

Data File : VL034585.D
Acq On : 4 Feb 2020 18:34
Operator : SY/AP
Sample : L1357-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-2

Quant Time: Feb 05 05:45:05 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL013020AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020
QLast Update : Thu Jan 30 17:16:44 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	958863	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	1938274	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	1836582	10.00	ppbv	0.00

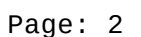
System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.46 95 1630589 10.51 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 105.10%

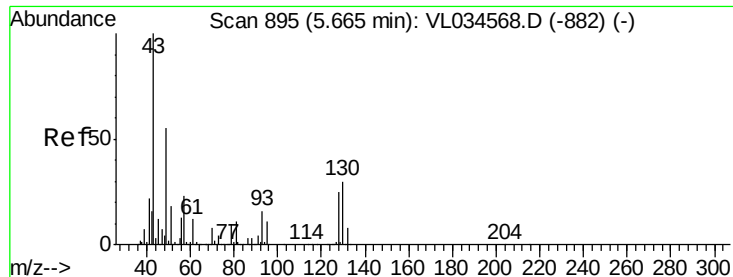
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	43440	0.206	ppbv	100
3) Chlorodifluoromethane	2.93	51	124466	1.074	ppbv #	72
4) Chloromethane	3.11	50	29468	0.416	ppbv	100
9) Propene	3.17	41	94619	2.097	ppbv	92
10) Heptane	8.14	43	6640	0.058	ppbv #	1
11) Trichlorofluoromethane	3.93	101	46260	0.241	ppbv	89
13) Ethanol	3.59	45	3201507	264.949	ppbv	98
15) Acetone	3.82	43	1047940	7.436	ppbv	99
16) 1,3-Butadiene	3.32	39	45280	0.809	ppbv #	20
17) tert-Butyl alcohol	3.96	59	310410	2.995	ppbv	97
19) Isopropyl Alcohol	3.96	45	7103024	86.371	ppbv #	98
20) Methylene Chloride	4.32	84	43649	0.813	ppbv #	94
21) Allyl Chloride	4.11	41	45497	0.520	ppbv #	62
23) Vinyl Acetate	5.05	43	46327	0.288	ppbv #	74
25) Ethyl Acetate	5.67	43	171018	0.750	ppbv	97
26) Hexane	5.68	57	85090	0.890	ppbv	87
34) 2-Butanone	5.24	43	169921	1.207	ppbv	96
36) Benzene	6.90	78	64432	0.374	ppbv	97
39) 1,2-Dichloropropane	7.19	63	560041	7.838	ppbv #	19
41) Tetrahydrofuran	6.05	42	8445	0.115	ppbv #	36
44) 2,2,4-Trimethylpentane	7.88	57	77510	0.248	ppbv #	71
52) Tetrachloroethene	11.25	164	2180	0.031	ppbv #	70
53) Toluene	9.83	91	356388	1.882	ppbv	99
58) Ethyl Benzene	12.74	91	14892	0.061	ppbv	95

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration

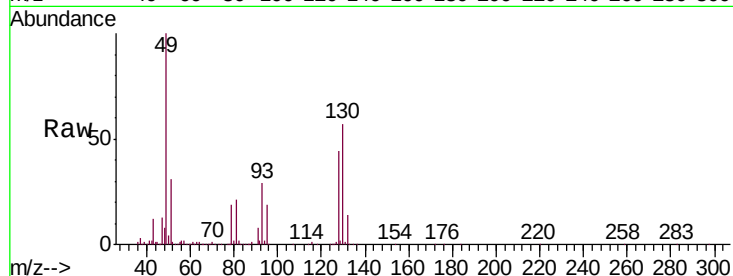




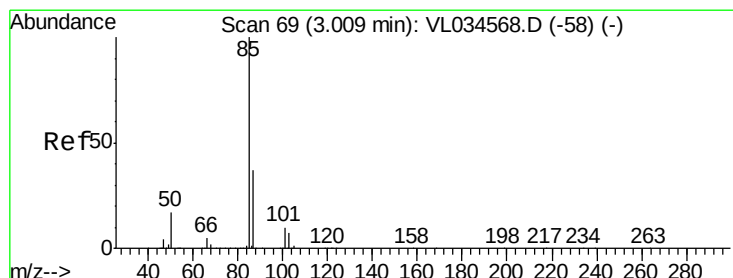
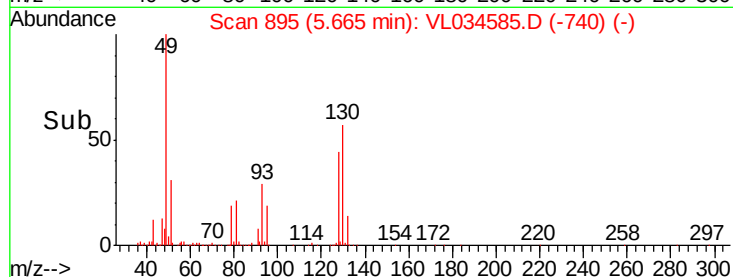
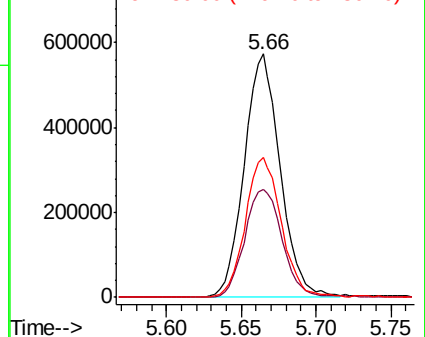
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.66 min Scan# 895
 Delta R.T. -0.00 min
 Lab File: VL034585.D
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Instrument :
 MSVOA_L
 ClientSampleID :
 IA-2

Tgt Ion: 49 Resp: 958863
 Ion Ratio Lower Upper
 49 100
 128 46.7 22.7 68.1
 130 57.6 28.6 85.8

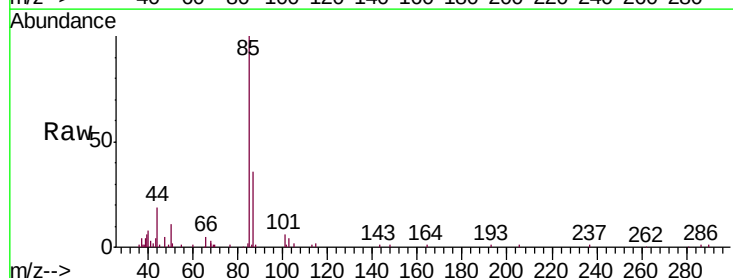


Abundance Ion 49.10 (48.80 to 49.80): VL0
 Ion 128.00 (127.70 to 128.70): VL0
 Ion 130.00 (129.70 to 130.70): VL0

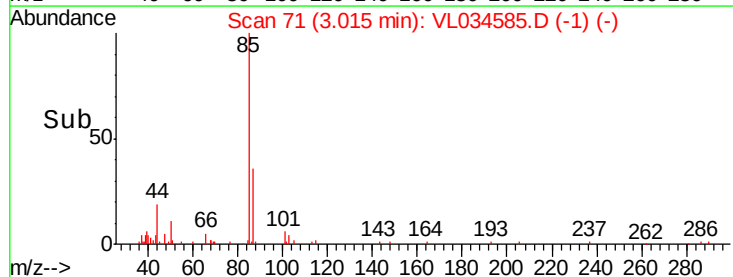
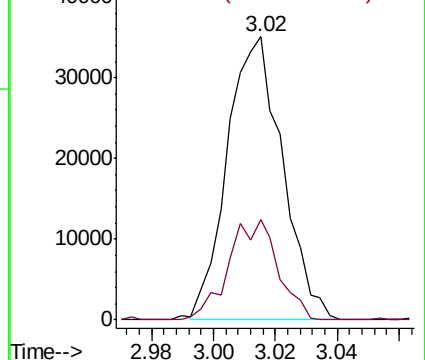


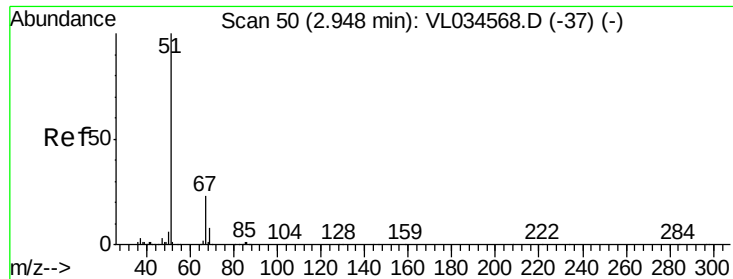
#2
 Dichlorodifluoromethane
 Concen: 0.206 ppbv
 RT: 3.02 min Scan# 71
 Delta R.T. 0.01 min
 Lab File: VL034585.D
 Acq: 4 Feb 2020 18:34

Tgt Ion: 85 Resp: 43440
 Ion Ratio Lower Upper
 85 100
 87 36.7 29.5 44.3



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

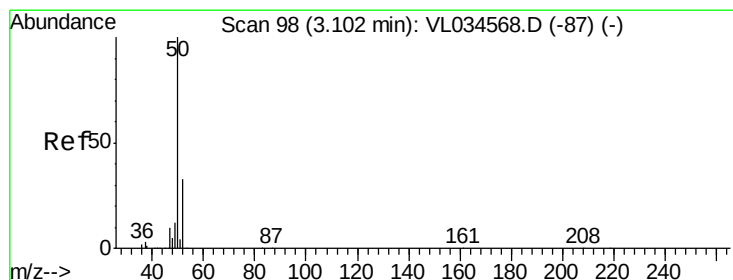
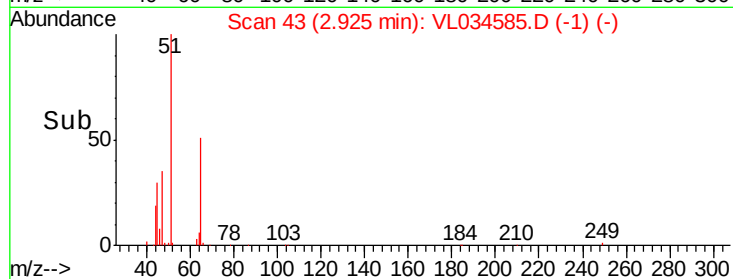
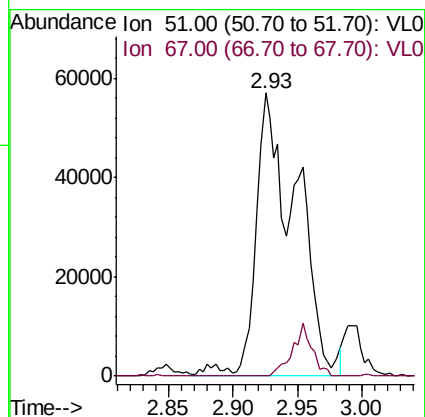
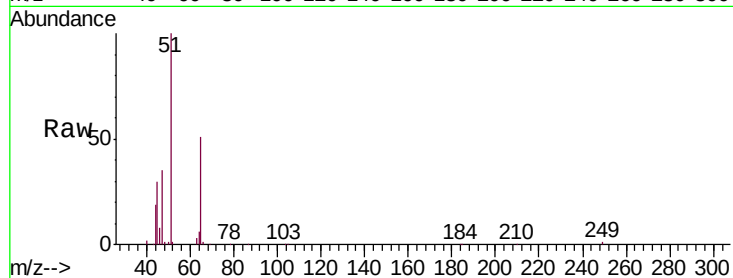




