

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL102519\
 Data File : VL034367.D
 Acq On : 25 Oct 2019 16:59
 Operator : SY/AP
 Sample : VIBLK
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VBLK

Quant Time: Oct 25 23:28:45 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL101619AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Thu Oct 17 05:12:37 2019
 QLast Update : Thu Oct 17 05:12:37 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	871463	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1715068	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.14	117	1711260	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.48	95	1474325	10.17	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.70%

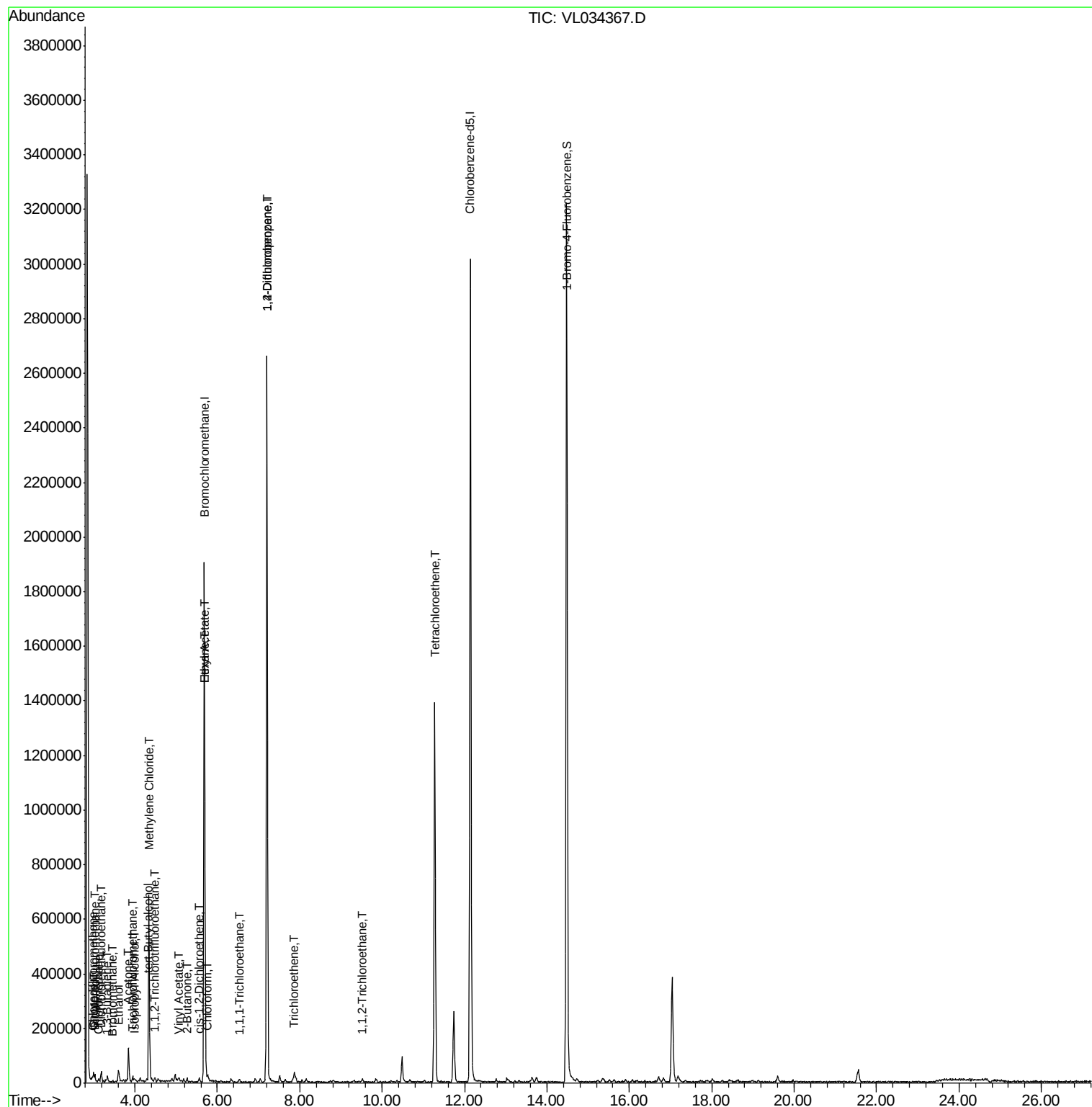
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	15425	0.103	ppbv #	80
3) Chlorodifluoromethane	2.97	51	11637	0.114	ppbv	99
4) Chloromethane	3.12	50	3879	0.064	ppbv #	87
6) Bromomethane	3.46	94	1058	0.038	ppbv #	79
8) Dichlorotetrafluoroethane	3.17	85	5869	0.045	ppbv #	61
9) Propene	2.99	41	4400	0.097	ppbv #	62
11) Trichlorofluoromethane	3.94	101	9302	0.065	ppbv	92
12) 1,1,2-Trichlorotrifluoroet	4.49	101	4876	0.052	ppbv	92
13) Ethanol	3.60	45	47856	4.720	ppbv	99
15) Acetone	3.84	43	110913	0.890	ppbv	94
16) 1,3-Butadiene	3.30	39	1824	0.036	ppbv #	68
17) tert-Butyl alcohol	4.32	59	2632	0.033	ppbv #	57
19) Isopropyl Alcohol	3.99	45	8102	0.117	ppbv #	1
20) Methylene Chloride	4.34	84	229254	5.087	ppbv	95
23) Vinyl Acetate	5.08	43	4853	0.031	ppbv #	70
25) Ethyl Acetate	5.70	43	57130	0.271	ppbv #	82
26) Hexane	5.70	57	74858	0.835	ppbv #	41
29) Chloroform	5.77	83	4751	0.033	ppbv	91
31) cis-1,2-Dichloroethene	5.56	61	8467	0.093	ppbv	97
32) 1,1,1-Trichloroethane	6.53	97	4350	0.032	ppbv #	70
34) 2-Butanone	5.26	43	9343	0.067	ppbv #	76
38) Trichloroethene	7.87	130	5972	0.090	ppbv #	83
39) 1,2-Dichloropropane	7.21	63	512437	7.232	ppbv #	23
47) 1,1,2-Trichloroethane	9.52	97	2398	0.033	ppbv #	59
52) Tetrachloroethene	11.28	164	319884	4.959	ppbv	97

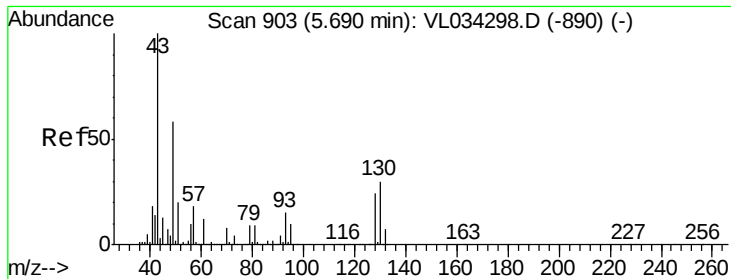
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Oct 17 05:12:37 2019
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

VLBK

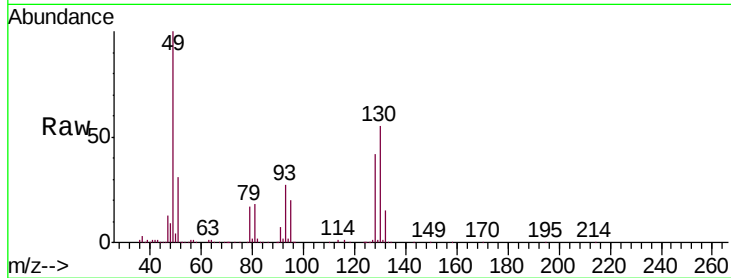
Tgt Ion: 49 Resp: 871463

Ion Ratio Lower Upper

49 100

128 42.7 20.6 61.8

130 54.1 26.2 78.5



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

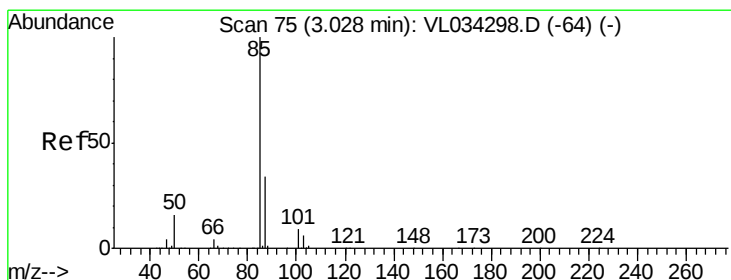
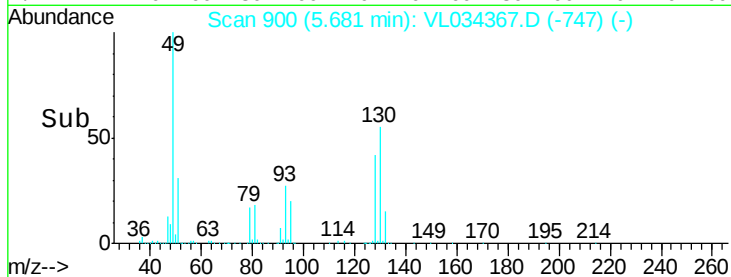
5.68

