

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071620\
 Data File : VL035204.D
 Acq On : 16 Jul 2020 21:42
 Operator : SY/AP
 Sample : L3318-01DUP 1200X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 PERM-02DUP

Quant Time: Jul 17 04:11:00 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070820AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 08 07:05:23 2020
 QLast Update : Wed Jul 08 07:05:23 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.63	49	1029376	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.15	114	2510065	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.09	117	2347296	10.00	ppbv	-0.03

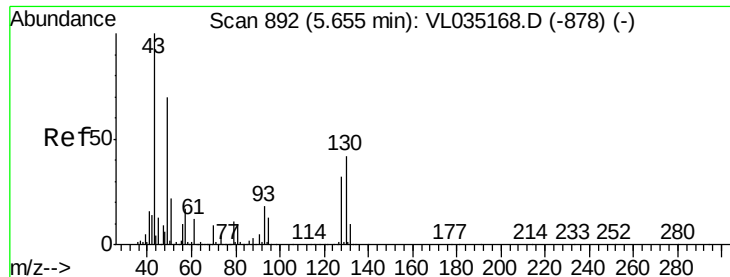
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	1961542	10.29	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.90%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	2.99	85	13689	0.095	ppbv 92
3) Chlorodifluoromethane	2.93	51	8240	0.072	ppbv 93
4) Chloromethane	3.08	50	6029	0.094	ppbv 98
6) Bromomethane	3.42	94	2756	0.071	ppbv # 36
7) Chloroethane	3.51	64	1383	0.057	ppbv # 65
8) Dichlorotetrafluoroethane	3.13	85	12300	0.078	ppbv 91
9) Propene	2.95	41	5487	0.128	ppbv # 77
11) Trichlorofluoromethane	3.90	101	11470	0.070	ppbv # 77
12) 1,1,2-Trichlorotrifluoroet	4.43	101	5587	0.049	ppbv # 43
13) Ethanol	3.56	45	518	0.038	ppbv # 35
14) Bromoethene	3.69	108	2258	0.048	ppbv # 12
15) Acetone	3.82	43	30097	0.216	ppbv # 55
16) 1,3-Butadiene	3.28	39	1624	0.030	ppbv # 7
20) Methylene Chloride	4.30	84	20711	0.342	ppbv # 89
21) Allyl Chloride	4.36	41	2443	0.030	ppbv # 19
22) trans-1,2-Dichloroethene	4.84	96	2274	0.045	ppbv # 27
24) 1,1-Dichloroethane	4.97	63	7126	0.055	ppbv # 88
26) Hexane	5.65	57	5373	0.056	ppbv # 54
27) Carbon Disulfide	4.51	76	6114698	45.922	ppbv 94
34) 2-Butanone	5.22	43	6411	0.048	ppbv # 52
37) 1,2-Dichloroethane	6.28	62	4732	0.039	ppbv # 83
39) 1,2-Dichloropropane	7.15	63	682851	9.452	ppbv # 22
42) Bromodichloromethane	7.77	83	10461	0.064	ppbv # 86
57) Chlorobenzene	12.14	112	5904	0.034	ppbv # 75

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

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.63 min Scan# 885

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

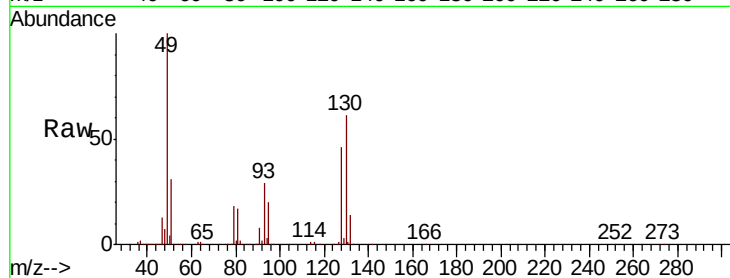
MSVOA_L

ClientSampleId :

PERM-02DUP

Tot Ion: 49 Resp: 1029376

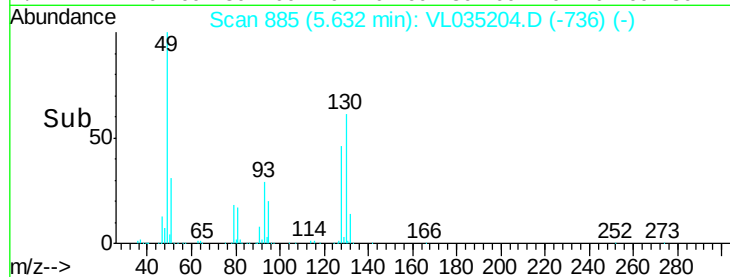
Ion	Ratio	Lower	Upper
49	100		
128	49.4	23.8	71.4
130	63.3	29.9	89.8



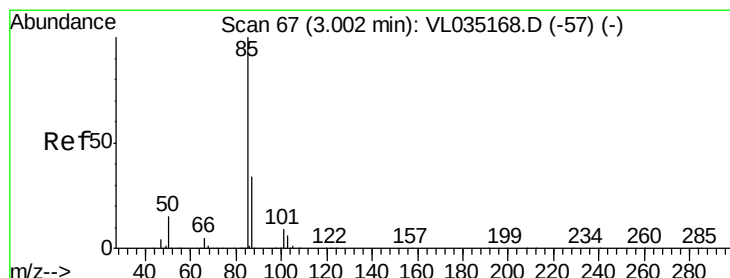
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



Time--> 5.55 5.60 5.65 5.70



#2

Dichlorodifluoromethane

Concen: 0.095 ppbv

RT: 2.99 min Scan# 63

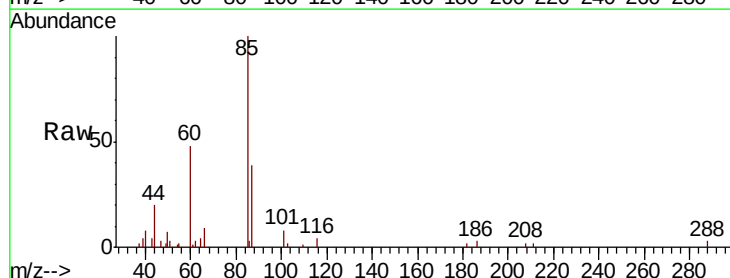
Delta R.T. -0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

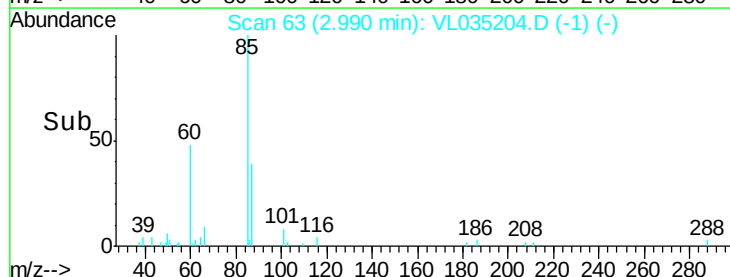
Tgt Ion: 85 Resp: 13689

Ion	Ratio	Lower	Upper
85	100		
87	38.2	27.0	40.6

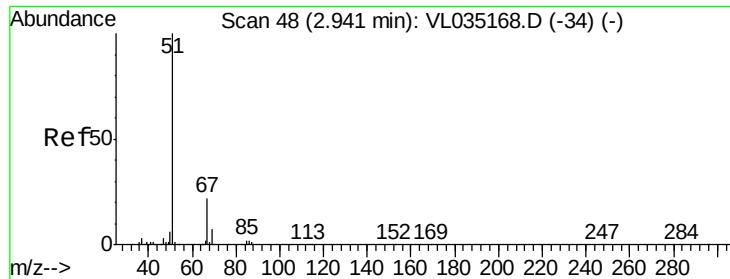


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



Time--> 2.94 2.96 2.98 3.00 3.02



#3

Chlorodifluoromethane

Concen: 0.072 ppbv

RT: 2.93 min Scan# 45

Delta R.T. -0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

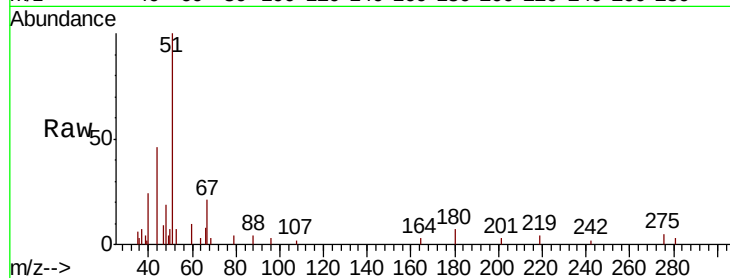
PERM-02DUP

Tot Ion: 51 Resp: 8240

Ion Ratio Lower Upper

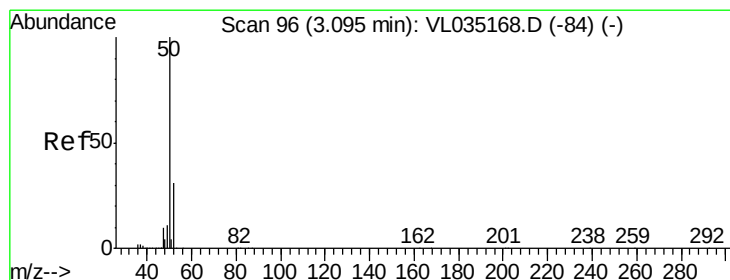
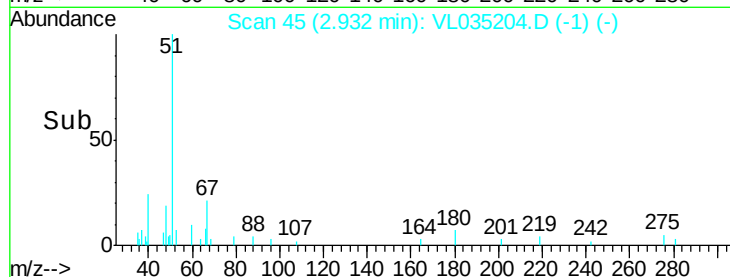
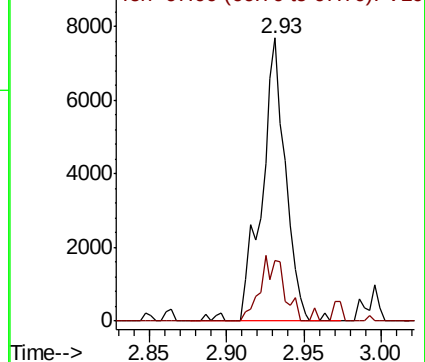
51 100