#3
Chlorodifluoromethane
Concen: 1.074 ppbv
RT: 2.93 min Scan# 43
Delta R.T. -0.02 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

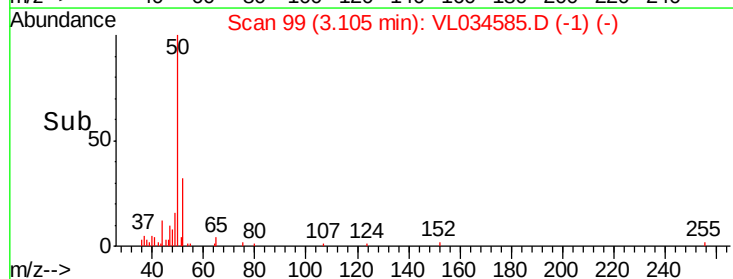
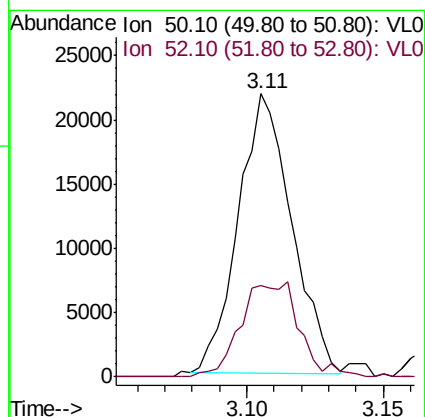
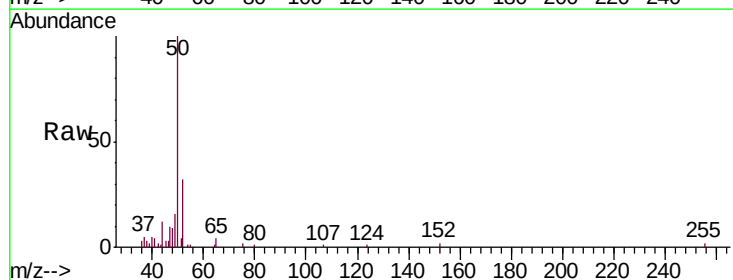
Instrument :
MSVOA_L
ClientSampleId :
IA-2

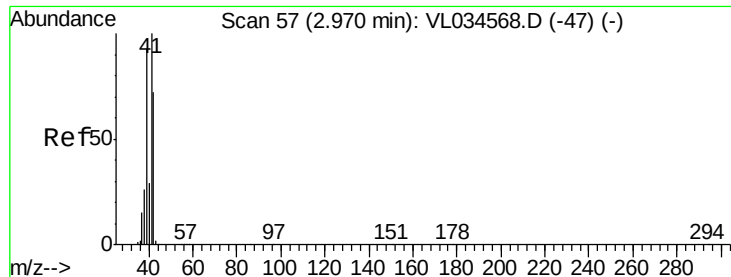
Tgt Ion: 51 Resp: 124466
Ion Ratio Lower Upper
51 100
67 9.1 17.8 26.8#



#4
Chloromethane
Concen: 0.416 ppbv
RT: 3.11 min Scan# 99
Delta R.T. 0.00 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

Tgt Ion: 50 Resp: 29468
Ion Ratio Lower Upper
50 100
52 33.1 26.6 39.8





#9

Propene

Concen: 2.097 ppbv

RT: 3.17 min Scan# 120

Delta R.T. 0.20 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

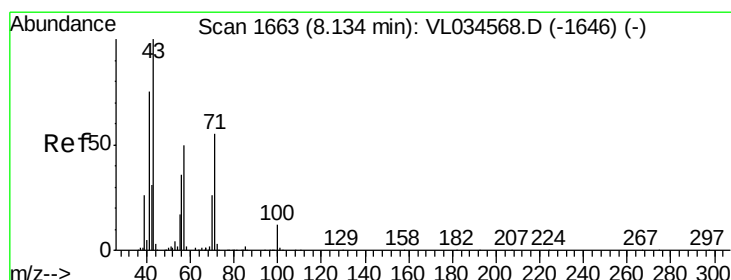
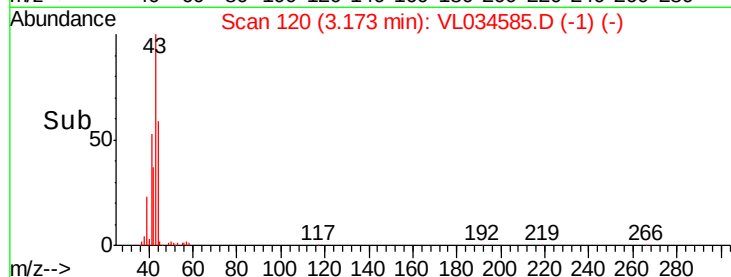
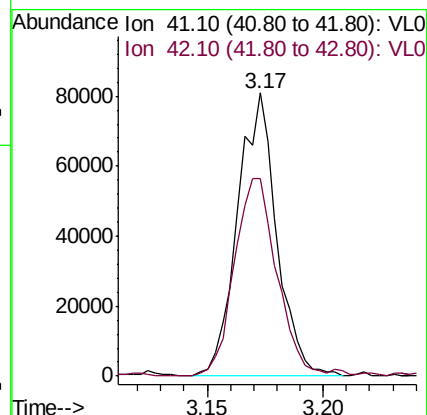
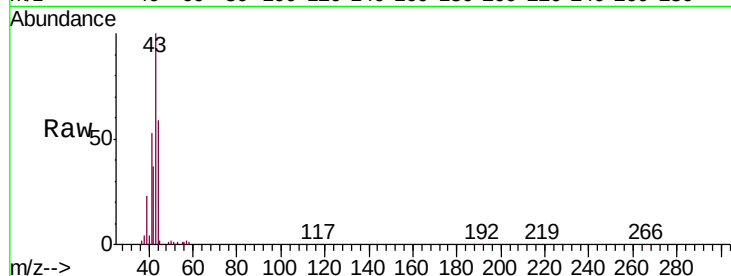
IA-2

Tgt Ion: 41 Resp: 94619

Ion Ratio Lower Upper

41 100

42 77.8 57.0 85.4



#10

Heptane

Concen: 0.058 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.00 min

Lab File: VL034585.D

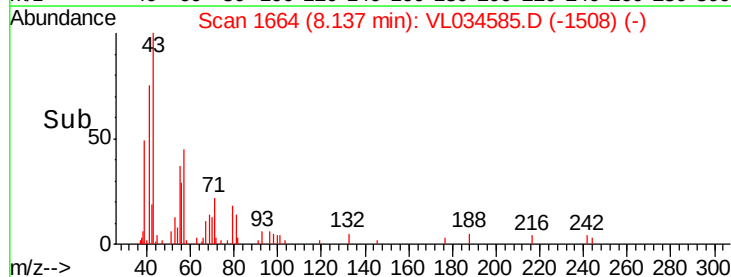
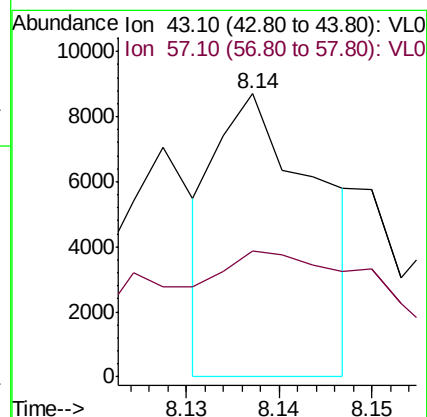
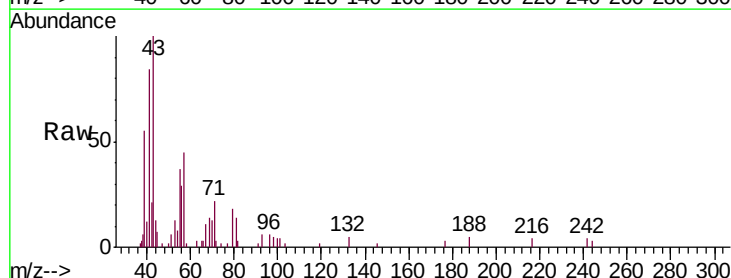
Acq: 4 Feb 2020 18:34

