

Data File : VL034654.D
Acq On : 19 Feb 2020 21:00
Operator : SY/AP
Sample : L1553-01DUP
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

Quant Time: Feb 20 06:51:19 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	5.65	49	814665	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.17	114	1737345	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	1696037	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.44 95 1507388 10.52 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 105.20%

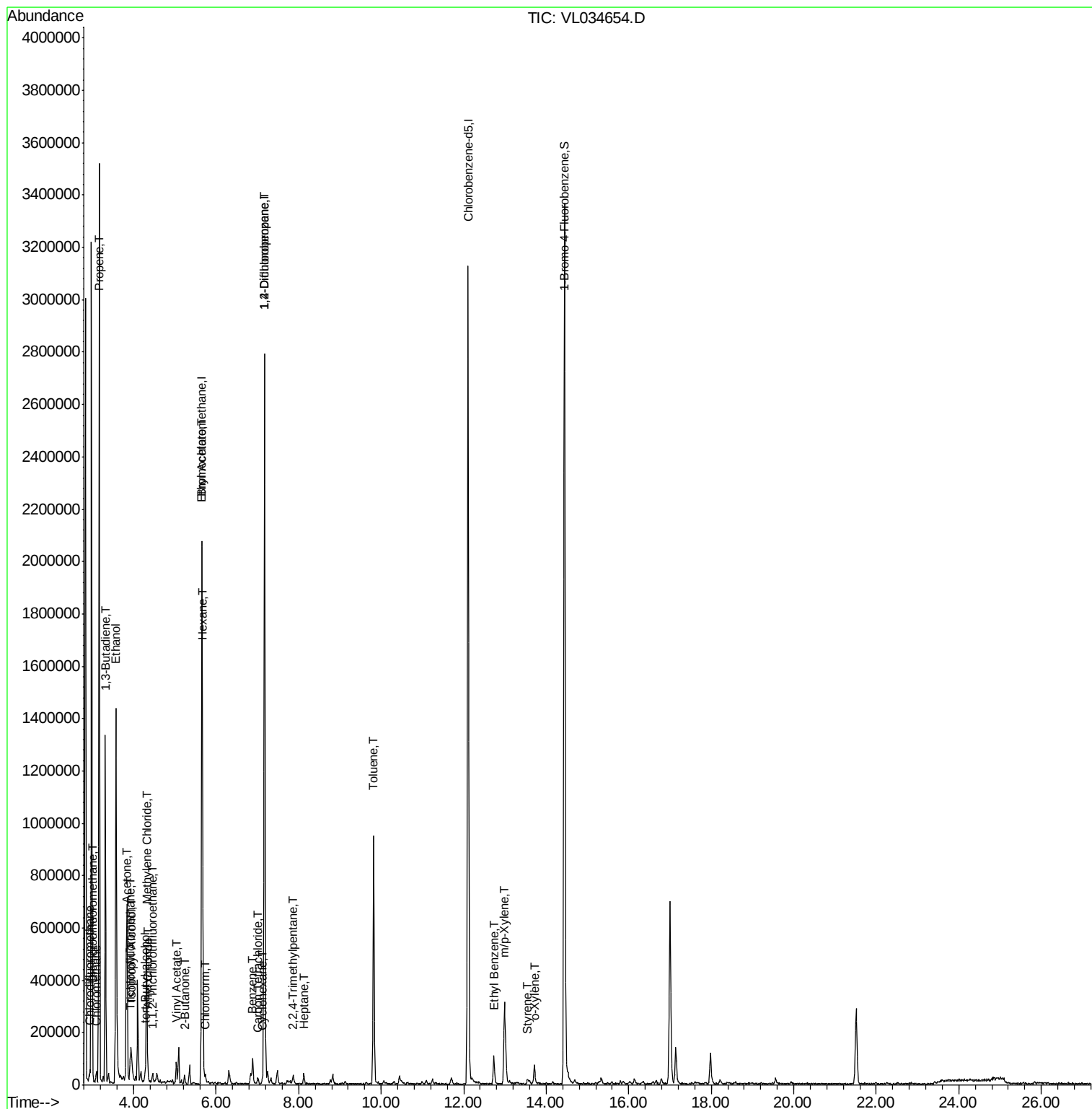
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.01	85	32311	0.180	ppbv #	86
3) Chlorodifluoromethane	2.94	51	49094	0.499	ppbv #	88
4) Chloromethane	3.10	50	30225	0.502	ppbv	91
9) Propene	3.16	41	968828	25.278	ppbv	87
10) Heptane	8.12	43	6359	0.066	ppbv #	22
11) Trichlorofluoromethane	3.92	101	46606	0.286	ppbv #	80
12) 1,1,2-Trichlorotrifluoroet	4.46	101	10399	0.098	ppbv	93
13) Ethanol	3.57	45	1487901	144.930	ppbv	100
15) Acetone	3.82	43	596589	4.983	ppbv #	89
16) 1,3-Butadiene	3.32	39	181314	3.813	ppbv #	11
17) tert-Butyl alcohol	4.27	59	3506	0.040	ppbv #	71
19) Isopropyl Alcohol	3.94	45	116892	1.673	ppbv #	92
20) Methylene Chloride	4.32	84	160674	3.524	ppbv	98
21) Allyl Chloride	4.35	41	3875	0.052	ppbv #	1
23) Vinyl Acetate	5.05	43	8053	0.059	ppbv #	43
25) Ethyl Acetate	5.66	43	66662	0.344	ppbv #	85
26) Hexane	5.67	57	180866	2.228	ppbv #	42
29) Chloroform	5.74	83	7021	0.049	ppbv	91
30) Cyclohexane	7.12	84	1845	0.031	ppbv #	1
34) 2-Butanone	5.23	43	31459	0.249	ppbv	97
35) Carbon Tetrachloride	7.01	117	8872	0.053	ppbv #	18
36) Benzene	6.89	78	64770	0.419	ppbv	95
39) 1,2-Dichloropropane	7.17	63	498092	7.777	ppbv #	20
44) 2,2,4-Trimethylpentane	7.86	57	10520	0.038	ppbv #	24
53) Toluene	9.81	91	644846	3.799	ppbv	99
58) Ethyl Benzene	12.73	91	81040	0.357	ppbv	97
59) m/p-Xylene	12.99	91	289016	1.441	ppbv	97
60) o-Xylene	13.72	91	10773	0.053	ppbv #	1
61) Styrene	13.55	104	5211	0.039	ppbv #	25

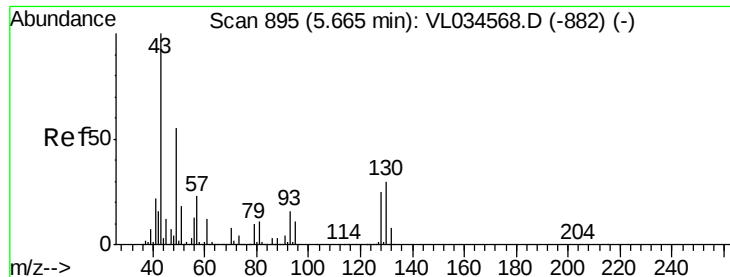
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

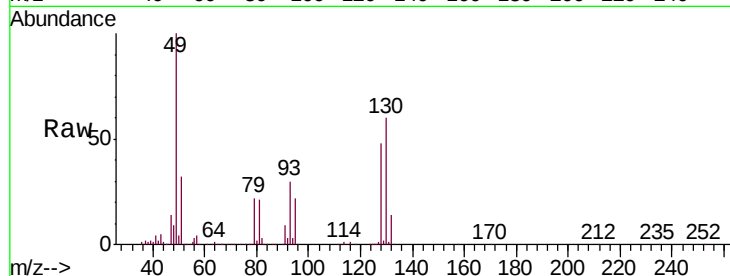
Tgt Ion: 49 Resp: 814665

Ion Ratio Lower Upper

49 100

128 47.2 22.7 68.1

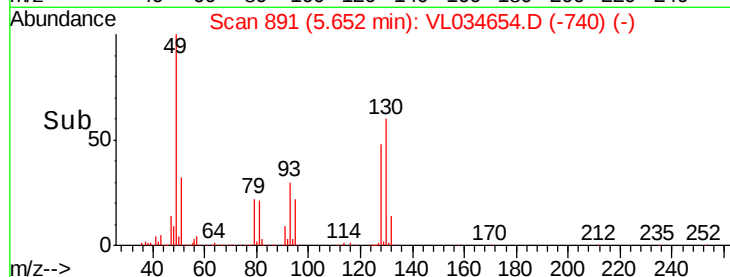
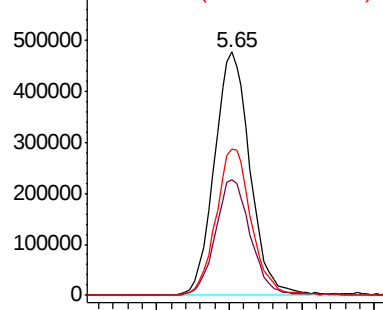
130 59.9 28.6 85.8



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



#2

Dichlorodifluoromethane

Concen: 0.180 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.00 min

Lab File: VL034654.D

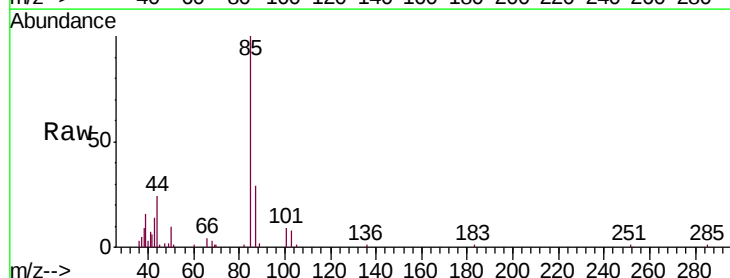
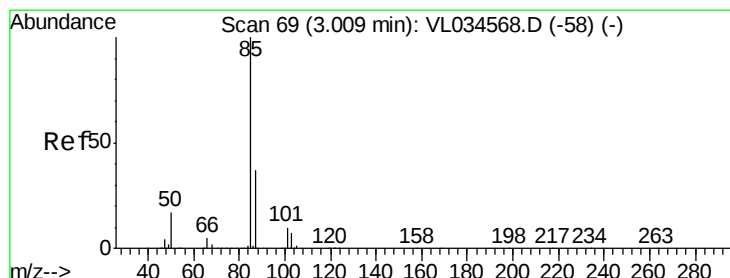
Acq: 19 Feb 2020 21:00

Tgt Ion: 85 Resp: 32311

Ion Ratio Lower Upper

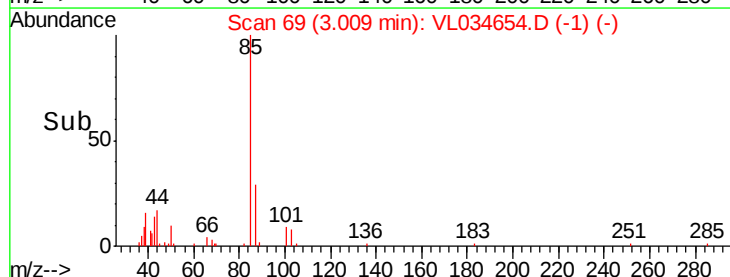
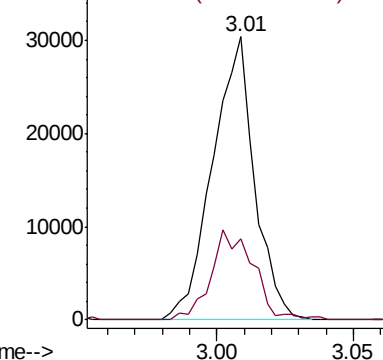
85 100

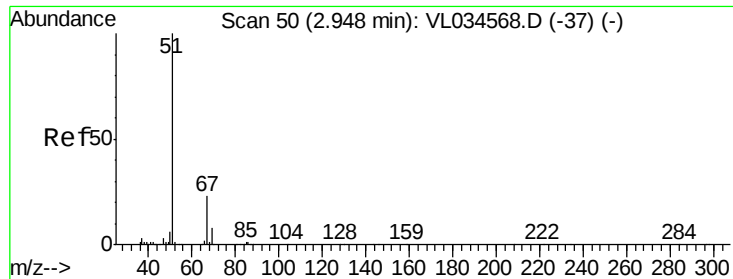
87 28.7 29.5 44.3#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

