

Data File : VL034605.D
Acq On : 6 Feb 2020 18:52
Operator : SY/AP
Sample : L1435-01DUP
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

Quant Time: Feb 07 07:38:00 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	863965	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.21	114	1839733	10.00	ppbv	0.02
55) Chlorobenzene-d5	12.14	117	1790647	10.00	ppbv	0.03

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.48 95 1557807 10.29 ppbv 0.03
Spiked Amount 10.000 Range 65 - 135 Recovery = 102.90%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.03	85	20781	0.109	ppbv	93
3) Chlorodifluoromethane	2.94	51	68322	0.654	ppbv #	76
4) Chloromethane	3.12	50	26008	0.407	ppbv	93
9) Propene	3.19	41	97905	2.409	ppbv	92
10) Heptane	8.17	43	10056	0.098	ppbv #	36
11) Trichlorofluoromethane	3.94	101	46497	0.269	ppbv #	72
13) Ethanol	3.59	45	264137	24.260	ppbv	98
15) Acetone	3.84	43	711868	5.606	ppbv	97
16) 1,3-Butadiene	3.29	39	10798	0.214	ppbv #	8
19) Isopropyl Alcohol	3.97	45	236431	3.191	ppbv #	96
20) Methylene Chloride	4.34	84	159514	3.299	ppbv	95
23) Vinyl Acetate	5.08	43	8246	0.057	ppbv #	8
25) Ethyl Acetate	5.70	43	50964	0.248	ppbv #	81
26) Hexane	5.70	57	119683	1.390	ppbv #	40
29) Chloroform	5.76	83	6259	0.041	ppbv	85
30) Cyclohexane	7.16	84	3950	0.062	ppbv #	1
34) 2-Butanone	5.27	43	18123	0.136	ppbv	96
35) Carbon Tetrachloride	7.05	117	6488	0.037	ppbv #	52
36) Benzene	6.92	78	64242	0.393	ppbv	94
39) 1,2-Dichloropropane	7.21	63	531493	7.836	ppbv #	20
44) 2,2,4-Trimethylpentane	7.90	57	27654	0.093	ppbv #	21
52) Tetrachloroethene	11.28	164	24397	0.371	ppbv	90
53) Toluene	9.86	91	383506	2.134	ppbv	97
58) Ethyl Benzene	13.03	91	64006	0.267	ppbv	90
59) m/p-Xylene	13.05	91	38756	0.183	ppbv #	32
60) o-Xylene	13.75	91	21078	0.099	ppbv	66
74) 1,2,4-Trimethylbenzene	16.84	105	10550	0.042	ppbv #	66

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

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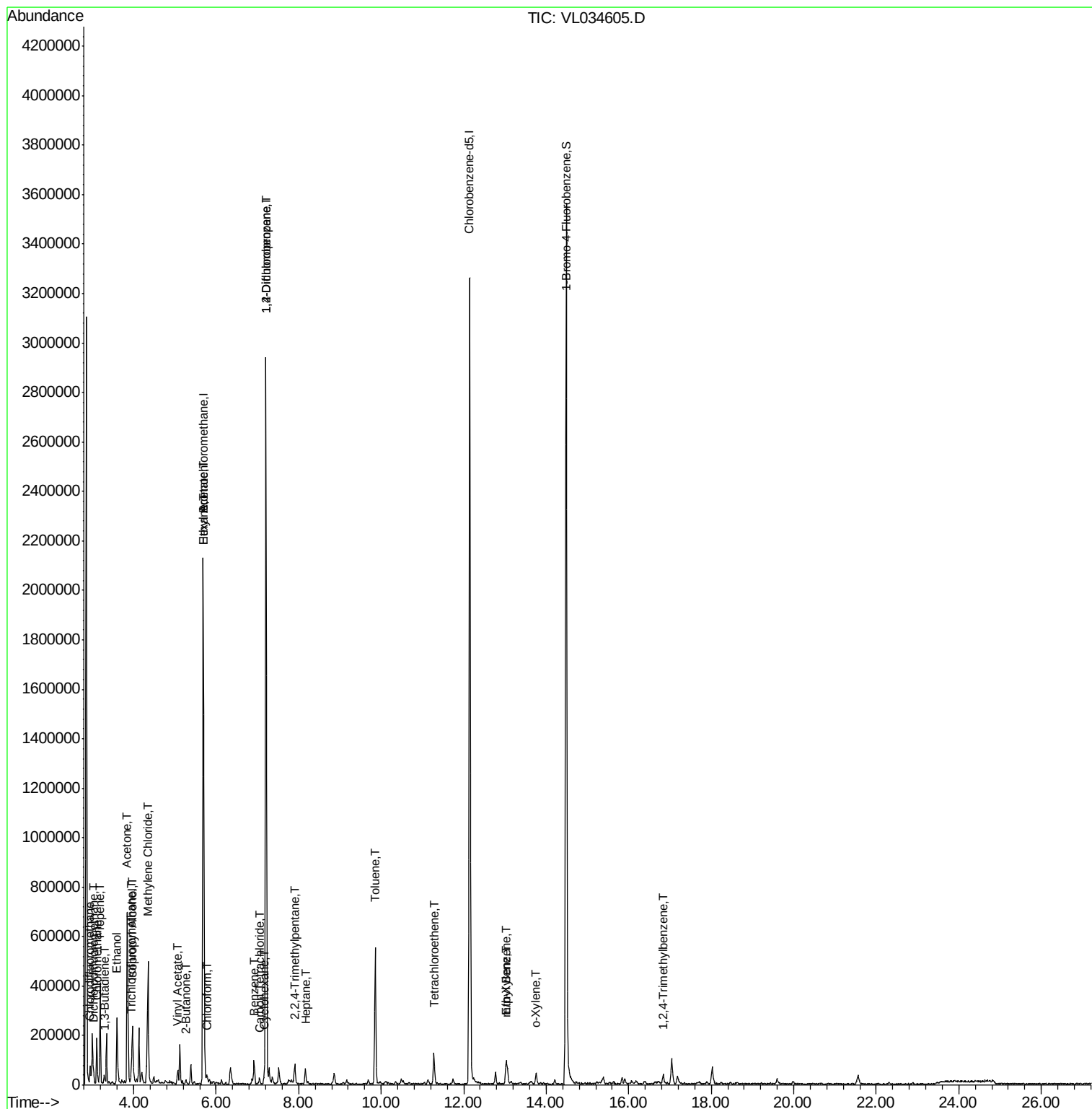
Quant Time: Feb 07 07:38:00 2020

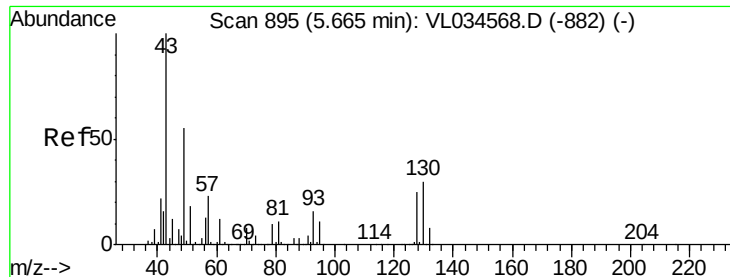
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Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Thu Jan 30 17:16:44 2020

QLast Update : Thu Jan 30 17:16:44 2020

Response via : Initial Calibration

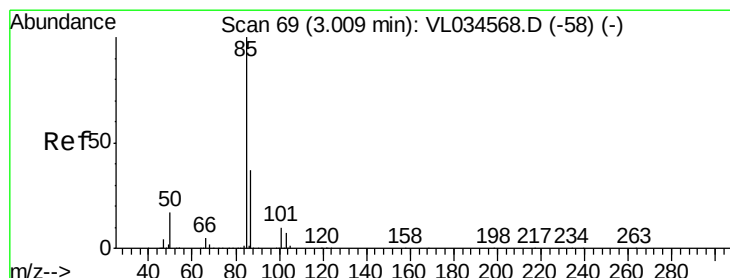
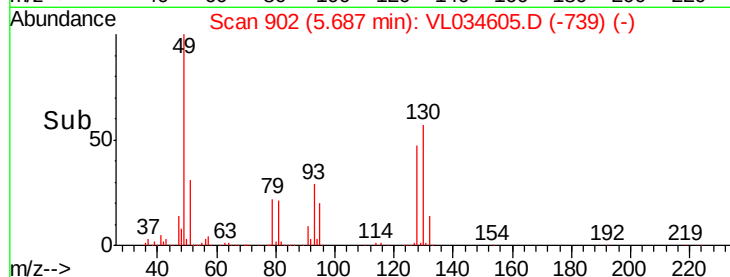
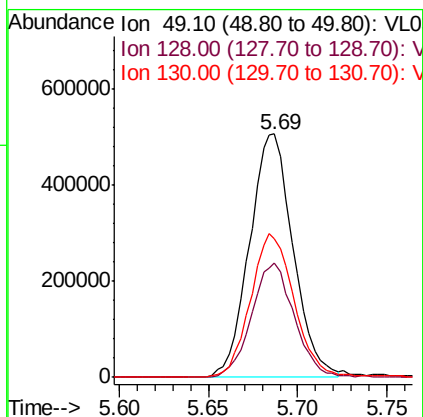
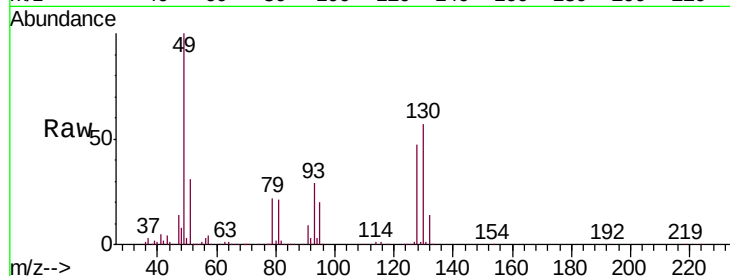




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.69 min Scan# 902
 Delta R.T. 0.02 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

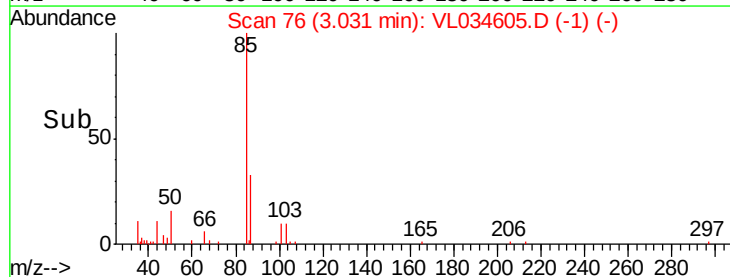
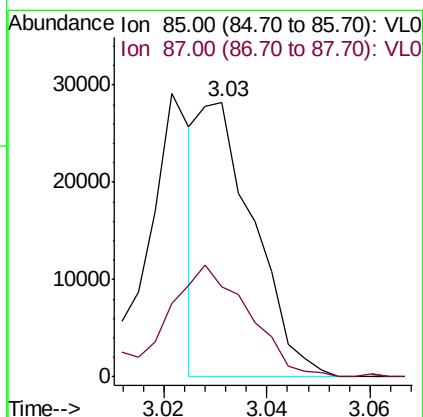
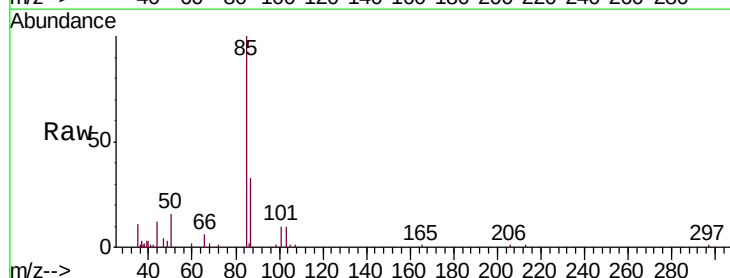
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

