

Data File : VL034604.D
Acq On : 6 Feb 2020 18:11
Operator : SY/AP
Sample : L1435-01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-1

Quant Time: Feb 07 07:37:41 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL013020AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu 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	5.69	49	902759	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.21	114	1877413	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	1824013	10.00	ppbv	0.04

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.49 95 1590637 10.32 ppbv 0.04
Spiked Amount 10.000 Range 65 - 135 Recovery = 103.20%

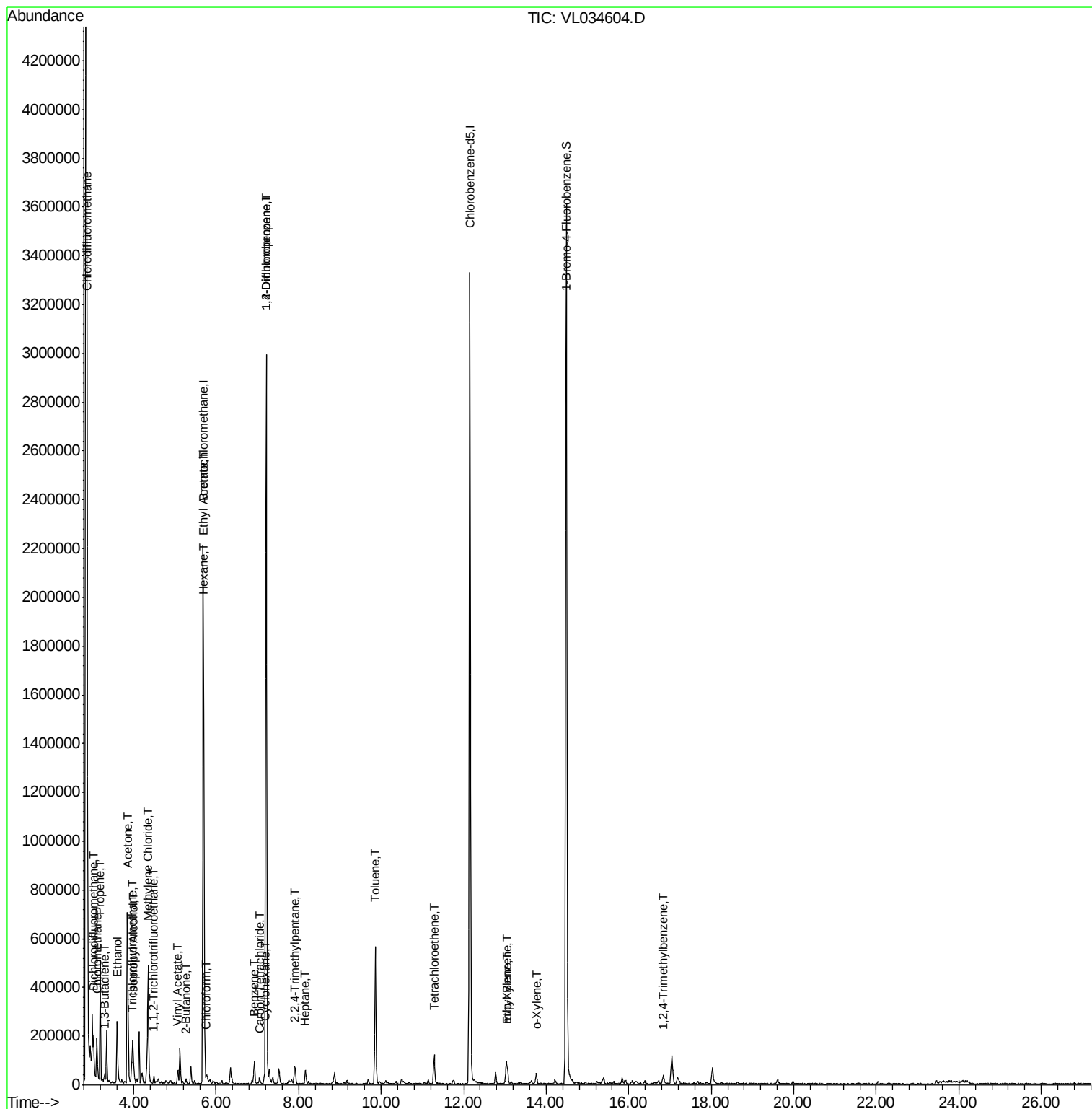
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	100690	0.506	ppbv	100
3) Chlorodifluoromethane	2.87	51	26720	0.245	ppbv	96
4) Chloromethane	3.12	50	17229	0.258	ppbv	93
9) Propene	3.19	41	120859	2.846	ppbv	90
10) Heptane	8.17	43	4683	0.044	ppbv #	1
11) Trichlorofluoromethane	3.95	101	45306	0.251	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.48	101	4369	0.037	ppbv #	1
13) Ethanol	3.60	45	241915	21.265	ppbv	99
15) Acetone	3.84	43	717516	5.408	ppbv	97
16) 1,3-Butadiene	3.29	39	7903	0.150	ppbv #	63
19) Isopropyl Alcohol	3.97	45	199556	2.577	ppbv #	94
20) Methylene Chloride	4.35	84	152570	3.020	ppbv	95
23) Vinyl Acetate	5.08	43	11249	0.074	ppbv #	26
25) Ethyl Acetate	5.70	43	93813	0.437	ppbv #	83
26) Hexane	5.71	57	117201	1.303	ppbv #	40
29) Chloroform	5.77	83	10236	0.064	ppbv	97
30) Cyclohexane	7.17	84	2496	0.037	ppbv #	1
34) 2-Butanone	5.26	43	5811	0.043	ppbv #	54
35) Carbon Tetrachloride	7.05	117	11258	0.063	ppbv #	93
36) Benzene	6.93	78	60676	0.363	ppbv #	90
39) 1,2-Dichloropropane	7.21	63	540347	7.807	ppbv #	20
44) 2,2,4-Trimethylpentane	7.90	57	15371	0.051	ppbv #	41
52) Tetrachloroethene	11.29	164	15148	0.226	ppbv #	75
53) Toluene	9.86	91	373158	2.035	ppbv	99
58) Ethyl Benzene	13.07	91	16638	0.068	ppbv	94
59) m/p-Xylene	13.07	91	16638	0.077	ppbv #	32
60) o-Xylene	13.77	91	6733	0.031	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.84	105	11631	0.045	ppbv #	75

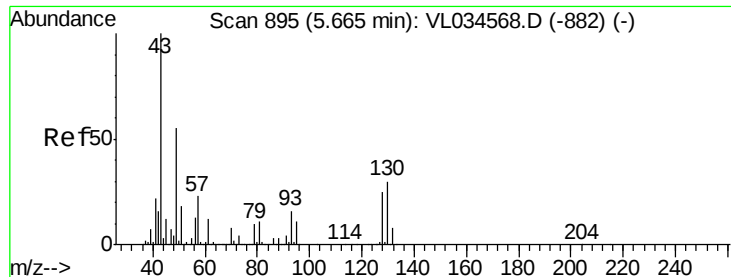
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 902

Delta R.T. 0.02 min

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IA-1

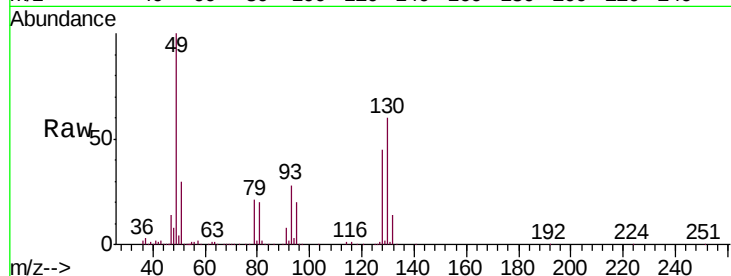
Tgt Ion: 49 Resp: 902759

Ion Ratio Lower Upper

49 100

128 45.9 22.7 68.1

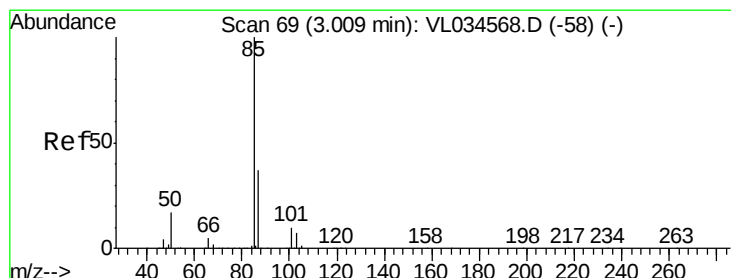
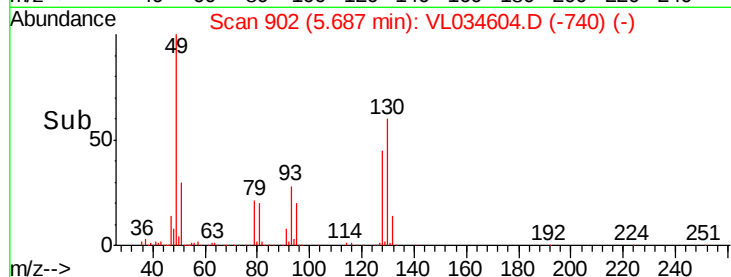
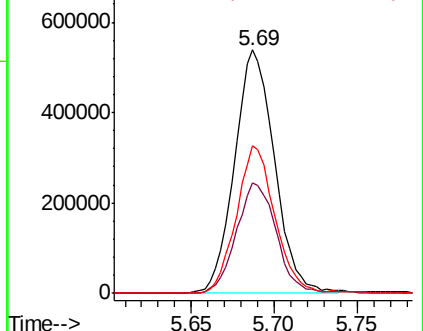
130 59.1 28.6 85.8



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: 0.506 ppbv

RT: 3.03 min Scan# 76

Delta R.T. 0.02 min

Lab File: VL034604.D

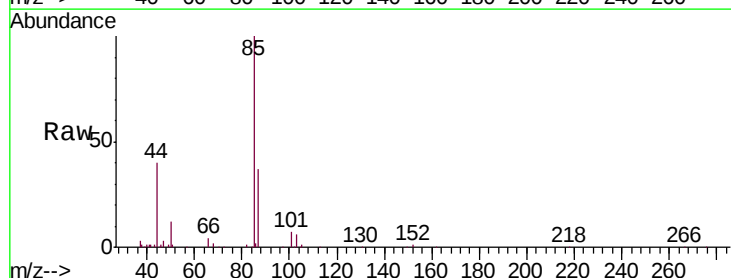
Acq: 6 Feb 2020 18:11

Tgt Ion: 85 Resp: 100690

Ion Ratio Lower Upper

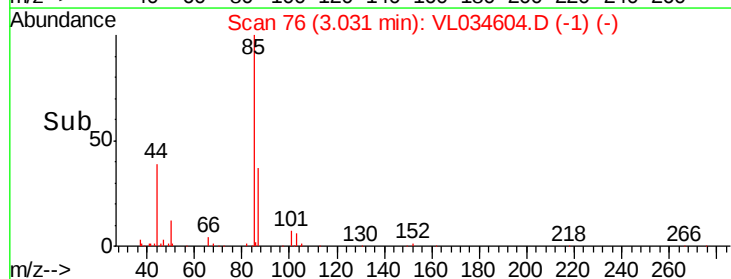
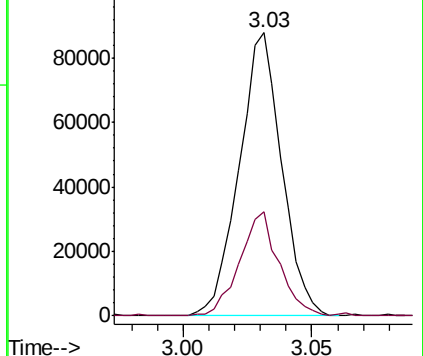
85 100