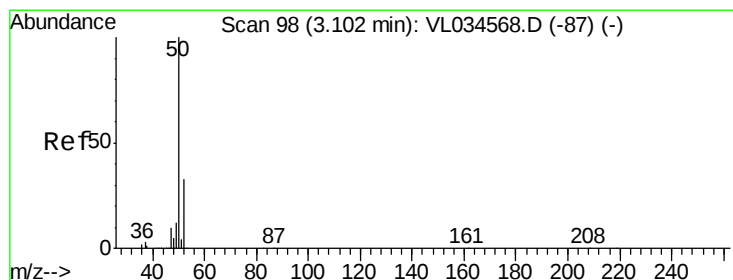
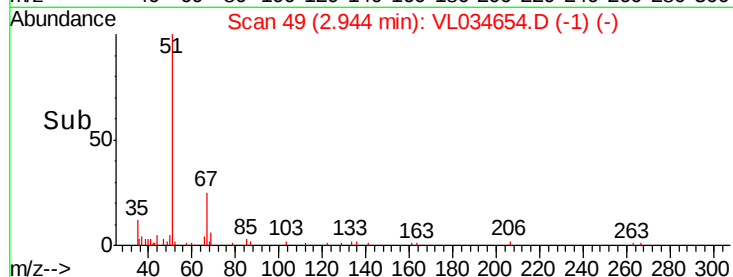
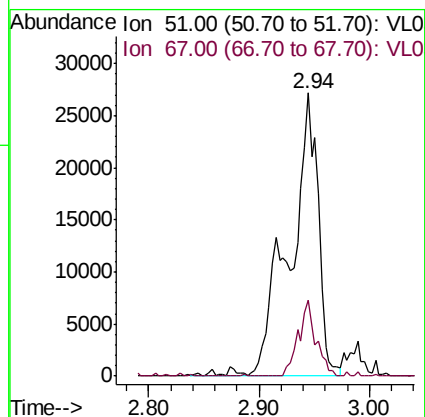
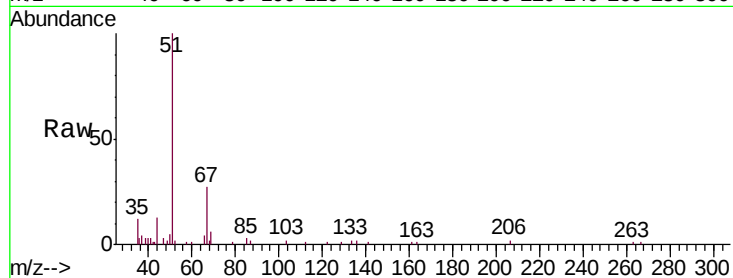




#3
Chlorodifluoromethane
Concen: 0.499 ppbv
RT: 2.94 min Scan# 49
Delta R.T. -0.00 min
Lab File: VL034654.D
Acq: 19 Feb 2020 21:00

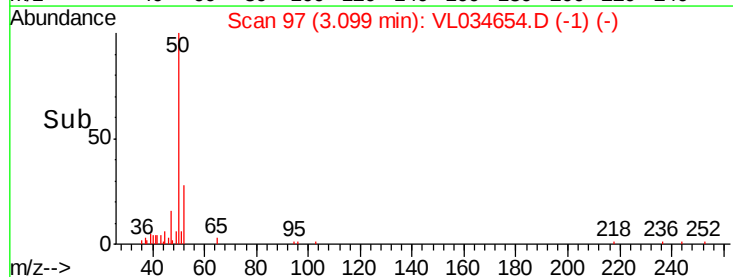
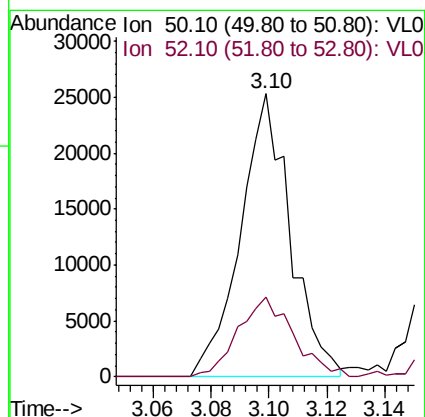
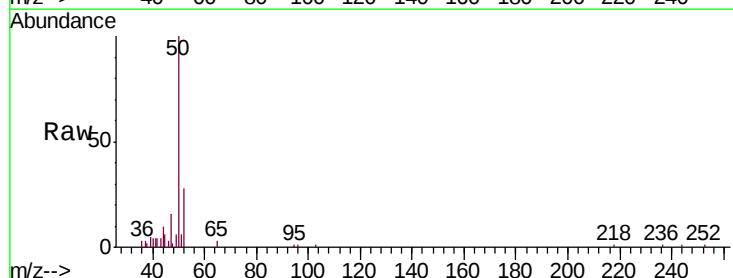
Instrument :
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ClientSampleId :
IA-1DUP

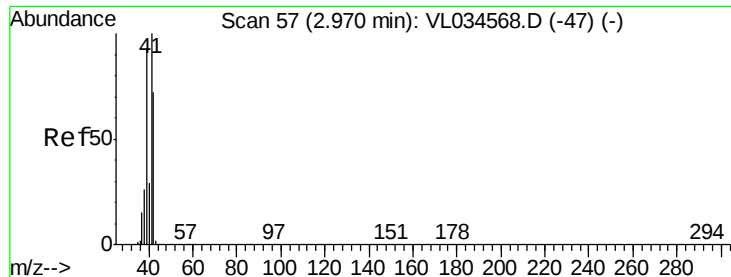
Tgt Ion: 51 Resp: 49094
Ion Ratio Lower Upper
51 100
67 16.4 17.8 26.8#



#4
Chloromethane
Concen: 0.502 ppbv
RT: 3.10 min Scan# 97
Delta R.T. -0.00 min
Lab File: VL034654.D
Acq: 19 Feb 2020 21:00

Tgt Ion: 50 Resp: 30225
Ion Ratio Lower Upper
50 100
52 28.0 26.6 39.8





#9

Propene

Concen: 25.278 ppbv

RT: 3.16 min Scan# 117

Delta R.T. 0.19 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

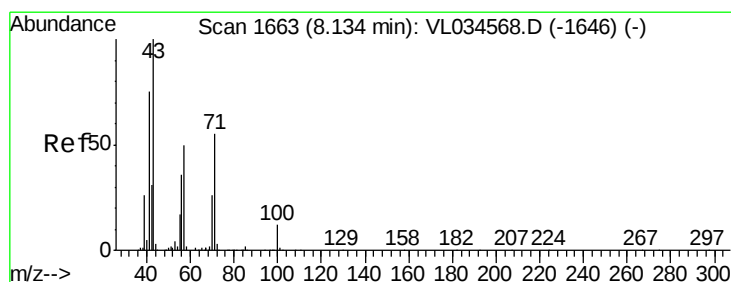
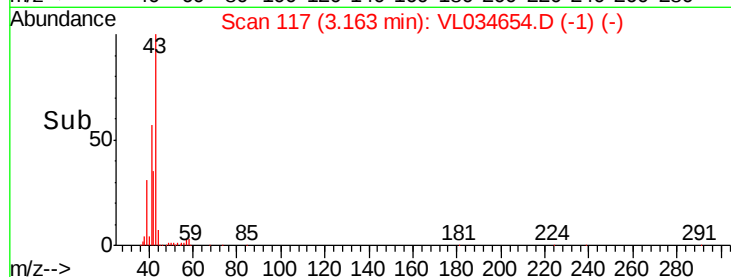
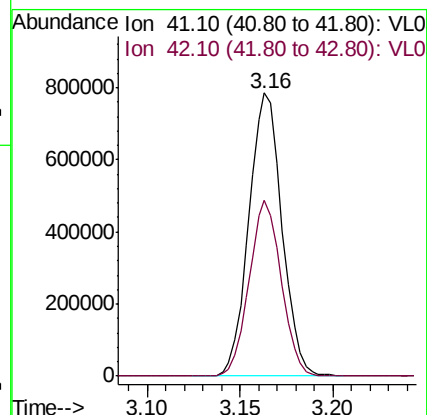
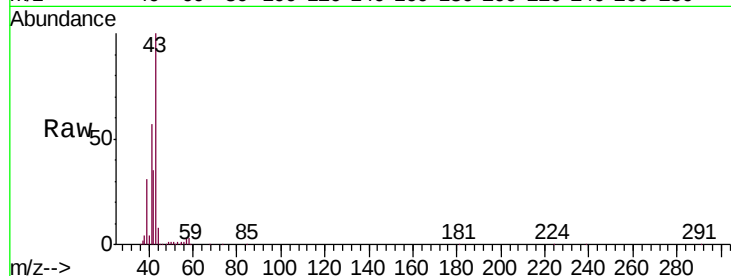
IA-1DUP

Tgt Ion: 41 Resp: 968828

Ion Ratio Lower Upper

41 100

42 60.7 57.0 85.4



#10

Heptane

Concen: 0.066 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. -0.01 min

Lab File: VL034654.D

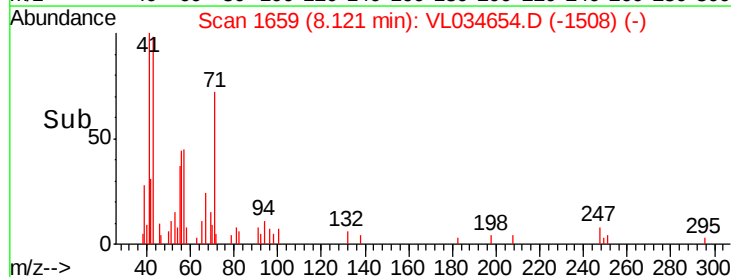
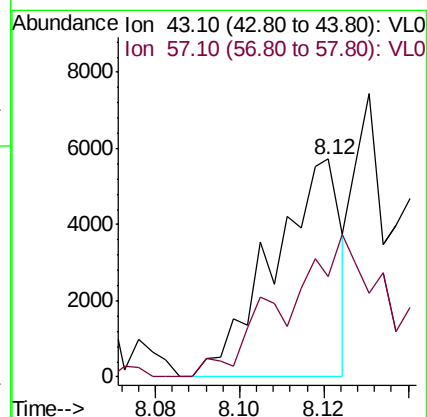
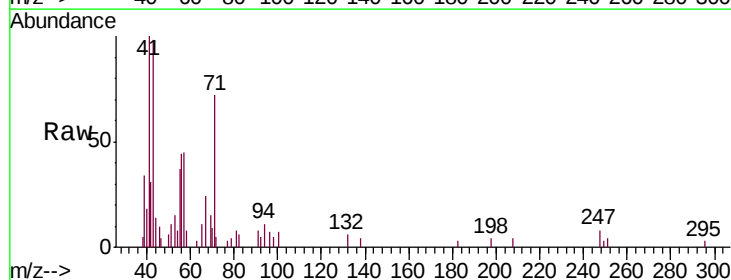
Acq: 19 Feb 2020 21:00

