

Data File : VL034869.D
Acq On : 10 Mar 2020 16:57
Operator : SY/AP
Sample : L1861-02 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
AA-2DL

Quant Time: Mar 11 05:52:46 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030920AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
QLast Update : Mon Mar 09 16:42:53 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	930501	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2073997	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2054799	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.45 95 1674514 10.45 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 104.50%

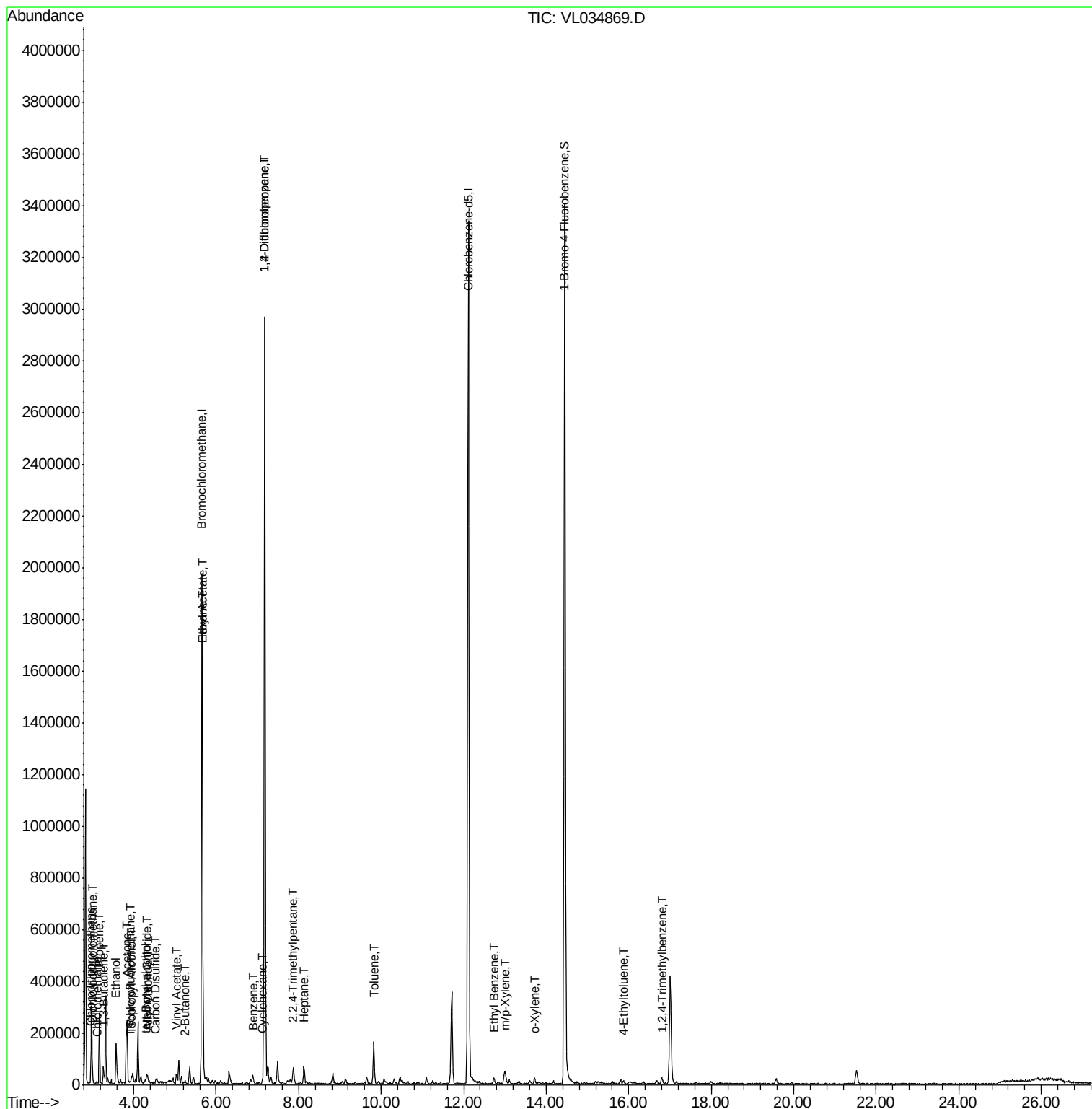
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.01	85	4630	0.036 ppbv #	84
3) Chlorodifluoromethane	2.95	51	3430	0.033 ppbv	97
4) Chloromethane	3.10	50	3711	0.063 ppbv	90
9) Propene	3.17	41	65012	1.310 ppbv	95
10) Heptane	8.13	43	21843	0.179 ppbv	90
11) Trichlorofluoromethane	3.92	101	1657	0.012 ppbv	84
13) Ethanol	3.57	45	179232	11.879 ppbv	94
15) Acetone	3.83	43	241130	1.999 ppbv	96
16) 1,3-Butadiene	3.29	39	3828	0.070 ppbv #	1
17) tert-Butyl alcohol	4.29	59	3228	0.028 ppbv #	72
19) Isopropyl Alcohol	3.96	45	11345	0.149 ppbv #	37
20) Methylene Chloride	4.31	84	6747	0.177 ppbv #	79
21) Allyl Chloride	4.34	41	1518	0.020 ppbv #	1
23) Vinyl Acetate	5.04	43	5795	0.033 ppbv #	14
25) Ethyl Acetate	5.67	43	43006	0.200 ppbv #	79
26) Hexane	5.67	57	59182	0.640 ppbv #	42
27) Carbon Disulfide	4.53	76	1139	0.011 ppbv #	1
30) Cyclohexane	7.12	84	1691	0.022 ppbv #	1
34) 2-Butanone	5.24	43	12462	0.090 ppbv	95
36) Benzene	6.88	78	9915	0.054 ppbv	93
39) 1,2-Dichloropropane	7.17	63	554854	7.575 ppbv #	23
44) 2,2,4-Trimethylpentane	7.87	57	49417	0.158 ppbv #	85
53) Toluene	9.82	91	98144	0.460 ppbv	97
58) Ethyl Benzene	12.74	91	11738	0.042 ppbv	92
59) m/p-Xylene	13.03	91	8646	0.037 ppbv #	30
60) o-Xylene	13.72	91	8411	0.037 ppbv #	31
72) 4-Ethyltoluene	15.88	105	4092	0.015 ppbv #	79
74) 1,2,4-Trimethylbenzene	16.80	105	5783	0.022 ppbv #	70

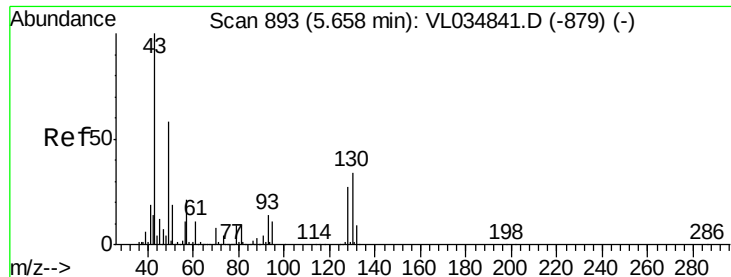
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

AA-2DL

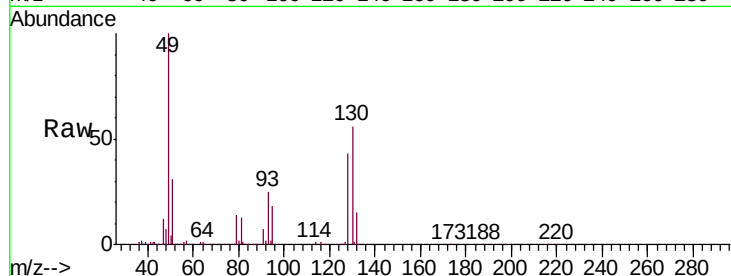
Tgt Ion: 49 Resp: 930501

Ion Ratio Lower Upper

49 100

128 45.9 23.4 70.3

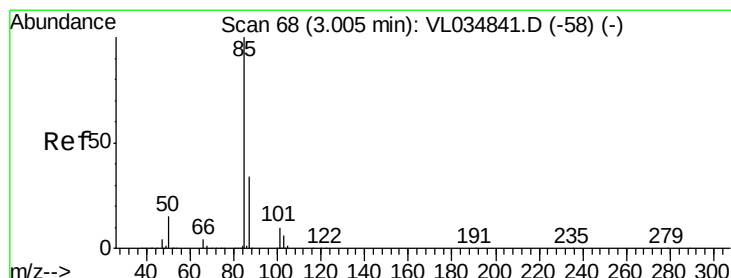
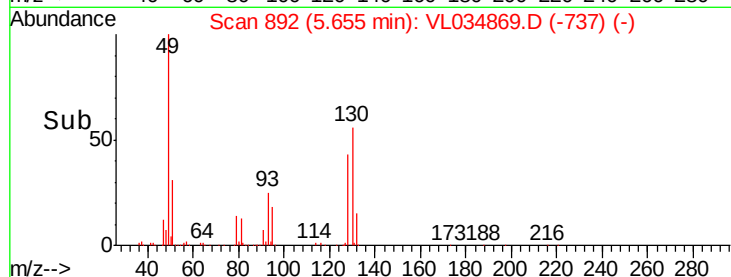
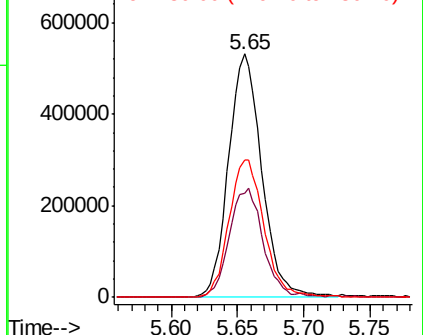
130 59.6 30.0 90.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.036 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.00 min

Lab File: VL034869.D

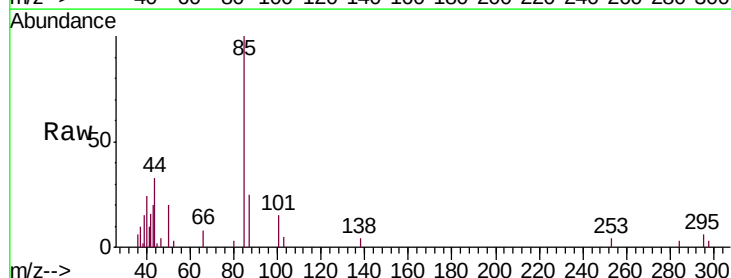
Acq: 10 Mar 2020 16:57

Tgt Ion: 85 Resp: 4630

Ion Ratio Lower Upper

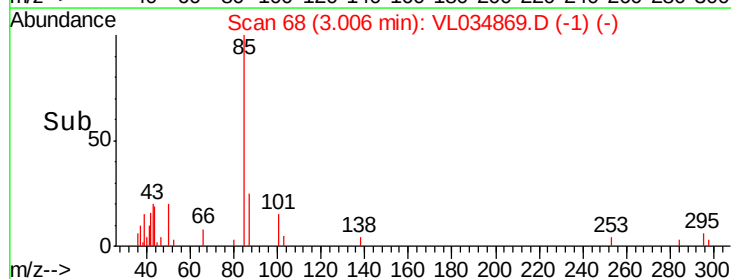
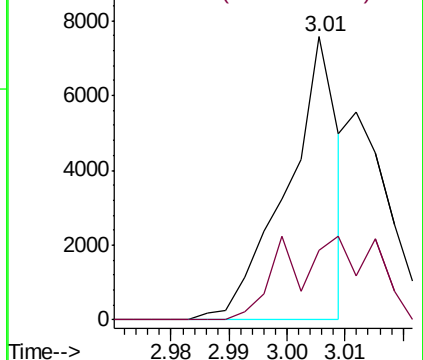
85 100

