

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\
 Data File : VL034950.D
 Acq On : 7 May 2020 1:25
 Operator : SY/AP
 Sample : L2182-13 0.03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: May 07 06:36:10 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 14:49:39 2020
 QLast Update : Wed May 06 14:49:39 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	2338002	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	5068543	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	4875817	10.00	ppbv	0.00

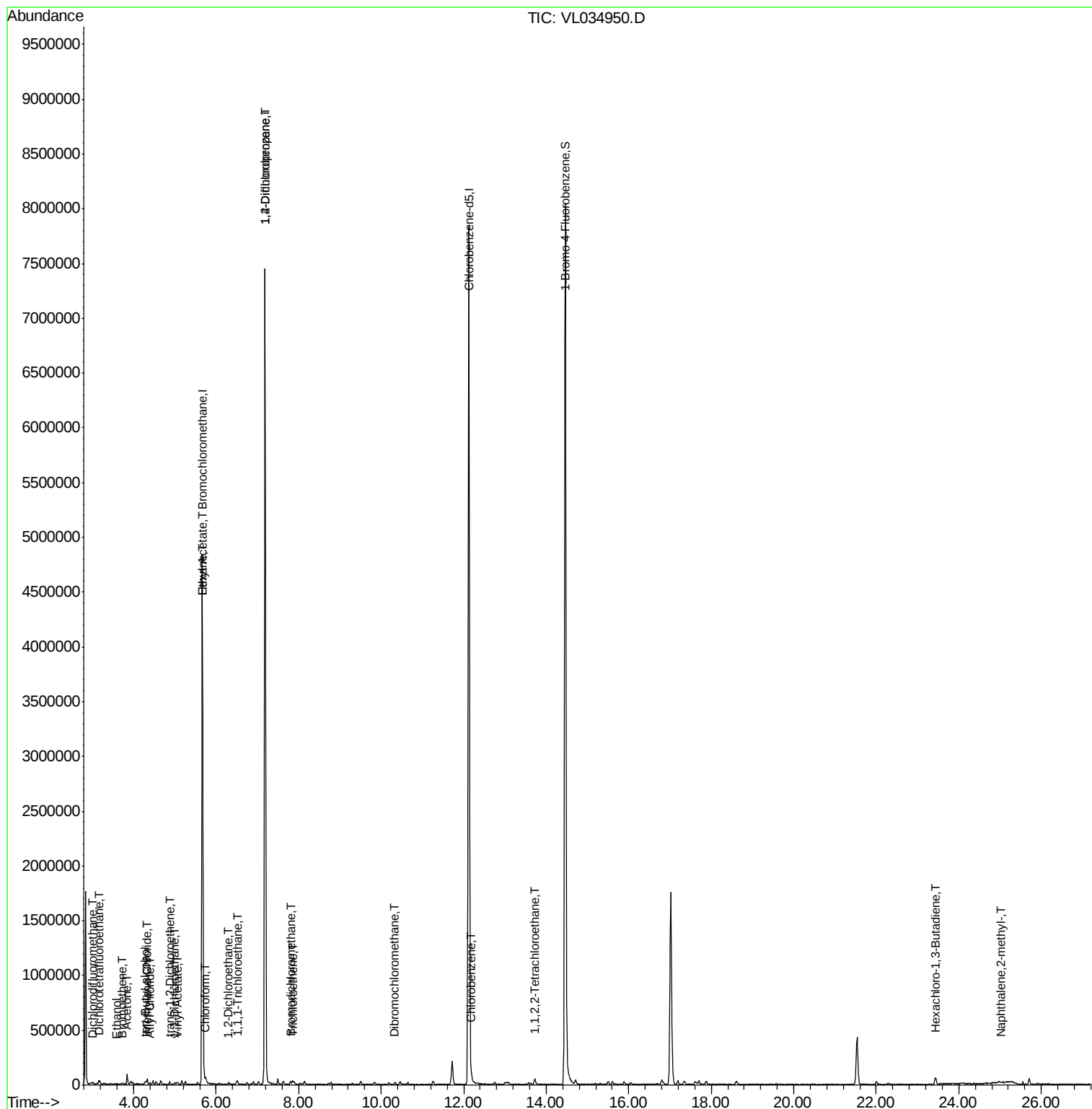
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.46	95	3977395	10.08	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.80%

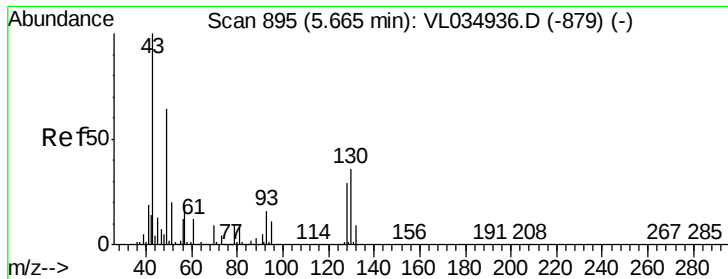
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.01	85	8084	0.024	ppbv 92
8) Dichlorotetrafluoroethane	3.15	85	10634	0.031	ppbv 99
13) Ethanol	3.58	45	1040	0.027	ppbv # 22
14) Bromoethene	3.71	108	2072	0.021	ppbv # 89
15) Acetone	3.84	43	74884	0.242	ppbv # 86
17) tert-Butyl alcohol	4.29	59	9955	0.036	ppbv # 48
20) Methylene Chloride	4.31	84	4238	0.041	ppbv # 62
21) Allyl Chloride	4.39	41	7592	0.043	ppbv 96
22) trans-1,2-Dichloroethene	4.88	96	5991	0.057	ppbv # 49
23) Vinyl Acetate	5.07	43	9132	0.023	ppbv # 77
24) 1,1-Dichloroethane	5.00	63	8075	0.027	ppbv 98
25) Ethyl Acetate	5.68	43	21960	0.042	ppbv # 96
26) Hexane	5.68	57	6695	0.030	ppbv # 22
29) Chloroform	5.75	83	19147	0.052	ppbv 84
32) 1,1,1-Trichloroethane	6.52	97	13088	0.039	ppbv # 84
37) 1,2-Dichloroethane	6.31	62	7158	0.028	ppbv # 75
38) Trichloroethene	7.85	130	4434	0.027	ppbv # 60
39) 1,2-Dichloropropane	7.19	63	1483559	8.856	ppbv # 25
42) Bromodichloromethane	7.81	83	12557	0.036	ppbv # 68
48) Dibromochloromethane	10.33	129	5457	0.020	ppbv # 33
57) Chlorobenzene	12.18	112	10700	0.028	ppbv # 54
63) 1,1,2,2-Tetrachloroethane	13.72	83	17953	0.044	ppbv 98
78) Hexachloro-1,3-Butadiene	23.44	225	9509	0.033	ppbv # 18
80) Naphthalene,2-methyl-	25.03	142	5351	0.045	ppbv # 82

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

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed May 06 14:49:39 2020
QLast Update : Wed May 06 14:49:39 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :
MSVOA_L
ClientSampleId :

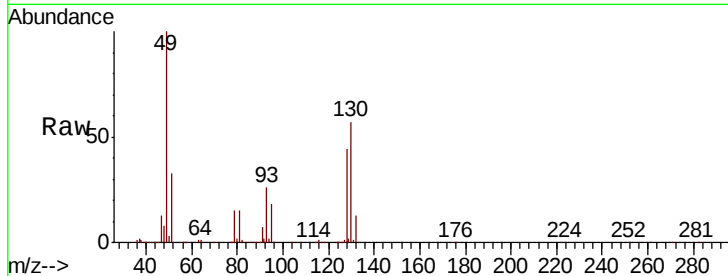
Tot Ion: 49 Resp: 2338002

Ion Ratio Lower Upper

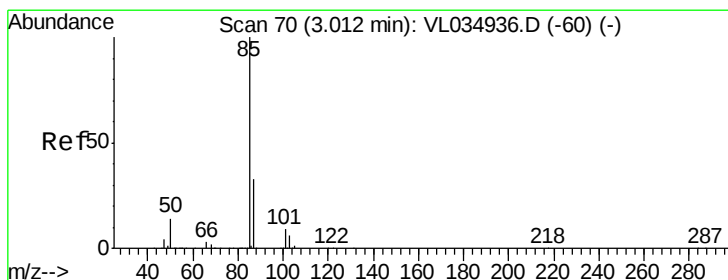
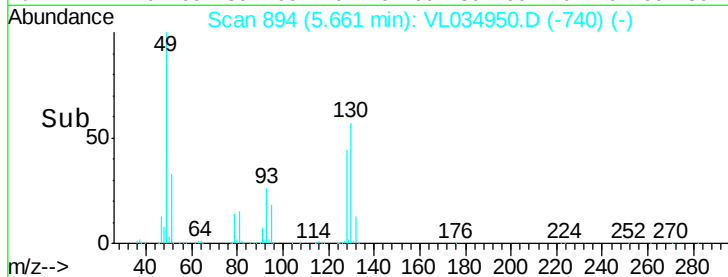
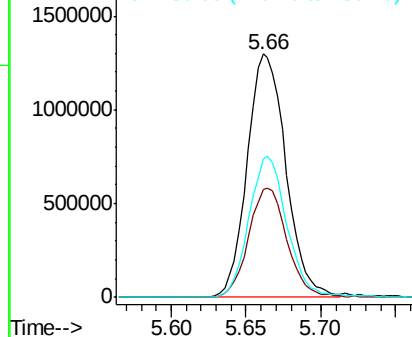
49 100

128 45.2 22.1 66.5

130 57.2 29.1 87.3



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: 0.024 ppbv

RT: 3.01 min Scan# 70

Delta R.T. -0.00 min

Lab File: VL034950.D

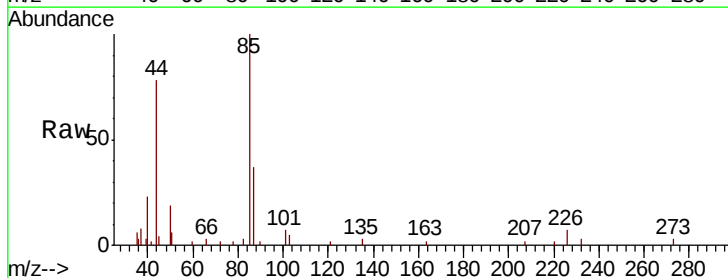
Acq: 7 May 2020 1:25

Tgt Ion: 85 Resp: 8084

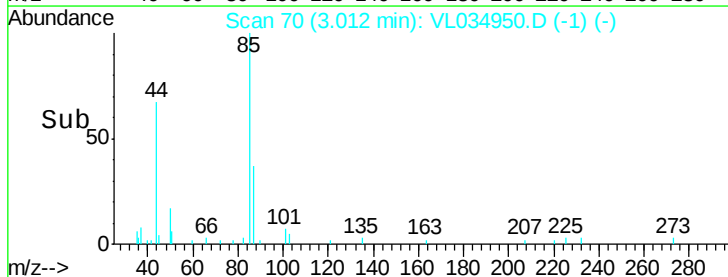
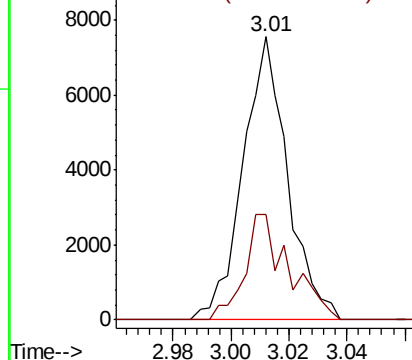
Ion Ratio Lower Upper