67 23.8 16.6 24.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.094 ppbv

RT: 3.08 min Scan# 92

Delta R.T. -0.01 min

Lab File: VL035204.D

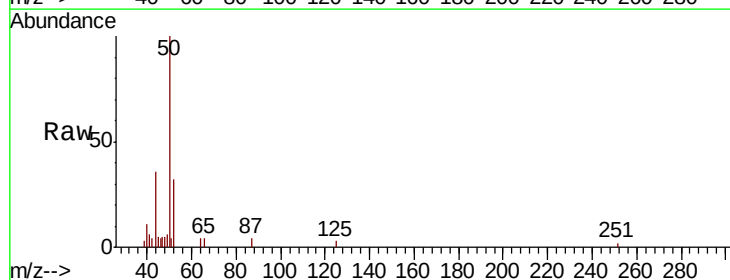
Acq: 16 Jul 2020 21:42

Tgt Ion: 50 Resp: 6029

Ion Ratio Lower Upper

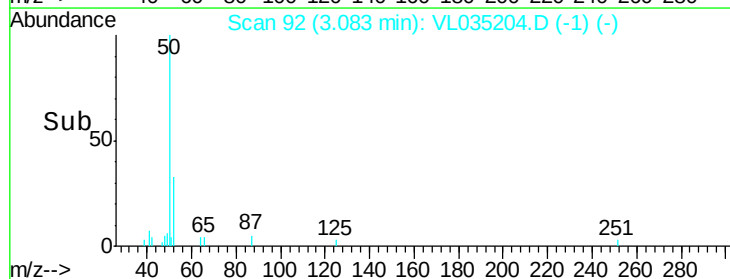
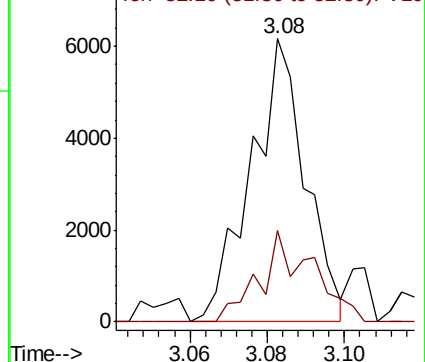
50 100

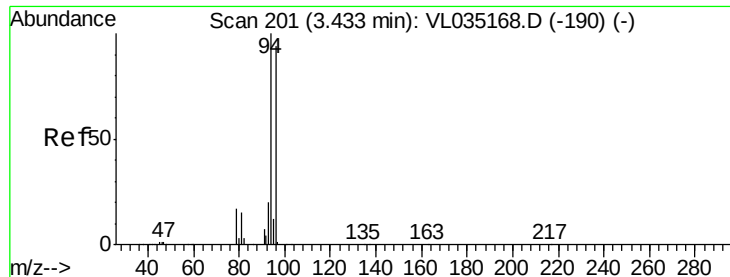
52 32.5 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 0.071 ppbv

RT: 3.42 min Scan# 197

Delta R.T. -0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

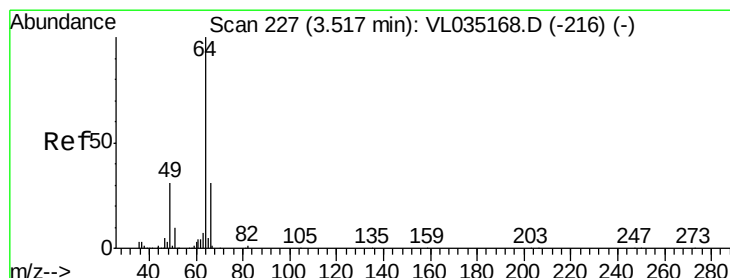
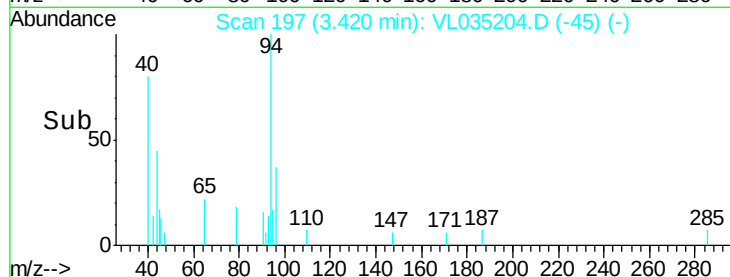
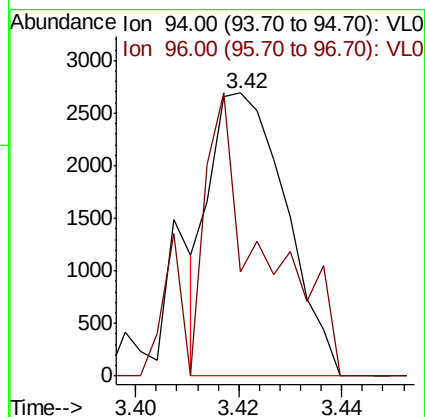
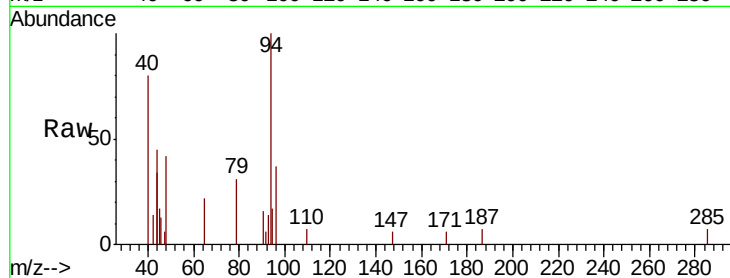
PERM-02DUP

Tot Ion: 94 Resp: 2756

Ion Ratio Lower Upper

94 100

96 31.5 74.8 112.2#



#7

Chloroethane

Concen: 0.057 ppbv

RT: 3.51 min Scan# 224

Delta R.T. -0.01 min

Lab File: VL035204.D

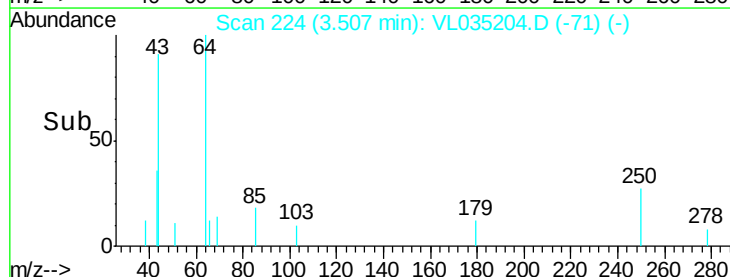
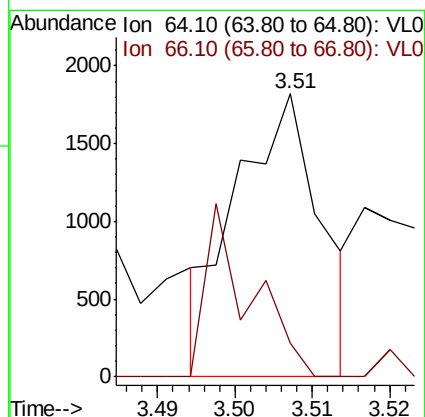
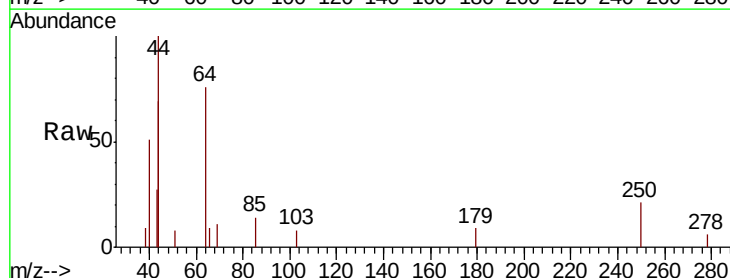
Acq: 16 Jul 2020 21:42