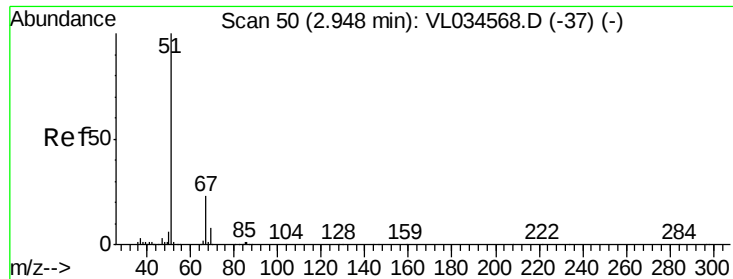
87 36.6 29.5 44.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.245 ppbv

RT: 2.87 min Scan# 26

Delta R.T. -0.08 min

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ClientSampleId :

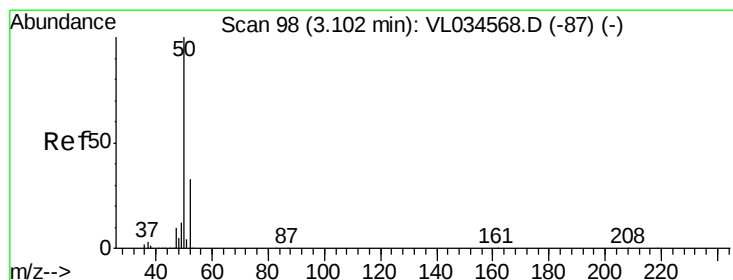
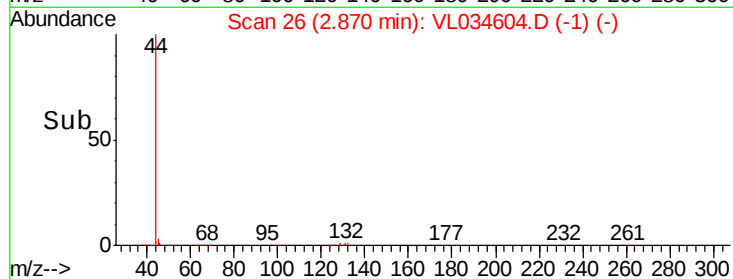
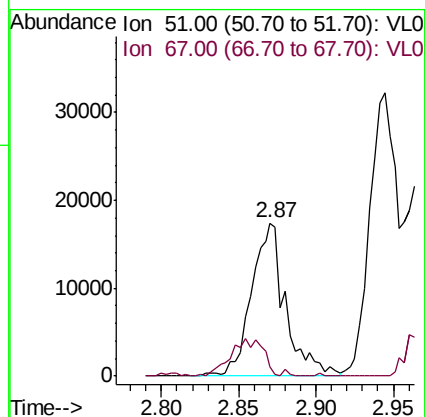
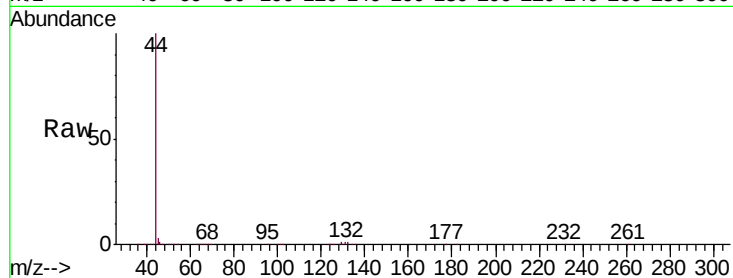
IA-1

Tgt Ion: 51 Resp: 26720

Ion Ratio Lower Upper

51 100

67 24.4 17.8 26.8



#4

Chloromethane

Concen: 0.258 ppbv

RT: 3.12 min Scan# 103

Delta R.T. 0.02 min

Lab File: VL034604.D

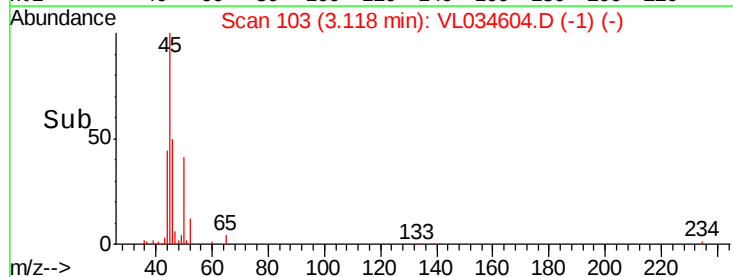
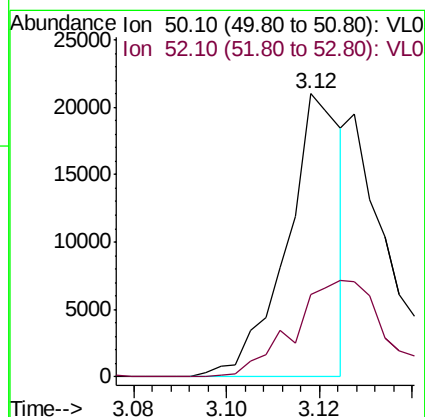
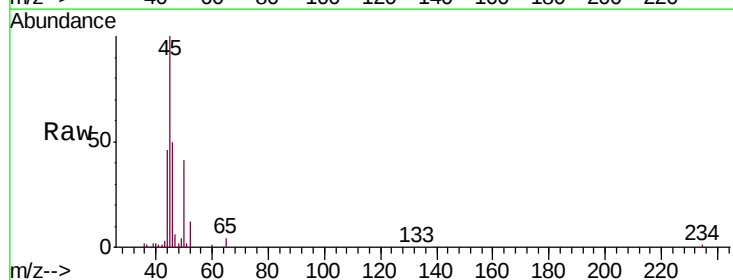
Acq: 6 Feb 2020 18:11

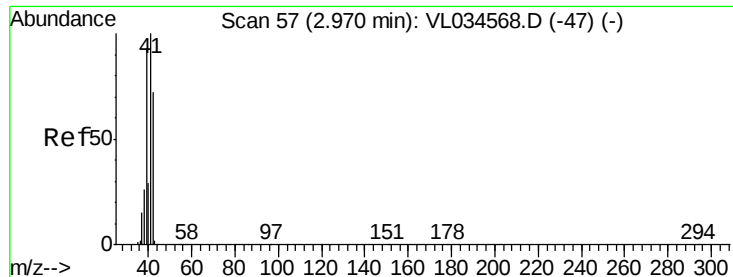
Tgt Ion: 50 Resp: 17229

Ion Ratio Lower Upper

50 100

52 29.0 26.6 39.8





#9

Propene

Concen: 2.846 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.22 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

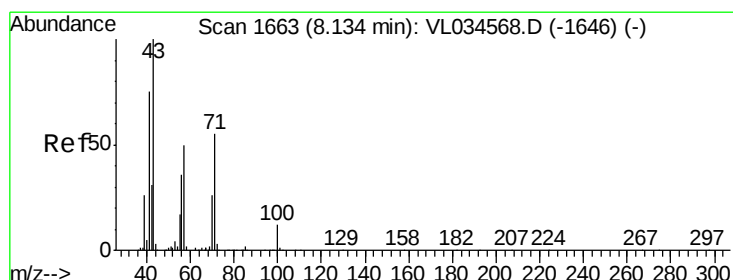
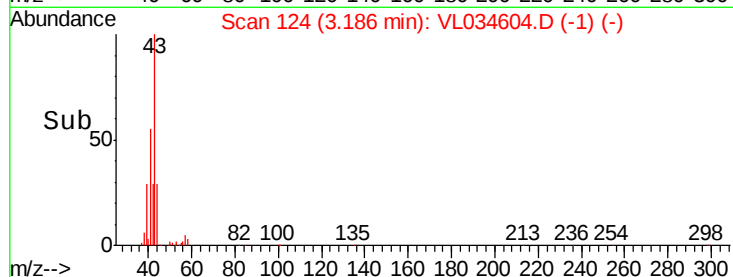
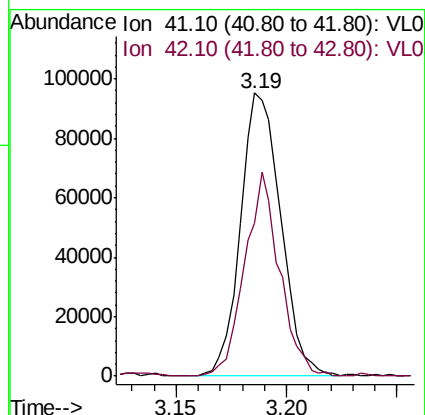
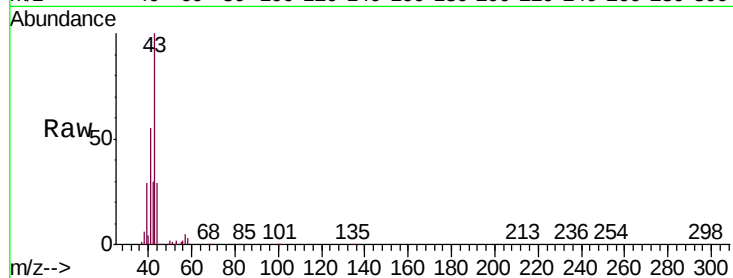
IA-1

Tgt Ion: 41 Resp: 120859

Ion Ratio Lower Upper

41 100

42 63.2 57.0 85.4



#10

Heptane

Concen: 0.044 ppbv

RT: 8.17 min Scan# 1674

Delta R.T. 0.04 min

Lab File: VL034604.D

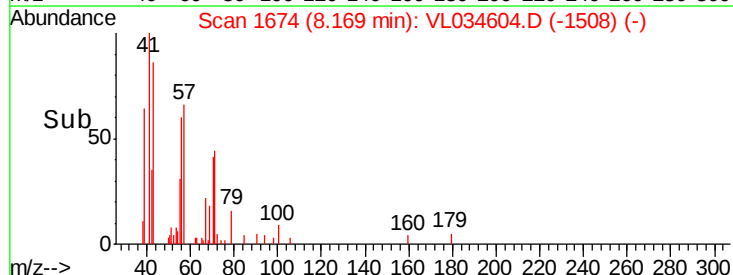
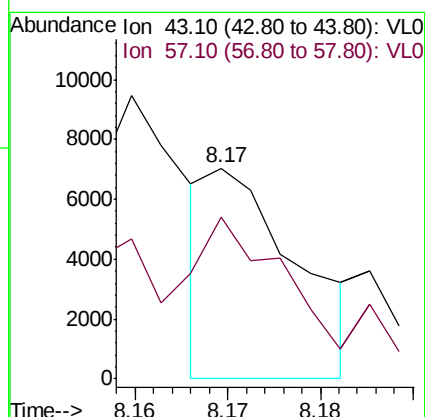
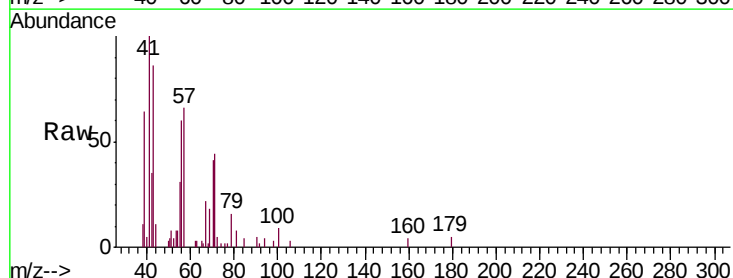
Acq: 6 Feb 2020 18:11

