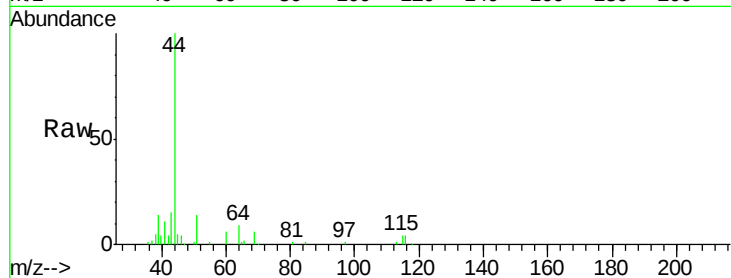
Acq: 14 Feb 2019 22:54

Tgt Ion: 41 Resp: 6416

Ion Ratio Lower Upper

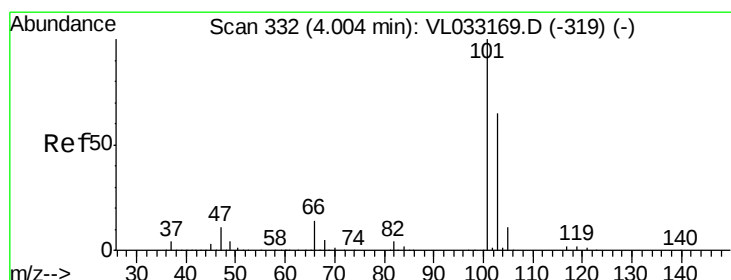
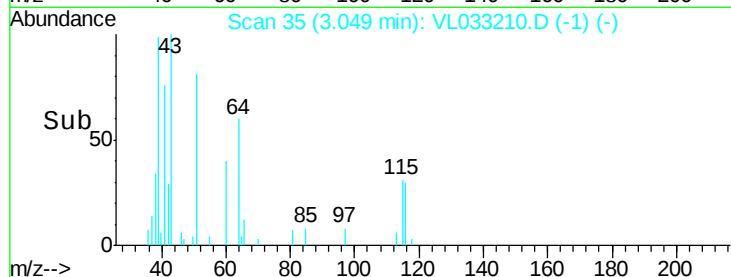
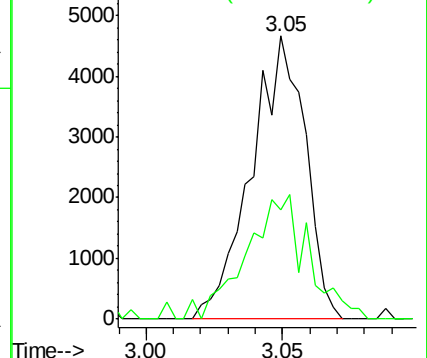
41 100

42 52.1 55.0 82.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.075 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033210.D

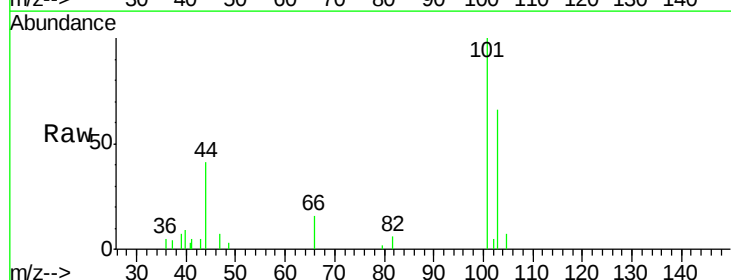
Acq: 14 Feb 2019 22:54

Tgt Ion: 101 Resp: 11018

Ion Ratio Lower Upper

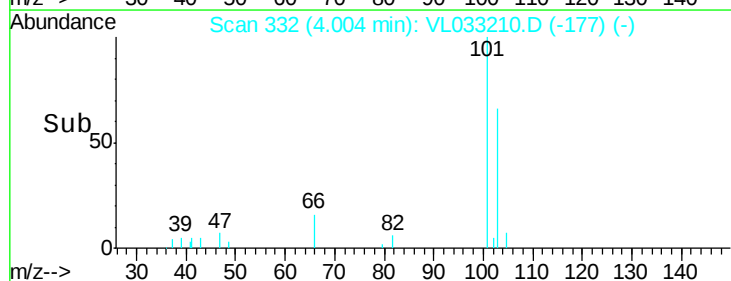
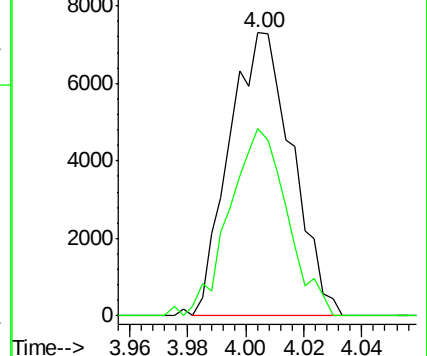
101 100