400000

200000

0

Time--> 5.60 5.65 5.70 5.75



#2

Dichlorodifluoromethane

Concen: 0.103 ppbv

RT: 3.02 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL034367.D

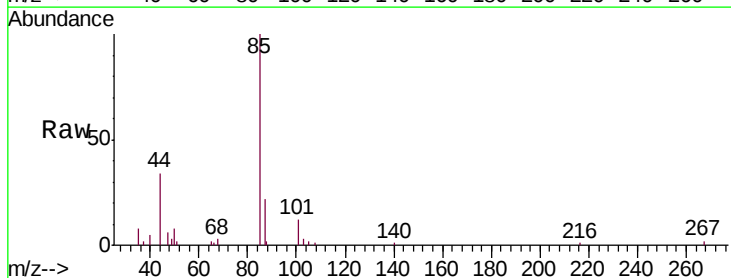
Acq: 25 Oct 2019 16:59

Tgt Ion: 85 Resp: 15425

Ion Ratio Lower Upper

85 100

87 22.4 27.0 40.6#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.02

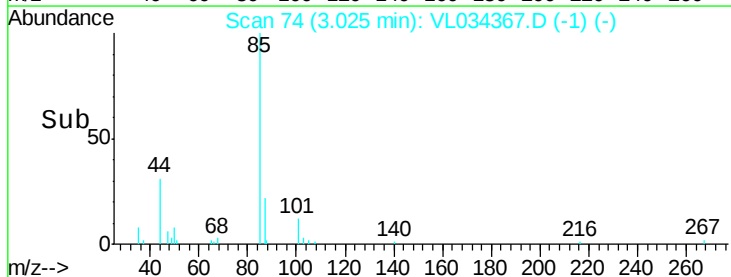
15000

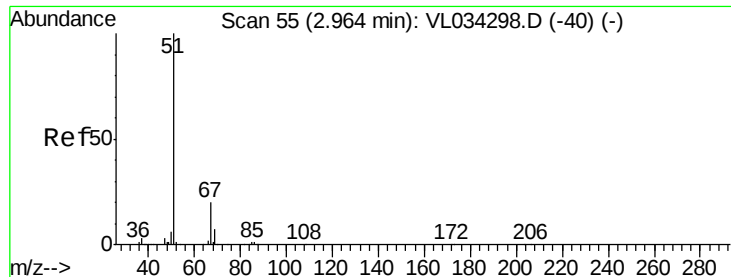
10000

5000

0

Time--> 3.00 3.02 3.04 3.06





#3

Chlorodifluoromethane

Concen: 0.114 ppbv

RT: 2.97 min Scan# 57

Delta R.T. 0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

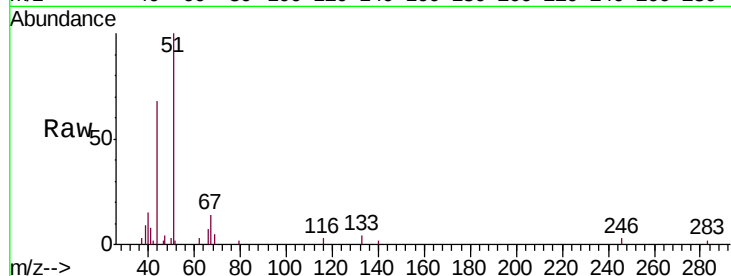
VBLK

Tgt Ion: 51 Resp: 11637

Ion Ratio Lower Upper

51 100

67 20.4 15.8 23.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.97

8000

6000

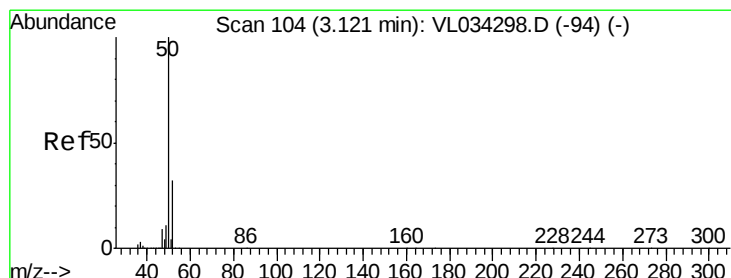
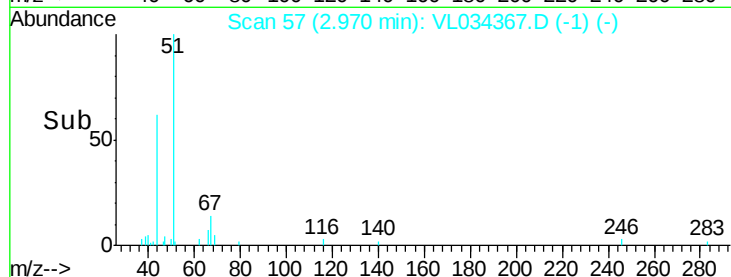
4000

2000

0

Time-->

2.90 2.95 3.00



#4

Chloromethane

Concen: 0.064 ppbv

RT: 3.12 min Scan# 103

Delta R.T. -0.00 min

Lab File: VL034367.D

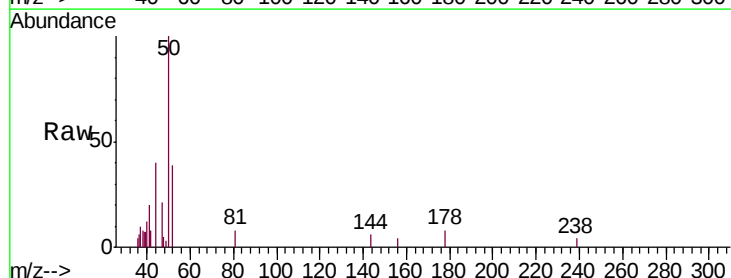
Acq: 25 Oct 2019 16:59

Tgt Ion: 50 Resp: 3879

Ion Ratio Lower Upper

50 100

52 38.9 25.4 38.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

6000

5000

4000

3000

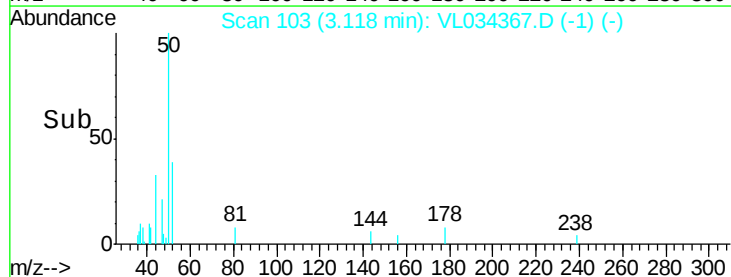
2000

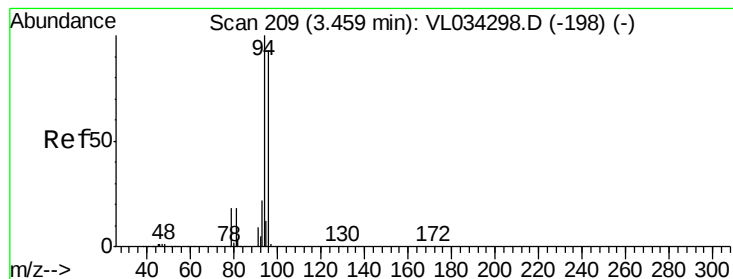
1000

0

Time-->

3.08 3.10 3.12





#6

Bromomethane

Concen: 0.038 ppbv

RT: 3.46 min Scan# 208

Delta R.T. -0.00 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampled :

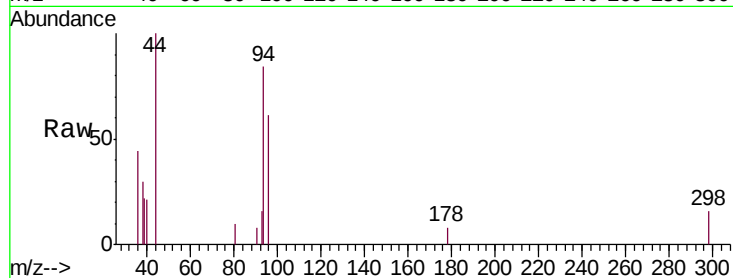
VBLK

Tgt Ion: 94 Resp: 1058

Ion Ratio Lower Upper

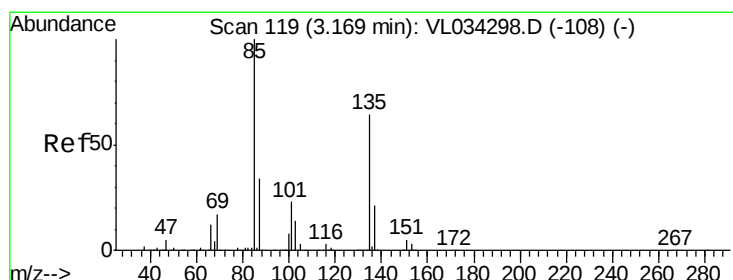
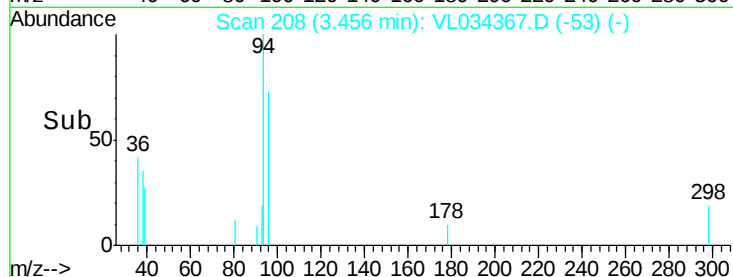
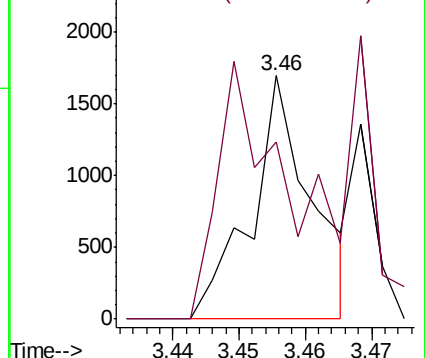
94 100

96 72.9 74.6 112.0#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.045 ppbv

RT: 3.17 min Scan# 119

Delta R.T. 0.00 min

Lab File: VL034367.D

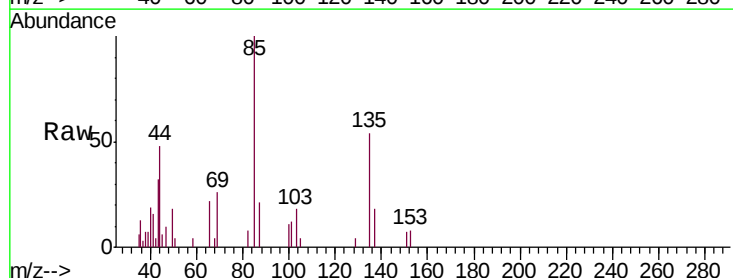
Acq: 25 Oct 2019 16:59

Tgt Ion: 85 Resp: 5869

Ion Ratio Lower Upper

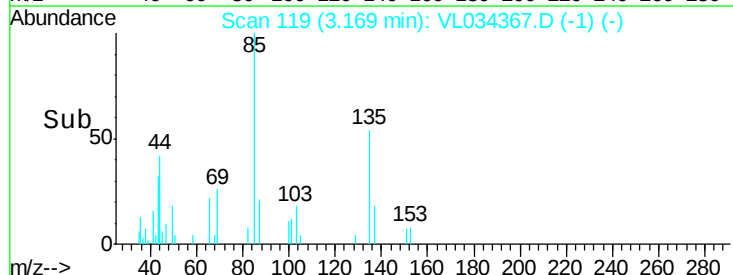
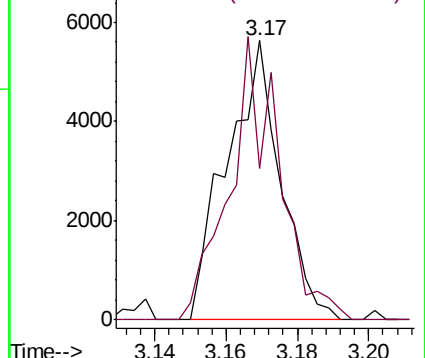
85 100

