

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL072920\
 Data File : VL035253.D
 Acq On : 29 Jul 2020 19:28
 Operator : SY/AP
 Sample : L3463-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 30 02:52:00 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL072920AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jul 29 07:14:29 2020
 QLast Update : Wed Jul 29 07:14:29 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1077071	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2536026	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	2434027	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	1968763	10.12	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.20%

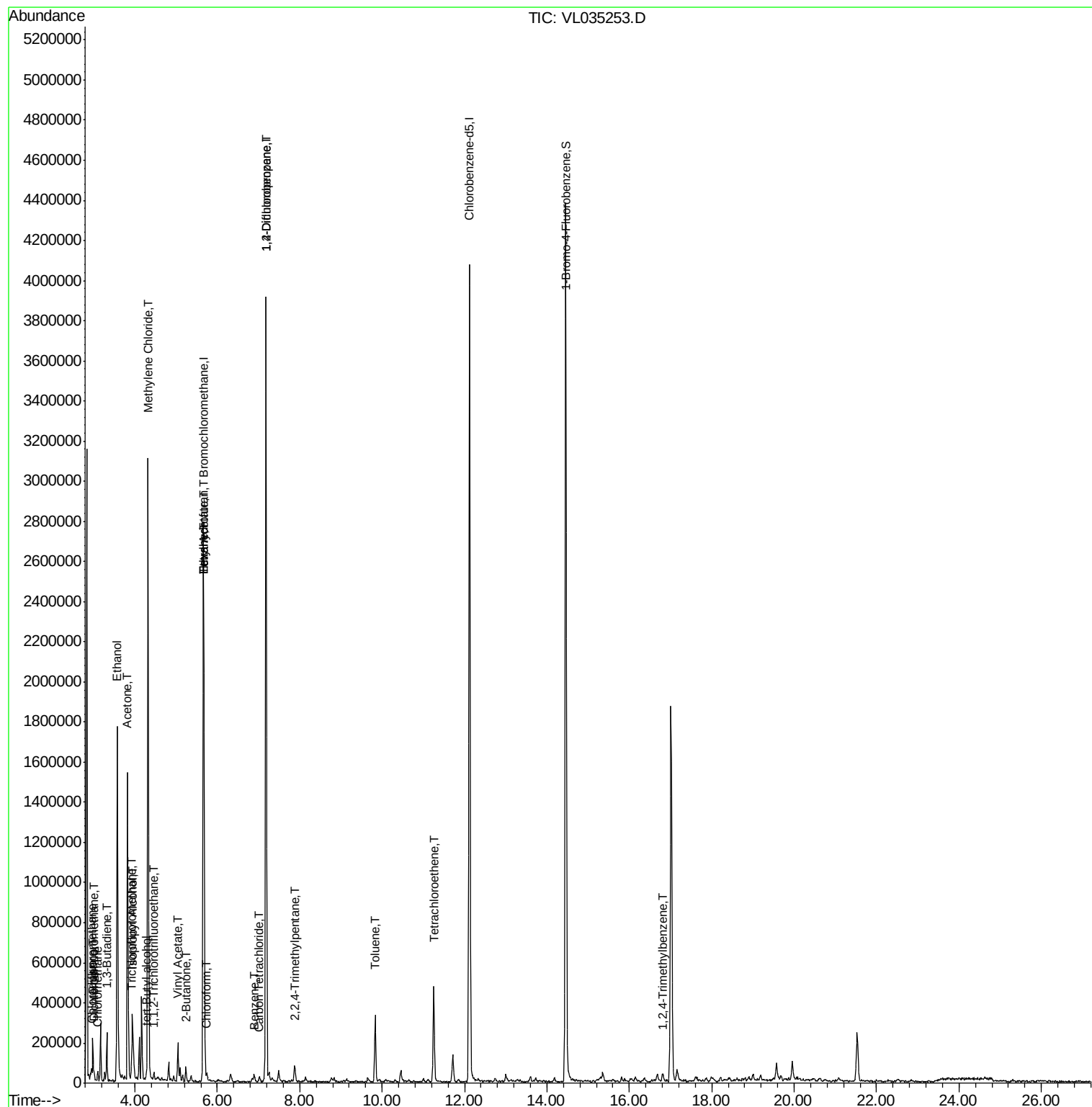
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.01	85	38369	0.298	ppbv 88
3) Chlorodifluoromethane	2.94	51	70892	0.595	ppbv 92
4) Chloromethane	3.10	50	39071	0.582	ppbv 94
9) Propene	2.98	41	41800	1.006	ppbv 87
11) Trichlorofluoromethane	3.92	101	57534	0.333	ppbv 89
12) 1,1,2-Trichlorotrifluoroet	4.46	101	8331	0.068	ppbv # 79
13) Ethanol	3.57	45	1792695	105.984	ppbv 95
15) Acetone	3.82	43	1480750	10.307	ppbv 98
16) 1,3-Butadiene	3.32	39	32025	0.571	ppbv # 23
17) tert-Butyl alcohol	4.27	59	6523	0.047	ppbv # 11
19) Isopropyl Alcohol	3.94	45	328860	3.471	ppbv # 93
20) Methylene Chloride	4.32	84	1031302	15.770	ppbv 99
23) Vinyl Acetate	5.04	43	82837	0.574	ppbv # 69
25) Ethyl Acetate	5.68	43	235883	1.051	ppbv # 78
26) Hexane	5.68	57	330964	3.270	ppbv # 42
29) Chloroform	5.74	83	15457	0.091	ppbv 98
34) 2-Butanone	5.24	43	69288	0.537	ppbv 99
35) Carbon Tetrachloride	7.02	117	6672	0.039	ppbv # 83
36) Benzene	6.90	78	14215	0.081	ppbv # 93
39) 1,2-Dichloropropane	7.18	63	693652	9.864	ppbv # 23
41) Tetrahydrofuran	5.68	42	123878	1.959	ppbv # 48
44) 2,2,4-Trimethylpentane	7.88	57	37581	0.121	ppbv # 34
52) Tetrachloroethene	11.25	164	104930	1.560	ppbv 93
53) Toluene	9.83	91	218318	1.166	ppbv 95
74) 1,2,4-Trimethylbenzene	16.81	105	11380	0.037	ppbv # 34

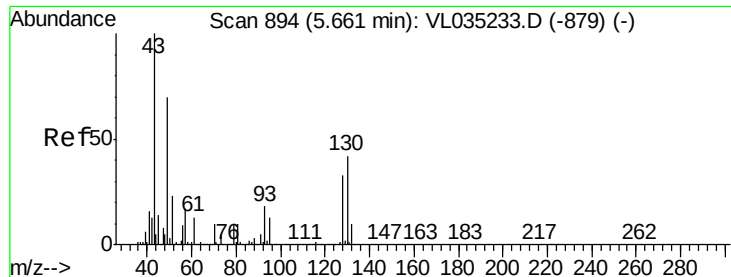
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. 0.00 min

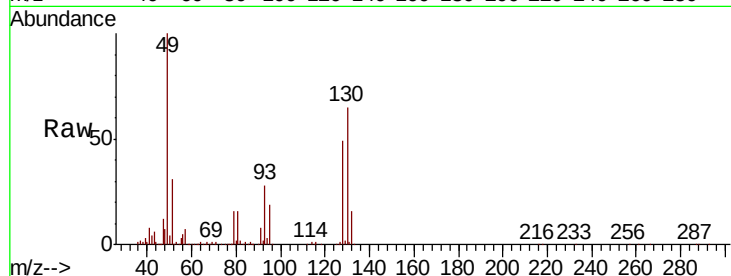
Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 49 Resp: 1077071

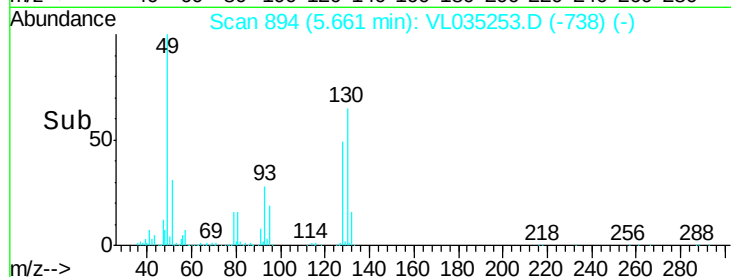
Ion	Ratio	Lower	Upper
49	100		
128	49.2	24.0	72.0
130	63.6	30.7	92.1



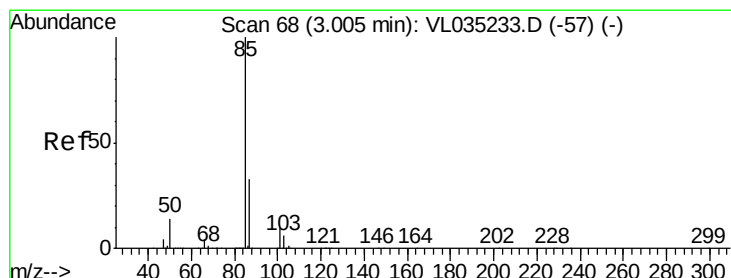
Abundance Ion 49.10 (48.80 to 49.80): VL0

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 5.75



#2

Dichlorodifluoromethane

Concen: 0.298 ppbv

RT: 3.01 min Scan# 68

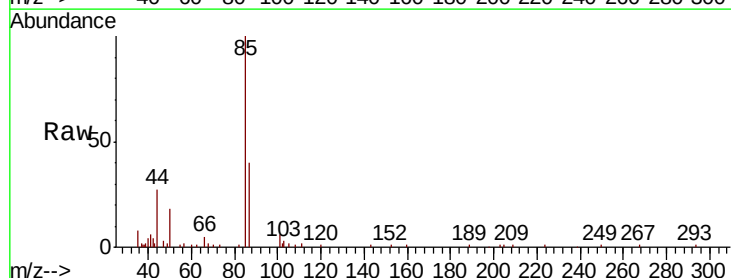
Delta R.T. 0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