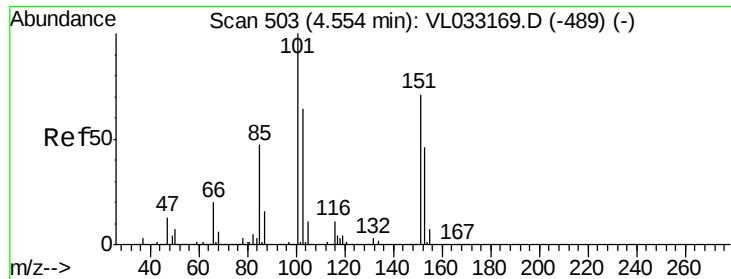
103 66.1 51.7 77.5



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: 0.193 ppbv

RT: 4.55 min Scan# 501

Delta R.T. -0.01 min

Lab File: VL033210.D

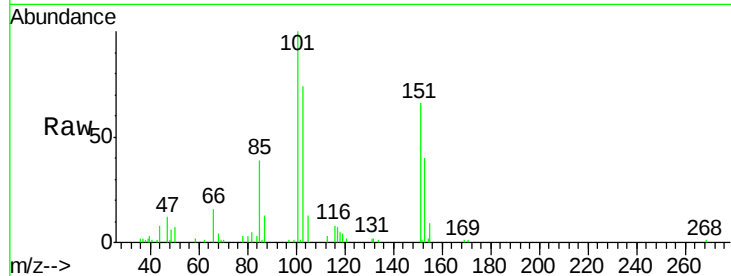
Acq: 14 Feb 2019 22:54

Tgt Ion: 101 Resp: 19780

Ion Ratio Lower Upper

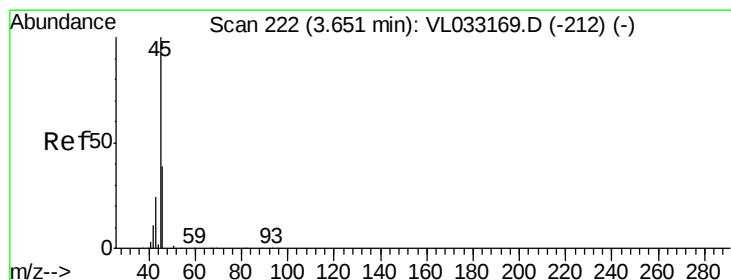
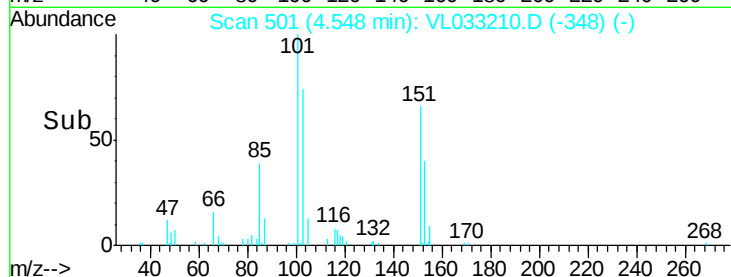
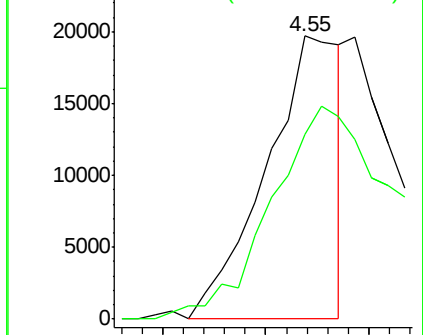
101 100

151 122.4 57.4 86.0#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 0.223 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033210.D

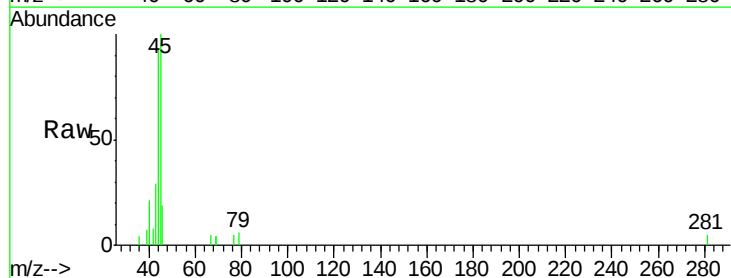
Acq: 14 Feb 2019 22:54

Tgt Ion: 45 Resp: 4130

Ion Ratio Lower Upper

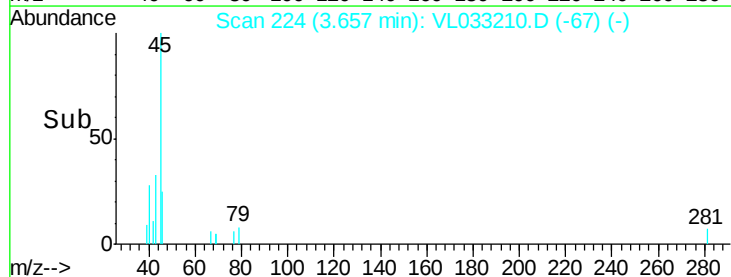
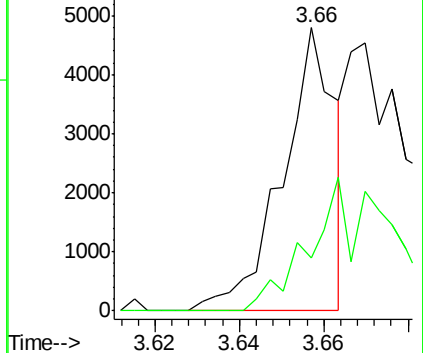
45 100

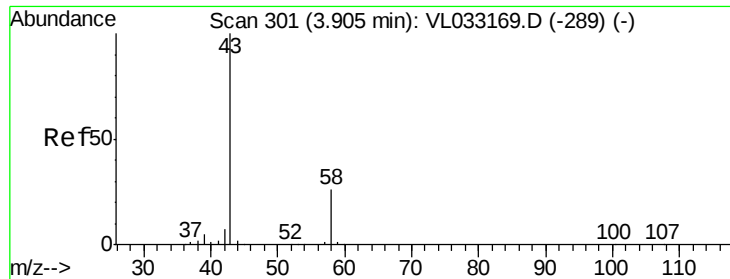
46 0.0 15.0 60.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 0.688 ppbv