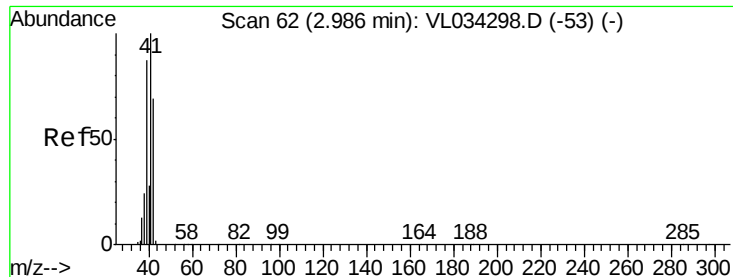
135 93.0 50.2 75.2#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.097 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.00 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

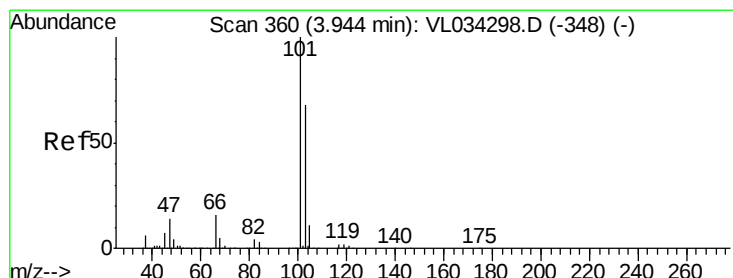
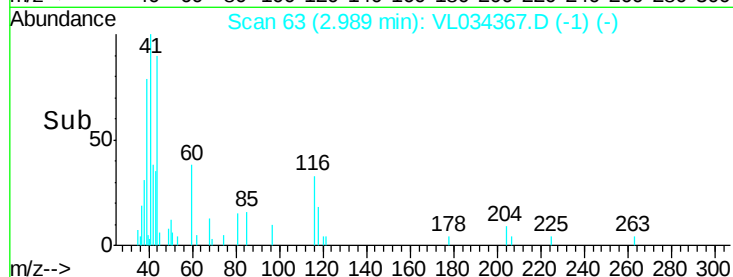
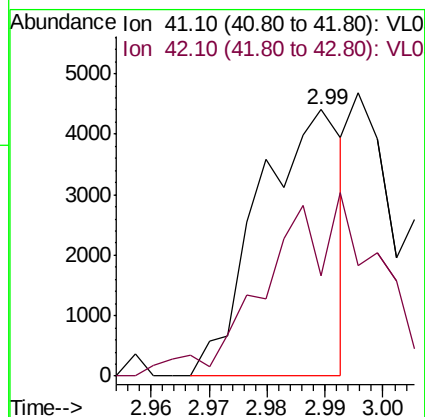
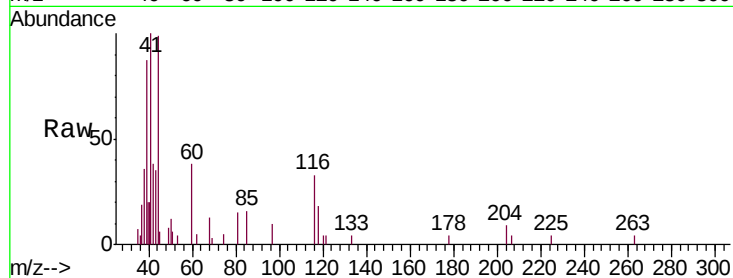
VBLK

Tgt Ion: 41 Resp: 4400

Ion Ratio Lower Upper

41 100

42 98.1 53.9 80.9#



#11

Trichlorofluoromethane

Concen: 0.065 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.00 min

Lab File: VL034367.D

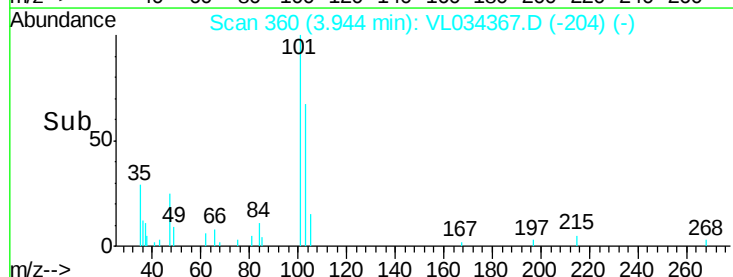
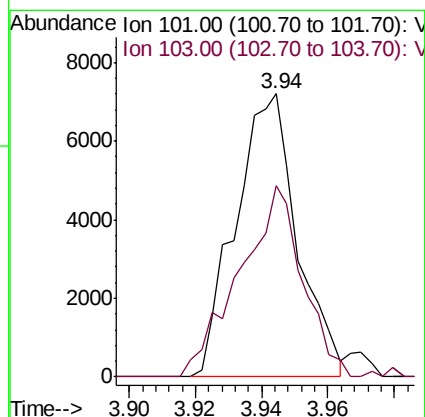
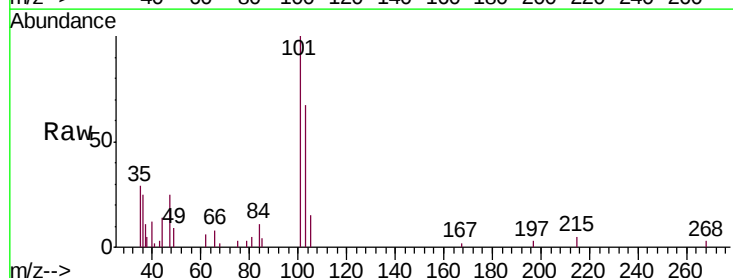
Acq: 25 Oct 2019 16:59

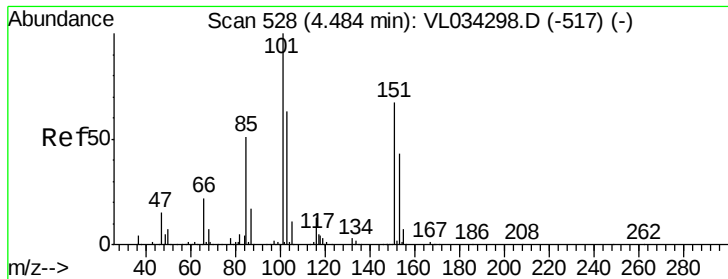
Tgt Ion: 101 Resp: 9302

Ion Ratio Lower Upper

101 100

103 61.4 54.5 81.7





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.052 ppbv

RT: 4.49 min Scan# 530

Delta R.T. 0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

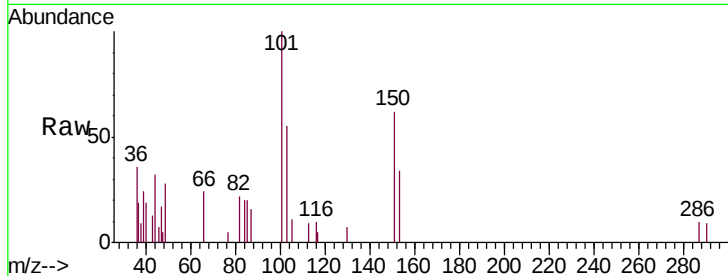
VBLK

Tgt Ion:101 Resp: 4876

Ion Ratio Lower Upper

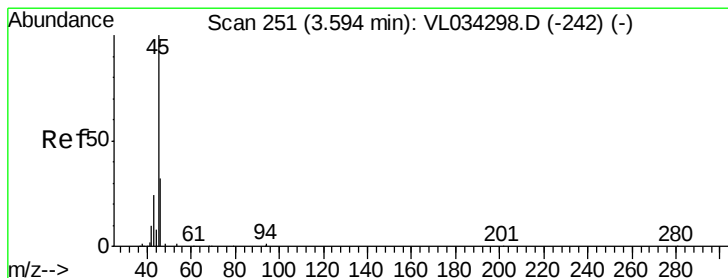
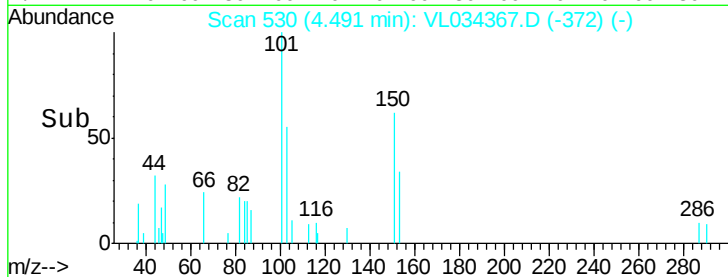
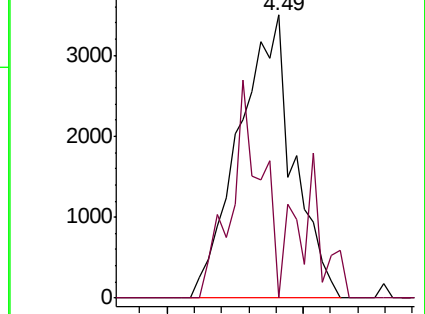
101 100

151 65.1 57.4 86.2



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 4.720 ppbv

RT: 3.60 min Scan# 252

Delta R.T. 0.00 min

Lab File: VL034367.D

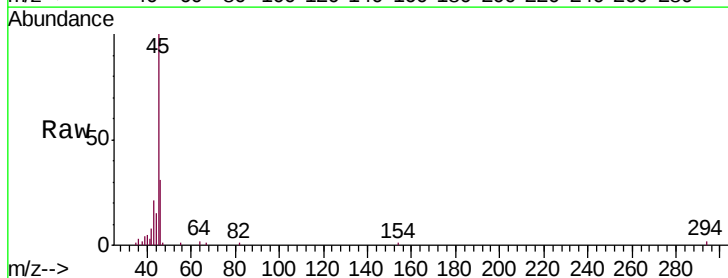
Acq: 25 Oct 2019 16:59

Tgt Ion: 45 Resp: 47856

Ion Ratio Lower Upper

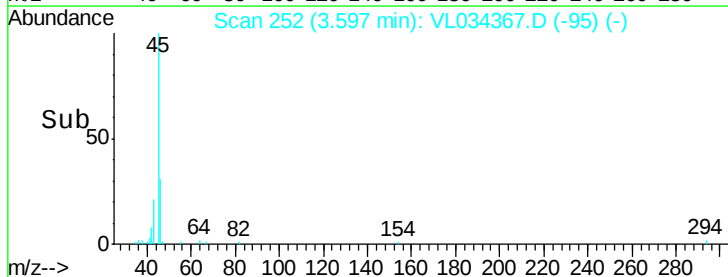
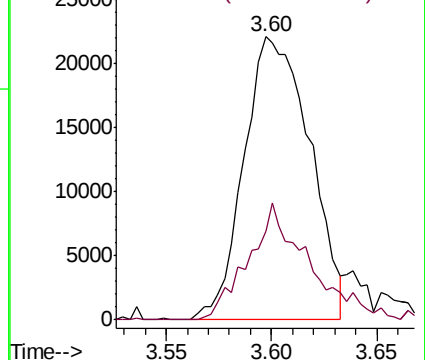
45 100