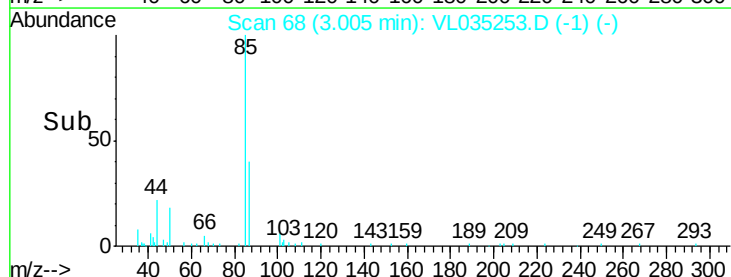
Tgt Ion: 85 Resp: 38369

Ion	Ratio	Lower	Upper
85	100		
87	39.9	26.7	40.1

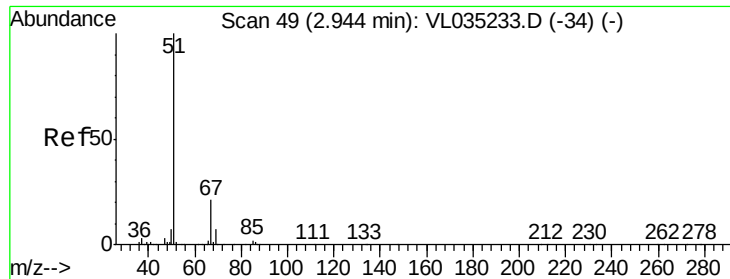


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0



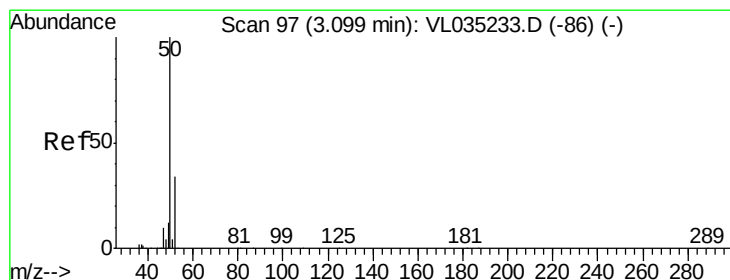
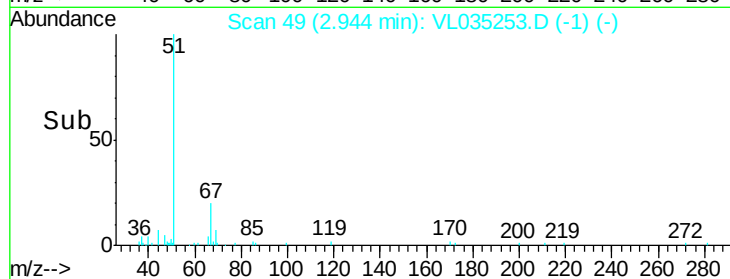
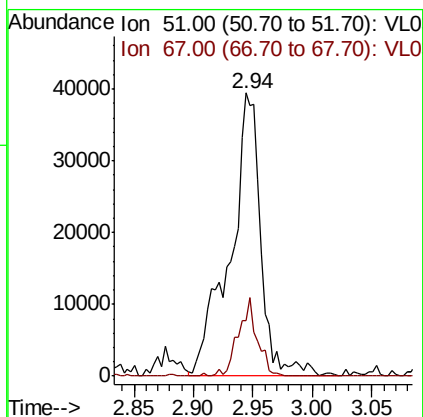
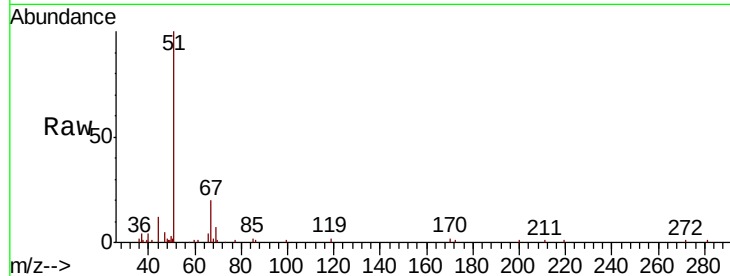
Time--> 3.00 3.05



#3
Chlorodifluoromethane
Concen: 0.595 ppbv
RT: 2.94 min Scan# 49
Delta R.T. 0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

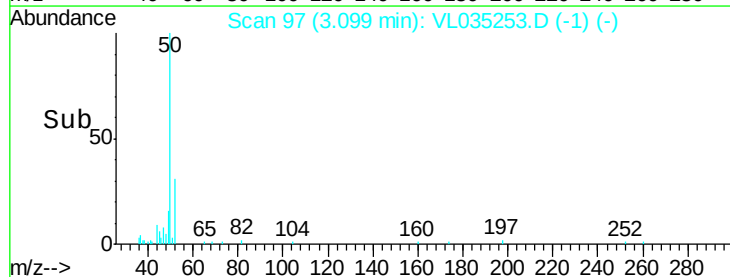
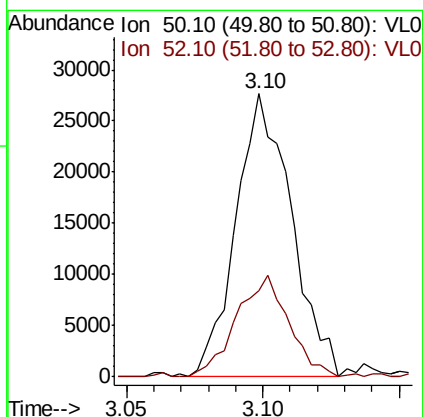
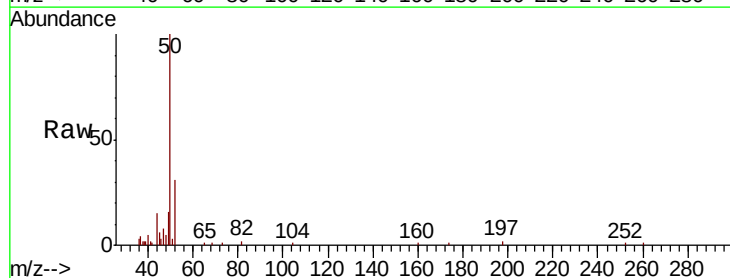
Instrument :
MSVOA_L
ClientSampleId :

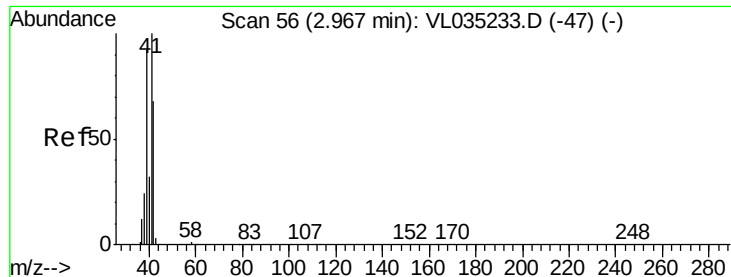
Tot Ion: 51 Resp: 70892
Ion Ratio Lower Upper
51 100
67 17.0 16.6 25.0



#4
Chloromethane
Concen: 0.582 ppbv
RT: 3.10 min Scan# 97
Delta R.T. 0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

Tgt Ion: 50 Resp: 39071
Ion Ratio Lower Upper
50 100
52 30.7 27.1 40.7





#9

Propene

Concen: 1.006 ppbv

RT: 2.98 min Scan# 59

Delta R.T. 0.01 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :

MSVOA_L

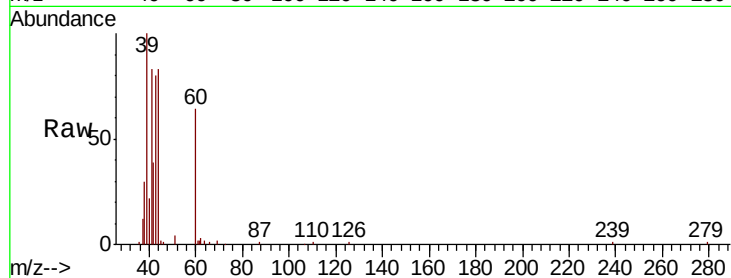
ClientSampleId :

Tot Ion: 41 Resp: 41800

Ion Ratio Lower Upper

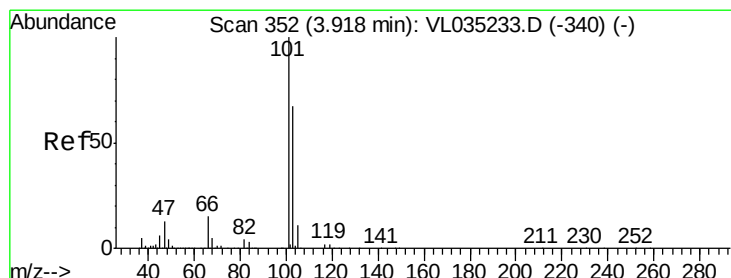
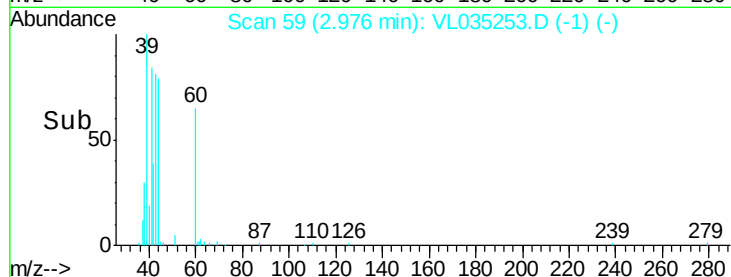
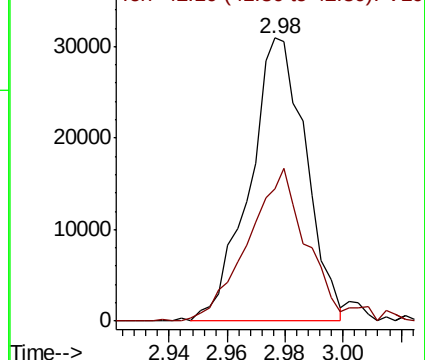
41 100

42 58.3 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: 0.333 ppbv

RT: 3.92 min Scan# 353

Delta R.T. 0.00 min

Lab File: VL035253.D

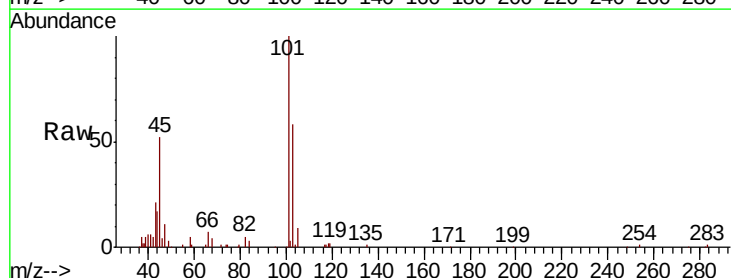
Acq: 29 Jul 2020 19:28

Tgt Ion: 101 Resp: 57534

Ion Ratio Lower Upper

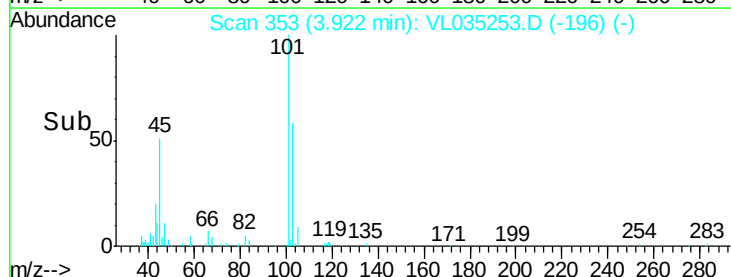
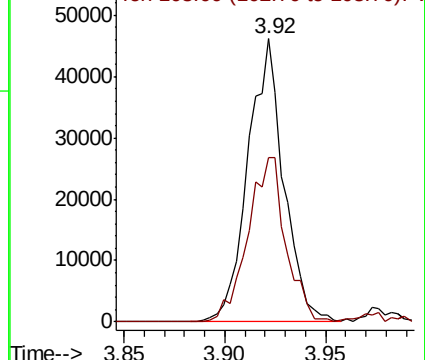
101 100

