

Data File : VL033548.D
Acq On : 5 Apr 2019 00:53
Operator : SY/AP
Sample : K2211-02
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

Quant Time: Apr 05 02:01:48 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	962710	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1961368	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2375404	10.00	ppbv	0.00

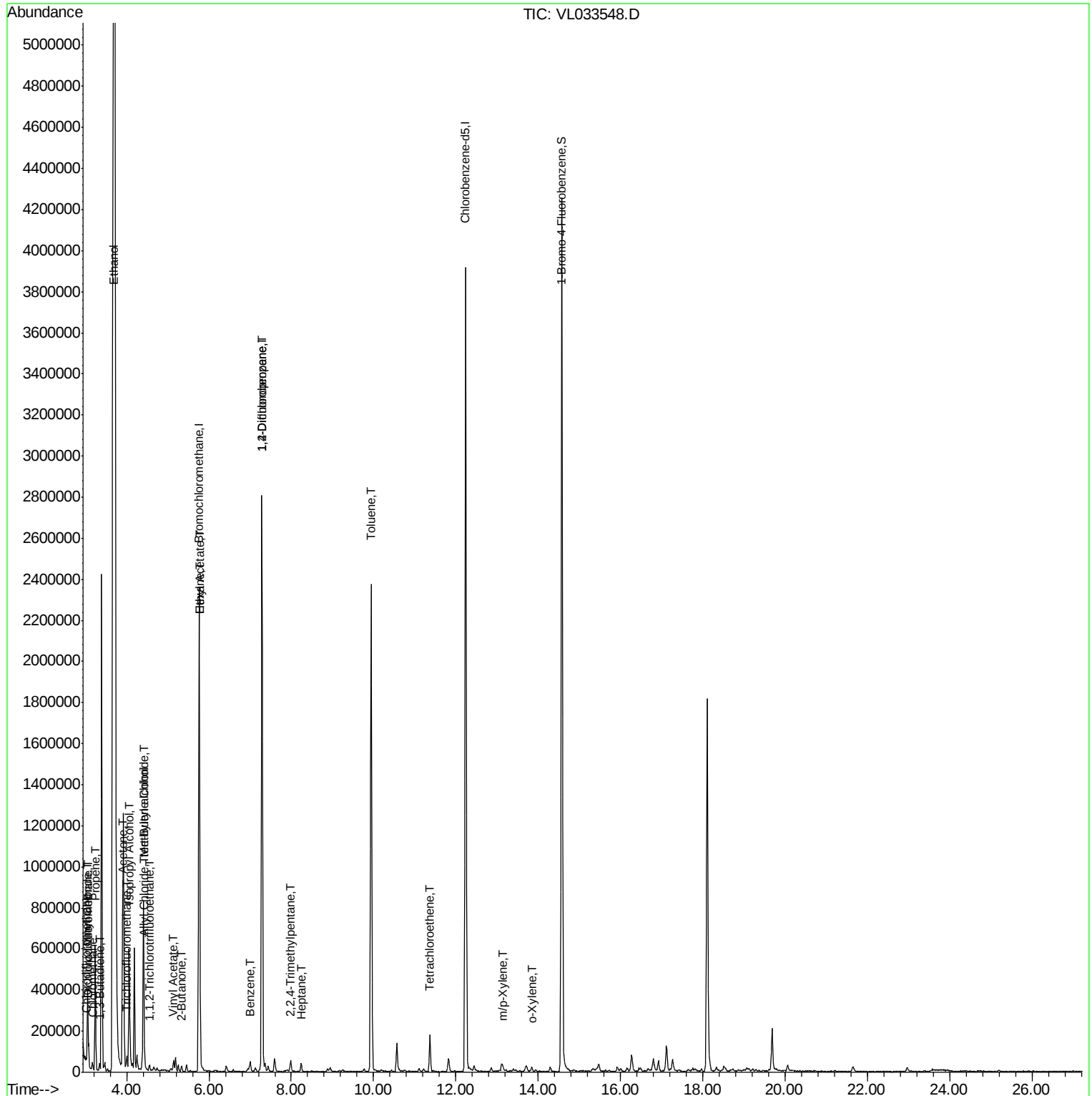
System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1988414 10.68 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 106.80%

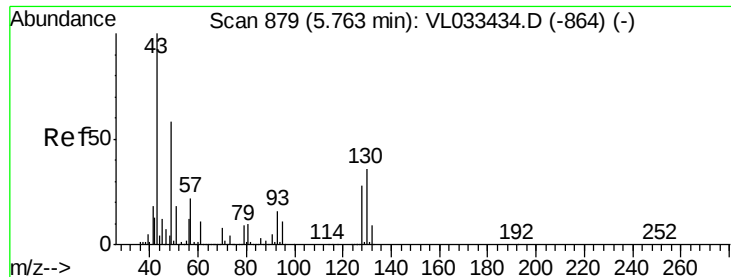
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	75399	0.537	ppbv	90
3) Chlorodifluoromethane	3.01	51	48676	0.439	ppbv #	89
4) Chloromethane	3.17	50	27187	0.464	ppbv	98
5) Vinyl Chloride	3.04	62	1965	0.034	ppbv #	69
9) Propene	3.24	41	144908	3.113	ppbv	95
10) Heptane	8.24	43	5519	0.044	ppbv #	27
11) Trichlorofluoromethane	4.00	101	37514	0.217	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.55	101	7717	0.066	ppbv	91
13) Ethanol	3.69	45	10379283	861.744	ppbv #	18
15) Acetone	3.90	43	701227	6.058	ppbv	99
16) 1,3-Butadiene	3.35	39	4074	0.089	ppbv #	6
17) tert-Butyl alcohol	4.41	59	97243	4.569	ppbv #	92
19) Isopropyl Alcohol	4.06	45	218307	2.982	ppbv #	1
20) Methylene Chloride	4.41	84	255196	5.194	ppbv	96
21) Allyl Chloride	4.43	41	8792	0.120	ppbv #	18
23) Vinyl Acetate	5.14	43	23171	0.141	ppbv #	26
25) Ethyl Acetate	5.78	43	181277	0.844	ppbv #	86
26) Hexane	5.78	57	200572	2.100	ppbv #	48
34) 2-Butanone	5.33	43	28633	0.243	ppbv	98
36) Benzene	7.00	78	32229	0.196	ppbv	96
39) 1,2-Dichloropropane	7.29	63	518627	8.045	ppbv #	23
44) 2,2,4-Trimethylpentane	7.98	57	17752	0.062	ppbv #	1
52) Tetrachloroethene	11.37	164	24078	0.388	ppbv	95
53) Toluene	9.94	91	1821124	9.523	ppbv	100
59) m/p-Xylene	13.14	91	10216	0.036	ppbv #	100
60) o-Xylene	13.84	91	10344	0.038	ppbv #	62

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.01 min

Lab File: VL033548.D

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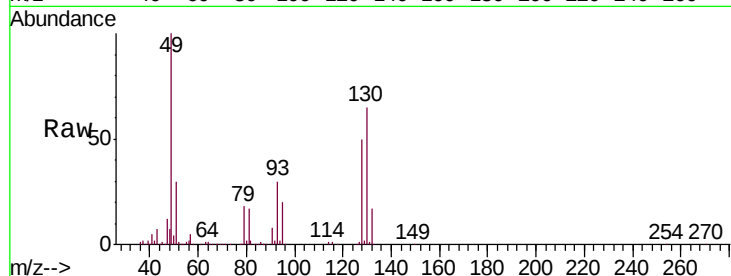
Tgt Ion: 49 Resp: 962710