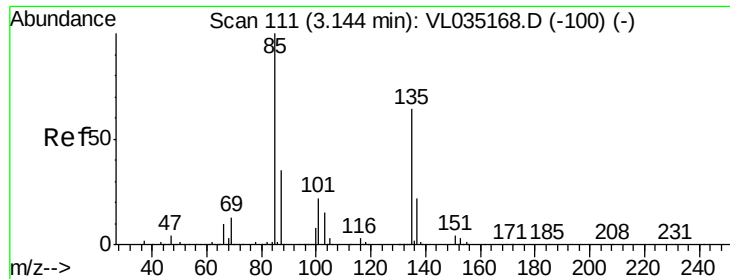
Tgt Ion: 64 Resp: 1383

Ion Ratio Lower Upper

64 100

66 11.8 24.6 36.8#





#8

Dichlorotetrafluoroethane

Concen: 0.078 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

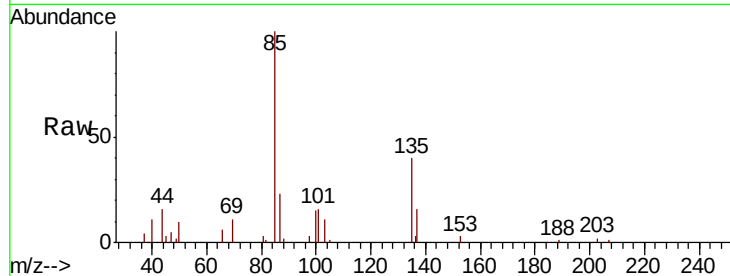
PERM-02DUP

Tot Ion: 85 Resp: 12300

Ion Ratio Lower Upper

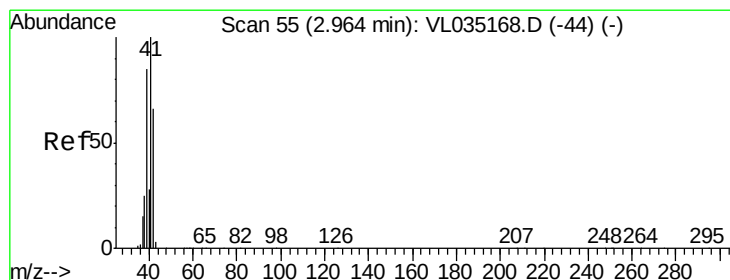
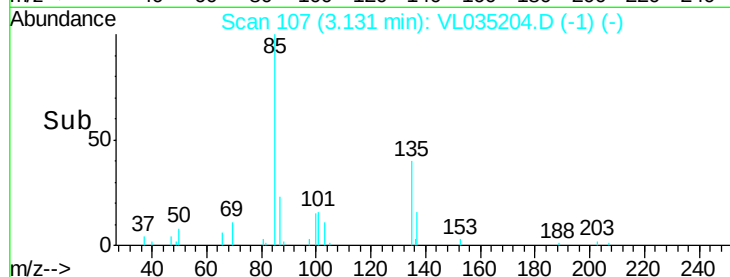
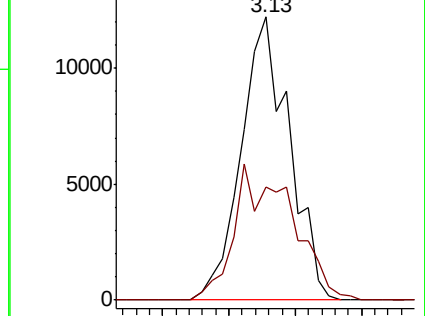
85 100

135 58.1 52.1 78.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V



#9

Propene

Concen: 0.128 ppbv

RT: 2.95 min Scan# 51

Delta R.T. -0.01 min

Lab File: VL035204.D

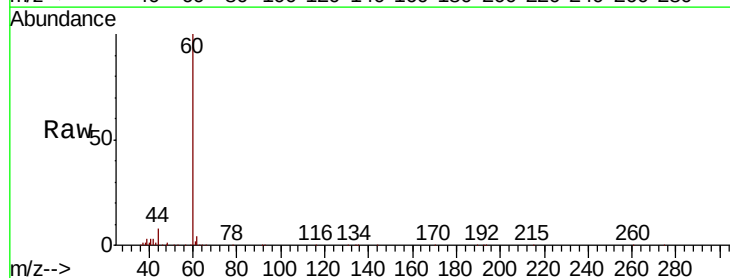
Acq: 16 Jul 2020 21:42

Tgt Ion: 41 Resp: 5487

Ion Ratio Lower Upper

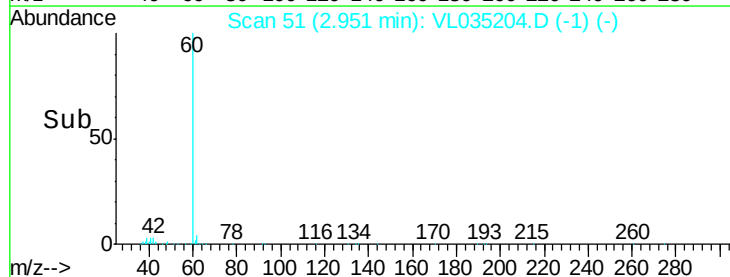
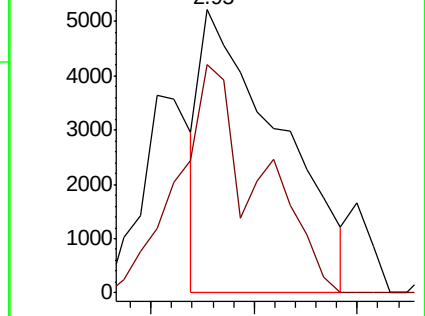
41 100

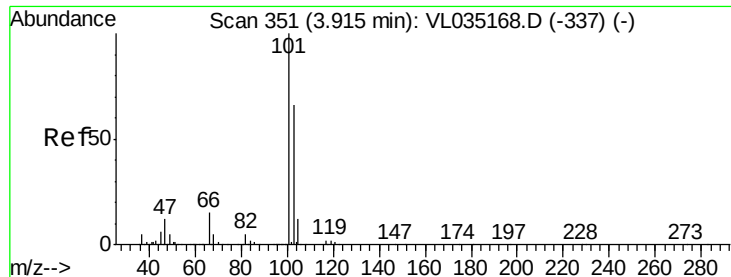
42 87.2 54.6 81.8#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#11

Trichlorofluoromethane

Concen: 0.070 ppbv

RT: 3.90 min Scan# 346

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

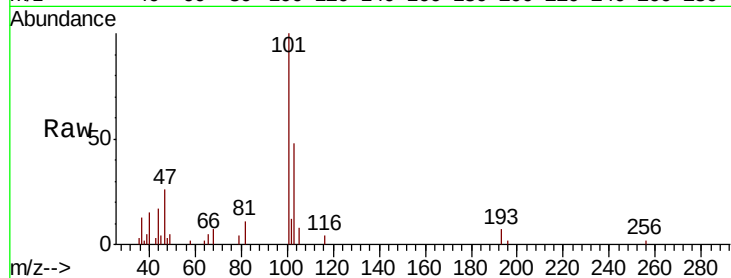
PERM-02DUP

Tot Ion:101 Resp: 11470

Ion Ratio Lower Upper

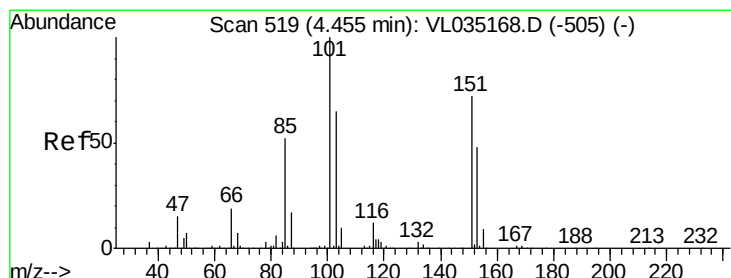
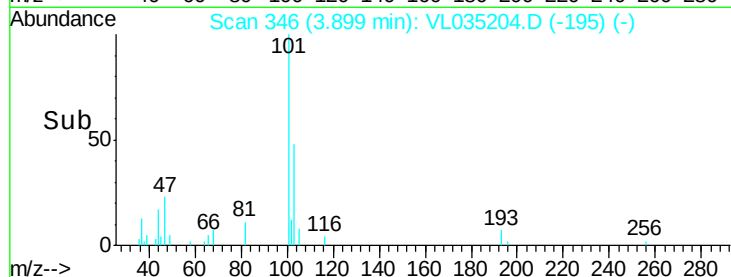
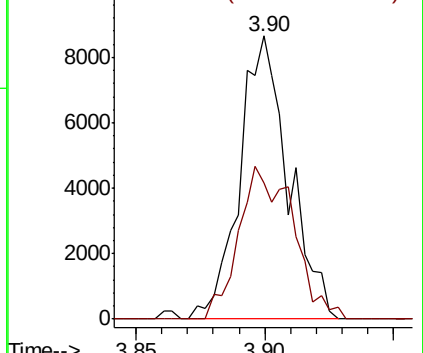
101 100

103 48.1 53.1 79.7#



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: 0.049 ppbv

RT: 4.43 min Scan# 512

Delta R.T. -0.02 min

Lab File: VL035204.D

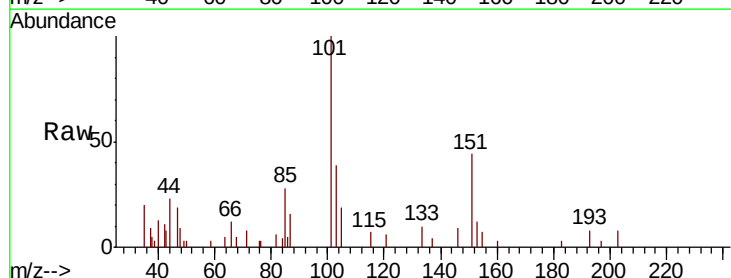
Acq: 16 Jul 2020 21:42

Tgt Ion:101 Resp: 5587

Ion Ratio Lower Upper

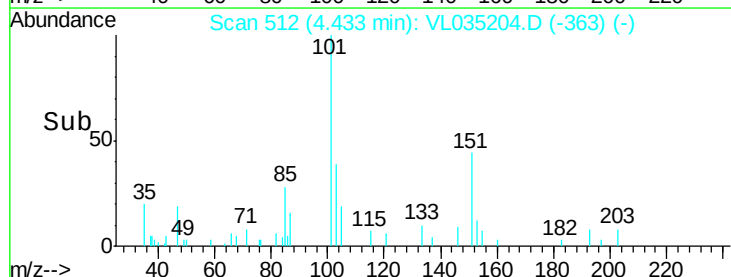
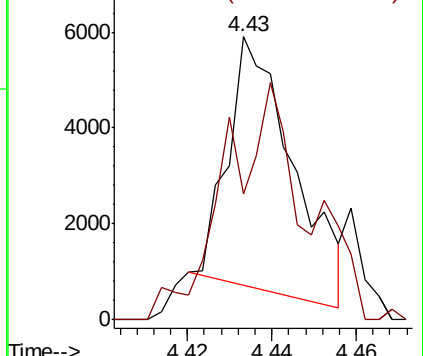
101 100