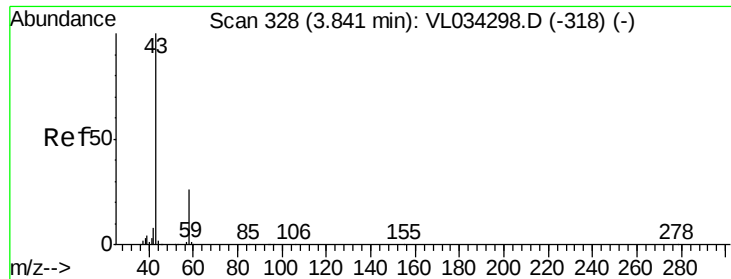
46 39.1 15.8 63.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 0.890 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

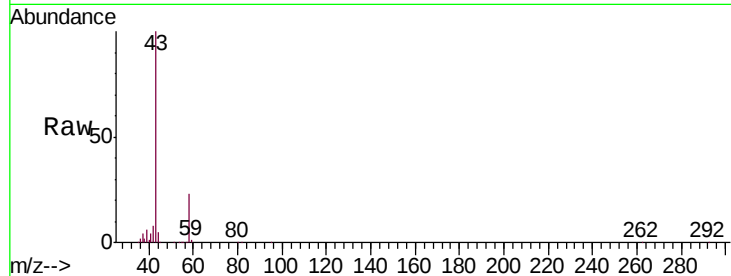
VBK

Tgt Ion: 43 Resp: 110913

Ion Ratio Lower Upper

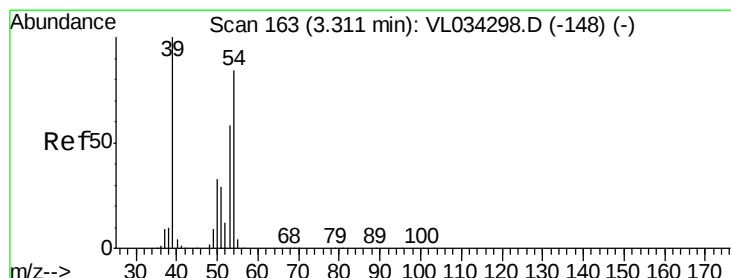
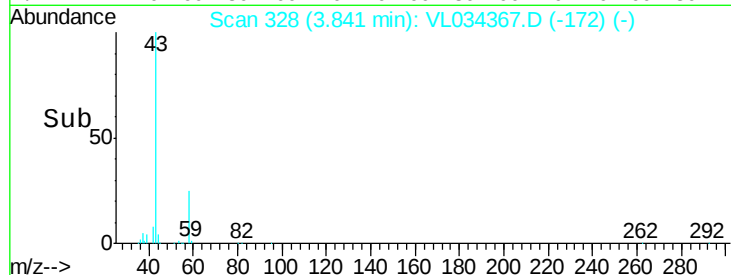
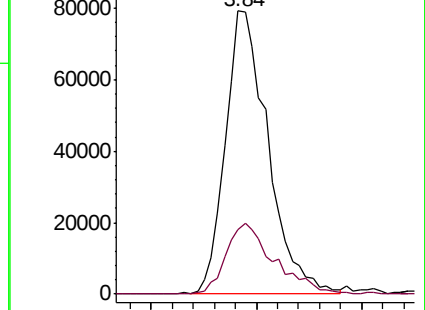
43 100

58 28.6 20.4 30.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.036 ppbv

RT: 3.30 min Scan# 160

Delta R.T. -0.01 min

Lab File: VL034367.D

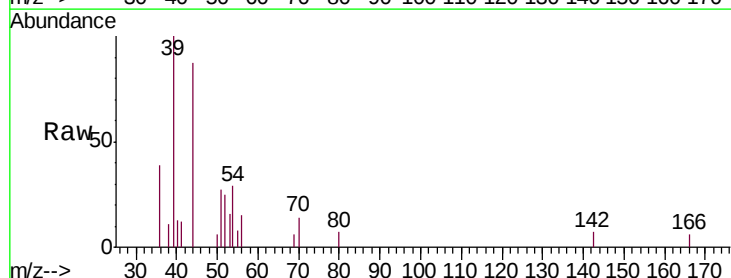
Acq: 25 Oct 2019 16:59

Tgt Ion: 39 Resp: 1824

Ion Ratio Lower Upper

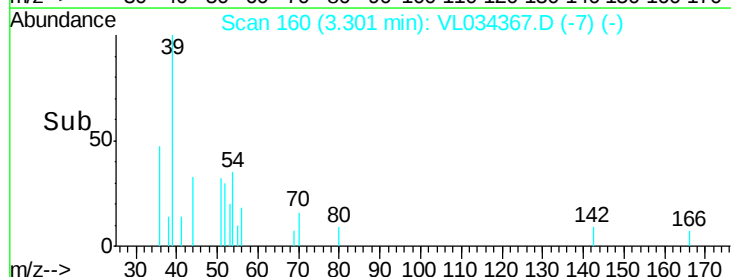
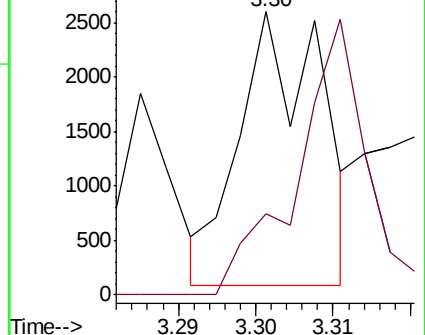
39 100

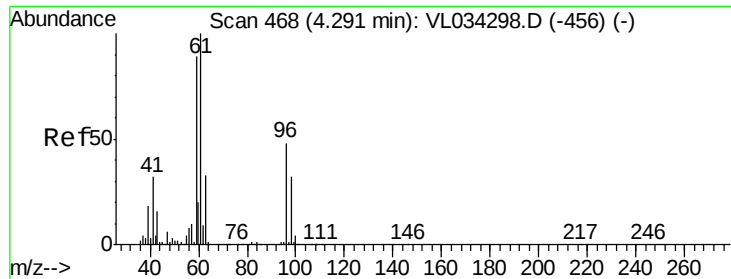
54 108.3 63.9 95.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

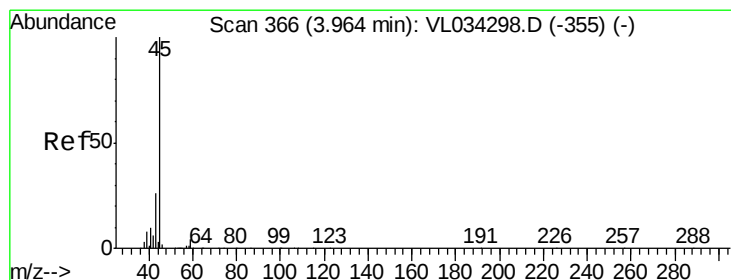
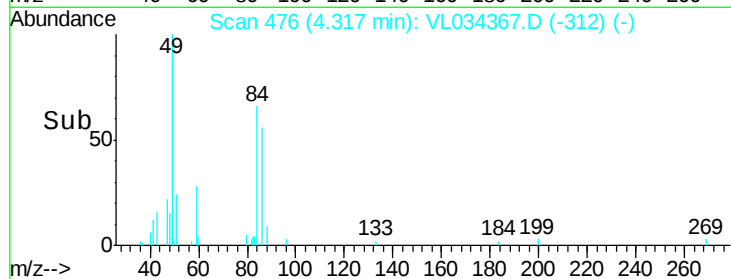
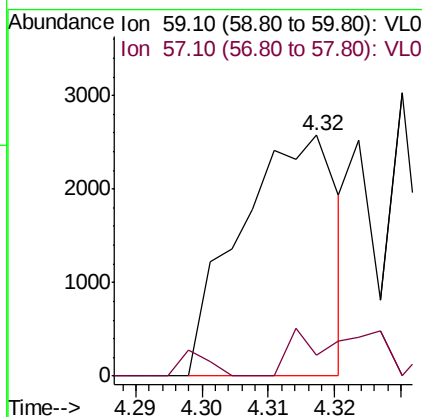
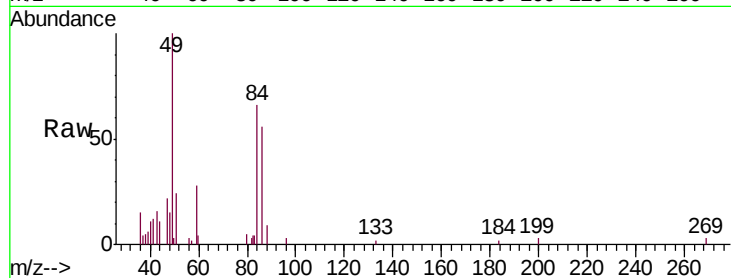




#17
 tert-Butyl alcohol
 Concen: 0.033 ppbv
 RT: 4.32 min Scan# 476
 Delta R.T. 0.03 min
 Lab File: VL034367.D
 Acq: 25 Oct 2019 16:59

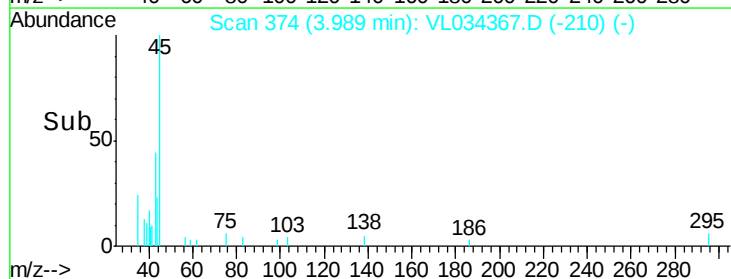
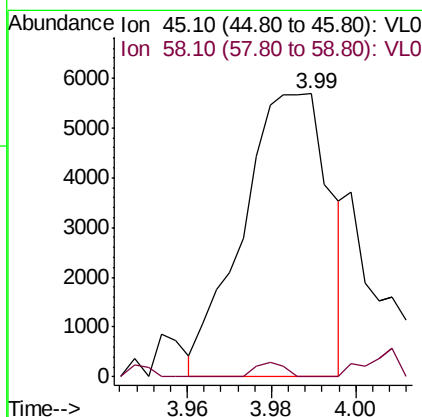
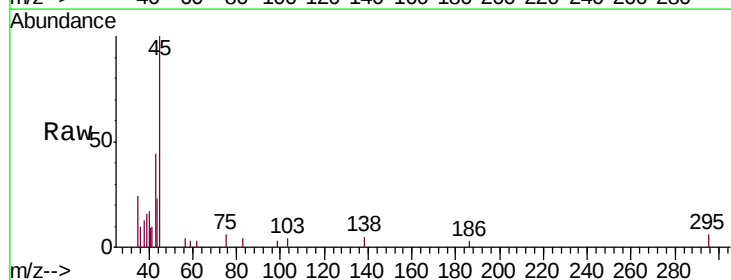
Instrument :
 MSVOA_L
 ClientSampleId :
 VBLK