RT: 3.91 min Scan# 304

Delta R.T. 0.01 min

Lab File: VL033210.D

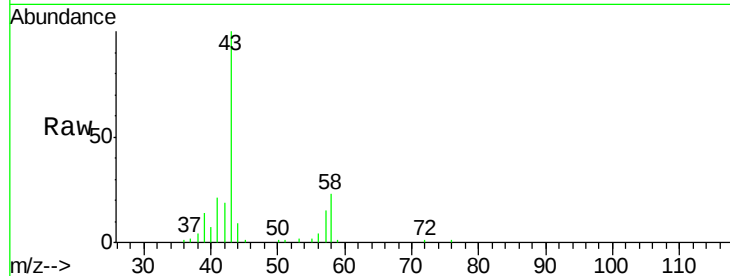
Acq: 14 Feb 2019 22:54

Tgt Ion: 43 Resp: 73992

Ion Ratio Lower Upper

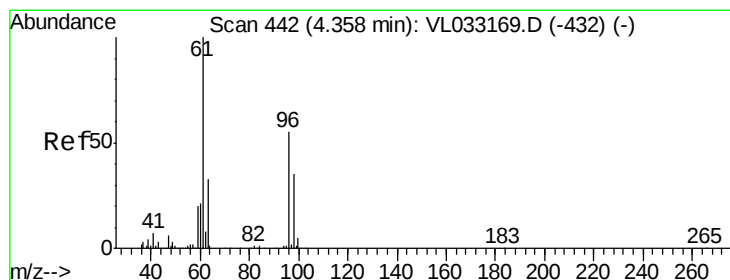
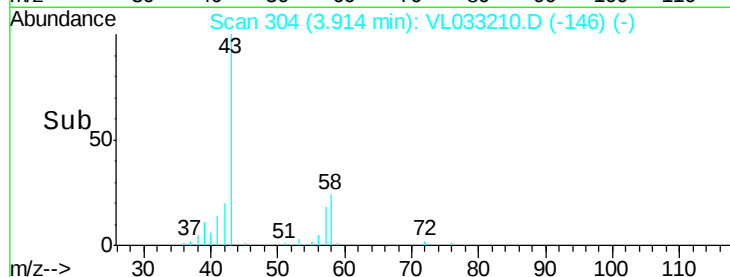
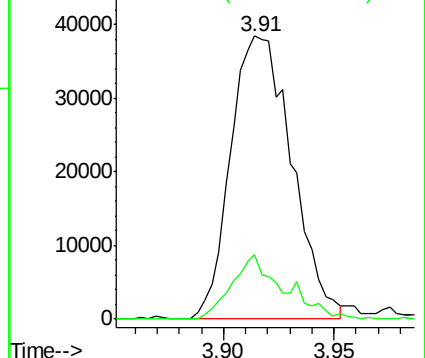
43 100

58 19.4 21.1 31.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#17

tert-Butyl alcohol

Concen: 0.039 ppbv

RT: 4.35 min Scan# 440

Delta R.T. -0.01 min

Lab File: VL033210.D

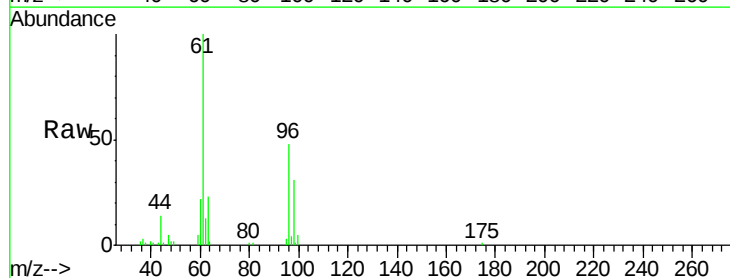
Acq: 14 Feb 2019 22:54

Tgt Ion: 59 Resp: 789

Ion Ratio Lower Upper

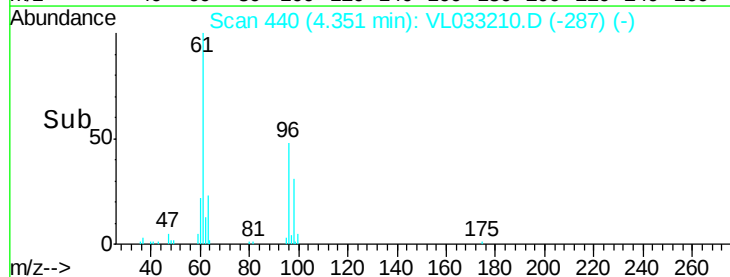
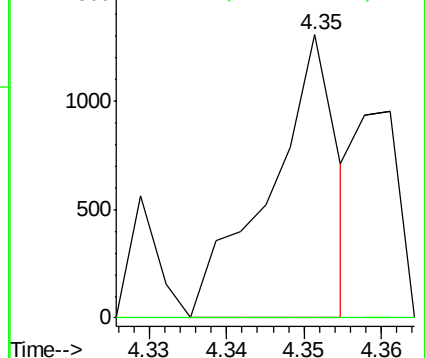
59 100

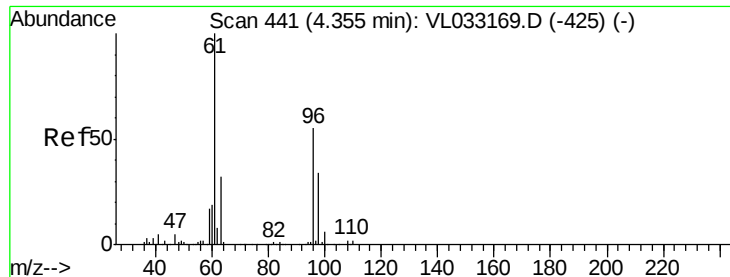
57 0.0 7.6 11.4#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#18