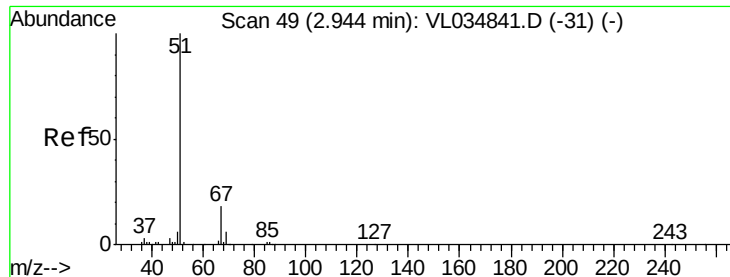
87 24.7 26.9 40.3#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.033 ppbv

RT: 2.95 min Scan# 51

Delta R.T. 0.01 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

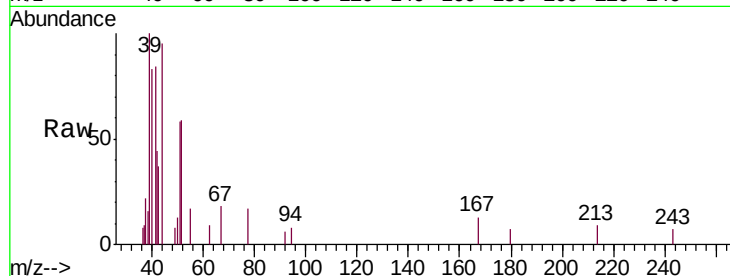
AA-2DL

Tgt Ion: 51 Resp: 3430

Ion Ratio Lower Upper

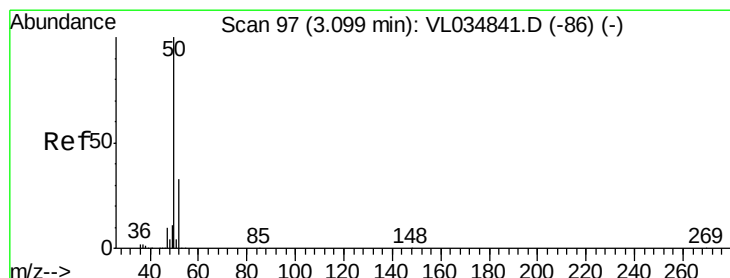
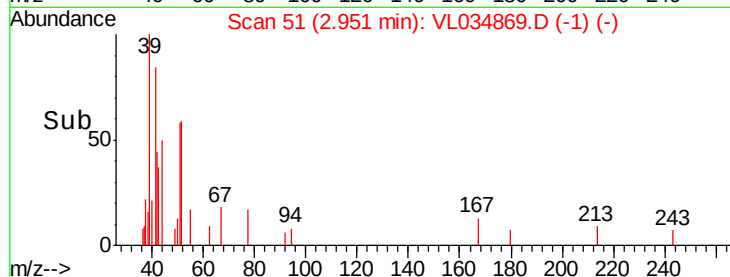
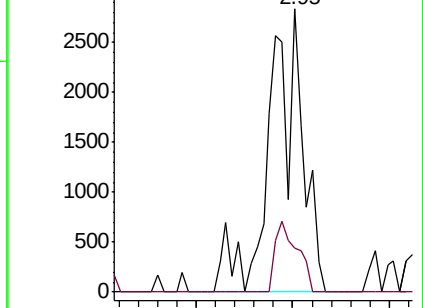
51 100

67 16.4 14.3 21.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.063 ppbv

RT: 3.10 min Scan# 98

Delta R.T. 0.00 min

Lab File: VL034869.D

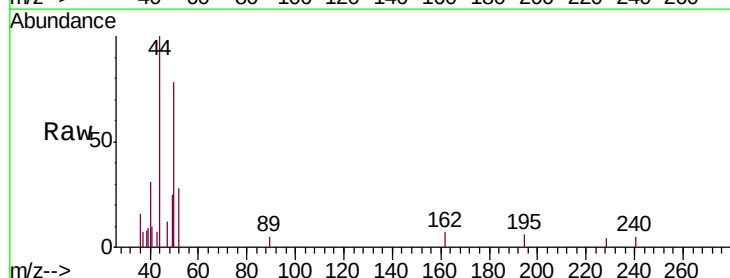
Acq: 10 Mar 2020 16:57

Tgt Ion: 50 Resp: 3711

Ion Ratio Lower Upper

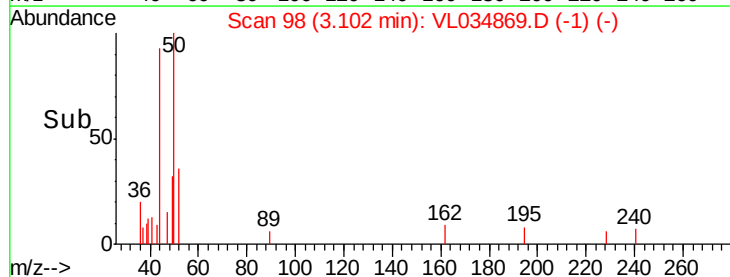
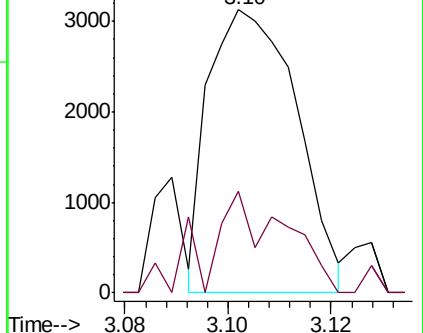
50 100

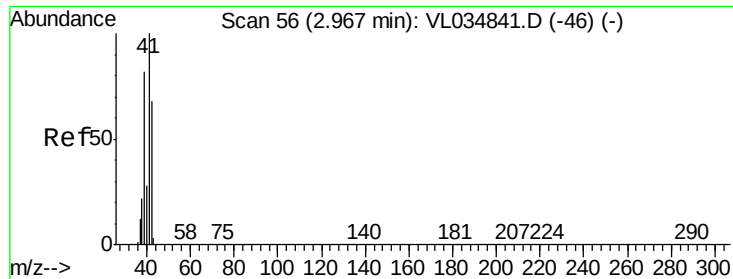
52 39.0 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.310 ppbv

RT: 3.17 min Scan# 118

Delta R.T. 0.20 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

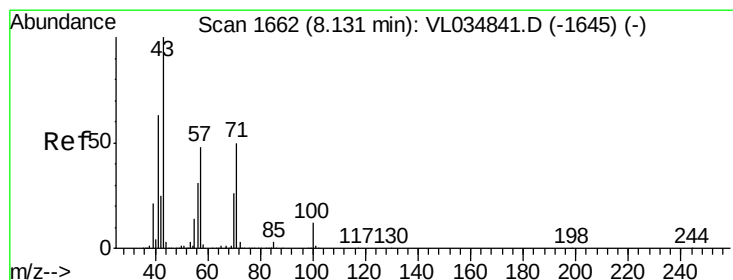
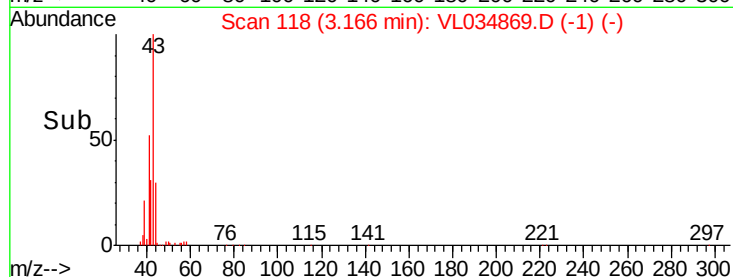
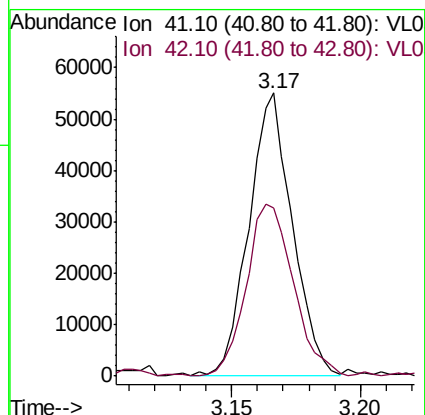
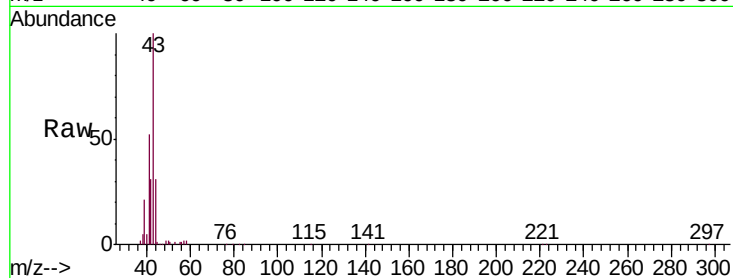
AA-2DL

Tgt Ion: 41 Resp: 65012

Ion Ratio Lower Upper

41 100

42 65.3 55.2 82.8



#10

Heptane

Concen: 0.179 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL034869.D

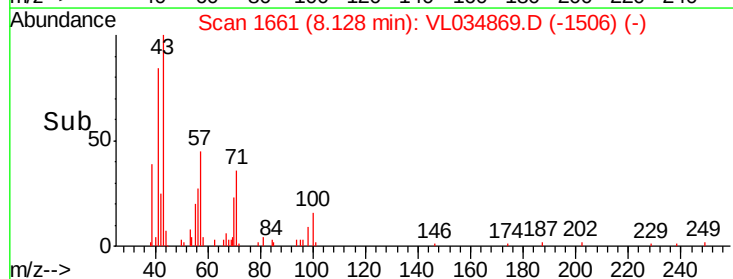
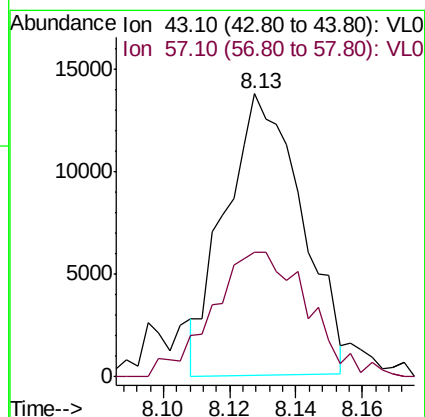
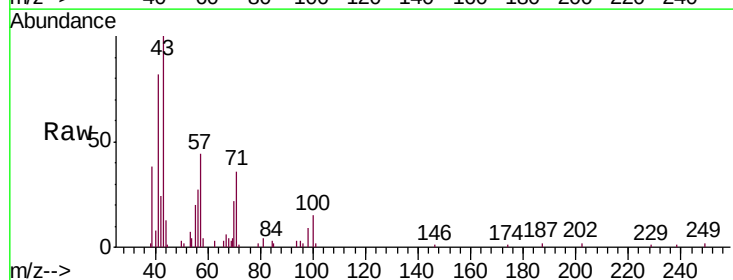
Acq: 10 Mar 2020 16:57