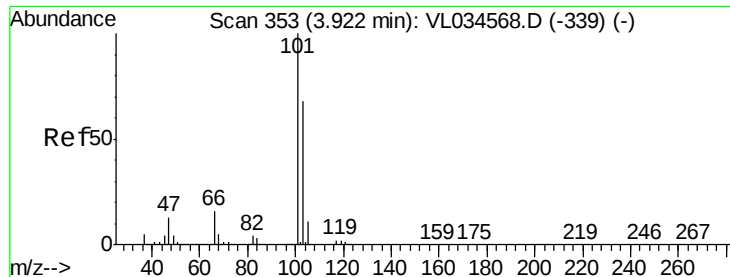
Tgt Ion: 43 Resp: 6359

Ion Ratio Lower Upper

43 100

57 105.8 41.2 61.8#

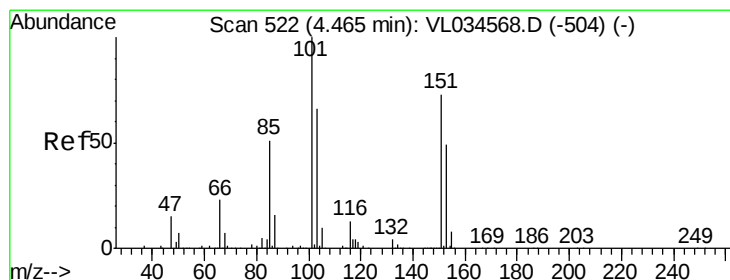
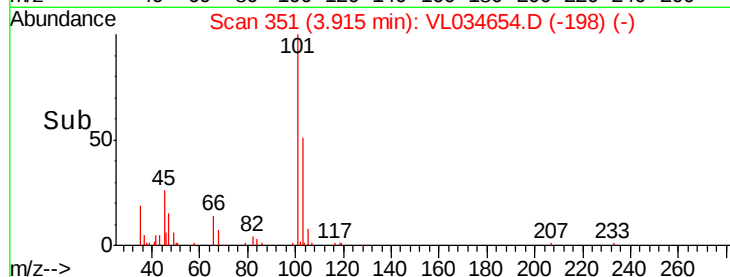
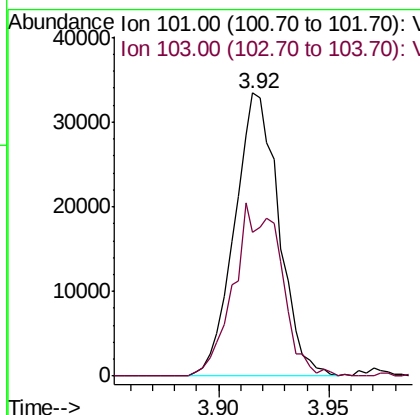
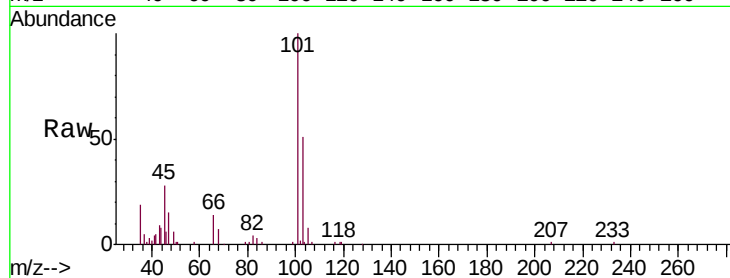




#11
 Trichlorofluoromethane
 Concen: 0.286 ppbv
 RT: 3.92 min Scan# 351
 Delta R.T. -0.01 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

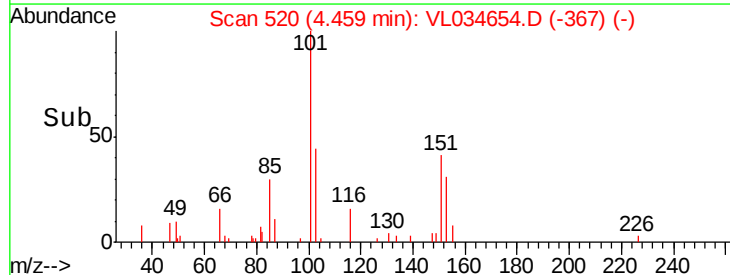
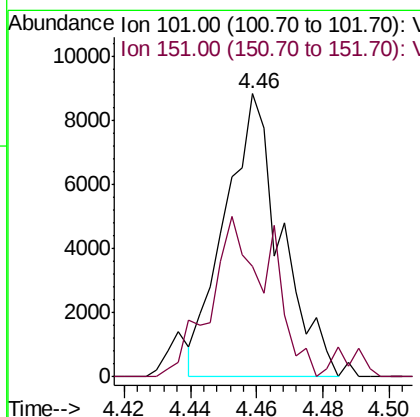
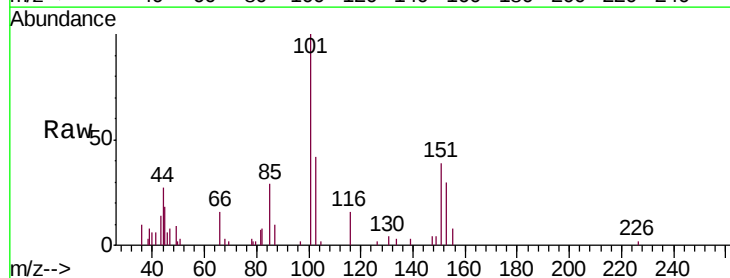
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

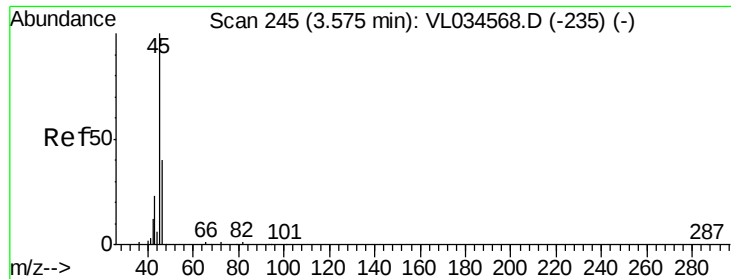
Tgt Ion:101 Resp: 46606
 Ion Ratio Lower Upper
 101 100
 103 51.5 54.4 81.6#



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.098 ppbv
 RT: 4.46 min Scan# 520
 Delta R.T. -0.01 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

Tgt Ion:101 Resp: 10399
 Ion Ratio Lower Upper
 101 100
 151 65.2 57.0 85.6





#13

Ethanol

Concen: 144.930 ppbv

RT: 3.57 min Scan# 243

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

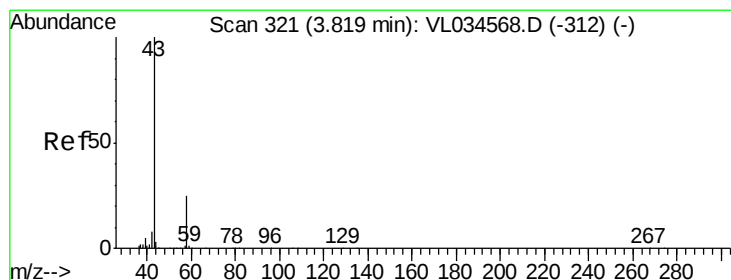
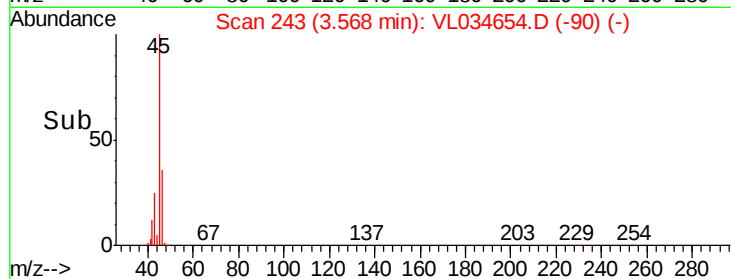
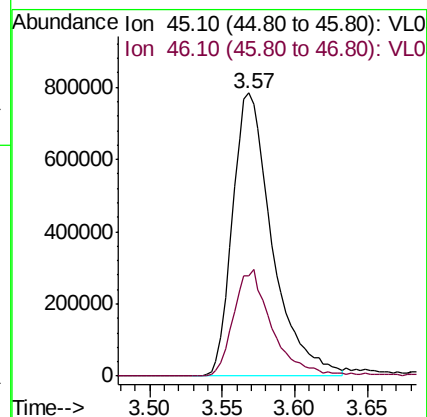
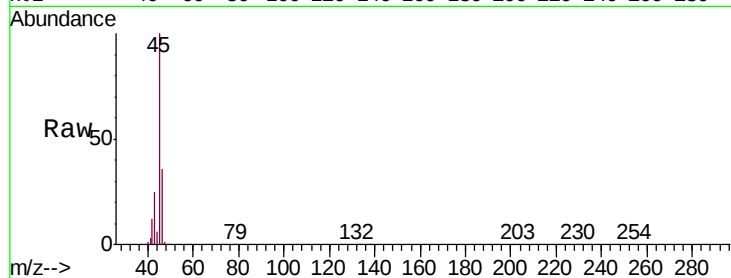
IA-1DUP

Tgt Ion: 45 Resp: 1487901

Ion Ratio Lower Upper

45 100

46 37.0 14.8 59.2



#15

Acetone

Concen: 4.983 ppbv

RT: 3.82 min Scan# 320

Delta R.T. -0.00 min

Lab File: VL034654.D

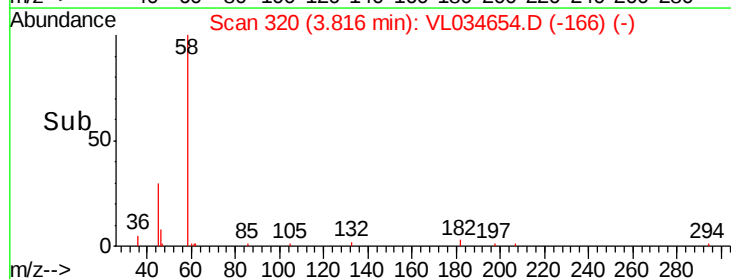
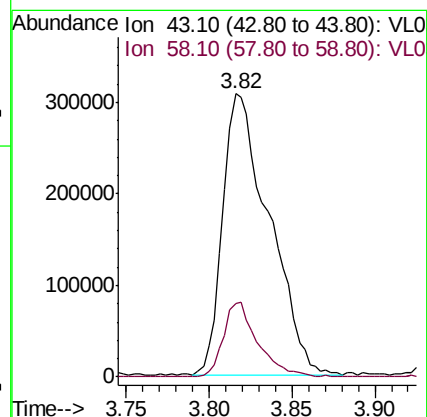
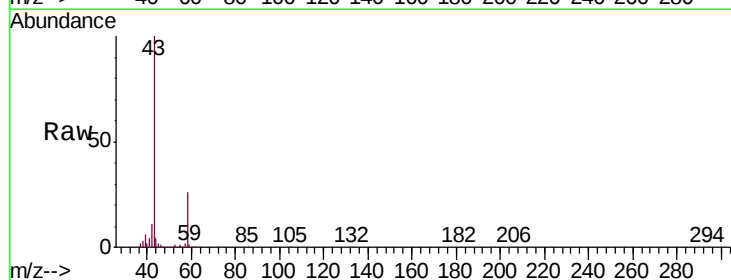
Acq: 19 Feb 2020 21:00

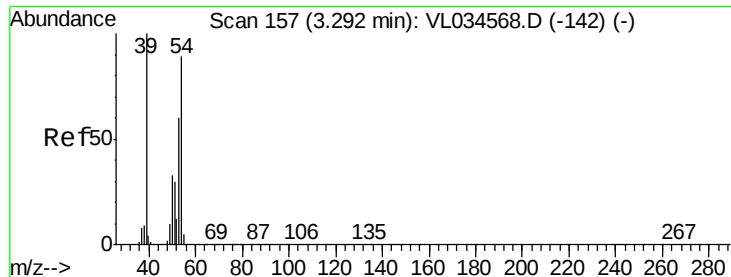
Tgt Ion: 43 Resp: 596589

Ion Ratio Lower Upper

43 100

58 19.8 20.3 30.5#

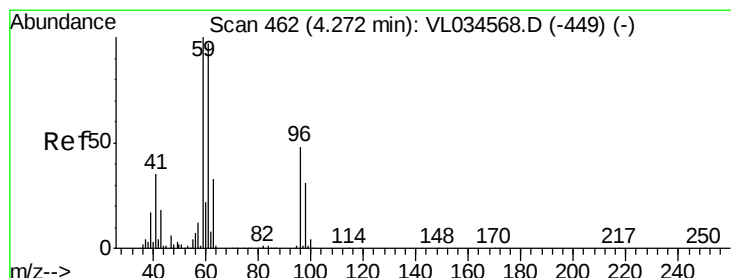
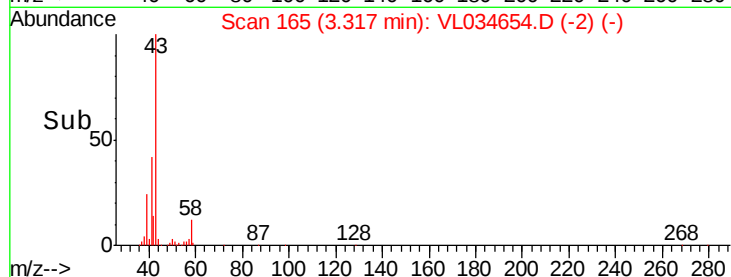
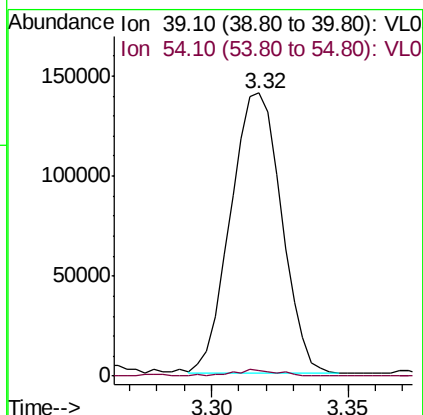
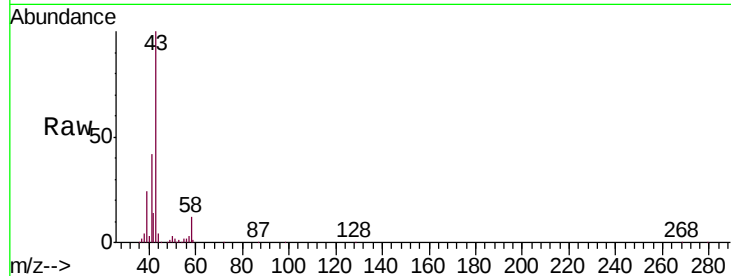