1,1-Dichloroethene

Concen: 0.417 ppbv

RT: 4.35 min Scan# 441

Delta R.T. -0.00 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

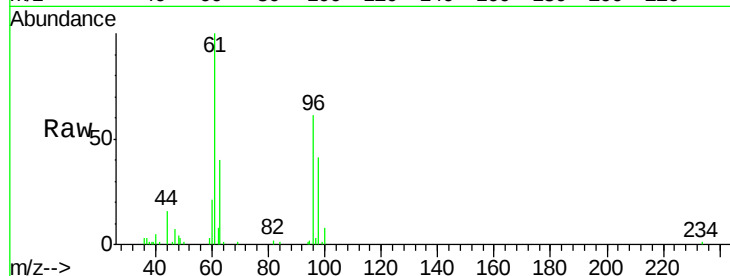
Tgt Ion: 96 Resp: 19105

Ion Ratio Lower Upper

96 100

61 162.9 145.0 217.6

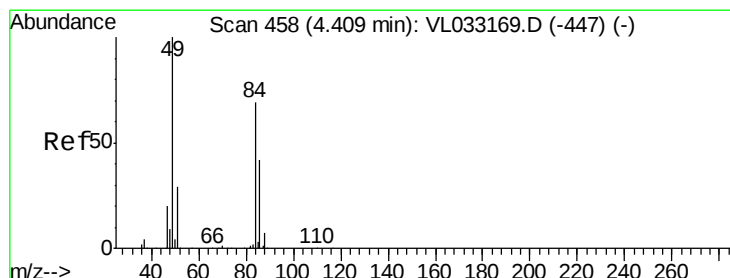
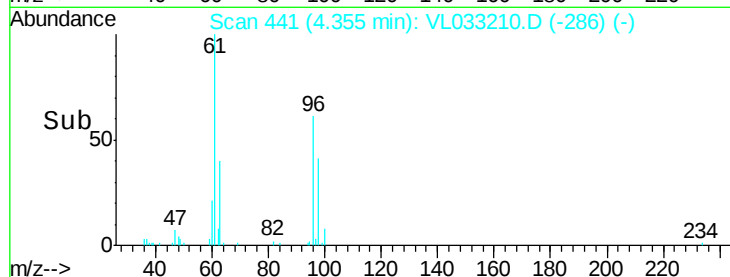
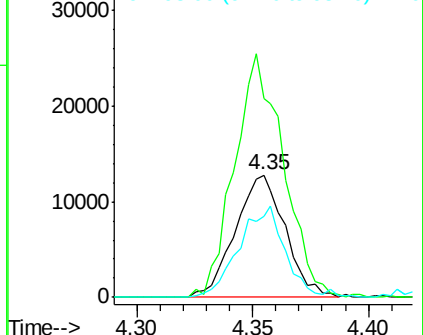
98 66.2 50.0 75.0



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



#20

Methylene Chloride

Concen: 0.372 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion: 84 Resp: 15923

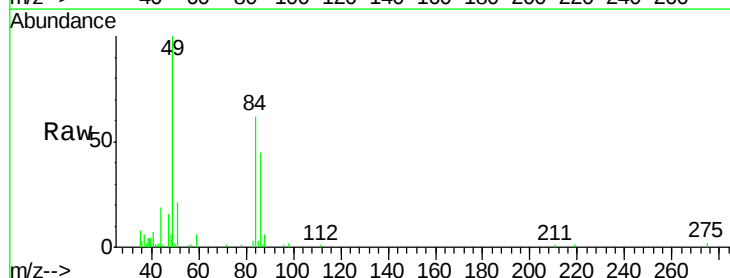
Ion Ratio Lower Upper

84 100

49 159.9 115.8 173.8

51 31.8 33.0 49.6#

86 69.4 48.2 72.2

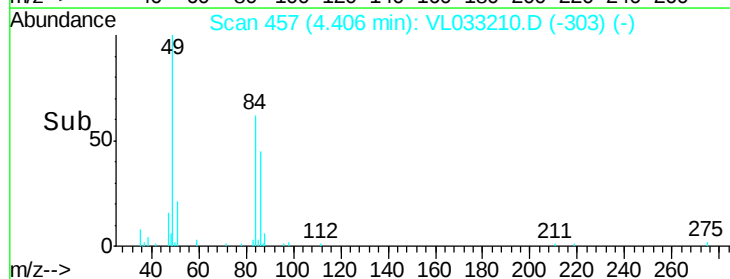
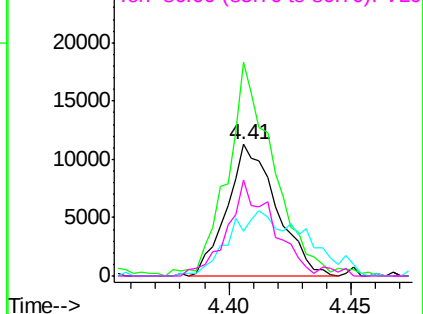


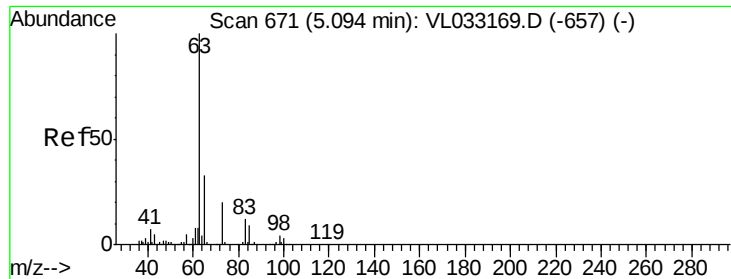
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#24

1,1-Dichloroethane

Concen: 6.113 ppbv

RT: 5.09 min Scan# 669

Delta R.T. -0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

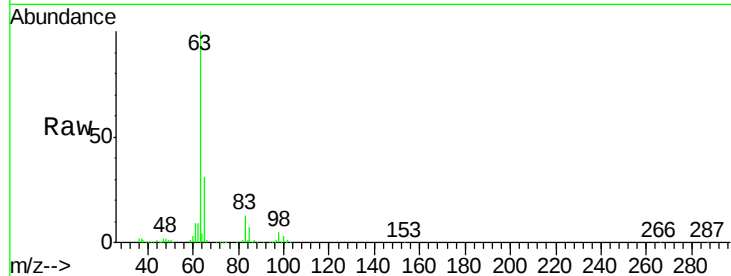
Tgt Ion: 63 Resp: 805380

Ion Ratio Lower Upper

63 100

98 4.7 2.1 6.5

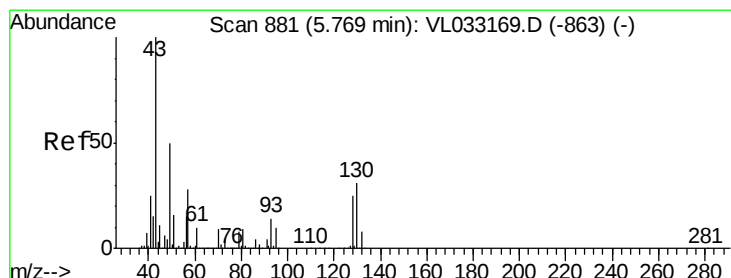
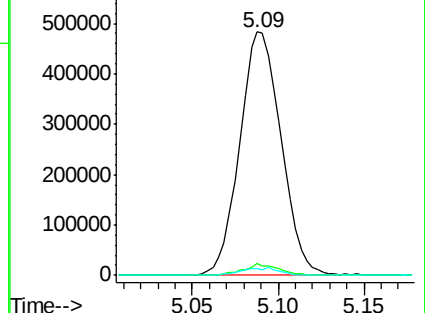
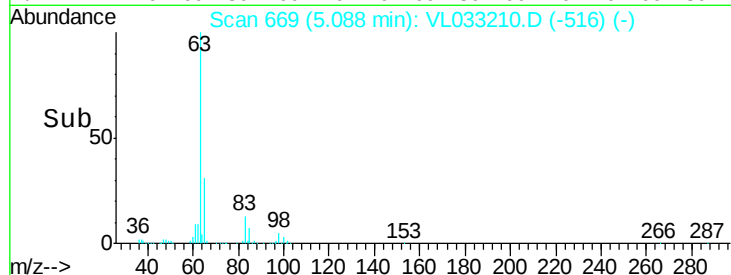
100 3.0 1.4 4.2