Ion Ratio Lower Upper

49 100

128 48.9 24.0 72.0

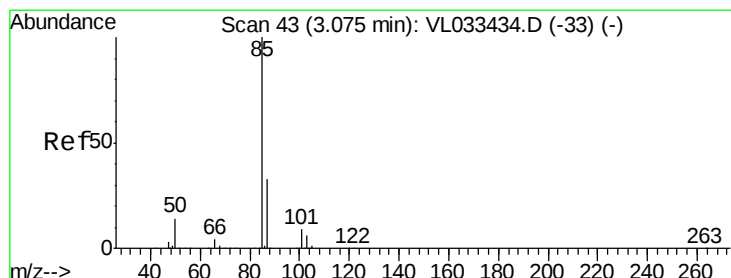
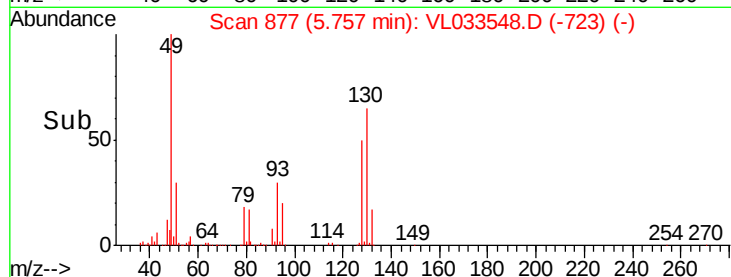
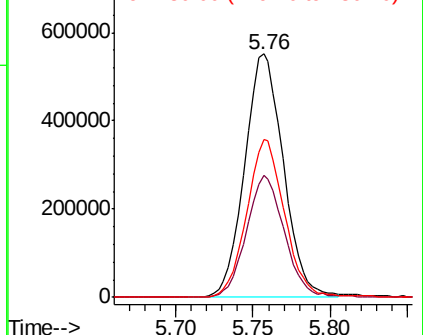
130 63.7 31.2 93.6



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: 0.537 ppbv

RT: 3.08 min Scan# 43

Delta R.T. 0.00 min

Lab File: VL033548.D

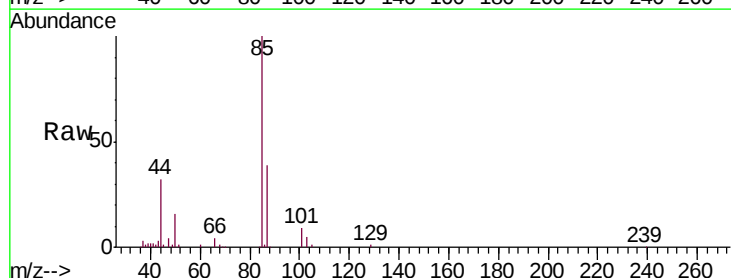
Acq: 5 Apr 2019 00:53

Tgt Ion: 85 Resp: 75399

Ion Ratio Lower Upper

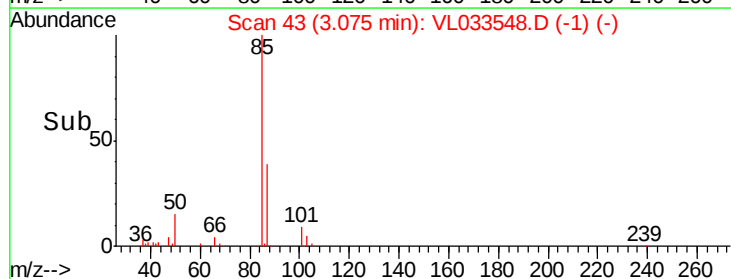
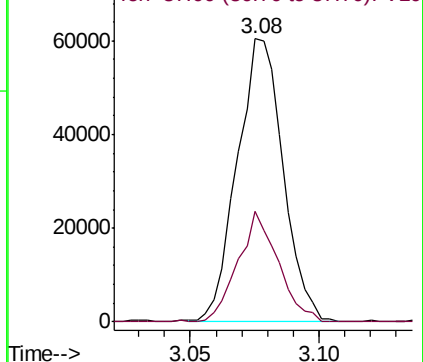
85 100

87 39.1 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

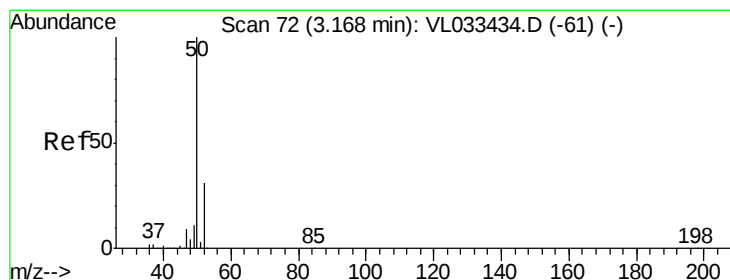
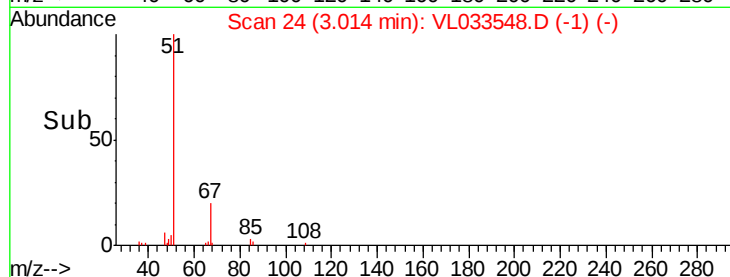
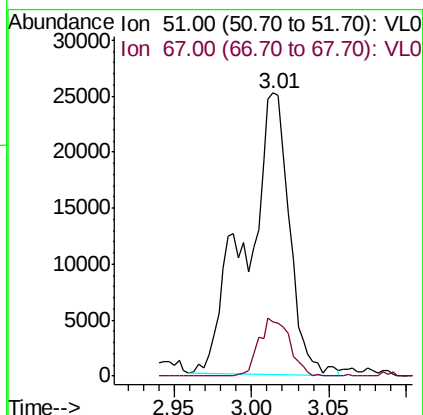
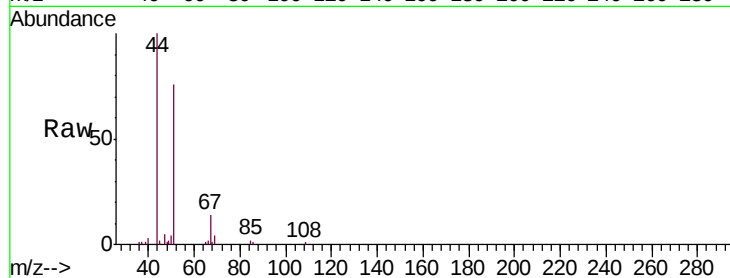




#3
Chlorodifluoromethane
Concen: 0.439 ppbv
RT: 3.01 min Scan# 24
Delta R.T. -0.00 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