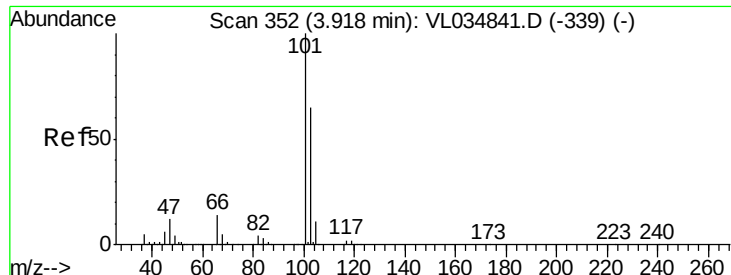
Tgt Ion: 43 Resp: 21843

Ion Ratio Lower Upper

43 100

57 56.5 39.7 59.5

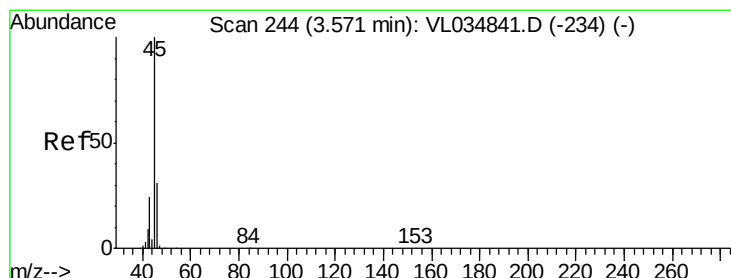
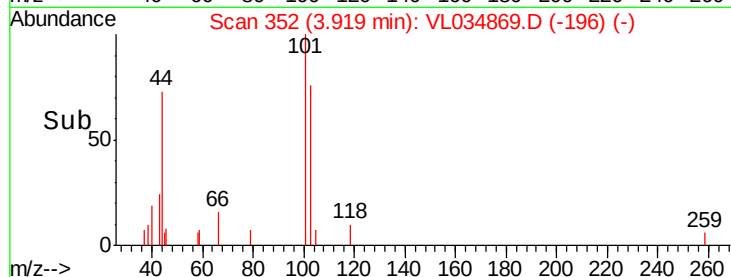
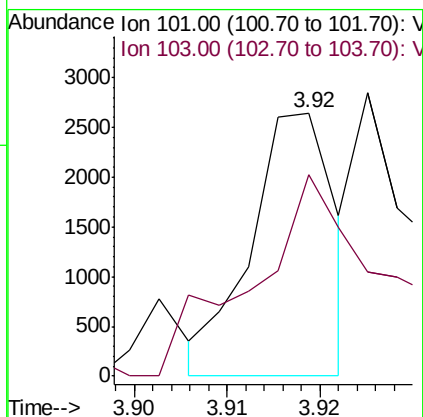
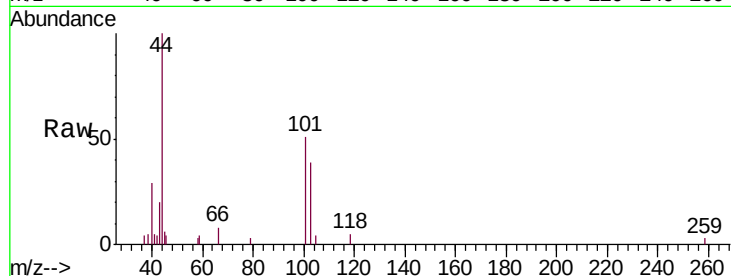




#11
 Trichlorofluoromethane
 Concen: 0.012 ppbv
 RT: 3.92 min Scan# 352
 Delta R.T. 0.00 min
 Lab File: VL034869.D
 Acq: 10 Mar 2020 16:57

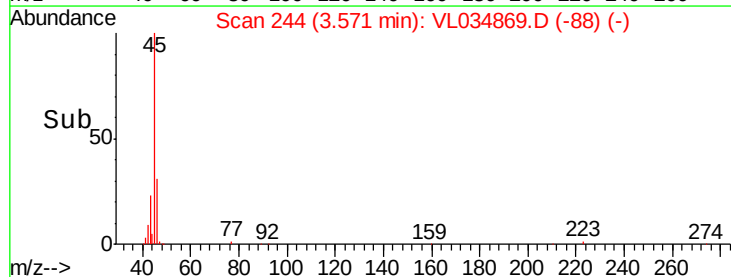
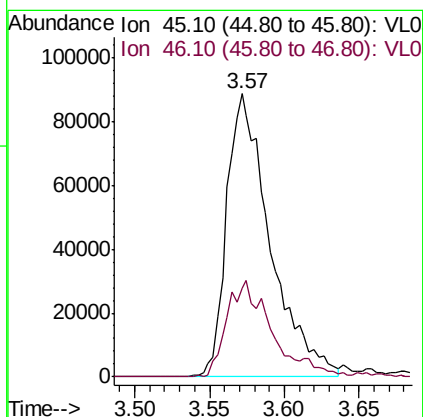
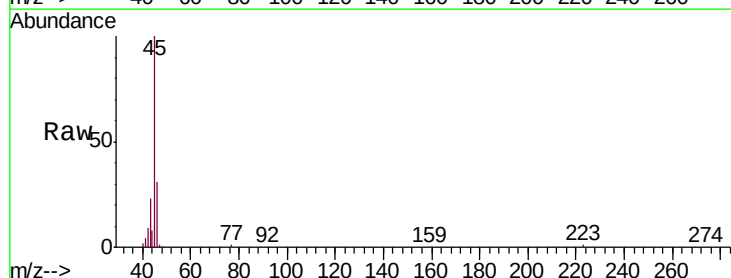
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-2DL

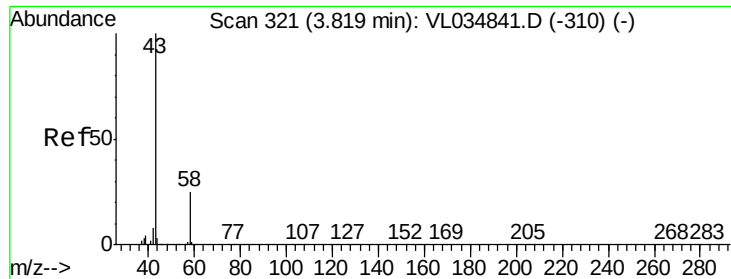
Tgt Ion: 101 Resp: 1657
 Ion Ratio Lower Upper
 101 100
 103 52.4 51.8 77.8



#13
 Ethanol
 Concen: 11.879 ppbv
 RT: 3.57 min Scan# 244
 Delta R.T. 0.00 min
 Lab File: VL034869.D
 Acq: 10 Mar 2020 16:57

Tgt Ion: 45 Resp: 179232
 Ion Ratio Lower Upper
 45 100
 46 36.6 16.0 64.0

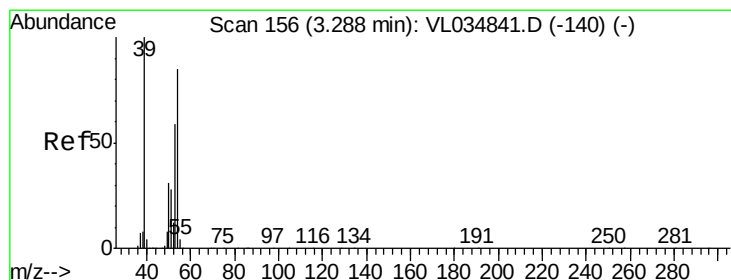
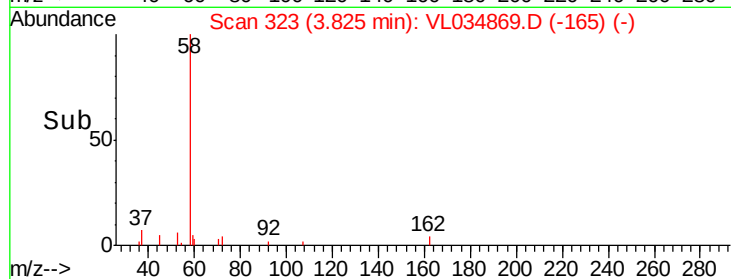
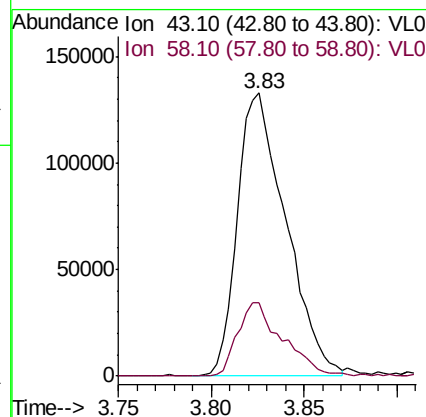
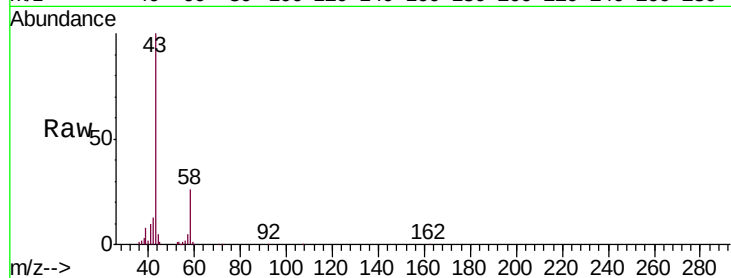




#15
Acetone
Concen: 1.999 ppbv
RT: 3.83 min Scan# 323
Delta R.T. 0.01 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

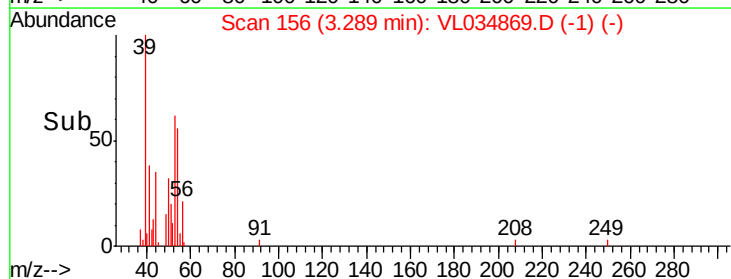
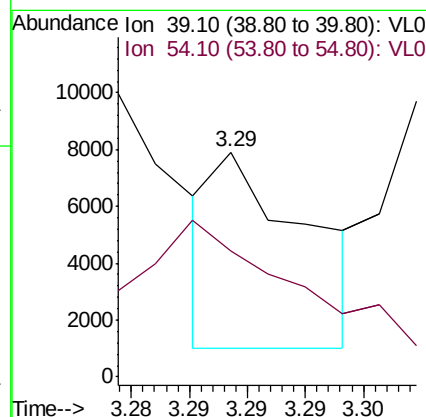
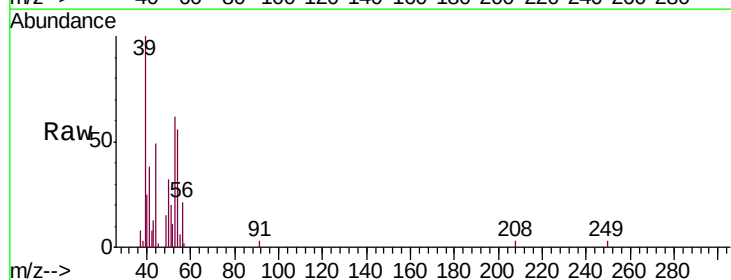
Instrument :
MSVOA_L
ClientSampleId :
AA-2DL

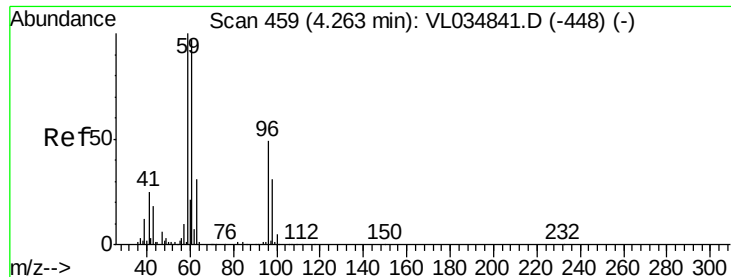
Tgt Ion: 43 Resp: 241130
Ion Ratio Lower Upper
43 100
58 24.4 21.0 31.6



#16
1,3-Butadiene
Concen: 0.070 ppbv
RT: 3.29 min Scan# 156
Delta R.T. 0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion: 39 Resp: 3828
Ion Ratio Lower Upper
39 100
54 212.5 65.0 97.6#