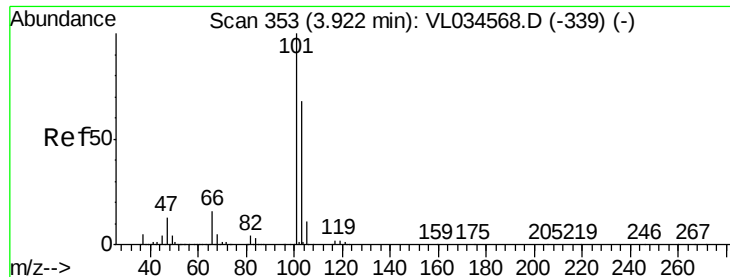
Tgt Ion: 43 Resp: 4683

Ion Ratio Lower Upper

43 100

57 194.1 41.2 61.8#

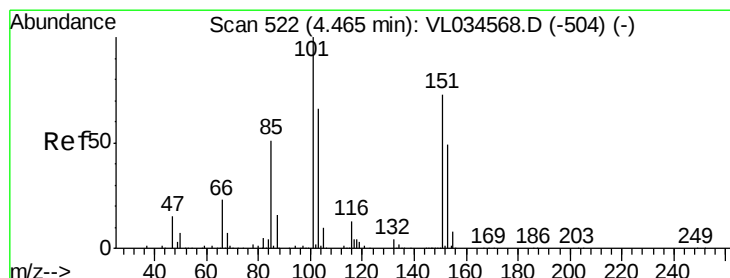
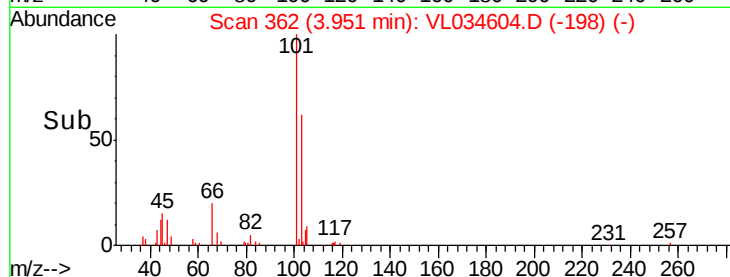
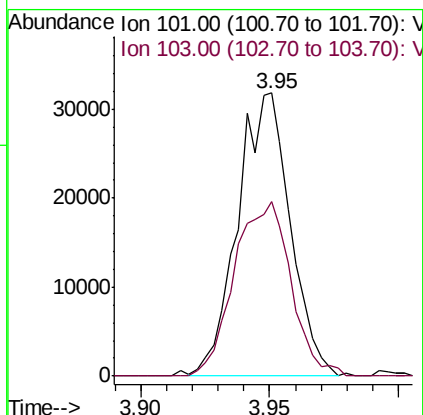
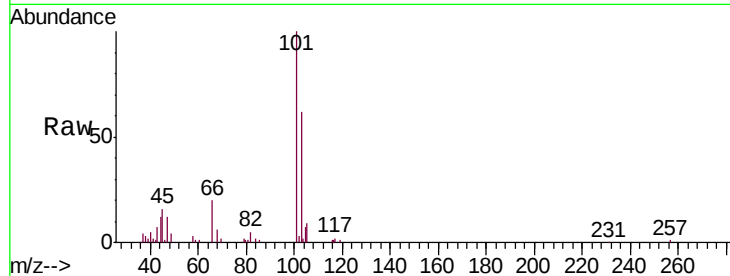




#11
 Trichlorofluoromethane
 Concen: 0.251 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.03 min
 Lab File: VL034604.D
 Acq: 6 Feb 2020 18:11

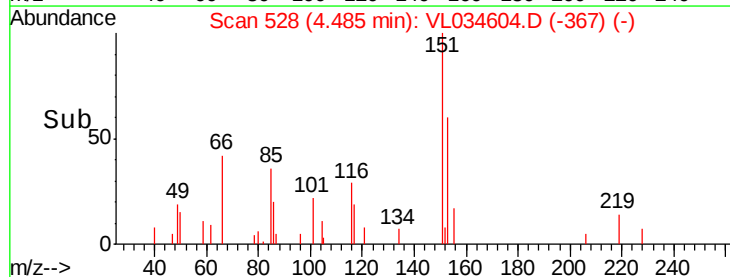
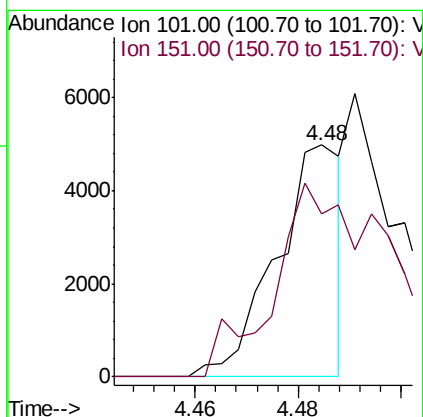
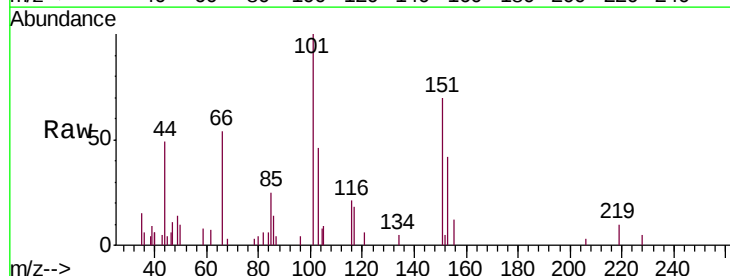
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

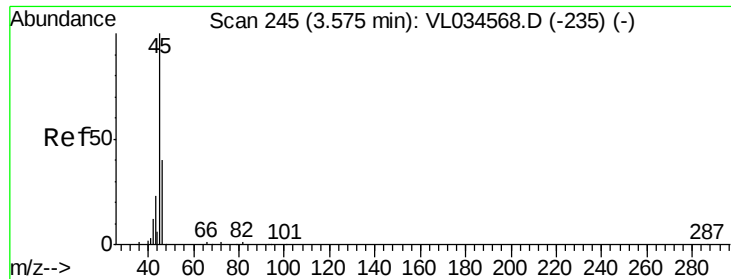
Tgt Ion:101 Resp: 45306
 Ion Ratio Lower Upper
 101 100
 103 63.3 54.4 81.6



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.037 ppbv
 RT: 4.48 min Scan# 528
 Delta R.T. 0.02 min
 Lab File: VL034604.D
 Acq: 6 Feb 2020 18:11

Tgt Ion:101 Resp: 4369
 Ion Ratio Lower Upper
 101 100
 151 155.7 57.0 85.6#





#13

Ethanol

Concen: 21.265 ppbv

RT: 3.60 min Scan# 253

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

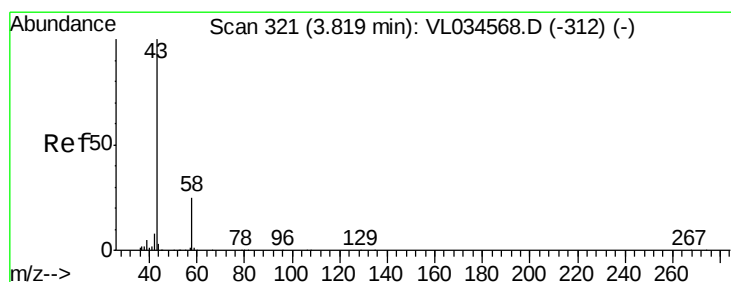
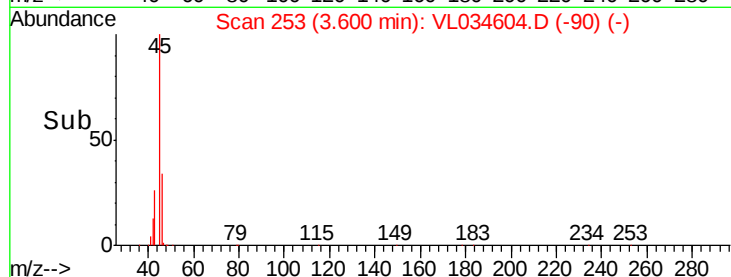
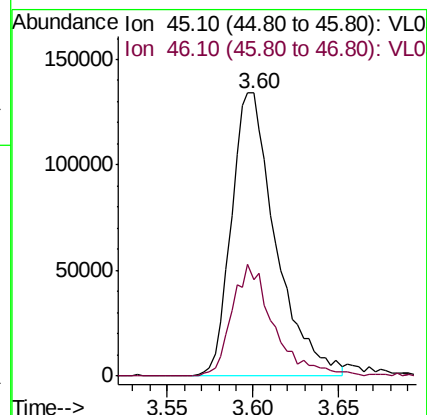
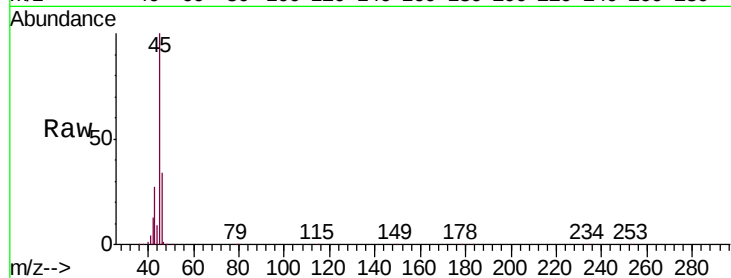
IA-1

Tgt Ion: 45 Resp: 241915

Ion Ratio Lower Upper

45 100

46 37.8 14.8 59.2



#15

Acetone

Concen: 5.408 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.03 min

Lab File: VL034604.D

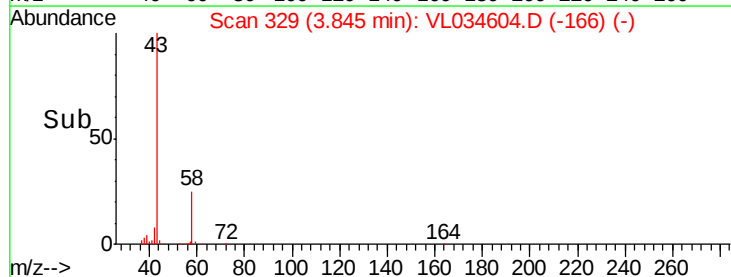
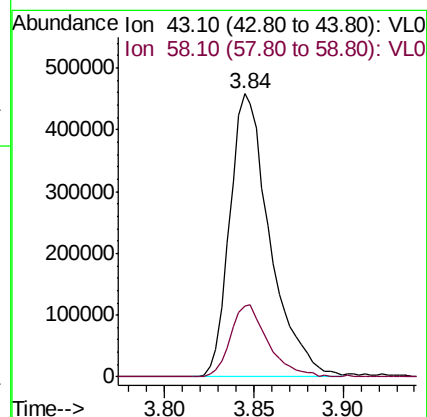
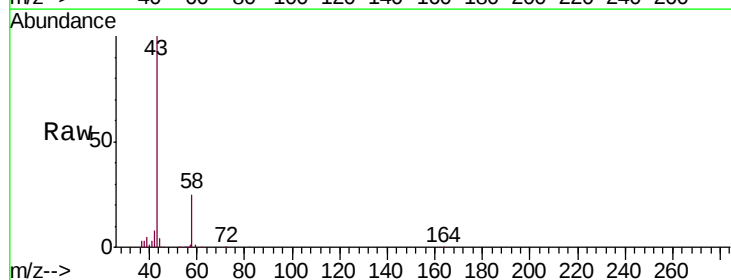
Acq: 6 Feb 2020 18:11