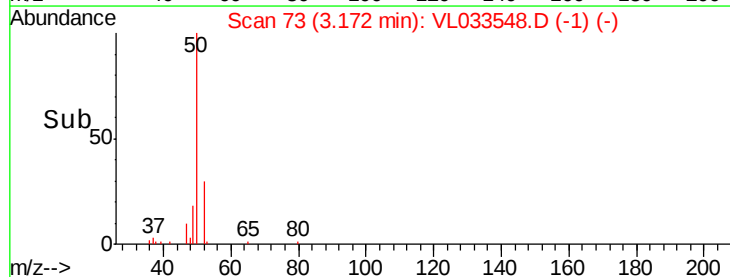
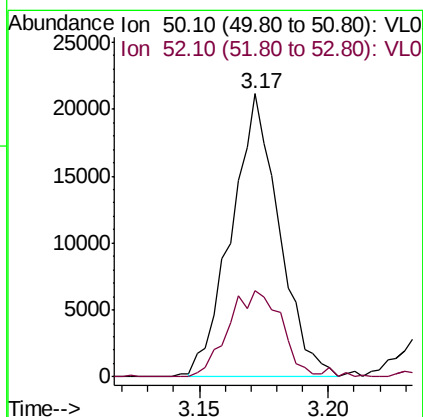
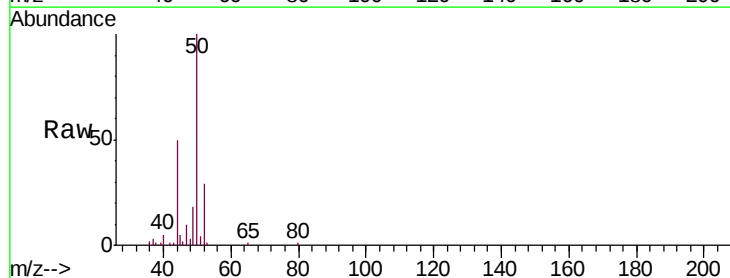
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

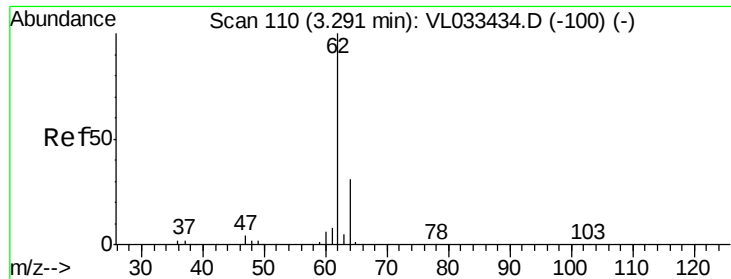
Tgt Ion: 51 Resp: 48676
Ion Ratio Lower Upper
51 100
67 14.7 15.7 23.5#



#4
Chloromethane
Concen: 0.464 ppbv
RT: 3.17 min Scan# 73
Delta R.T. 0.00 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion: 50 Resp: 27187
Ion Ratio Lower Upper
50 100
52 30.3 25.0 37.6





#5

Vinyl Chloride

Concen: 0.034 ppbv

RT: 3.04 min Scan# 33

Delta R.T. -0.25 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

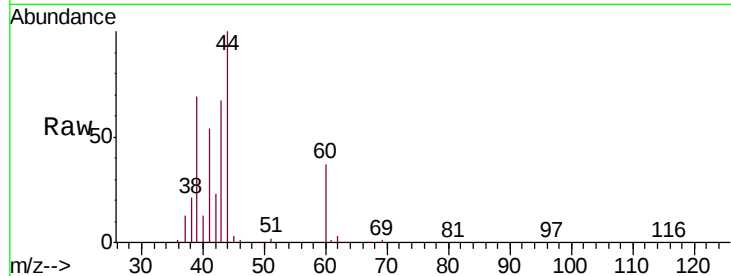
LIHA-IA2-DUP

Tgt Ion: 62 Resp: 1965

Ion Ratio Lower Upper

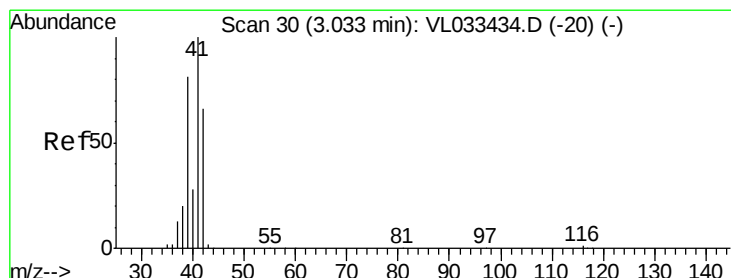
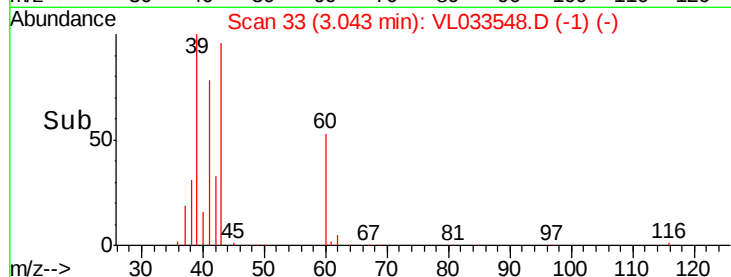
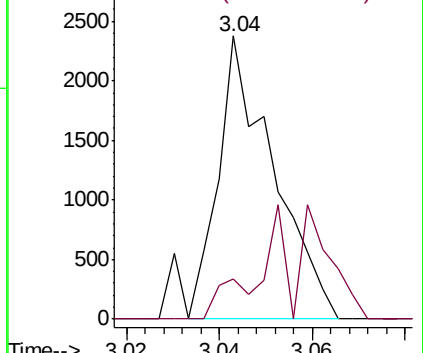
62 100

64 14.1 24.9 37.3#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#9

Propene

Concen: 3.113 ppbv

RT: 3.24 min Scan# 93

Delta R.T. 0.20 min

Lab File: VL033548.D

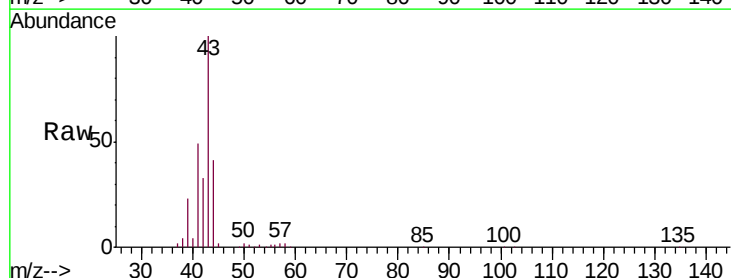
Acq: 5 Apr 2019 00:53

Tgt Ion: 41 Resp: 144908

Ion Ratio Lower Upper

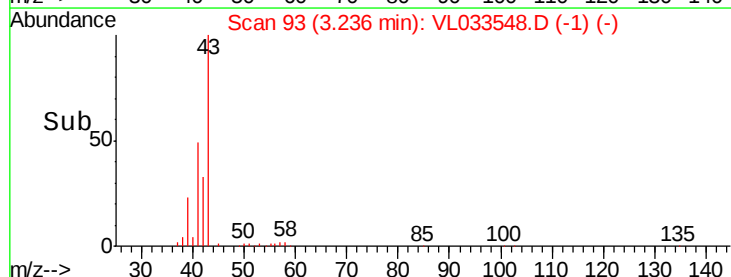
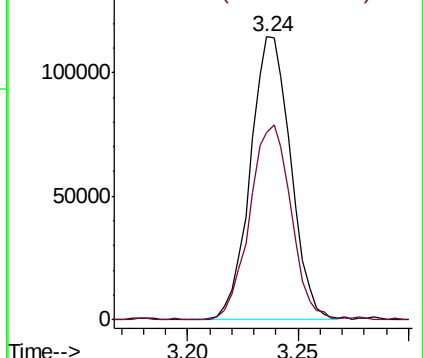
41 100