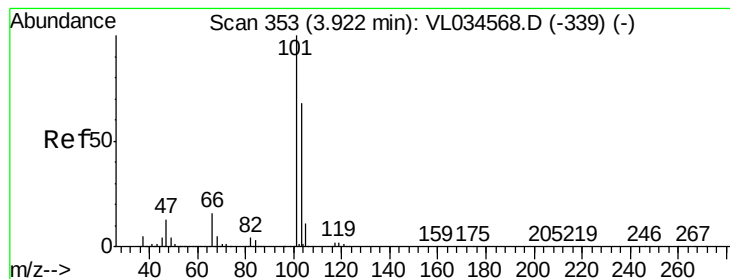
Tgt Ion: 43 Resp: 6640

Ion Ratio Lower Upper

43 100

57 132.7 41.2 61.8#





#11

Trichlorofluoromethane

Concen: 0.241 ppbv

RT: 3.93 min Scan# 355

Delta R.T. 0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

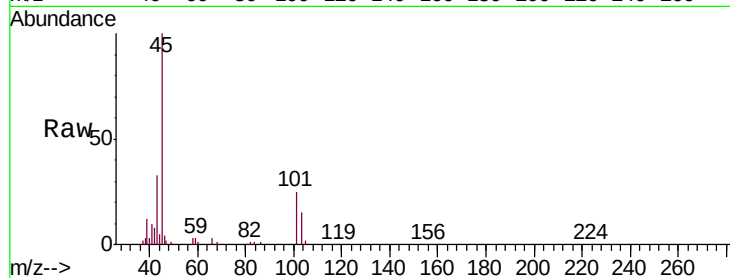
IA-2

Tgt Ion:101 Resp: 46260

Ion Ratio Lower Upper

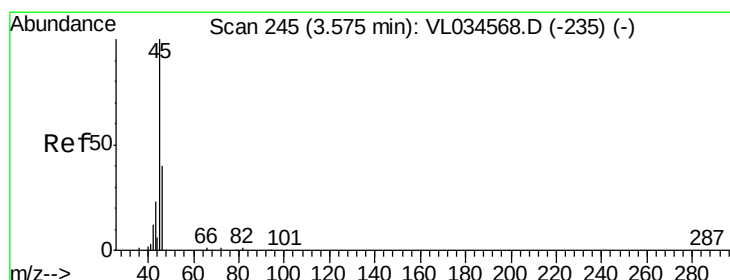
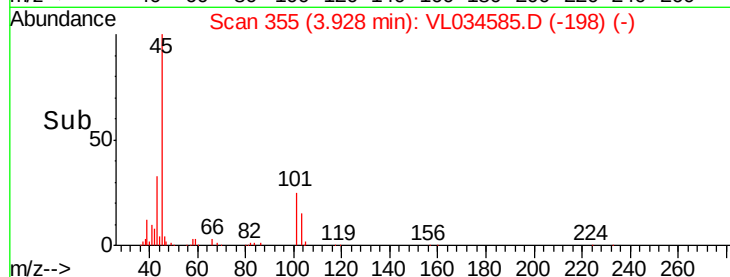
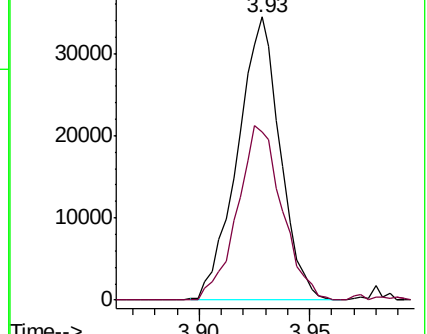
101 100

103 59.2 54.4 81.6



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 264.949 ppbv

RT: 3.59 min Scan# 249

Delta R.T. 0.01 min

Lab File: VL034585.D

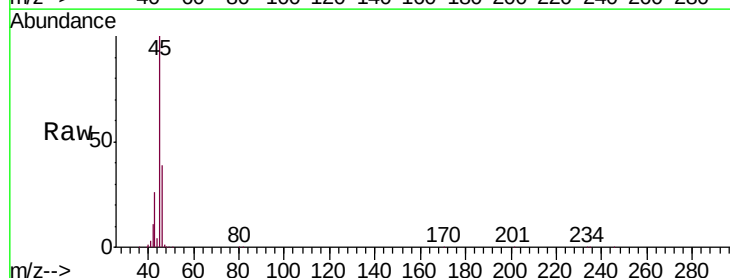
Acq: 4 Feb 2020 18:34

Tgt Ion: 45 Resp: 3201507

Ion Ratio Lower Upper

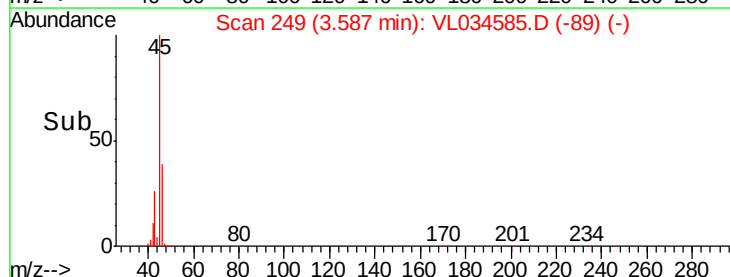
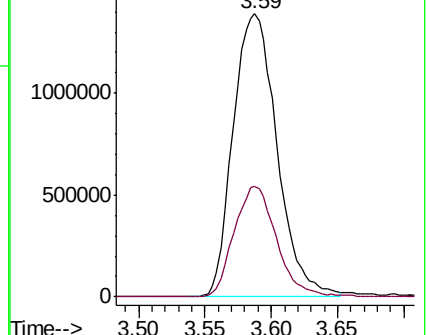
45 100

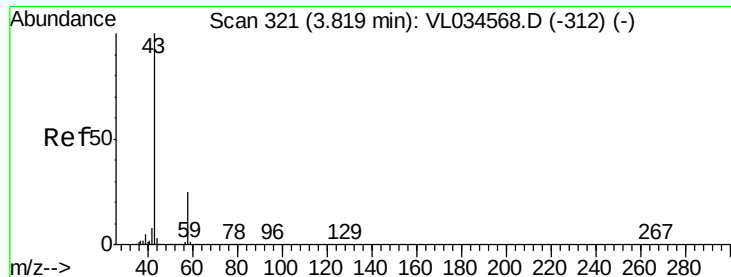
46 38.0 14.8 59.2



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 7.436 ppbv

RT: 3.82 min Scan# 322

Delta R.T. 0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

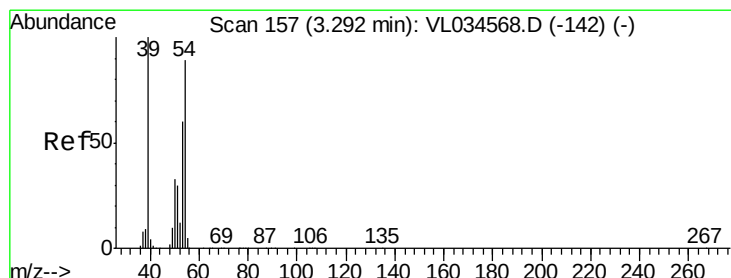
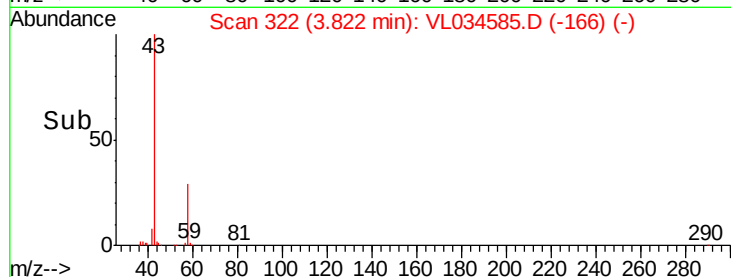
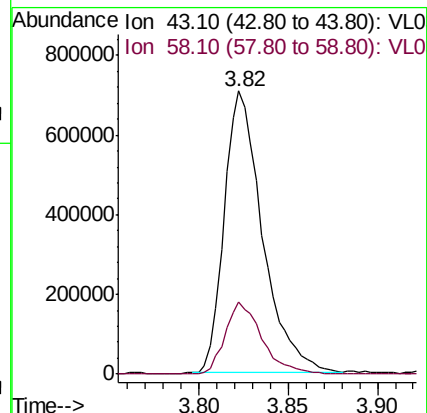
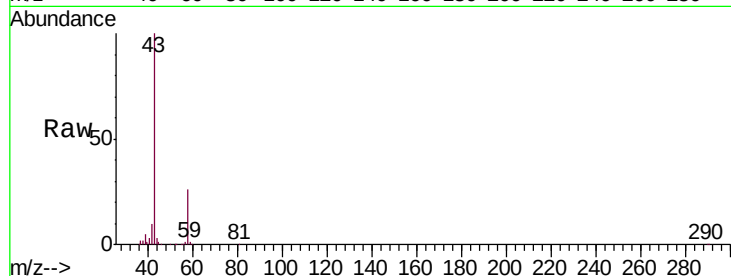
IA-2

Tgt Ion: 43 Resp: 1047940

Ion Ratio Lower Upper

43 100

58 25.0 20.3 30.5



#16

1,3-Butadiene

Concen: 0.809 ppbv

RT: 3.32 min Scan# 167

Delta R.T. 0.03 min

Lab File: VL034585.D

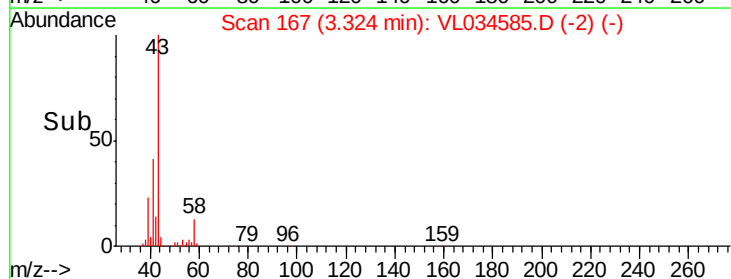
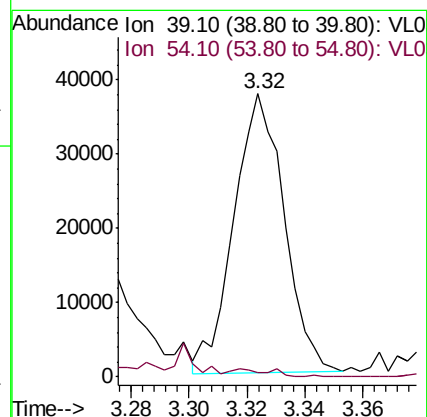
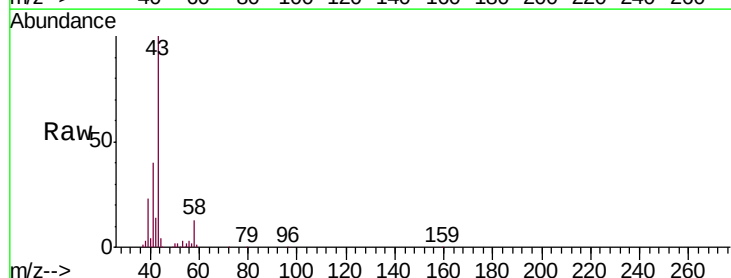
Acq: 4 Feb 2020 18:34