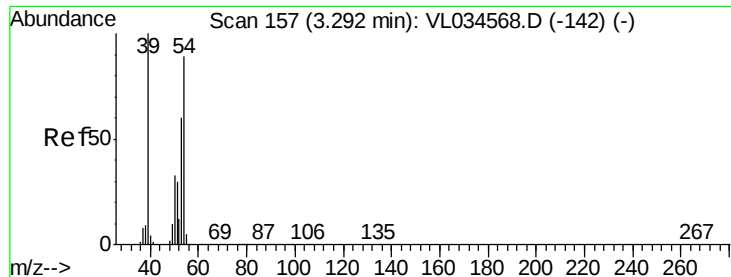
Tgt Ion: 43 Resp: 717516

Ion Ratio Lower Upper

43 100

58 24.1 20.3 30.5

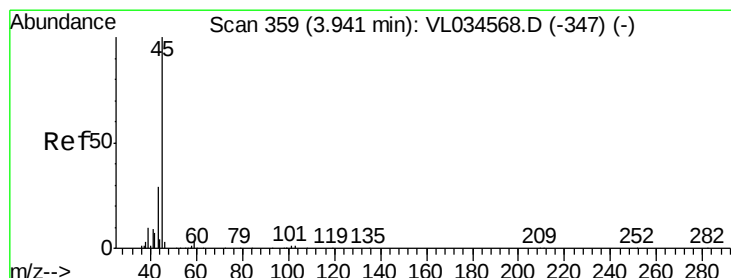
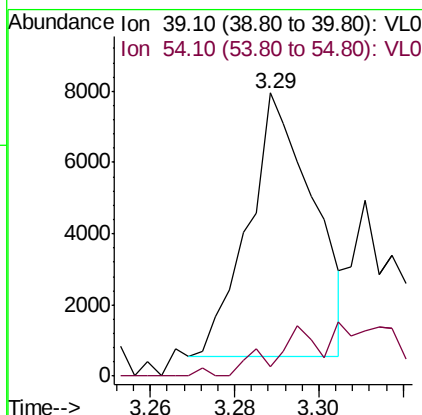
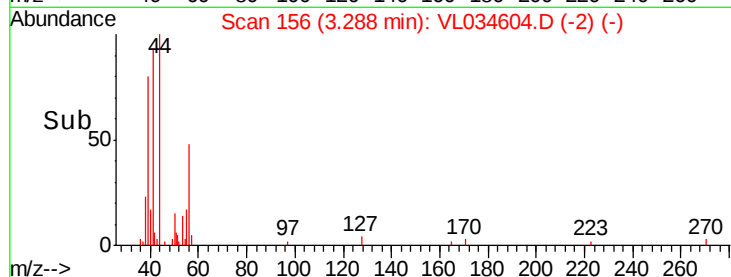
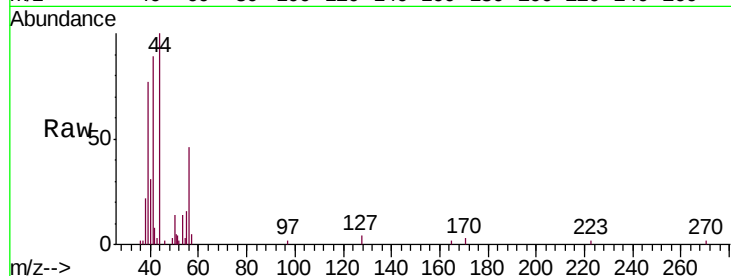




#16
1,3-Butadiene
Concen: 0.150 ppbv
RT: 3.29 min Scan# 156
Delta R.T. -0.00 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

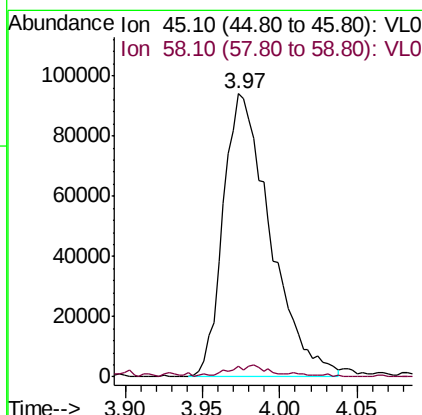
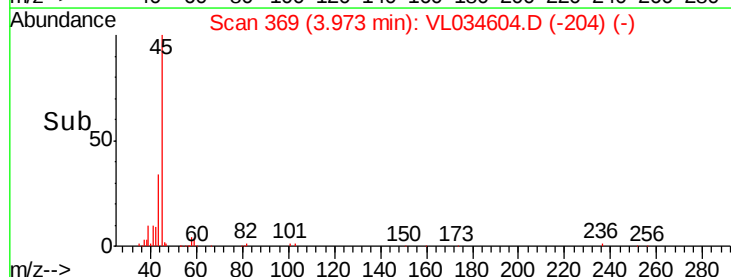
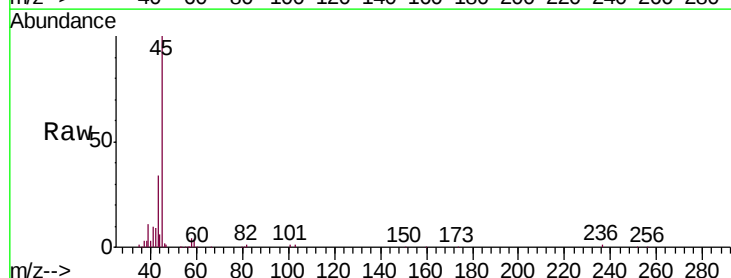
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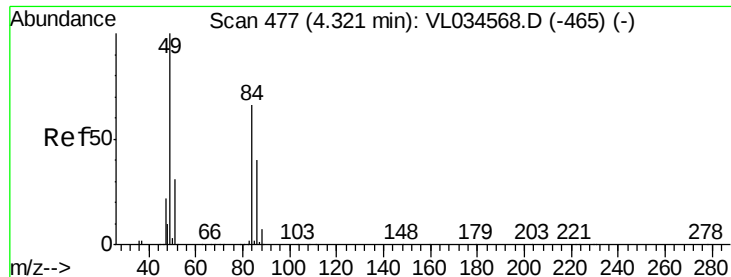
Tgt Ion: 39 Resp: 7903
Ion Ratio Lower Upper
39 100
54 49.6 66.7 100.1#



#19
Isopropyl Alcohol
Concen: 2.577 ppbv
RT: 3.97 min Scan# 369
Delta R.T. 0.03 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

Tgt Ion: 45 Resp: 199556
Ion Ratio Lower Upper
45 100
58 4.2 1.7 2.5#

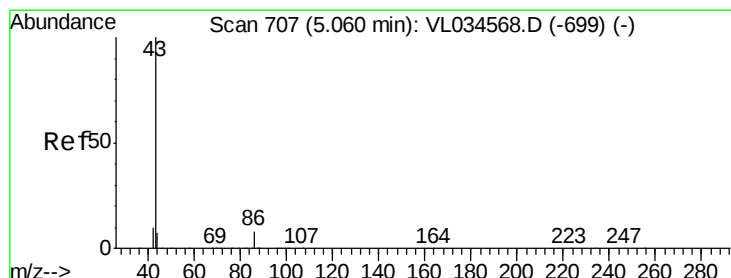
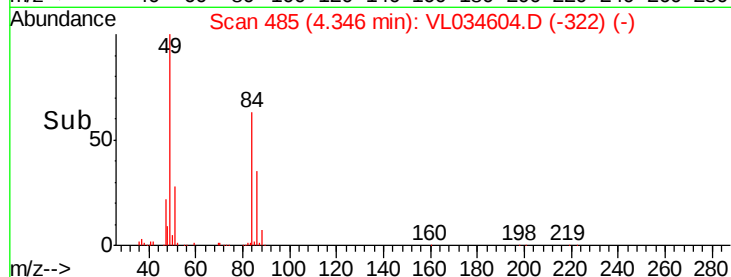
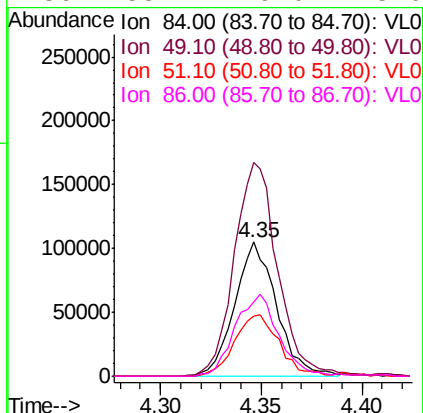
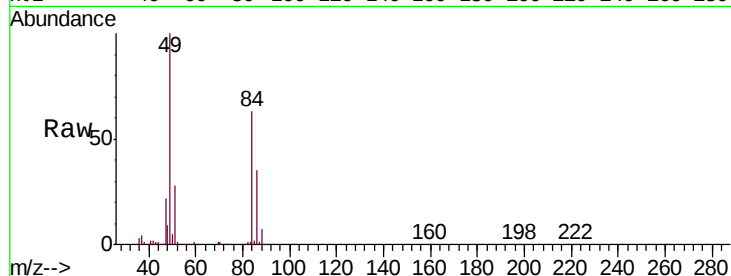




#20
Methylene Chloride
Concen: 3.020 ppbv
RT: 4.35 min Scan# 485
Delta R.T. 0.03 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

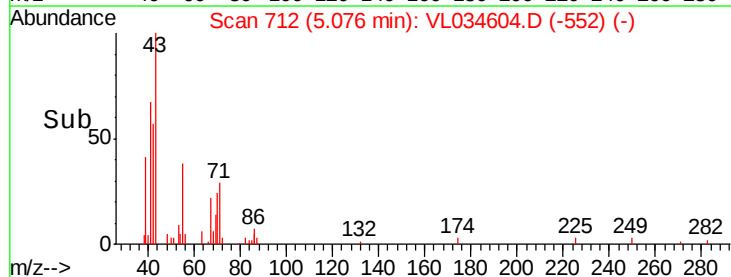
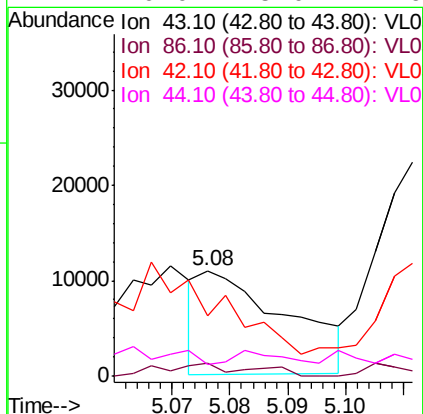
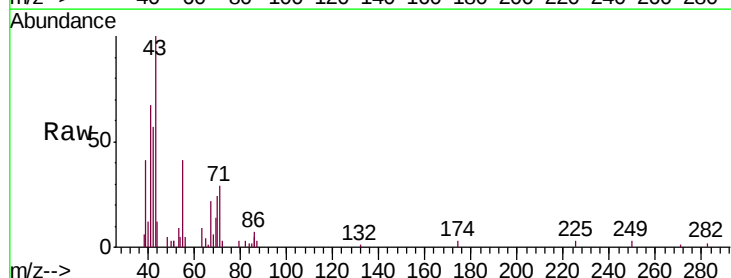
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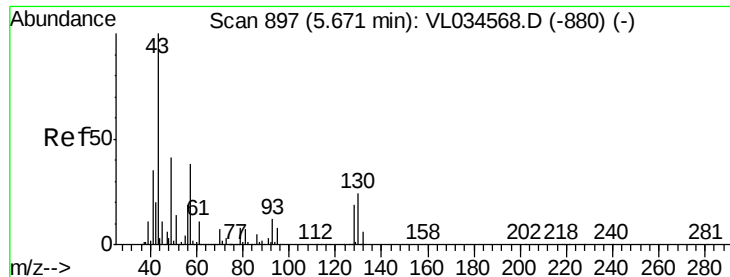
Tgt Ion:	84	Resp:	152570
Ion	Ratio	Lower	Upper
84	100		
49	158.3	122.4	183.6
51	44.9	38.6	57.8
86	55.4	49.0	73.6



#23
Vinyl Acetate
Concen: 0.074 ppbv
RT: 5.08 min Scan# 712
Delta R.T. 0.02 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

Tgt Ion:	43	Resp:	11249
Ion	Ratio	Lower	Upper
43	100		
86	23.0	5.9	8.9#
42	58.6	8.8	13.2#
44	0.0	5.0	7.6#