#17

tert-Butyl alcohol

Concen: 0.028 ppbv

RT: 4.29 min Scan# 469

Delta R.T. 0.03 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

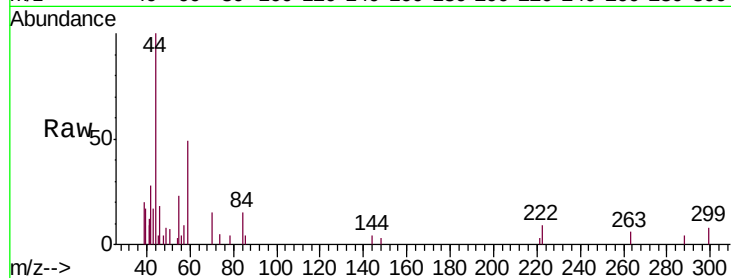
AA-2DL

Tgt Ion: 59 Resp: 3228

Ion Ratio Lower Upper

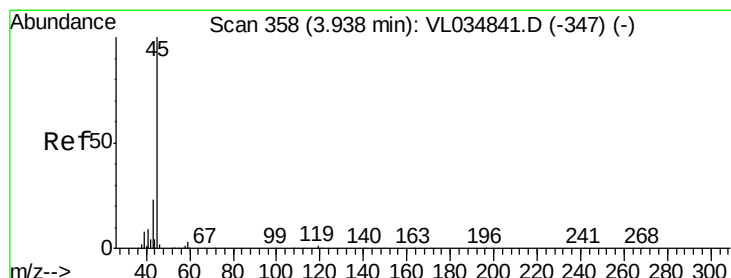
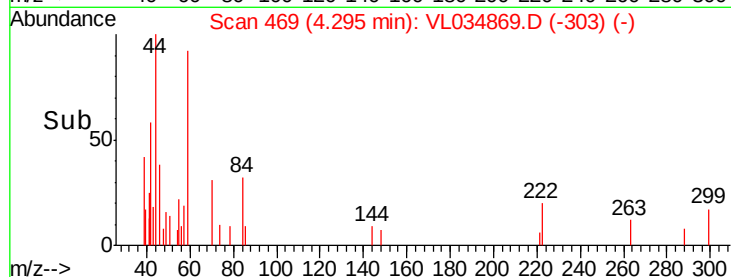
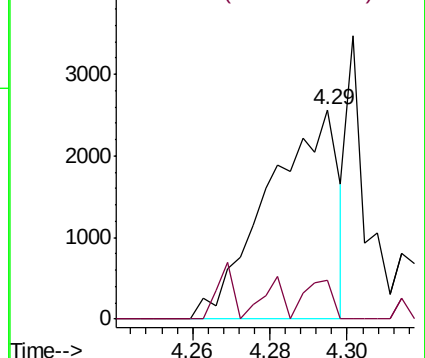
59 100

57 0.0 8.3 12.5#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 0.149 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.02 min

Lab File: VL034869.D

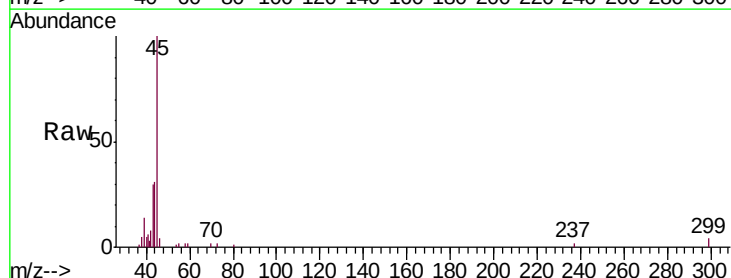
Acq: 10 Mar 2020 16:57

Tgt Ion: 45 Resp: 11345

Ion Ratio Lower Upper

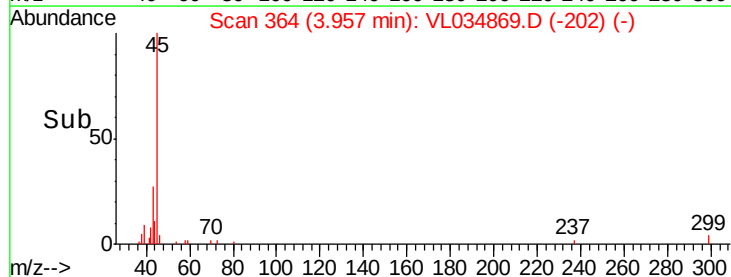
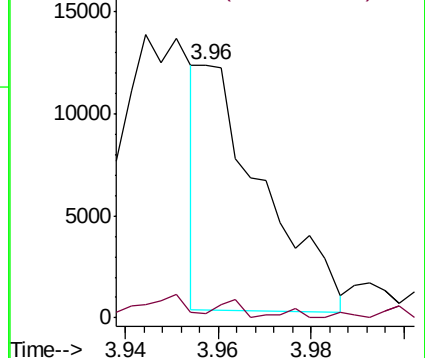
45 100

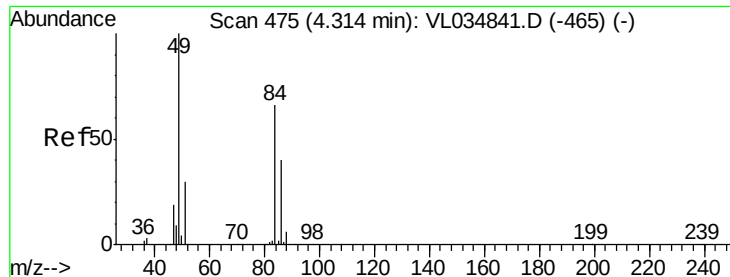
58 0.0 30.5 45.7#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

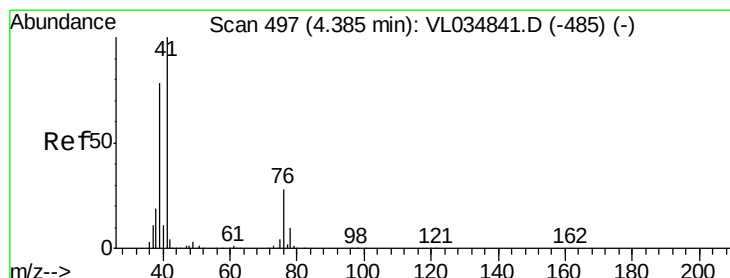
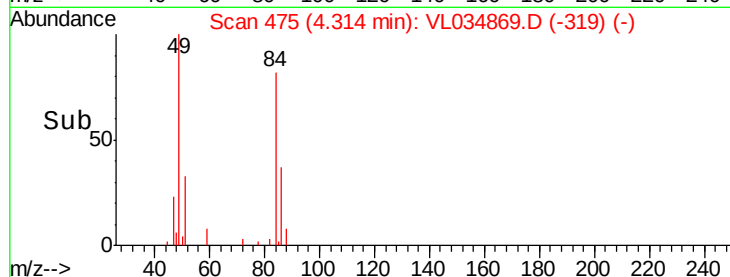
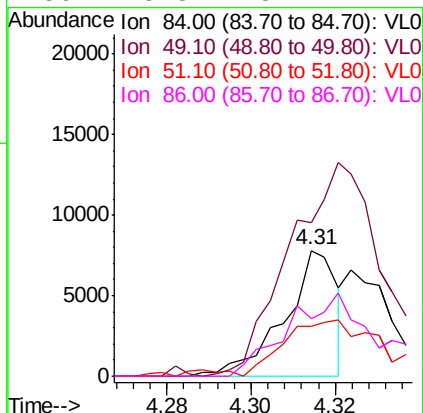
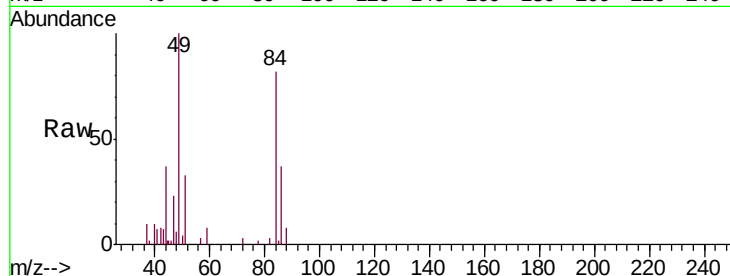




#20
Methylene Chloride
Concen: 0.177 ppbv
RT: 4.31 min Scan# 475
Delta R.T. 0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

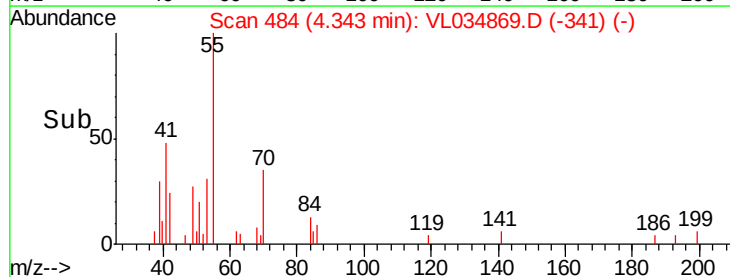
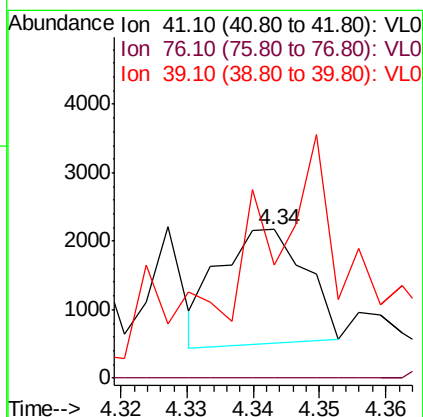
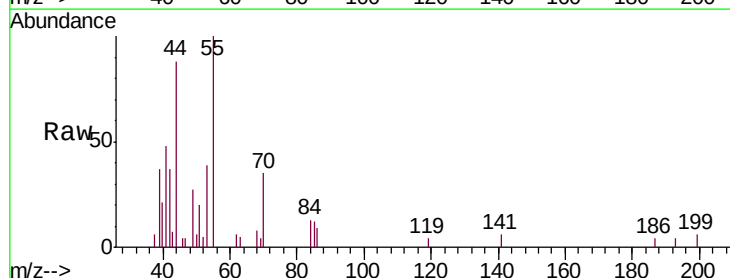
Instrument :
MSVOA_L
ClientSampled :
AA-2DL

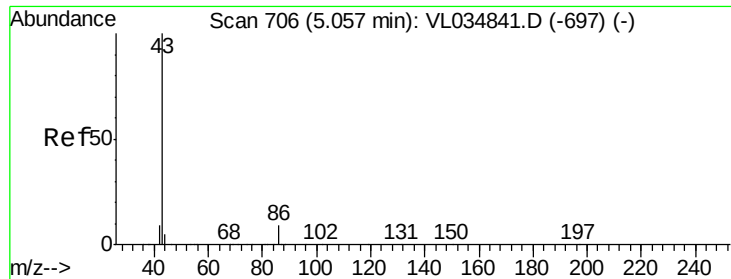
Tgt Ion: 84 Resp: 6747
Ion Ratio Lower Upper
84 100
49 120.5 121.5 182.3#
51 36.4 36.6 55.0#
86 45.8 48.2 72.2#



#21
Allyl Chloride
Concen: 0.020 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.04 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion: 41 Resp: 1518
Ion Ratio Lower Upper
41 100
76 0.0 22.2 33.2#
39 500.9 62.6 93.8#

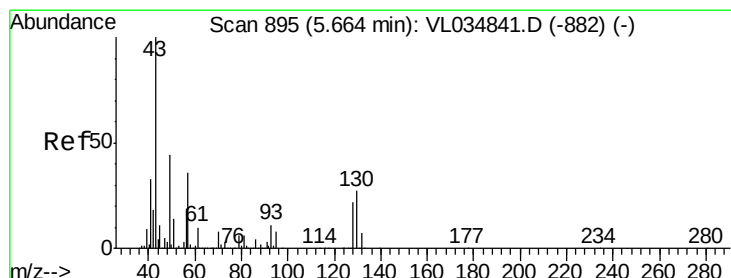
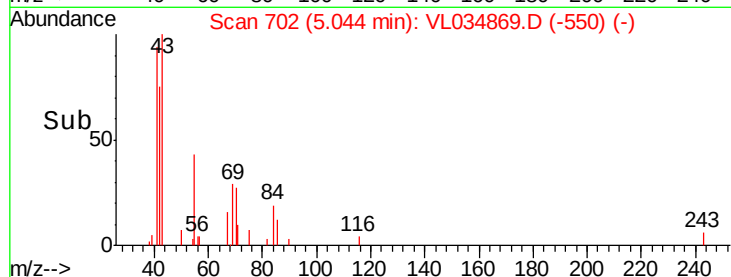
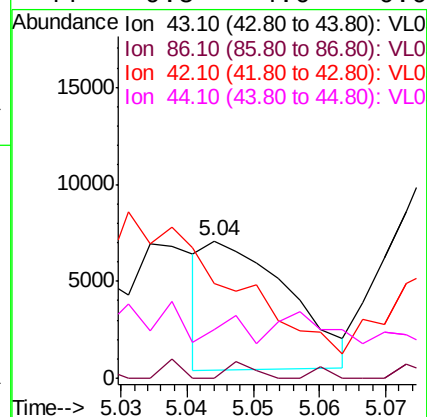
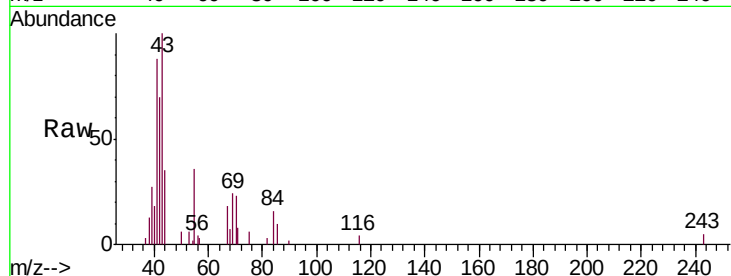