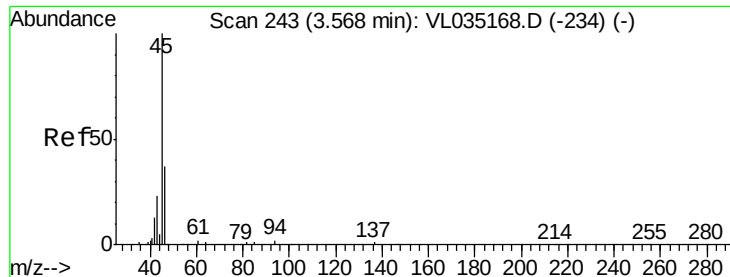
151 118.7 57.0 85.4#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 0.038 ppbv

RT: 3.56 min Scan# 240

Delta R.T. -0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

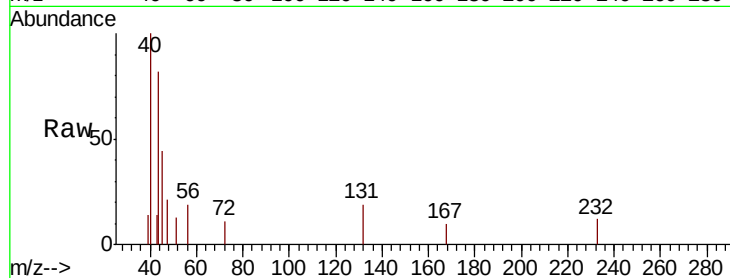
PERM-02DUP

Tot Ion: 45 Resp: 518

Ion Ratio Lower Upper

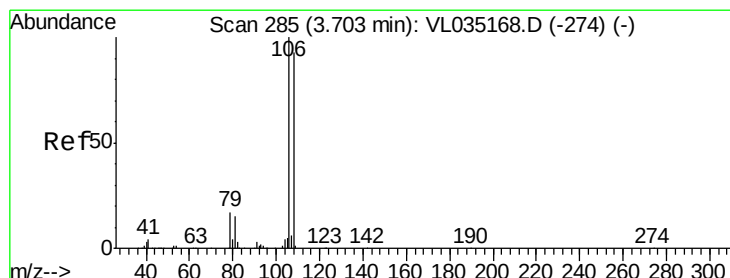
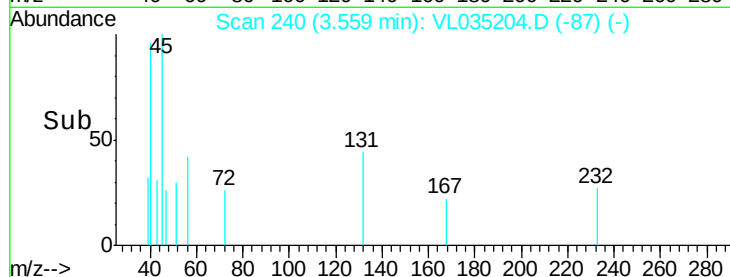
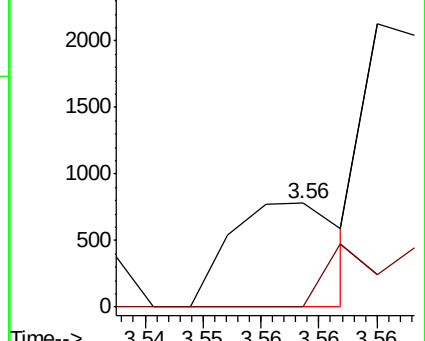
45 100

46 0.0 16.2 65.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0



#14

Bromoethene

Concen: 0.048 ppbv

RT: 3.69 min Scan# 280

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

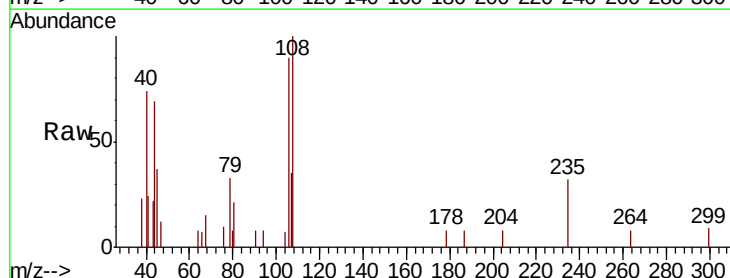
Tgt Ion: 108 Resp: 2258

Ion Ratio Lower Upper

108 100

106 0.0 86.2 129.2#

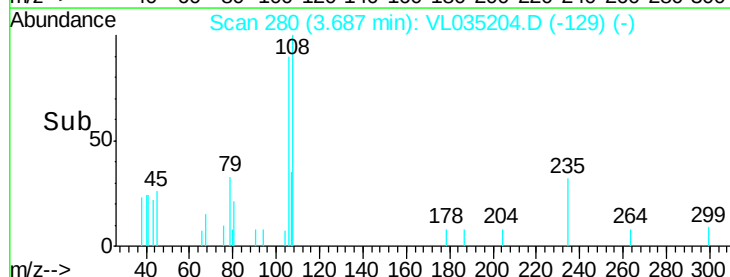
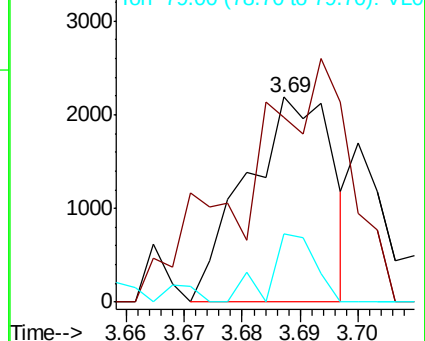
79 17.2 15.0 22.6

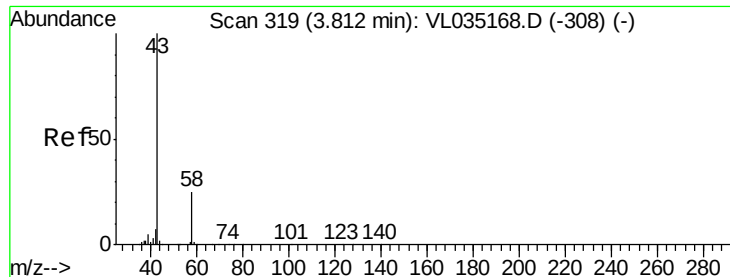


Abundance Ion 108.00 (107.70 to 108.70): V

Ion 106.00 (105.70 to 106.70): V

Ion 79.00 (78.70 to 79.70): VL0





#15

Acetone

Concen: 0.216 ppbv

RT: 3.82 min Scan# 322

Delta R.T. 0.01 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

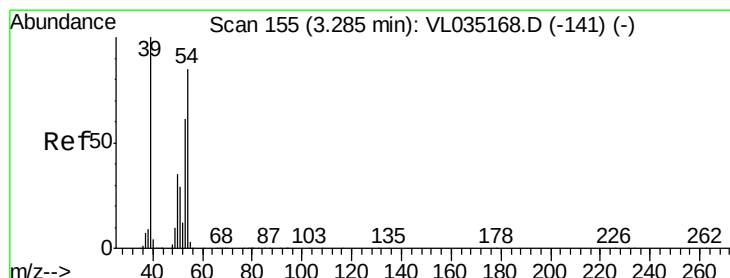
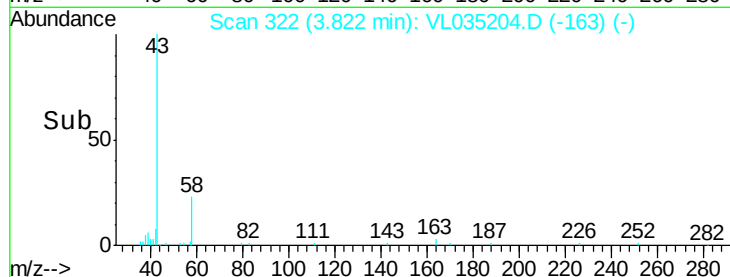
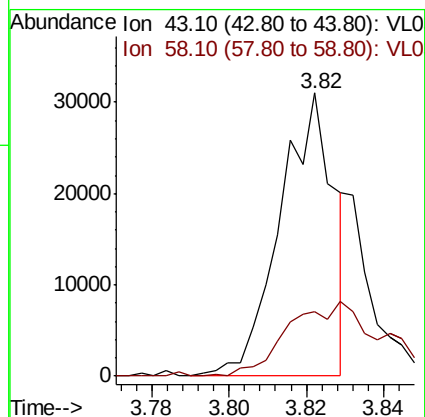
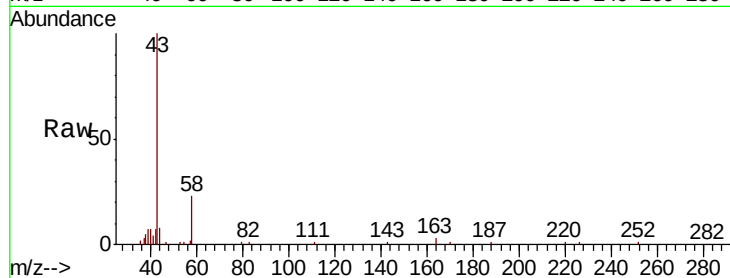
PERM-02DUP