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: 0.039 ppbv

RT: 5.78 min Scan# 884

Delta R.T. 0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion: 43 Resp: 9341

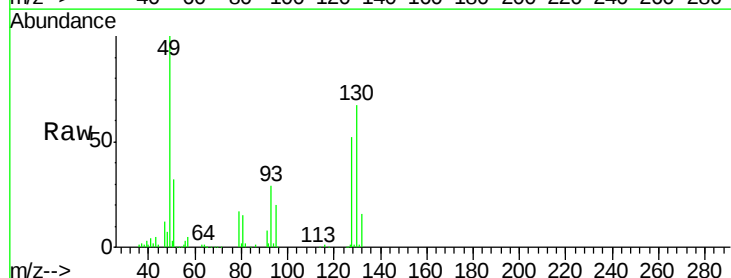
Ion Ratio Lower Upper

43 100

45 3.4 7.9 11.9#

61 0.0 7.5 11.3#

70 2.4 5.8 8.8#

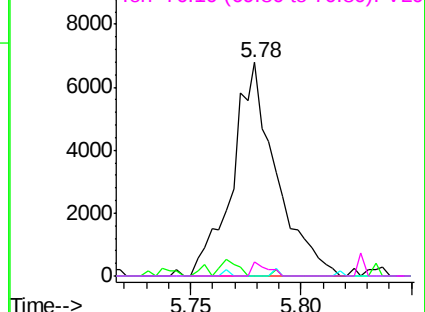
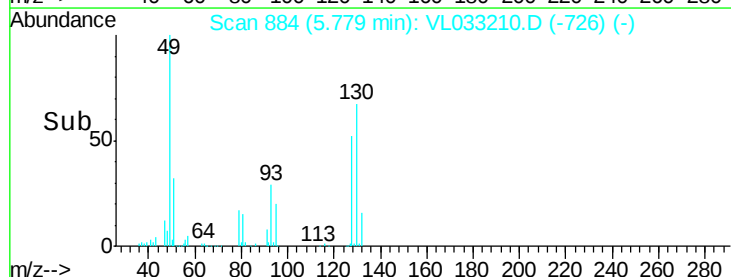


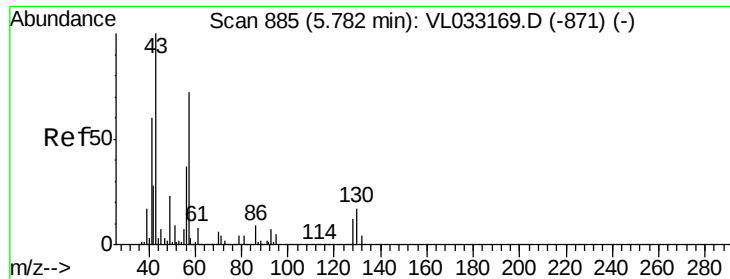
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

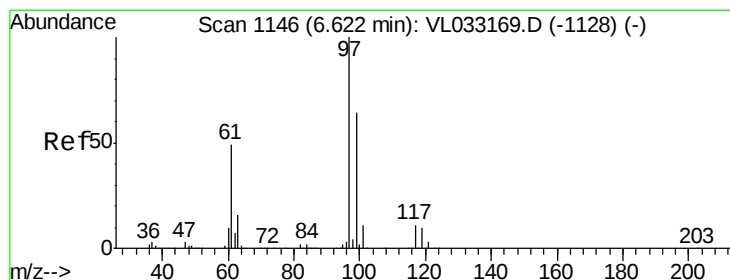
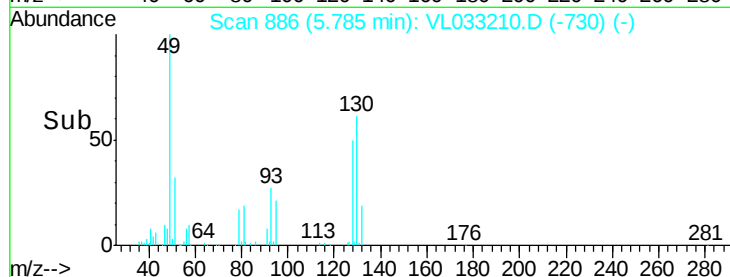
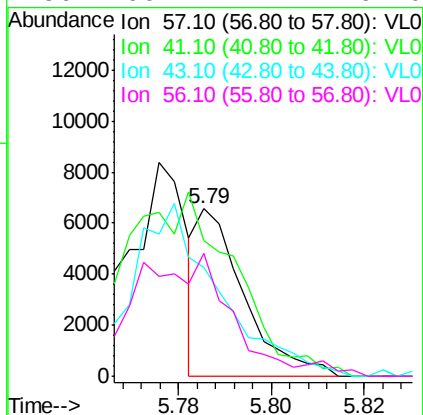
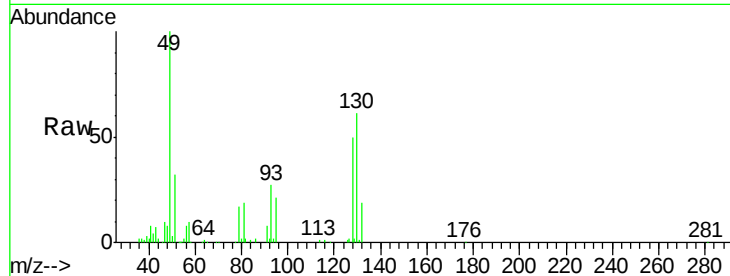
Ion 70.10 (69.80 to 70.80): VL0