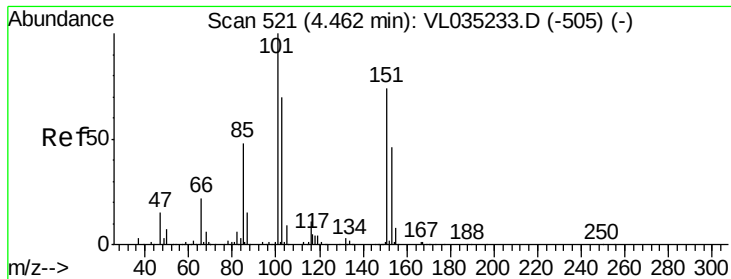
103 57.9 53.4 80.0



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: 0.068 ppbv

RT: 4.46 min Scan# 521

Delta R.T. 0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :

MSVOA_L

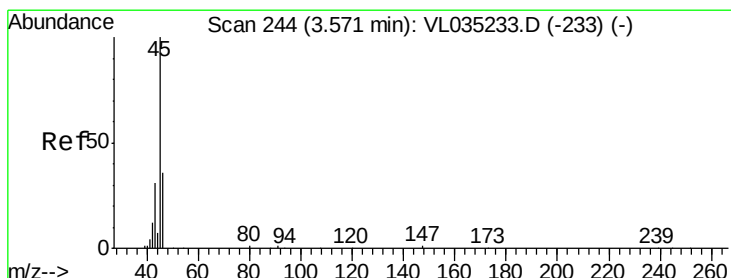
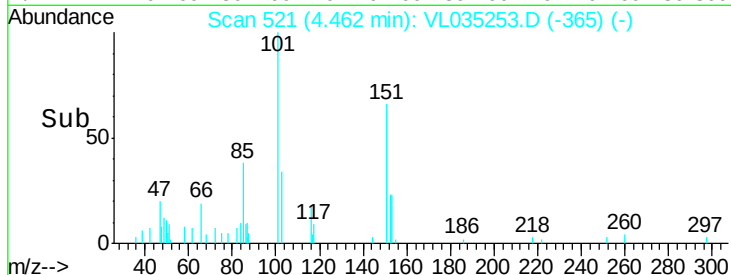
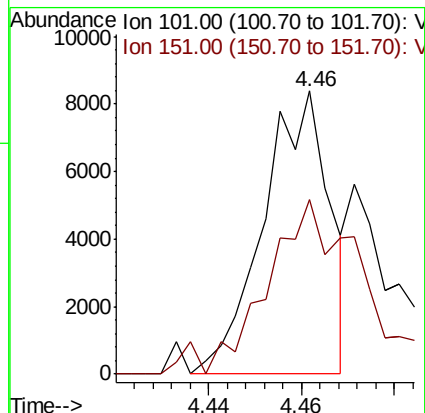
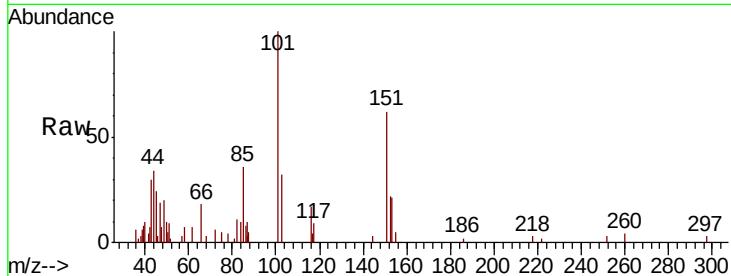
ClientSampleId :

Tot Ion:101 Resp: 8331

Ion Ratio Lower Upper

101 100

151 88.3 56.6 85.0#



#13

Ethanol

Concen: 105.984 ppbv

RT: 3.57 min Scan# 244

Delta R.T. 0.00 min

Lab File: VL035253.D

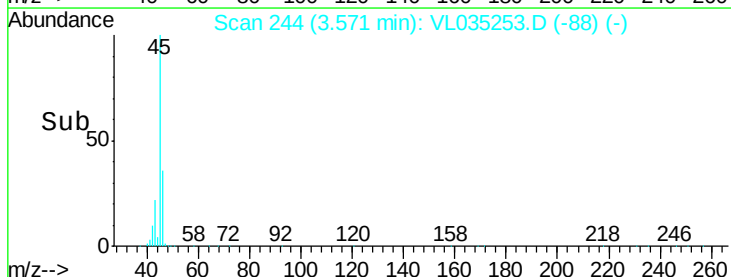
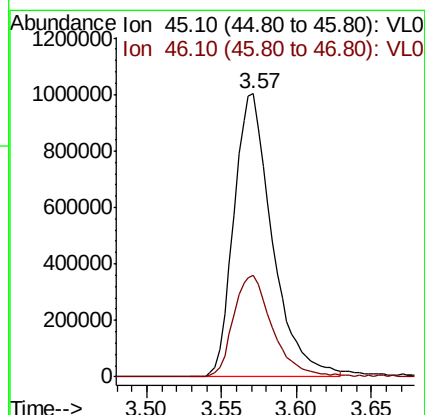
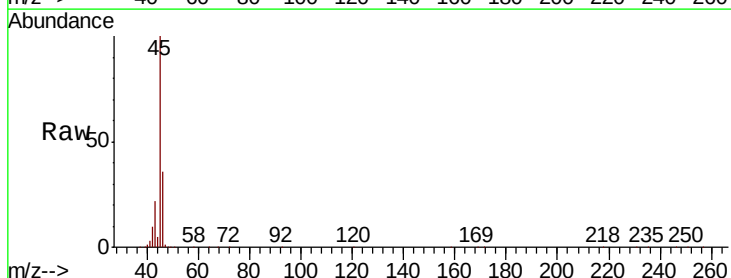
Acq: 29 Jul 2020 19:28

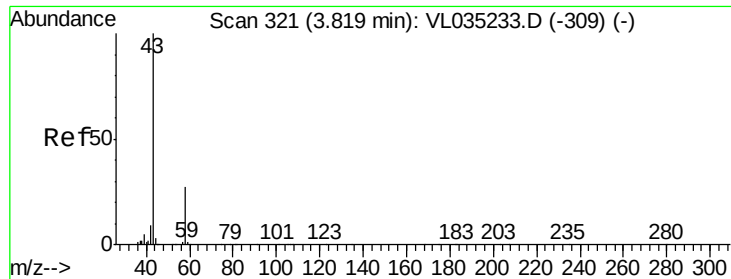
Tgt Ion: 45 Resp: 1792695

Ion Ratio Lower Upper

45 100

46 36.4 15.8 63.4





#15

Acetone

Concen: 10.307 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

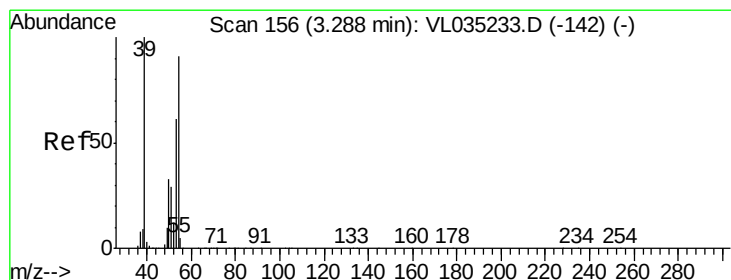
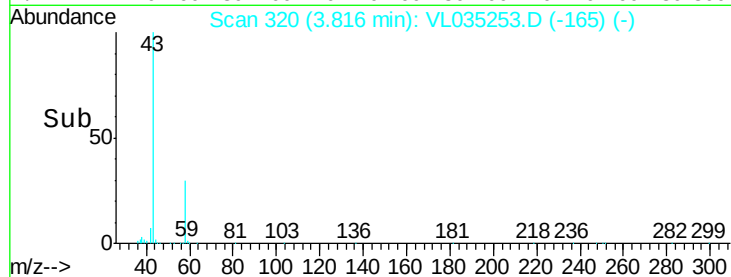
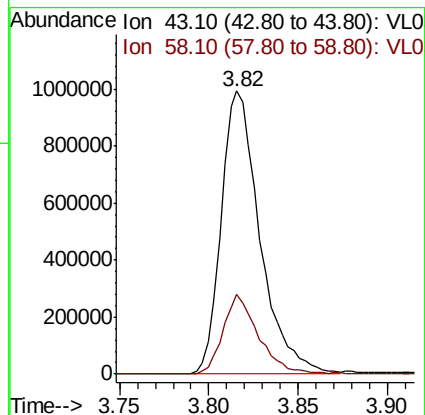
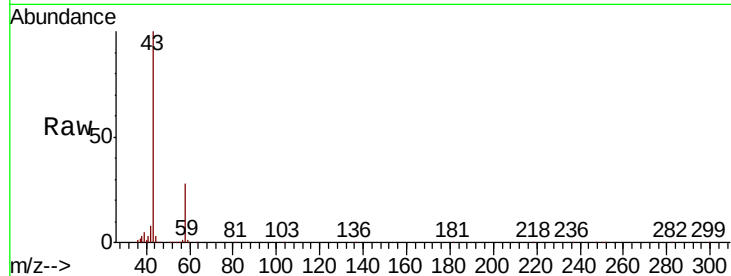
Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 43 Resp: 1480750