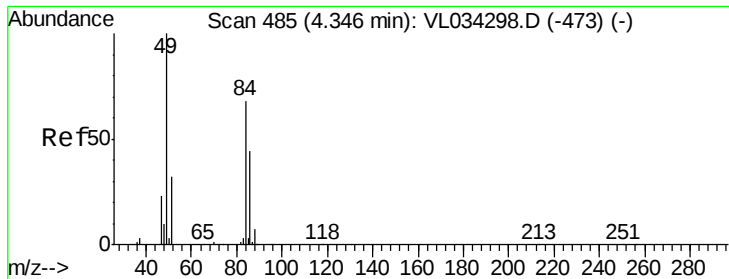
Tgt Ion: 59 Resp: 2632
 Ion Ratio Lower Upper
 59 100
 57 27.2 8.8 13.2#



#19
 Isopropyl Alcohol
 Concen: 0.117 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T. 0.03 min
 Lab File: VL034367.D
 Acq: 25 Oct 2019 16:59

Tgt Ion: 45 Resp: 8102
 Ion Ratio Lower Upper
 45 100
 58 391.4 1.4 2.2#

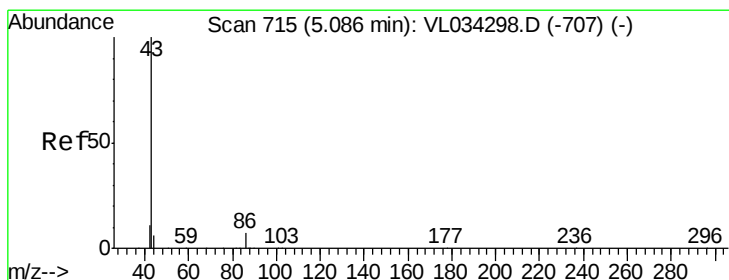
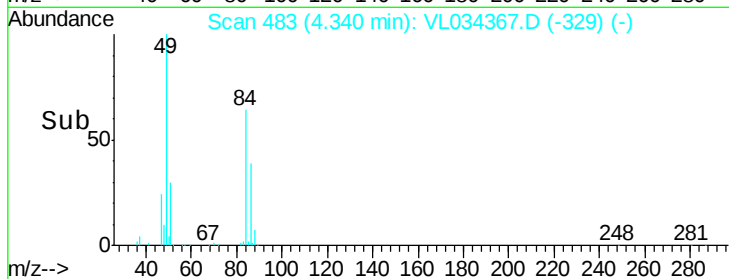
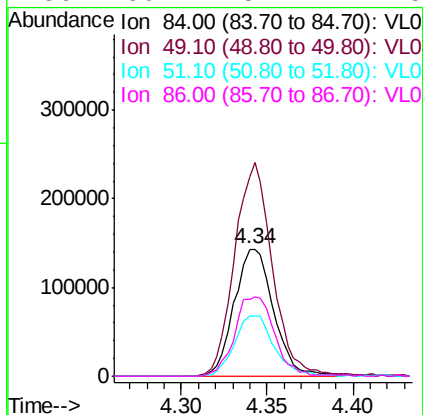
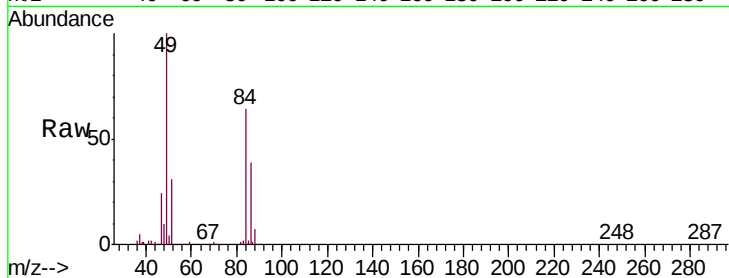




#20
Methylene Chloride
Concen: 5.087 ppbv
RT: 4.34 min Scan# 483
Delta R.T. -0.01 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

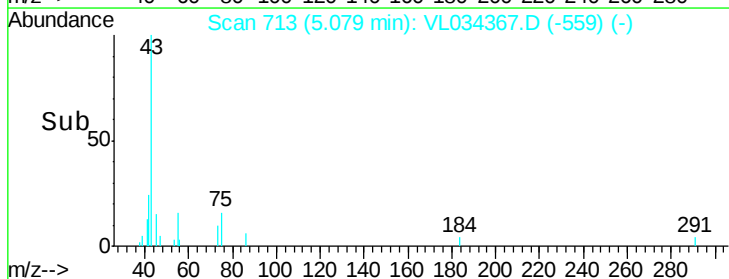
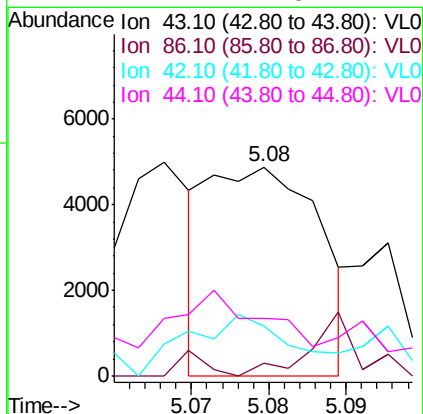
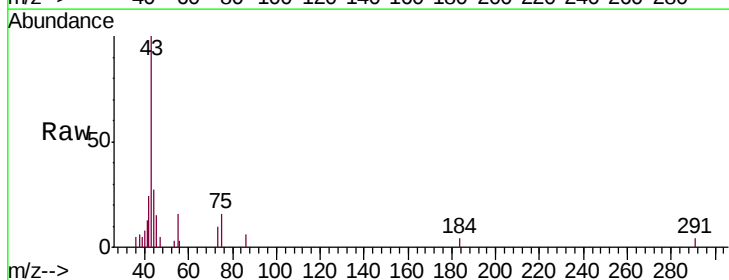
Instrument :
MSVOA_L
ClientSampleId :
VBLK

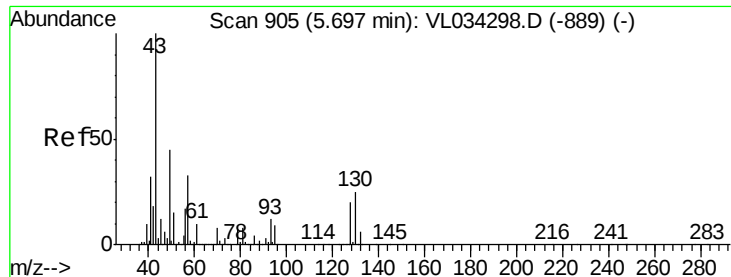
Tgt Ion:	84	Resp:	229254
Ion	Ratio	Lower	Upper
84	100		
49	156.4	118.5	177.7
51	47.7	38.8	58.2
86	60.7	51.7	77.5



#23
Vinyl Acetate
Concen: 0.031 ppbv
RT: 5.08 min Scan# 713
Delta R.T. -0.01 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

Tgt Ion:	43	Resp:	4853
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.4#
42	26.8	8.6	13.0#
44	12.1	4.8	7.2#

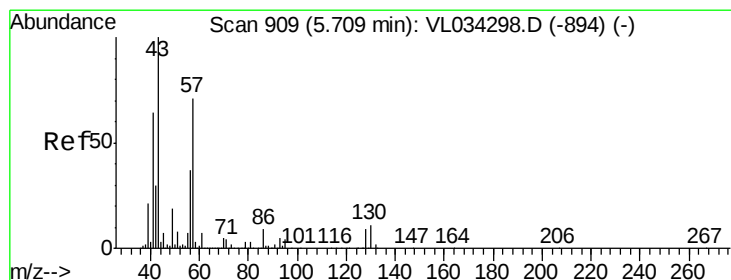
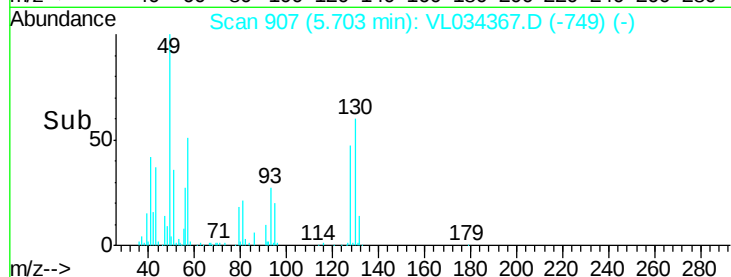
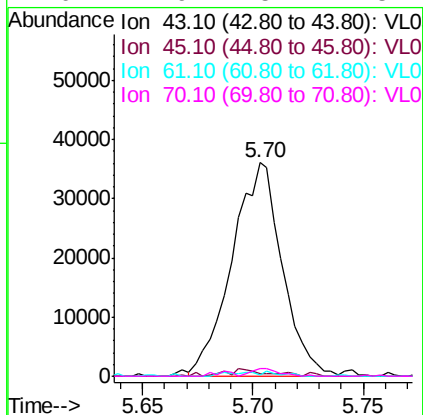
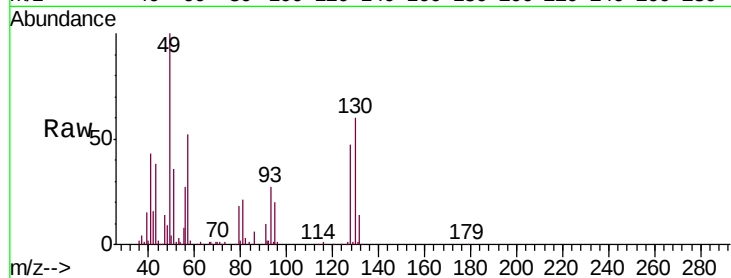




#25
Ethyl Acetate
Concen: 0.271 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.01 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