Tot Ion: 43 Resp: 30097

Ion Ratio Lower Upper

43 100

58 49.9 21.3 31.9#



#16

1,3-Butadiene

Concen: 0.030 ppbv

RT: 3.28 min Scan# 152

Delta R.T. -0.01 min

Lab File: VL035204.D

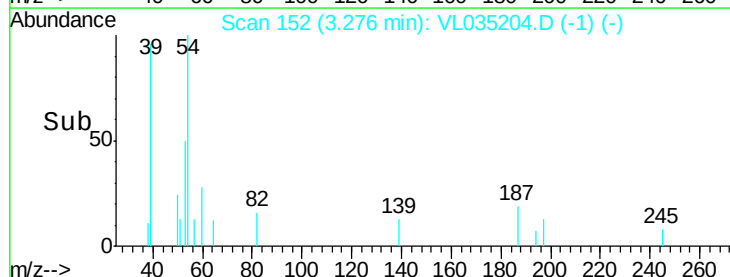
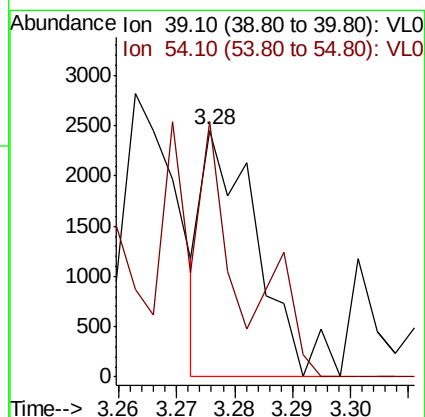
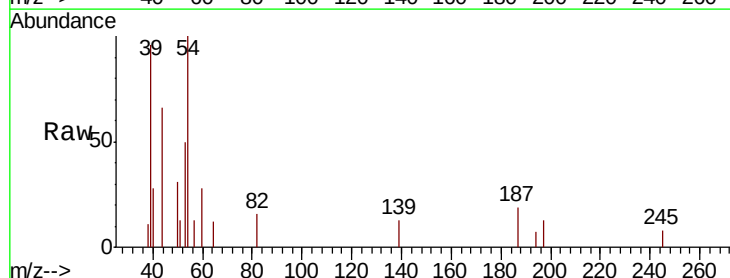
Acq: 16 Jul 2020 21:42

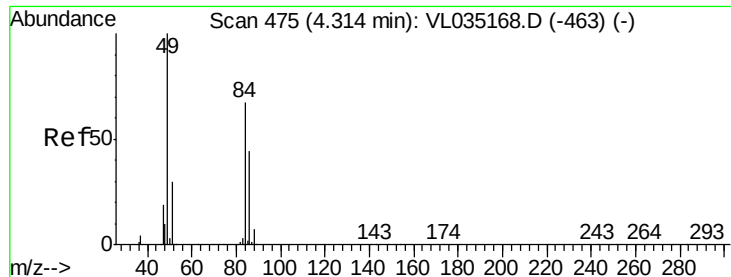
Tgt Ion: 39 Resp: 1624

Ion Ratio Lower Upper

39 100

54 0.0 67.2 100.8#

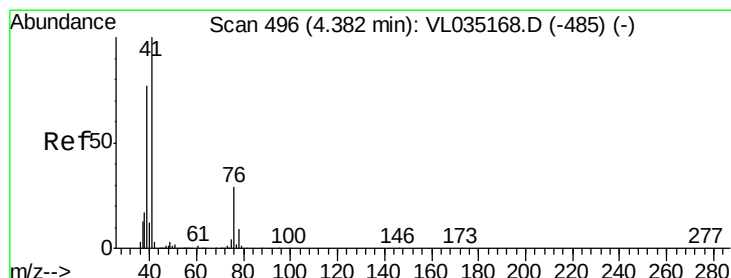
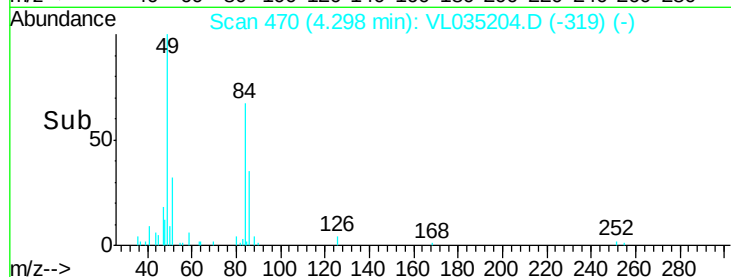
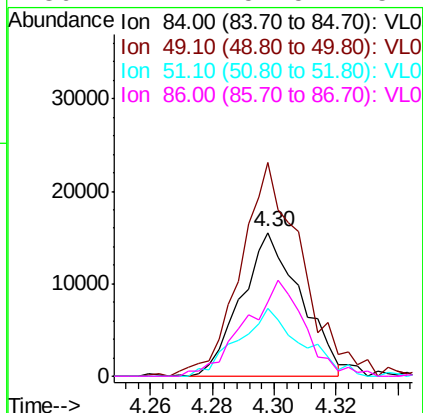
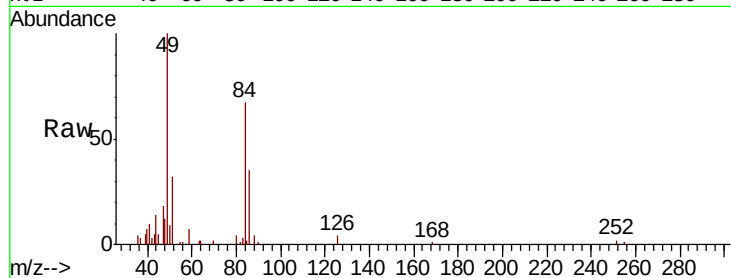




#20
Methylene Chloride
Concen: 0.342 ppbv
RT: 4.30 min Scan# 470
Delta R.T. -0.02 min
Lab File: VL035204.D
Acq: 16 Jul 2020 21:42

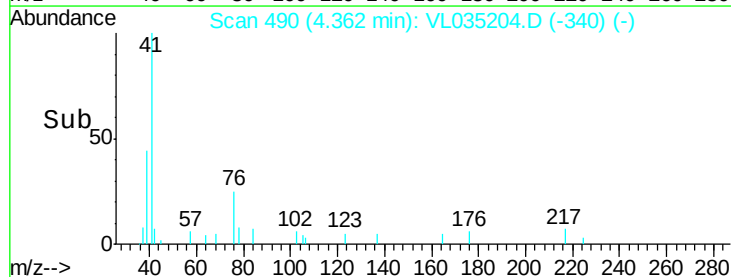
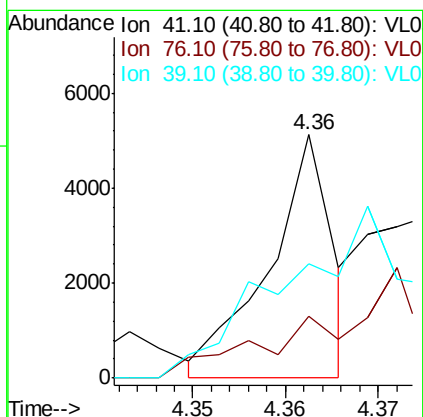
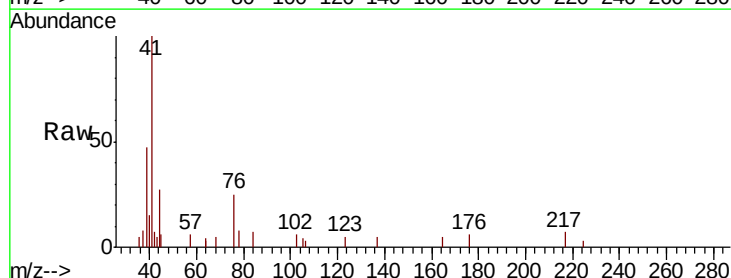
Instrument :
MSVOA_L
ClientSampleId :
PERM-02DUP

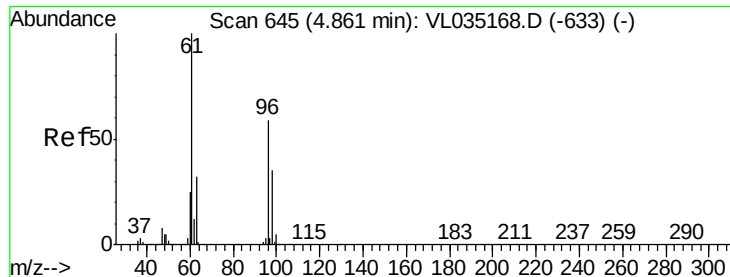
Tot Ion: 84 Resp: 20711
Ion Ratio Lower Upper
84 100
49 138.6 119.4 179.0
51 46.3 36.6 55.0
86 47.4 52.5 78.7#



#21
Allyl Chloride
Concen: 0.030 ppbv
RT: 4.36 min Scan# 490
Delta R.T. -0.02 min
Lab File: VL035204.D
Acq: 16 Jul 2020 21:42

Tgt Ion: 41 Resp: 2443
Ion Ratio Lower Upper
41 100
76 0.0 23.5 35.3#
39 0.0 63.4 95.0#





#22

trans-1,2-Dichloroethene

Concen: 0.045 ppbv

RT: 4.84 min Scan# 640

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

PERM-02DUP

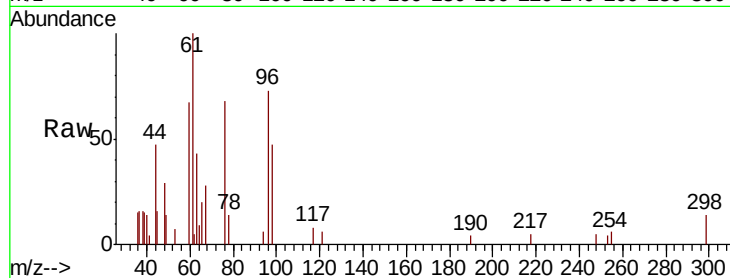
Tot Ion: 96 Resp: 2274

Ion Ratio Lower Upper

96 100

61 44.3 136.5 204.7#

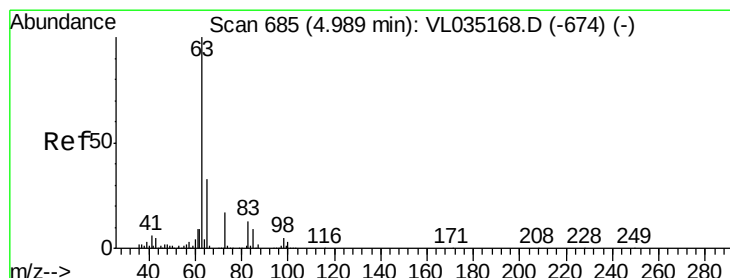
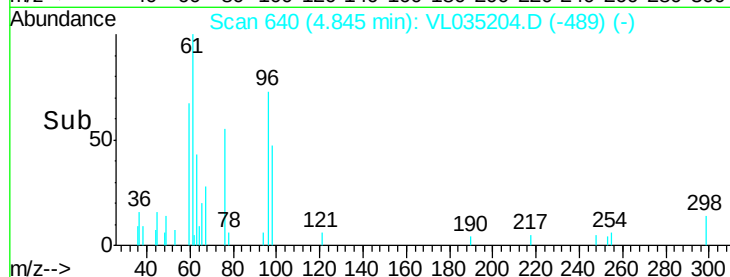
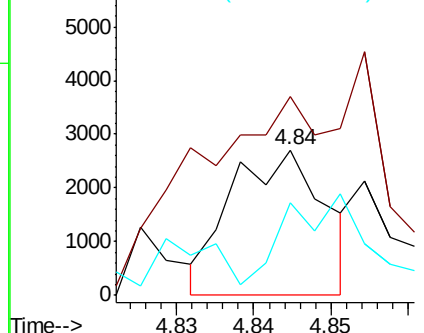
98 45.3 47.5 71.3#