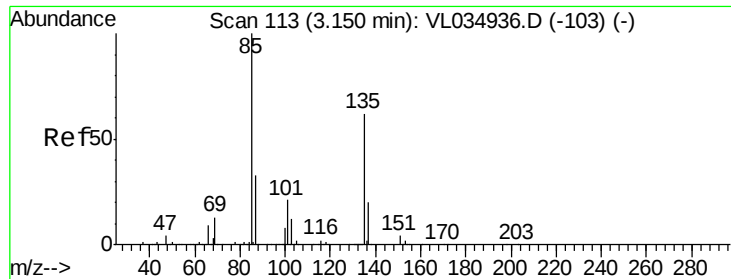
85 100

87 37.0 26.2 39.2



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#8

Dichlorotetrafluoroethane

Concen: 0.031 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

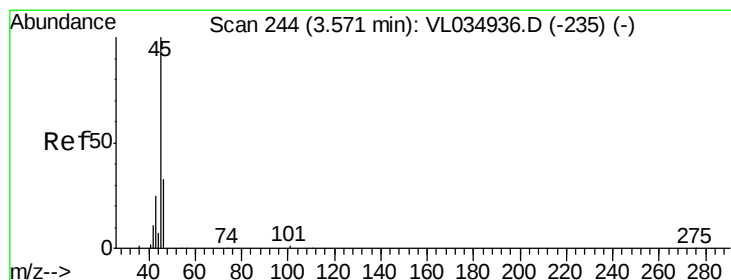
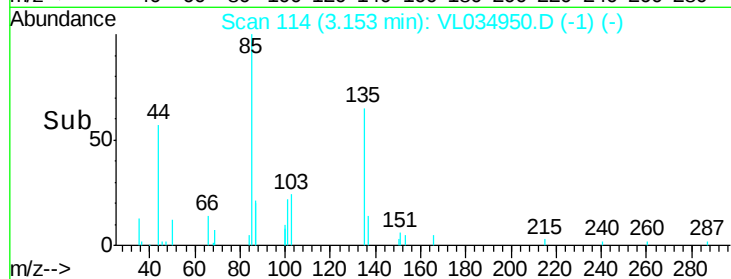
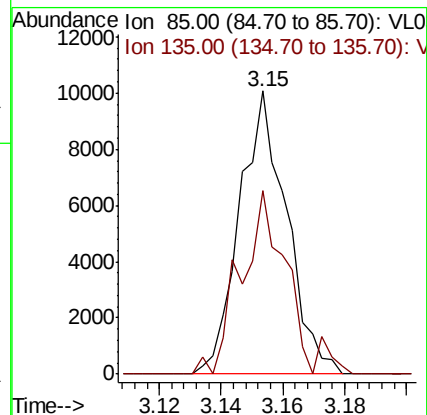
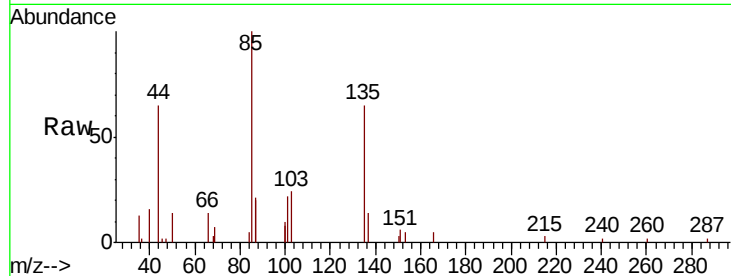
ClientSampleId :

Tot Ion: 85 Resp: 10634

Ion Ratio Lower Upper

85 100

135 64.2 50.9 76.3



#13

Ethanol

Concen: 0.027 ppbv

RT: 3.58 min Scan# 248

Delta R.T. 0.01 min

Lab File: VL034950.D

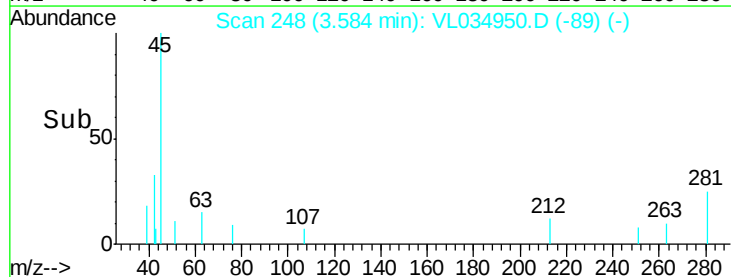
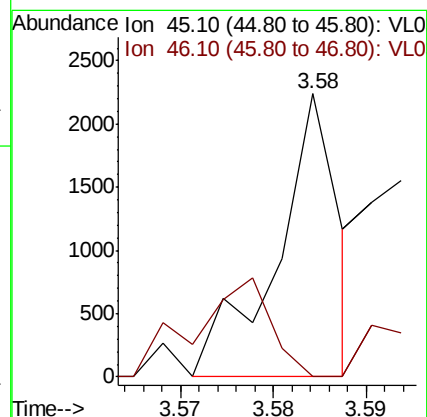
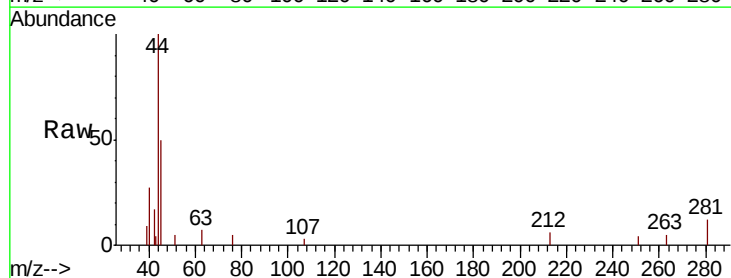
Acq: 7 May 2020 1:25

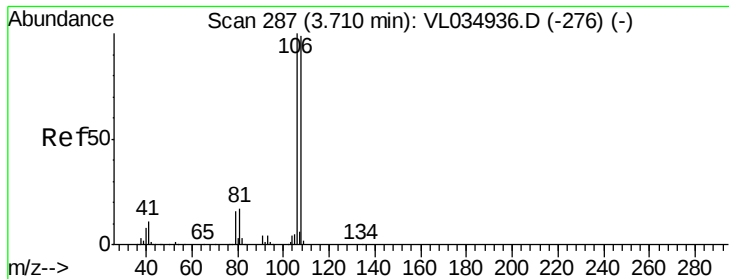
Tgt Ion: 45 Resp: 1040

Ion Ratio Lower Upper

45 100

46 81.6 14.3 57.3#





#14

Bromoethene

Concen: 0.021 ppbv

RT: 3.71 min Scan# 288

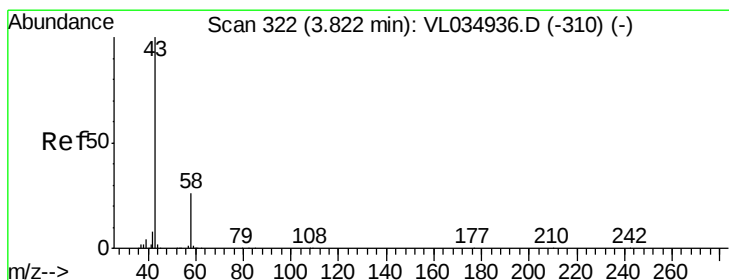
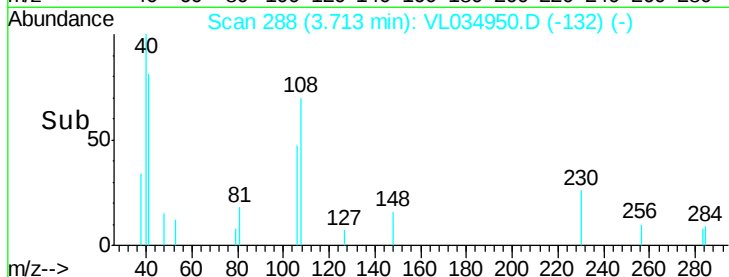
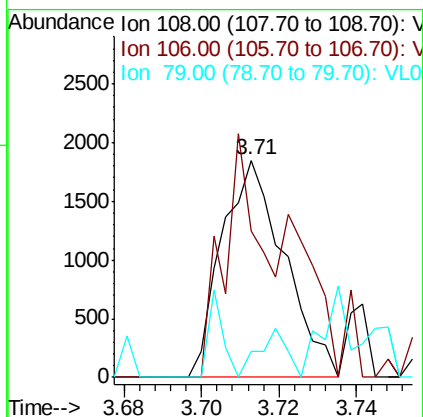
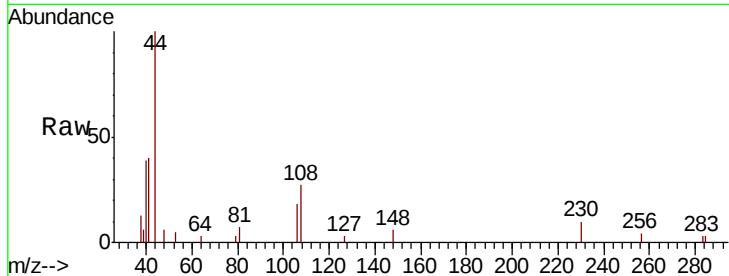
Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:108 Resp: 2072
Ion Ratio Lower Upper
108 100
106 117.0 84.9 127.3
79 12.4 14.1 21.1#