Ion Ratio Lower Upper

43 100

58 26.4 21.8 32.6



#16

1,3-Butadiene

Concen: 0.571 ppbv

RT: 3.32 min Scan# 165

Delta R.T. 0.03 min

Lab File: VL035253.D

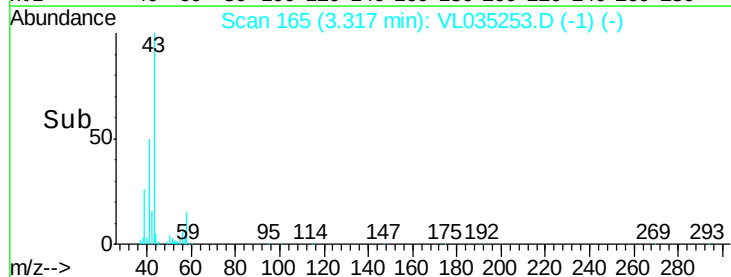
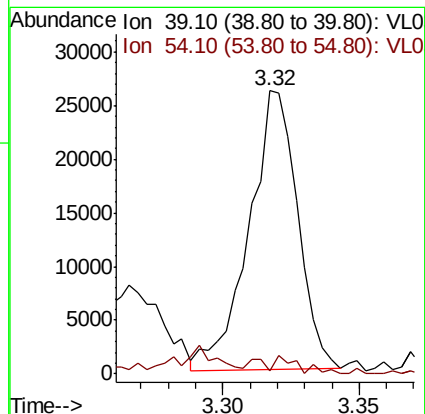
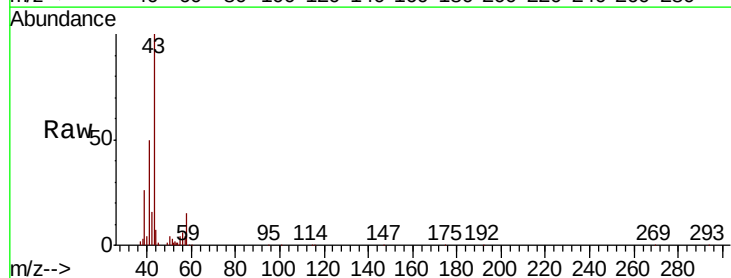
Acq: 29 Jul 2020 19:28

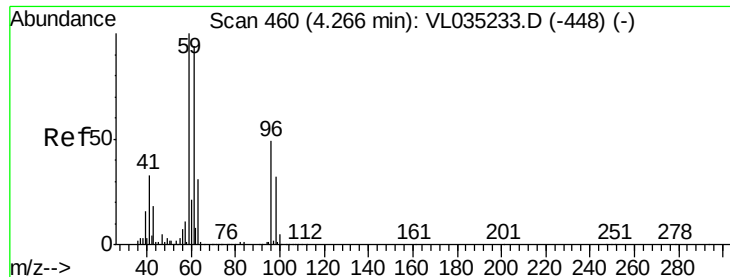
Tgt Ion: 39 Resp: 32025

Ion Ratio Lower Upper

39 100

54 14.9 68.2 102.2#





#17

tert-Butyl alcohol

Concen: 0.047 ppbv

RT: 4.27 min Scan# 462

Delta R.T. 0.01 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :

MSVOA_L

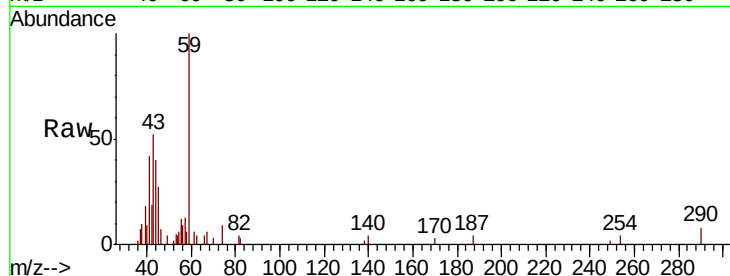
ClientSampleId :

Tot Ion: 59 Resp: 6523

Ion Ratio Lower Upper

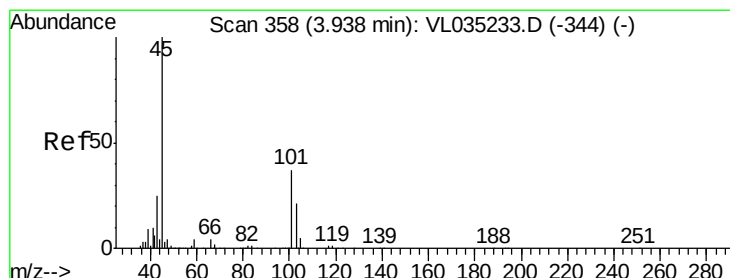
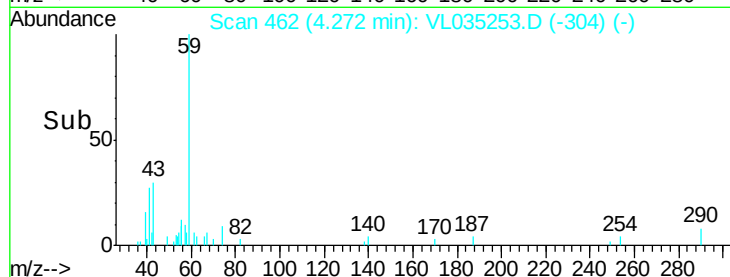
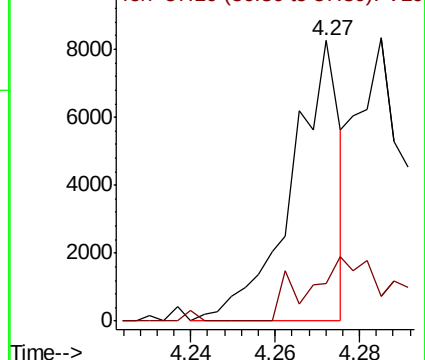
59 100

57 44.1 8.6 12.8#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 3.471 ppbv

RT: 3.94 min Scan# 359

Delta R.T. 0.00 min

Lab File: VL035253.D

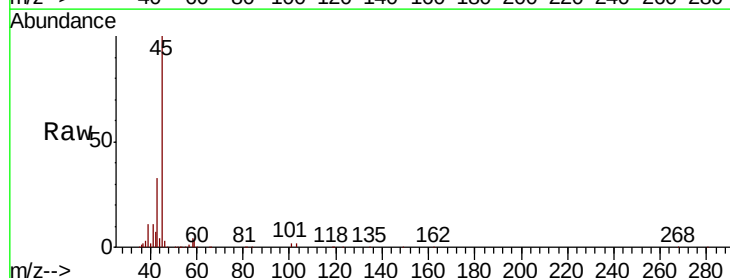
Acq: 29 Jul 2020 19:28

Tgt Ion: 45 Resp: 328860

Ion Ratio Lower Upper

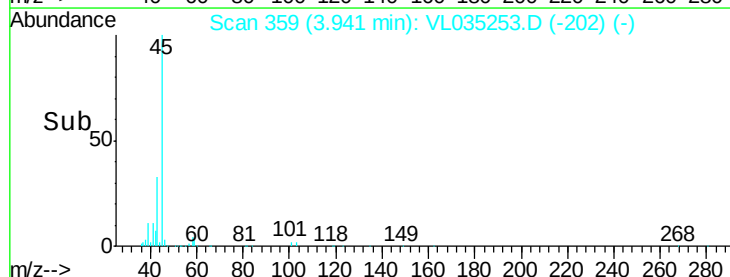
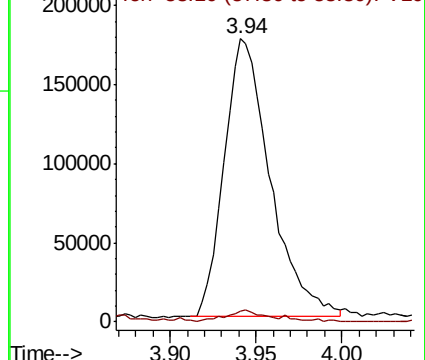
45 100

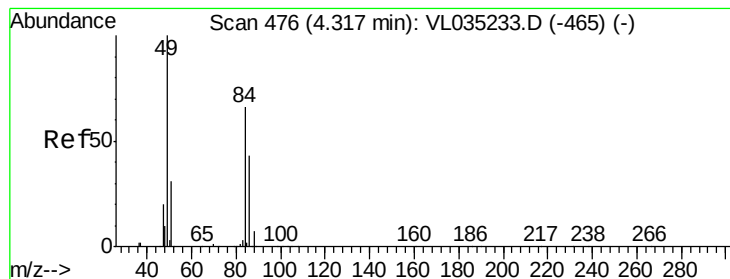
58 4.7 1.9 2.9#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





#20

Methylene Chloride

Concen: 15.770 ppbv

RT: 4.32 min Scan# 477

Delta R.T. 0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 84 Resp: 1031302

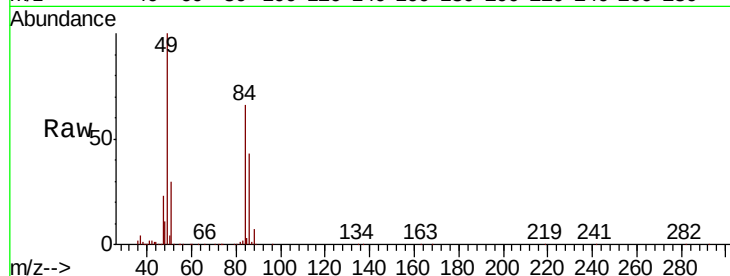
Ion Ratio Lower Upper

84 100

49 152.3 121.0 181.4

51 45.2 37.7 56.5

86 65.9 52.2 78.4

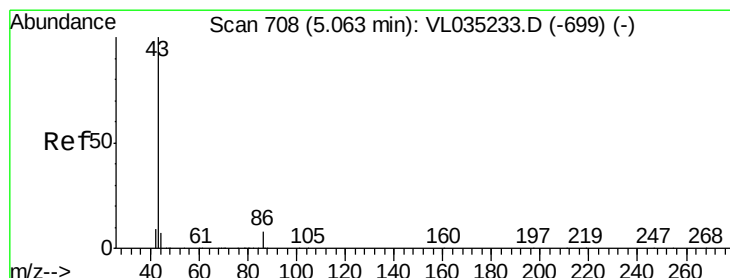
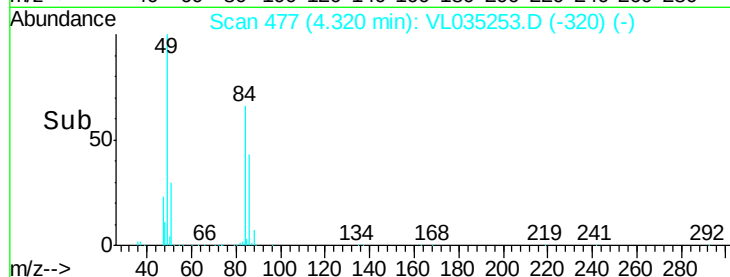
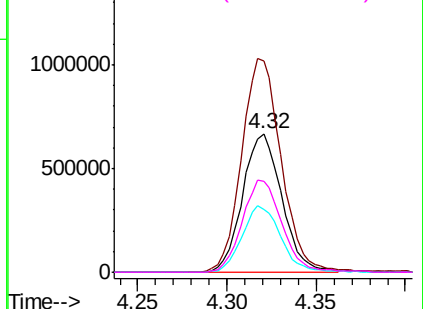