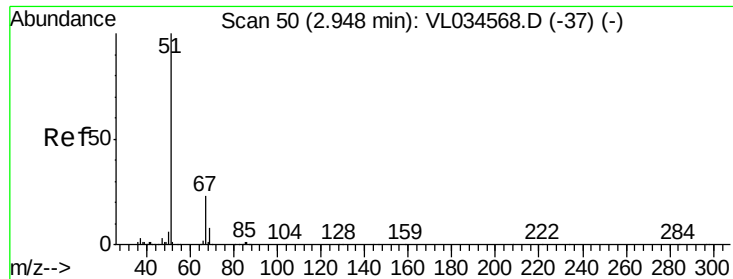
Tgt Ion: 49 Resp: 863965
 Ion Ratio Lower Upper
 49 100
 128 46.2 22.7 68.1
 130 59.7 28.6 85.8



#2
 Dichlorodifluoromethane
 Concen: 0.109 ppbv
 RT: 3.03 min Scan# 76
 Delta R.T. 0.02 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

Tgt Ion: 85 Resp: 20781
 Ion Ratio Lower Upper
 85 100
 87 32.7 29.5 44.3





#3

Chlorodifluoromethane

Concen: 0.654 ppbv

RT: 2.94 min Scan# 48

Delta R.T. -0.01 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

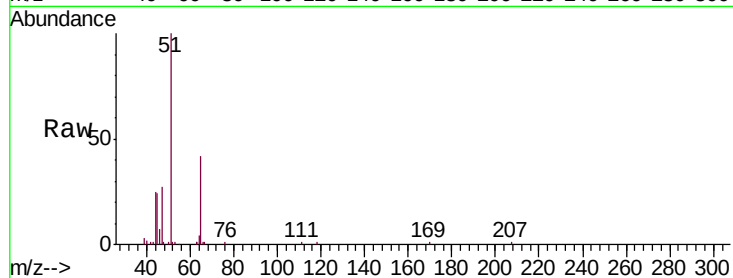
IA-1DUP

Tgt Ion: 51 Resp: 68322

Ion Ratio Lower Upper

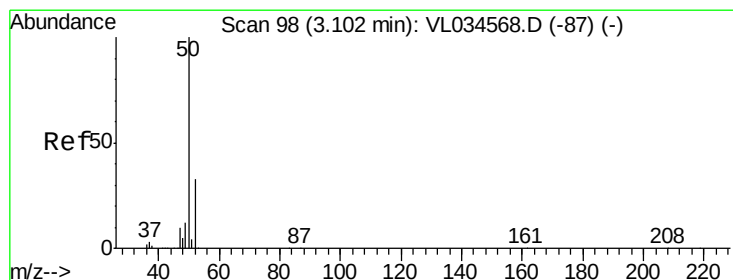
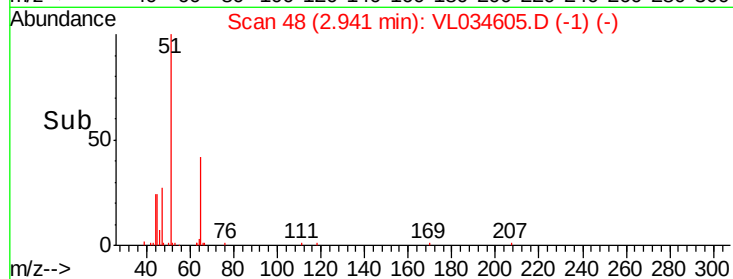
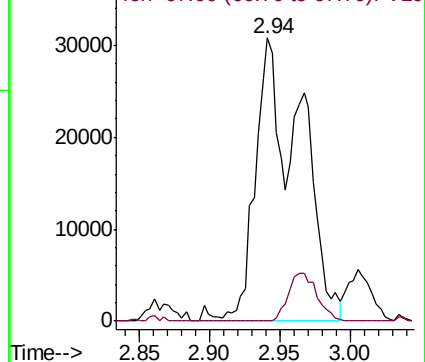
51 100

67 10.8 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.407 ppbv

RT: 3.12 min Scan# 103

Delta R.T. 0.02 min

Lab File: VL034605.D

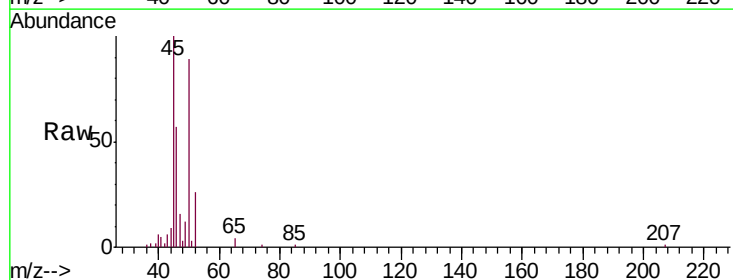
Acq: 6 Feb 2020 18:52

Tgt Ion: 50 Resp: 26008

Ion Ratio Lower Upper

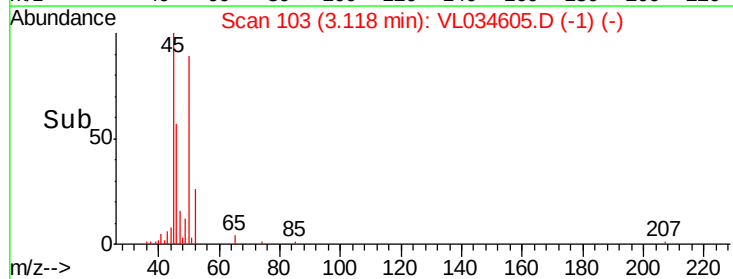
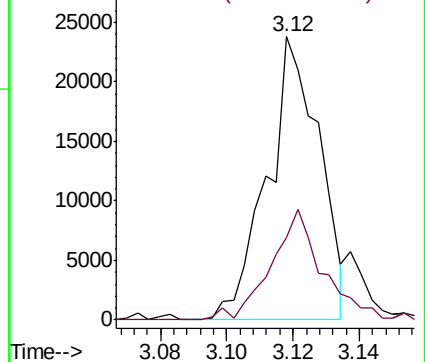
50 100

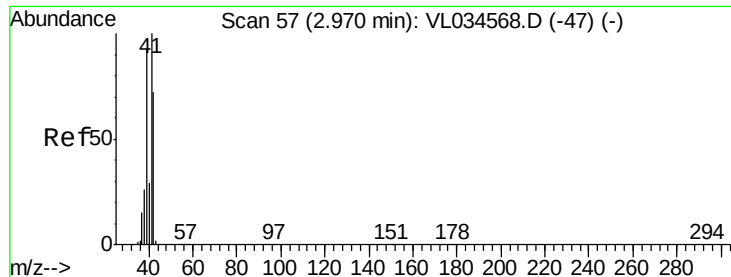
52 29.0 26.6 39.8



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.409 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.22 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

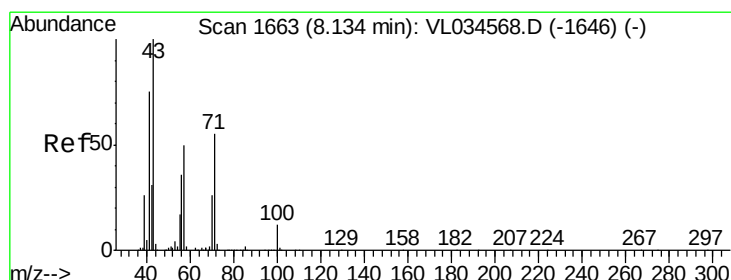
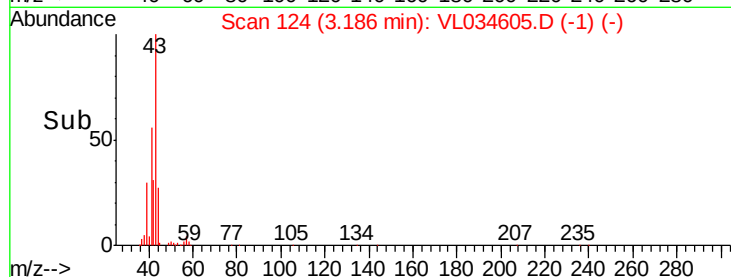
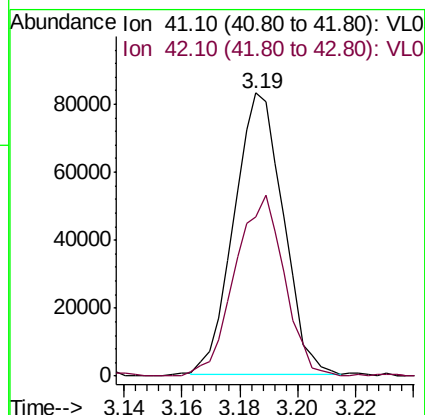
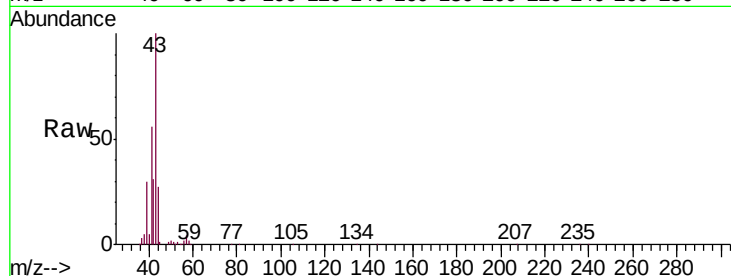
IA-1DUP

Tgt Ion: 41 Resp: 97905

Ion Ratio Lower Upper

41 100

42 64.4 57.0 85.4



#10

Heptane

Concen: 0.098 ppbv

RT: 8.17 min Scan# 1673

Delta R.T. 0.03 min

Lab File: VL034605.D

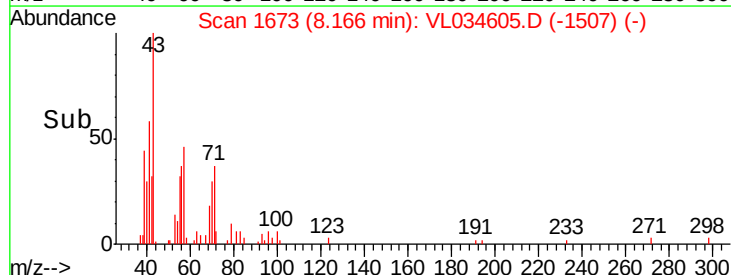
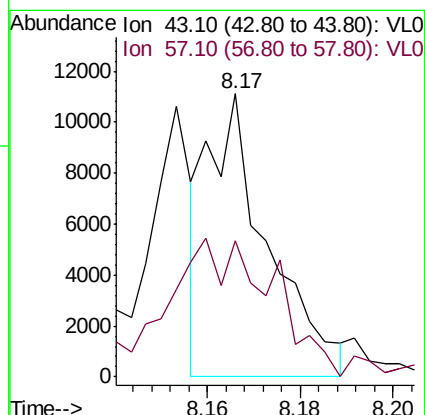
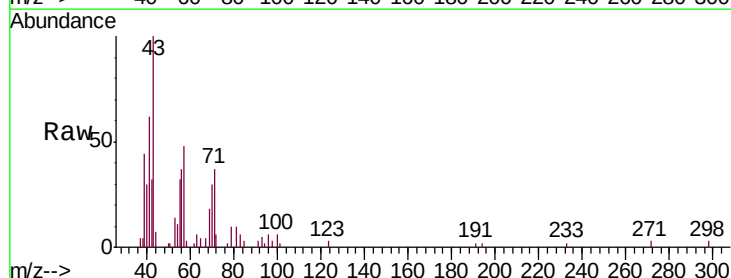
Acq: 6 Feb 2020 18:52