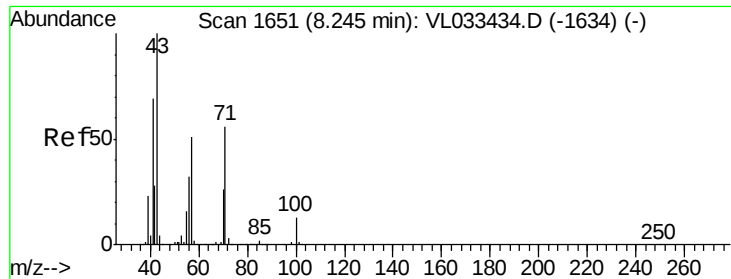
42 71.3 53.9 80.9



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

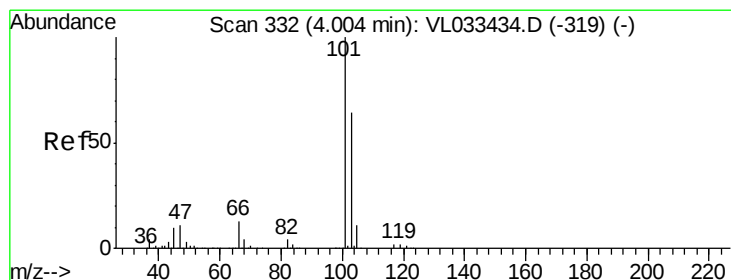
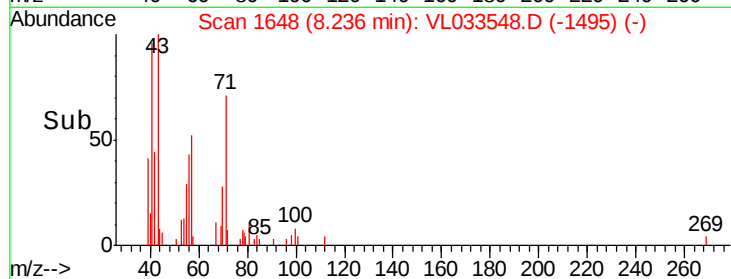
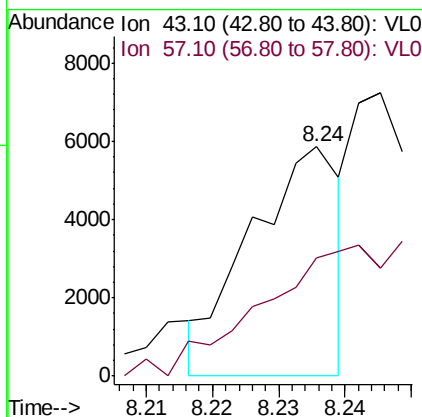
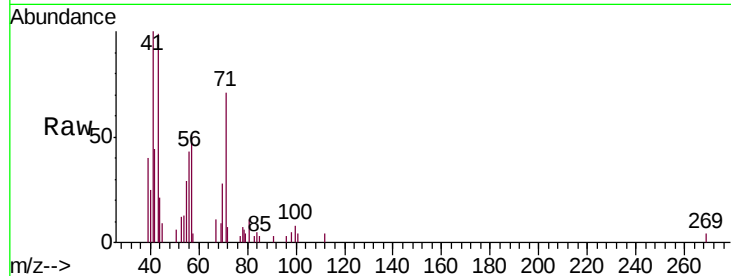




#10
 Heptane
 Concen: 0.044 ppbv
 RT: 8.24 min Scan# 1648
 Delta R.T. -0.01 min
 Lab File: VL033548.D
 Acq: 5 Apr 2019 00:53

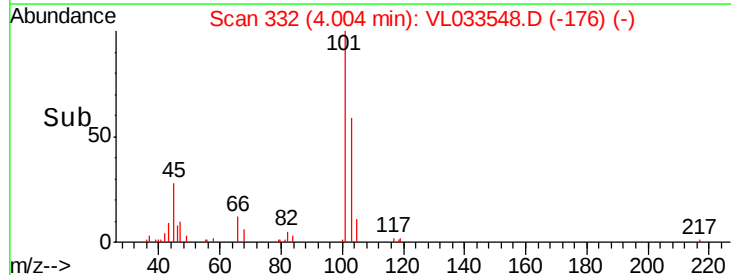
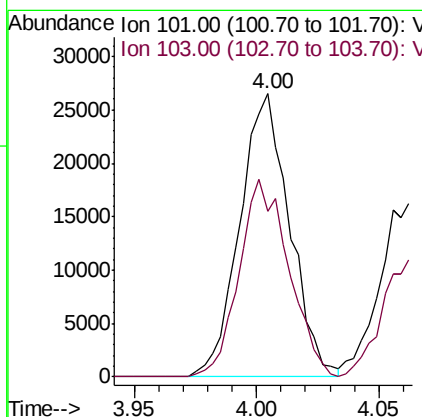
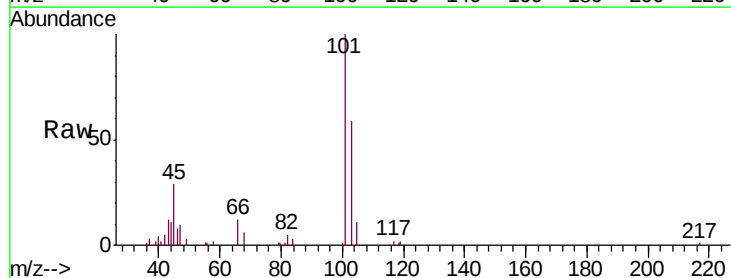
Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IA2-DUP

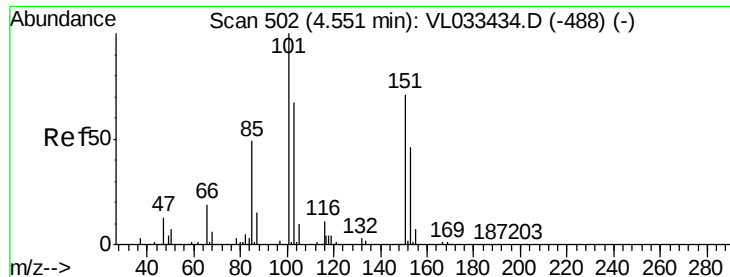
Tgt Ion: 43 Resp: 5519
 Ion Ratio Lower Upper
 43 100
 57 0.0 40.6 60.8#



#11
 Trichlorofluoromethane
 Concen: 0.217 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. 0.00 min
 Lab File: VL033548.D
 Acq: 5 Apr 2019 00:53