#16
 1,3-Butadiene
 Concen: 3.813 ppbv
 RT: 3.32 min Scan# 165
 Delta R.T. 0.03 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

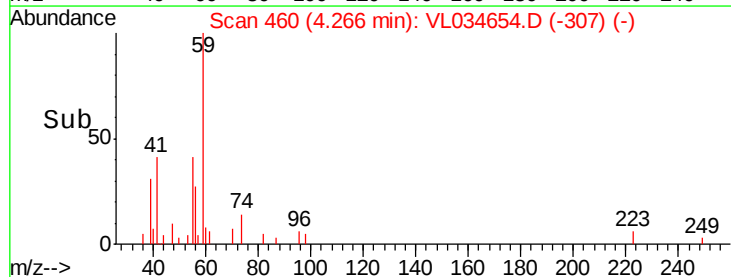
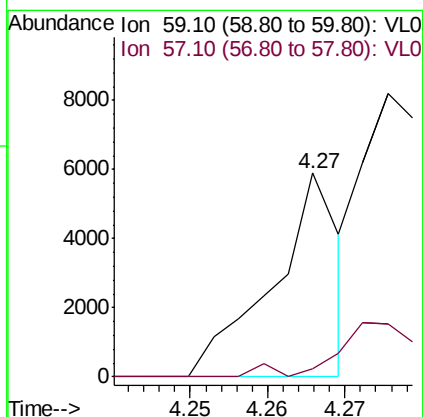
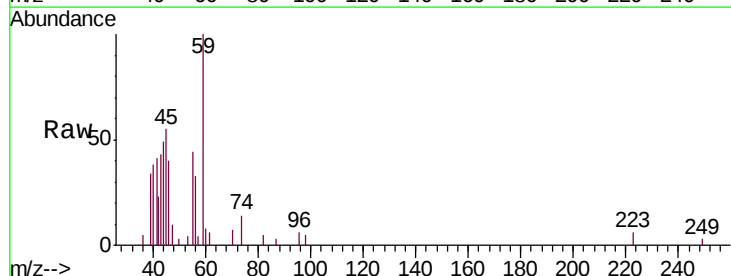
Instrument :
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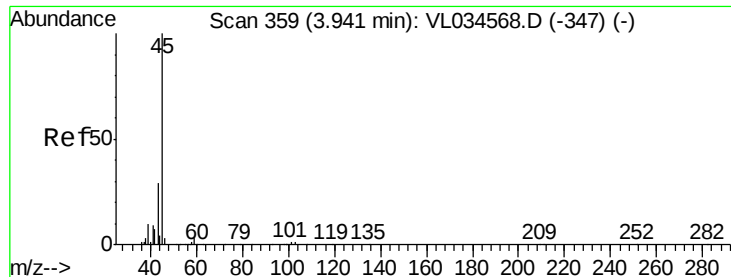
Tgt Ion: 39 Resp: 181314
 Ion Ratio Lower Upper
 39 100
 54 2.6 66.7 100.1#



#17
 tert-Butyl alcohol
 Concen: 0.040 ppbv
 RT: 4.27 min Scan# 460
 Delta R.T. -0.01 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

Tgt Ion: 59 Resp: 3506
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.7 13.1#





#19

Isopropyl Alcohol

Concen: 1.673 ppbv

RT: 3.94 min Scan# 359

Delta R.T. -0.00 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

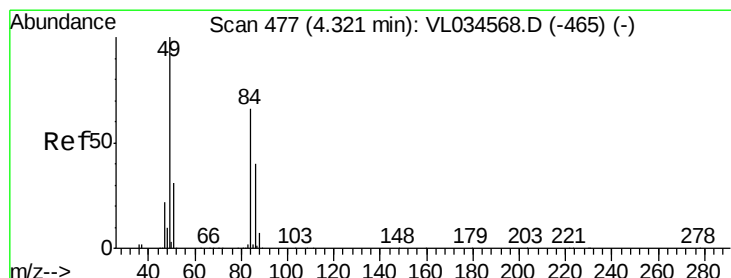
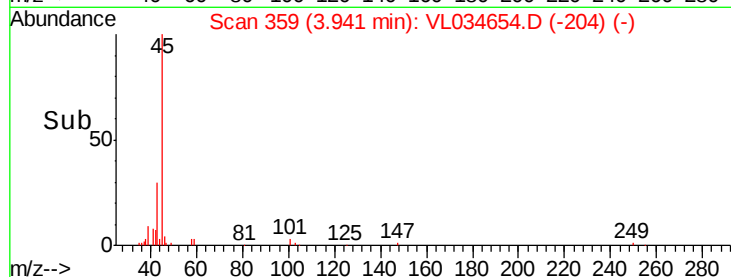
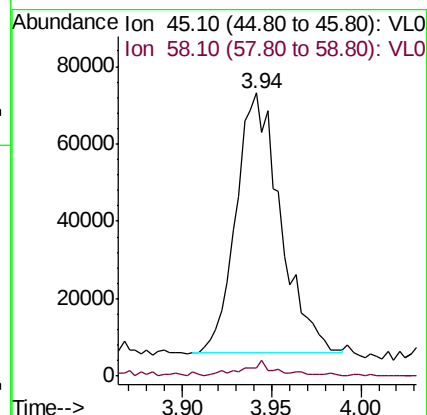
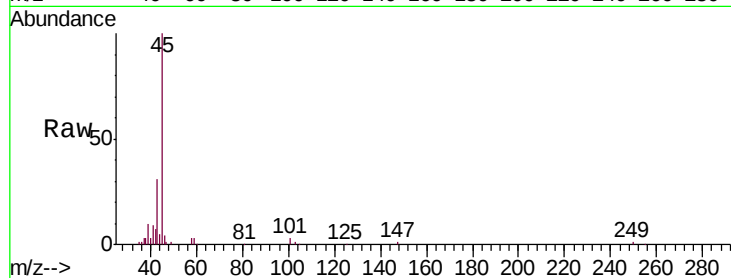
IA-1DUP

Tgt Ion: 45 Resp: 116892

Ion Ratio Lower Upper

45 100

58 5.0 1.7 2.5#



#20

Methylene Chloride

Concen: 3.524 ppbv

RT: 4.32 min Scan# 476

Delta R.T. -0.00 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Tgt Ion: 84 Resp: 160674

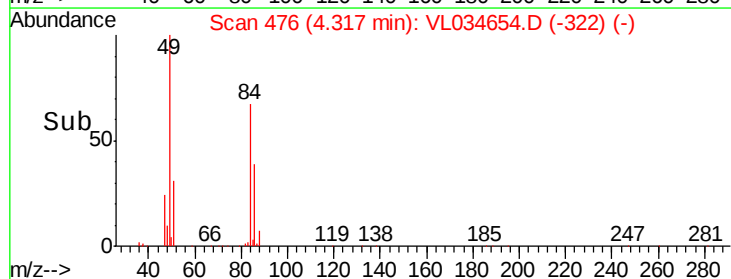
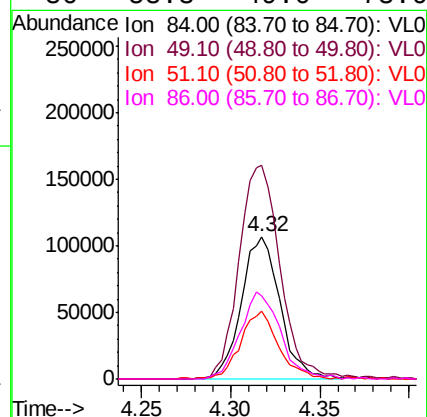
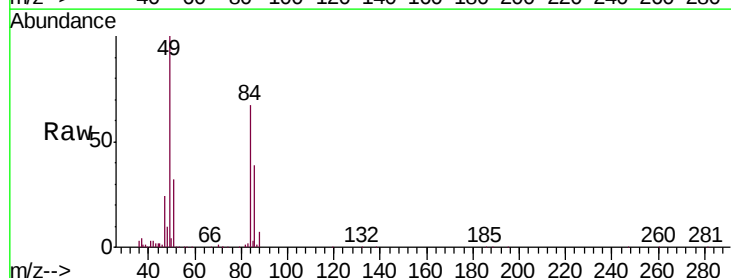
Ion Ratio Lower Upper

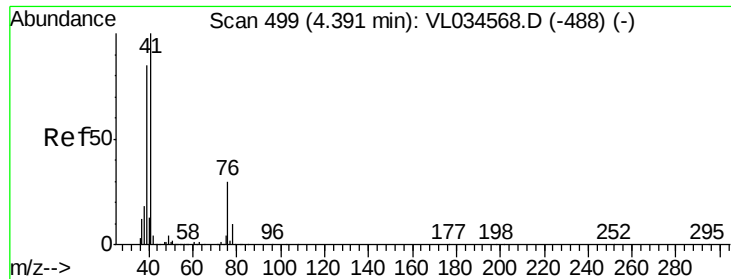
84 100

49 150.1 122.4 183.6

51 47.4 38.6 57.8

86 58.3 49.0 73.6

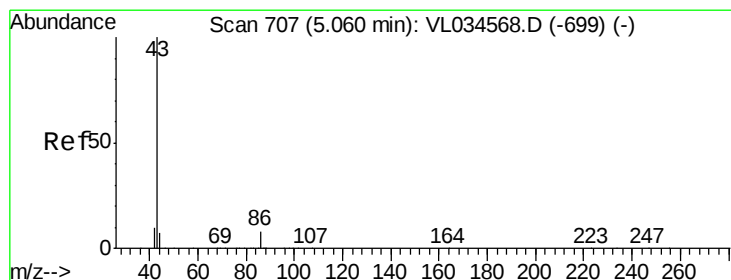
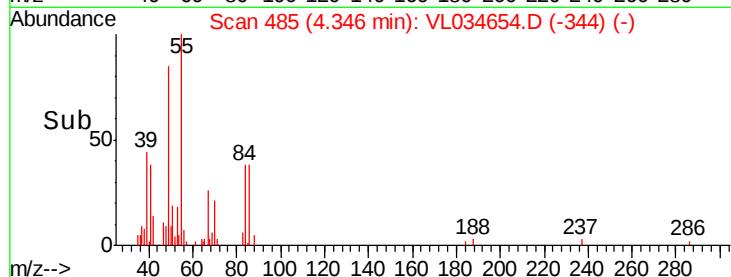
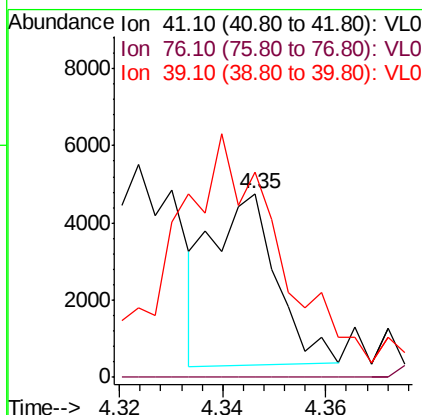
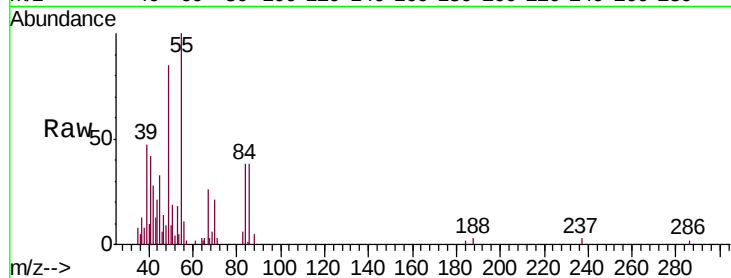