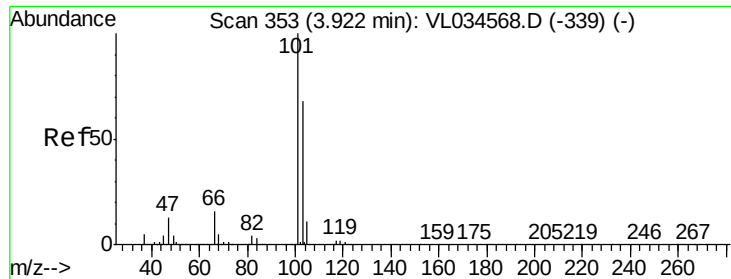
Tgt Ion: 43 Resp: 10056

Ion Ratio Lower Upper

43 100

57 96.3 41.2 61.8#

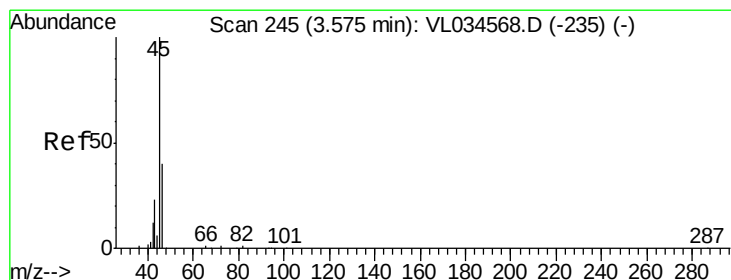
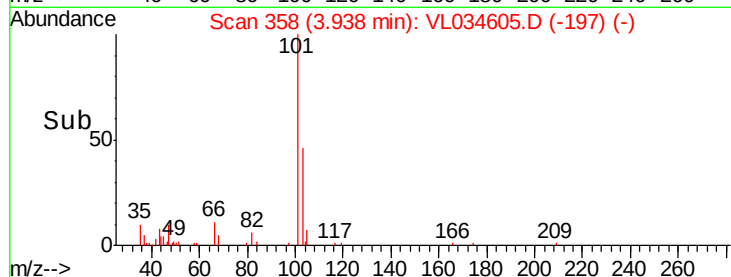
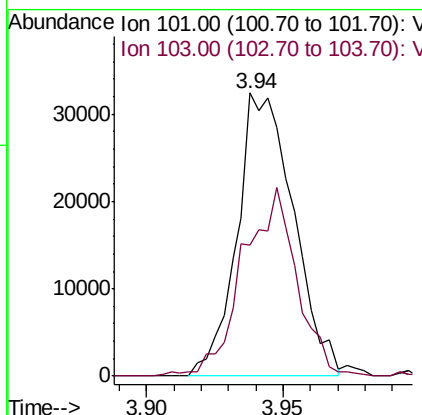
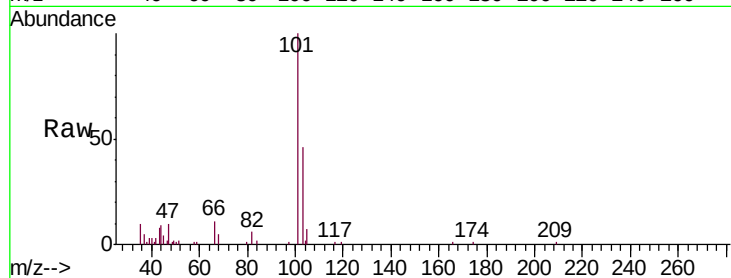




#11
 Trichlorofluoromethane
 Concen: 0.269 ppbv
 RT: 3.94 min Scan# 358
 Delta R.T. 0.02 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

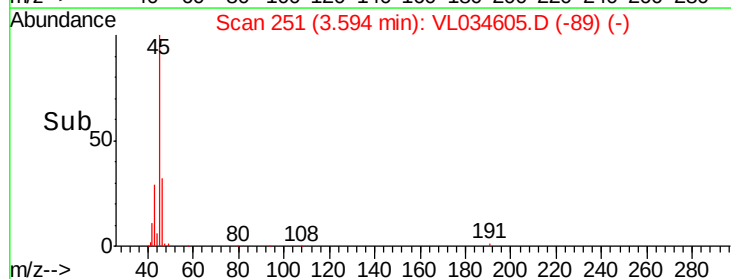
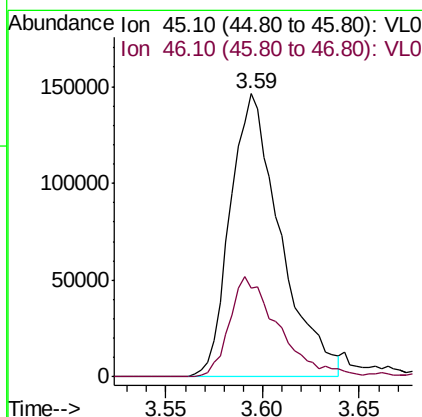
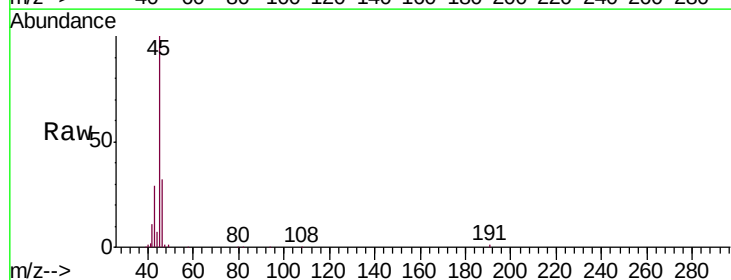
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

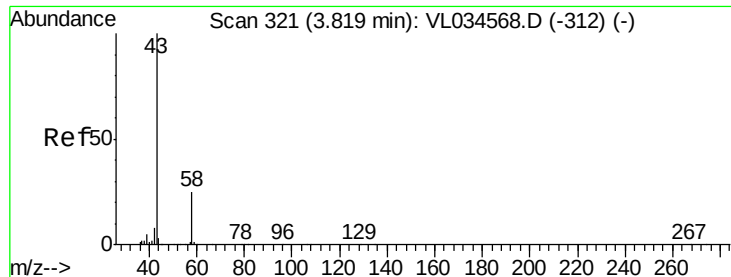
Tgt Ion: 101 Resp: 46497
 Ion Ratio Lower Upper
 101 100
 103 45.3 54.4 81.6#



#13
 Ethanol
 Concen: 24.260 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. 0.02 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

Tgt Ion: 45 Resp: 264137
 Ion Ratio Lower Upper
 45 100
 46 35.9 14.8 59.2





#15

Acetone

Concen: 5.606 ppbv

RT: 3.84 min Scan# 329

Delta R.T. 0.03 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

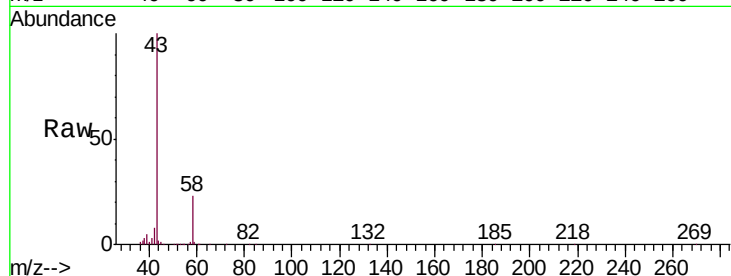
IA-1DUP

Tgt Ion: 43 Resp: 711868

Ion Ratio Lower Upper

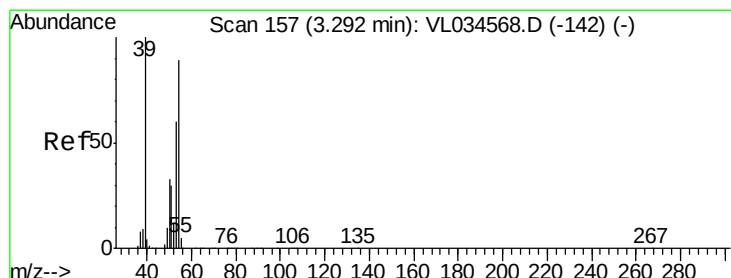
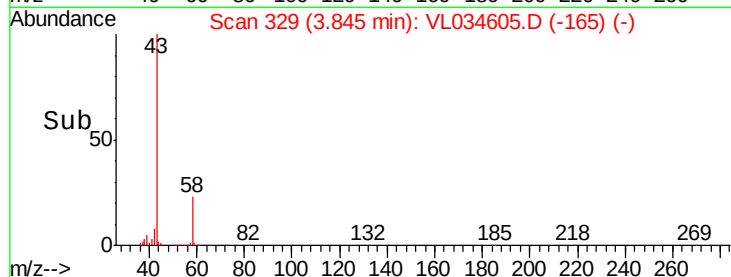
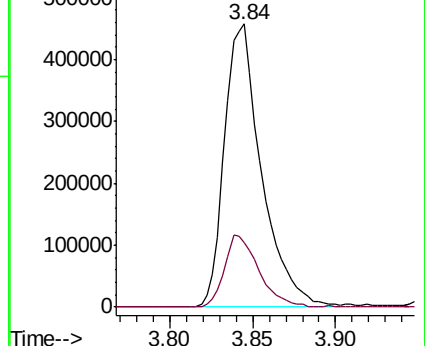
43 100

58 24.1 20.3 30.5



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.214 ppbv

RT: 3.29 min Scan# 155

Delta R.T. -0.01 min

Lab File: VL034605.D

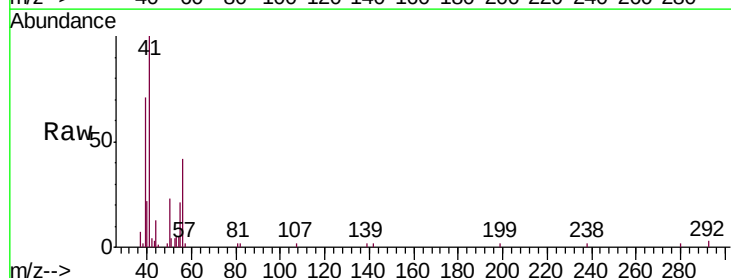
Acq: 6 Feb 2020 18:52

Tgt Ion: 39 Resp: 10798

Ion Ratio Lower Upper

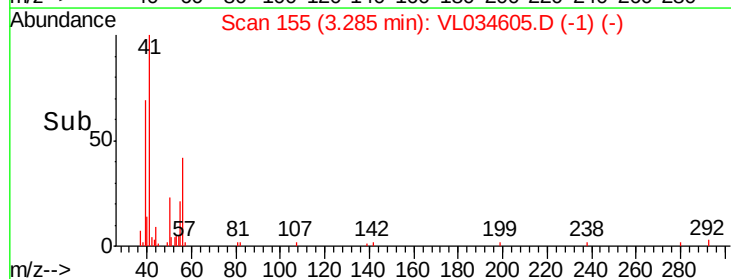
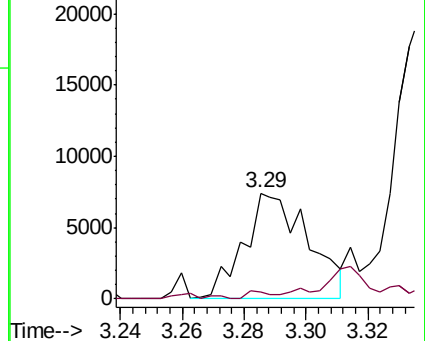
39 100