Tgt Ion: 101 Resp: 37514
 Ion Ratio Lower Upper
 101 100
 103 58.5 51.3 76.9





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.066 ppbv

RT: 4.55 min Scan# 503

Delta R.T. 0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

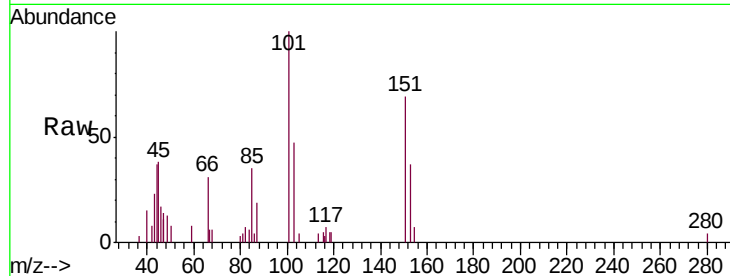
LIHA-IA2-DUP

Tgt Ion:101 Resp: 7717

Ion Ratio Lower Upper

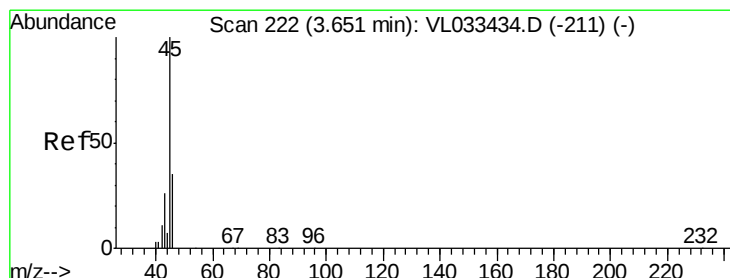
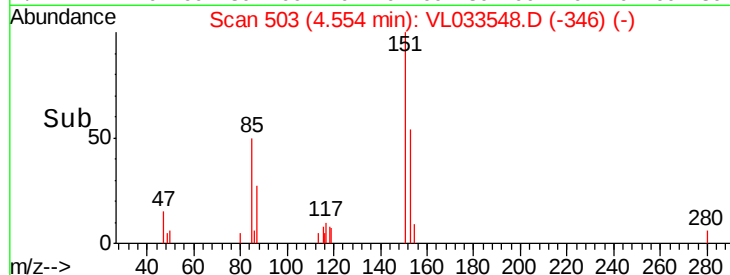
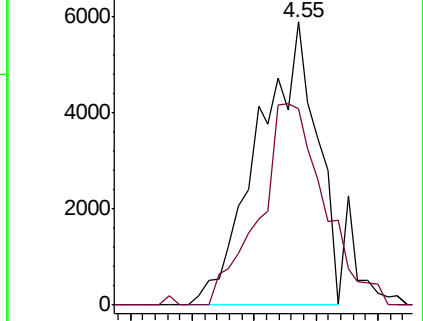
101 100

151 79.6 57.7 86.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 861.744 ppbv

RT: 3.69 min Scan# 235

Delta R.T. 0.04 min

Lab File: VL033548.D

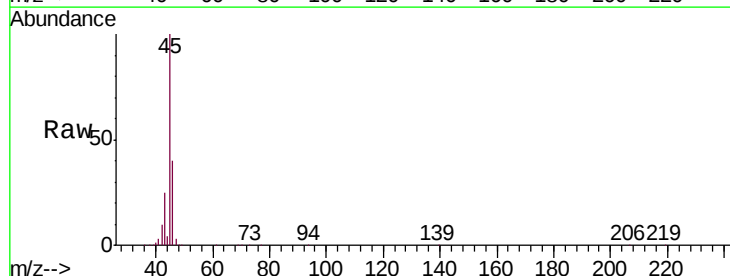
Acq: 5 Apr 2019 00:53

Tgt Ion: 45 Resp:10379283

Ion Ratio Lower Upper

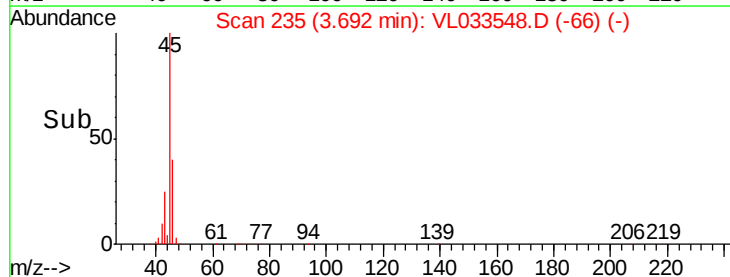
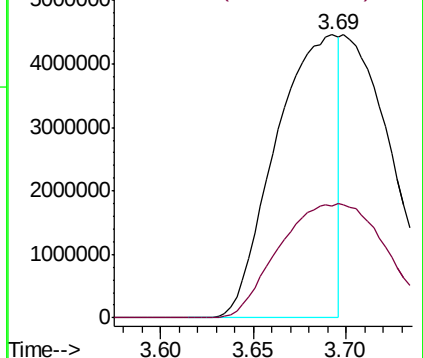
45 100

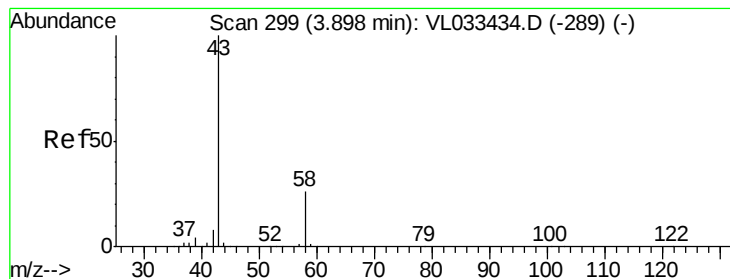
46 0.0 25.4 101.8#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 6.058 ppbv

RT: 3.90 min Scan# 299

Delta R.T. 0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

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ClientSampleId :

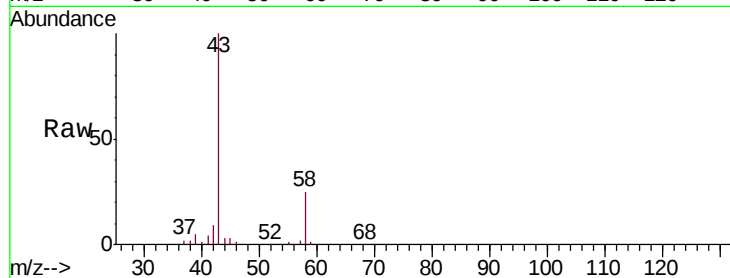
LIHA-IA2-DUP

Tgt Ion: 43 Resp: 701227

Ion Ratio Lower Upper

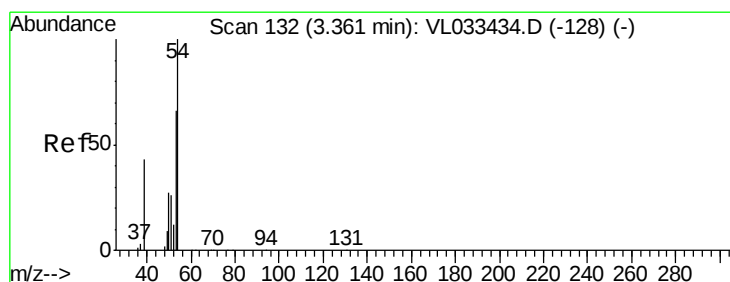
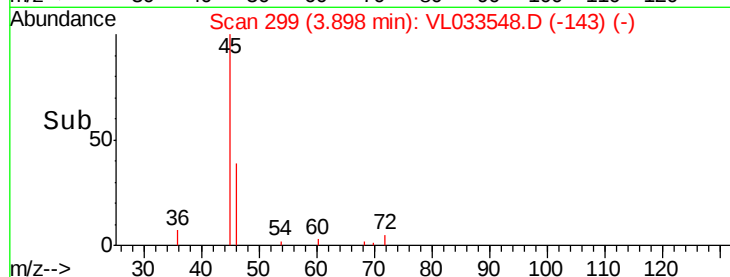
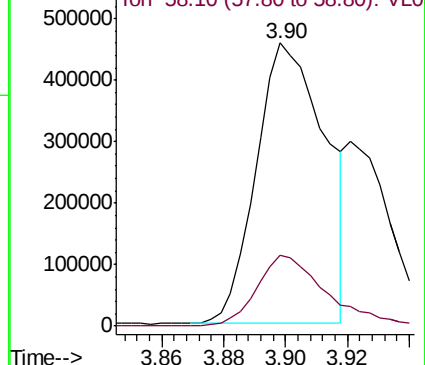
43 100

58 26.2 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.089 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL033548.D