#23
 Vinyl Acetate
 Concen: 0.033 ppbv
 RT: 5.04 min Scan# 702
 Delta R.T. -0.01 min
 Lab File: VL034869.D
 Acq: 10 Mar 2020 16:57

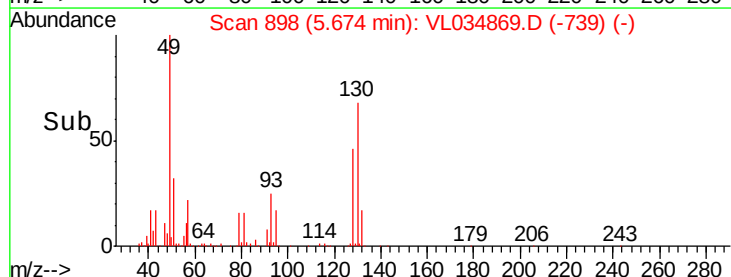
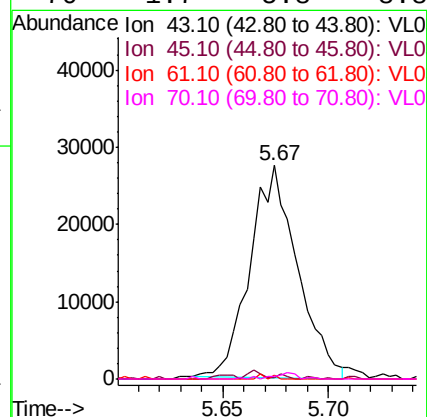
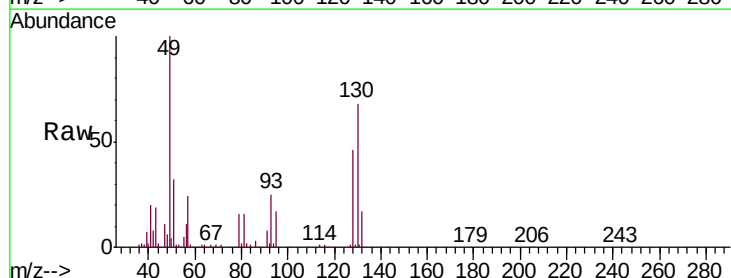
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-2DL

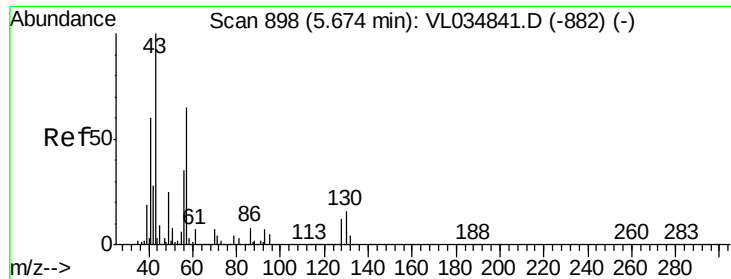
Tgt Ion:	43	Resp:	5795
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.3	9.5#
42	73.8	7.8	11.8#
44	9.5	4.0	6.0#



#25
 Ethyl Acetate
 Concen: 0.200 ppbv
 RT: 5.67 min Scan# 898
 Delta R.T. 0.01 min
 Lab File: VL034869.D
 Acq: 10 Mar 2020 16:57

Tgt Ion:	43	Resp:	43006
Ion	Ratio	Lower	Upper
43	100		
45	2.5	8.2	12.2#
61	0.5	7.8	11.6#
70	1.7	5.8	8.8#

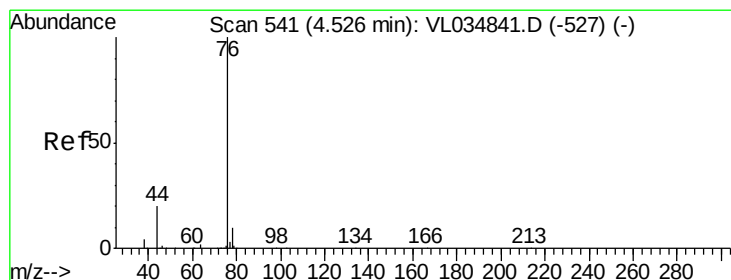
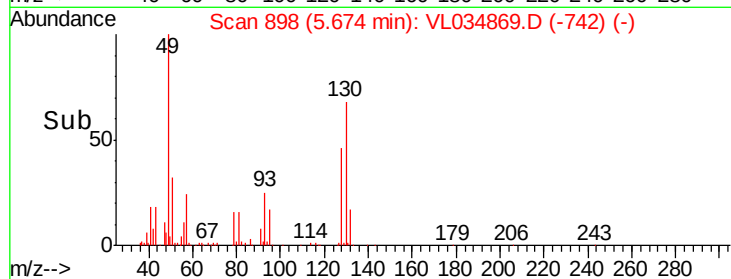
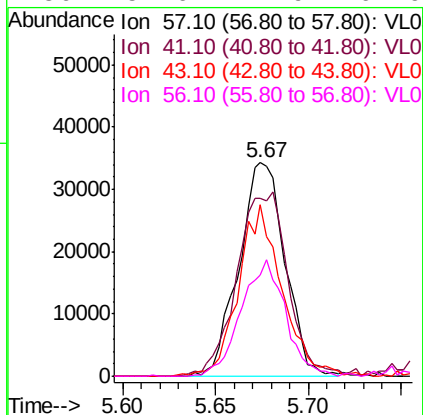
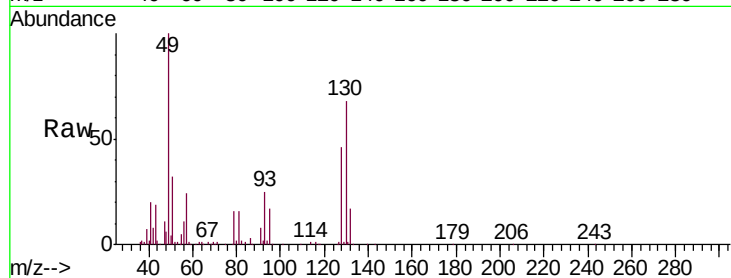




#26
Hexane
Concen: 0.640 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

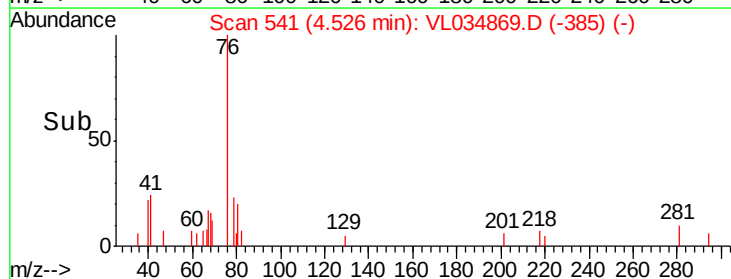
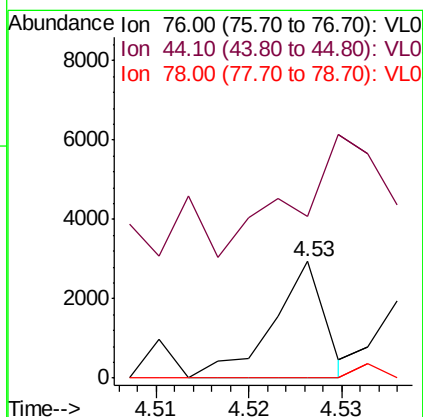
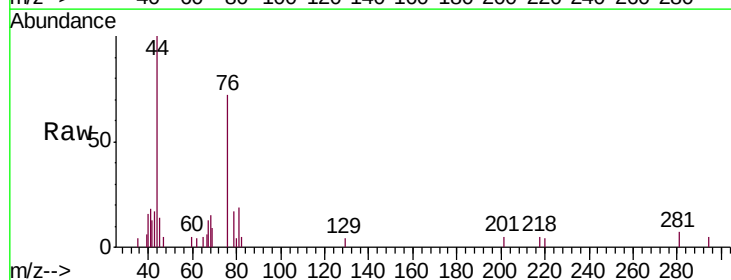
Instrument :
MSVOA_L
ClientSampled :
AA-2DL

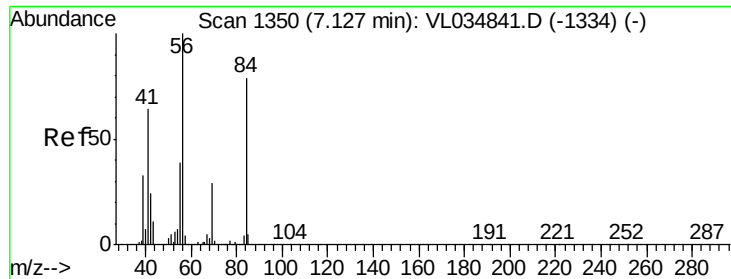
Tgt Ion:	57	Resp:	59182
Ion	Ratio	Lower	Upper
57	100		
41	95.7	72.6	109.0
43	76.6	183.8	275.6#
56	52.6	41.9	62.9



#27
Carbon Disulfide
Concen: 0.011 ppbv
RT: 4.53 min Scan# 541
Delta R.T. 0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion:	76	Resp:	1139
Ion	Ratio	Lower	Upper
76	100		
44	597.0	16.2	24.2#
78	0.0	7.8	11.6#

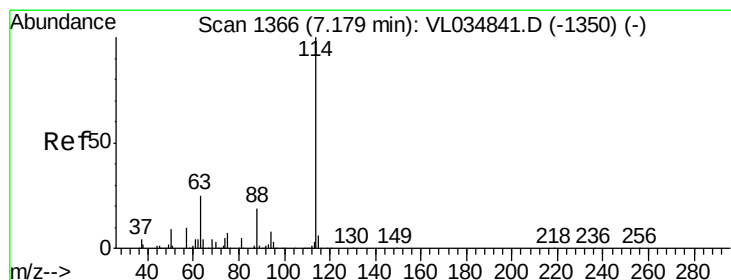
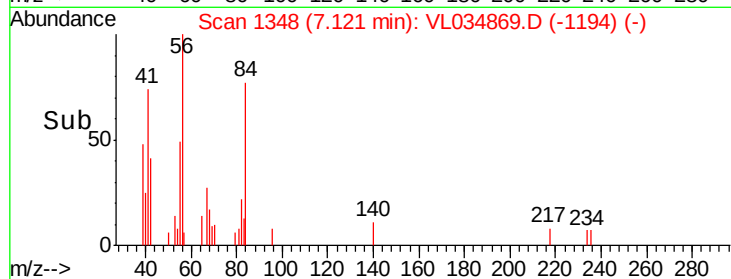
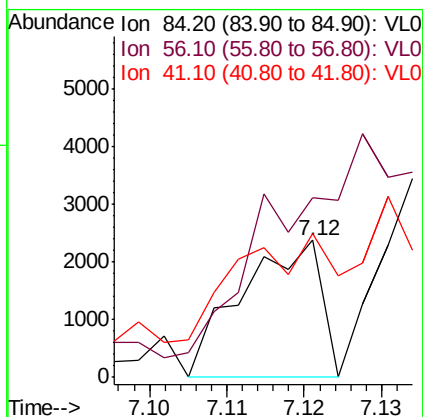
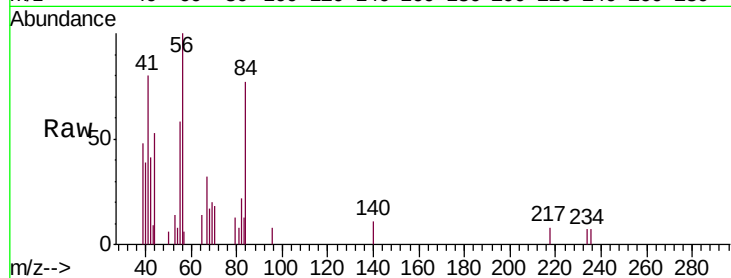