#21
 Allyl Chloride
 Concen: 0.052 ppbv
 RT: 4.35 min Scan# 485
 Delta R.T. -0.05 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

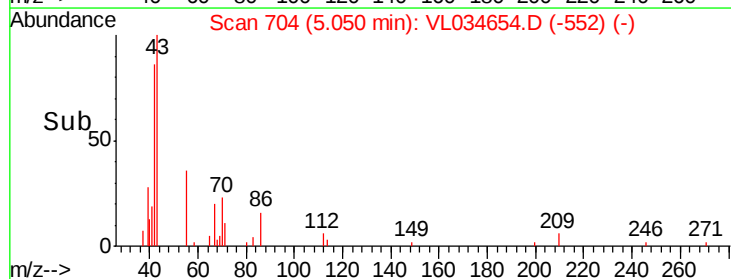
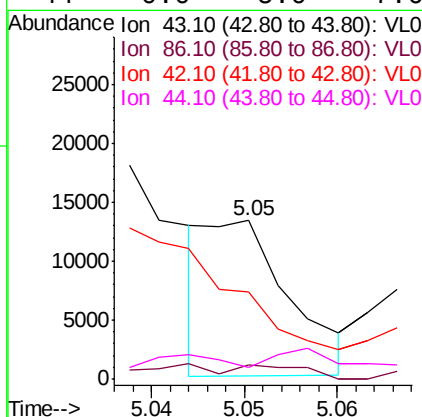
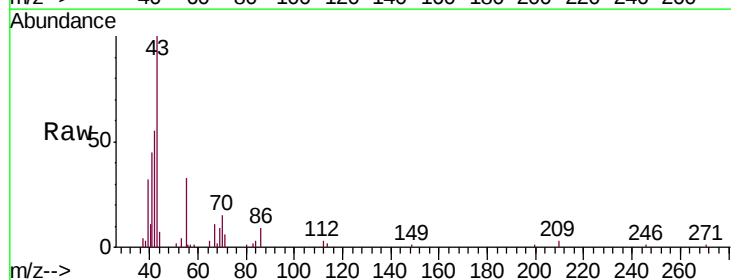
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

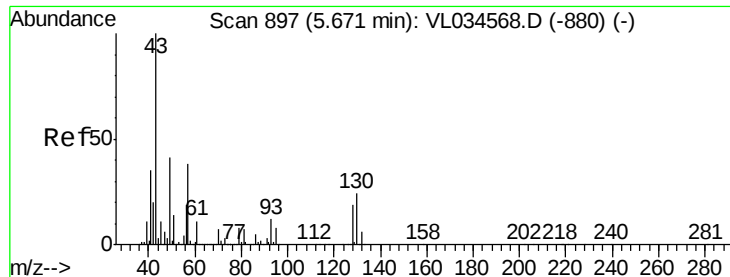
Tgt Ion: 41 Resp: 3875
 Ion Ratio Lower Upper
 41 100
 76 6.1 24.2 36.2#
 39 309.0 68.3 102.5#



#23
 Vinyl Acetate
 Concen: 0.059 ppbv
 RT: 5.05 min Scan# 704
 Delta R.T. -0.01 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

Tgt Ion: 43 Resp: 8053
 Ion Ratio Lower Upper
 43 100
 86 13.0 5.9 8.9#
 42 51.4 8.8 13.2#
 44 0.0 5.0 7.6#





#25

Ethyl Acetate

Concen: 0.344 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

Tgt Ion: 43 Resp: 66662

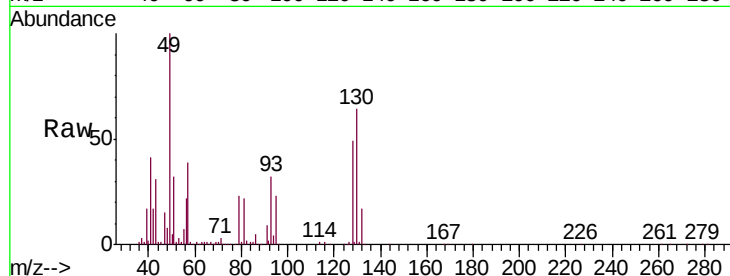
Ion Ratio Lower Upper

43 100

45 6.1 8.5 12.7#

61 4.6 7.8 11.6#

70 0.0 5.8 8.8#

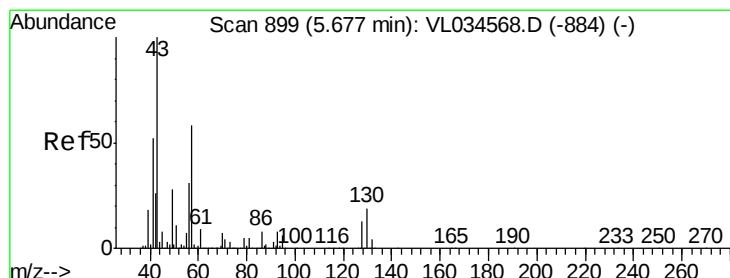
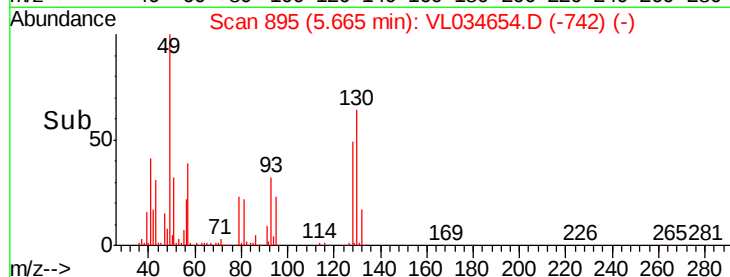
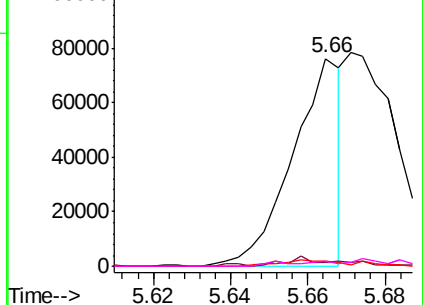


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 2.228 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.00 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Tgt Ion: 57 Resp: 180866

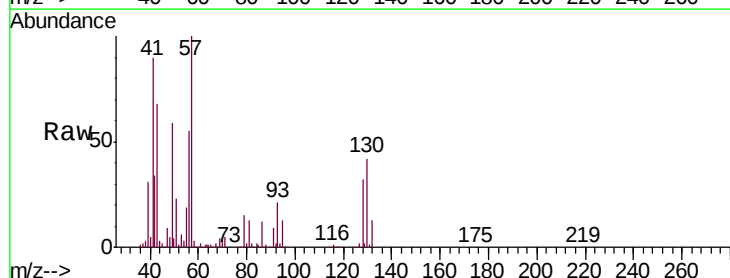
Ion Ratio Lower Upper

57 100

41 97.5 76.2 114.2

43 79.6 189.9 284.9#

56 57.1 43.6 65.4

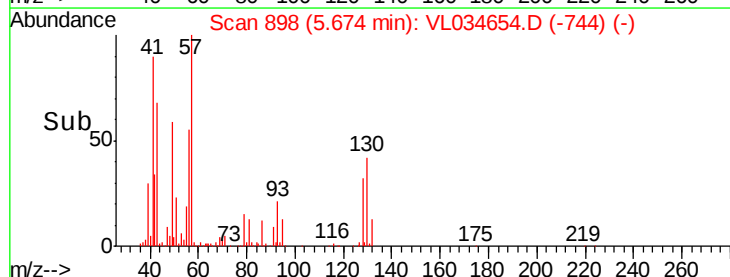
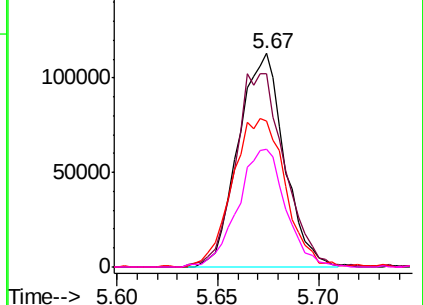


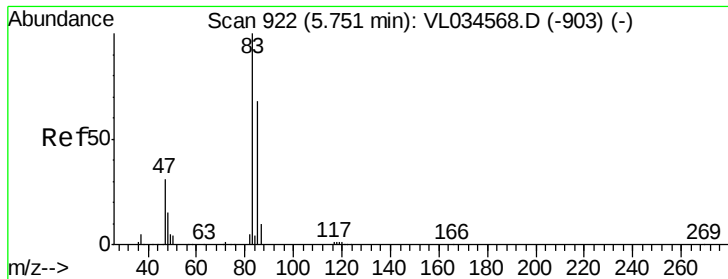
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

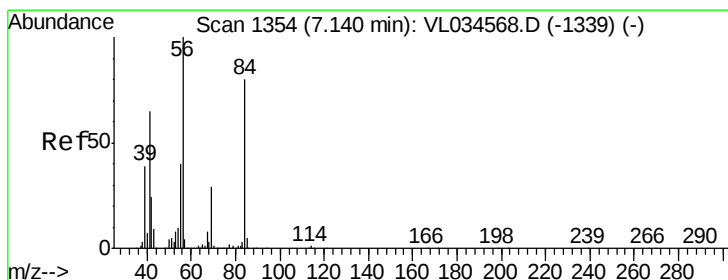
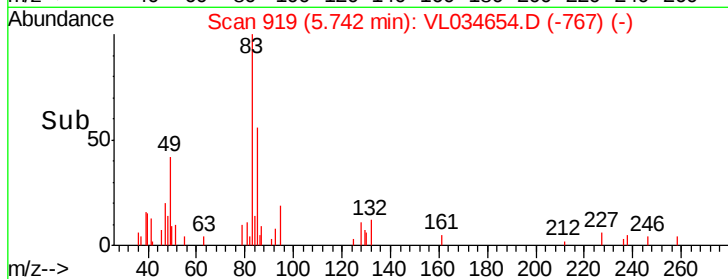
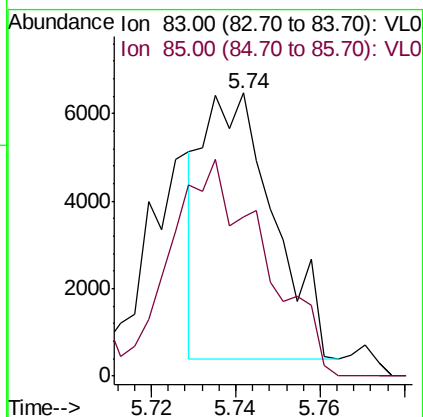
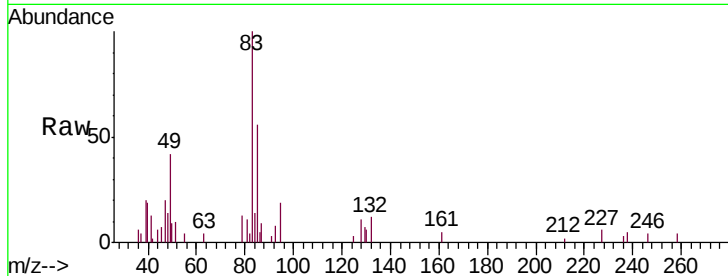




#29
Chloroform
Concen: 0.049 ppbv
RT: 5.74 min Scan# 919
Delta R.T. -0.01 min
Lab File: VL034654.D
Acq: 19 Feb 2020 21:00