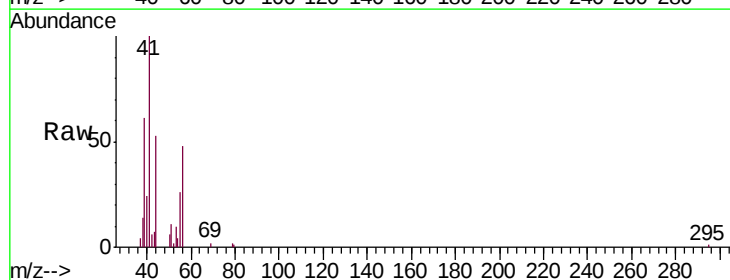
Acq: 5 Apr 2019 00:53

Tgt Ion: 39 Resp: 4074

Ion Ratio Lower Upper

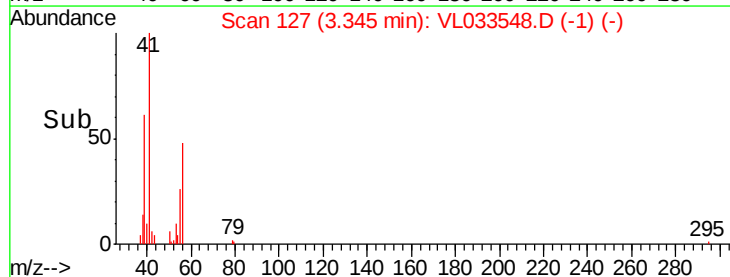
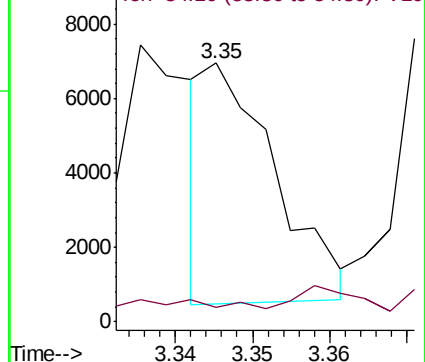
39 100

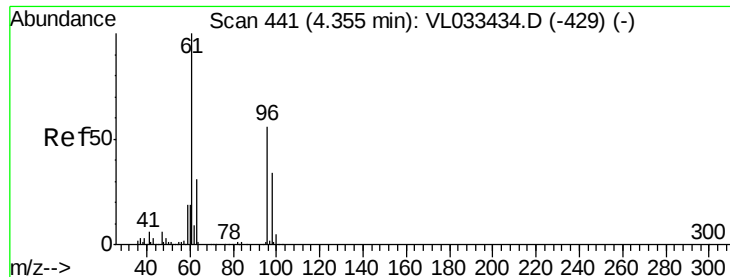
54 0.0 69.4 104.2#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#17

tert-Butyl alcohol

Concen: 4.569 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.05 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

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ClientSampleId :

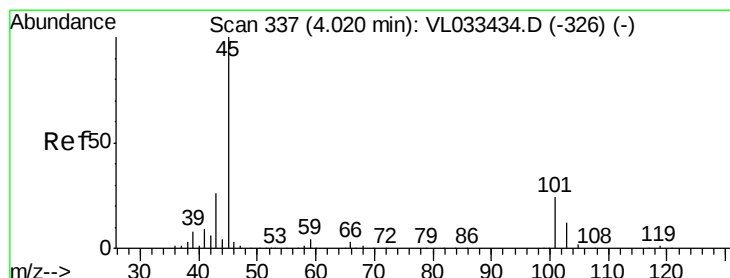
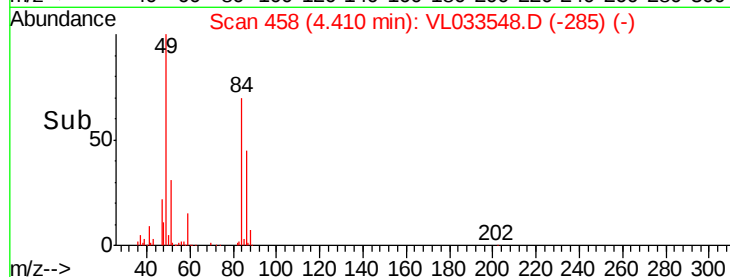
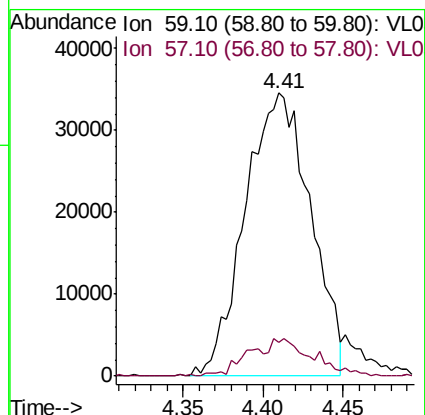
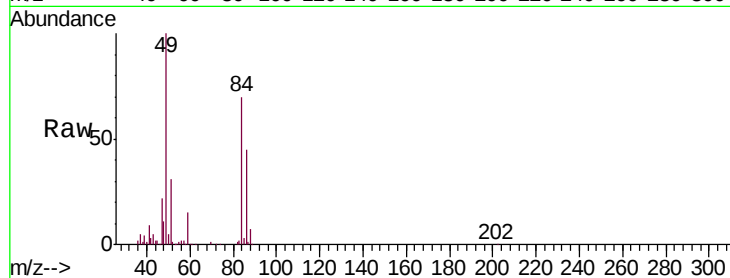
LIHA-IA2-DUP

Tgt Ion: 59 Resp: 97243

Ion Ratio Lower Upper

59 100

57 12.8 7.8 11.8#



#19

Isopropyl Alcohol

Concen: 2.982 ppbv

RT: 4.06 min Scan# 350

Delta R.T. 0.04 min

Lab File: VL033548.D

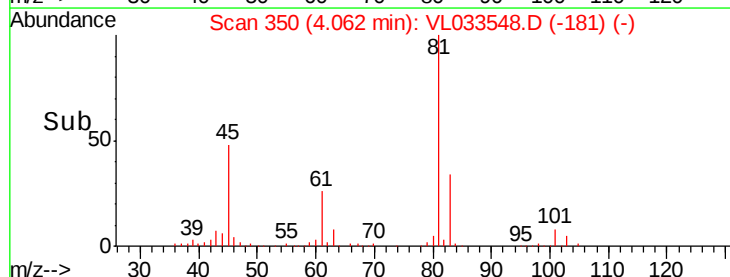
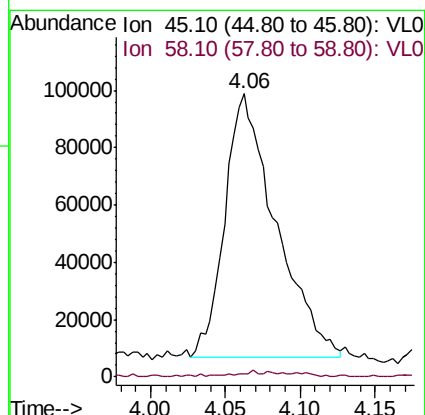
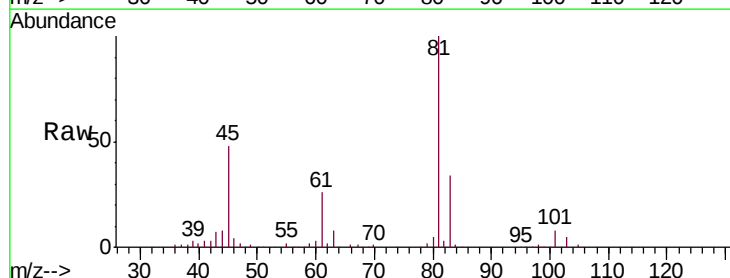
Acq: 5 Apr 2019 00:53