#30
Cyclohexane
Concen: 0.022 ppbv
RT: 7.12 min Scan# 1348
Delta R.T. -0.01 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

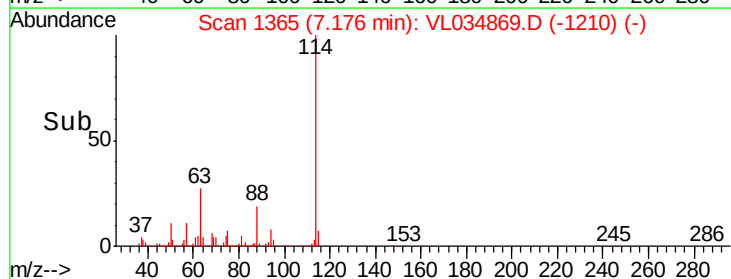
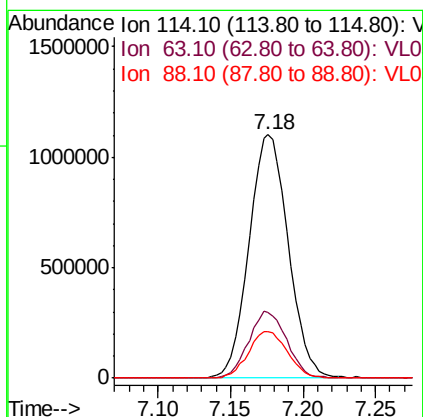
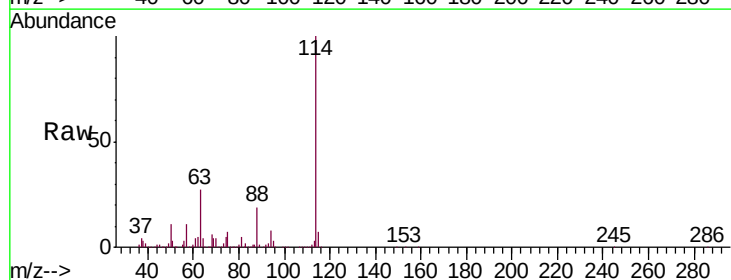
Instrument :
MSVOA_L
ClientSampleId :
AA-2DL

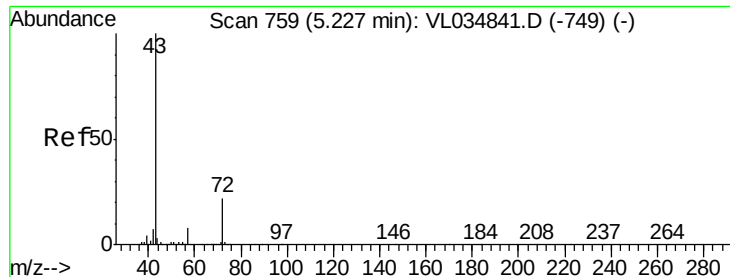
Tgt Ion: 84 Resp: 1691
Ion Ratio Lower Upper
84 100
56 0.0 110.5 165.7#
41 0.0 68.2 102.4#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion: 114 Resp: 2073997
Ion Ratio Lower Upper
114 100
63 26.9 20.6 31.0
88 19.2 15.0 22.6

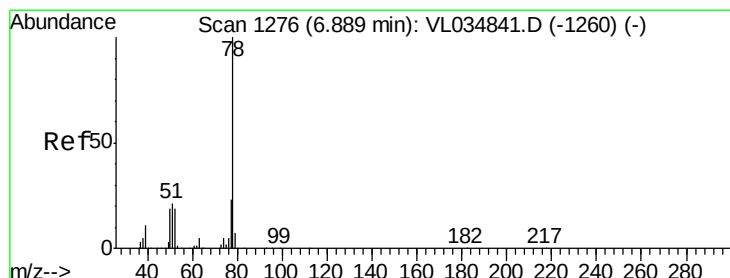
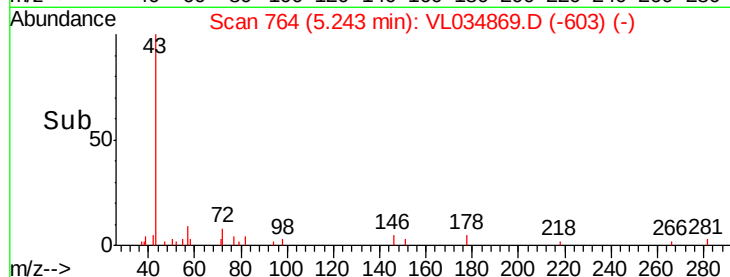
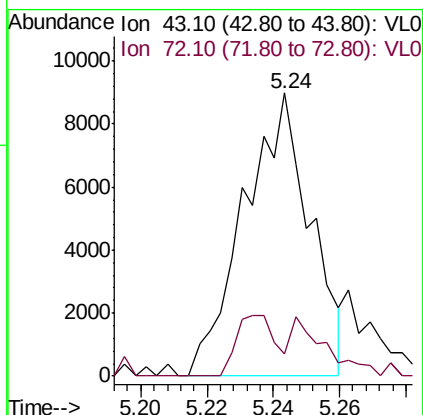
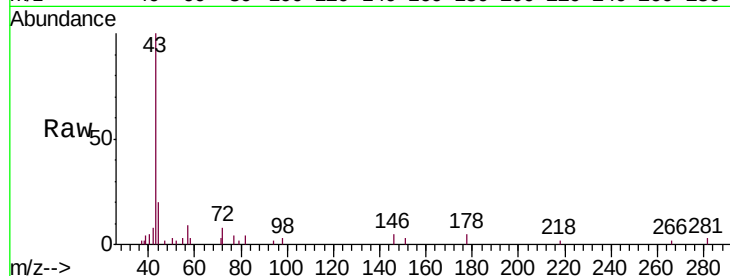




#34
2-Butanone
Concen: 0.090 ppbv
RT: 5.24 min Scan# 764
Delta R.T. 0.02 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

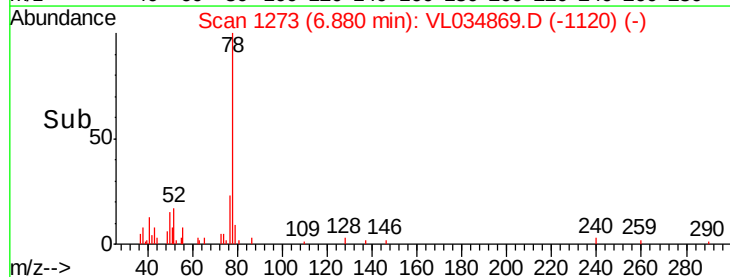
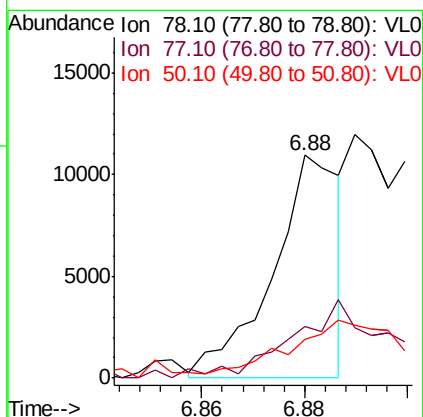
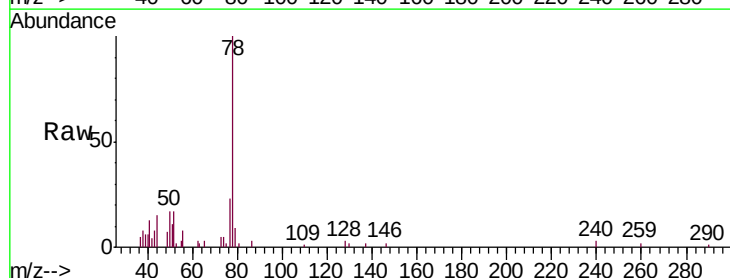
Instrument :
MSVOA_L
ClientSampled :
AA-2DL

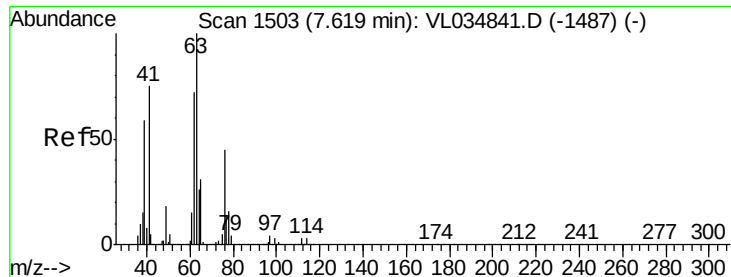
Tgt Ion: 43 Resp: 12462
Ion Ratio Lower Upper
43 100
72 24.3 17.6 26.4



#36
Benzene
Concen: 0.054 ppbv
RT: 6.88 min Scan# 1273
Delta R.T. -0.01 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion: 78 Resp: 9915
Ion Ratio Lower Upper
78 100
77 19.4 18.2 27.2
50 15.5 15.2 22.8





#39

1,2-Dichloropropane

Concen: 7.575 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.45 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

AA-2DL

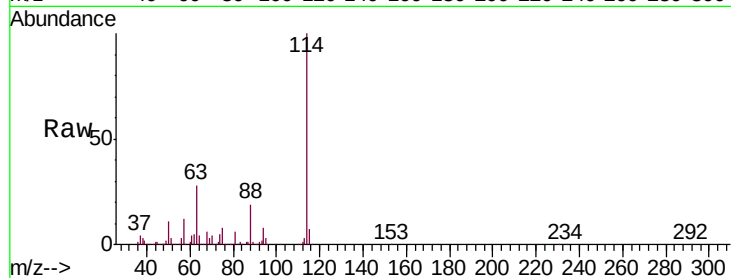
Tgt Ion: 63 Resp: 554854

Ion Ratio Lower Upper

63 100

41 0.0 59.8 89.8#

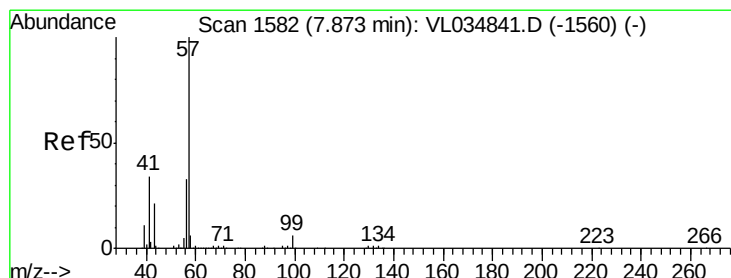
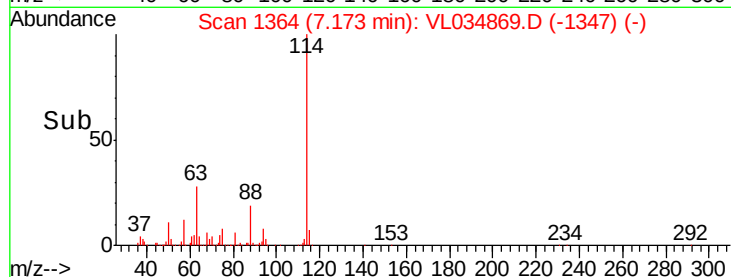
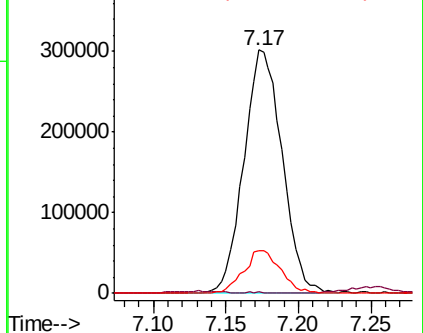
62 17.3 57.6 86.4#