#25

Ethyl Acetate

Concen: 0.437 ppbv

RT: 5.70 min Scan# 907

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

IA-1

Tgt Ion: 43 Resp: 93813

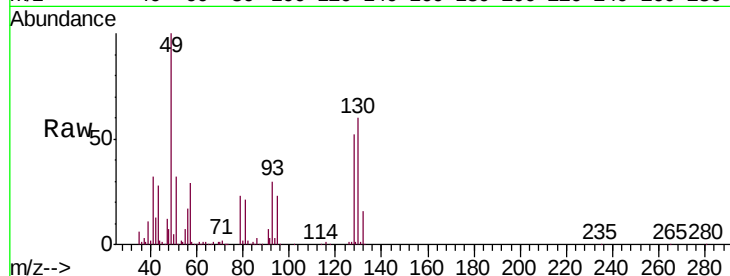
Ion Ratio Lower Upper

43 100

45 3.9 8.5 12.7#

61 2.2 7.8 11.6#

70 3.4 5.8 8.8#

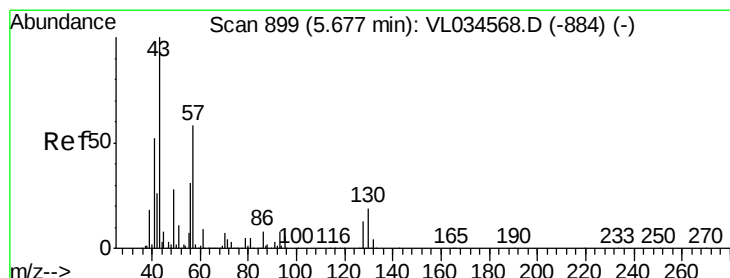
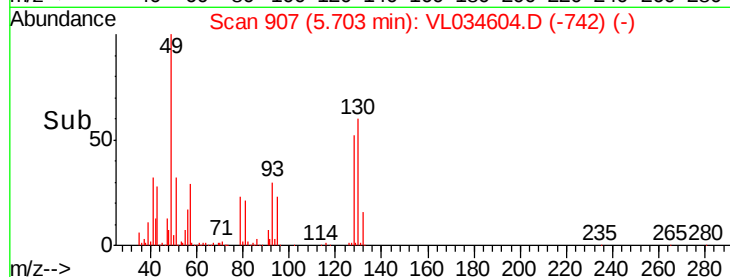
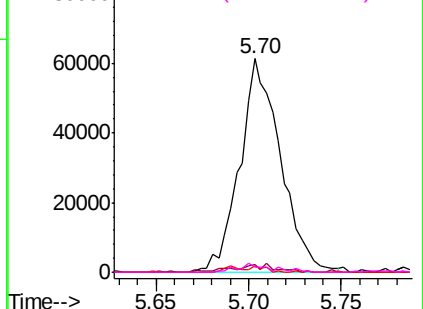


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 1.303 ppbv

RT: 5.71 min Scan# 908

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Tgt Ion: 57 Resp: 117201

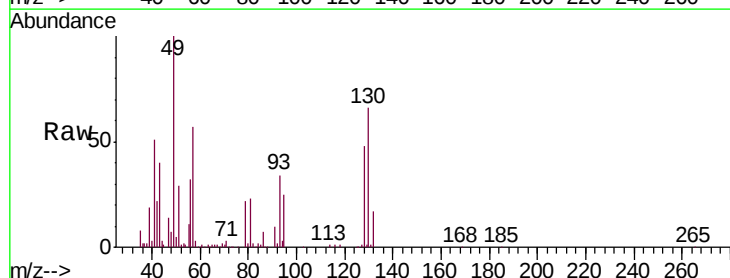
Ion Ratio Lower Upper

57 100

41 105.6 76.2 114.2

43 80.5 189.9 284.9#

56 58.6 43.6 65.4

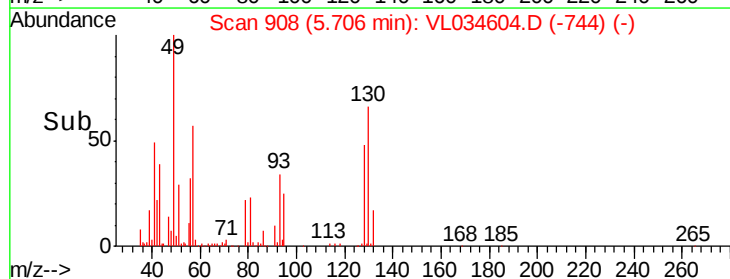
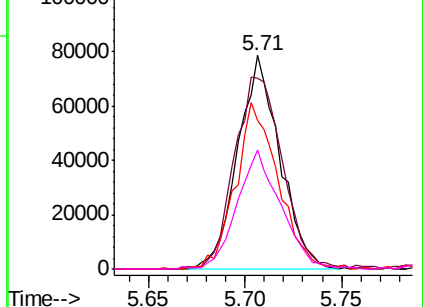


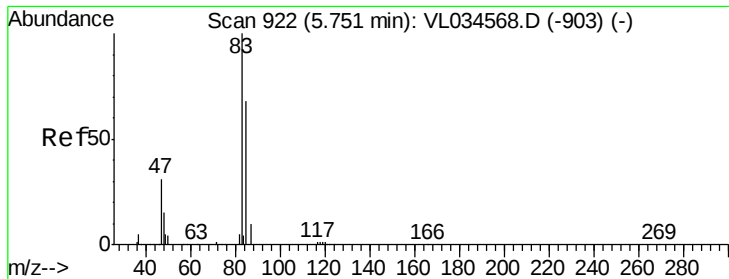
Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 0.064 ppbv

RT: 5.77 min Scan# 929

Delta R.T. 0.02 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

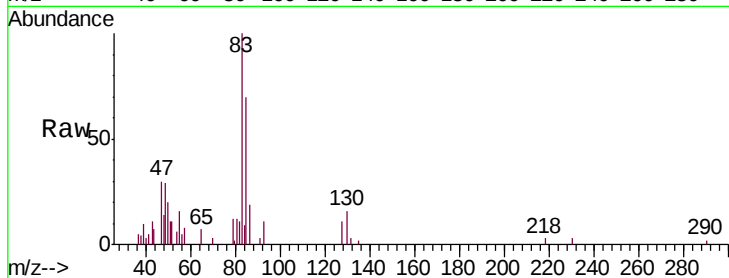
IA-1

Tgt Ion: 83 Resp: 10236

Ion Ratio Lower Upper

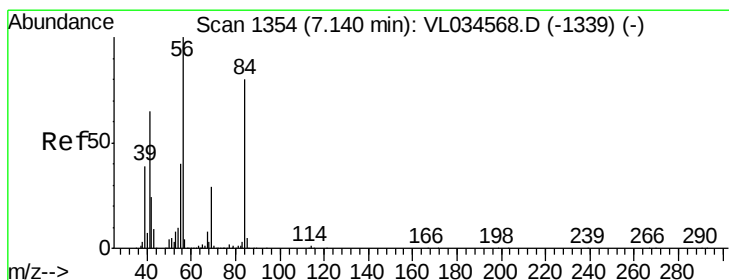
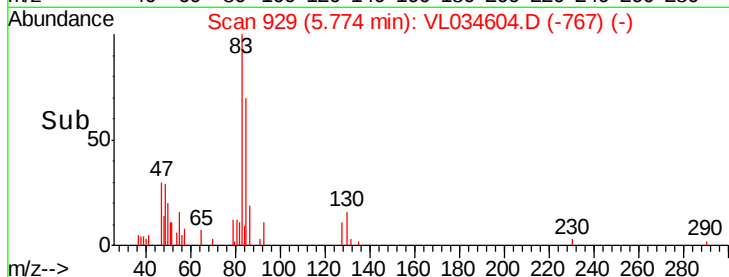
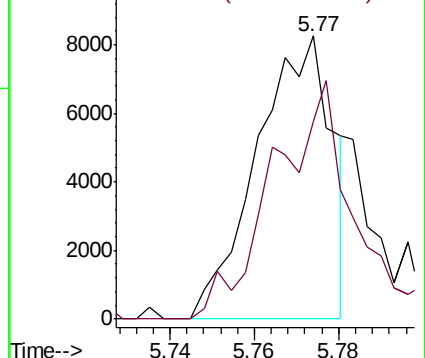
83 100

85 70.0 54.0 81.0



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.037 ppbv

RT: 7.17 min Scan# 1363

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

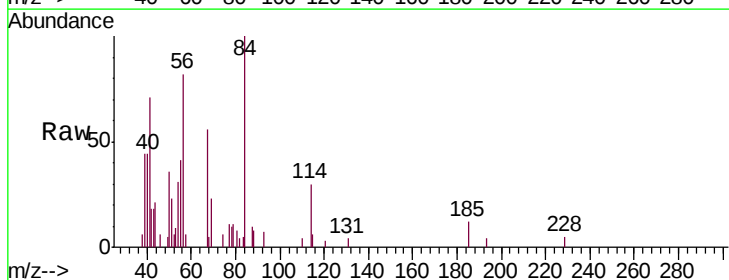
Tgt Ion: 84 Resp: 2496

Ion Ratio Lower Upper

84 100

56 0.0 110.5 165.7#

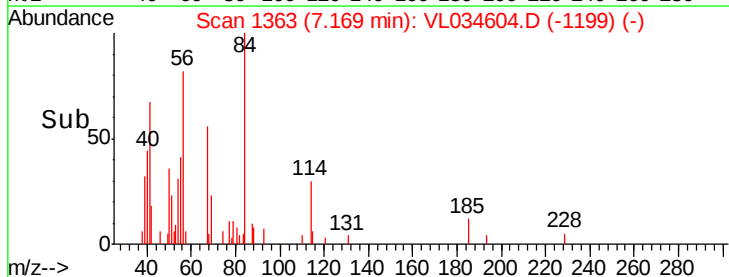
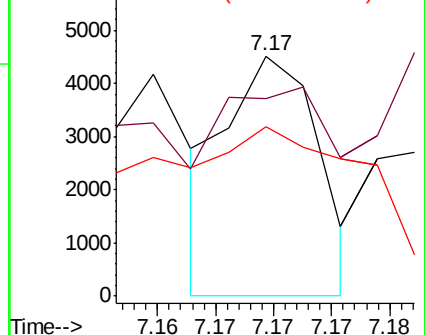
41 267.2 71.9 107.9#

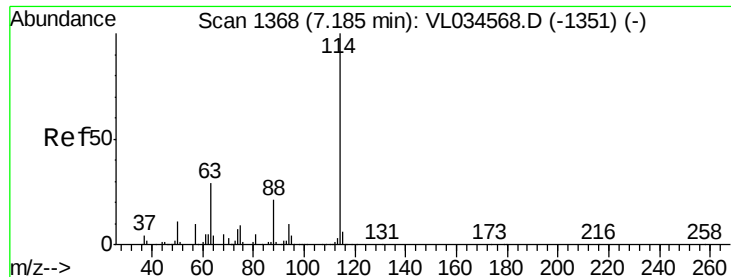


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

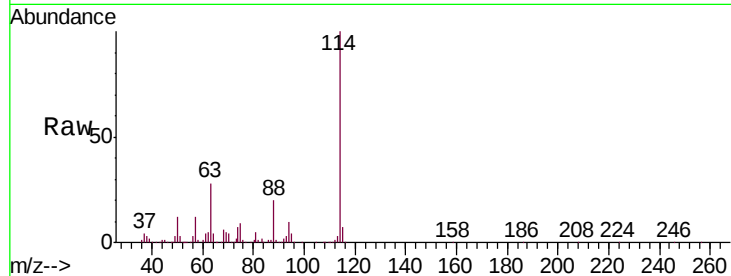




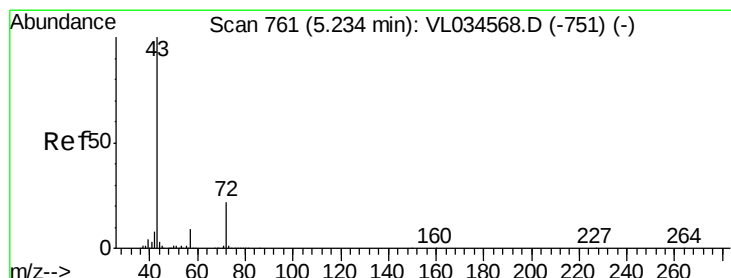
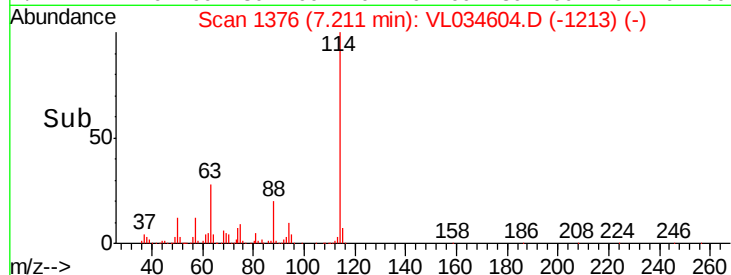
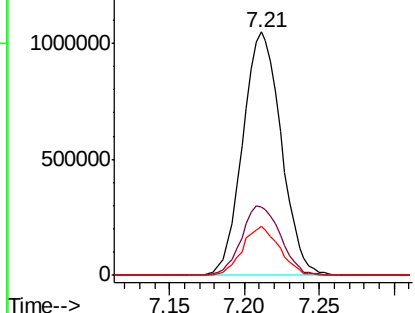
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.21 min Scan# 1376
 Delta R.T. 0.03 min
 Lab File: VL034604.D
 Acq: 6 Feb 2020 18:11