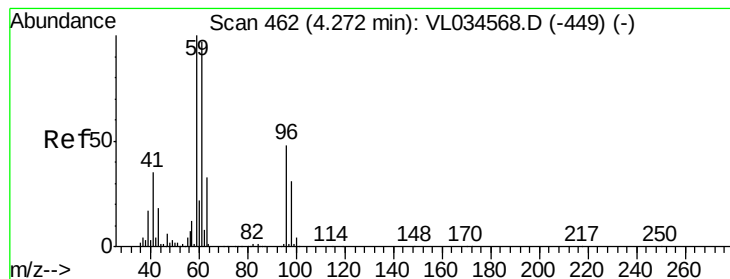
Tgt Ion: 39 Resp: 45280

Ion Ratio Lower Upper

39 100

54 11.4 66.7 100.1#



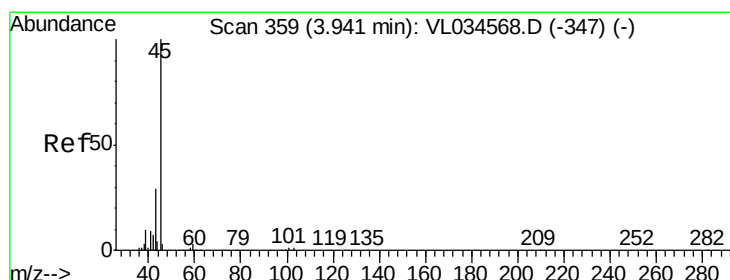
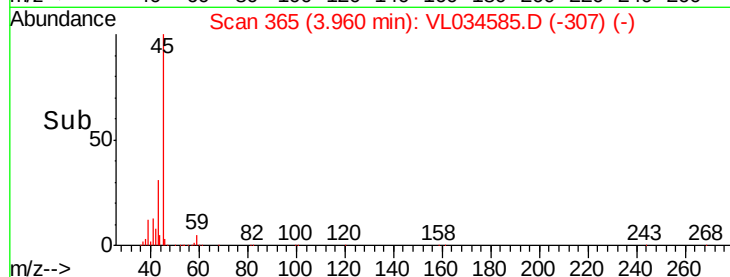
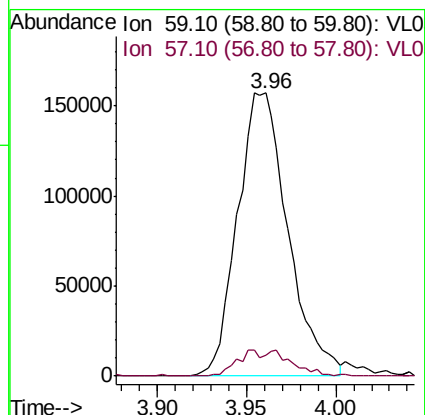
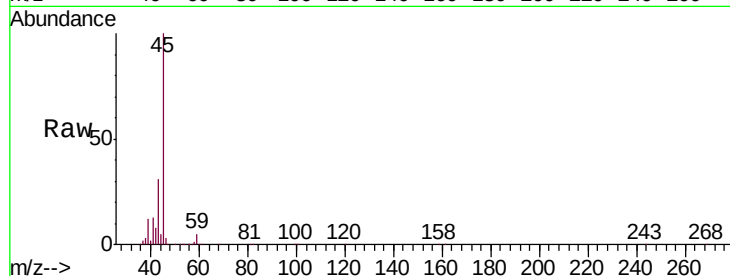


#17

tert-Butyl alcohol
Concen: 2.995 ppbv
RT: 3.96 min Scan# 365
Delta R.T. -0.31 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

Instrument :
MSVOA_L
ClientSampled :
IA-2

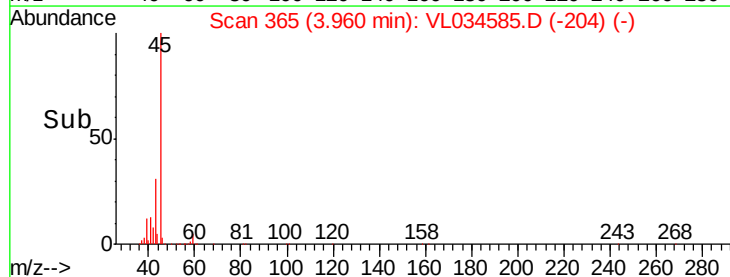
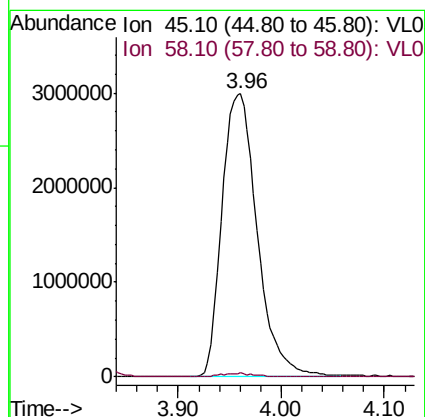
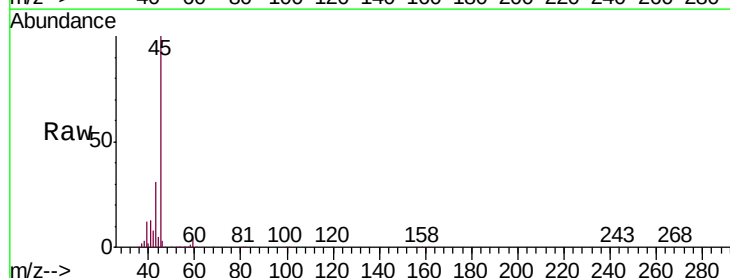
Tgt Ion: 59 Resp: 310410
Ion Ratio Lower Upper
59 100
57 9.8 8.7 13.1

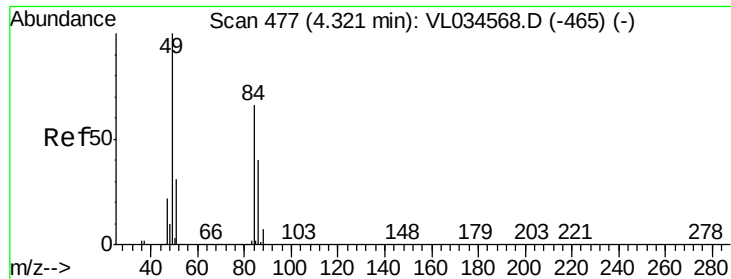


#19

Isopropyl Alcohol
Concen: 86.371 ppbv
RT: 3.96 min Scan# 365
Delta R.T. 0.02 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

Tgt Ion: 45 Resp: 7103024
Ion Ratio Lower Upper
45 100
58 1.3 1.7 2.5#

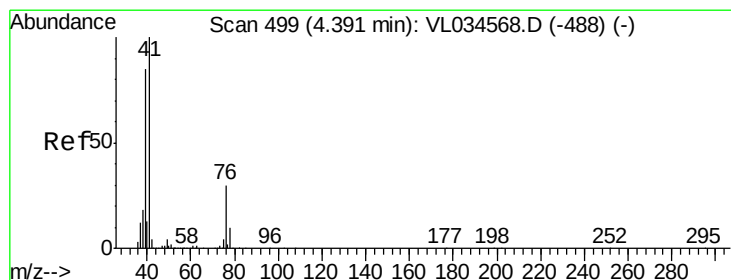
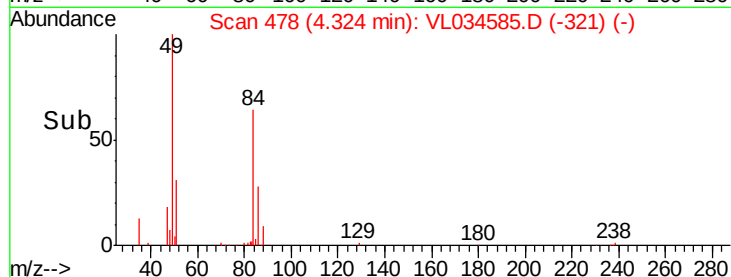
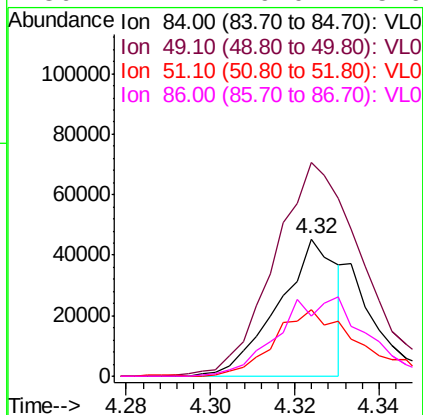
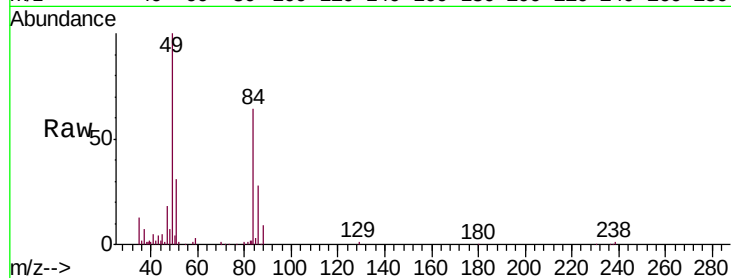




#20
Methylene Chloride
Concen: 0.813 ppbv
RT: 4.32 min Scan# 478
Delta R.T. 0.00 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