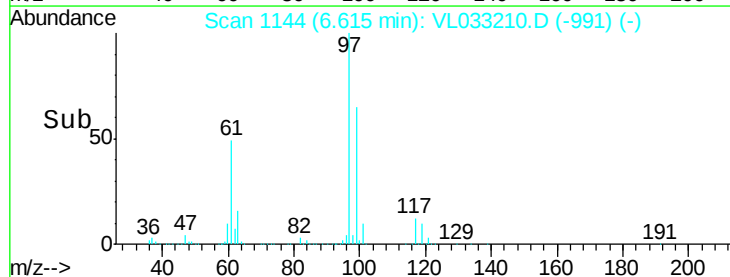
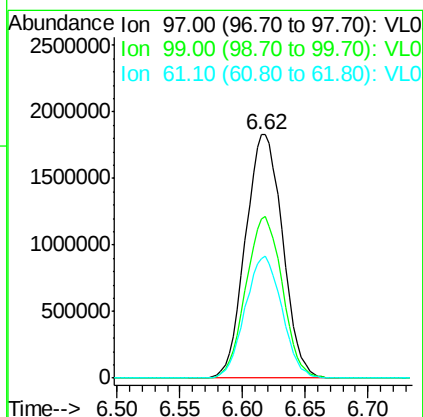
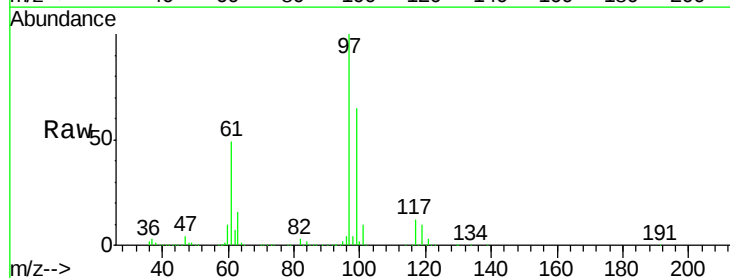
#26
Hexane
Concen: 0.040 ppbv
RT: 5.79 min Scan# 886
Delta R.T. 0.00 min
Lab File: VL033210.D
Acq: 14 Feb 2019 22:54

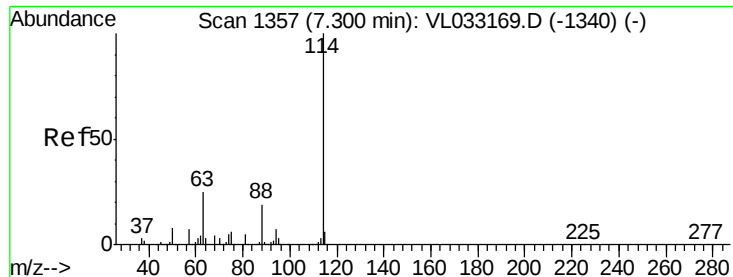
Tgt Ion: 57 Resp: 4557
Ion Ratio Lower Upper
57 100
41 274.2 69.4 104.2#
43 209.8 176.7 265.1
56 166.2 41.4 62.0#



#32
1,1,1-Trichloroethane
Concen: 19.707 ppbv
RT: 6.62 min Scan# 1144
Delta R.T. -0.01 min
Lab File: VL033210.D
Acq: 14 Feb 2019 22:54

Tgt Ion: 97 Resp: 3772336
Ion Ratio Lower Upper
97 100
99 65.0 51.4 77.2
61 49.7 38.9 58.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1354

Delta R.T. -0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

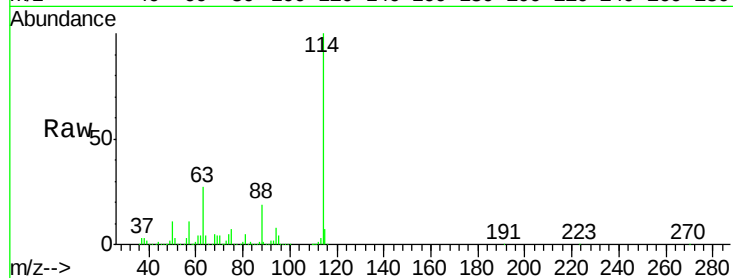
Tgt Ion: 114 Resp: 2115025

Ion Ratio Lower Upper

114 100

63 27.4 20.8 31.2

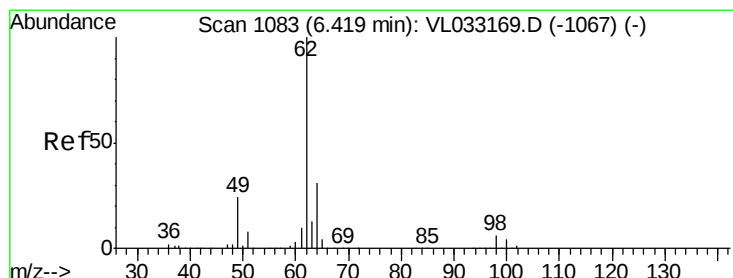
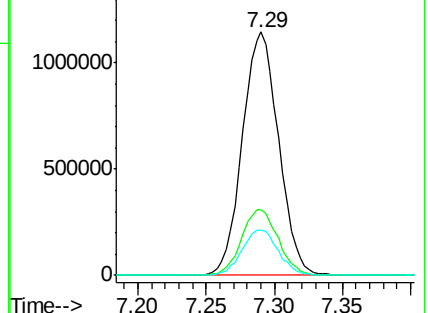
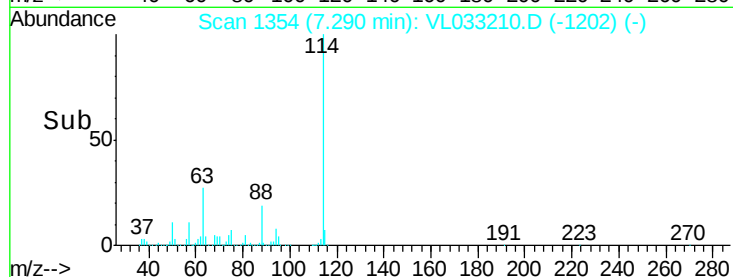
88 18.7 14.6 22.0