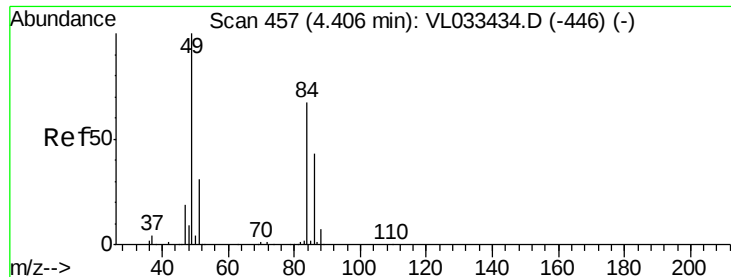
Tgt Ion: 45 Resp: 218307

Ion Ratio Lower Upper

45 100

58 84.2 1.4 2.2#

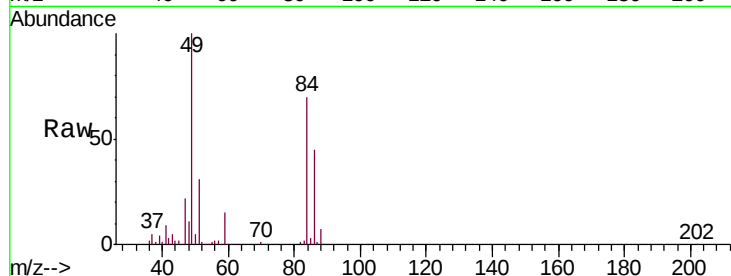




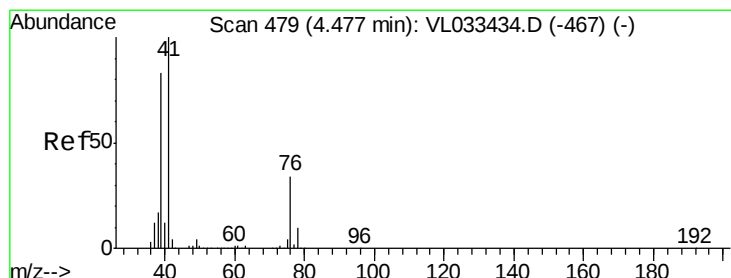
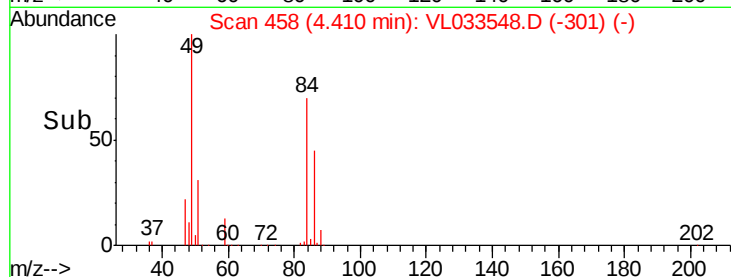
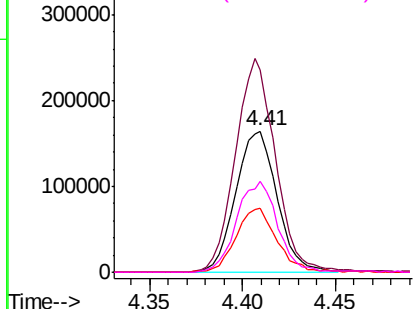
#20
Methylene Chloride
Concen: 5.194 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

Tgt Ion: 84 Resp: 255196
Ion Ratio Lower Upper
84 100
49 143.2 120.0 180.0
51 44.9 36.7 55.1
86 64.1 51.9 77.9

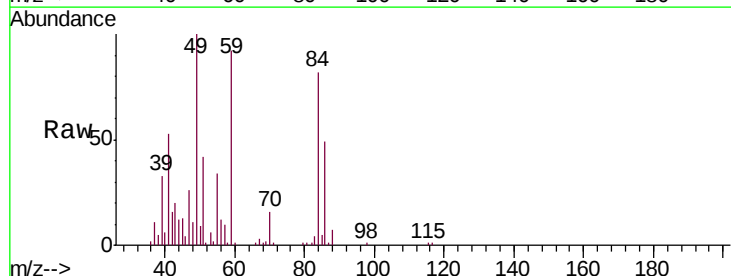


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

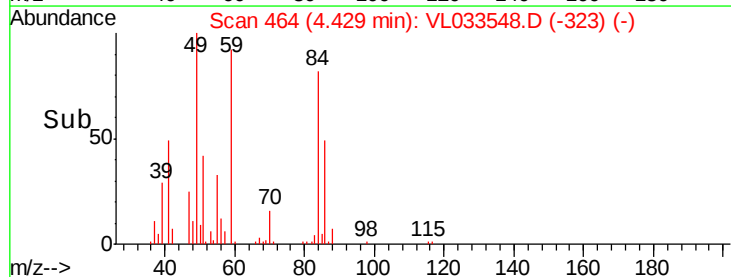
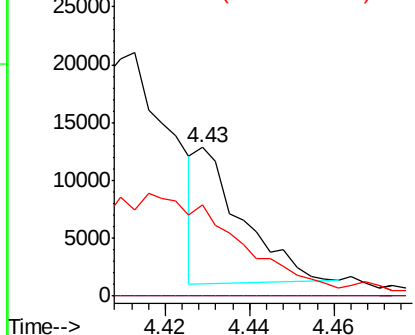


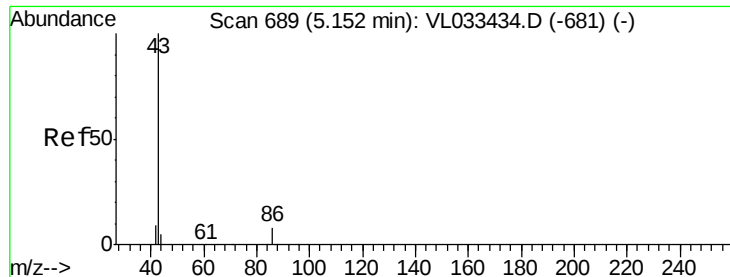
#21
Allyl Chloride
Concen: 0.120 ppbv
RT: 4.43 min Scan# 464
Delta R.T. -0.05 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion: 41 Resp: 8792
Ion Ratio Lower Upper
41 100
76 0.0 25.4 38.2#
39 0.0 65.3 97.9#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.141 ppbv