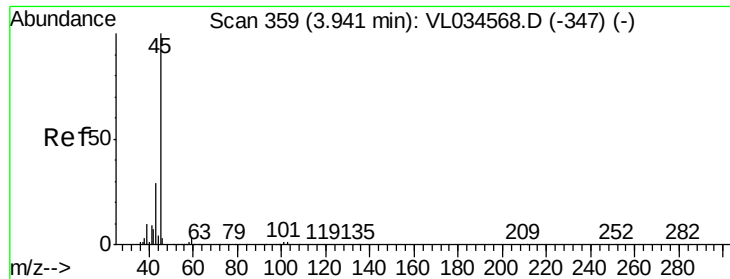
54 0.0 66.7 100.1#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#19

Isopropyl Alcohol

Concen: 3.191 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.03 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampled :

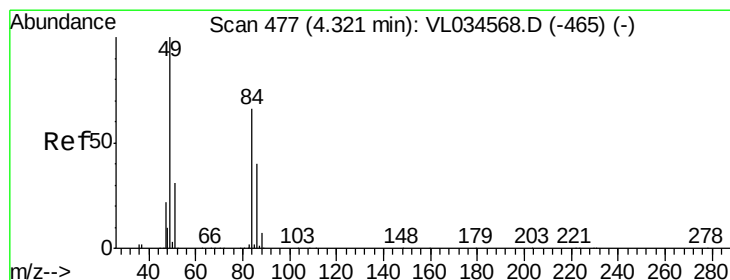
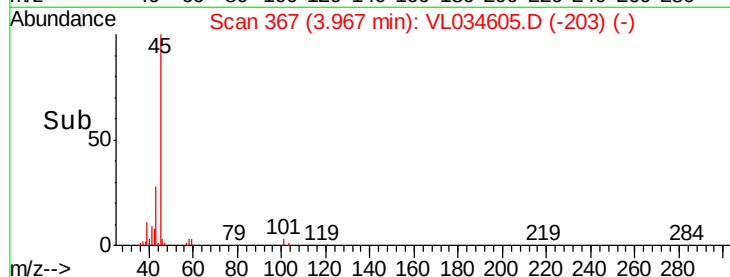
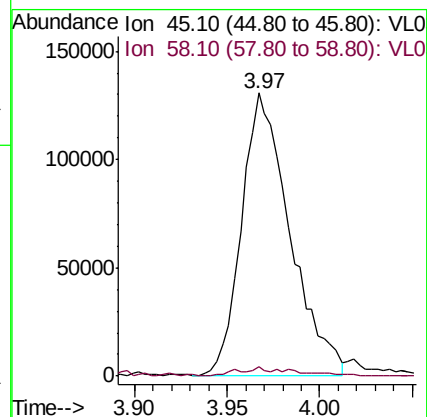
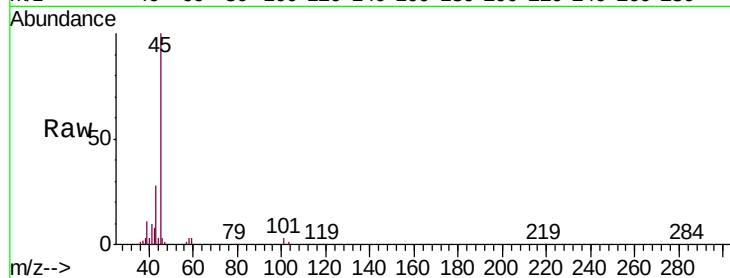
IA-1DUP

Tgt Ion: 45 Resp: 236431

Ion Ratio Lower Upper

45 100

58 3.4 1.7 2.5#



#20

Methylene Chloride

Concen: 3.299 ppbv

RT: 4.34 min Scan# 484

Delta R.T. 0.02 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Tgt Ion: 84 Resp: 159514

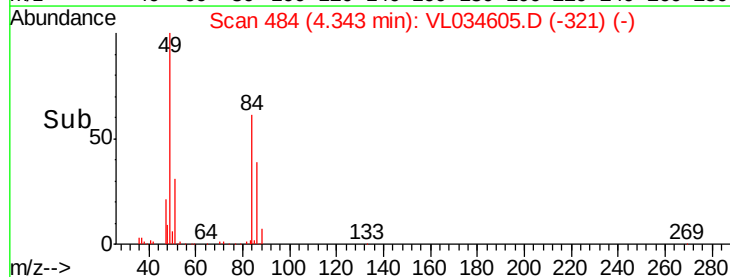
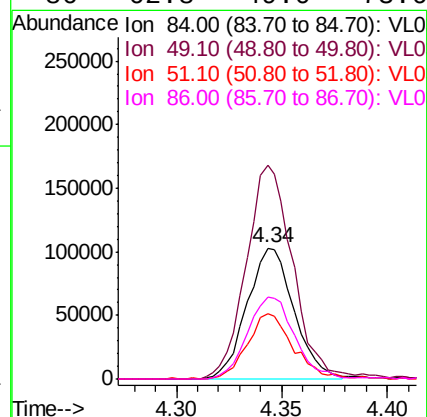
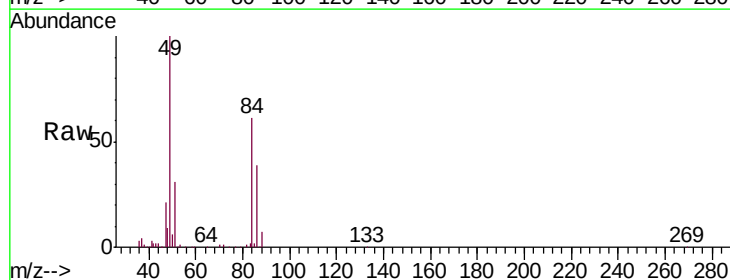
Ion Ratio Lower Upper

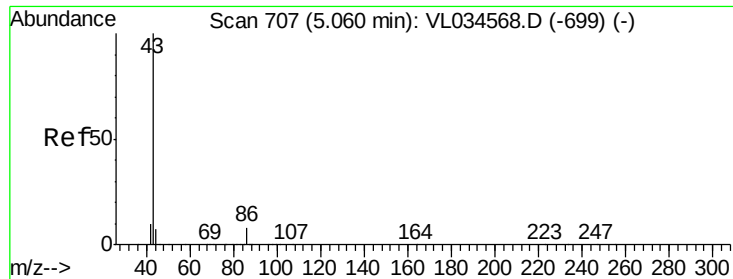
84 100

49 162.8 122.4 183.6

51 48.9 38.6 57.8

86 62.8 49.0 73.6





#23

Vinyl Acetate

Concen: 0.057 ppbv

RT: 5.08 min Scan# 712

Delta R.T. 0.02 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

Tgt Ion: 43 Resp: 8246

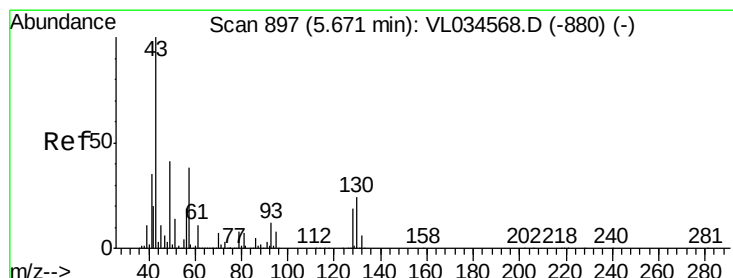
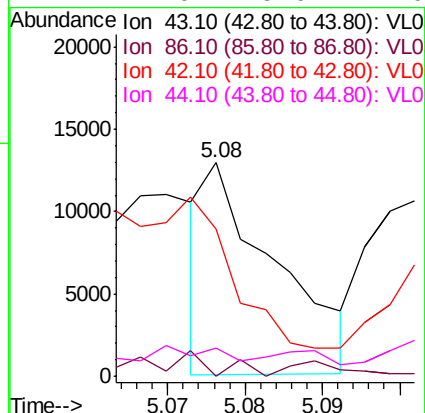
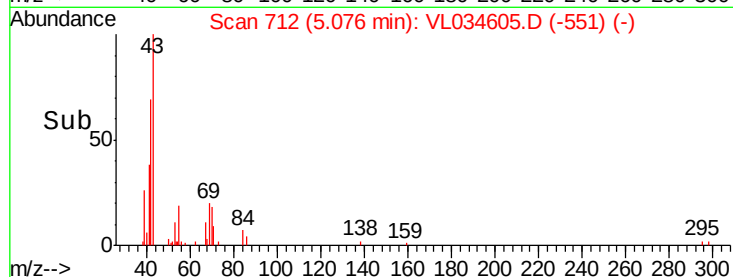
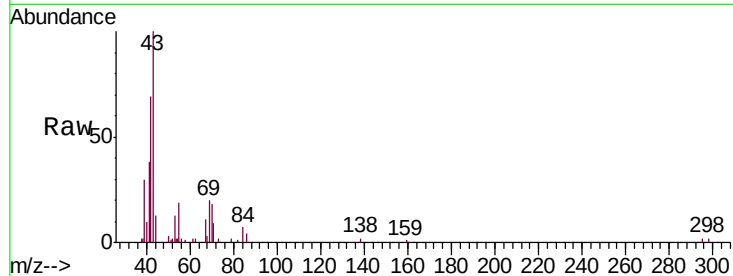
Ion Ratio Lower Upper

43 100

86 0.0 5.9 8.9#

42 80.8 8.8 13.2#

44 11.0 5.0 7.6#



#25

Ethyl Acetate

Concen: 0.248 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.03 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Tgt Ion: 43 Resp: 50964

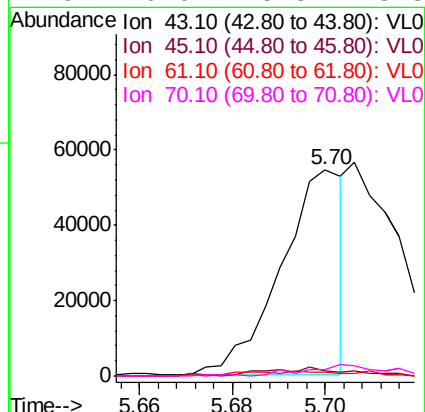
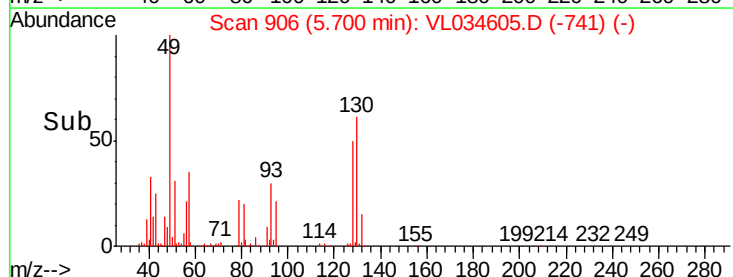
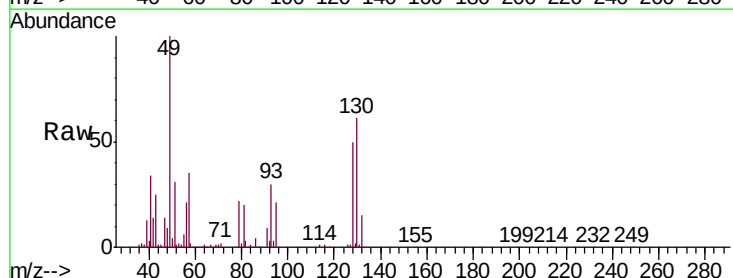
Ion Ratio Lower Upper