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



#37

1,2-Dichloroethane

Concen: 2.203 ppbv

RT: 6.62 min Scan# 1145

Delta R.T. 0.20 min

Lab File: VL033210.D

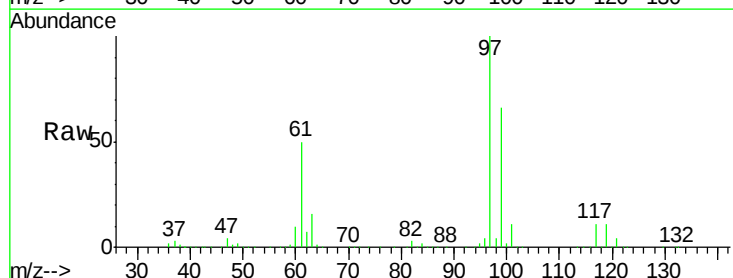
Acq: 14 Feb 2019 22:54

Tgt Ion: 62 Resp: 261664

Ion Ratio Lower Upper

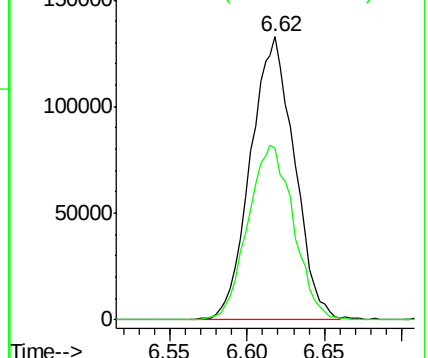
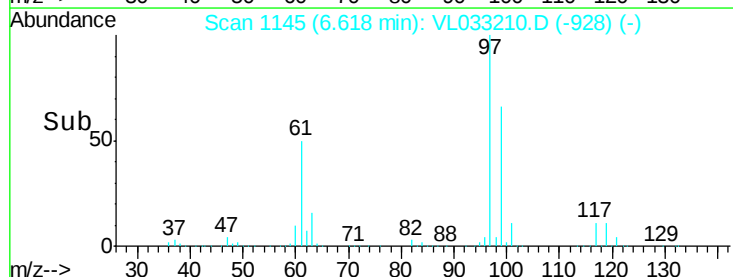
62 100

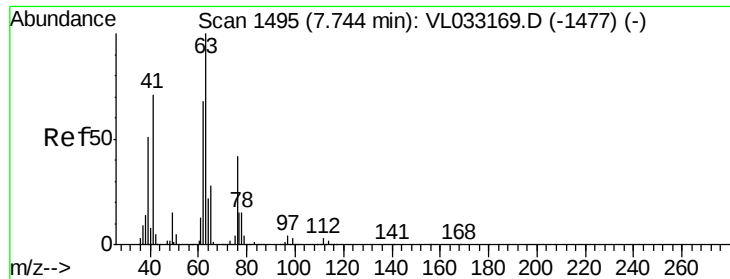
98 64.3 4.7 7.1#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#39

1,2-Dichloropropane

Concen: 6.822 ppbv

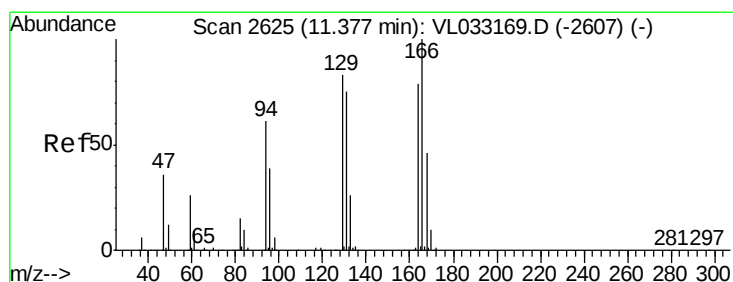
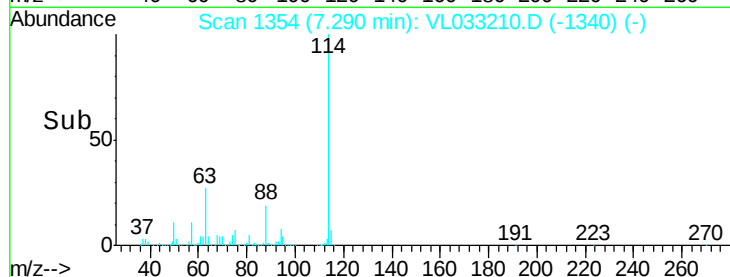
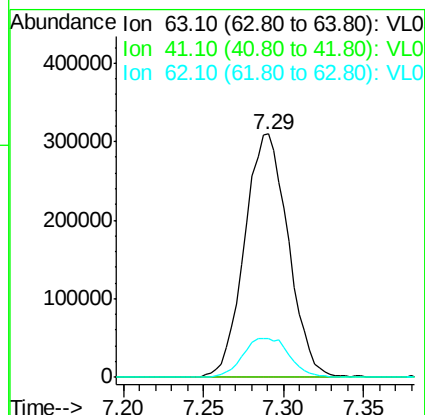
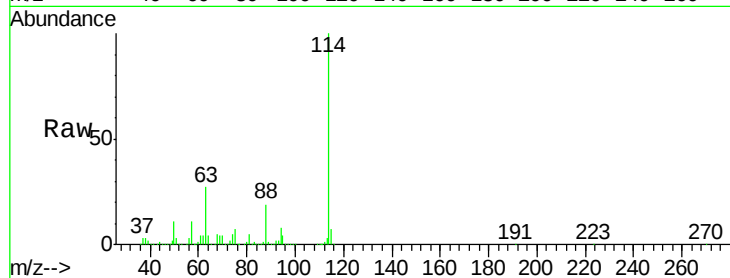
RT: 7.29 min Scan# 1354

Delta R.T. -0.45 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion:	63	Resp:	577552
Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.4	84.6#
62	16.1	54.2	81.4#