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1

Tgt Ion:114 Resp: 1877413
 Ion Ratio Lower Upper
 114 100
 63 29.0 24.1 36.1
 88 19.4 15.9 23.9

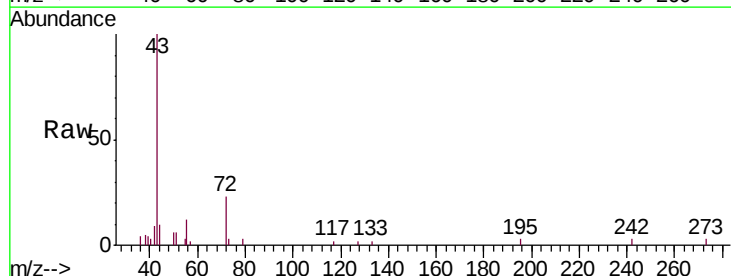


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

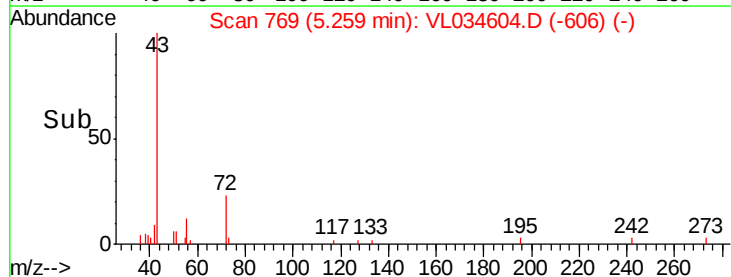
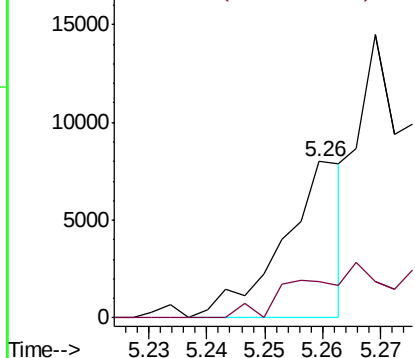


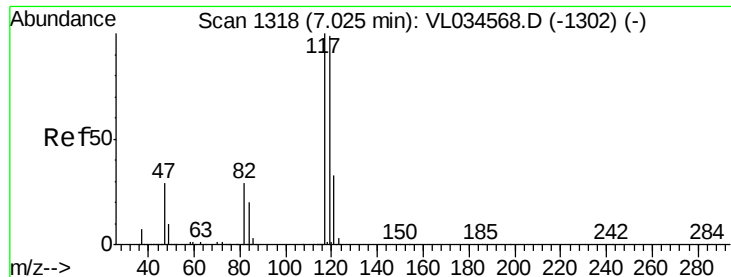
#34
 2-Butanone
 Concen: 0.043 ppbv
 RT: 5.26 min Scan# 769
 Delta R.T. 0.03 min
 Lab File: VL034604.D
 Acq: 6 Feb 2020 18:11

Tgt Ion: 43 Resp: 5811
 Ion Ratio Lower Upper
 43 100
 72 0.0 17.2 25.8#



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





#35

Carbon Tetrachloride

Concen: 0.063 ppbv

RT: 7.05 min Scan# 1327

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

IA-1

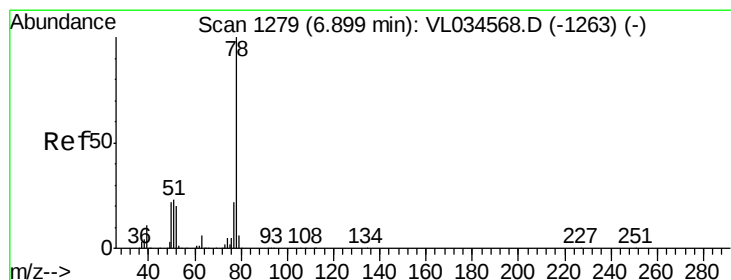
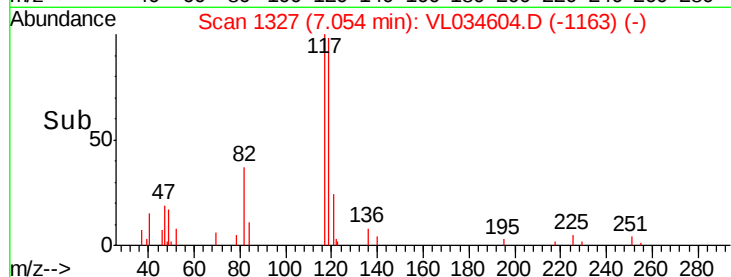
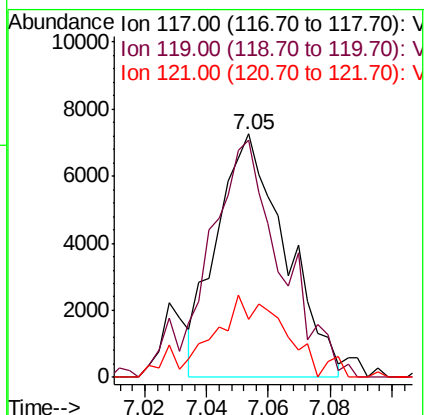
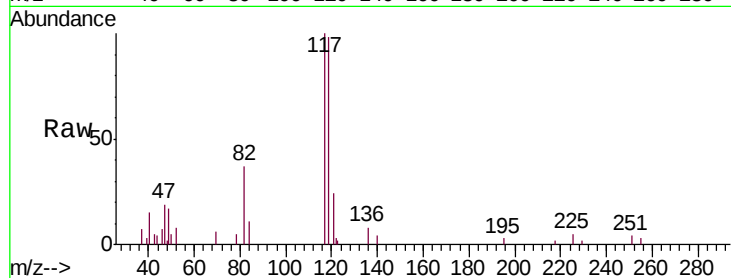
Tgt Ion: 117 Resp: 11258

Ion Ratio Lower Upper

117 100

119 100.0 79.5 119.3

121 17.2 26.2 39.2#



#36

Benzene

Concen: 0.363 ppbv

RT: 6.93 min Scan# 1289

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

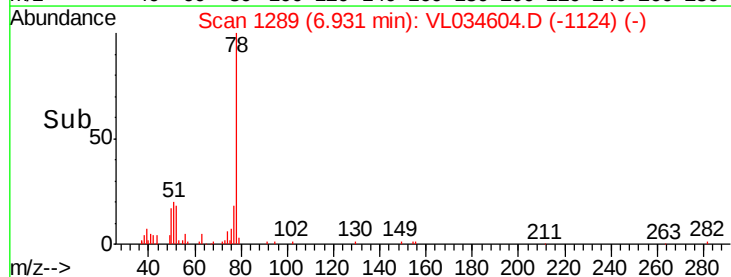
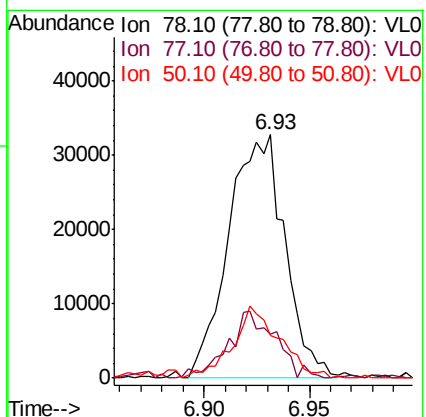
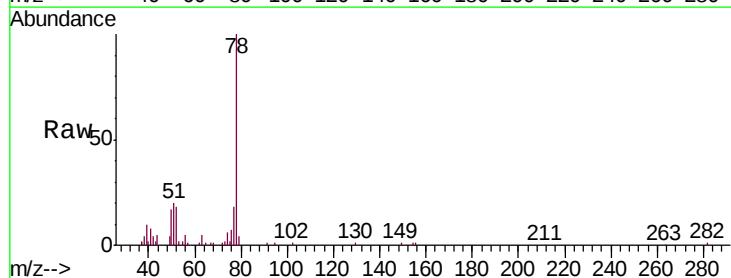
Tgt Ion: 78 Resp: 60676

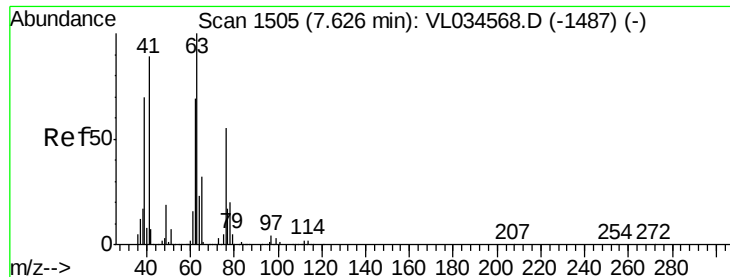
Ion Ratio Lower Upper

78 100

77 17.3 17.3 25.9

50 16.4 17.4 26.2#





#39

1,2-Dichloropropane

Concen: 7.807 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. -0.42 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

IA-1

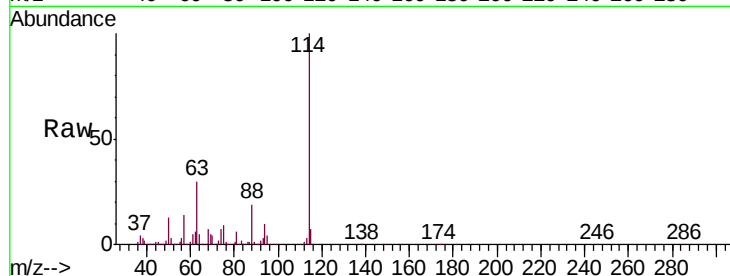
Tgt Ion: 63 Resp: 540347

Ion Ratio Lower Upper

63 100

41 0.0 71.0 106.4#

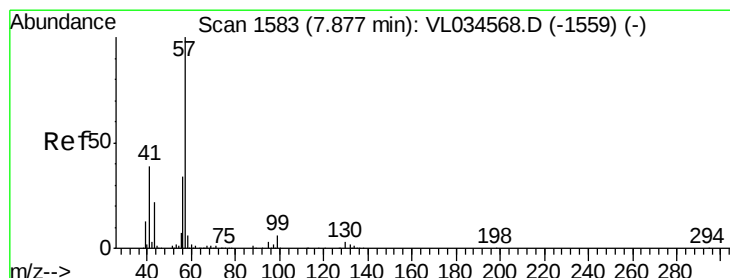
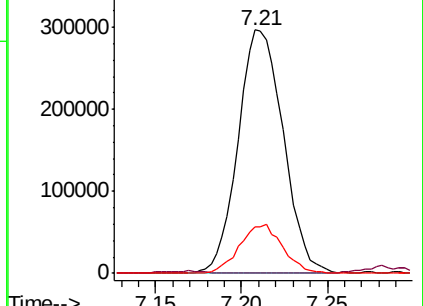
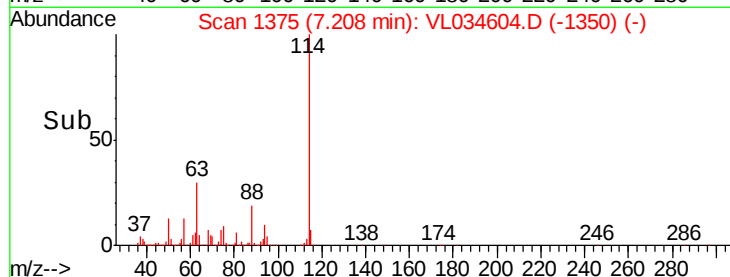
62 18.9 55.4 83.0#