#15

Acetone

Concen: 0.242 ppbv

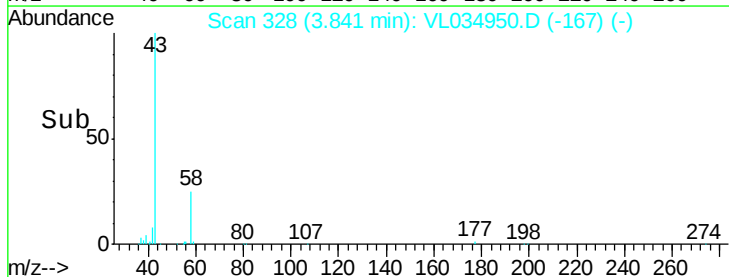
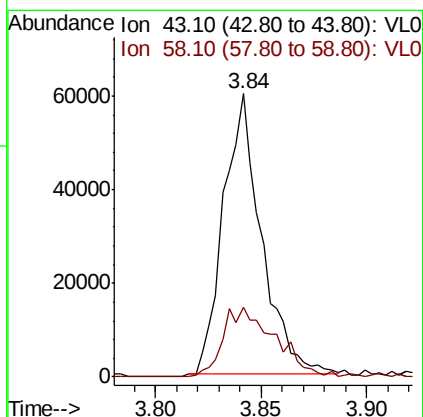
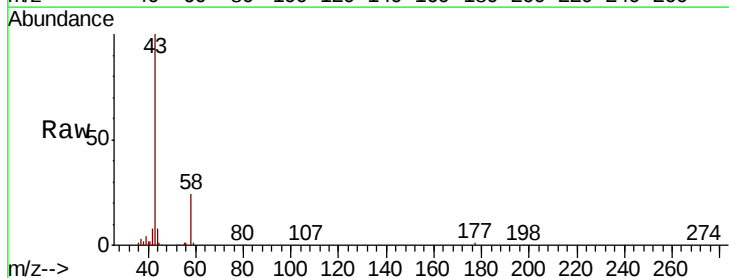
RT: 3.84 min Scan# 328

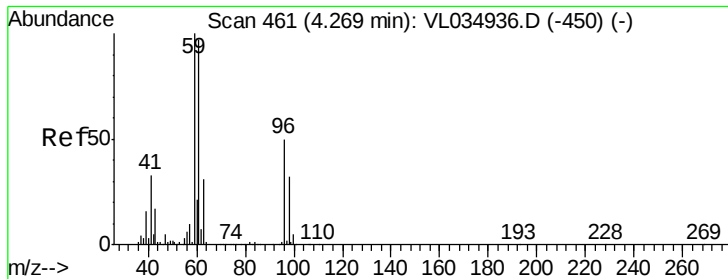
Delta R.T. 0.02 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Tgt Ion: 43 Resp: 74884
Ion Ratio Lower Upper
43 100
58 34.2 21.7 32.5#



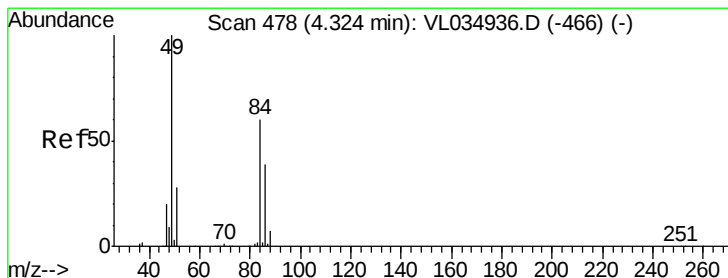
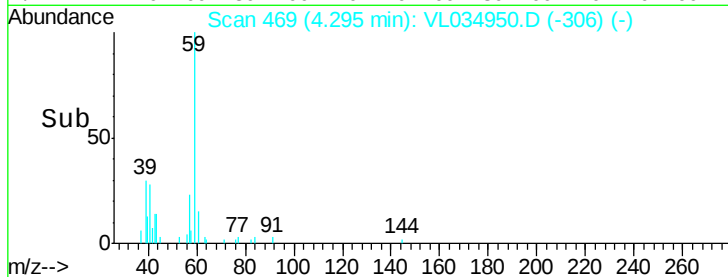
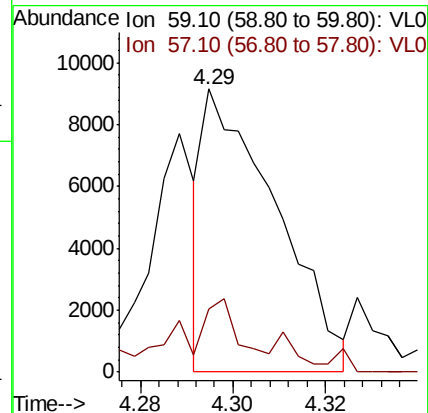
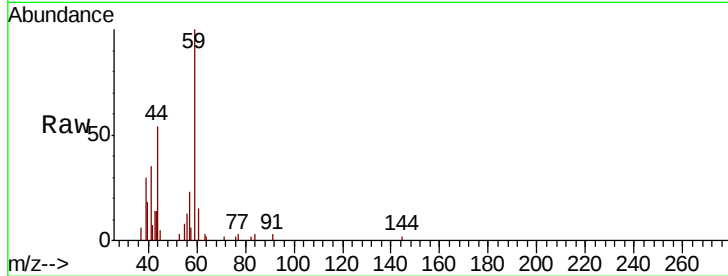


#17

tert-Butyl alcohol
 Concen: 0.036 ppbv
 RT: 4.29 min Scan# 469
 Delta R.T. 0.03 min
 Lab File: VL034950.D
 Acq: 7 May 2020 1:25

Instrument :
 MSVOA_L
 ClientSampleId :

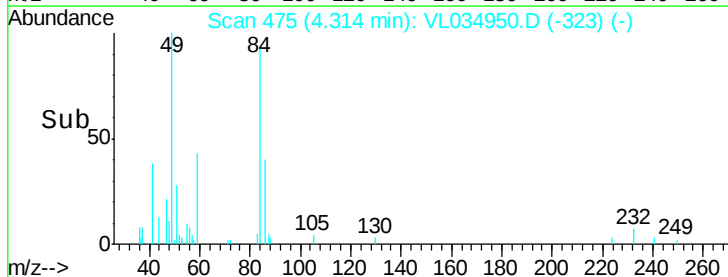
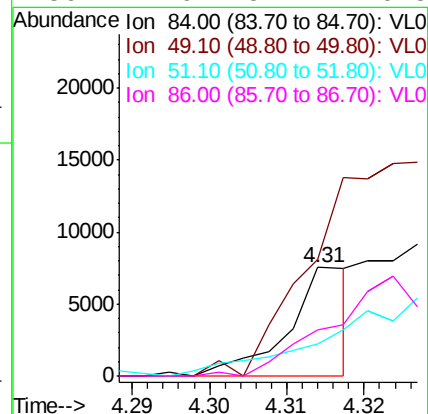
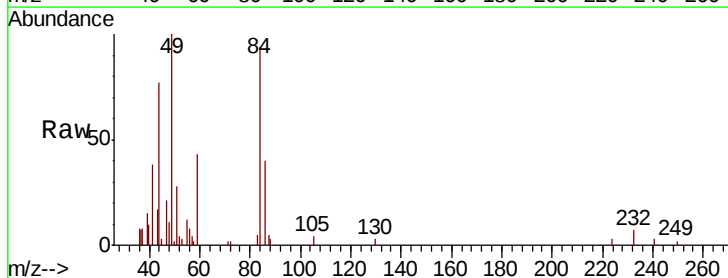
Tot Ion: 59 Resp: 9955
 Ion Ratio Lower Upper
 59 100
 57 30.6 8.7 13.1#

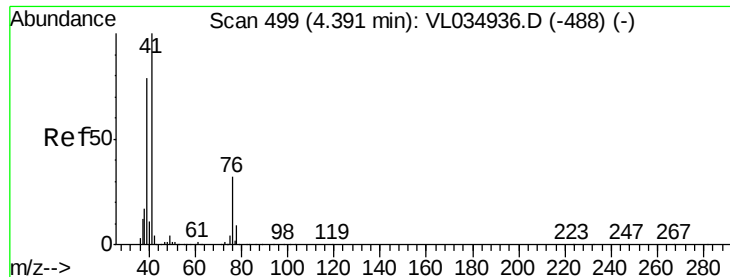


#20

Methylene Chloride
 Concen: 0.041 ppbv
 RT: 4.31 min Scan# 475
 Delta R.T. -0.01 min
 Lab File: VL034950.D
 Acq: 7 May 2020 1:25

Tgt Ion: 84 Resp: 4238
 Ion Ratio Lower Upper
 84 100
 49 106.9 132.5 198.7#
 51 25.4 38.4 57.6#
 86 42.9 51.2 76.8#

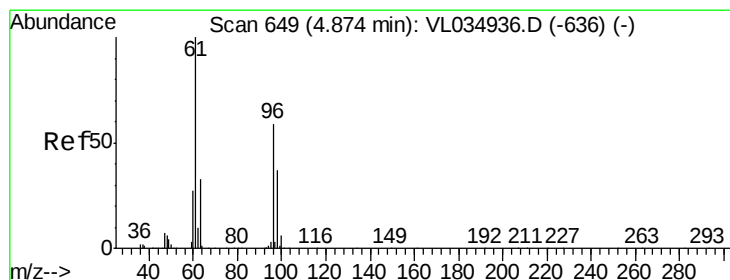
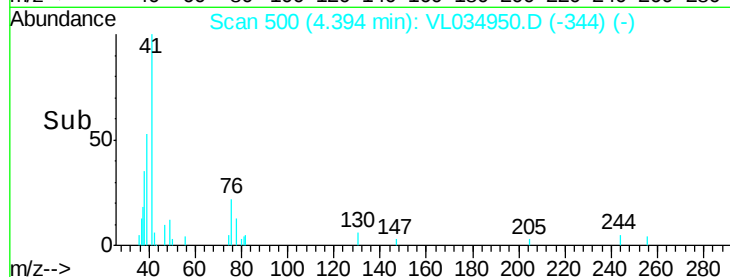
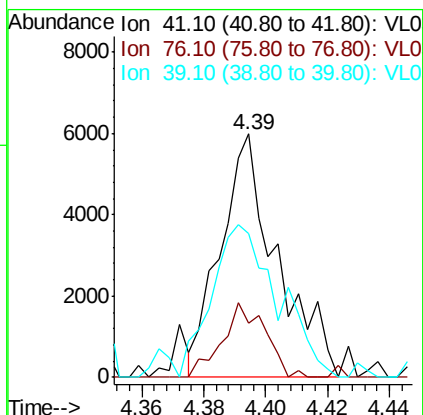
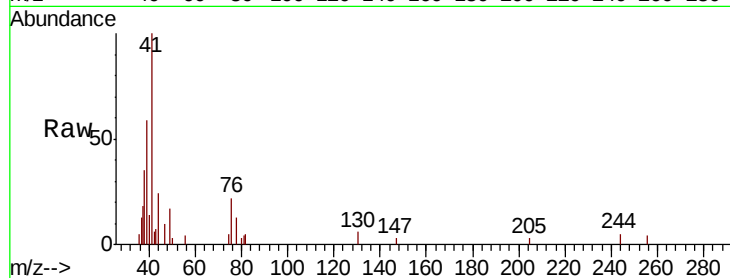