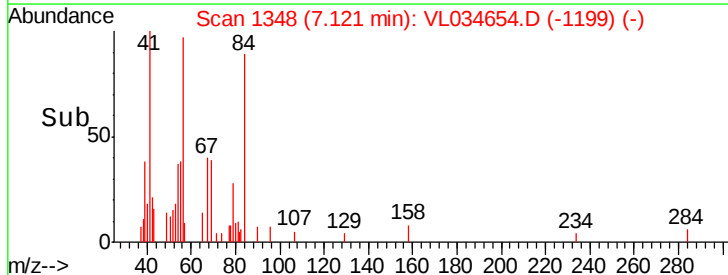
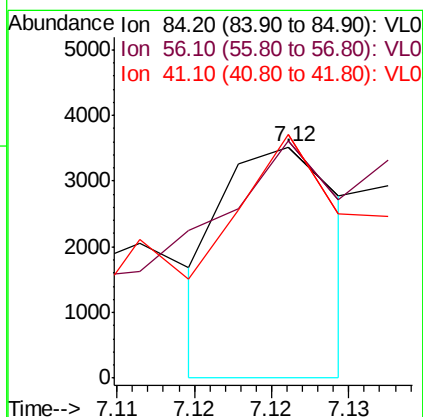
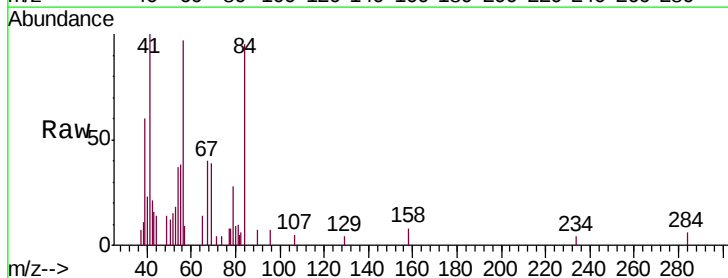
Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

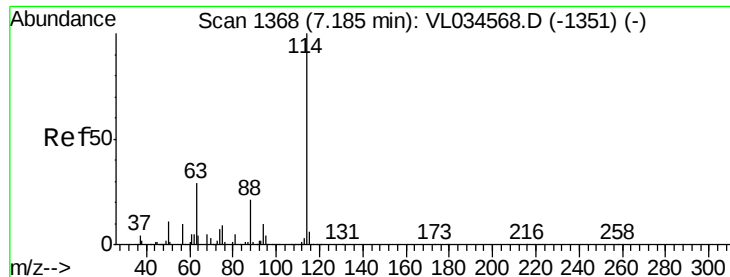
Tgt Ion: 83 Resp: 7021
Ion Ratio Lower Upper
83 100
85 60.1 54.0 81.0



#30
Cyclohexane
Concen: 0.031 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.02 min
Lab File: VL034654.D
Acq: 19 Feb 2020 21:00

Tgt Ion: 84 Resp: 1845
Ion Ratio Lower Upper
84 100
56 0.0 110.5 165.7#
41 438.8 71.9 107.9#

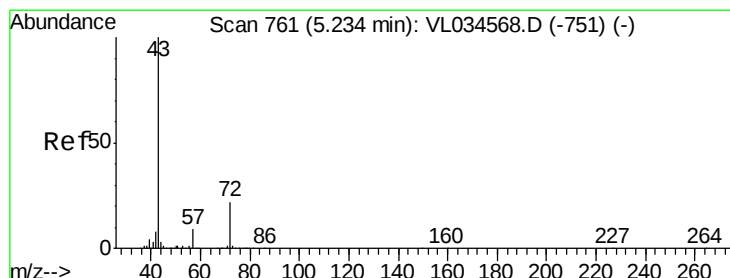
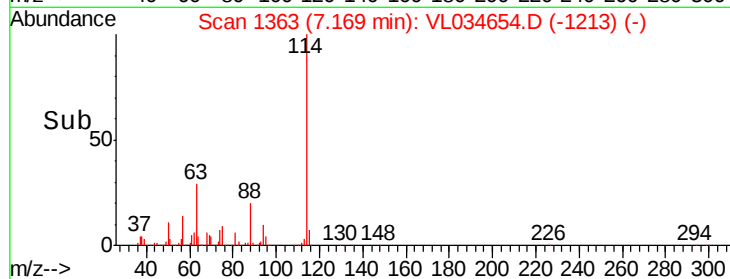
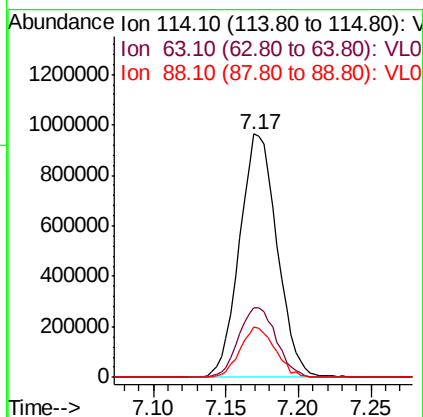
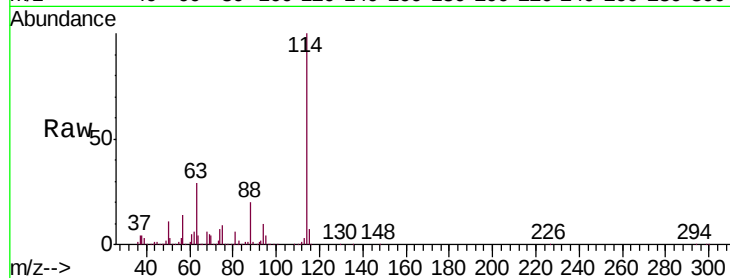




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.02 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

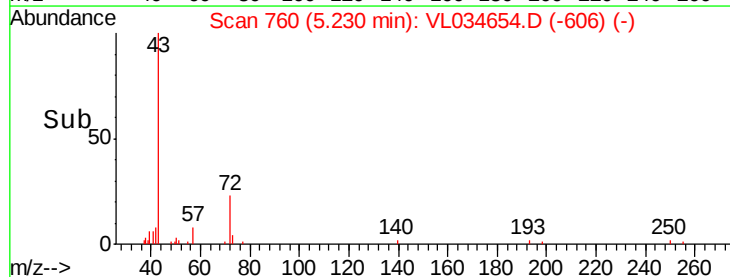
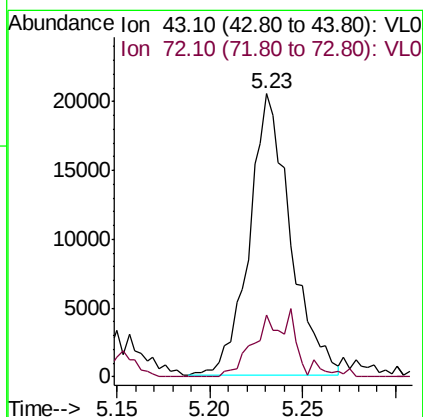
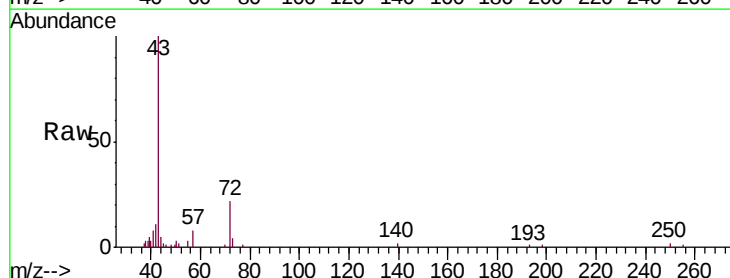
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

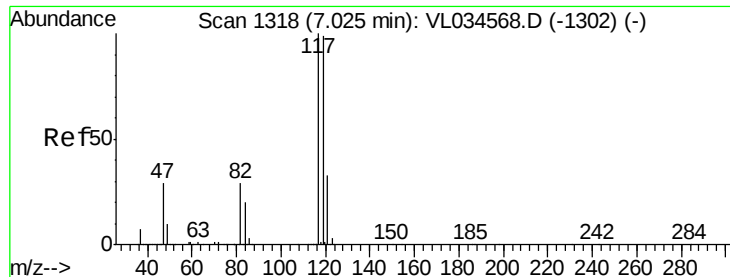
Tgt Ion:114 Resp: 1737345
 Ion Ratio Lower Upper
 114 100
 63 28.7 24.1 36.1
 88 19.4 15.9 23.9



#34
 2-Butanone
 Concen: 0.249 ppbv
 RT: 5.23 min Scan# 760
 Delta R.T. -0.00 min
 Lab File: VL034654.D
 Acq: 19 Feb 2020 21:00

Tgt Ion: 43 Resp: 31459
 Ion Ratio Lower Upper
 43 100
 72 23.0 17.2 25.8





#35

Carbon Tetrachloride

Concen: 0.053 ppbv

RT: 7.01 min Scan# 1315

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampled :

IA-1DUP

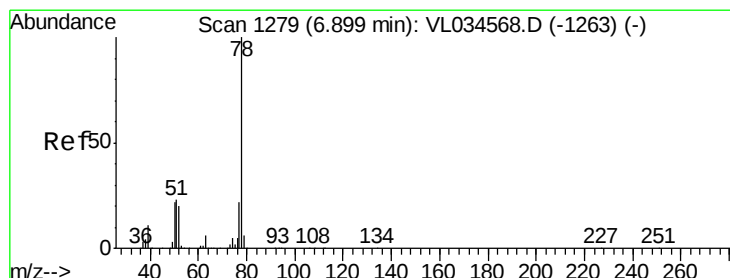
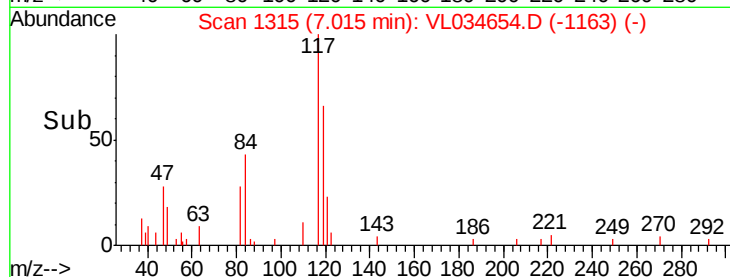
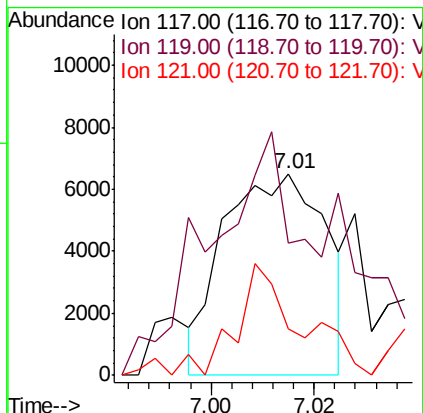
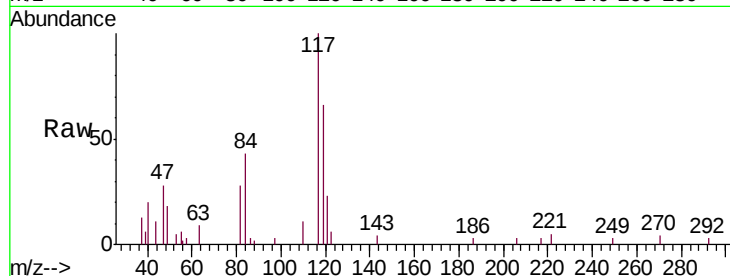
Tgt Ion:117 Resp: 8872