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: 0.051 ppbv

RT: 7.90 min Scan# 1591

Delta R.T. 0.03 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

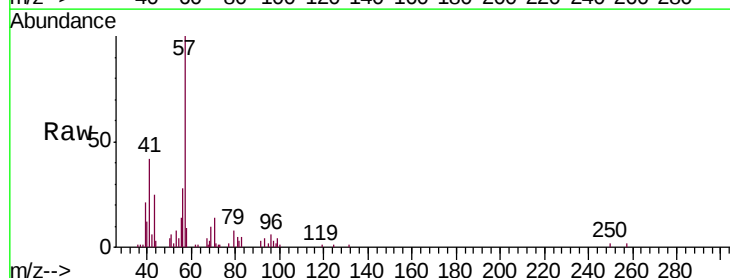
Tgt Ion: 57 Resp: 15371

Ion Ratio Lower Upper

57 100

41 0.0 28.9 43.3#

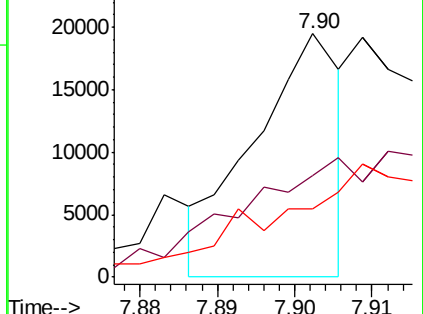
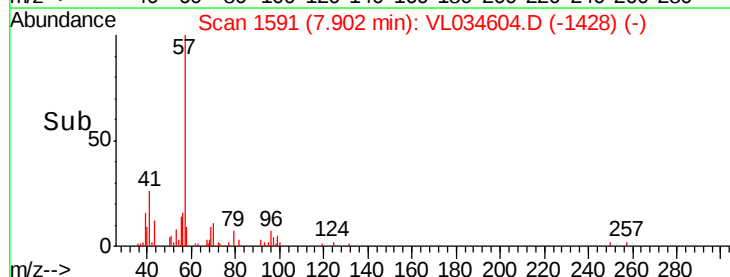
56 0.0 25.5 38.3#

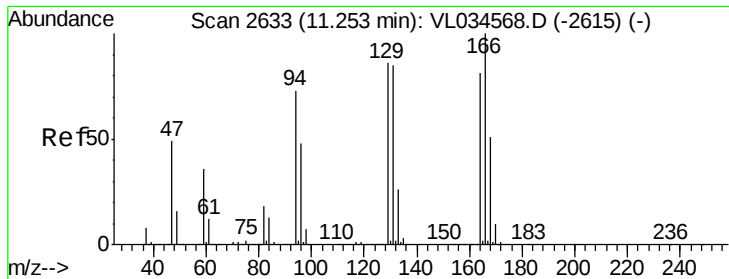


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 0.226 ppbv

RT: 11.29 min Scan# 2645

Delta R.T. 0.04 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

IA-1

Tgt Ion:164 Resp: 15148

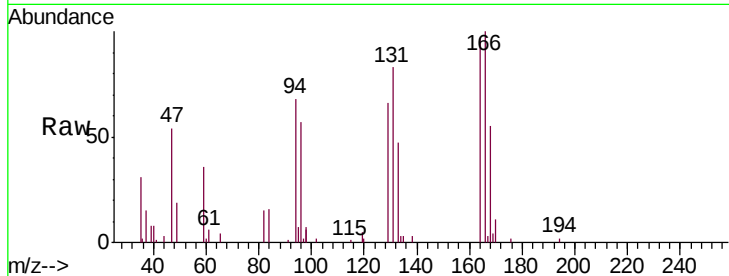
Ion Ratio Lower Upper

164 100

166 103.0 99.0 148.4

129 66.8 85.3 127.9#

131 86.0 84.2 126.2

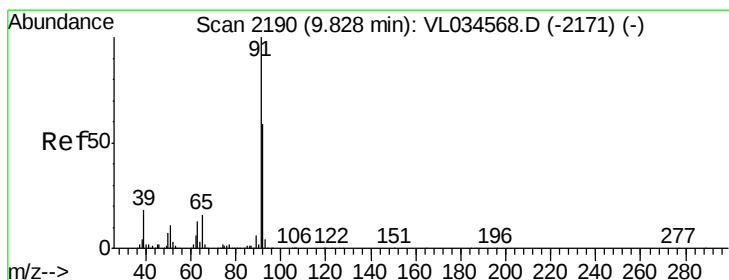
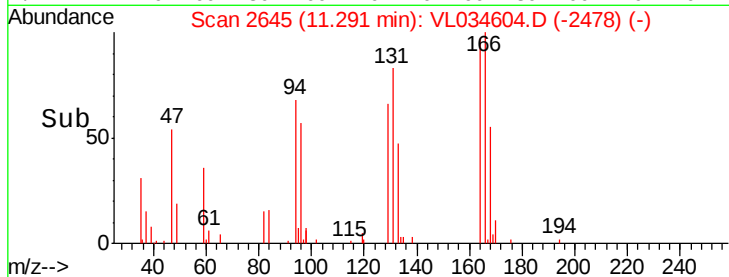
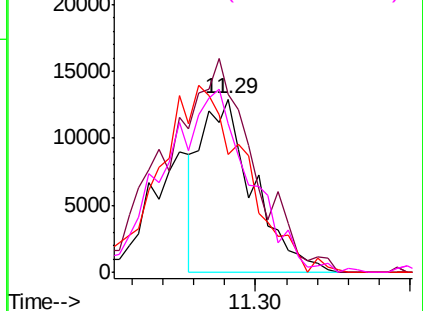


Abundance Ion 163.90 (163.60 to 164.60): V

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: 2.035 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. 0.03 min

Lab File: VL034604.D

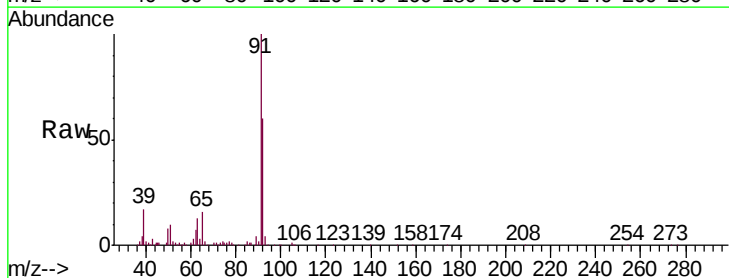
Acq: 6 Feb 2020 18:11

Tgt Ion: 91 Resp: 373158

Ion Ratio Lower Upper

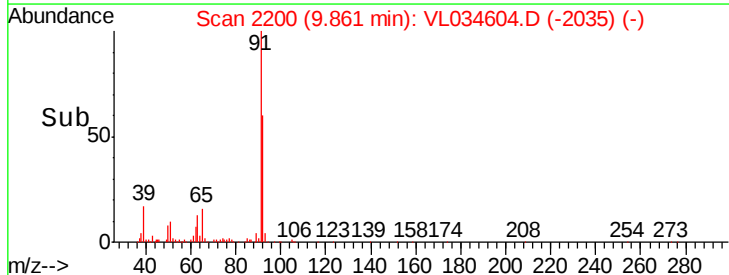
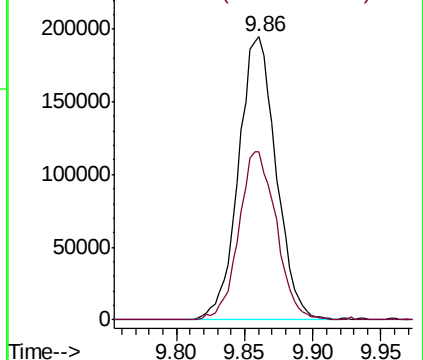
91 100

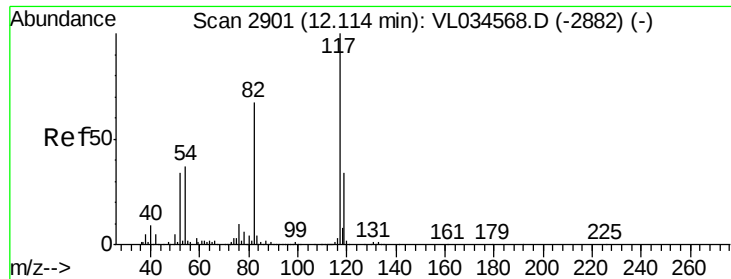
92 59.3 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

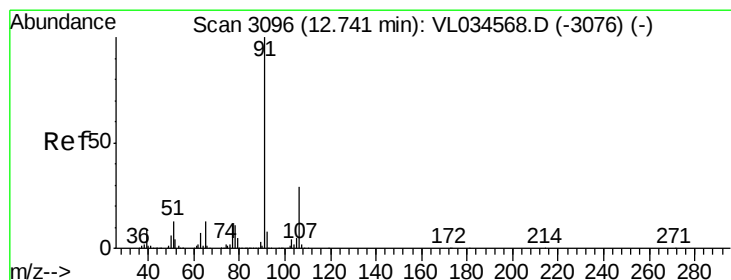
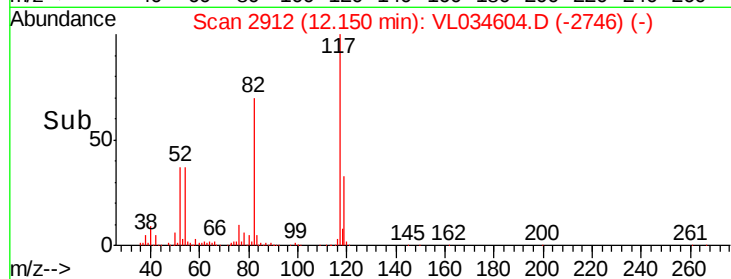
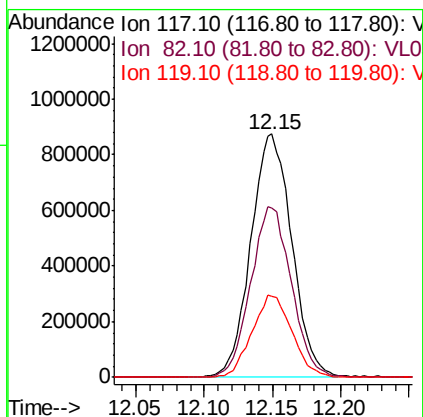
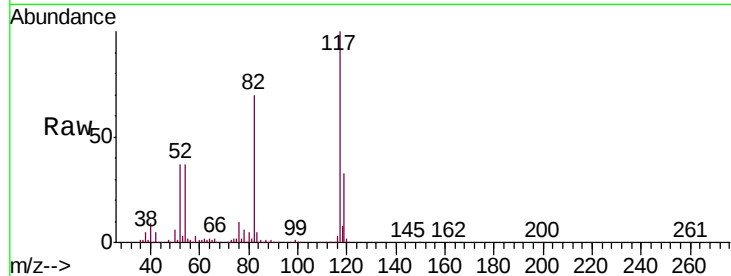




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.15 min Scan# 2912
Delta R.T. 0.04 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