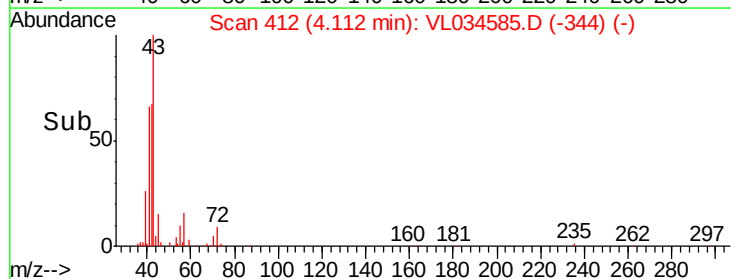
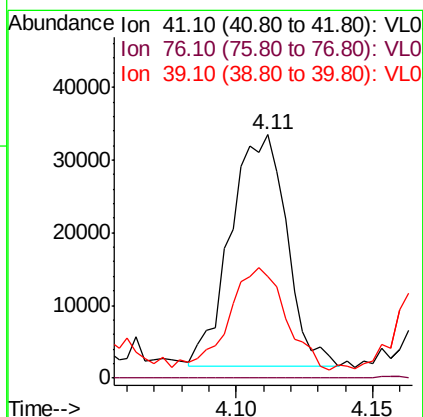
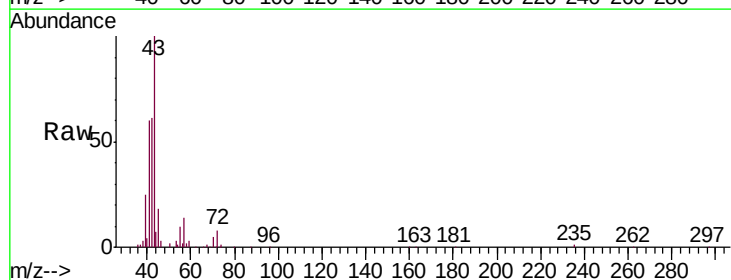
Instrument :
MSVOA_L
ClientSampleId :
IA-2

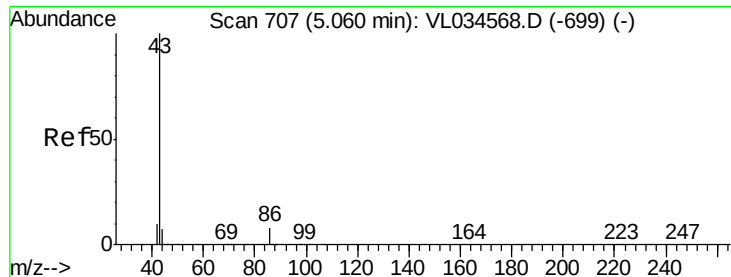
Tgt Ion:	84	Resp:	43649
Ion	Ratio	Lower	Upper
84	100		
49	154.0	122.4	183.6
51	48.9	38.6	57.8
86	44.1	49.0	73.6#



#21
Allyl Chloride
Concen: 0.520 ppbv
RT: 4.11 min Scan# 412
Delta R.T. -0.28 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

Tgt Ion:	41	Resp:	45497
Ion	Ratio	Lower	Upper
41	100		
76	0.3	24.2	36.2#
39	56.3	68.3	102.5#





#23

Vinyl Acetate

Concen: 0.288 ppbv

RT: 5.05 min Scan# 705

Delta R.T. -0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleID :

IA-2

Tgt Ion: 43 Resp: 46327

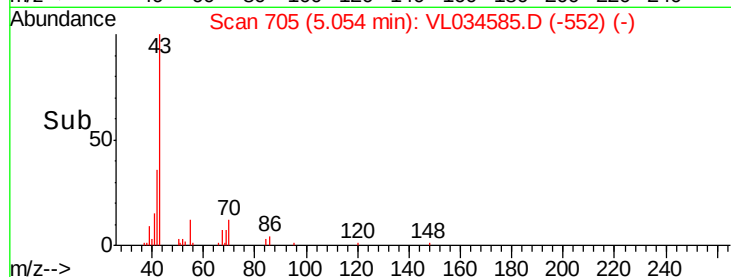
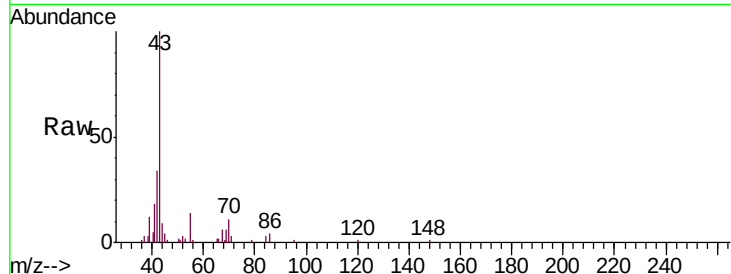
Ion Ratio Lower Upper

43 100

86 4.3 5.9 8.9#

42 27.5 8.8 13.2#

44 1.5 5.0 7.6#

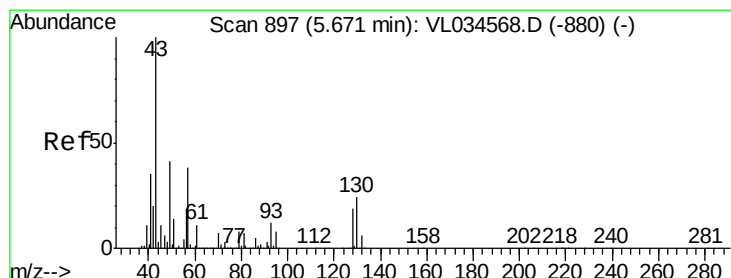
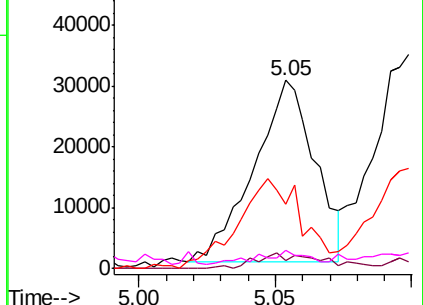


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.750 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Tgt Ion: 43 Resp: 171018

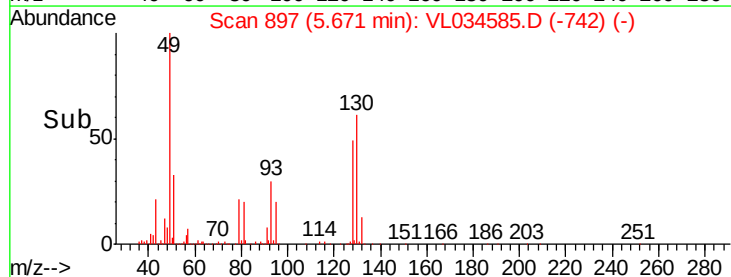
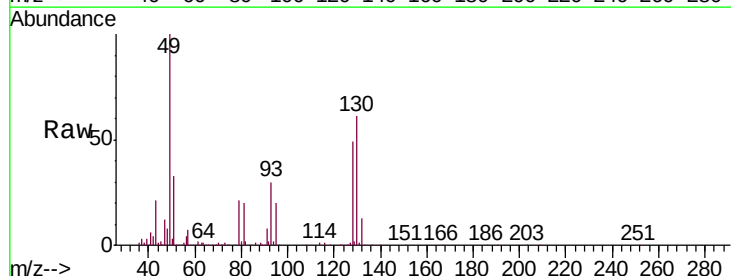
Ion Ratio Lower Upper

43 100

45 11.9 8.5 12.7

61 8.4 7.8 11.6

70 6.7 5.8 8.8

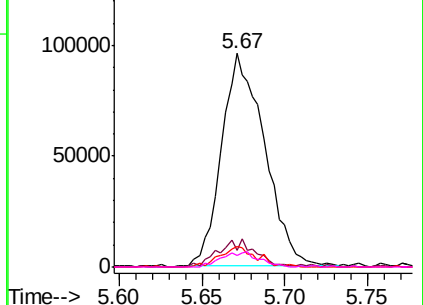


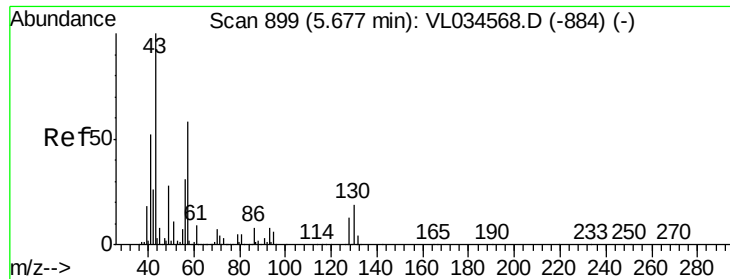
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 0.890 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

IA-2

Tgt Ion: 57 Resp: 85090

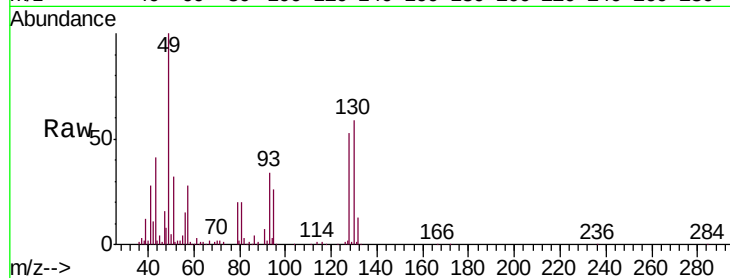
Ion Ratio Lower Upper

57 100

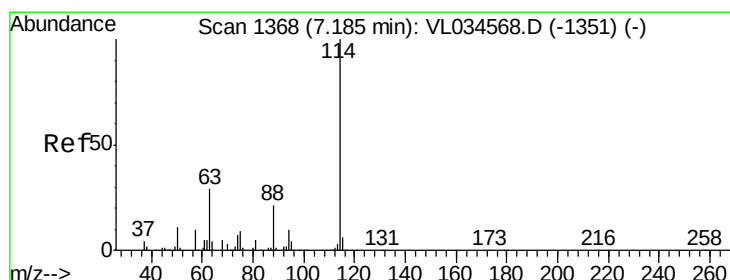
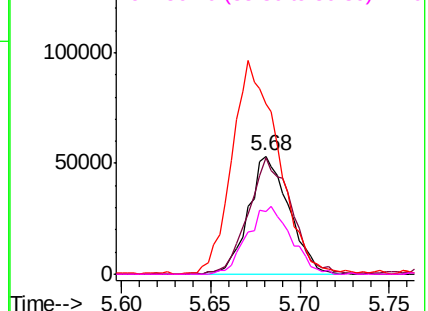
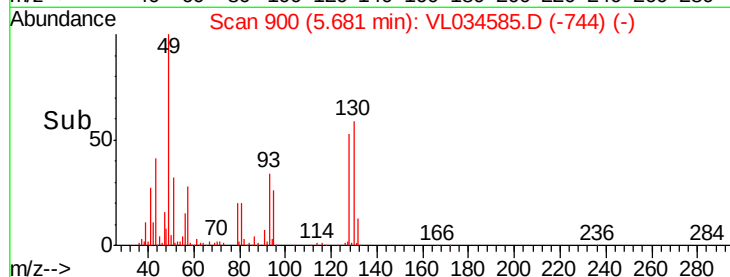
41 104.5 76.2 114.2