Ion Ratio Lower Upper

117 100

119 0.0 79.5 119.3#

121 16.5 26.2 39.2#



#36

Benzene

Concen: 0.419 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

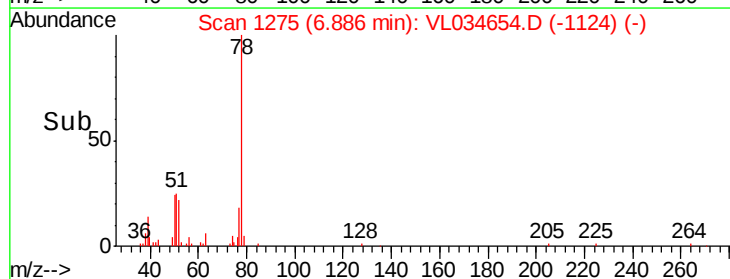
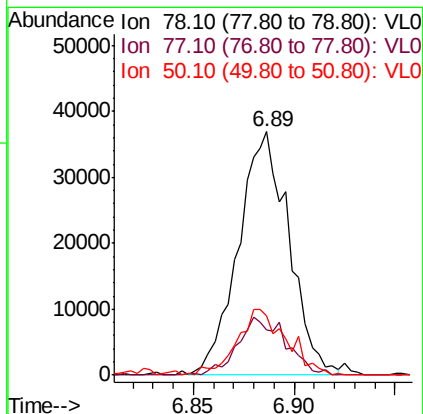
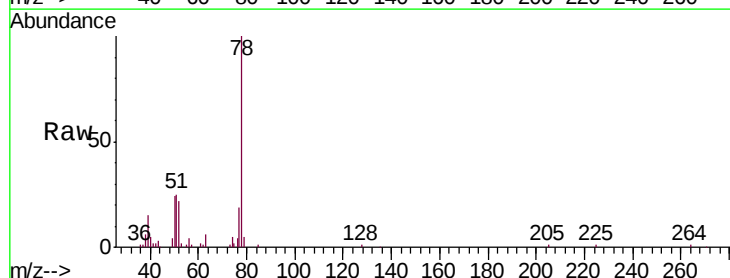
Tgt Ion: 78 Resp: 64770

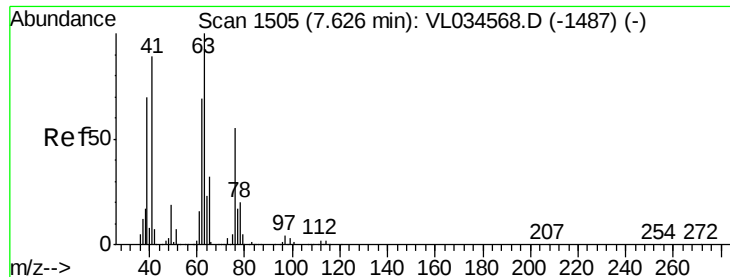
Ion Ratio Lower Upper

78 100

77 18.3 17.3 25.9

50 23.6 17.4 26.2





#39

1,2-Dichloropropane

Concen: 7.777 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.45 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

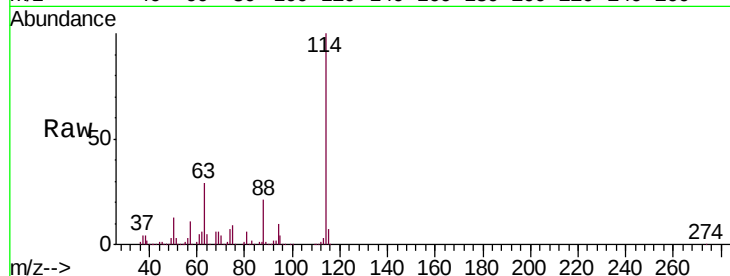
Tgt Ion: 63 Resp: 498092

Ion Ratio Lower Upper

63 100

41 0.0 71.0 106.4#

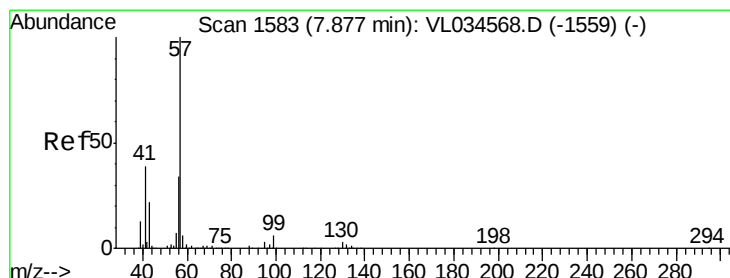
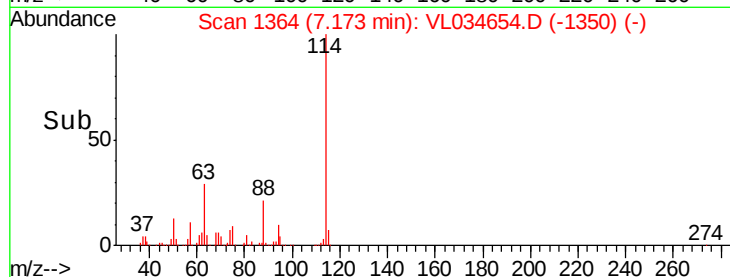
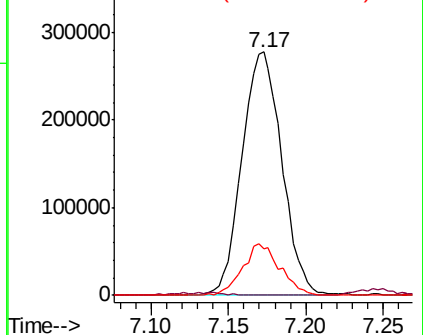
62 19.0 55.4 83.0#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.038 ppbv

RT: 7.86 min Scan# 1579

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

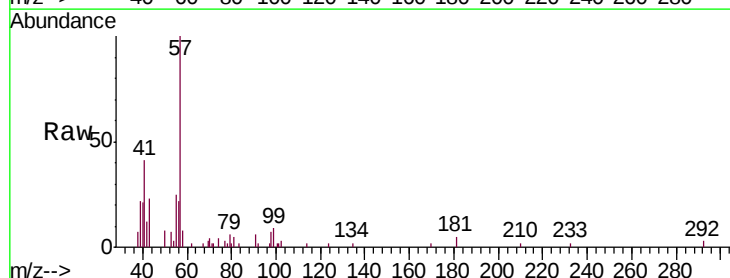
Tgt Ion: 57 Resp: 10520

Ion Ratio Lower Upper

57 100

41 0.0 28.9 43.3#

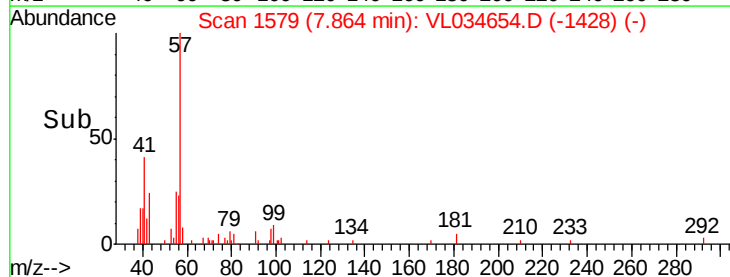
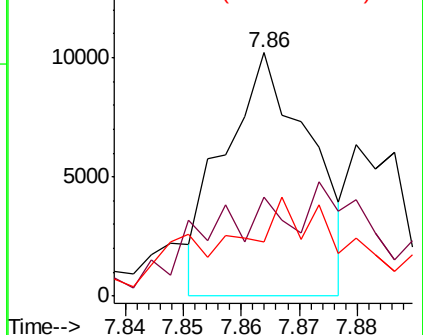
56 84.0 25.5 38.3#

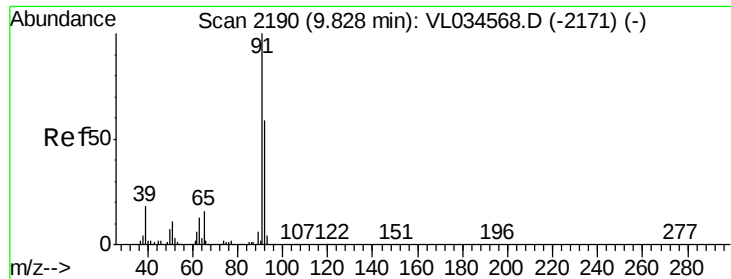


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 3.799 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. -0.02 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

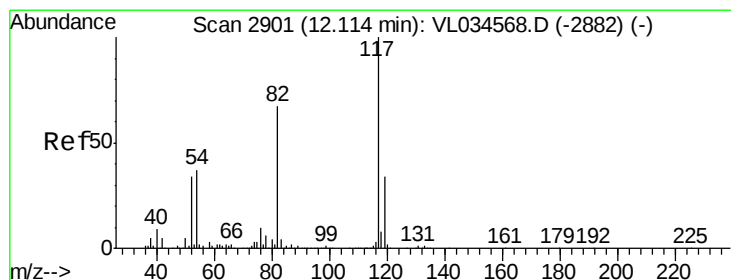
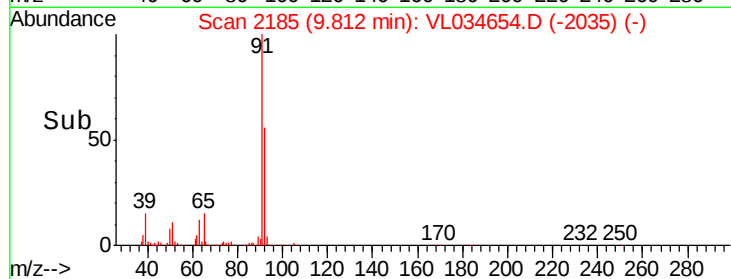
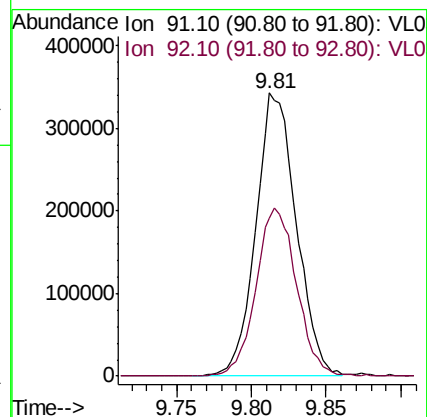
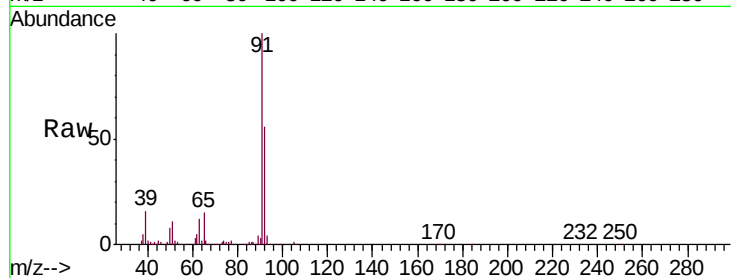
IA-1DUP

Tgt Ion: 91 Resp: 644846

Ion Ratio Lower Upper

91 100

92 59.7 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

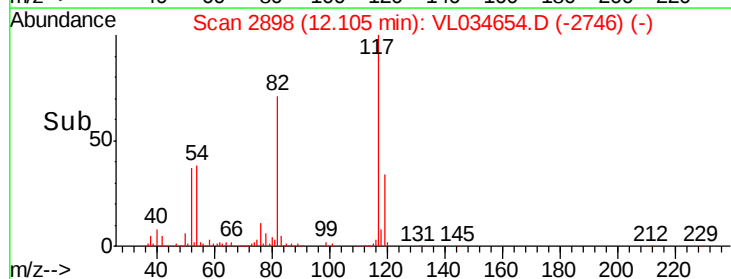
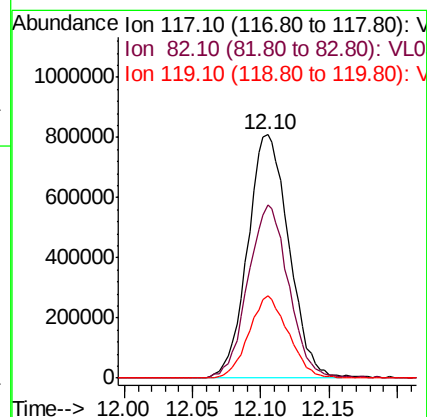
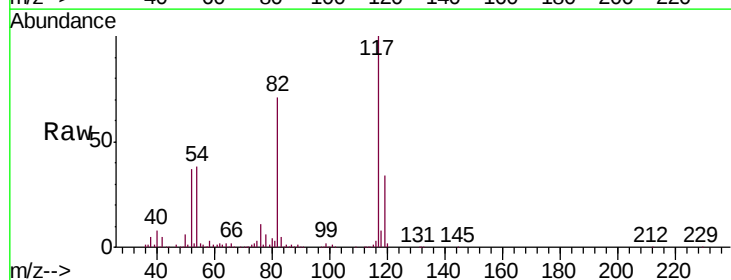
Tgt Ion: 117 Resp: 1696037