#52

Tetrachloroethene

Concen: 0.082 ppbv

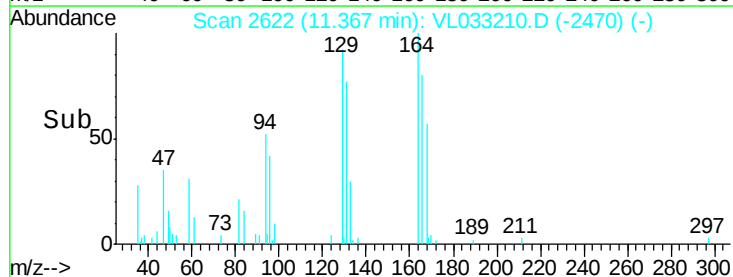
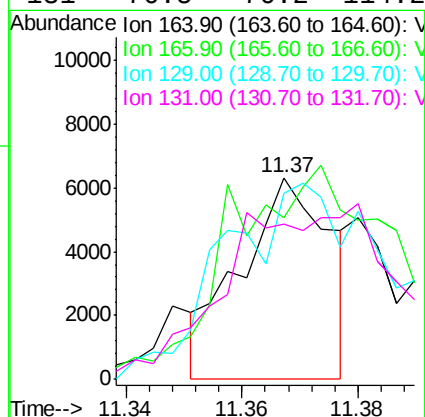
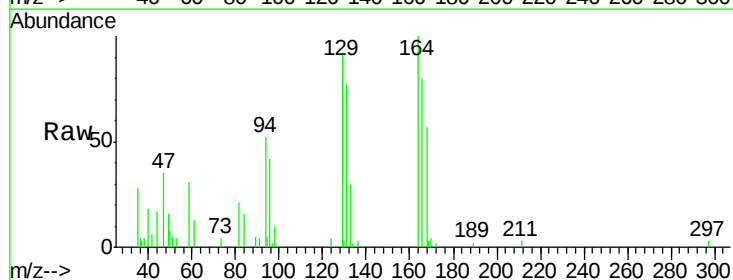
RT: 11.37 min Scan# 2622

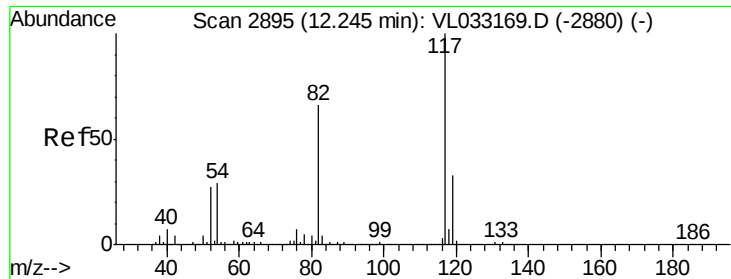
Delta R.T. -0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion:	164	Resp:	6727
Ion	Ratio	Lower	Upper
164	100		
166	87.8	100.9	151.3#
129	105.5	83.9	125.9
131	76.5	76.2	114.2





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

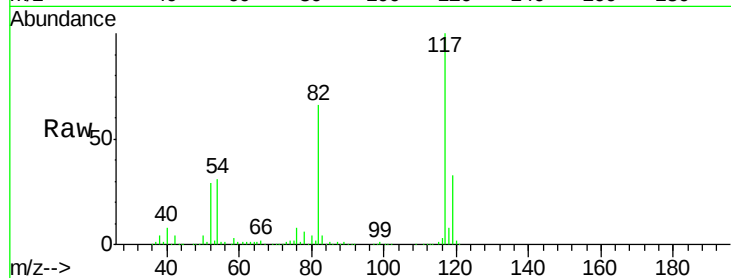
Delta R.T. -0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion: 117 Resp: 2175014

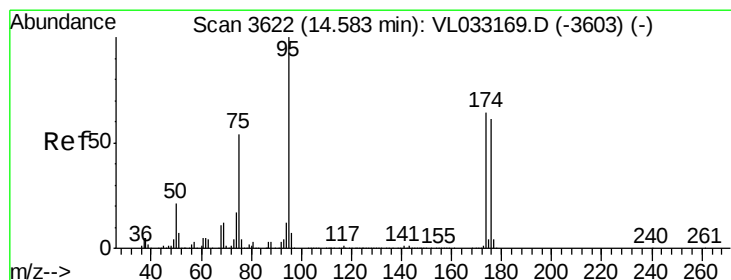
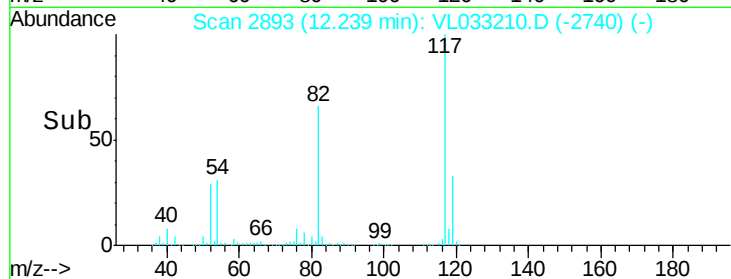
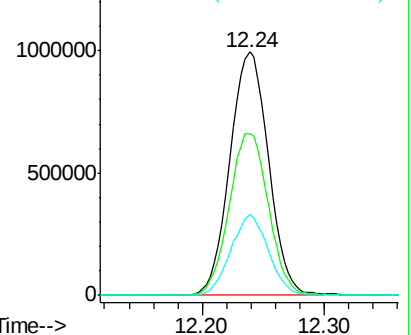
Ion	Ratio	Lower	Upper
117	100		
82	67.8	49.5	74.3
119	32.3	24.4	36.6



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: 10.397 ppbv

RT: 14.58 min Scan# 3620

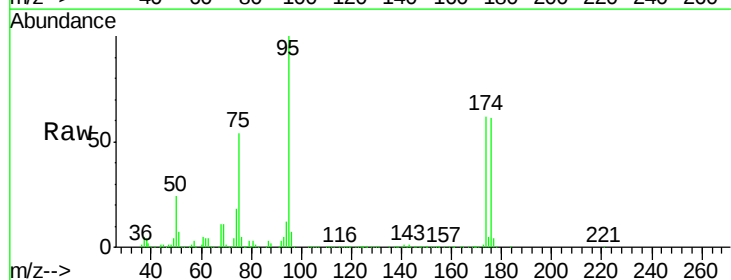
Delta R.T. -0.01 min

Lab File: VL033210.D

Acq: 14 Feb 2019 22:54

Tgt Ion: 95 Resp: 1741572

Ion	Ratio	Lower	Upper
95	100		
174	63.3	51.2	76.8
175	4.5	3.8	5.6



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