#21
Allvl Chloride
Concen: 0.043 ppbv
RT: 4.39 min Scan# 500
Delta R.T. 0.00 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

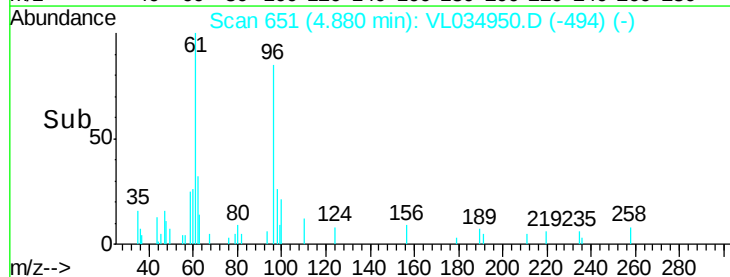
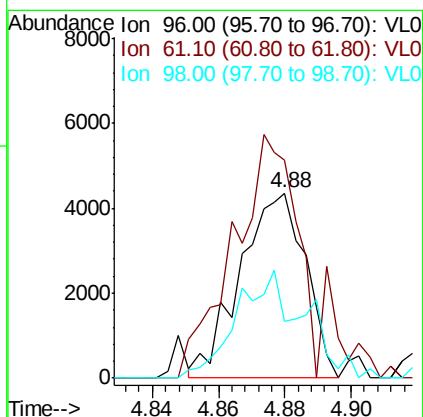
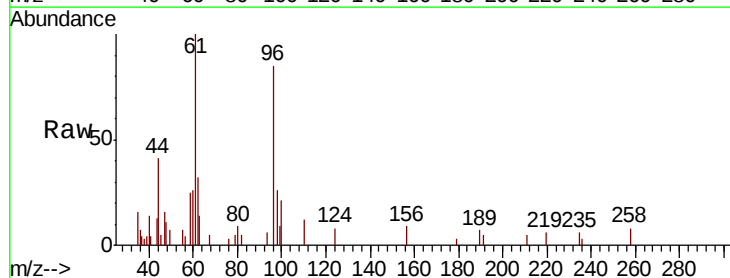
Instrument :
MSVOA_L
ClientSampleId :

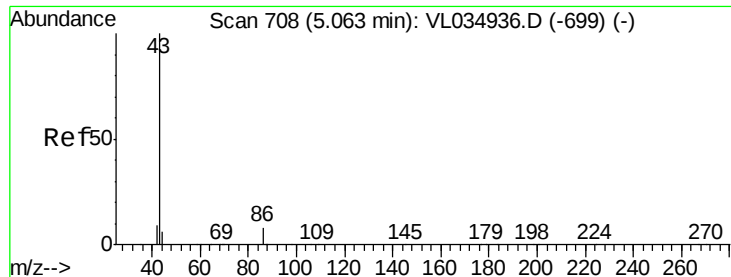
Tot Ion: 41 Resp: 7592
Ion Ratio Lower Upper
41 100
76 24.1 23.6 35.4
39 79.3 61.9 92.9



#22
trans-1,2-Dichloroethene
Concen: 0.057 ppbv
RT: 4.88 min Scan# 651
Delta R.T. 0.01 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

Tgt Ion: 96 Resp: 5991
Ion Ratio Lower Upper
96 100
61 97.5 135.3 202.9#
98 26.5 50.4 75.6#





#23

Vinyl Acetate

Concen: 0.023 ppbv

RT: 5.07 min Scan# 709

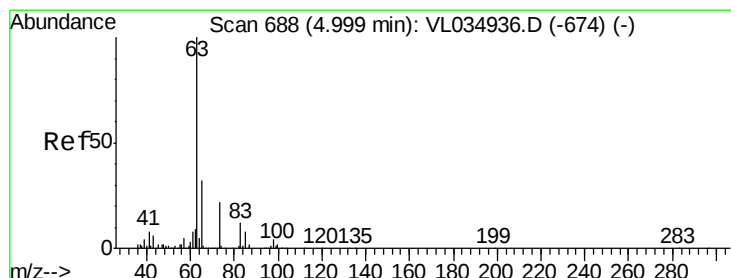
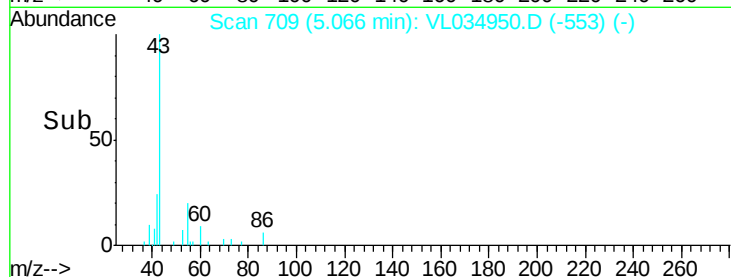
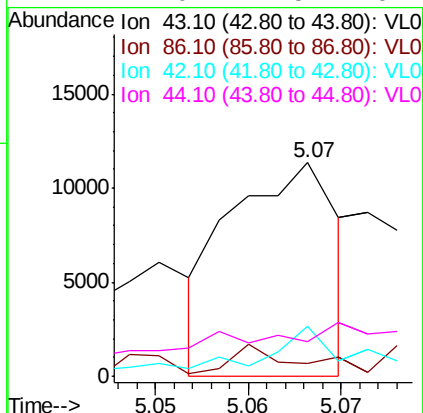
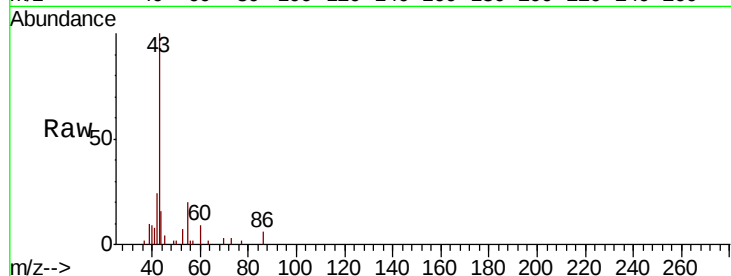
Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	43	Resp:	9132
Ion	Ratio	Lower	Upper
43	100		
86	6.5	5.5	8.3
42	28.2	8.0	12.0#
44	4.0	4.5	6.7#



#24

1,1-Dichloroethane

Concen: 0.027 ppbv

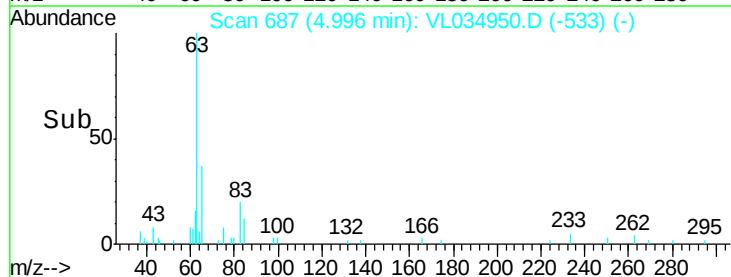
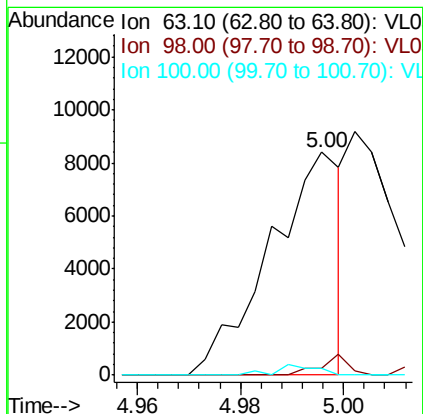
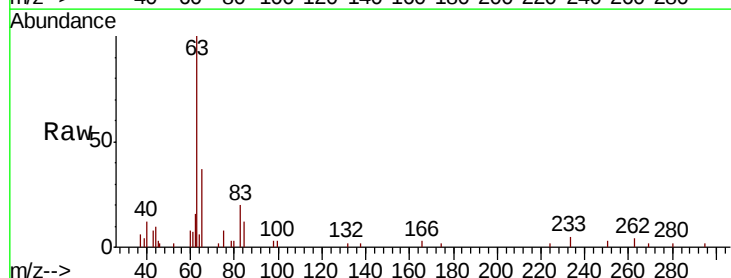
RT: 5.00 min Scan# 687

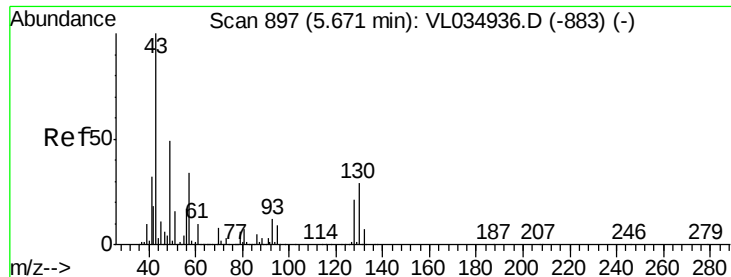
Delta R.T. -0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Tgt Ion:	63	Resp:	8075
Ion	Ratio	Lower	Upper
63	100		
98	3.3	2.0	6.0
100	3.1	1.1	3.5