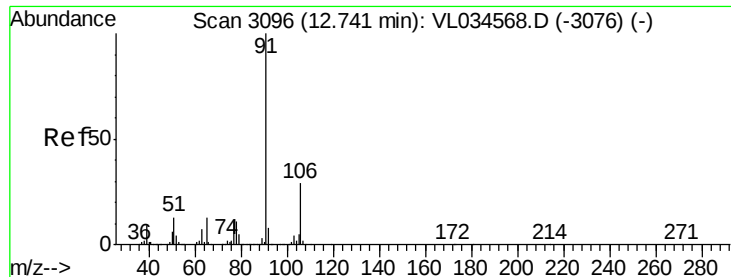
Ion Ratio Lower Upper

117 100

82 70.6 54.2 81.4

119 32.5 26.1 39.1





#58

Ethyl Benzene

Concen: 0.357 ppbv

RT: 12.73 min Scan# 3093

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

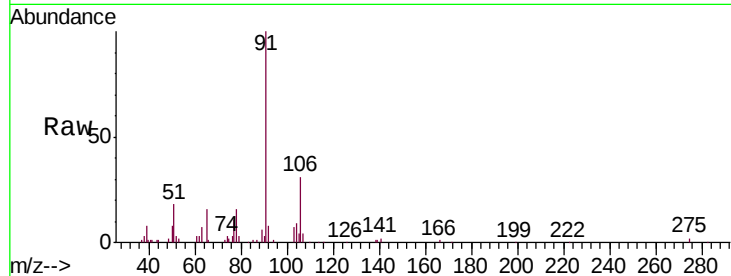
IA-1DUP

Tgt Ion: 91 Resp: 81040

Ion Ratio Lower Upper

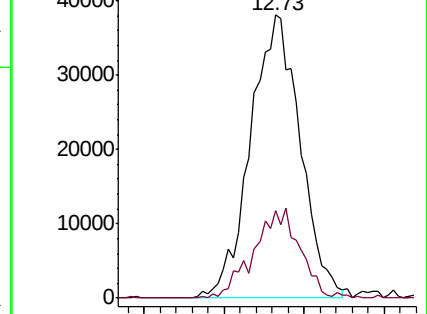
91 100

106 30.8 23.3 34.9

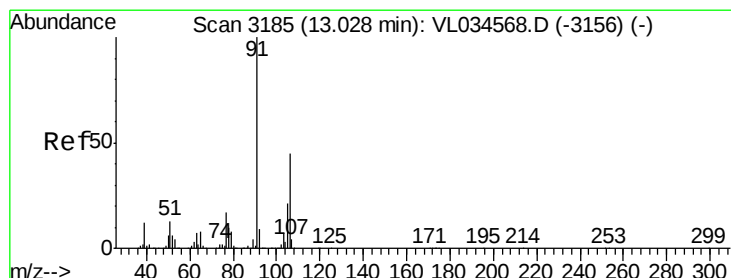
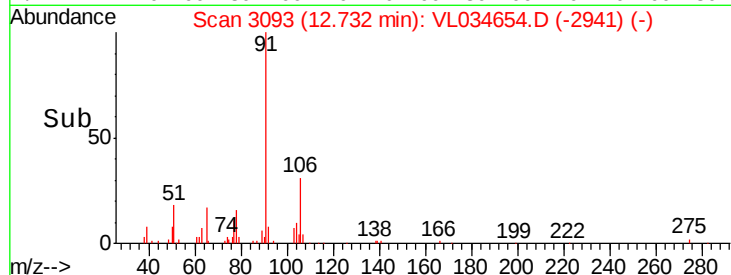


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



Time-->



#59

m/p-Xylene

Concen: 1.441 ppbv

RT: 12.99 min Scan# 3173

Delta R.T. -0.04 min

Lab File: VL034654.D

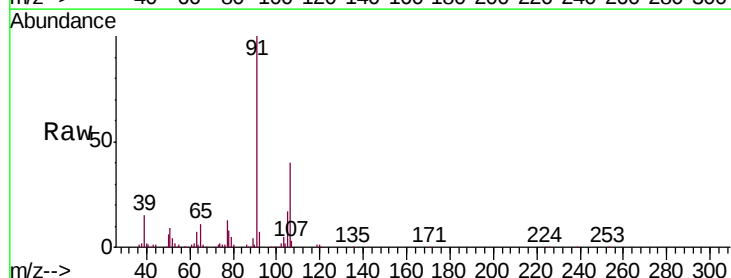
Acq: 19 Feb 2020 21:00

Tgt Ion: 91 Resp: 289016

Ion Ratio Lower Upper

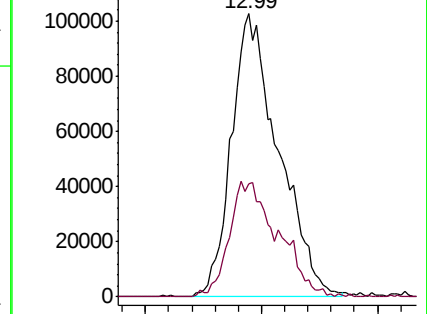
91 100

106 42.3 35.3 52.9

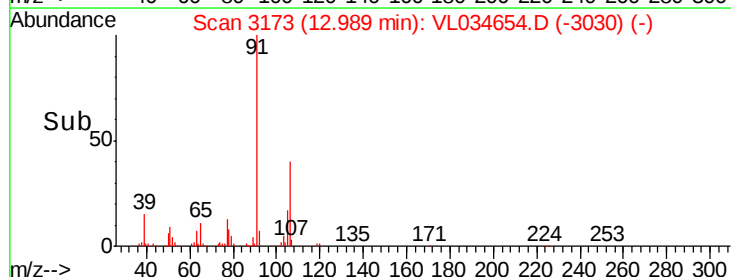


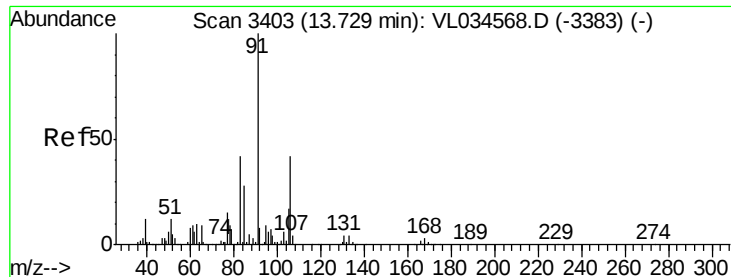
Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



Time-->





#60

o-Xylene

Concen: 0.053 ppbv

RT: 13.72 min Scan# 3400

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampled :

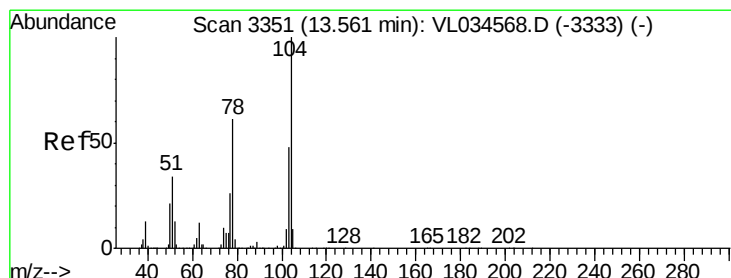
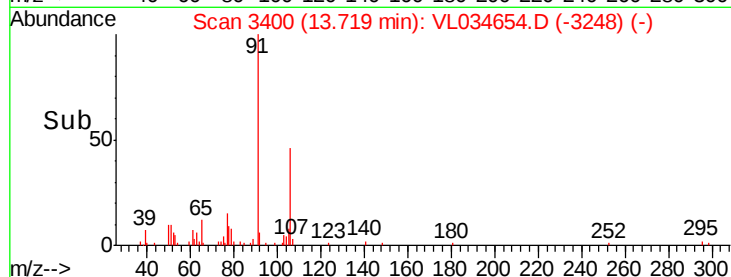
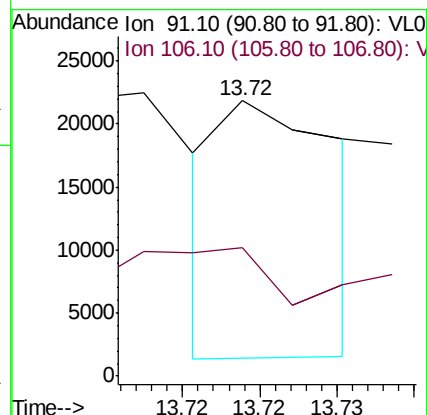
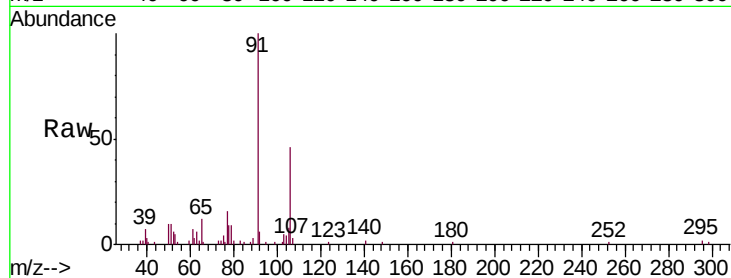
IA-1DUP

Tgt Ion: 91 Resp: 10773

Ion Ratio Lower Upper

91 100

106 190.9 21.6 65.0#



#61

Styrene

Concen: 0.039 ppbv

RT: 13.55 min Scan# 3346

Delta R.T. -0.02 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

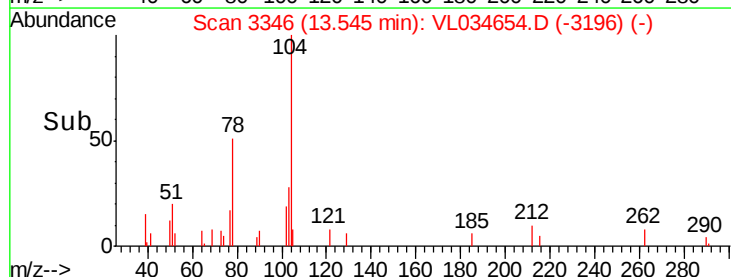
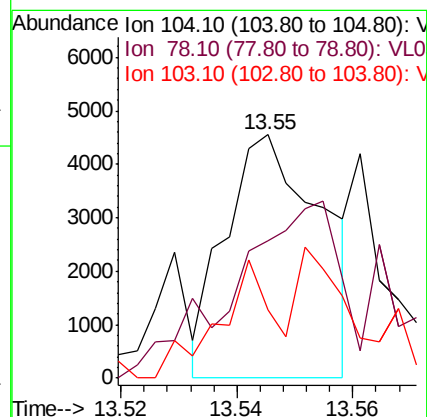
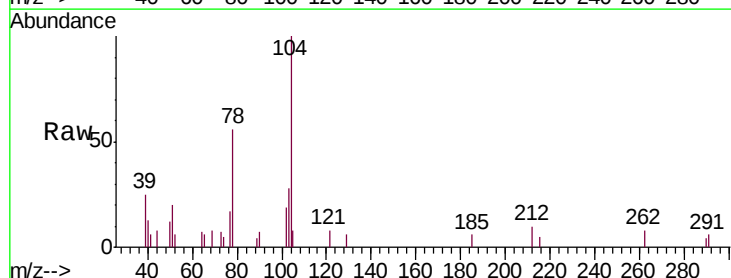
Tgt Ion: 104 Resp: 5211

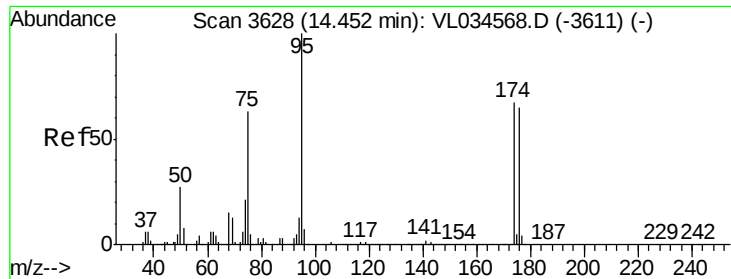
Ion Ratio Lower Upper

104 100

78 0.0 47.0 70.6#

103 0.0 38.5 57.7#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.516 ppbv

RT: 14.44 min Scan# 3625

Delta R.T. -0.01 min

Lab File: VL034654.D

Acq: 19 Feb 2020 21:00

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

Tgt Ion: 95 Resp: 1507388

Ion Ratio Lower Upper

95 100

174 63.7 52.3 78.5

175 4.4 3.8 5.6