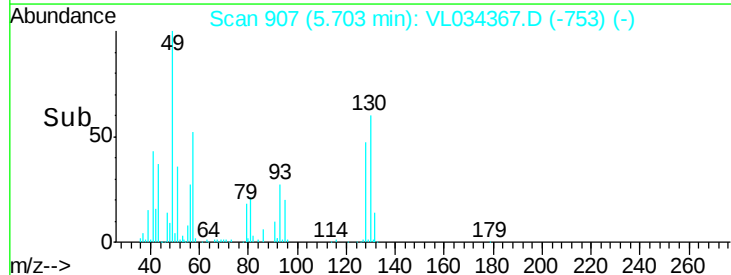
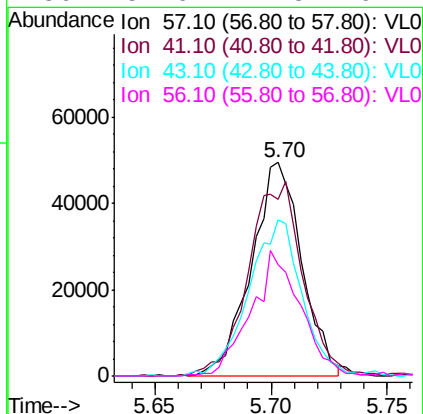
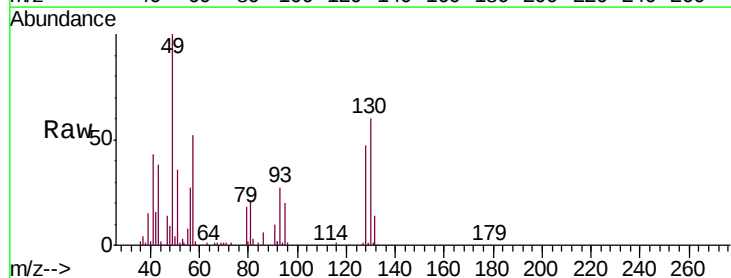
Instrument :
MSVOA_L
ClientSampled :
VBLK

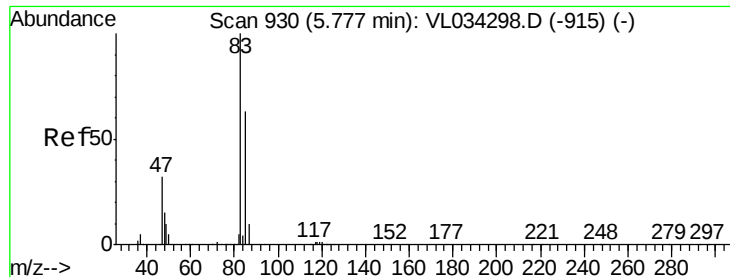
Tgt Ion:	43	Resp:	57130
Ion	Ratio	Lower	Upper
43	100		
45	3.2	8.3	12.5#
61	2.2	7.7	11.5#
70	2.9	5.4	8.2#



#26
Hexane
Concen: 0.835 ppbv
RT: 5.70 min Scan# 907
Delta R.T. -0.01 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

Tgt Ion:	57	Resp:	74858
Ion	Ratio	Lower	Upper
57	100		
41	99.1	76.5	114.7
43	78.3	188.5	282.7#
56	57.6	42.8	64.2





#29

Chloroform

Concen: 0.033 ppbv

RT: 5.77 min Scan# 927

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

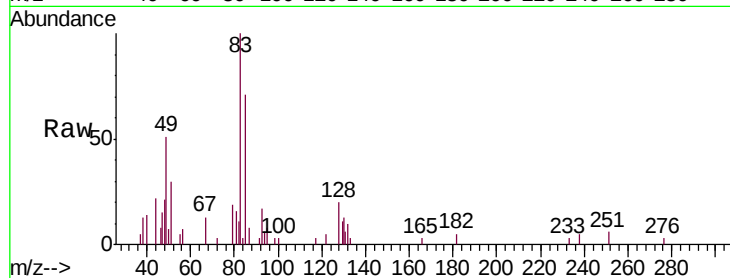
VBLK

Tgt Ion: 83 Resp: 4751

Ion Ratio Lower Upper

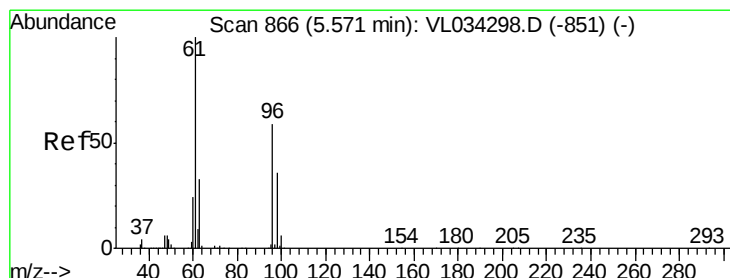
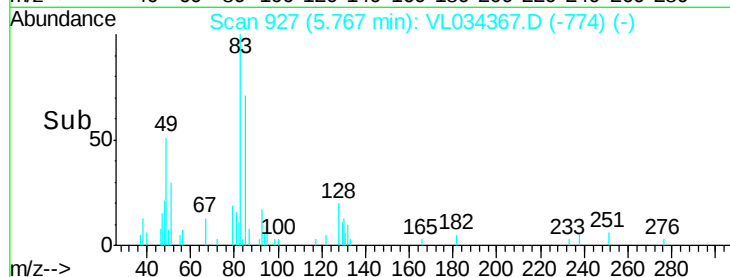
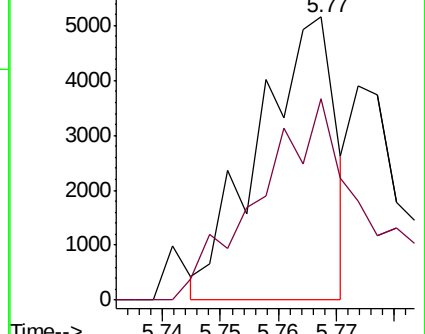
83 100

85 69.9 50.5 75.7



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#31

cis-1,2-Dichloroethene

Concen: 0.093 ppbv

RT: 5.56 min Scan# 863

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

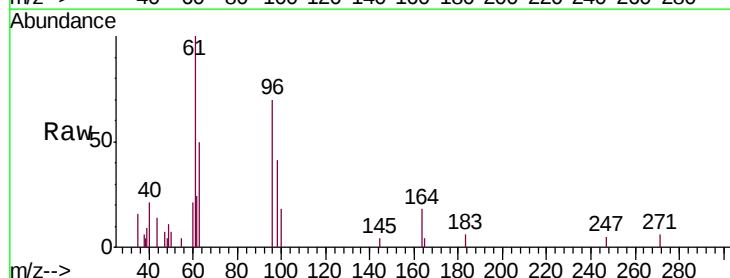
Tgt Ion: 61 Resp: 8467

Ion Ratio Lower Upper

61 100

96 59.1 47.5 71.3

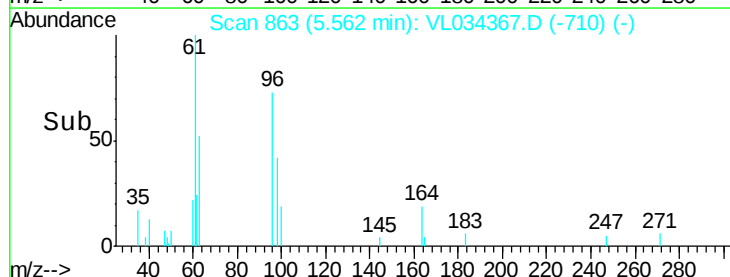
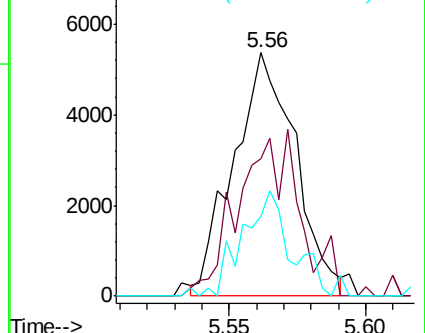
98 31.0 28.8 43.2

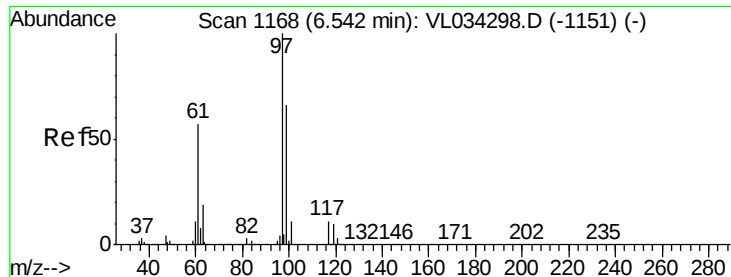


Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0





#32

1,1,1-Trichloroethane

Concen: 0.032 ppbv

RT: 6.53 min Scan# 1165

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

VBLK

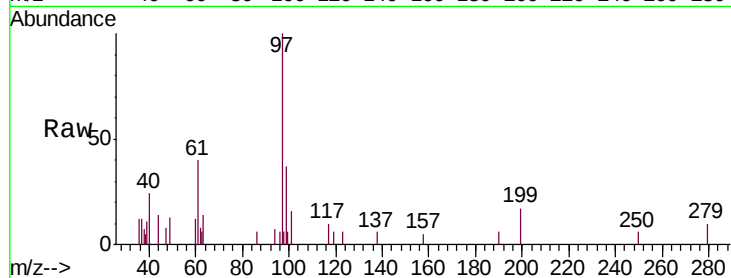
Tgt Ion: 97 Resp: 4350

Ion Ratio Lower Upper

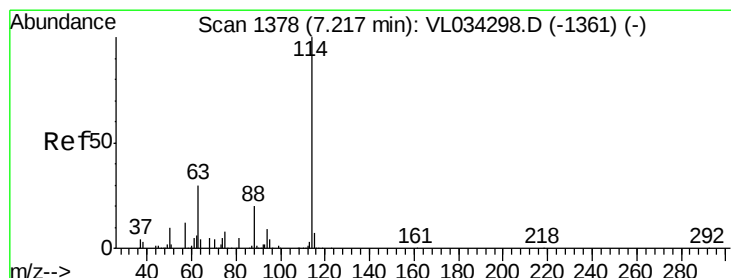
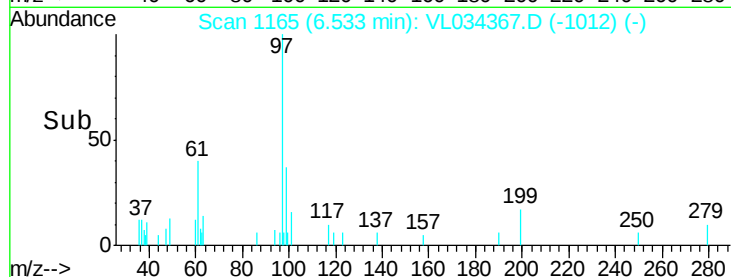
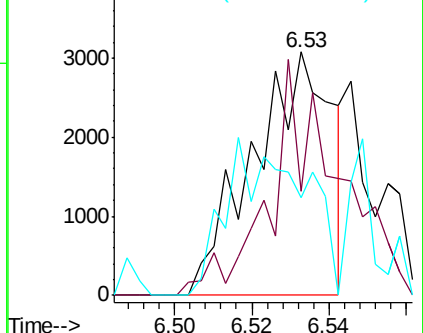
97 100