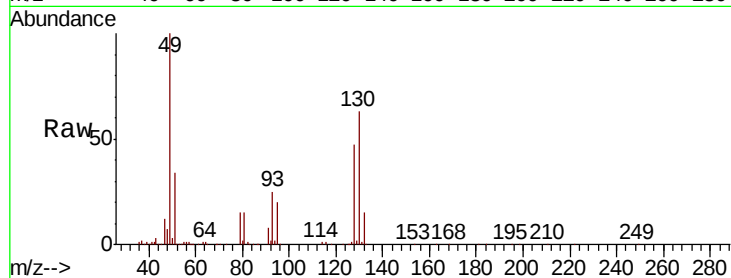




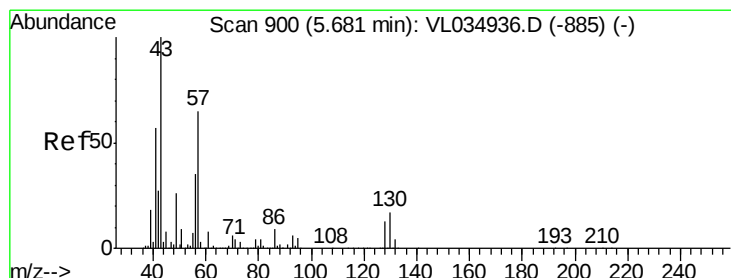
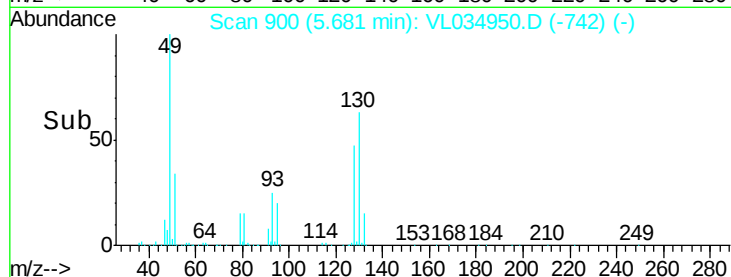
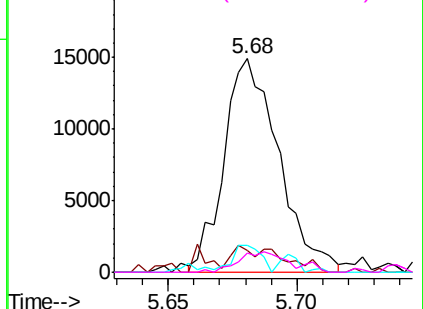
#25
Ethyl Acetate
Concen: 0.042 ppbv
RT: 5.68 min Scan# 900
Delta R.T. 0.01 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 21960
Ion Ratio Lower Upper
43 100
45 11.5 8.1 12.1
61 11.3 7.8 11.8
70 9.2 6.0 9.0#

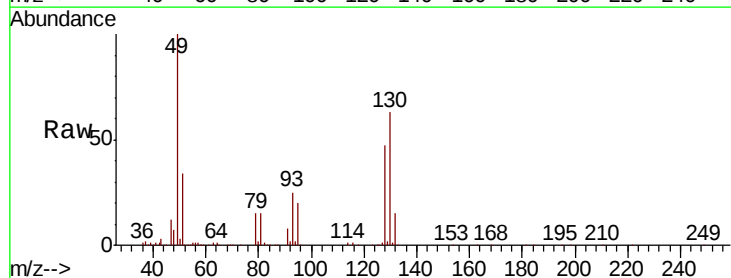


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

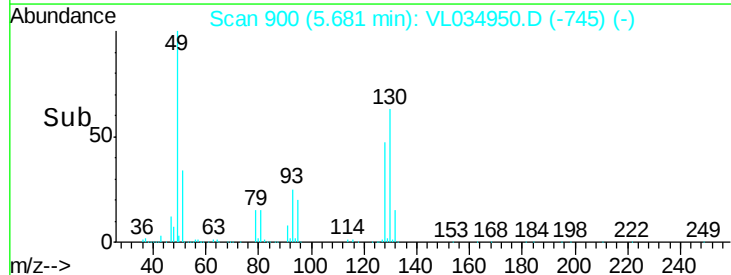
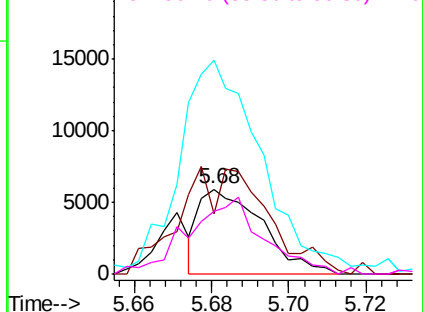


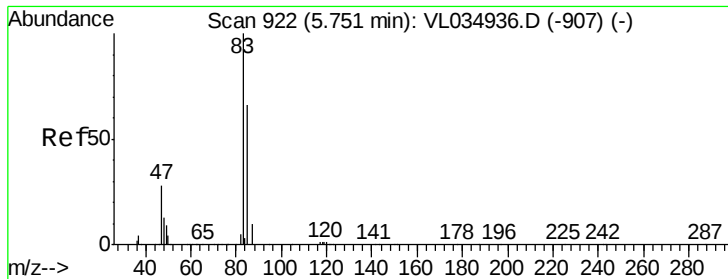
#26
Hexane
Concen: 0.030 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.00 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

Tgt Ion: 57 Resp: 6695
Ion Ratio Lower Upper
57 100
41 185.2 72.7 109.1#
43 338.2 182.1 273.1#
56 113.3 42.2 63.2#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0





#29

Chloroform

Concen: 0.052 ppbv

RT: 5.75 min Scan# 921

Delta R.T. -0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

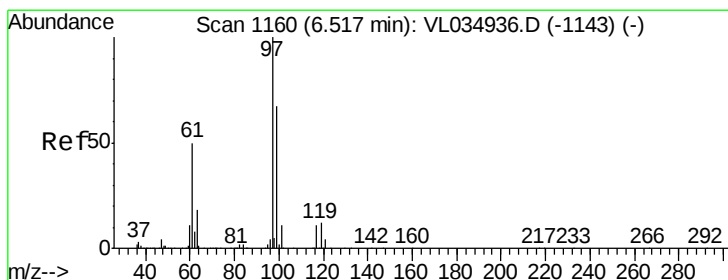
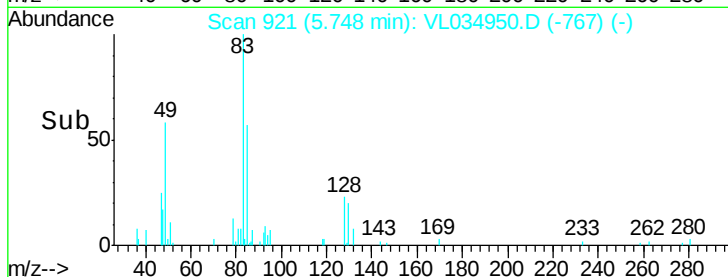
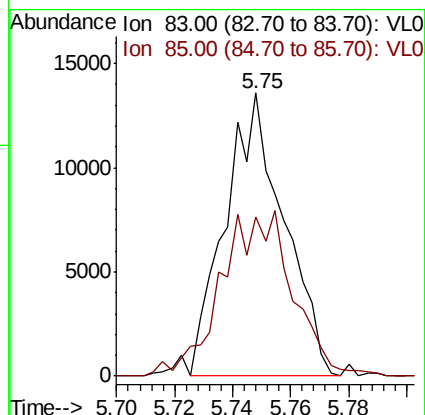
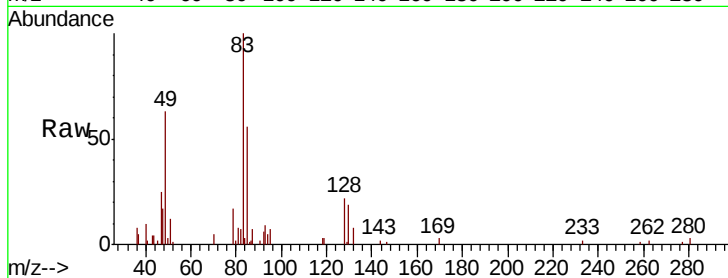
ClientSampleId :

Tot Ion: 83 Resp: 19147

Ion Ratio Lower Upper

83 100

85 53.8 53.0 79.6



#32

1,1,1-Trichloroethane

Concen: 0.039 ppbv

RT: 6.52 min Scan# 1161

Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

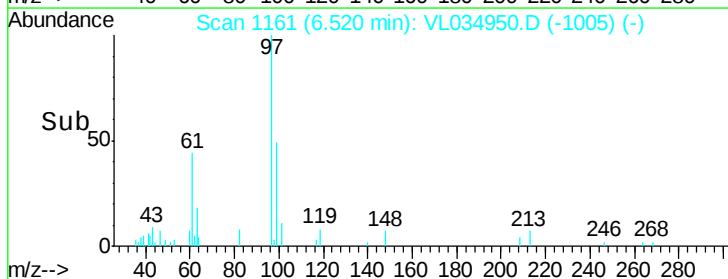
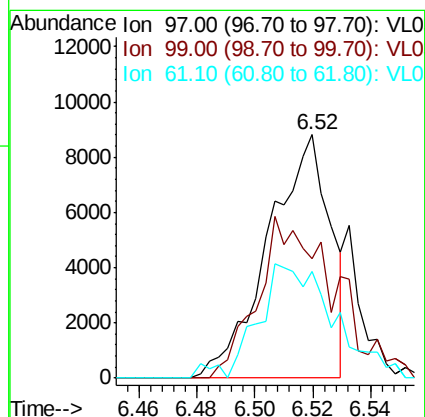
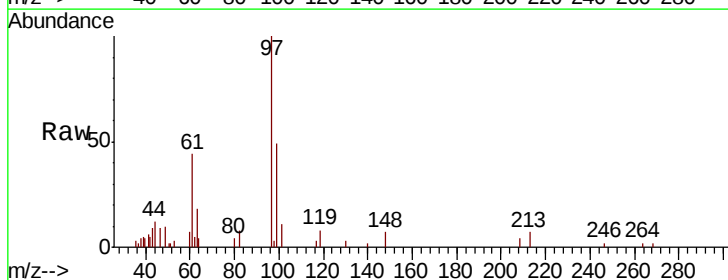
Tgt Ion: 97 Resp: 13088

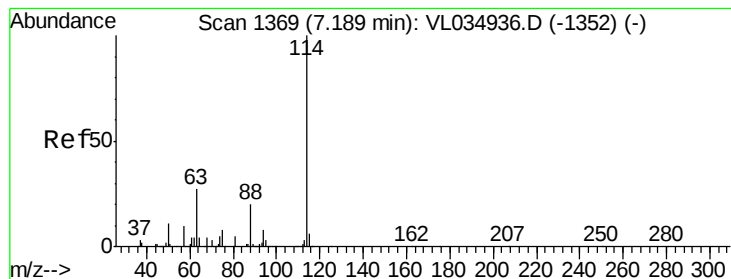
Ion Ratio Lower Upper

97 100

99 82.1 52.1 78.1#

61 58.3 41.8 62.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

ClientSampleId :