43 211.6 189.9 284.9

56 61.8 43.6 65.4



Abundance Ion 57.10 (56.80 to 57.80): VL0
150000
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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

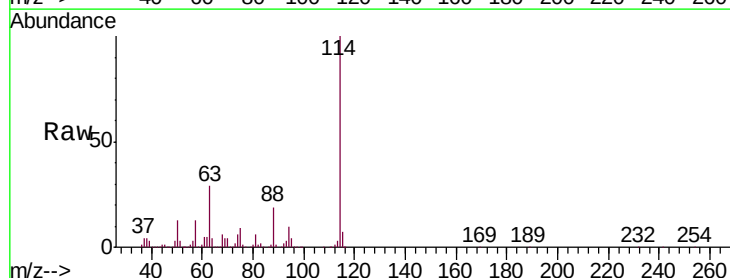
Tgt Ion:114 Resp: 1938274

Ion Ratio Lower Upper

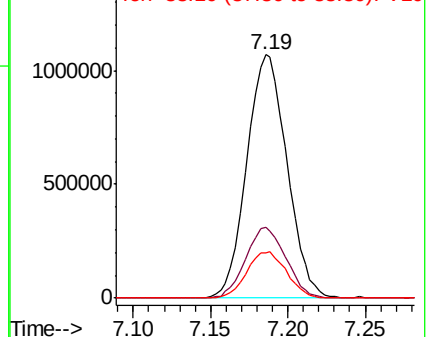
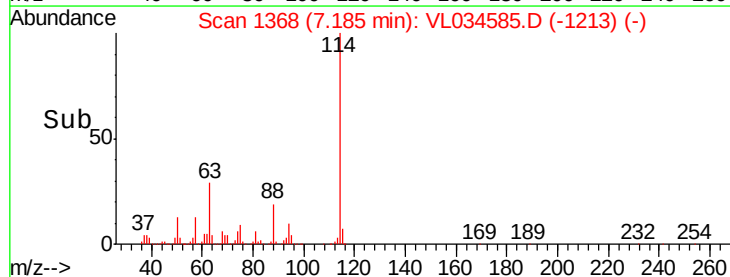
114 100

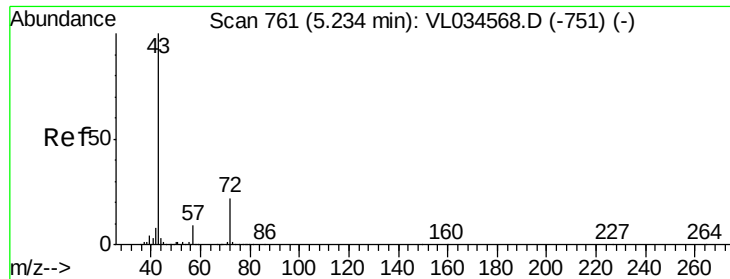
63 29.2 24.1 36.1

88 19.0 15.9 23.9



Abundance Ion 114.10 (113.80 to 114.80): V
1000000
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0

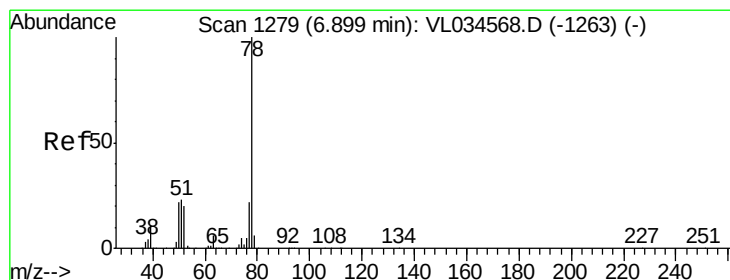
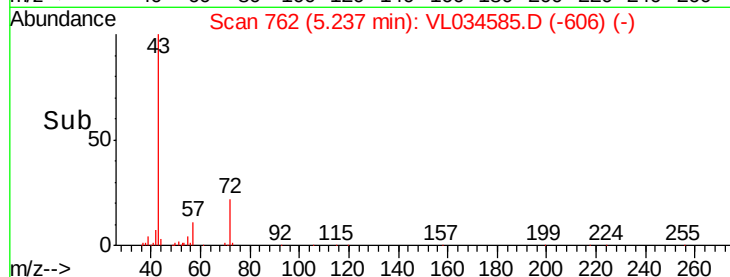
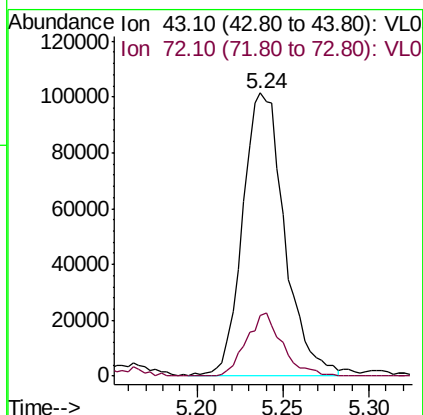
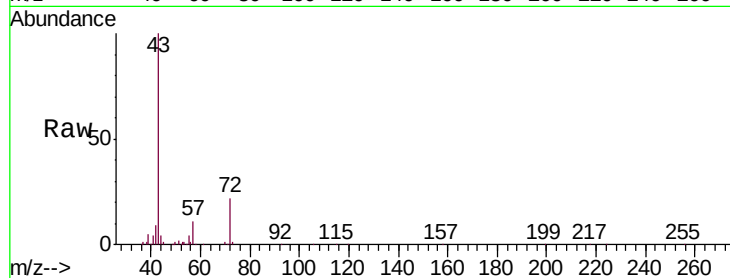




#34
2-Butanone
Concen: 1.207 ppbv
RT: 5.24 min Scan# 762
Delta R.T. 0.00 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

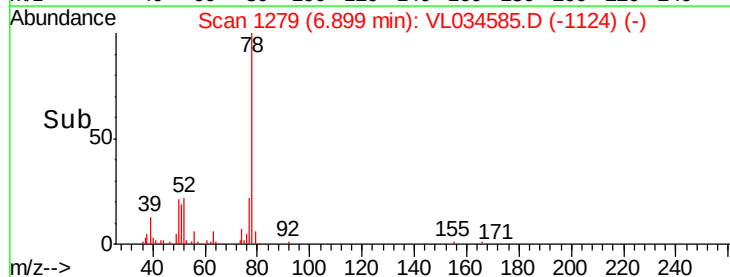
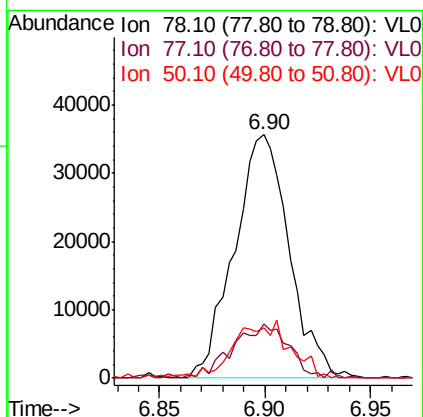
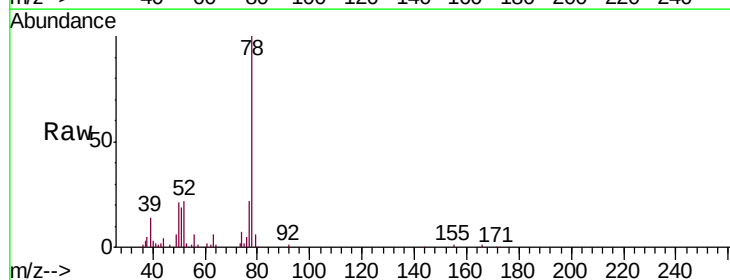
Instrument :
MSVOA_L
ClientSampleId :
IA-2

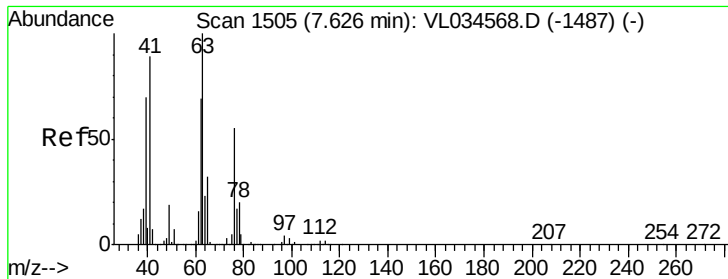
Tgt Ion: 43 Resp: 169921
Ion Ratio Lower Upper
43 100
72 19.6 17.2 25.8



#36
Benzene
Concen: 0.374 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. -0.00 min
Lab File: VL034585.D
Acq: 4 Feb 2020 18:34

Tgt Ion: 78 Resp: 64432
Ion Ratio Lower Upper
78 100
77 22.1 17.3 25.9
50 19.0 17.4 26.2





#39

1,2-Dichloropropane

Concen: 7.838 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.44 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