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: 0.158 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

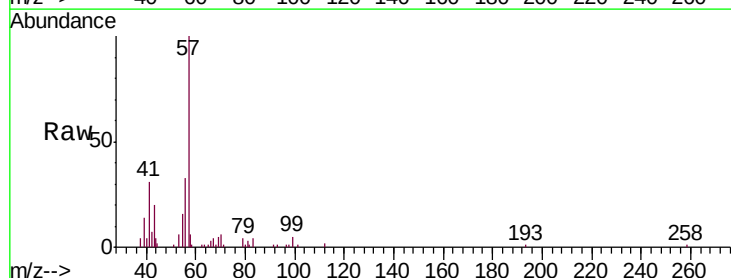
Tgt Ion: 57 Resp: 49417

Ion Ratio Lower Upper

57 100

41 40.4 26.2 39.4#

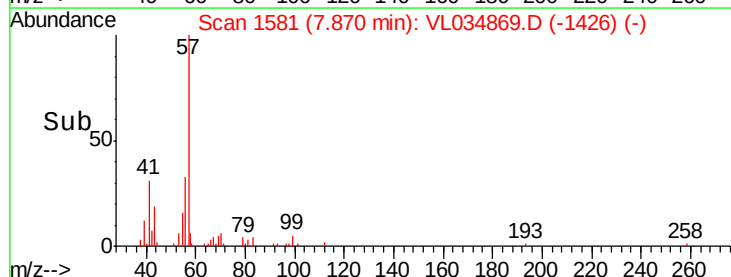
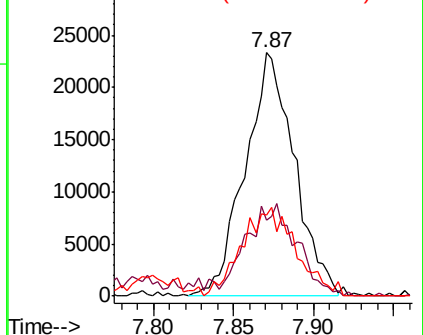
56 39.8 25.0 37.4#

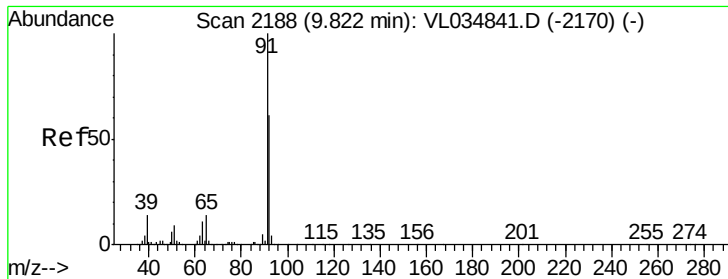


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.460 ppbv

RT: 9.82 min Scan# 2188

Delta R.T. 0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

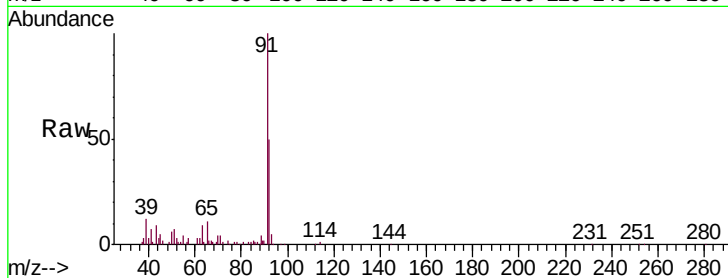
AA-2DL

Tgt Ion: 91 Resp: 98144

Ion Ratio Lower Upper

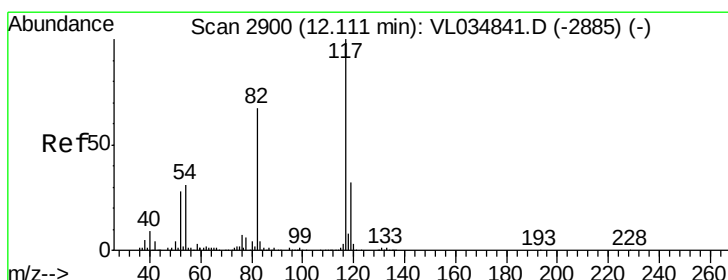
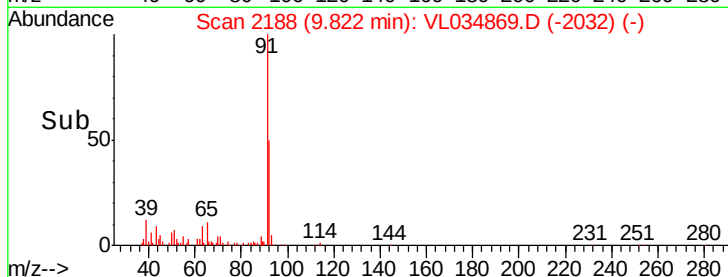
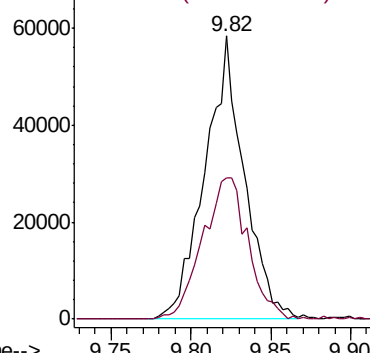
91 100

92 58.2 48.6 72.8



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: 12.11 min Scan# 2900

Delta R.T. 0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

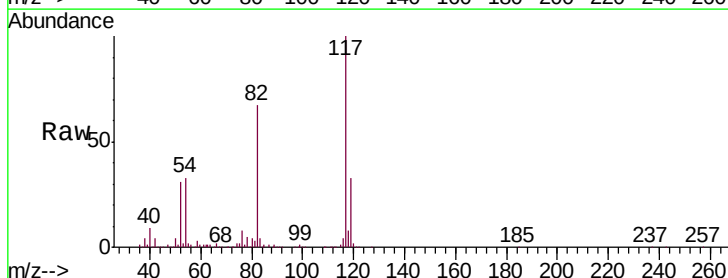
Tgt Ion: 117 Resp: 2054799

Ion Ratio Lower Upper

117 100

82 68.0 51.1 76.7

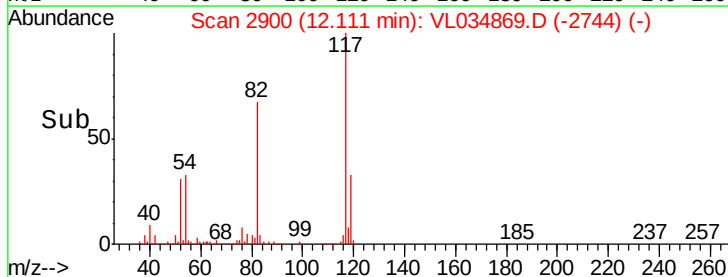
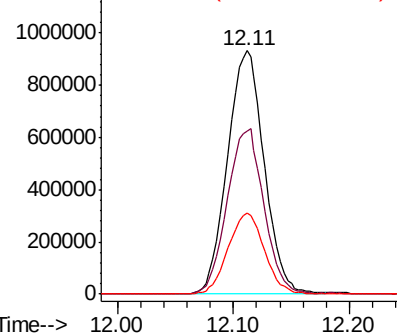
119 33.1 27.3 40.9

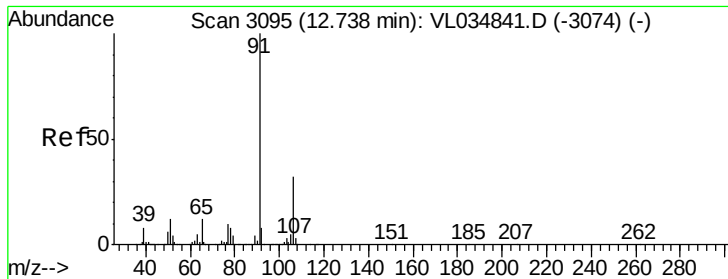


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#58

Ethyl Benzene

Concen: 0.042 ppbv

RT: 12.74 min Scan# 3094

Delta R.T. -0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

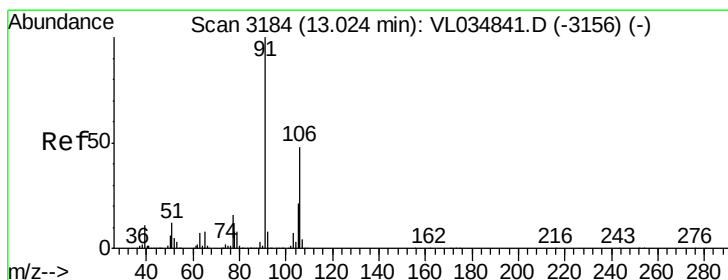
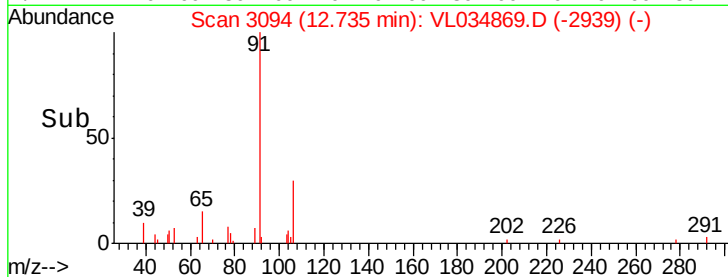
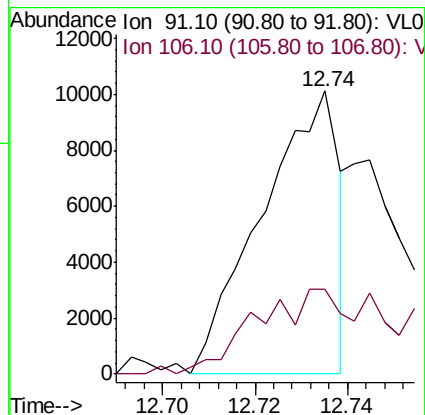
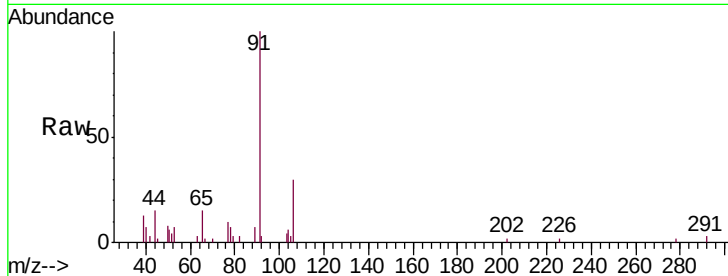
AA-2DL

Tgt Ion: 91 Resp: 11738

Ion Ratio Lower Upper

91 100

106 27.5 25.8 38.6



#59

m/p-Xylene

Concen: 0.037 ppbv

RT: 13.03 min Scan# 3185

Delta R.T. 0.00 min

Lab File: VL034869.D

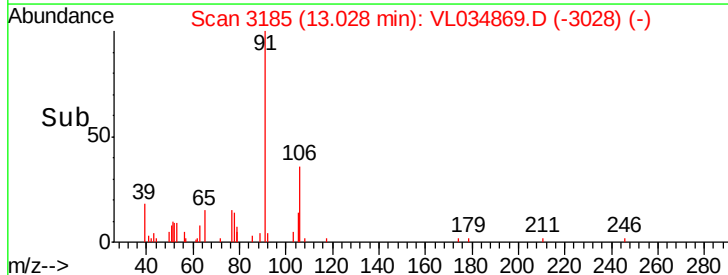
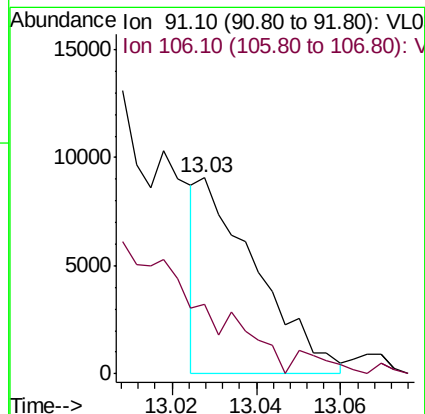
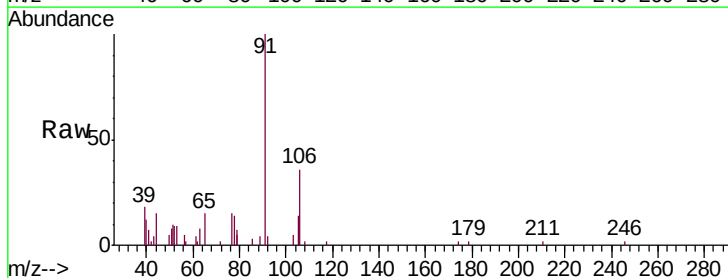
Acq: 10 Mar 2020 16:57