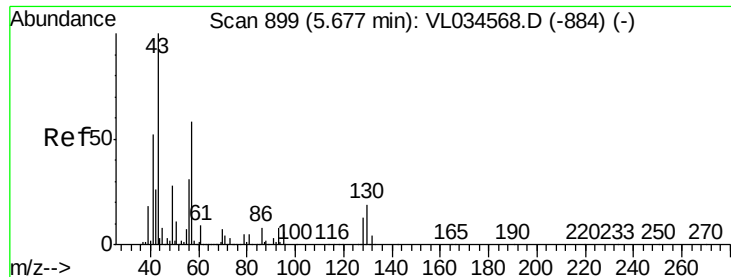
43 100

45 6.2 8.5 12.7#

61 0.0 7.8 11.6#

70 0.0 5.8 8.8#

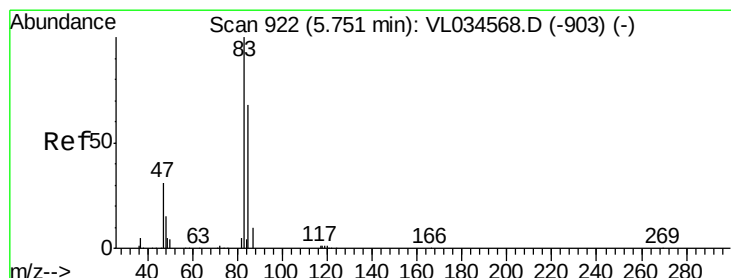
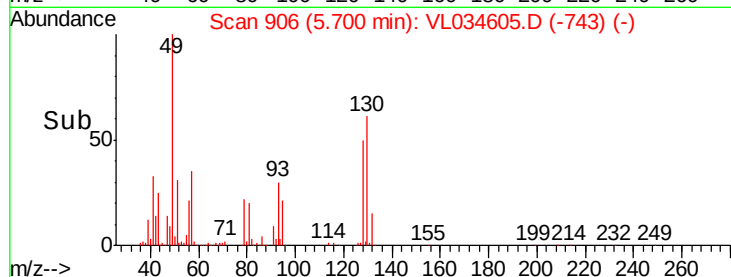
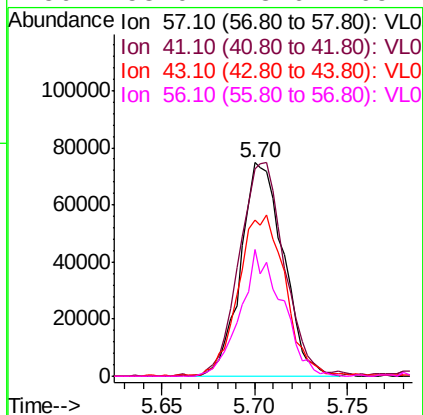
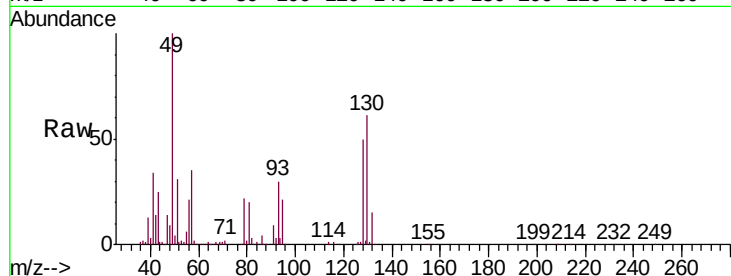




#26
Hexane
Concen: 1.390 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.02 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

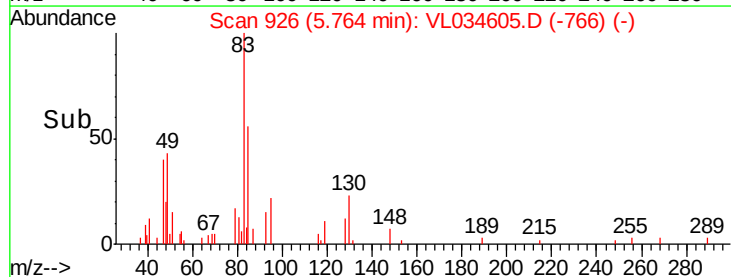
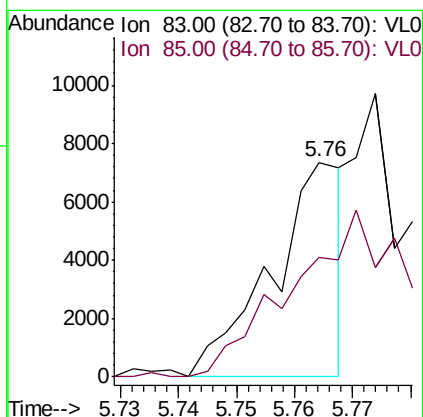
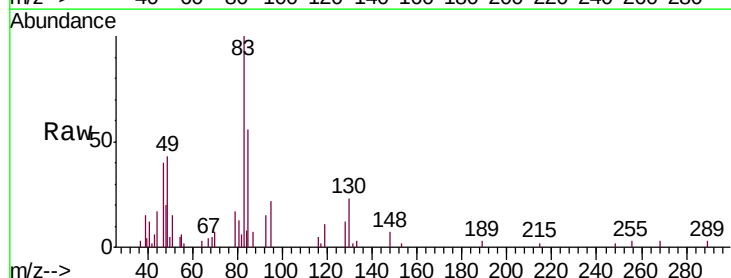
Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

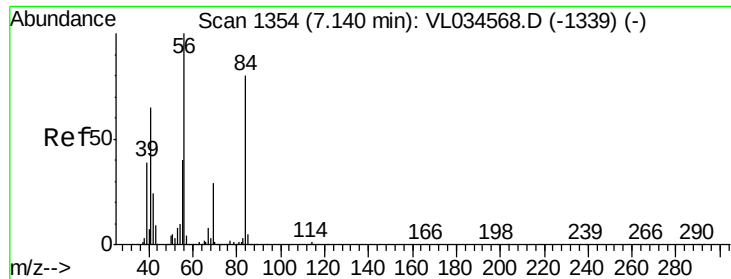
Tgt Ion: 57 Resp: 119683
Ion Ratio Lower Upper
57 100
41 108.9 76.2 114.2
43 83.6 189.9 284.9#
56 58.0 43.6 65.4



#29
Chloroform
Concen: 0.041 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.01 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

Tgt Ion: 83 Resp: 6259
Ion Ratio Lower Upper
83 100
85 55.7 54.0 81.0

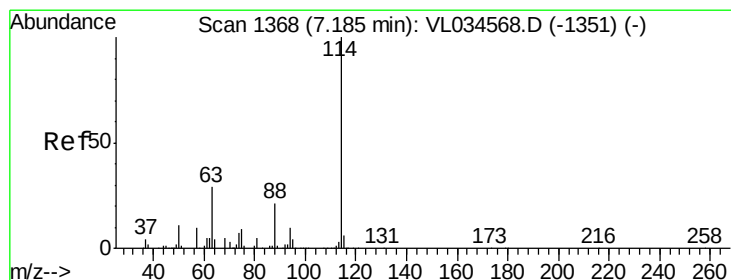
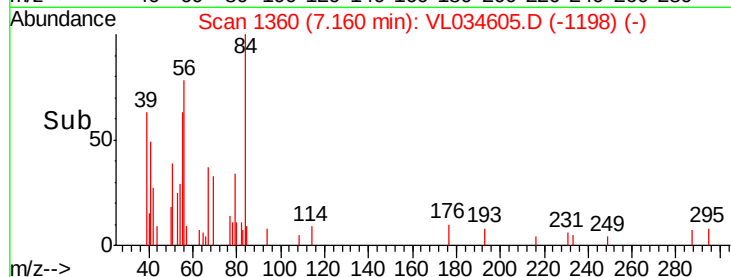
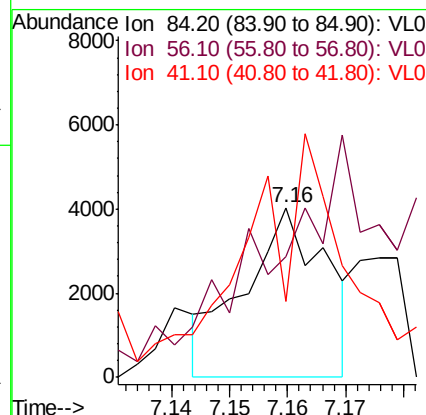
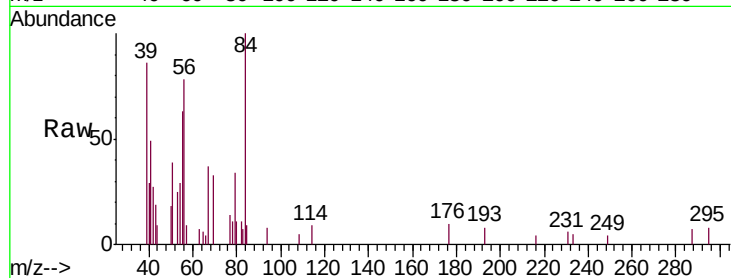




#30
Cyclohexane
Concen: 0.062 ppbv
RT: 7.16 min Scan# 1360
Delta R.T. 0.02 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

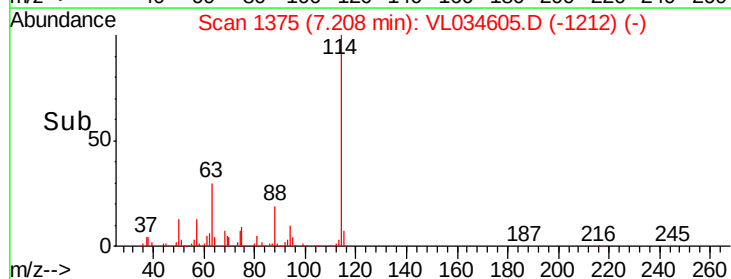
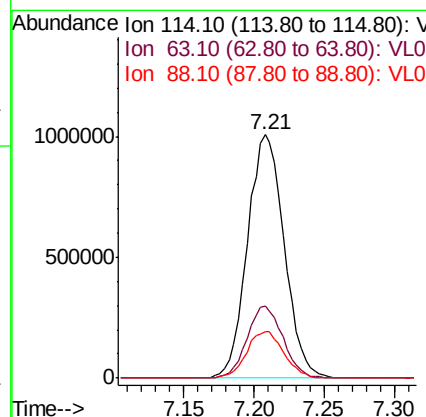
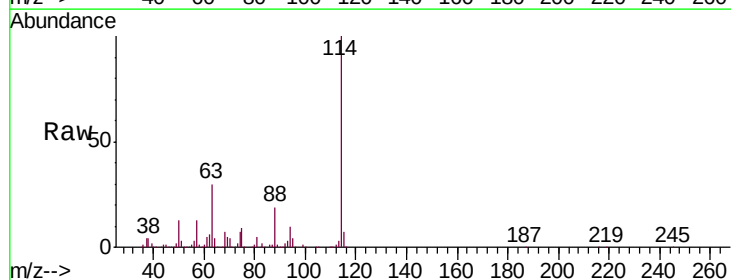
Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

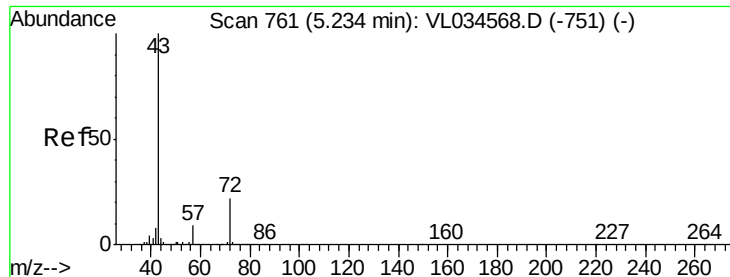
Tgt Ion: 84 Resp: 3950
Ion Ratio Lower Upper
84 100
56 0.0 110.5 165.7#
41 211.2 71.9 107.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.21 min Scan# 1375
Delta R.T. 0.02 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