Abundance Ion 84.00 (83.70 to 84.70): VL0

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



#23

Vinyl Acetate

Concen: 0.574 ppbv

RT: 5.04 min Scan# 702

Delta R.T. -0.02 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Tgt Ion: 43 Resp: 82837

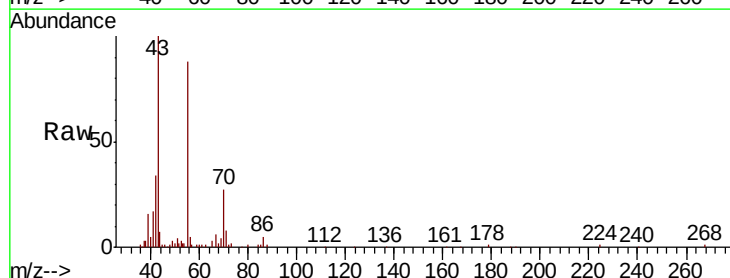
Ion Ratio Lower Upper

43 100

86 4.7 6.2 9.2#

42 33.9 8.0 12.0#

44 4.8 5.2 7.8#

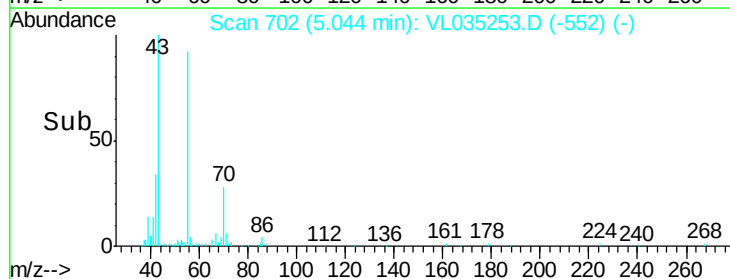
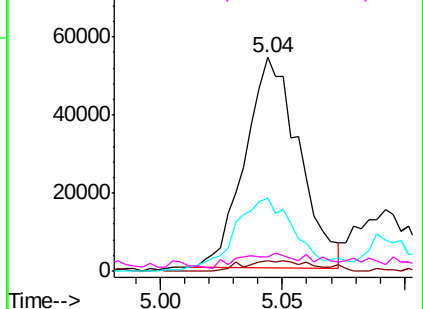


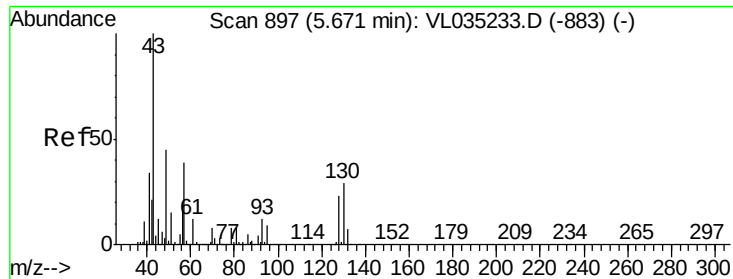
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0

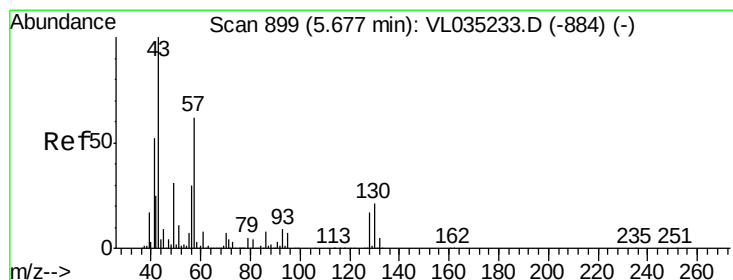
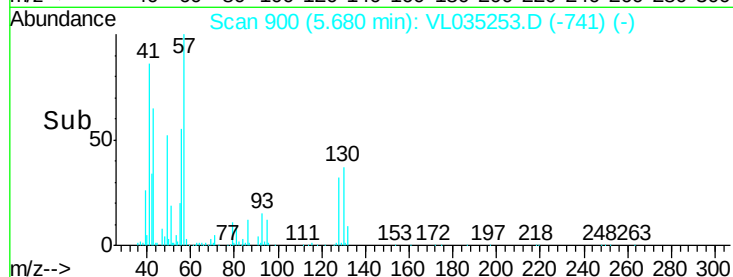
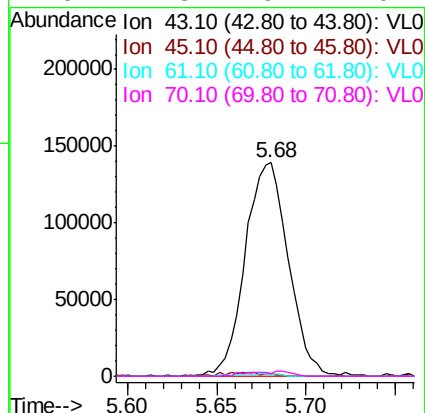
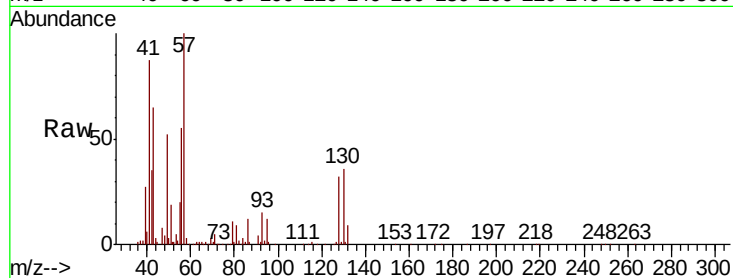




#25
Ethyl Acetate
Concen: 1.051 ppbv
RT: 5.68 min Scan# 900
Delta R.T. 0.01 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

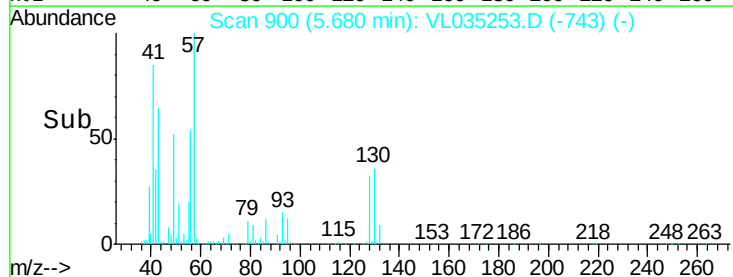
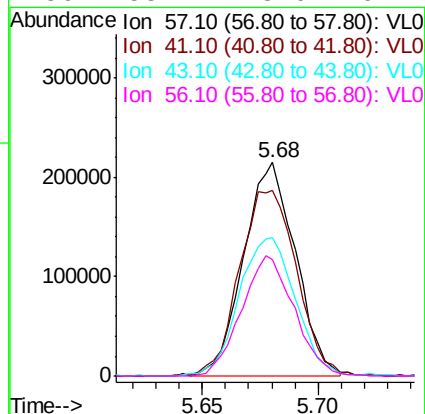
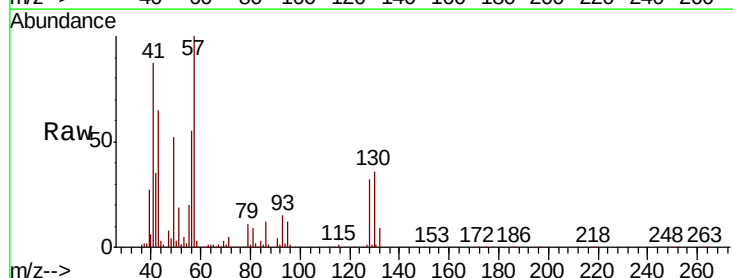
Instrument :
MSVOA_L
ClientSampleId :

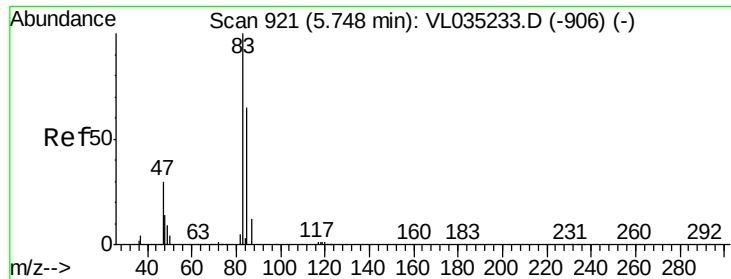
Tot Ion:	43	Resp:	235883
Ion	Ratio	Lower	Upper
43	100		
45	1.9	8.5	12.7#
61	1.0	8.1	12.1#
70	2.3	6.2	9.4#



#26
Hexane
Concen: 3.270 ppbv
RT: 5.68 min Scan# 900
Delta R.T. 0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

Tgt Ion:	57	Resp:	330964
Ion	Ratio	Lower	Upper
57	100		
41	97.2	73.9	110.9
43	71.7	177.6	266.4#
56	58.1	43.0	64.4





#29

Chloroform

Concen: 0.091 ppbv

RT: 5.74 min Scan# 920

Delta R.T. -0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :

MSVOA_L

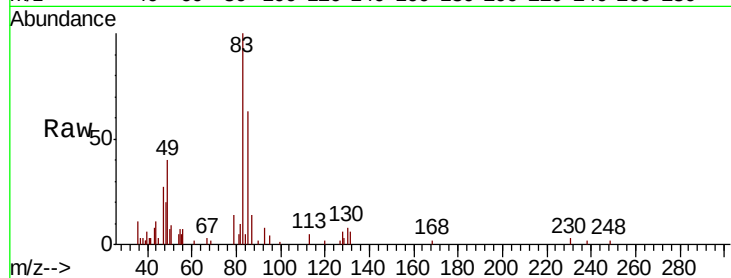
ClientSampleId :

Tot Ion: 83 Resp: 15457

Ion Ratio Lower Upper

83 100

85 62.8 51.7 77.5



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

12000

10000

8000

6000

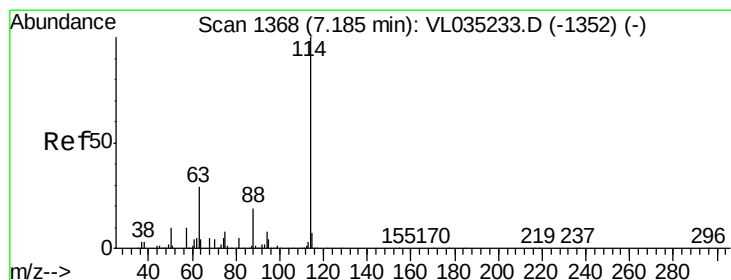
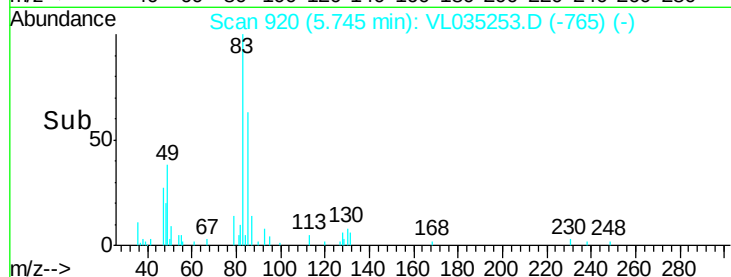
4000