99 83.0 52.6 78.8#

61 84.7 44.5 66.7#



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.20 min Scan# 1374

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

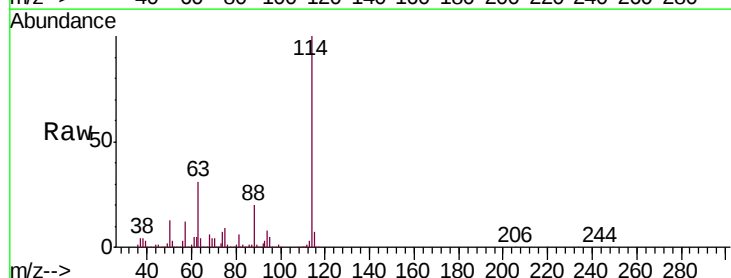
Tgt Ion: 114 Resp: 1715068

Ion Ratio Lower Upper

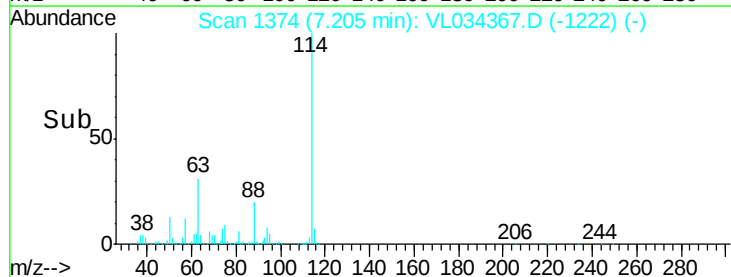
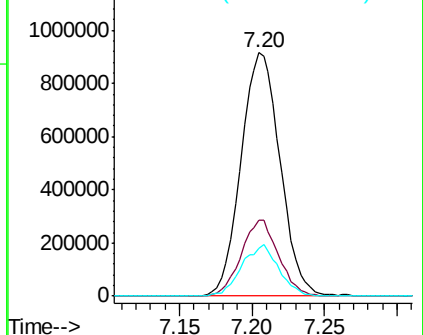
114 100

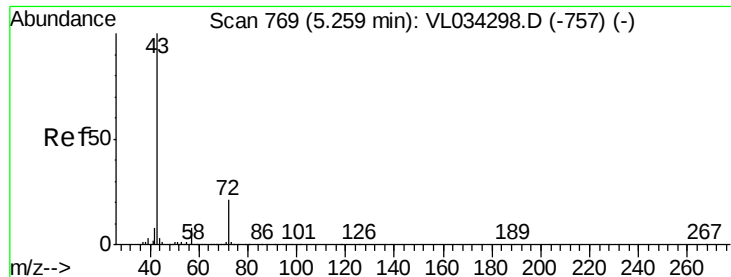
63 30.1 25.2 37.8

88 20.1 16.0 24.0



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

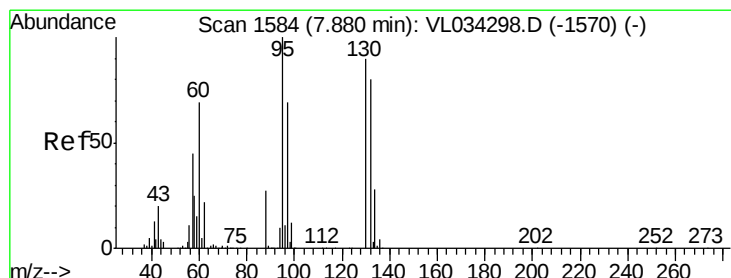
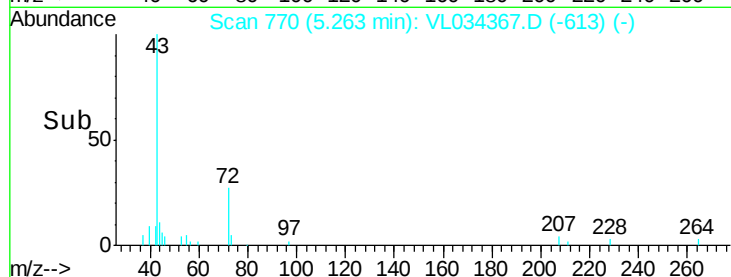
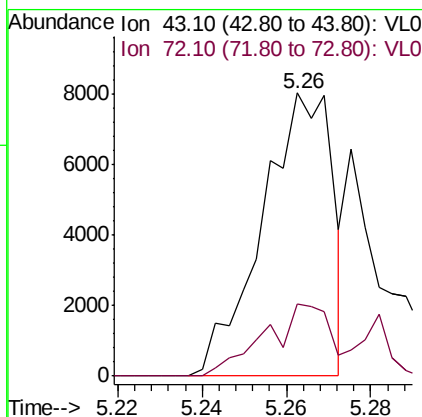
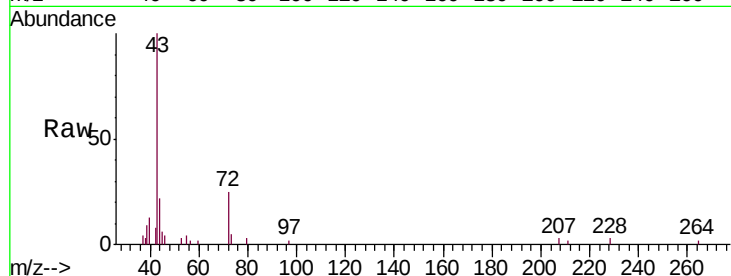




#34
2-Butanone
Concen: 0.067 ppbv
RT: 5.26 min Scan# 770
Delta R.T. 0.00 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

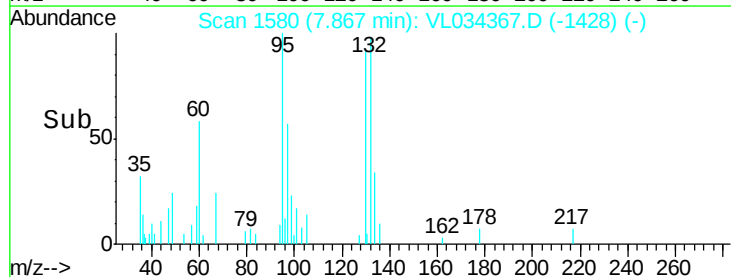
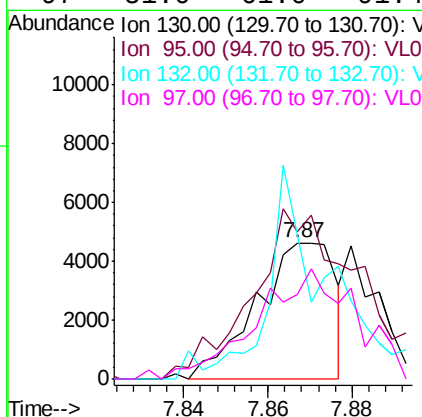
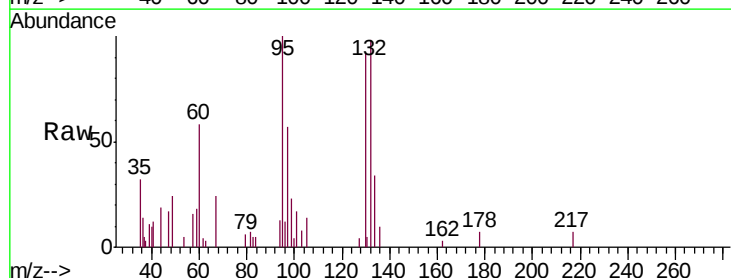
Instrument :
MSVOA_L
ClientSampleId :
VBLK

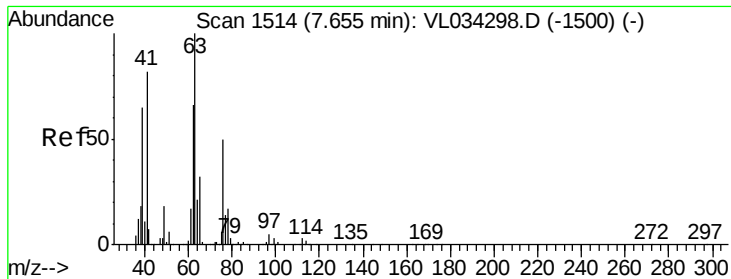
Tgt Ion: 43 Resp: 9343
Ion Ratio Lower Upper
43 100
72 31.7 16.3 24.5#



#38
Trichloroethene
Concen: 0.090 ppbv
RT: 7.87 min Scan# 1580
Delta R.T. -0.01 min
Lab File: VL034367.D
Acq: 25 Oct 2019 16:59

Tgt Ion: 130 Resp: 5972
Ion Ratio Lower Upper
130 100
95 94.5 88.6 132.8
132 80.7 71.2 106.8
97 51.0 61.0 91.4#

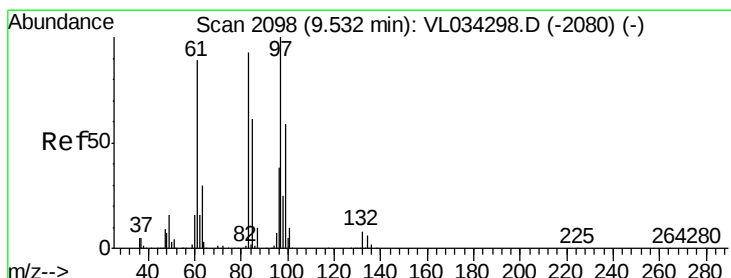
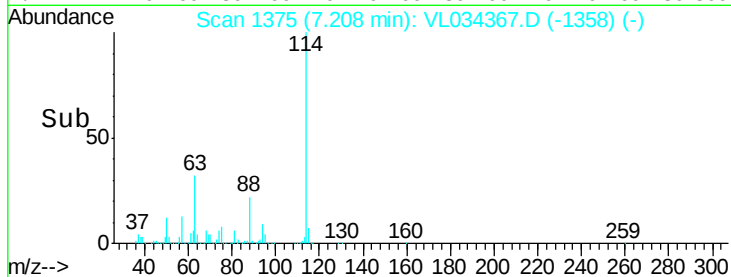
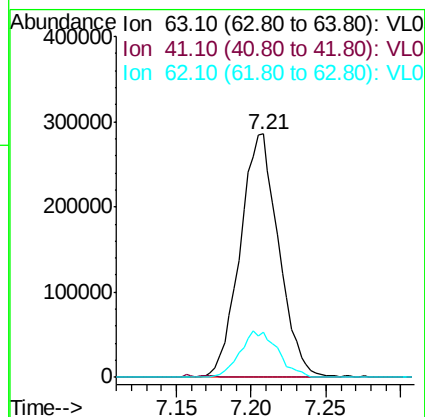
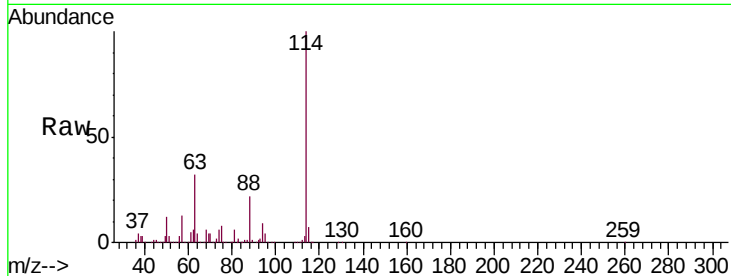