IA-2

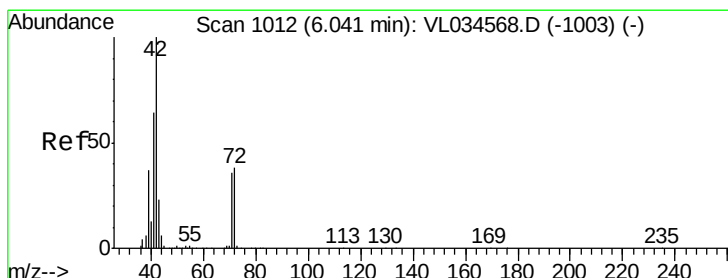
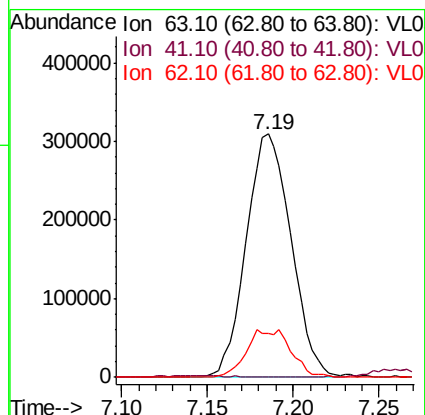
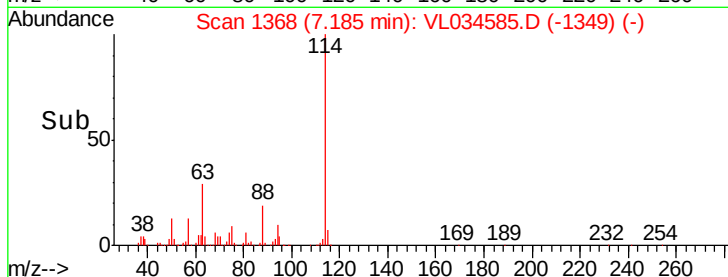
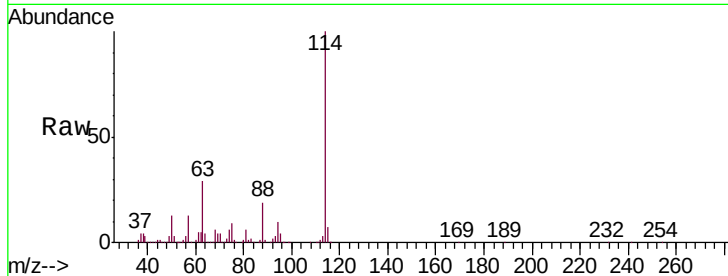
Tgt Ion: 63 Resp: 560041

Ion Ratio Lower Upper

63 100

41 0.2 71.0 106.4#

62 18.1 55.4 83.0#



#41

Tetrahydrofuran

Concen: 0.115 ppbv

RT: 6.05 min Scan# 1015

Delta R.T. 0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

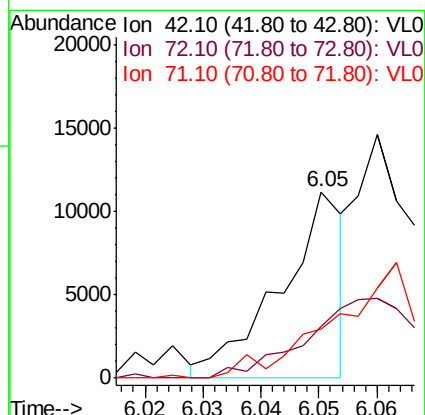
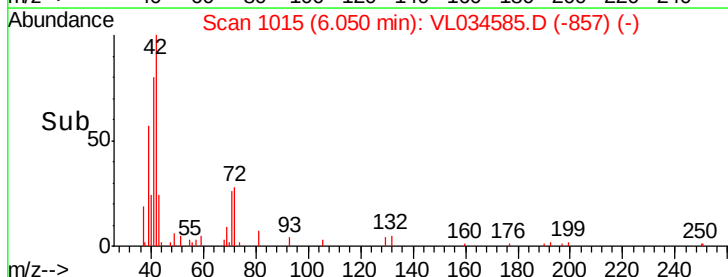
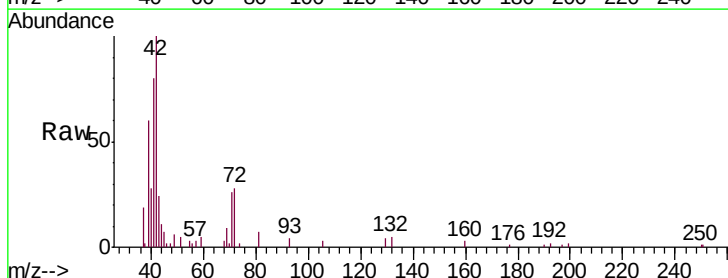
Tgt Ion: 42 Resp: 8445

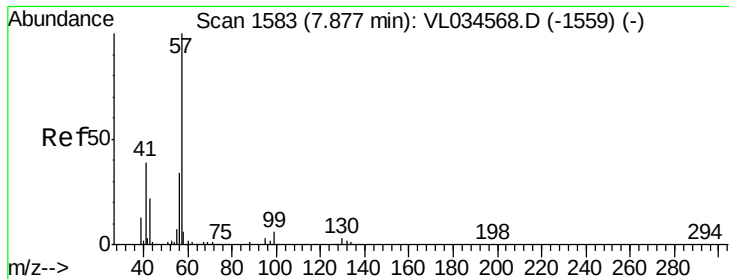
Ion Ratio Lower Upper

42 100

72 0.0 31.8 47.8#

71 0.0 30.2 45.4#





#44

2,2,4-Trimethylpentane

Concen: 0.248 ppbv

RT: 7.88 min Scan# 1585

Delta R.T. 0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampled :

IA-2

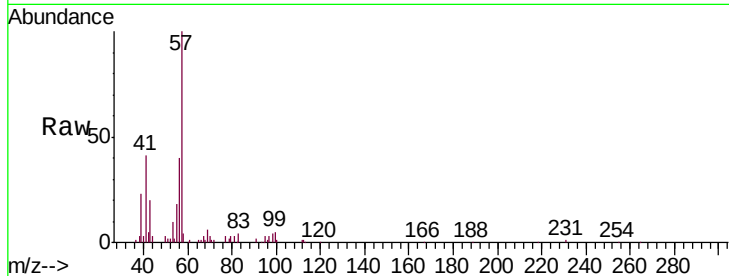
Tgt Ion: 57 Resp: 77510

Ion Ratio Lower Upper

57 100

41 58.9 28.9 43.3#

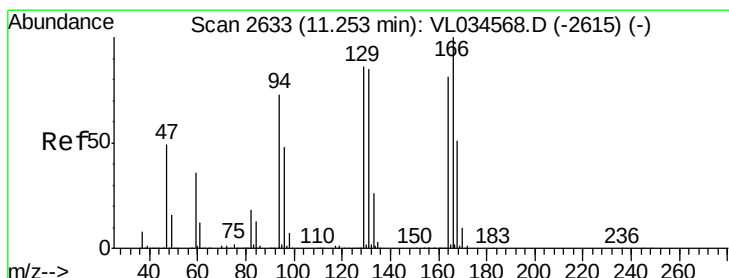
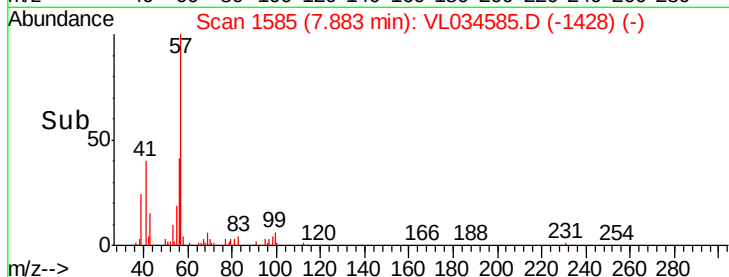
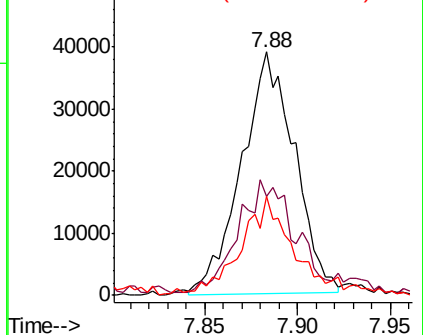
56 42.2 25.5 38.3#



Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 0.031 ppbv

RT: 11.25 min Scan# 2632

Delta R.T. -0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Tgt Ion:164 Resp: 2180

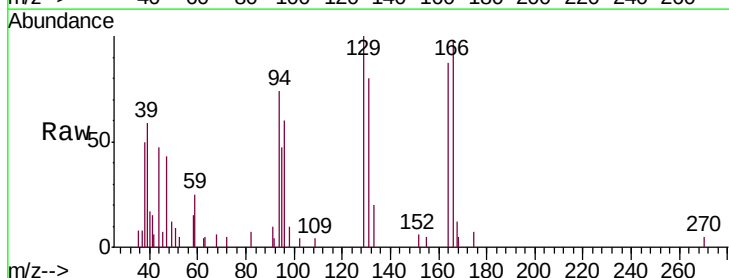
Ion Ratio Lower Upper

164 100

166 107.6 99.0 148.4

129 75.9 85.3 127.9#

131 55.9 84.2 126.2#

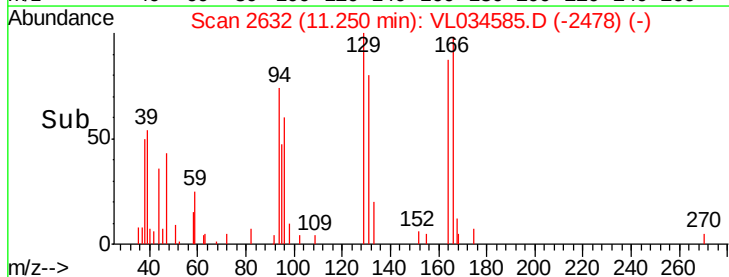
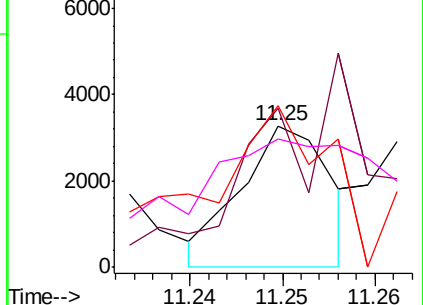