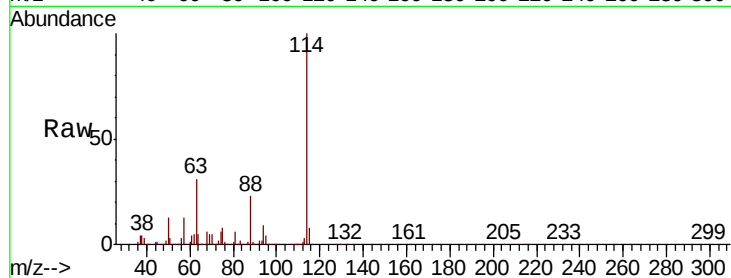
Tot Ion:114 Resp: 5068543

Ion Ratio Lower Upper

114 100

63 29.4 22.2 33.4

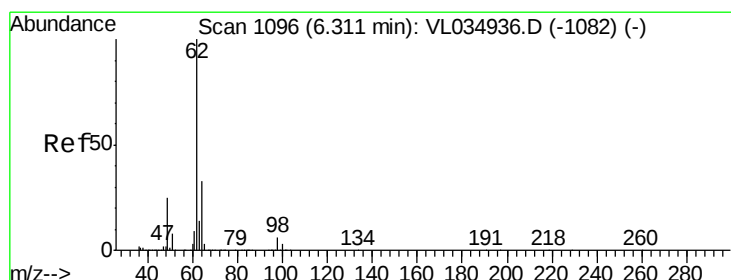
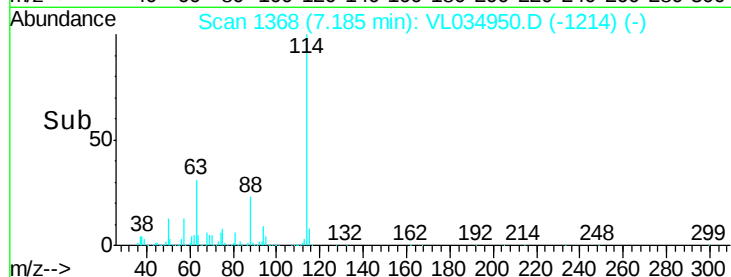
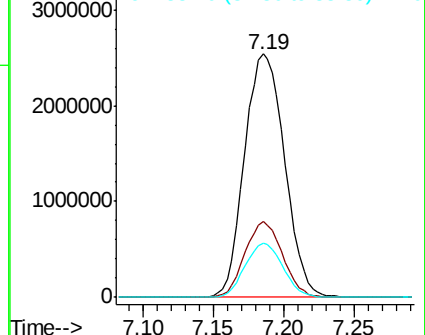
88 21.0 15.5 23.3



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



#37

1,2-Dichloroethane

Concen: 0.028 ppbv

RT: 6.31 min Scan# 1096

Delta R.T. -0.00 min

Lab File: VL034950.D

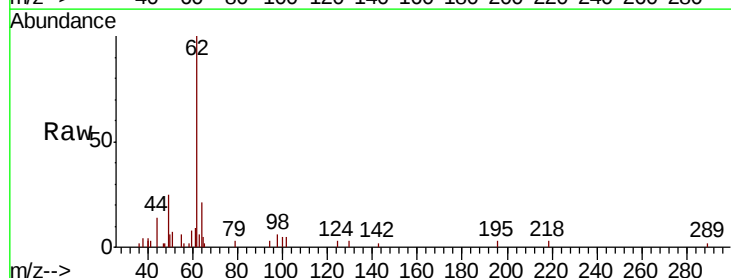
Acq: 7 May 2020 1:25

Tgt Ion: 62 Resp: 7158

Ion Ratio Lower Upper

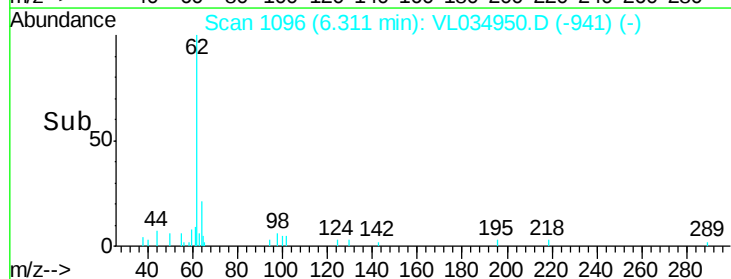
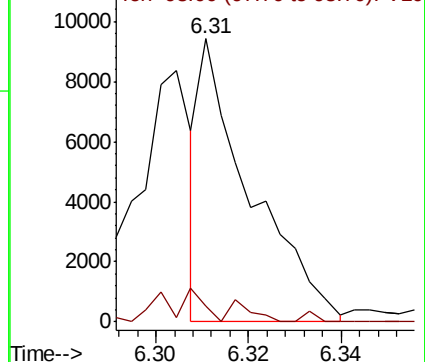
62 100

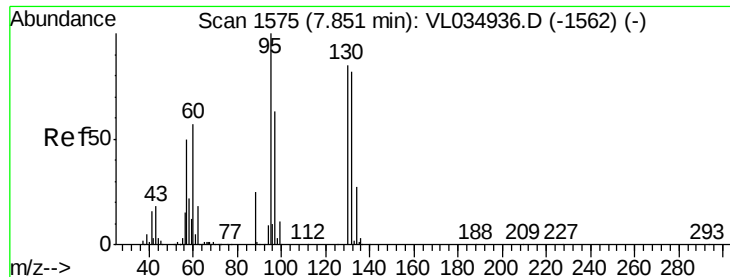
98 14.4 4.8 7.2#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

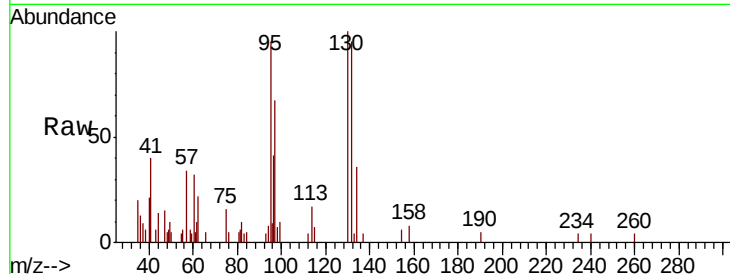




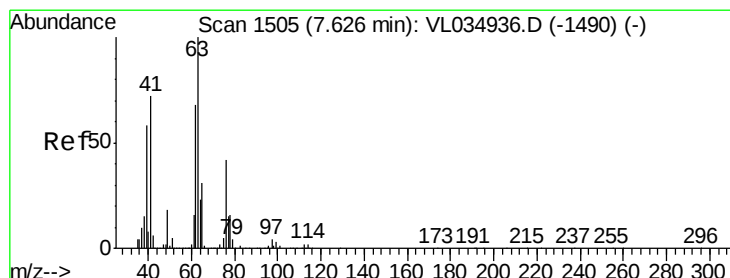
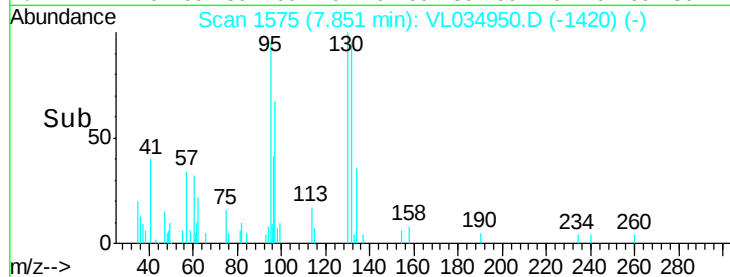
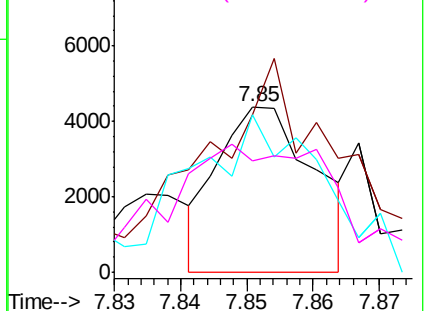
#38
 Trichloroethene
 Concen: 0.027 ppbv
 RT: 7.85 min Scan# 1575
 Delta R.T. -0.00 min
 Lab File: VL034950.D
 Acq: 7 May 2020 1:25

Instrument :
 MSVOA_L
 ClientSampled :

Tot Ion:130 Resp: 4434
 Ion Ratio Lower Upper
 130 100
 95 56.0 93.4 140.0#
 132 86.1 76.4 114.6
 97 27.6 58.5 87.7#

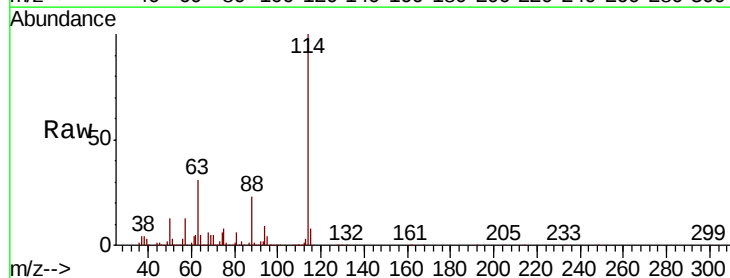


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

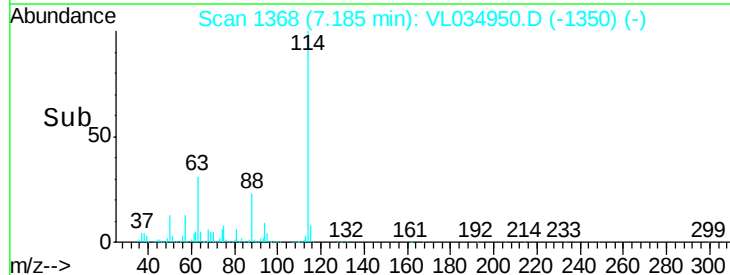
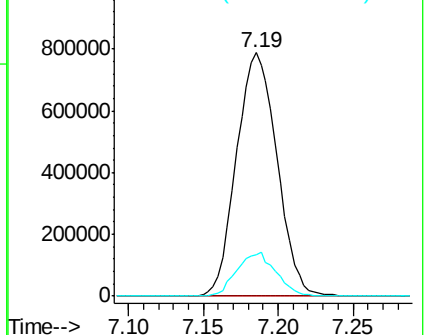


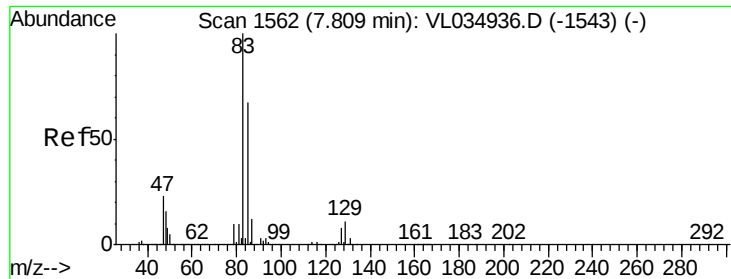
#39
 1,2-Dichloropropane
 Concen: 8.856 ppbv
 RT: 7.19 min Scan# 1368
 Delta R.T. -0.44 min
 Lab File: VL034950.D
 Acq: 7 May 2020 1:25