Tgt Ion: 114 Resp: 1839733
Ion Ratio Lower Upper
114 100
63 29.1 24.1 36.1
88 19.3 15.9 23.9

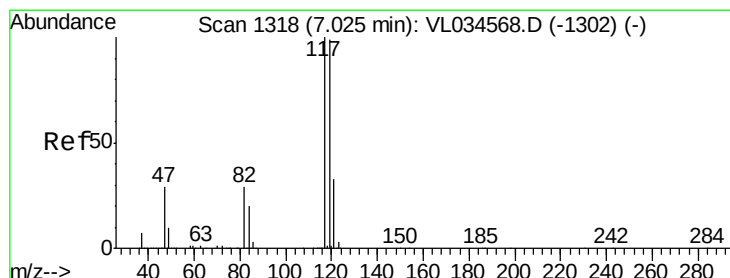
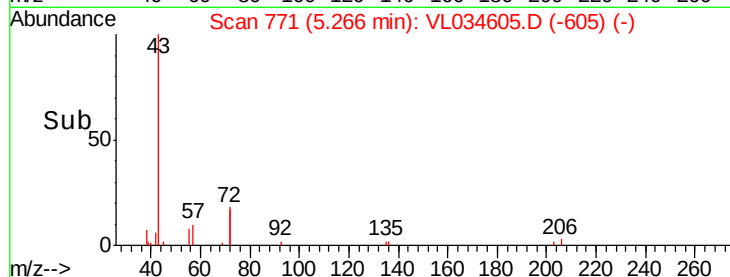
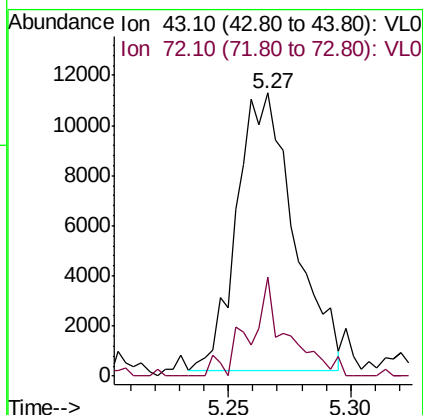
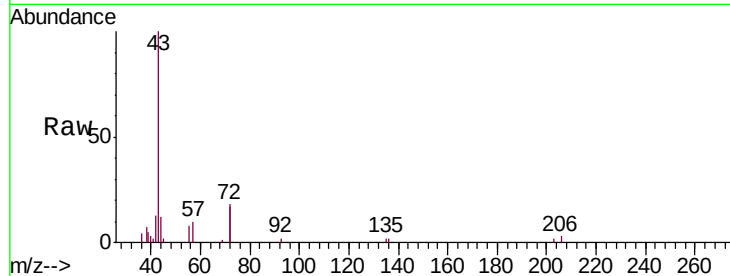




#34
2-Butanone
Concen: 0.136 ppbv
RT: 5.27 min Scan# 771
Delta R.T. 0.03 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

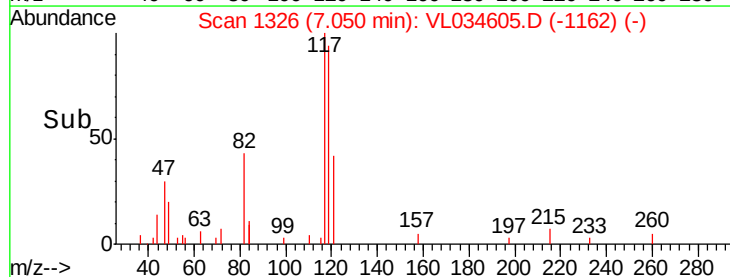
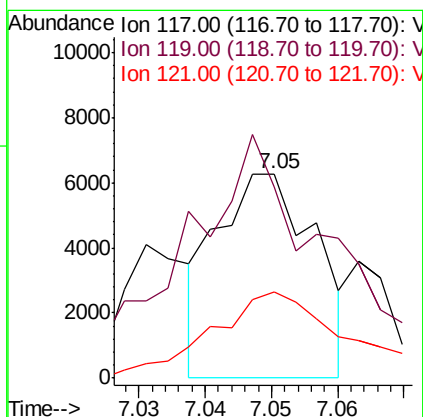
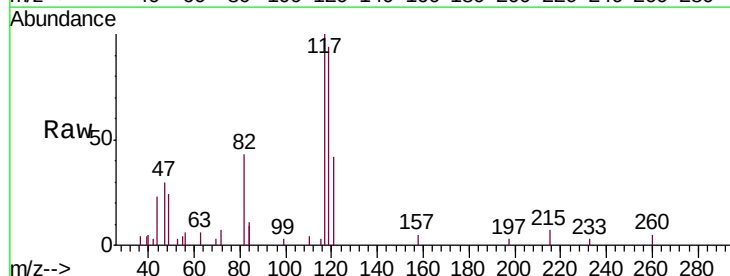
Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

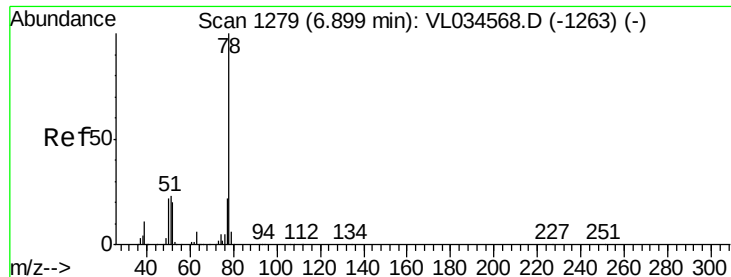
Tgt Ion: 43 Resp: 18123
Ion Ratio Lower Upper
43 100
72 23.2 17.2 25.8



#35
Carbon Tetrachloride
Concen: 0.037 ppbv
RT: 7.05 min Scan# 1326
Delta R.T. 0.03 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

Tgt Ion: 117 Resp: 6488
Ion Ratio Lower Upper
117 100
119 44.7 79.5 119.3#
121 47.0 26.2 39.2#





#36

Benzene

Concen: 0.393 ppbv

RT: 6.92 min Scan# 1285

Delta R.T. 0.02 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

IA-1DUP

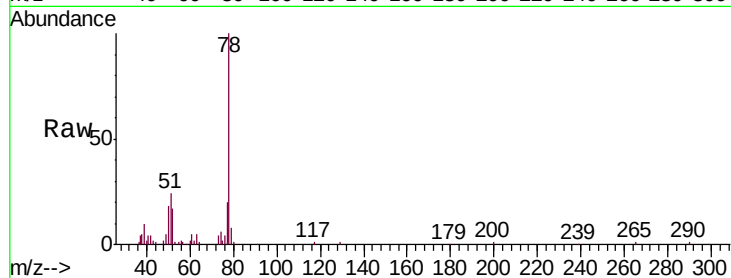
Tgt Ion: 78 Resp: 64242

Ion Ratio Lower Upper

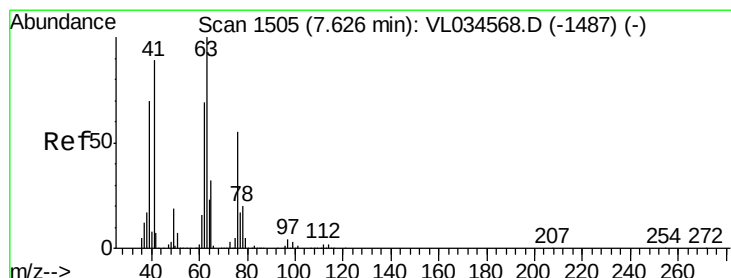
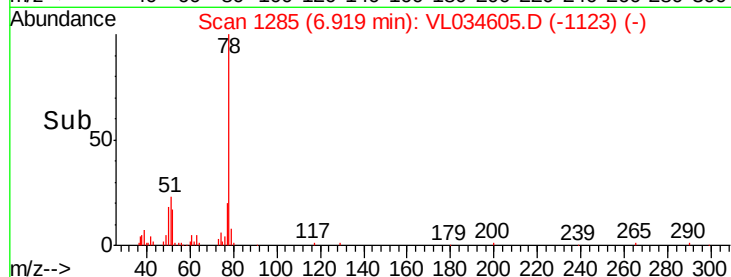
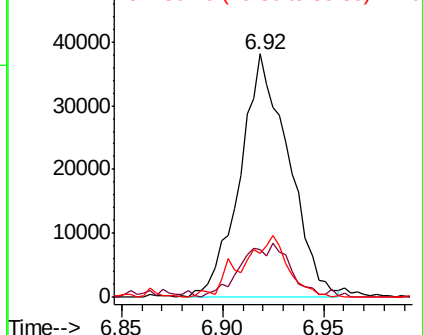
78 100

77 19.3 17.3 25.9

50 18.1 17.4 26.2



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.836 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. -0.42 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

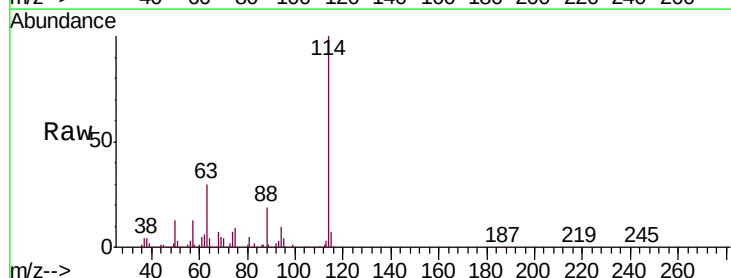
Tgt Ion: 63 Resp: 531493

Ion Ratio Lower Upper

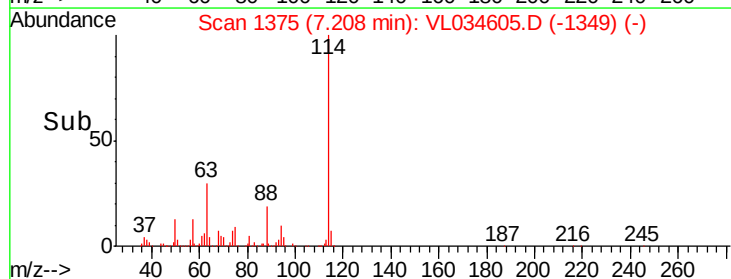
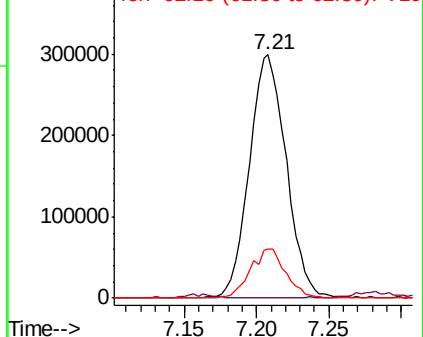
63 100