2000

0

5.70 5.72 5.74 5.76

Time-->



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. 0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

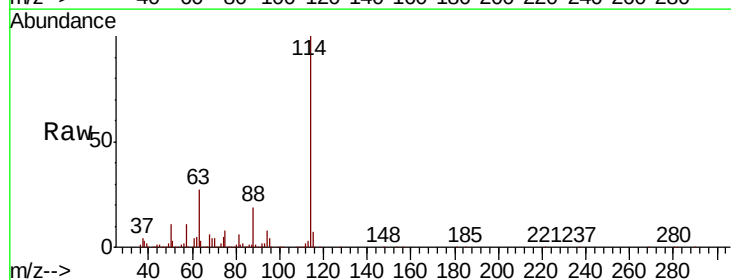
Tgt Ion: 114 Resp: 2536026

Ion Ratio Lower Upper

114 100

63 27.5 22.2 33.2

88 19.5 15.4 23.0



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

1500000

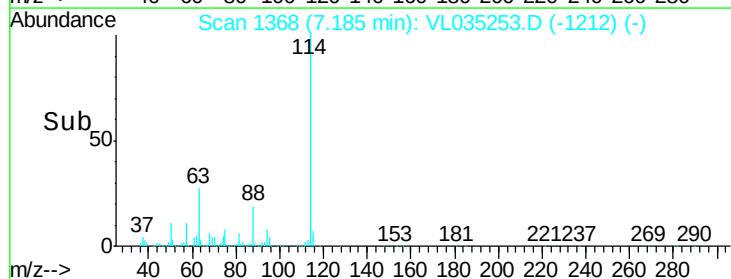
1000000

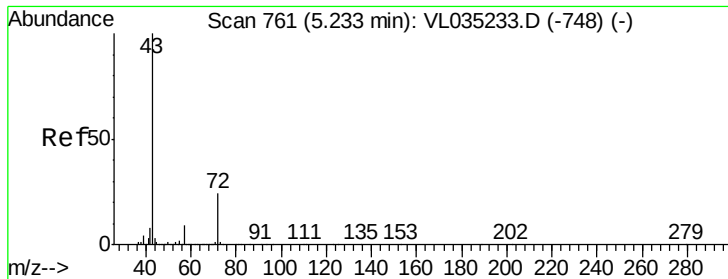
500000

0

7.10 7.15 7.20 7.25

Time-->

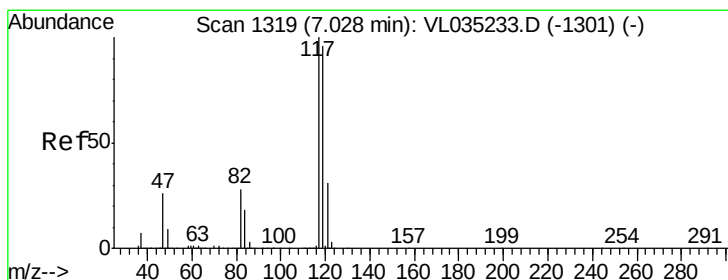
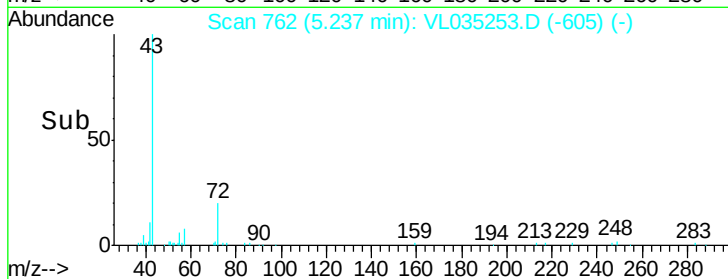
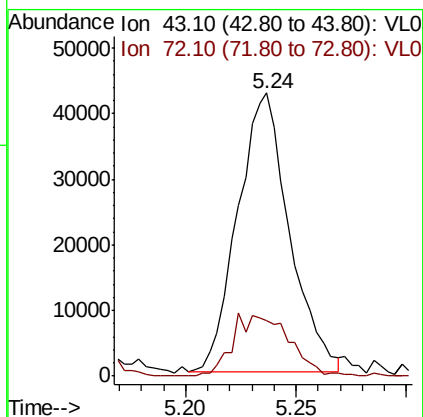
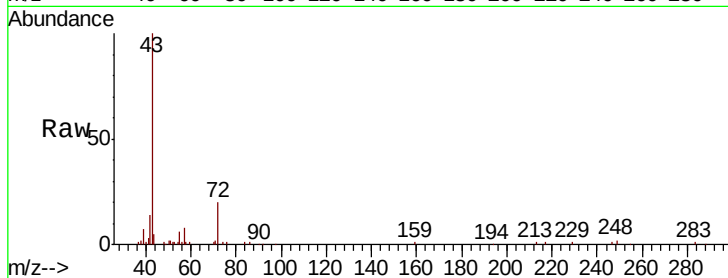




#34
2-Butanone
Concen: 0.537 ppbv
RT: 5.24 min Scan# 762
Delta R.T. 0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

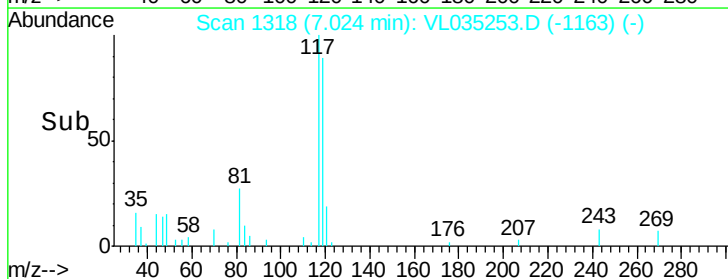
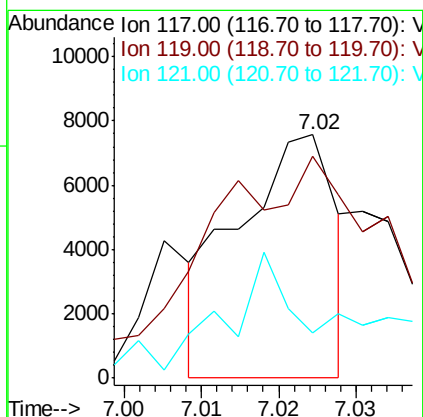
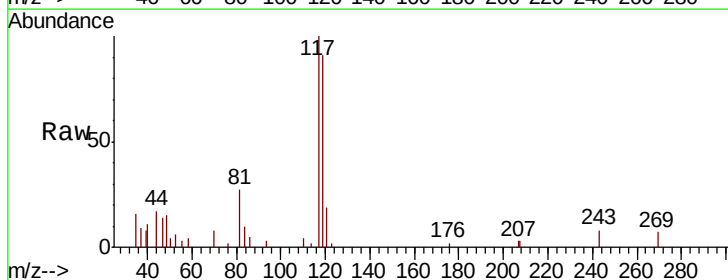
Instrument :
MSVOA_L
ClientSampleId :

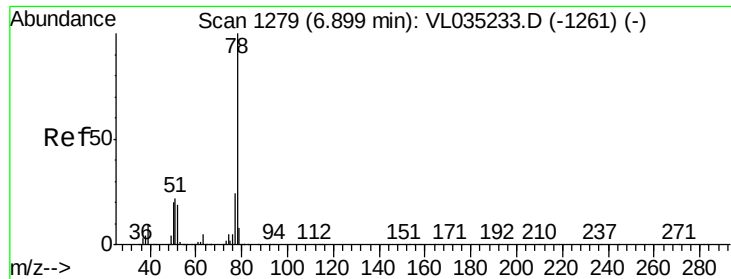
Tot Ion: 43 Resp: 69288
Ion Ratio Lower Upper
43 100
72 24.5 19.2 28.8



#35
Carbon Tetrachloride
Concen: 0.039 ppbv
RT: 7.02 min Scan# 1318
Delta R.T. -0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

Tgt Ion: 117 Resp: 6672
Ion Ratio Lower Upper
117 100
119 90.3 76.8 115.2
121 1.5 24.5 36.7#





#36

Benzene

Concen: 0.081 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. -0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

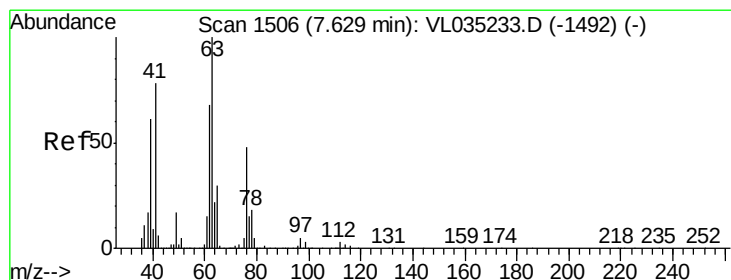
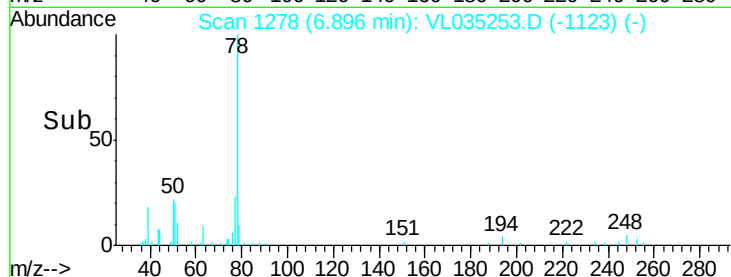
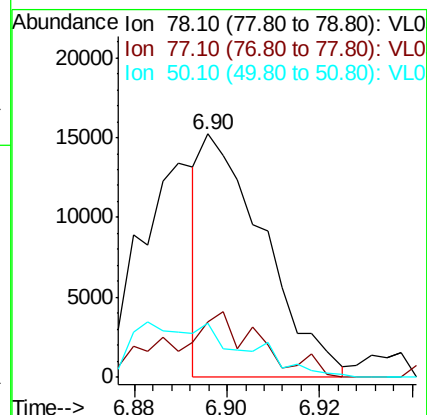
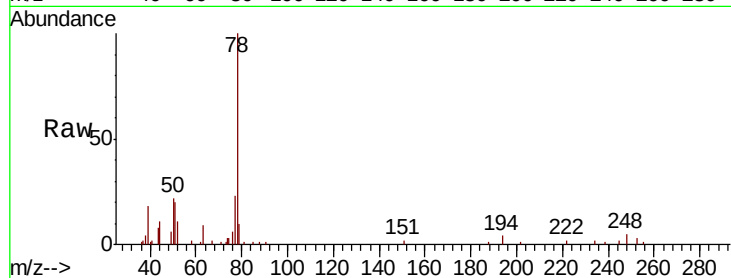
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 78 Resp: 14215