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: 0.055 ppbv

RT: 4.97 min Scan# 679

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

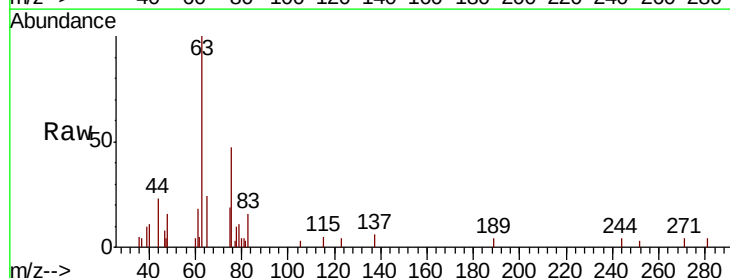
Tgt Ion: 63 Resp: 7126

Ion Ratio Lower Upper

63 100

98 0.0 2.4 7.1#

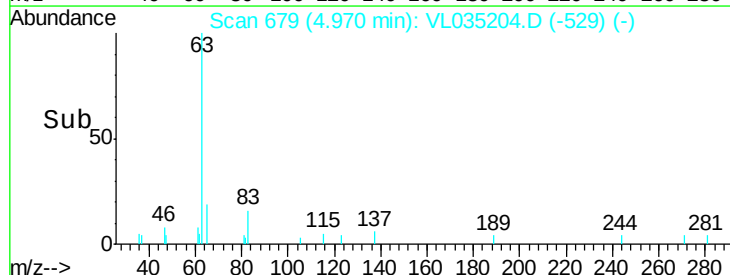
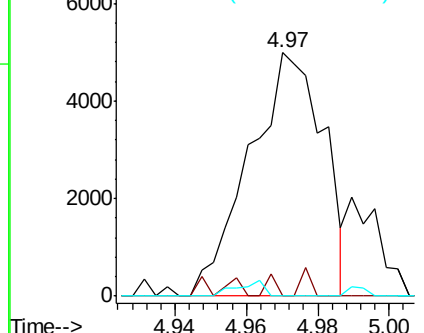
100 0.0 1.4 4.0#

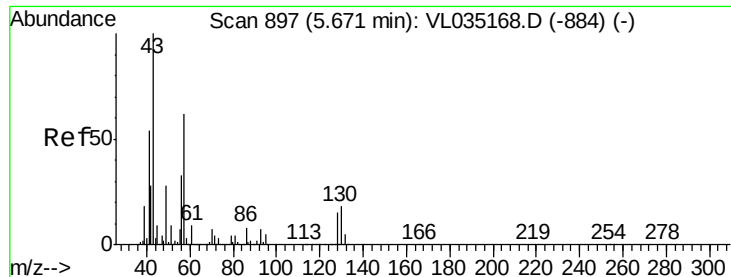


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





#26

Hexane

Concen: 0.056 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

PERM-02DUP

Tot Ion: 57 Resp: 5373

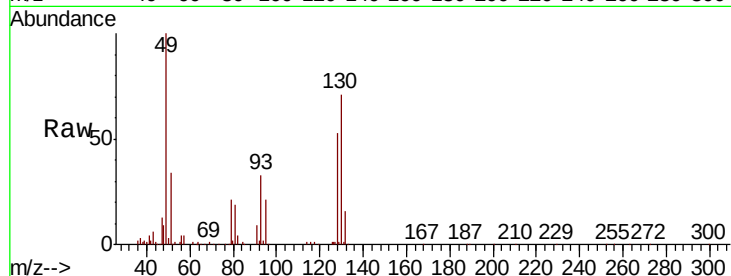
Ion Ratio Lower Upper

57 100

41 172.2 72.9 109.3#

43 265.9 179.5 269.3

56 101.5 42.9 64.3#

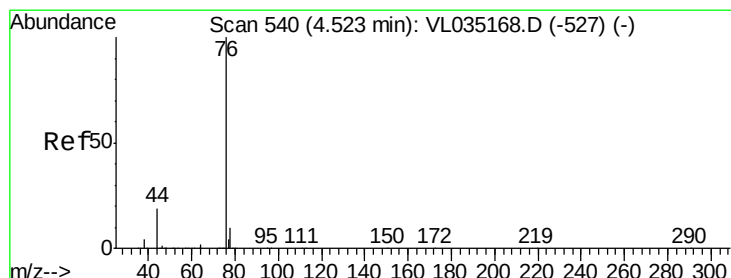
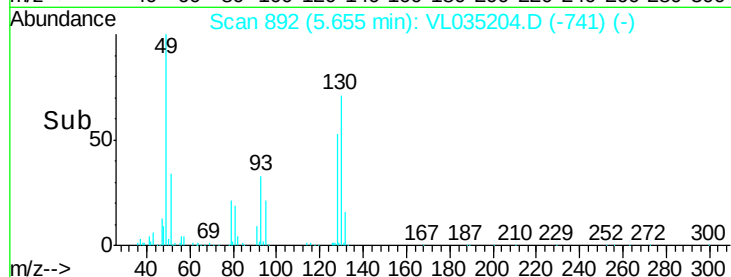
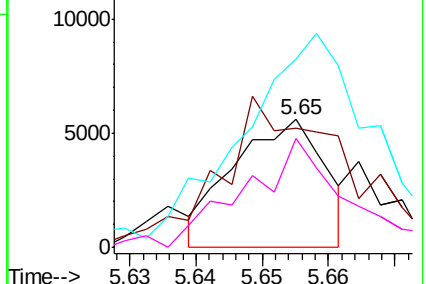


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#27

Carbon Disulfide

Concen: 45.922 ppbv

RT: 4.51 min Scan# 535

Delta R.T. -0.02 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

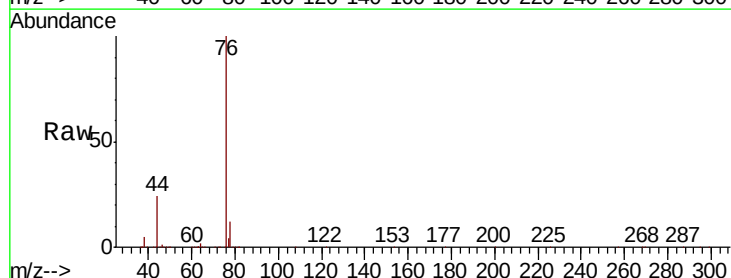
Tgt Ion: 76 Resp: 6114698

Ion Ratio Lower Upper

76 100

44 21.7 14.9 22.3

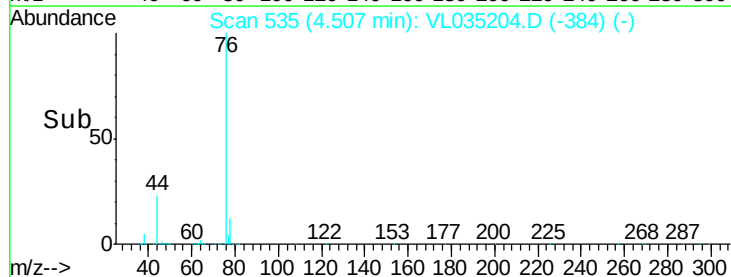
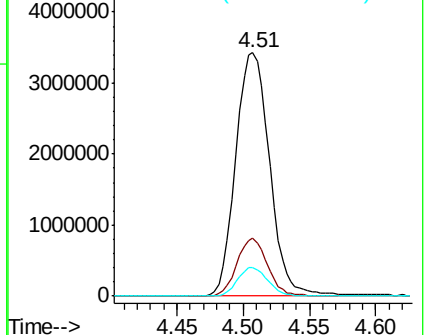
78 10.8 7.5 11.3