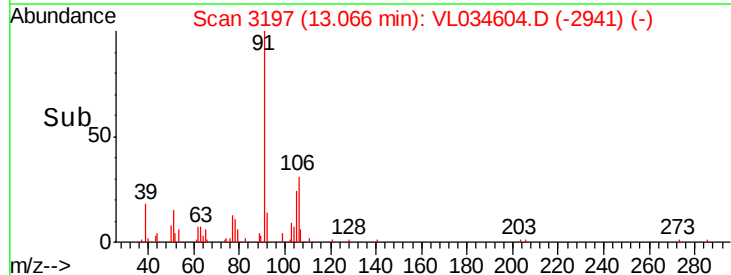
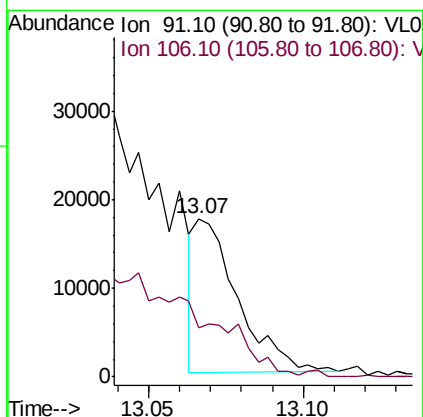
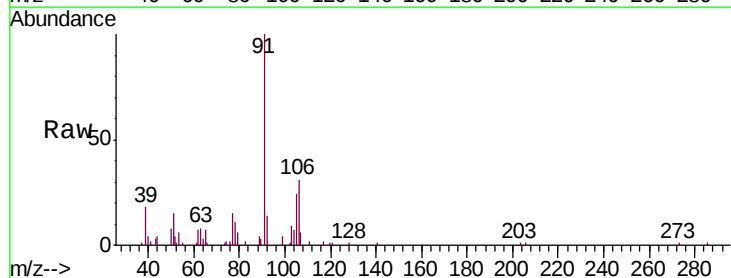
Instrument :
MSVOA_L
ClientSampleID :
IA-1

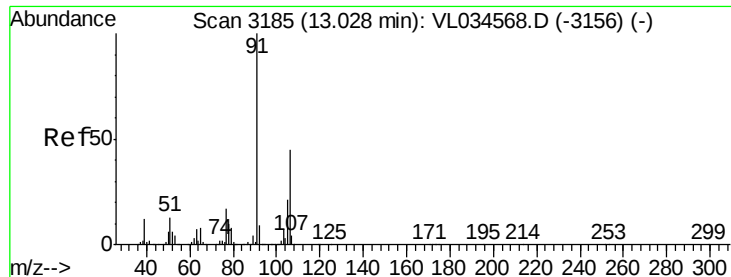
Tgt Ion: 117 Resp: 1824013
Ion Ratio Lower Upper
117 100
82 69.8 54.2 81.4
119 33.1 26.1 39.1



#58
Ethyl Benzene
Concen: 0.068 ppbv
RT: 13.07 min Scan# 3197
Delta R.T. 0.32 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

Tgt Ion: 91 Resp: 16638
Ion Ratio Lower Upper
91 100
106 32.4 23.3 34.9

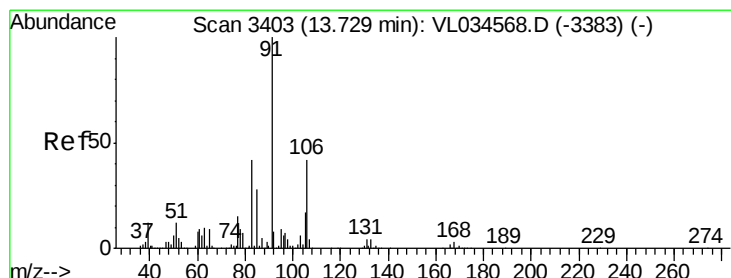
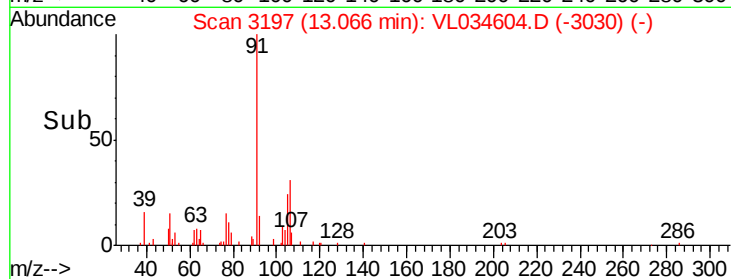
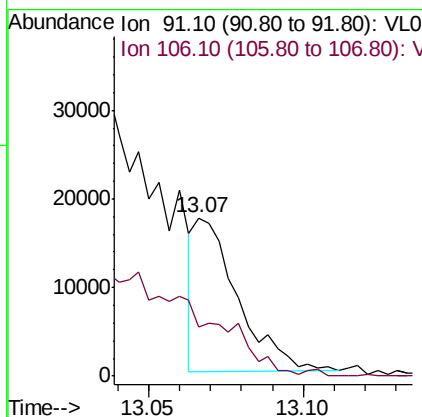
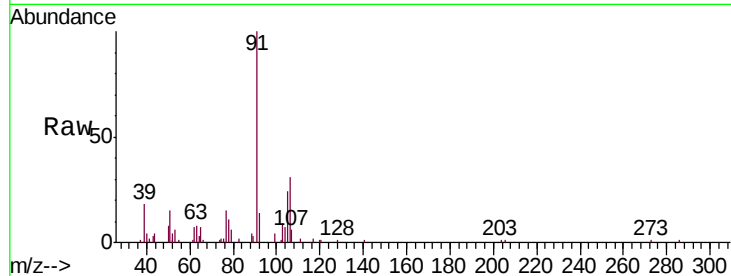




#59
m/p-Xylene
Concen: 0.077 ppbv
RT: 13.07 min Scan# 3197
Delta R.T. 0.04 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

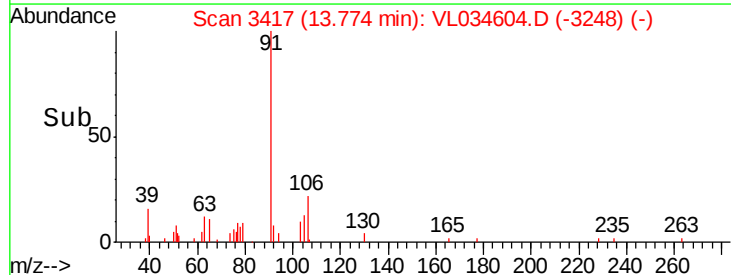
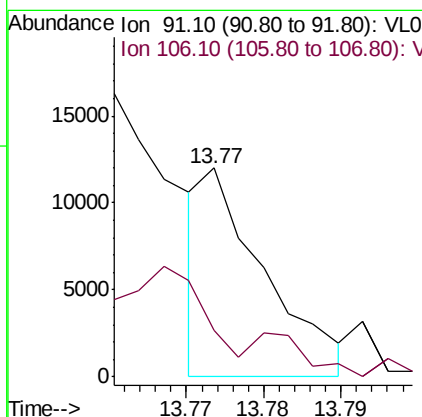
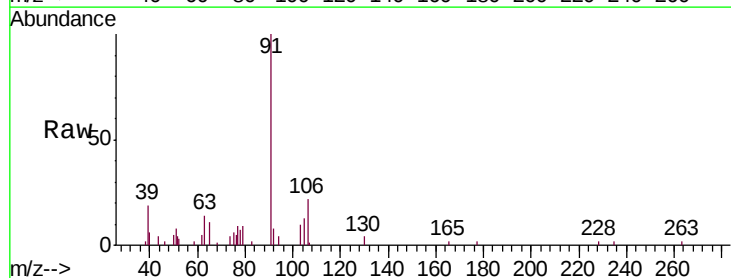
Instrument :
MSVOA_L
ClientSampled :
IA-1

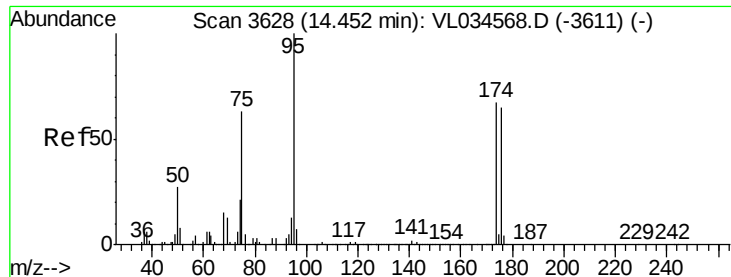
Tgt Ion: 91 Resp: 16638
Ion Ratio Lower Upper
91 100
106 0.0 35.3 52.9#



#60
o-Xylene
Concen: 0.031 ppbv
RT: 13.77 min Scan# 3417
Delta R.T. 0.04 min
Lab File: VL034604.D
Acq: 6 Feb 2020 18:11

Tgt Ion: 91 Resp: 6733
Ion Ratio Lower Upper
91 100
106 194.0 21.6 65.0#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.318 ppbv

RT: 14.49 min Scan# 3639

Delta R.T. 0.04 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Instrument :

MSVOA_L

ClientSampleId :

IA-1

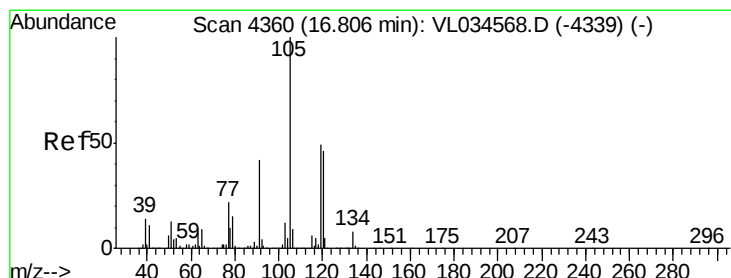
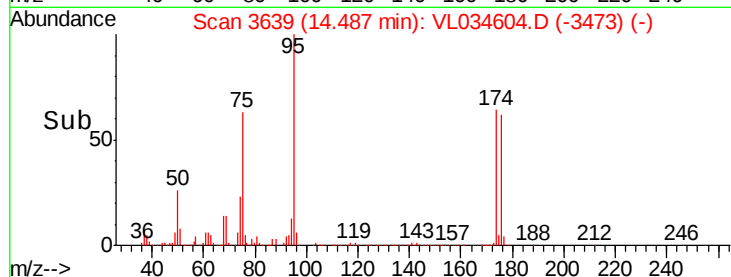
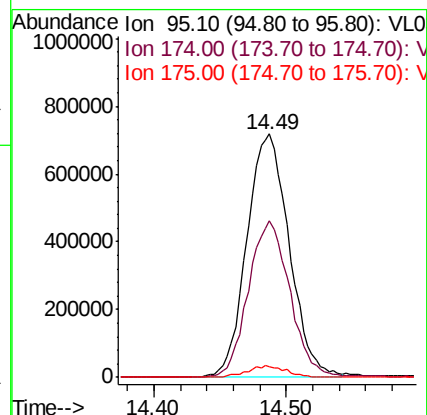
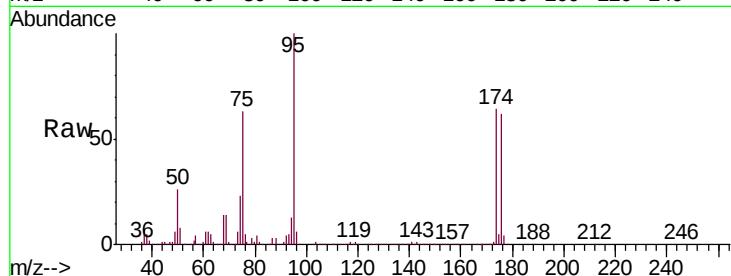
Tgt Ion: 95 Resp: 1590637

Ion Ratio Lower Upper

95 100

174 64.2 52.3 78.5

175 4.5 3.8 5.6



#74

1,2,4-Trimethylbenzene

Concen: 0.045 ppbv

RT: 16.84 min Scan# 4372

Delta R.T. 0.04 min

Lab File: VL034604.D

Acq: 6 Feb 2020 18:11

Tgt Ion: 105 Resp: 11631

Ion Ratio Lower Upper

105 100

120 39.8 37.1 55.7

91 12.2 34.3 51.5#

77 27.2 17.5 26.3#