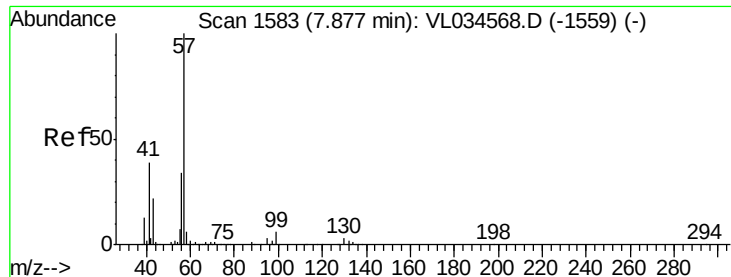
41 0.0 71.0 106.4#

62 20.0 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

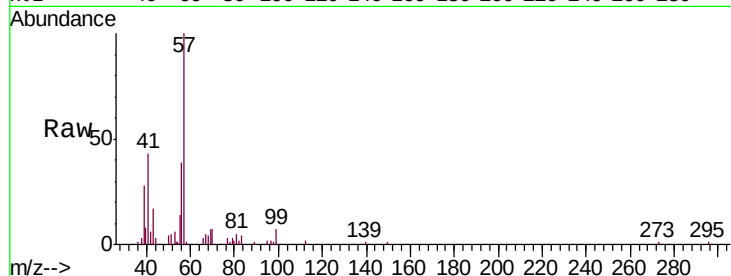




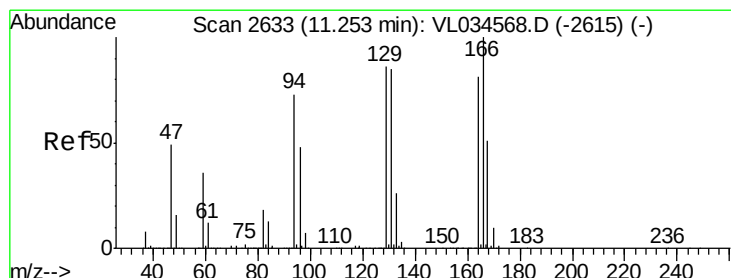
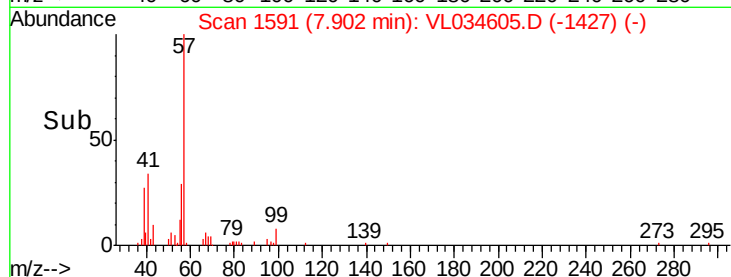
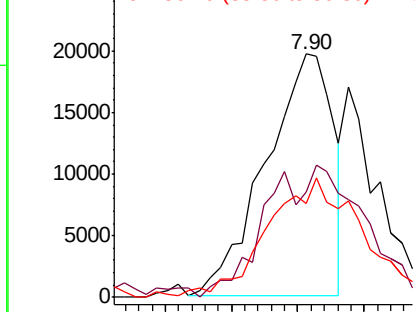
#44
 2,2,4-Trimethylpentane
 Concen: 0.093 ppbv
 RT: 7.90 min Scan# 1591
 Delta R.T. 0.03 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

Tgt Ion: 57 Resp: 27654
 Ion Ratio Lower Upper
 57 100
 41 86.3 28.9 43.3#
 56 71.7 25.5 38.3#

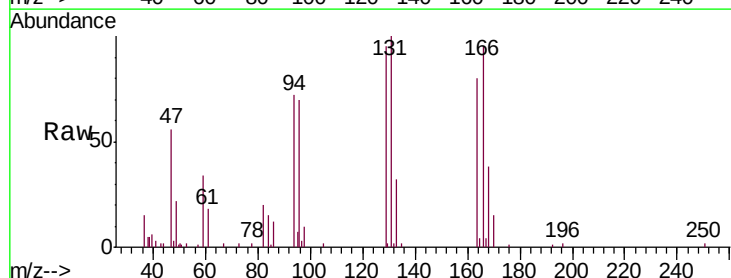


Abundance Ion 57.10 (56.80 to 57.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 56.10 (55.80 to 56.80): VL0

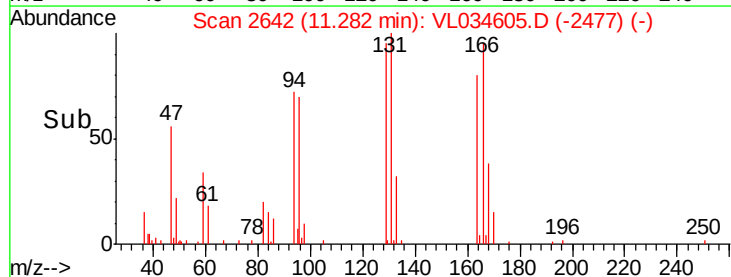
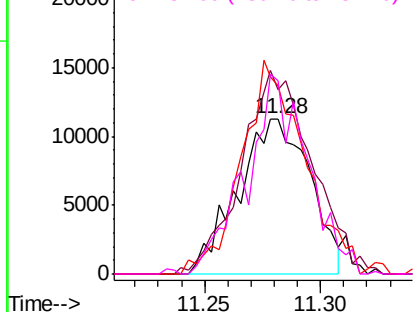


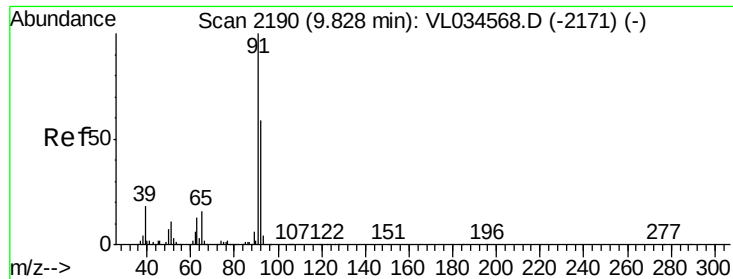
#52
 Tetrachloroethene
 Concen: 0.371 ppbv
 RT: 11.28 min Scan# 2642
 Delta R.T. 0.03 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

Tgt Ion:164 Resp: 24397
 Ion Ratio Lower Upper
 164 100
 166 116.3 99.0 148.4
 129 112.5 85.3 127.9
 131 124.7 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: 2.134 ppbv

RT: 9.86 min Scan# 2200

Delta R.T. 0.03 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

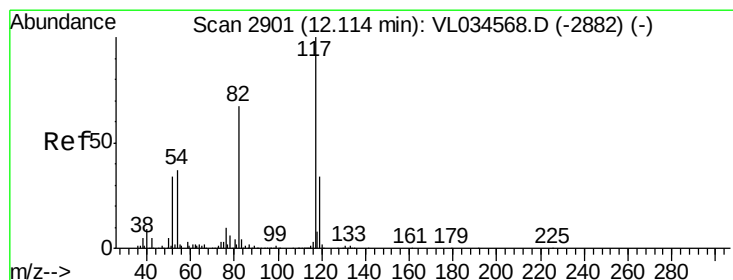
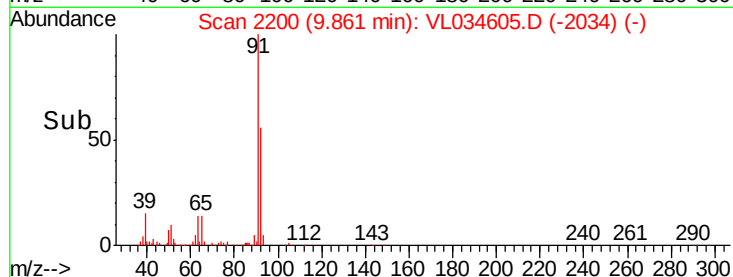
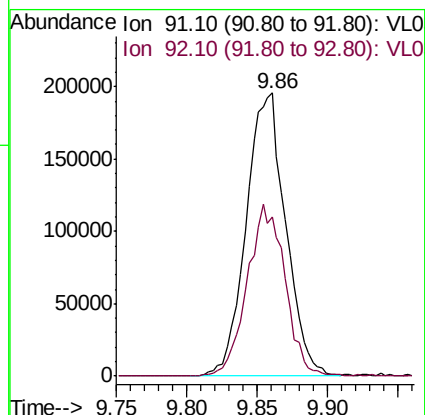
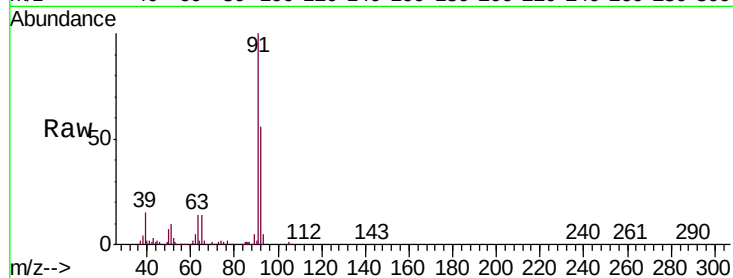
IA-1DUP

Tgt Ion: 91 Resp: 383506

Ion Ratio Lower Upper

91 100

92 58.1 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.14 min Scan# 2910

Delta R.T. 0.03 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

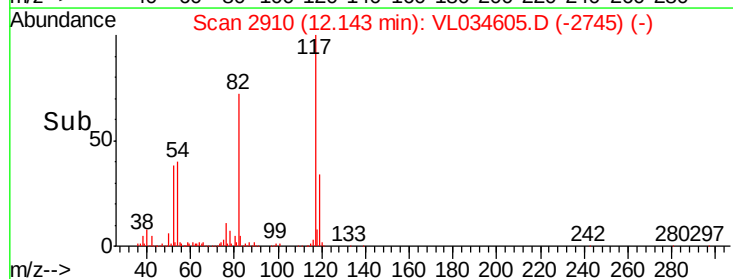
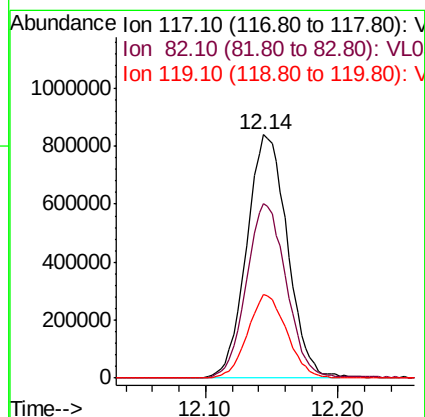
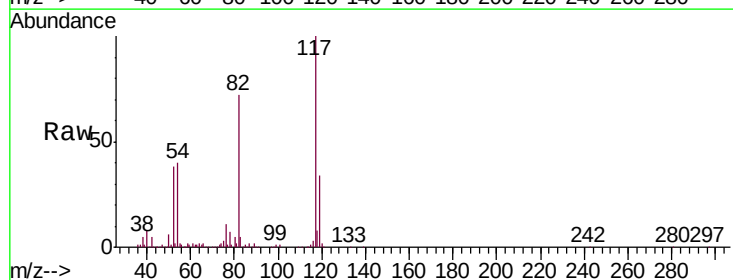
Tgt Ion: 117 Resp: 1790647

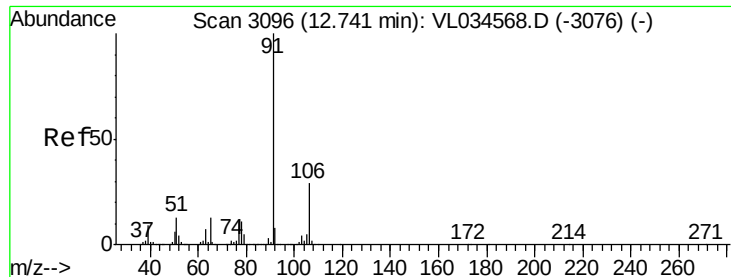
Ion Ratio Lower Upper

117 100

82 70.7 54.2 81.4

119 33.2 26.1 39.1





#58

Ethyl Benzene

Concen: 0.267 ppbv

RT: 13.03 min Scan# 3186

Delta R.T. 0.29 min

Lab File: VL034605.D

Acq: 6 Feb 2020 18:52

Instrument :

MSVOA_L

ClientSampleId :