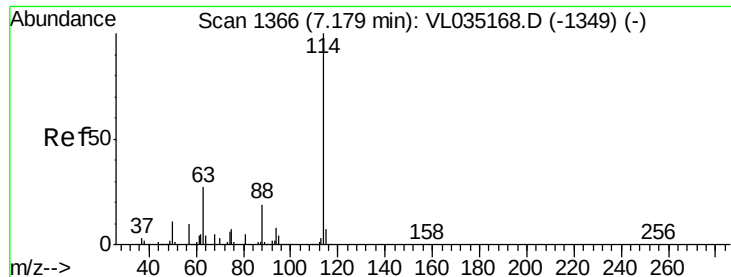


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

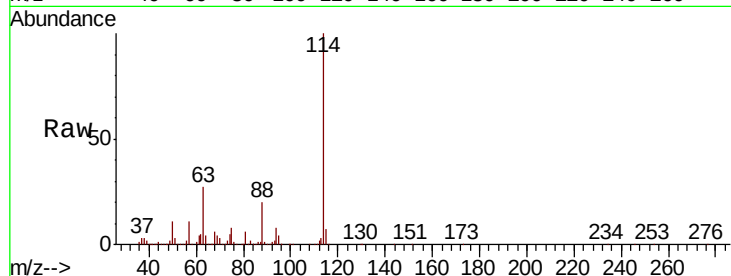




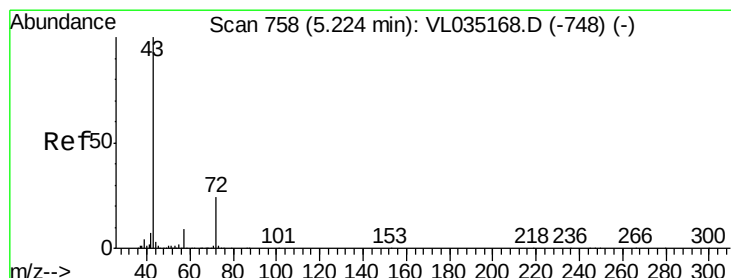
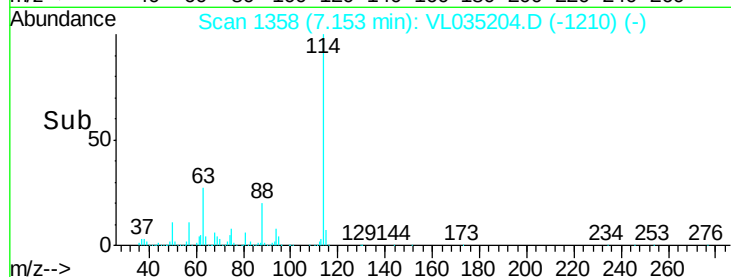
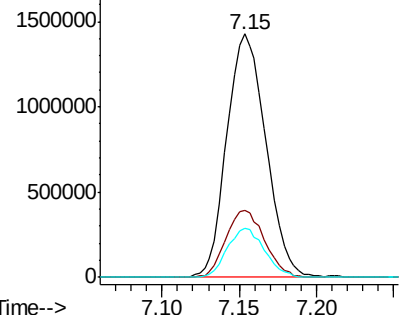
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1358
 Delta R.T. -0.03 min
 Lab File: VL035204.D
 Acq: 16 Jul 2020 21:42

Instrument :
 MSVOA_L
 ClientSampleId :
 PERM-02DUP

Tot Ion:114 Resp: 2510065
 Ion Ratio Lower Upper
 114 100
 63 27.5 22.0 33.0
 88 19.4 15.4 23.0

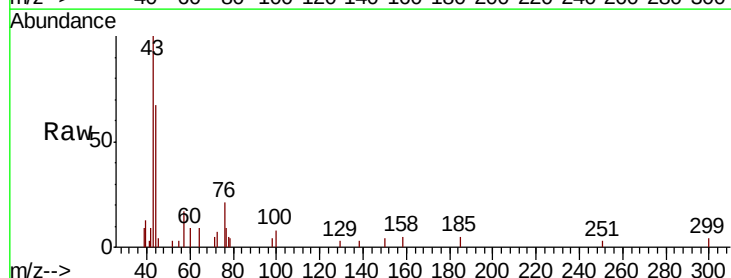


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

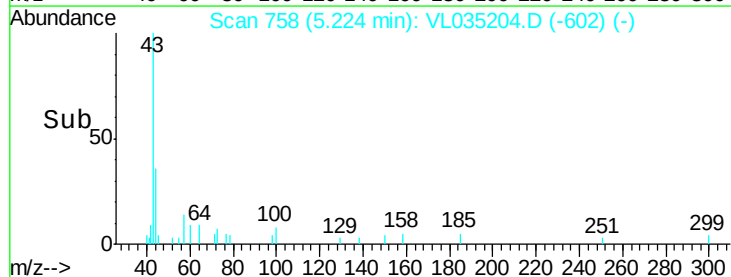
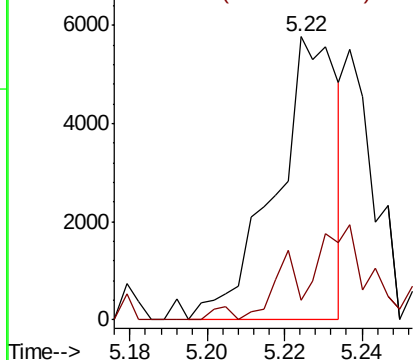


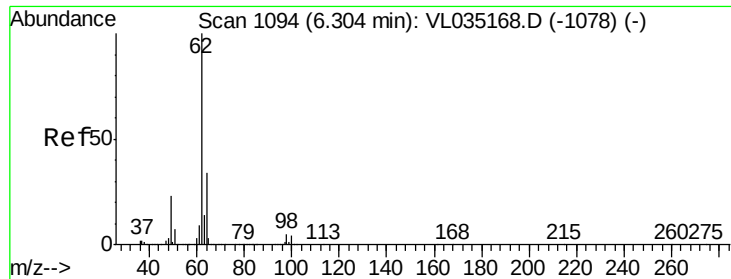
#34
 2-Butanone
 Concen: 0.048 ppbv
 RT: 5.22 min Scan# 758
 Delta R.T. 0.00 min
 Lab File: VL035204.D
 Acq: 16 Jul 2020 21:42

Tgt Ion: 43 Resp: 6411
 Ion Ratio Lower Upper
 43 100
 72 0.0 18.6 28.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

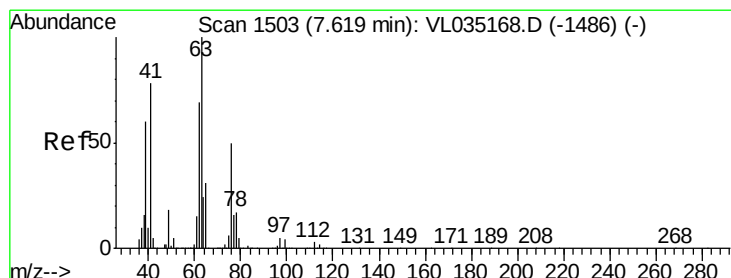
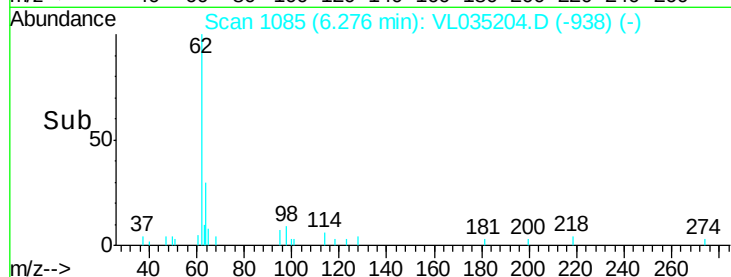
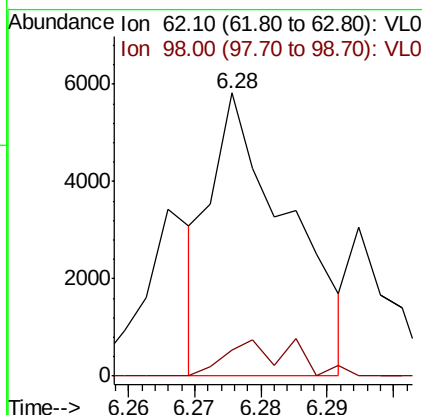
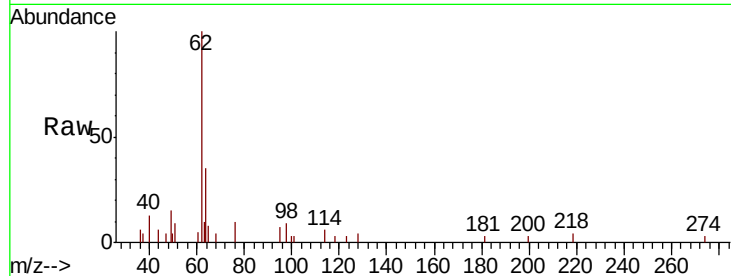




#37
 1,2-Dichloroethane
 Concen: 0.039 ppbv
 RT: 6.28 min Scan# 1085
 Delta R.T. -0.03 min
 Lab File: VL035204.D
 Acq: 16 Jul 2020 21:42

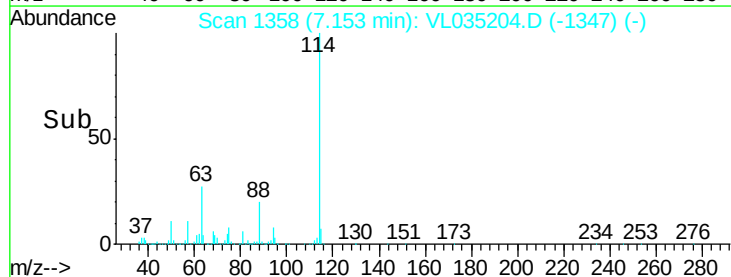
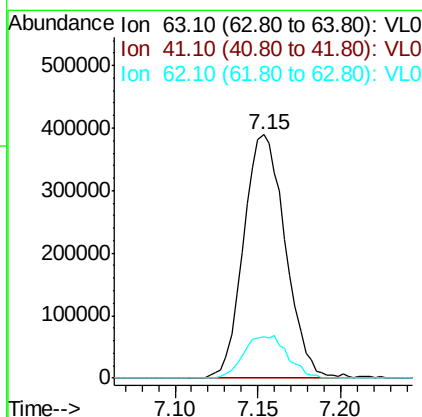
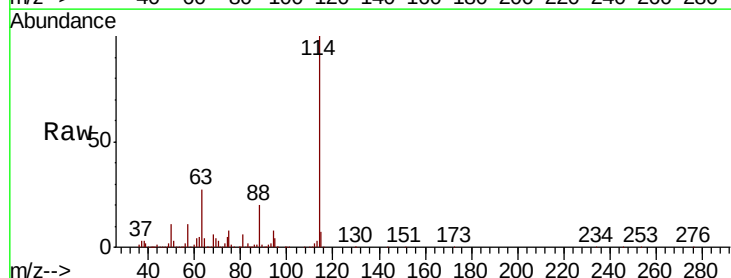
Instrument :
 MSVOA_L
 ClientSampleId :
 PERM-02DUP