#39
 1,2-Dichloropropane
 Concen: 7.232 ppbv
 RT: 7.21 min Scan# 1375
 Delta R.T. -0.45 min
 Lab File: VL034367.D
 Acq: 25 Oct 2019 16:59

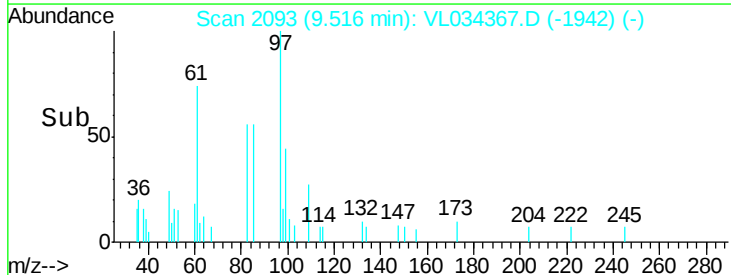
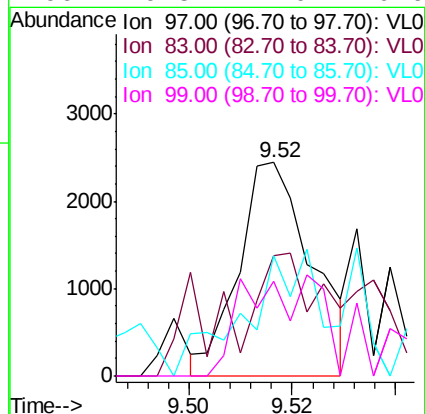
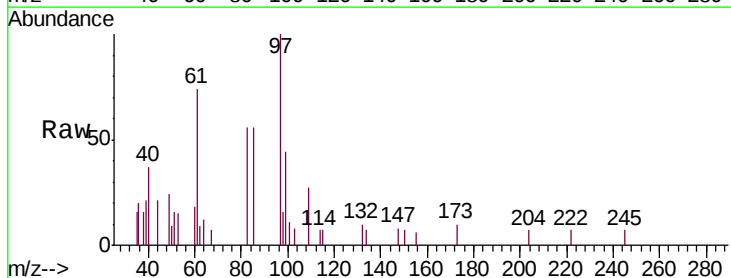
Instrument :
 MSVOA_L
 ClientSampleId :
 VBLK

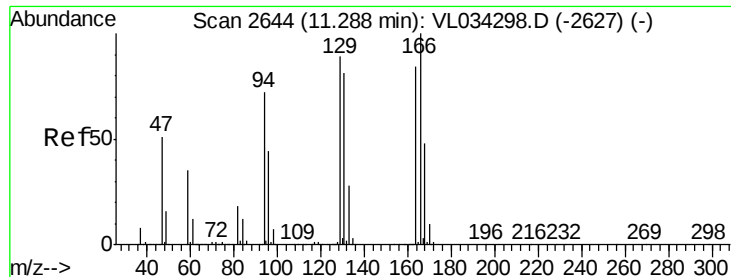
Tgt Ion: 63 Resp: 512437
 Ion Ratio Lower Upper
 63 100
 41 0.0 65.6 98.4#
 62 18.8 53.0 79.6#



#47
 1,1,2-Trichloroethane
 Concen: 0.033 ppbv
 RT: 9.52 min Scan# 2093
 Delta R.T. -0.02 min
 Lab File: VL034367.D
 Acq: 25 Oct 2019 16:59

Tgt Ion: 97 Resp: 2398
 Ion Ratio Lower Upper
 97 100
 83 27.3 74.2 111.2#
 85 40.6 48.6 73.0#
 99 49.5 47.0 70.6





#52

Tetrachloroethene

Concen: 4.959 ppbv

RT: 11.28 min Scan# 2640

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

VBLK

Tgt Ion:164 Resp: 319884

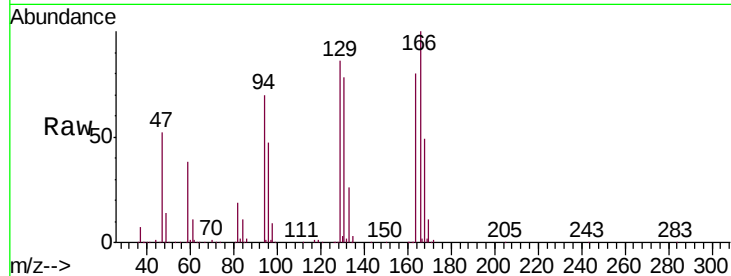
Ion Ratio Lower Upper

164 100

166 124.9 95.3 142.9

129 107.4 84.5 126.7

131 98.4 77.3 115.9

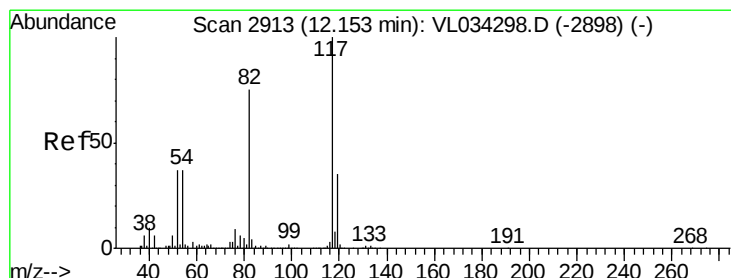
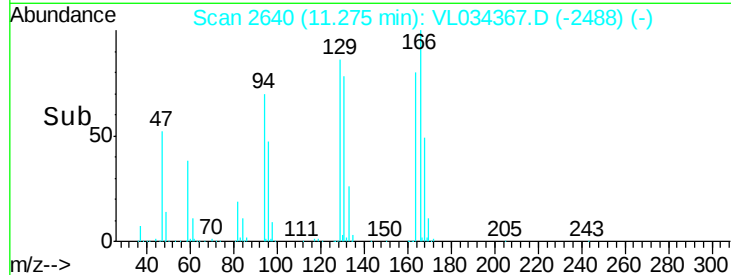
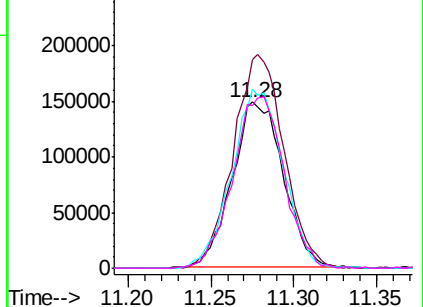


Abundance Ion 163.90 (163.60 to 164.60): V

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



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.14 min Scan# 2910

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

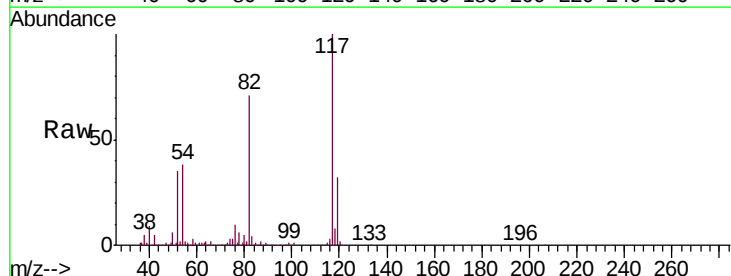
Tgt Ion:117 Resp: 1711260

Ion Ratio Lower Upper

117 100

82 72.7 55.5 83.3

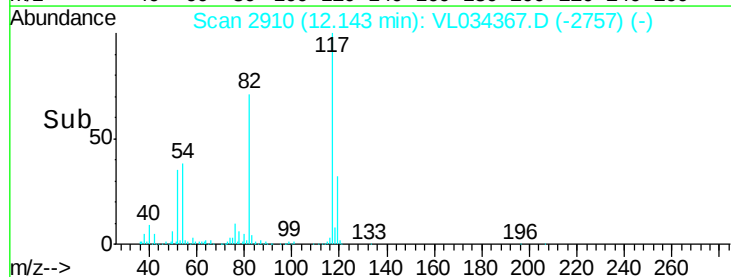
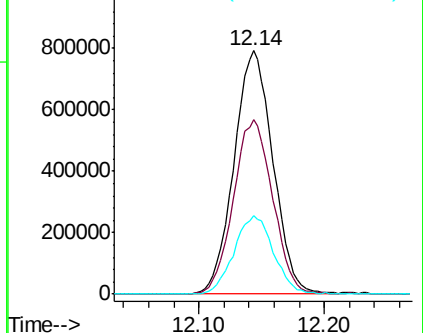
119 32.7 26.5 39.7

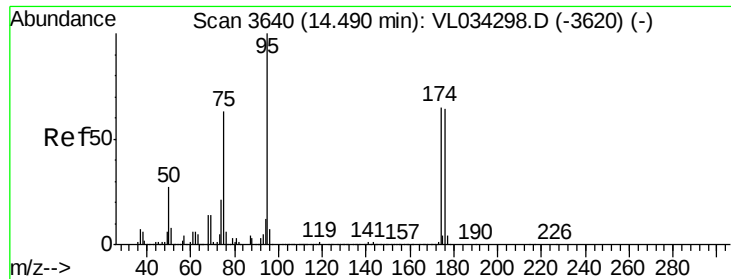


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.172 ppbv

RT: 14.48 min Scan# 3637

Delta R.T. -0.01 min

Lab File: VL034367.D

Acq: 25 Oct 2019 16:59

Instrument :

MSVOA_L

ClientSampleId :

VBLK

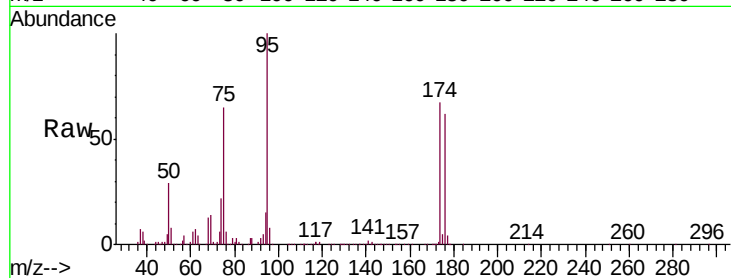
Tgt Ion: 95 Resp: 1474325

Ion Ratio Lower Upper

95 100

174 65.3 52.6 78.8

175 4.7 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