Ion	Ratio	Lower	Upper
78	100		
77	18.9	18.9	28.3#
50	21.7	16.1	24.1



#39

1,2-Dichloropropane

Concen: 9.864 ppbv

RT: 7.18 min Scan# 1367

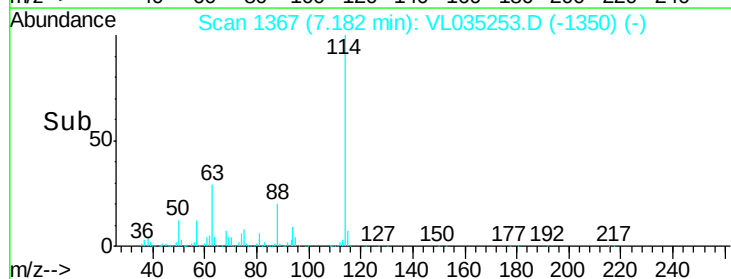
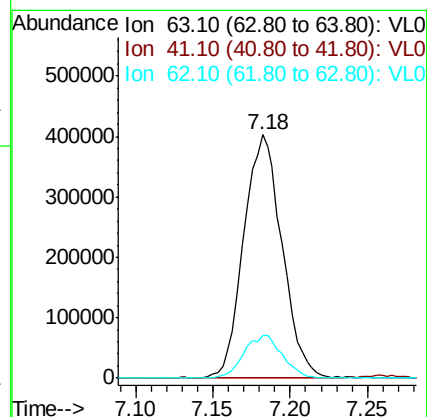
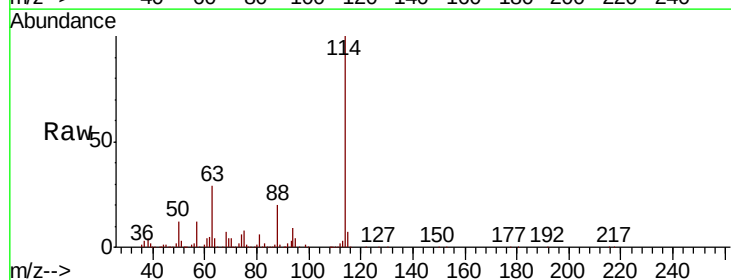
Delta R.T. -0.45 min

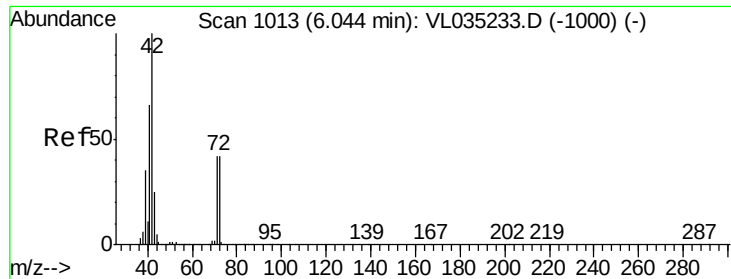
Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Tgt Ion: 63 Resp: 693652

Ion	Ratio	Lower	Upper
63	100		
41	0.0	62.2	93.4#
62	17.5	54.2	81.2#





#41

Tetrahydrofuran

Concen: 1.959 ppbv

RT: 5.68 min Scan# 900

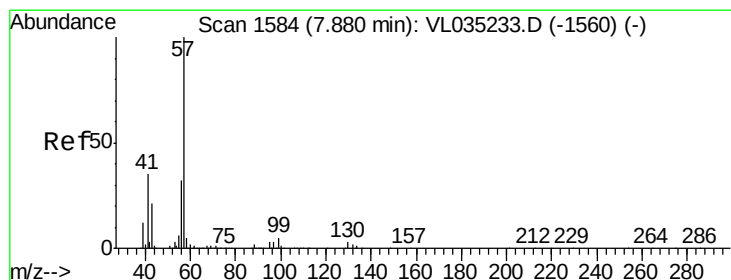
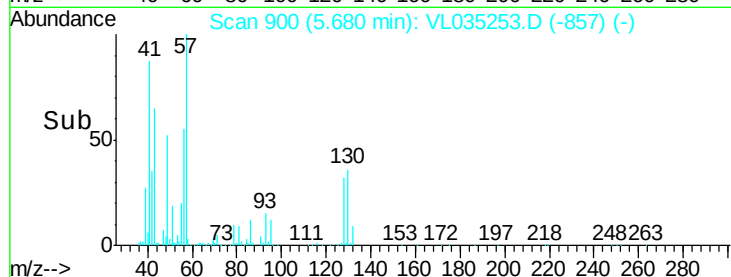
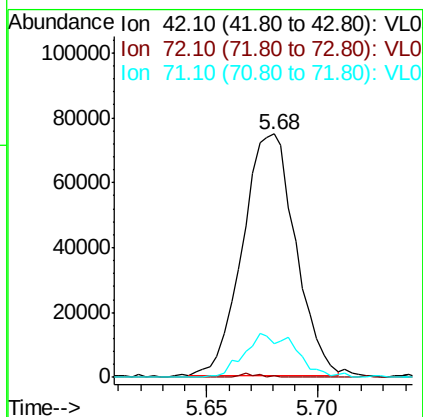
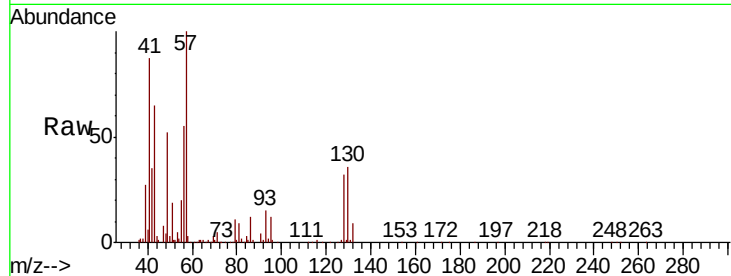
Delta R.T. -0.36 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:	42	Resp:	123878
Ion	Ratio	Lower	Upper
42	100		
72	0.7	34.2	51.2#
71	18.1	33.2	49.8#



#44

2,2,4-Trimethylpentane

Concen: 0.121 ppbv

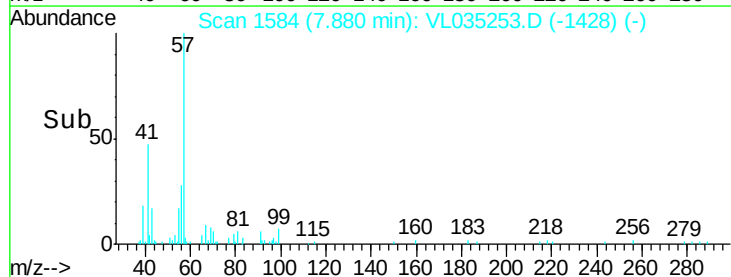
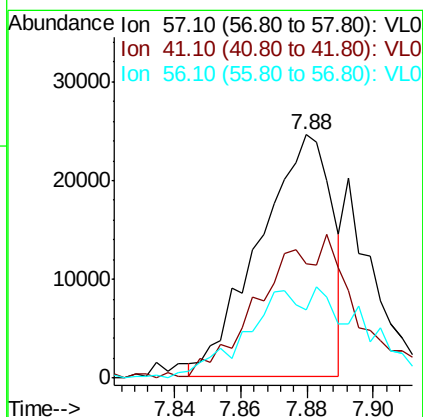
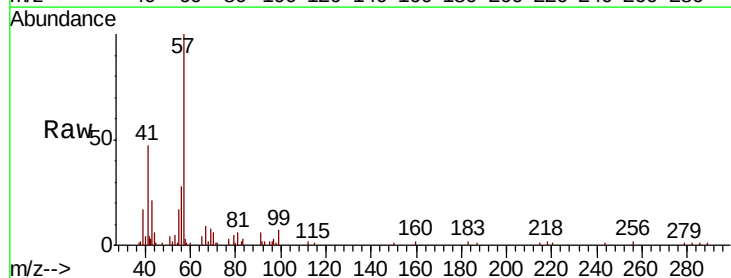
RT: 7.88 min Scan# 1584

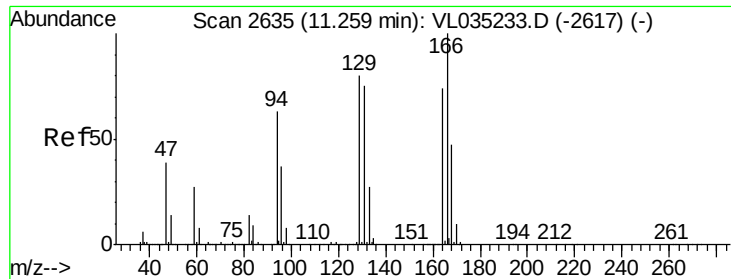
Delta R.T. 0.00 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Tgt Ion:	57	Resp:	37581
Ion	Ratio	Lower	Upper
57	100		
41	82.8	27.0	40.4#
56	57.2	25.6	38.4#