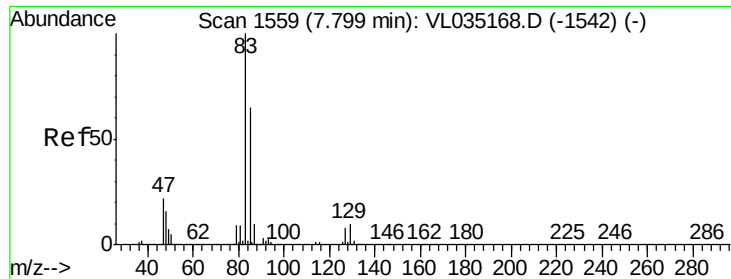
Tot Ion: 62 Resp: 4732
 Ion Ratio Lower Upper
 62 100
 98 0.0 4.6 6.8#



#39
 1,2-Dichloropropane
 Concen: 9.452 ppbv
 RT: 7.15 min Scan# 1358
 Delta R.T. -0.47 min
 Lab File: VL035204.D
 Acq: 16 Jul 2020 21:42

Tgt Ion: 63 Resp: 682851
 Ion Ratio Lower Upper
 63 100
 41 0.1 62.6 94.0#
 62 16.7 55.0 82.6#





#42

Bromodichloromethane

Concen: 0.064 ppbv

RT: 7.77 min Scan# 1550

Delta R.T. -0.03 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

Instrument :

MSVOA_L

ClientSampleId :

PERM-02DUP

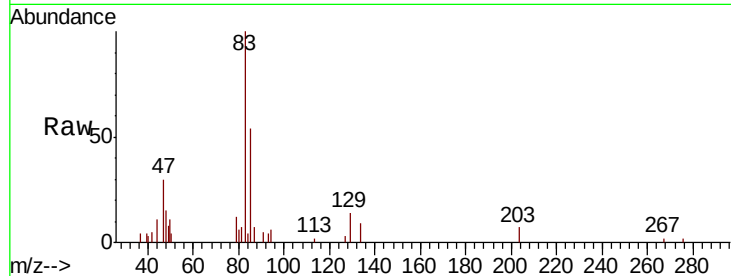
Tot Ion: 83 Resp: 10461

Ion Ratio Lower Upper

83 100

85 54.0 52.2 78.4

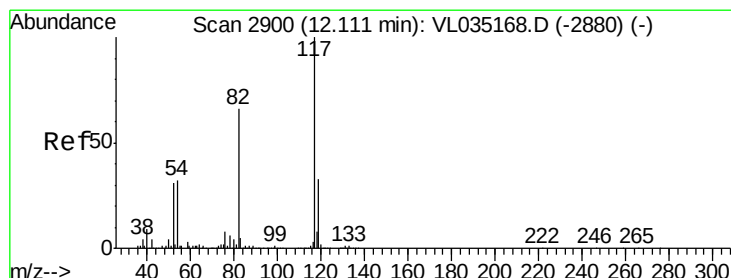
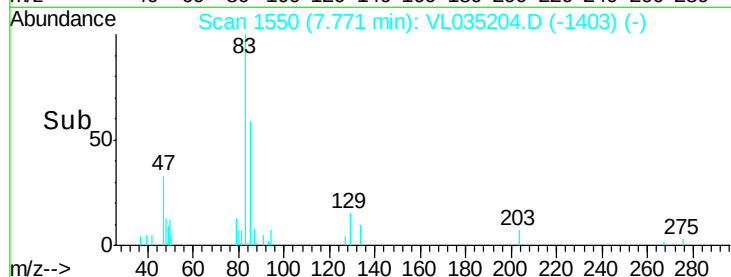
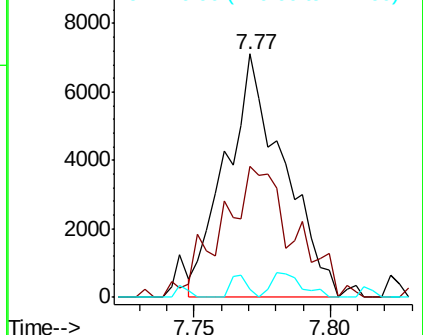
127 3.2 6.3 9.5#



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



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2892

Delta R.T. -0.03 min

Lab File: VL035204.D

Acq: 16 Jul 2020 21:42

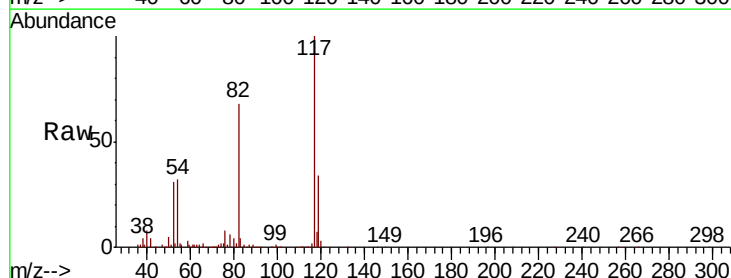
Tgt Ion: 117 Resp: 2347296

Ion Ratio Lower Upper

117 100

82 69.4 52.3 78.5

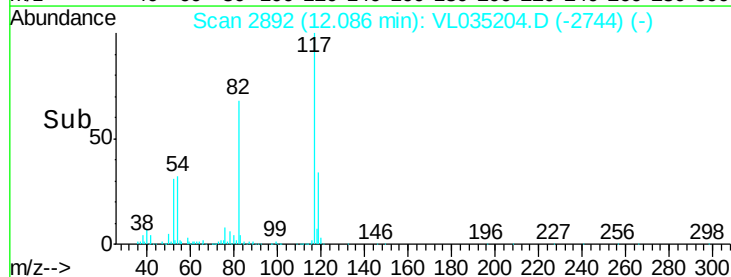
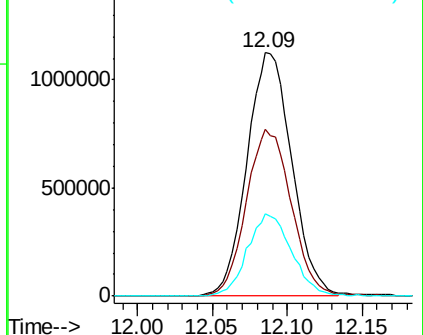
119 33.4 24.9 37.3

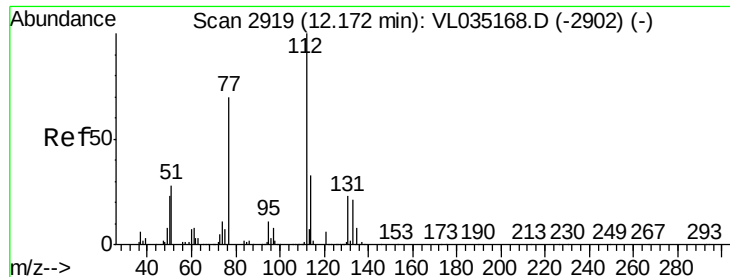


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

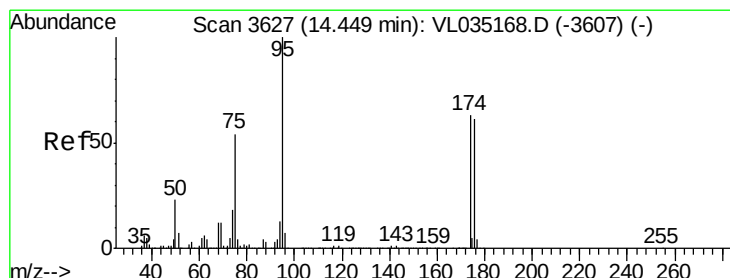
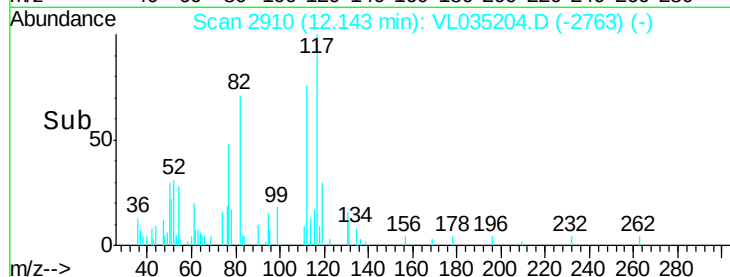
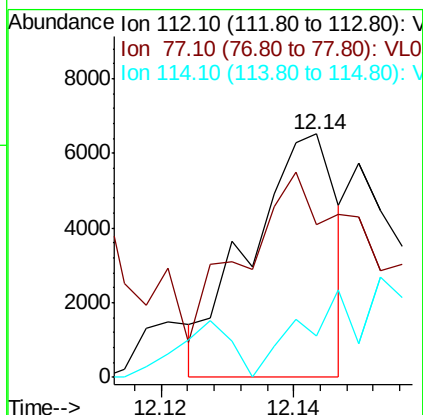
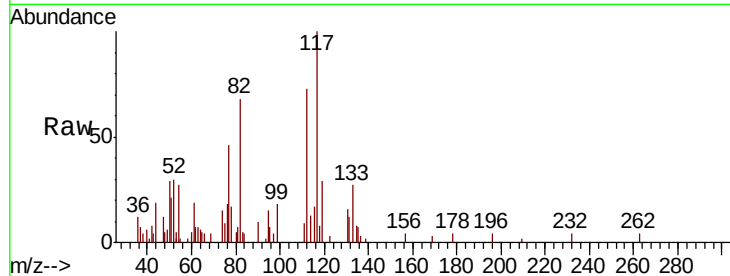




#57
Chlorobenzene
Concen: 0.034 ppbv
RT: 12.14 min Scan# 2910
Delta R.T. -0.03 min
Lab File: VL035204.D
Acq: 16 Jul 2020 21:42

Instrument :
MSVOA_L
ClientSampleId :
PERM-02DUP

Tot Ion:112 Resp: 5904
Ion Ratio Lower Upper
112 100
77 62.3 57.0 85.4
114 2.0 30.2 37.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.287 ppbv
RT: 14.42 min Scan# 3619
Delta R.T. -0.03 min
Lab File: VL035204.D
Acq: 16 Jul 2020 21:42

Tgt Ion: 95 Resp: 1961542
Ion Ratio Lower Upper
95 100
174 65.6 52.2 78.2
175 4.7 4.0 6.0