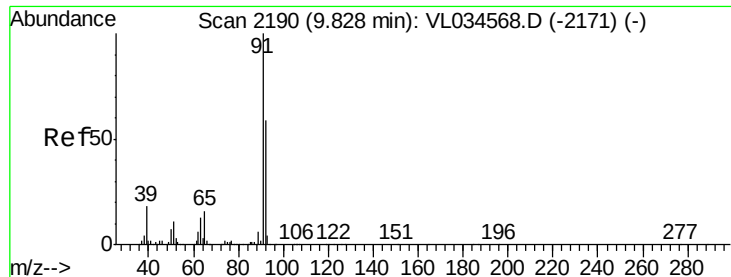
Abundance Ion 163.90 (163.60 to 164.60): V

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: 1.882 ppbv

RT: 9.83 min Scan# 2191

Delta R.T. 0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

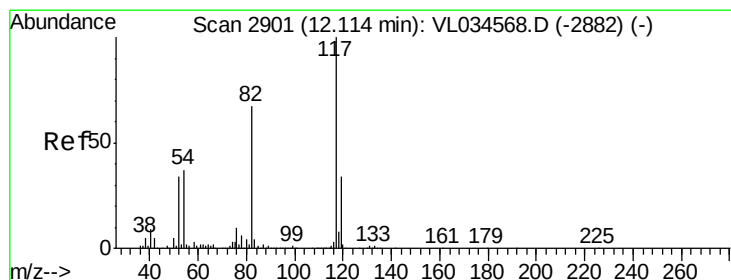
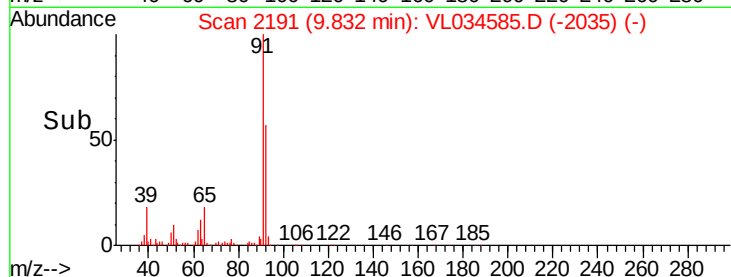
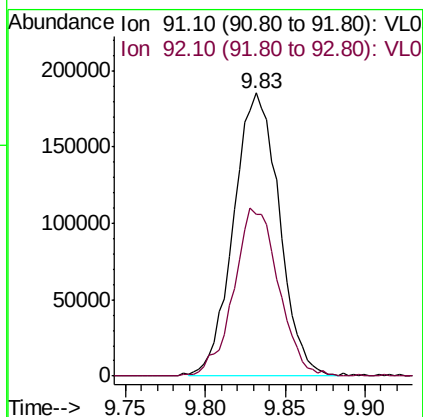
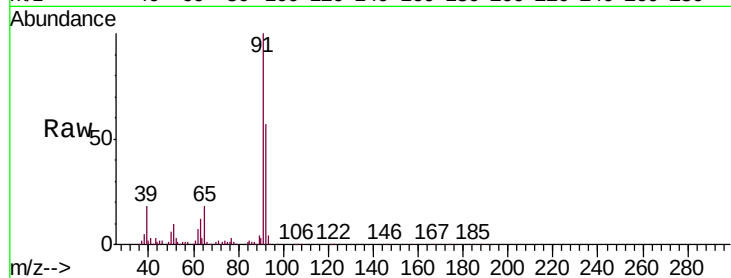
IA-2

Tgt Ion: 91 Resp: 356388

Ion Ratio Lower Upper

91 100

92 59.2 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2903

Delta R.T. 0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

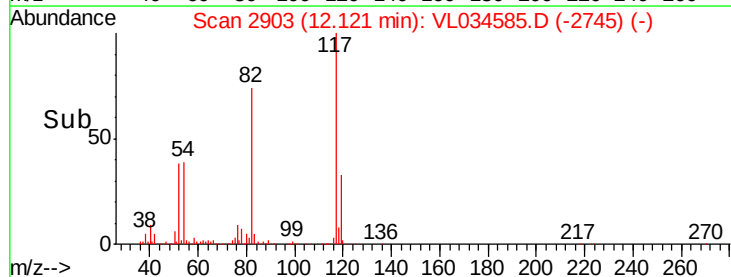
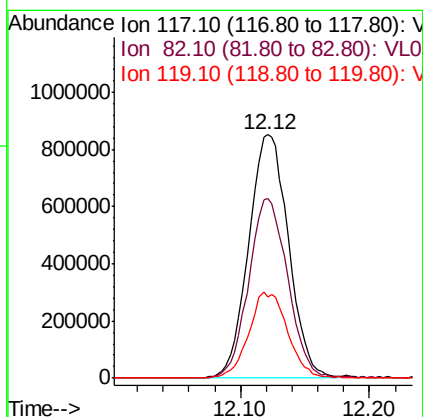
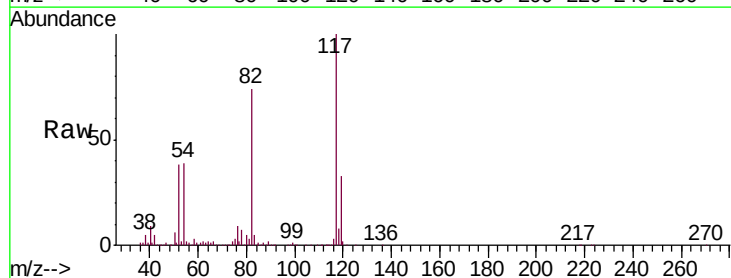
Tgt Ion: 117 Resp: 1836582

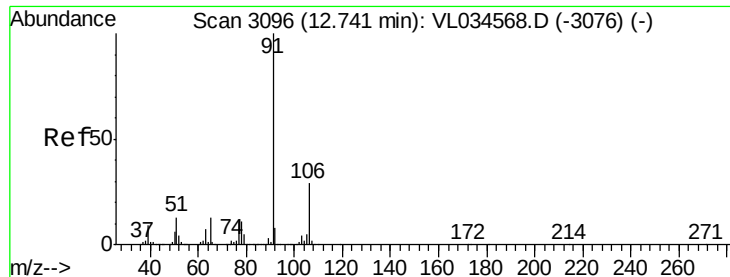
Ion Ratio Lower Upper

117 100

82 72.5 54.2 81.4

119 34.3 26.1 39.1





#58

Ethyl Benzene

Concen: 0.061 ppbv

RT: 12.74 min Scan# 3097

Delta R.T. 0.00 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

Instrument :

MSVOA_L

ClientSampleId :

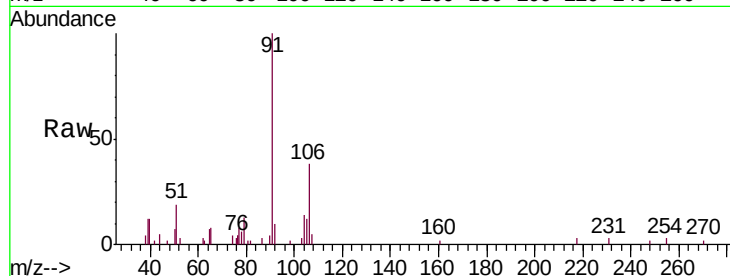
IA-2

Tgt Ion: 91 Resp: 14892

Ion Ratio Lower Upper

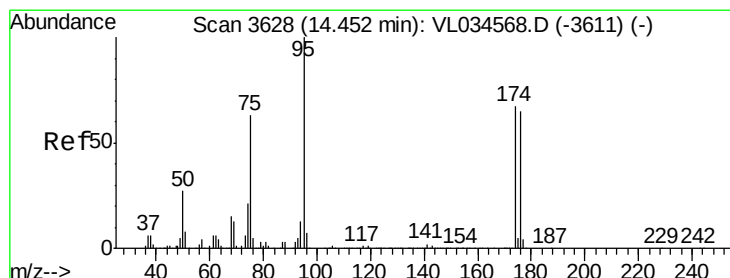
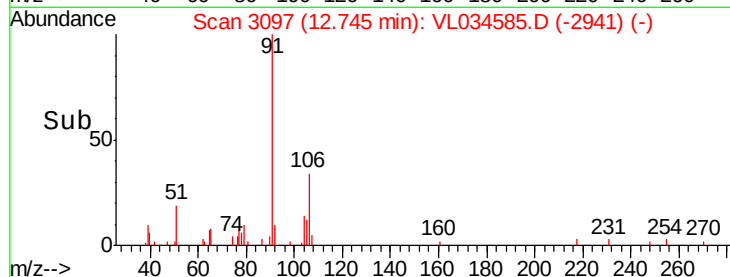
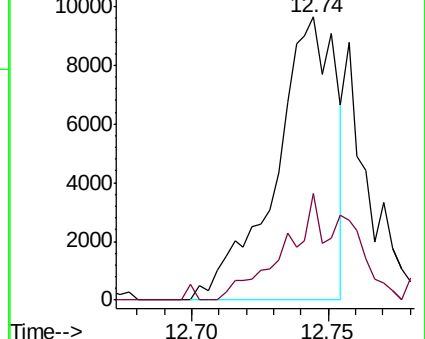
91 100

106 32.0 23.3 34.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.505 ppbv

RT: 14.46 min Scan# 3630

Delta R.T. 0.01 min

Lab File: VL034585.D

Acq: 4 Feb 2020 18:34

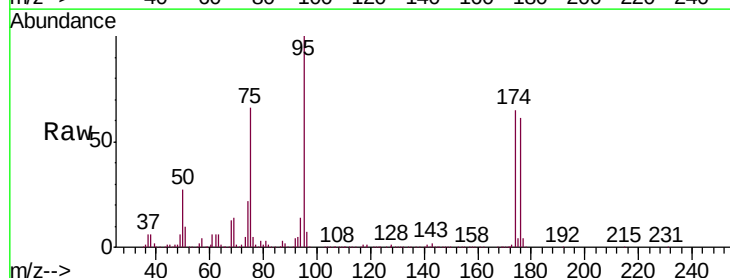
Tgt Ion: 95 Resp: 1630589

Ion Ratio Lower Upper

95 100

174 64.2 52.3 78.5

175 4.5 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