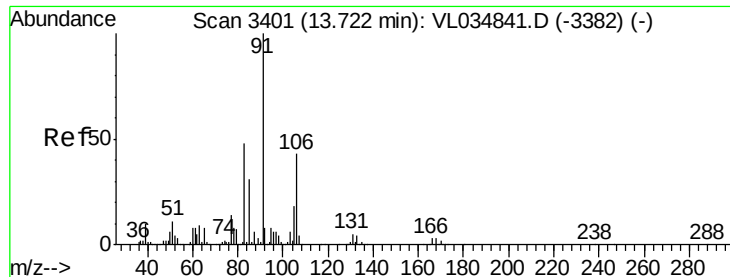
Tgt Ion: 91 Resp: 8646

Ion Ratio Lower Upper

91 100

106 0.0 37.1 55.7#

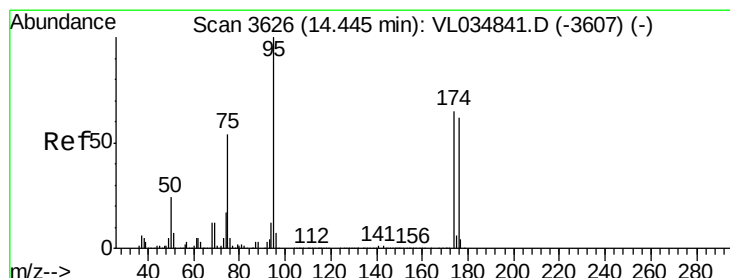
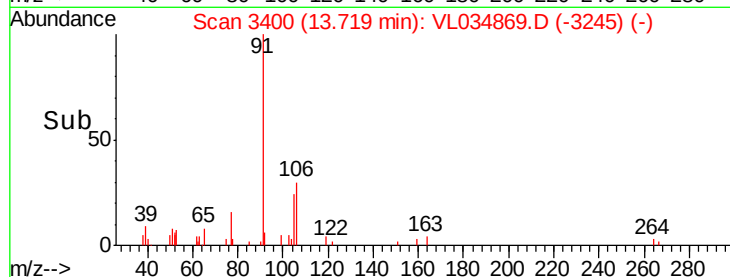
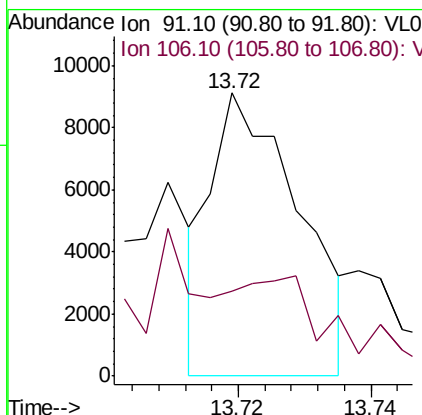
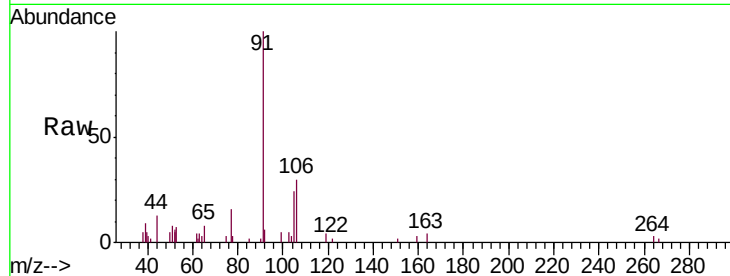




#60
o-Xylene
Concen: 0.037 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

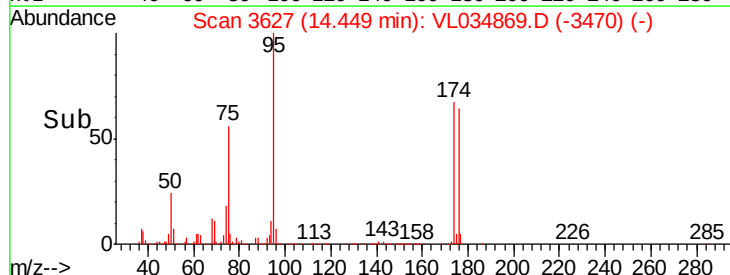
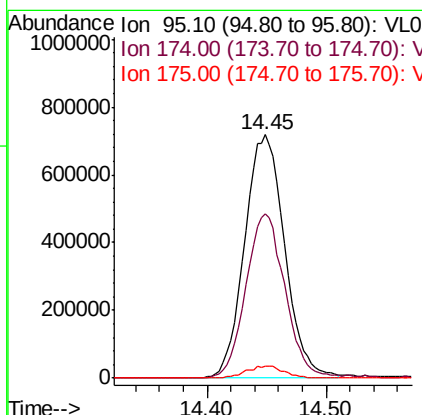
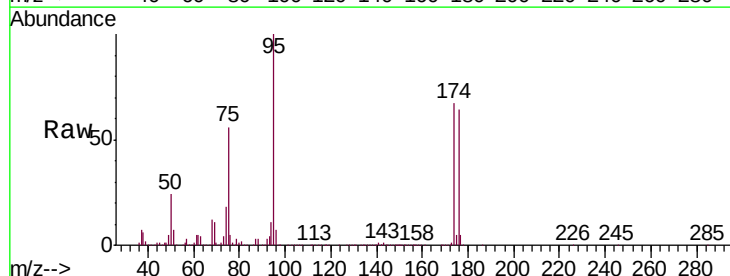
Instrument :
MSVOA_L
ClientSampleId :
AA-2DL

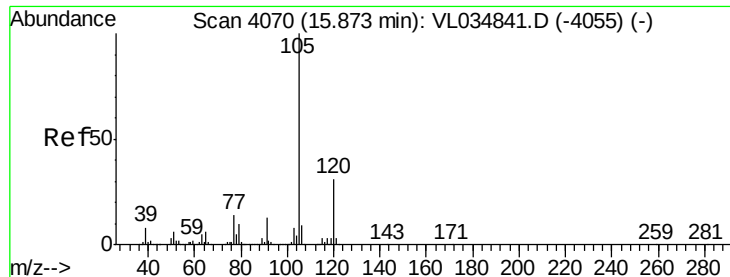
Tgt Ion: 91 Resp: 8411
Ion Ratio Lower Upper
91 100
106 0.0 22.5 67.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.449 ppbv
RT: 14.45 min Scan# 3627
Delta R.T. 0.00 min
Lab File: VL034869.D
Acq: 10 Mar 2020 16:57

Tgt Ion: 95 Resp: 1674514
Ion Ratio Lower Upper
95 100
174 66.8 55.2 82.8
175 4.8 4.3 6.5





#72

4-Ethyltoluene

Concen: 0.015 ppbv

RT: 15.88 min Scan# 4071

Delta R.T. 0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Instrument :

MSVOA_L

ClientSampleId :

AA-2DL

Tgt Ion:105 Resp: 4092

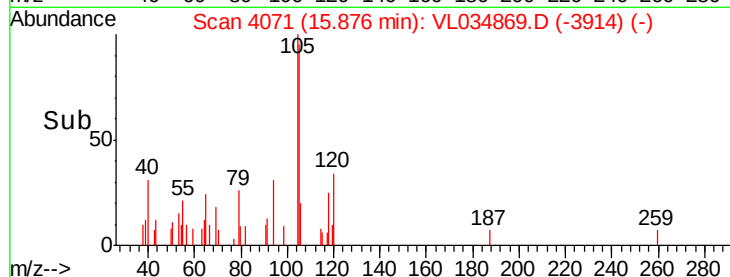
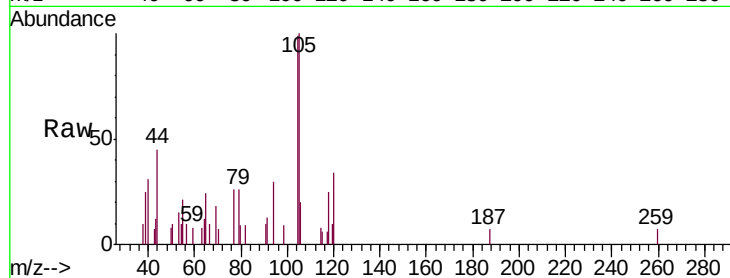
Ion Ratio Lower Upper

105 100

120 36.7 23.7 35.5#

91 22.5 10.5 15.7#

77 0.0 11.1 16.7#

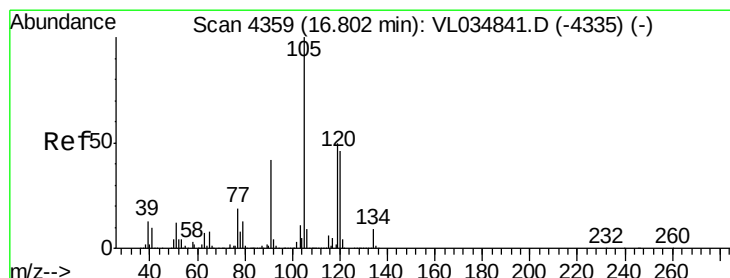
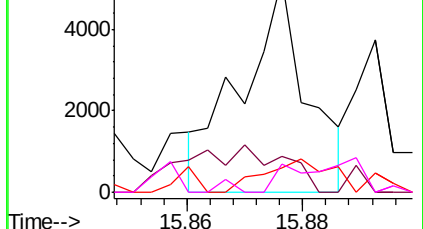


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#74

1,2,4-Trimethylbenzene

Concen: 0.022 ppbv

RT: 16.80 min Scan# 4359

Delta R.T. 0.00 min

Lab File: VL034869.D

Acq: 10 Mar 2020 16:57

Tgt Ion:105 Resp: 5783

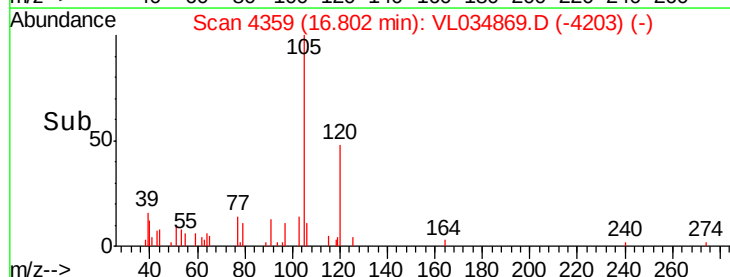
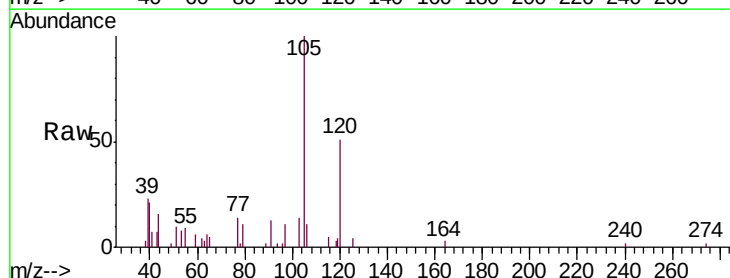
Ion Ratio Lower Upper

105 100

120 39.5 37.0 55.4

91 5.6 33.8 50.6#

77 12.9 15.4 23.0#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