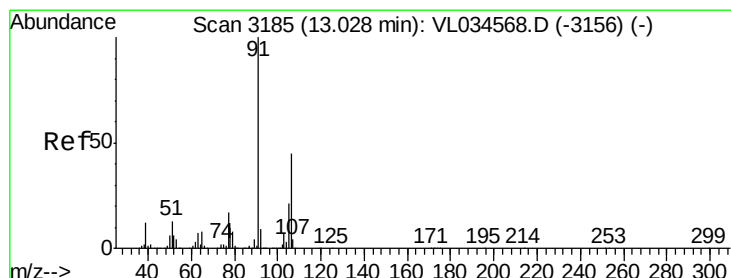
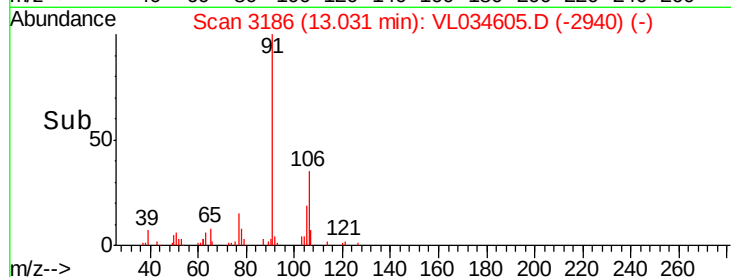
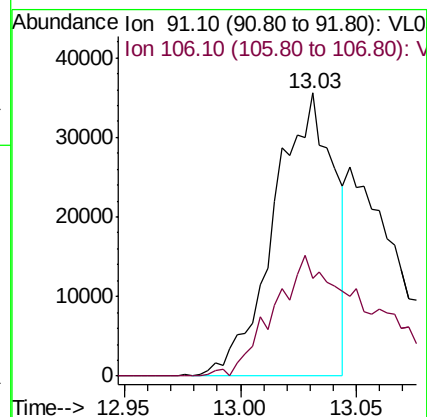
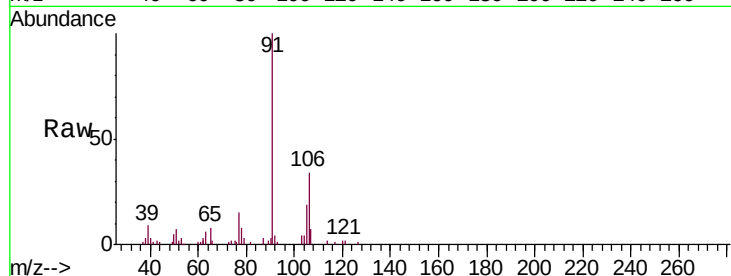
IA-1DUP

Tgt Ion: 91 Resp: 64006

Ion Ratio Lower Upper

91 100

106 34.5 23.3 34.9



#59

m/p-Xylene

Concen: 0.183 ppbv

RT: 13.05 min Scan# 3191

Delta R.T. 0.02 min

Lab File: VL034605.D

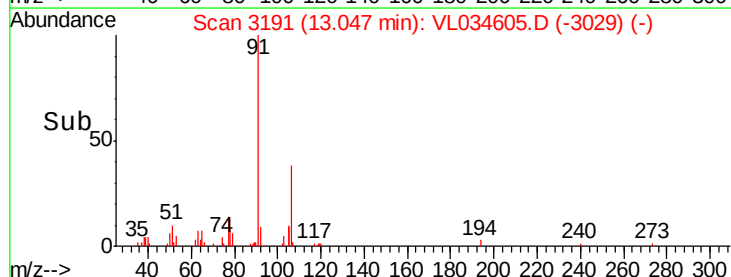
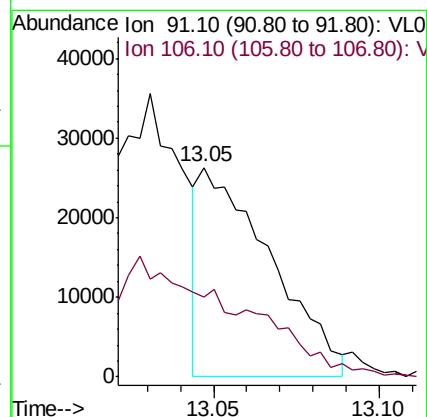
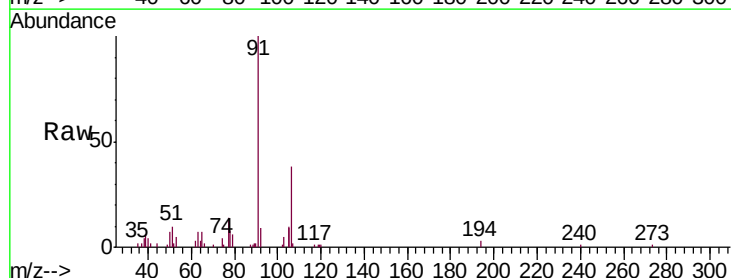
Acq: 6 Feb 2020 18:52

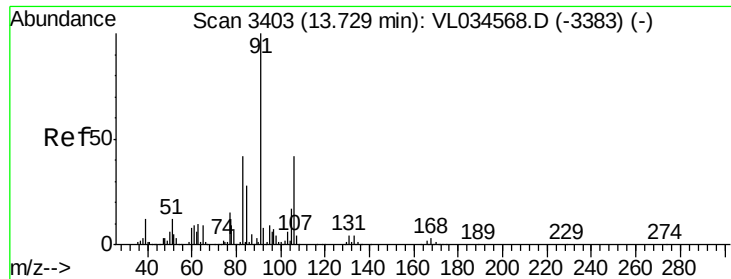
Tgt Ion: 91 Resp: 38756

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

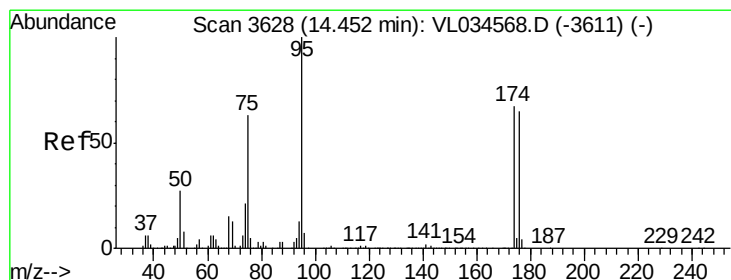
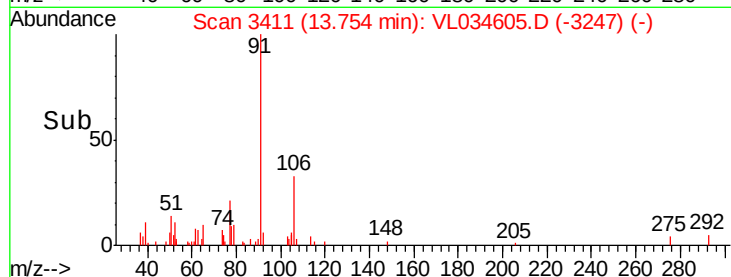
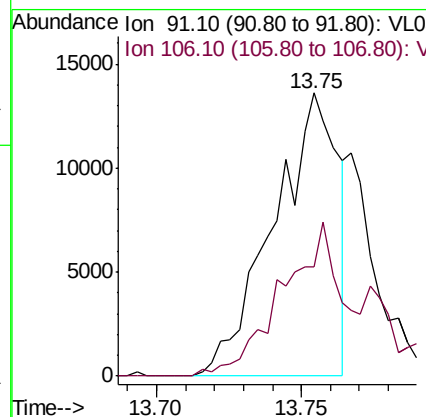
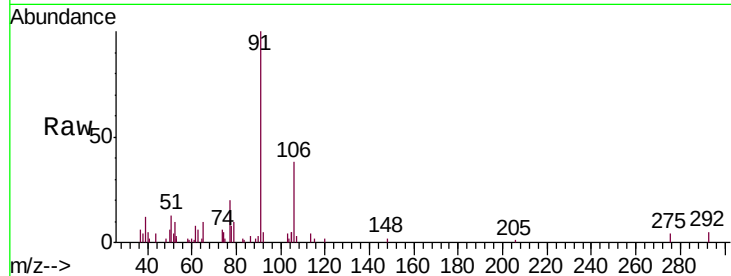




#60
o-Xylene
Concen: 0.099 ppbv
RT: 13.75 min Scan# 3411
Delta R.T. 0.03 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

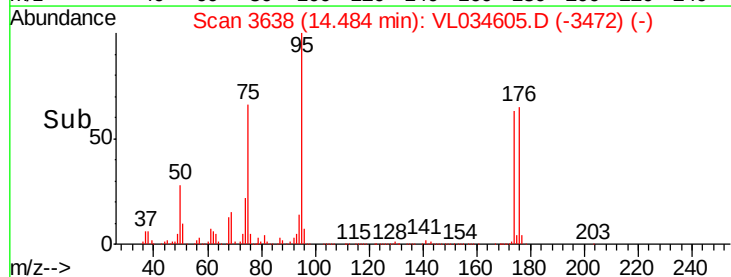
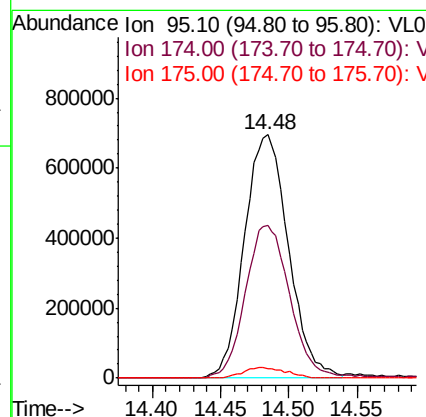
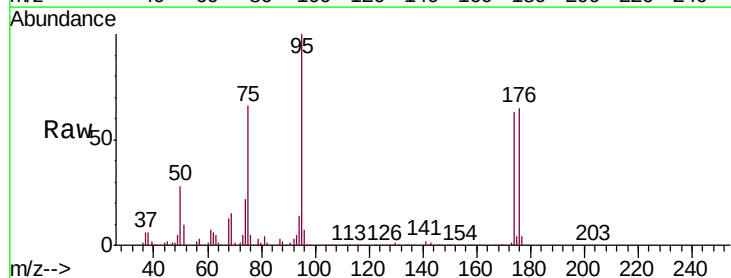
Instrument :
MSVOA_L
ClientSampleId :
IA-1DUP

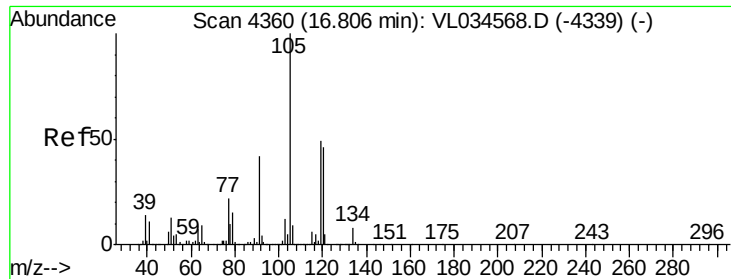
Tgt Ion: 91 Resp: 21078
Ion Ratio Lower Upper
91 100
106 64.8 21.6 65.0



#68
1-Bromo-4-Fluorobenzene
Concen: 10.294 ppbv
RT: 14.48 min Scan# 3638
Delta R.T. 0.03 min
Lab File: VL034605.D
Acq: 6 Feb 2020 18:52

Tgt Ion: 95 Resp: 1557807
Ion Ratio Lower Upper
95 100
174 64.4 52.3 78.5
175 4.5 3.8 5.6





#74
 1,2,4-Trimethylbenzene
 Concen: 0.042 ppbv
 RT: 16.84 min Scan# 4372
 Delta R.T. 0.04 min
 Lab File: VL034605.D
 Acq: 6 Feb 2020 18:52

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DUP

Tgt Ion:	105	Resp:	10550
Ion	Ratio	Lower	Upper
105	100		
120	27.3	37.1	55.7#
91	9.4	34.3	51.5#
77	18.4	17.5	26.3