#52

Tetrachloroethene

Concen: 1.560 ppbv

RT: 11.25 min Scan# 2633

Delta R.T. -0.01 min

Lab File: VL035253.D

Acq: 29 Jul 2020 19:28

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 104930

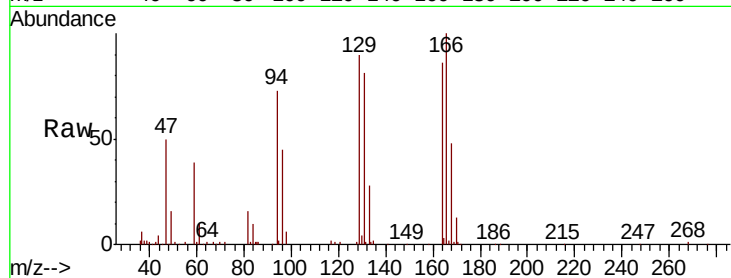
Ion Ratio Lower Upper

164 100

166 118.7 107.5 161.3

129 105.2 86.0 129.0

131 95.3 80.3 120.5

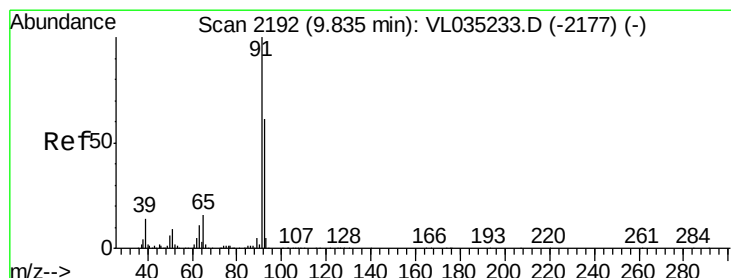
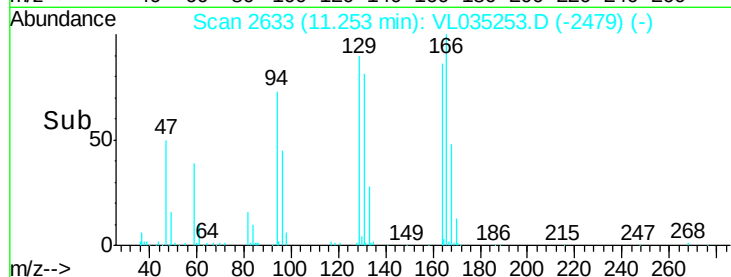
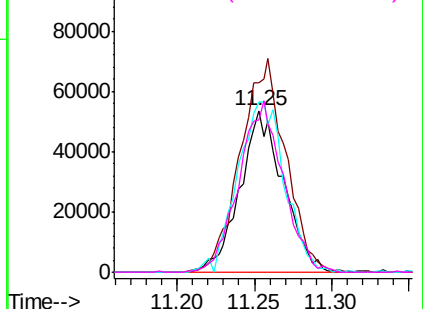


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 1.166 ppbv

RT: 9.83 min Scan# 2191

Delta R.T. -0.00 min

Lab File: VL035253.D

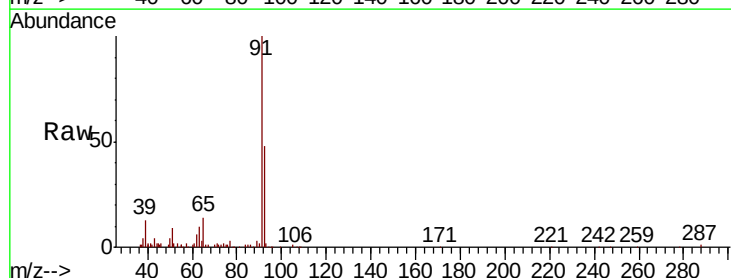
Acq: 29 Jul 2020 19:28

Tgt Ion: 91 Resp: 218318

Ion Ratio Lower Upper

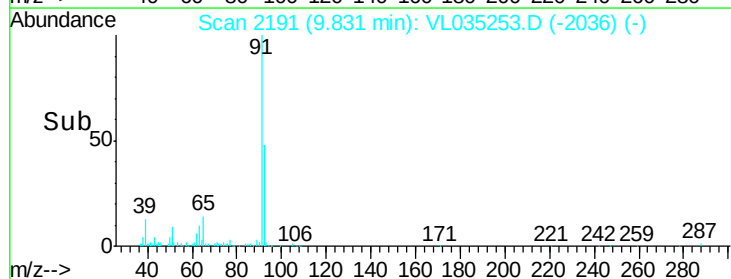
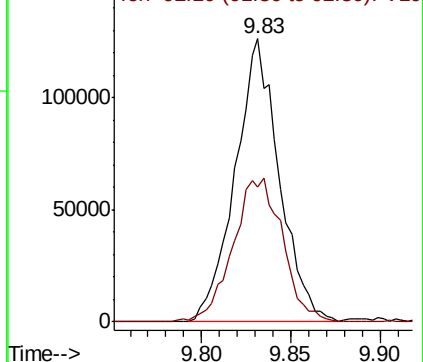
91 100

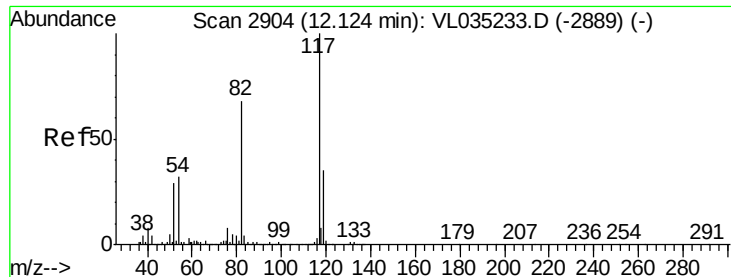
92 56.9 48.5 72.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

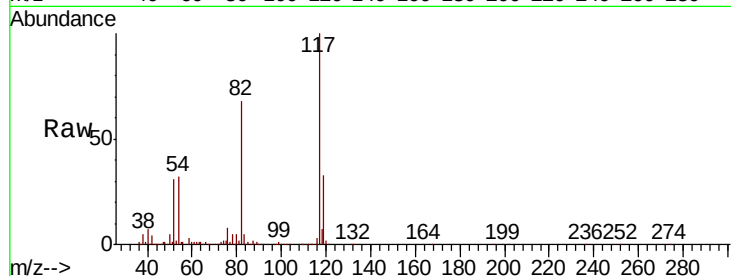




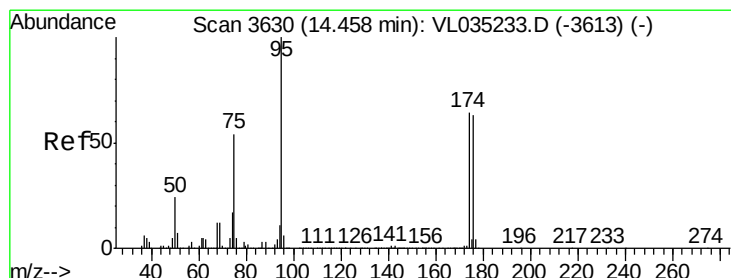
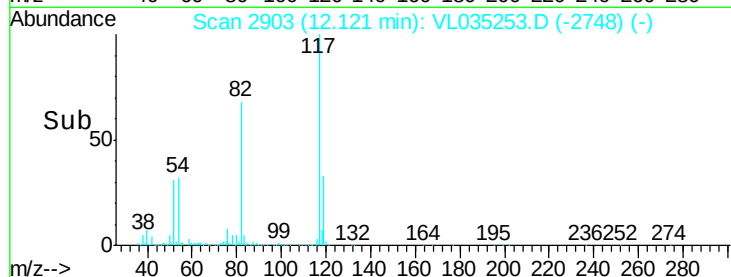
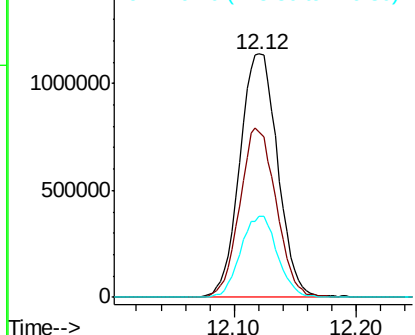
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.12 min Scan# 2903
Delta R.T. -0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion:117 Resp: 2434027
Ion Ratio Lower Upper
117 100
82 67.5 52.4 78.6
119 32.5 24.6 36.8

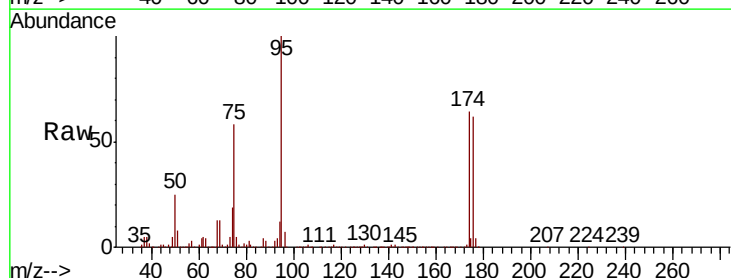


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

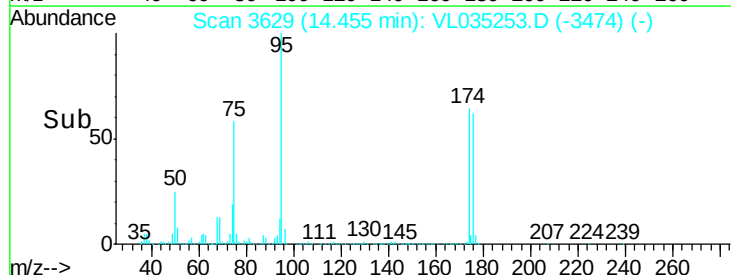
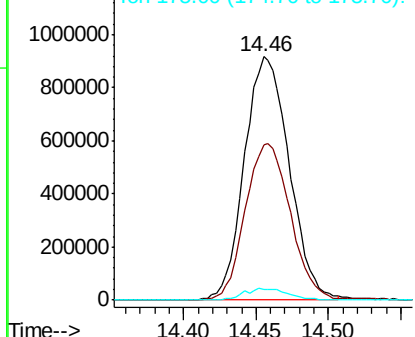


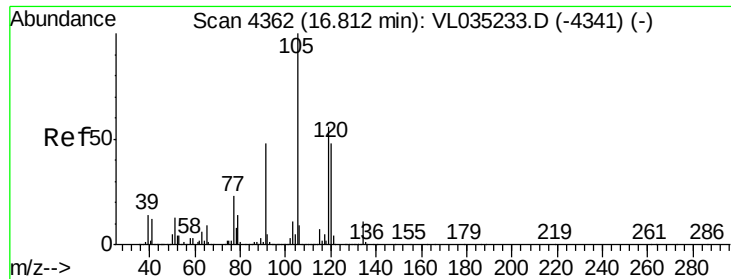
#68
1-Bromo-4-Fluorobenzene
Concen: 10.122 ppbv
RT: 14.46 min Scan# 3629
Delta R.T. -0.00 min
Lab File: VL035253.D
Acq: 29 Jul 2020 19:28

Tgt Ion: 95 Resp: 1968763
Ion Ratio Lower Upper
95 100
174 65.4 52.7 79.1
175 4.7 3.9 5.9



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





#74
 1,2,4-Trimethylbenzene
 Concen: 0.037 ppbv
 RT: 16.81 min Scan# 4362
 Delta R.T. 0.00 min
 Lab File: VL035253.D
 Acq: 29 Jul 2020 19:28

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	11380
Ion	Ratio	Lower	Upper
105	100		
120	0.0	38.8	58.2#
91	0.0	38.9	58.3#
77	1.5	18.4	27.6#