Tgt Ion: 63 Resp: 1483559
 Ion Ratio Lower Upper
 63 100
 41 0.0 57.8 86.8#
 62 16.8 54.2 81.2#



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: 0.036 ppbv

RT: 7.81 min Scan# 1561

Delta R.T. -0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

ClientSampleId :

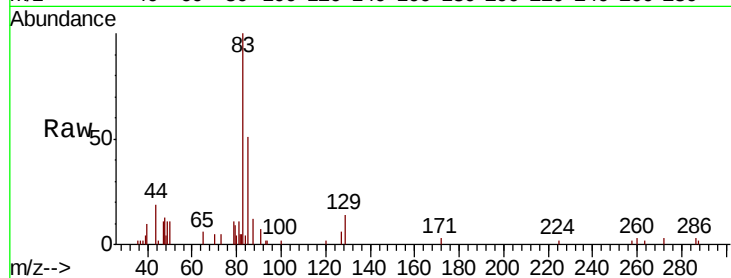
Tot Ion: 83 Resp: 12557

Ion Ratio Lower Upper

83 100

85 38.2 53.4 80.0#

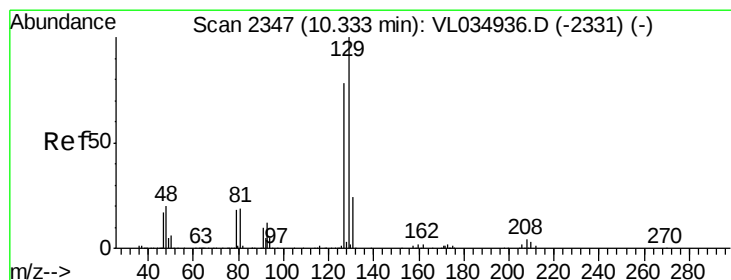
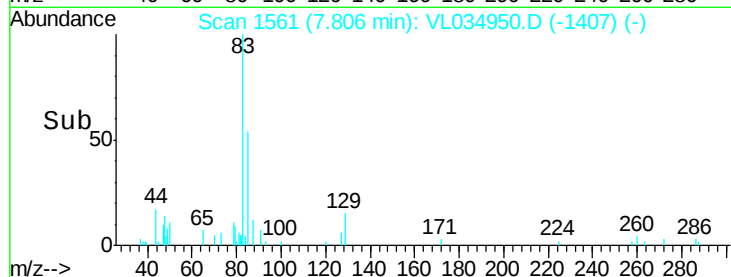
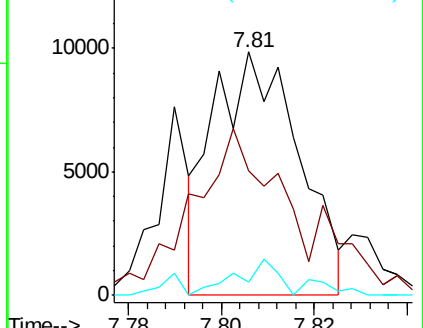
127 7.3 6.1 9.1



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



#48

Dibromochloromethane

Concen: 0.020 ppbv

RT: 10.33 min Scan# 2347

Delta R.T. -0.00 min

Lab File: VL034950.D

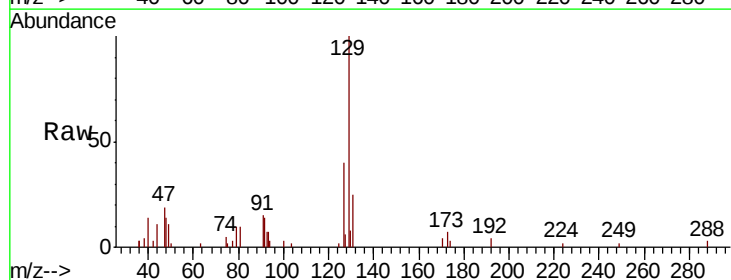
Acq: 7 May 2020 1:25

Tgt Ion: 129 Resp: 5457

Ion Ratio Lower Upper

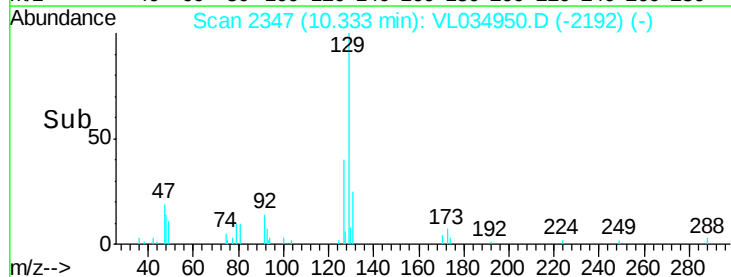
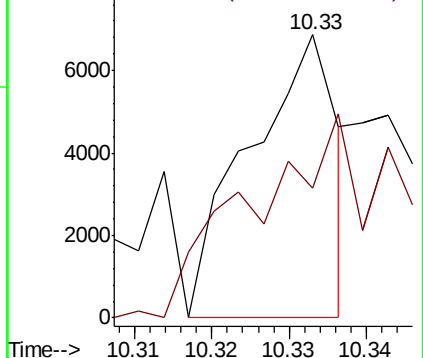
129 100

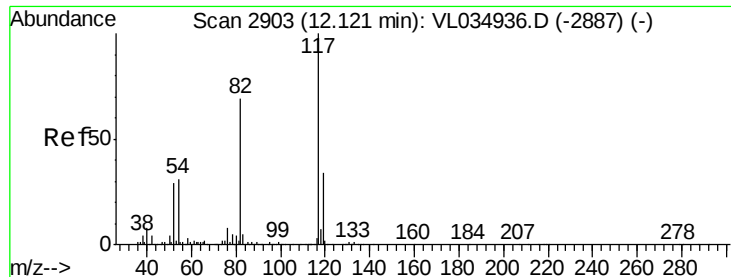
127 136.7 39.1 117.2#



Abundance Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V

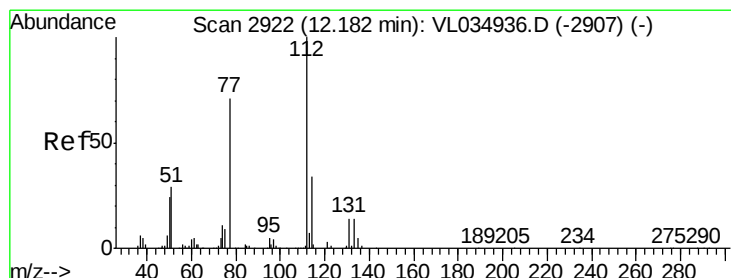
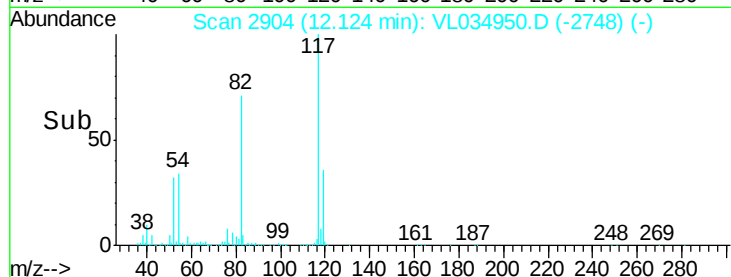
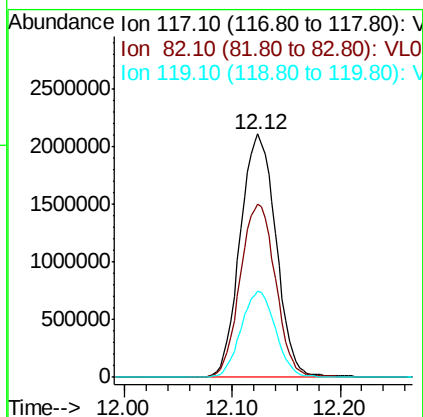
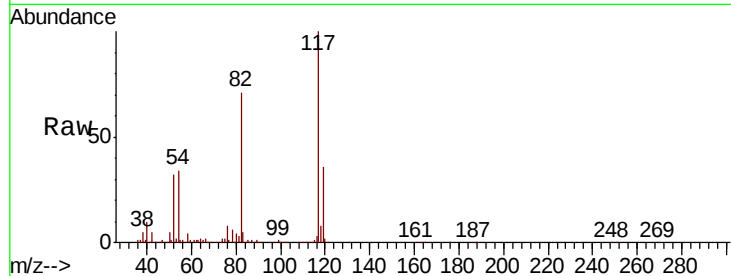




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.12 min Scan# 2904
Delta R.T. 0.00 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

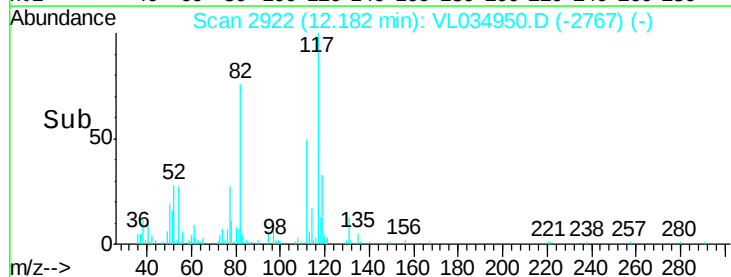
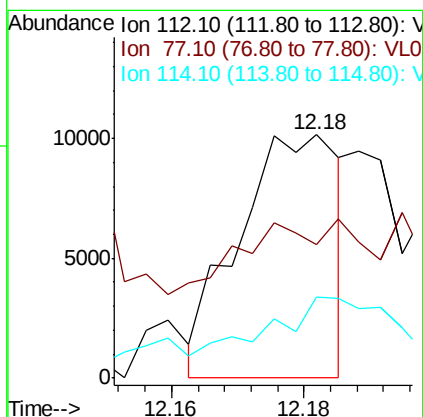
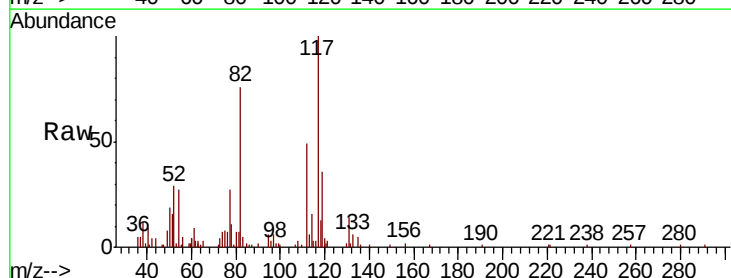
Instrument :
MSVOA_L
ClientSampled :

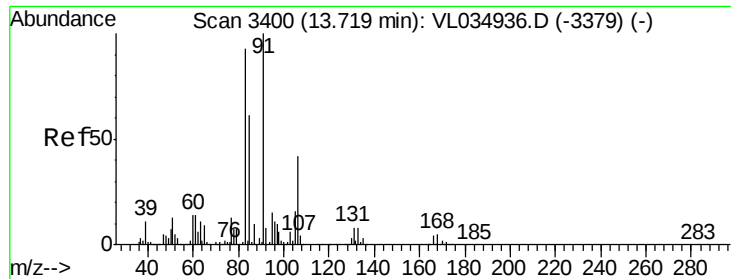
Tot Ion:117 Resp: 4875817
Ion Ratio Lower Upper
117 100
82 70.7 53.1 79.7
119 34.3 26.7 40.1



#57
Chlorobenzene
Concen: 0.028 ppbv
RT: 12.18 min Scan# 2922
Delta R.T. -0.00 min
Lab File: VL034950.D
Acq: 7 May 2020 1:25

Tgt Ion:112 Resp: 10700
Ion Ratio Lower Upper
112 100
77 18.4 57.0 85.6#
114 28.6 30.8 37.6#





#63

1,1,2,2-Tetrachloroethane

Concen: 0.044 ppbv

RT: 13.72 min Scan# 3401

Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

ClientSampleId :

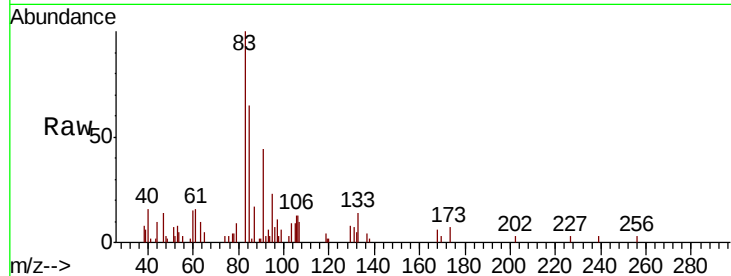
Tot Ion: 83 Resp: 17953

Ion Ratio Lower Upper

83 100

131 7.1 4.7 14.0

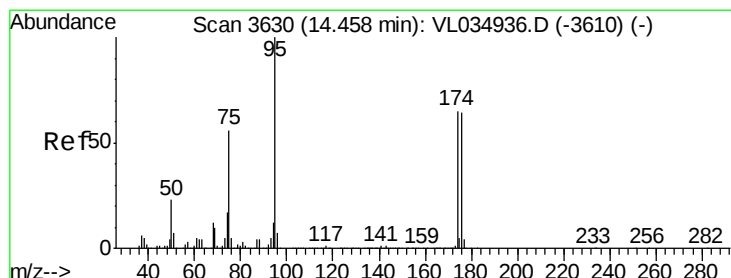
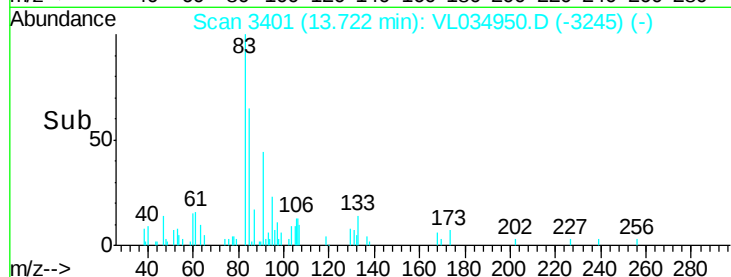
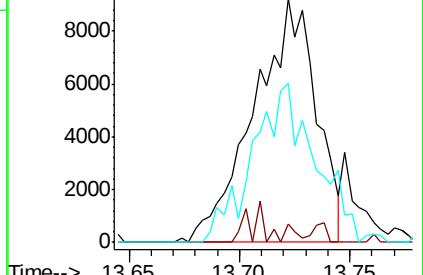
85 66.3 32.5 97.4



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VL0



#68

1-Bromo-4-Fluorobenzene

Concen: 10.078 ppbv

RT: 14.46 min Scan# 3631

Delta R.T. 0.00 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

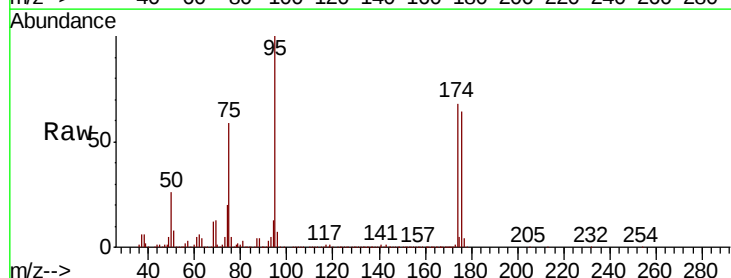
Tgt Ion: 95 Resp: 3977395

Ion Ratio Lower Upper

95 100

174 66.9 51.5 77.3

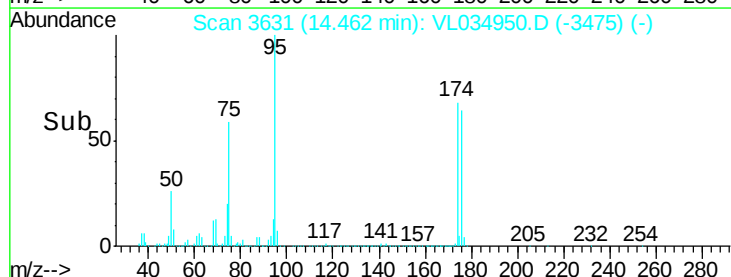
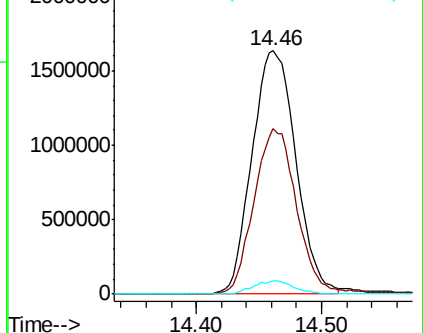
175 5.1 3.8 5.8

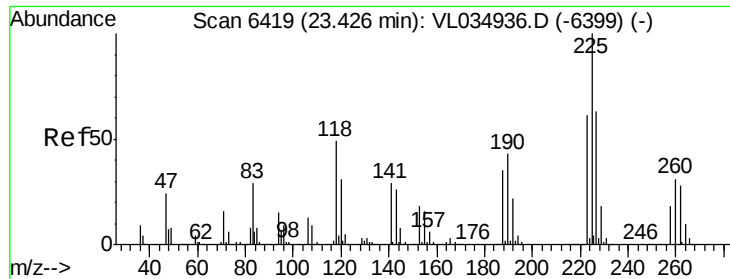


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#78

Hexachloro-1,3-Butadiene

Concen: 0.033 ppbv

RT: 23.44 min Scan# 6422

Delta R.T. 0.01 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

Instrument :

MSVOA_L

ClientSampled :

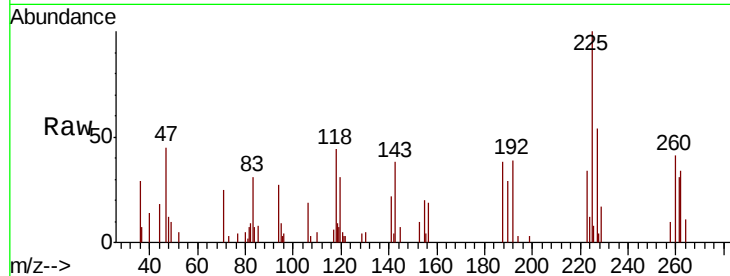
Tot Ion:225 Resp: 9509

Ion Ratio Lower Upper

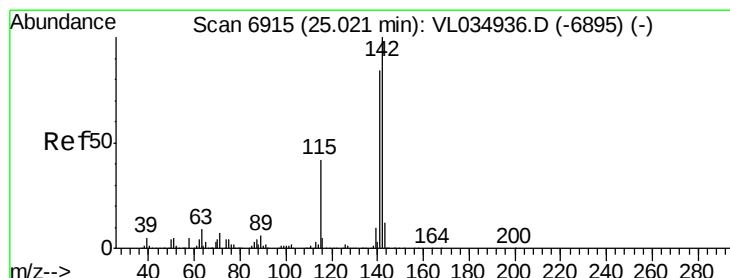
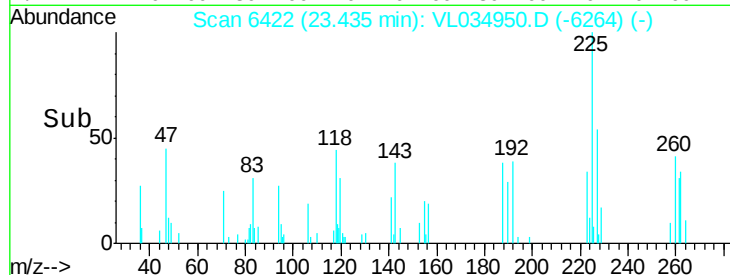
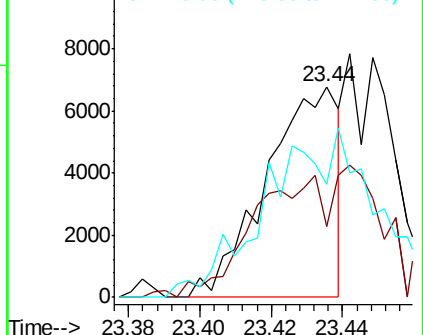
225 100

223 0.0 49.8 74.8#

227 0.0 51.8 77.6#



Abundance Ion 224.90 (224.60 to 225.60): V
Ion 222.90 (222.60 to 223.60): V
Ion 226.90 (226.60 to 227.60): V



#80

Naphthalene, 2-methyl-

Concen: 0.045 ppbv

RT: 25.03 min Scan# 6919

Delta R.T. 0.01 min

Lab File: VL034950.D

Acq: 7 May 2020 1:25

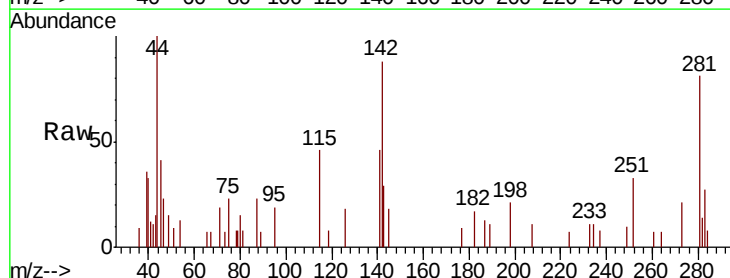
Tgt Ion:142 Resp: 5351

Ion Ratio Lower Upper

142 100

141 63.9 68.6 102.8#

115 37.5 33.9 50.9



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