RT: 5.14 min Scan# 686

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tgt Ion: 43 Resp: 23171

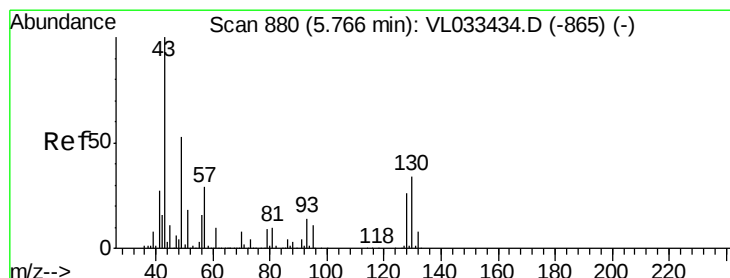
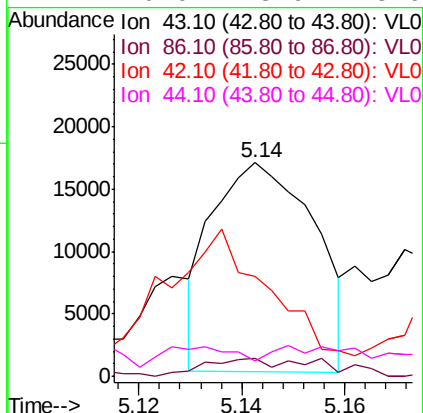
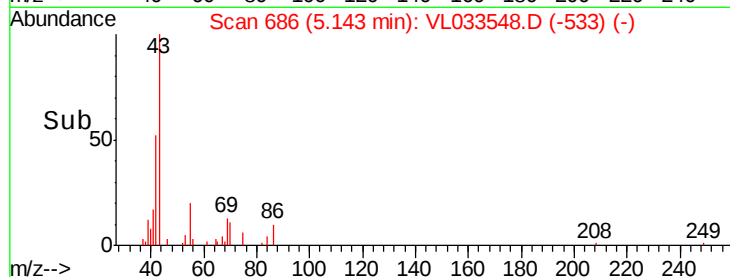
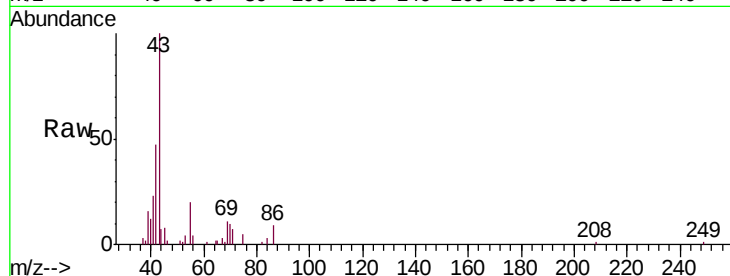
Ion Ratio Lower Upper

43 100

86 12.2 5.6 8.4#

42 63.3 8.0 12.0#

44 0.0 3.9 5.9#



#25

Ethyl Acetate

Concen: 0.844 ppbv

RT: 5.78 min Scan# 883

Delta R.T. 0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Tgt Ion: 43 Resp: 181277

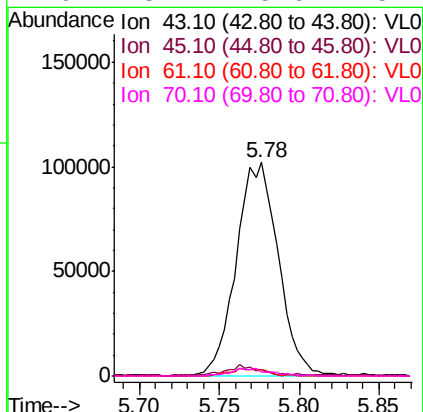
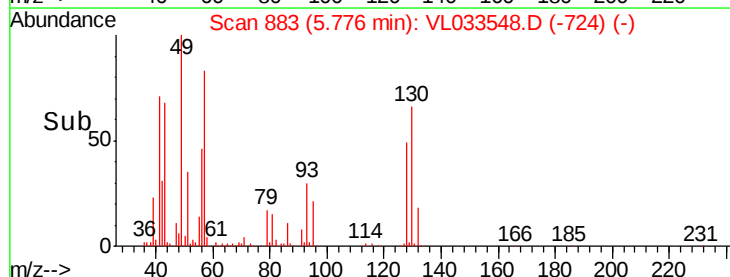
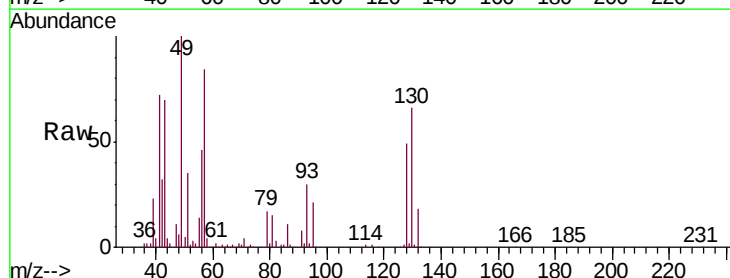
Ion Ratio Lower Upper

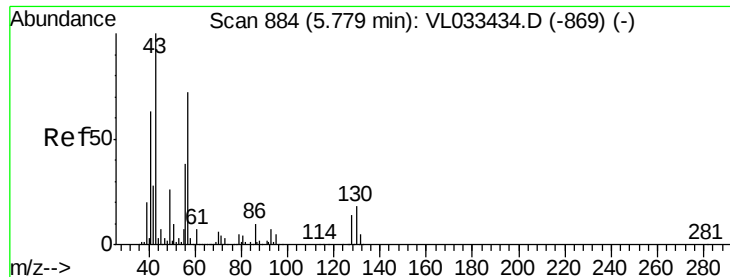
43 100

45 4.3 7.8 11.6#

61 3.1 7.3 10.9#

70 3.4 5.6 8.4#





#26

Hexane

Concen: 2.100 ppbv

RT: 5.78 min Scan# 883

Delta R.T. -0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tgt Ion: 57 Resp: 200572

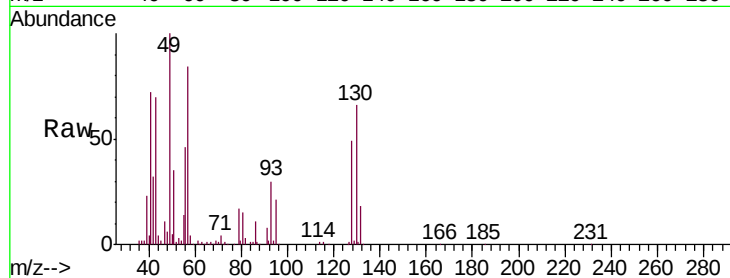
Ion Ratio Lower Upper

57 100

41 91.3 70.7 106.1

43 92.4 182.6 274.0#

56 55.6 42.0 63.0

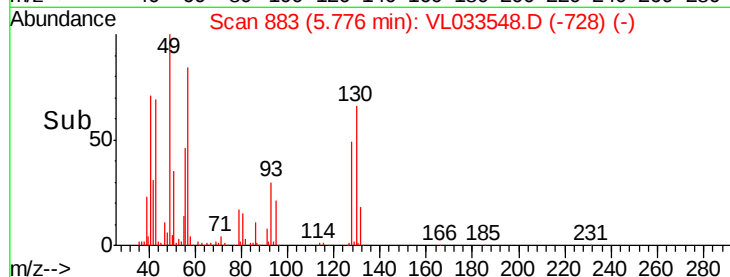
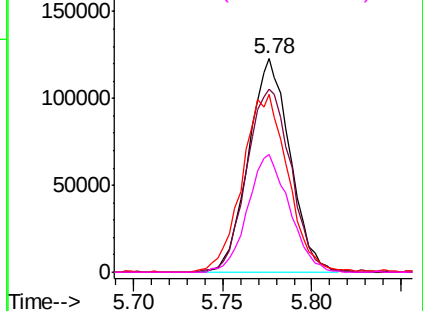


Abundance Ion 57.10 (56.80 to 57.80): VL0

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



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

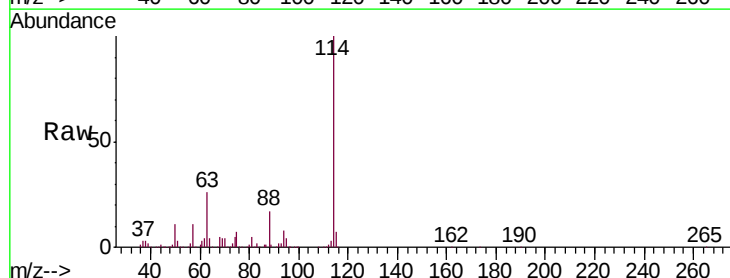
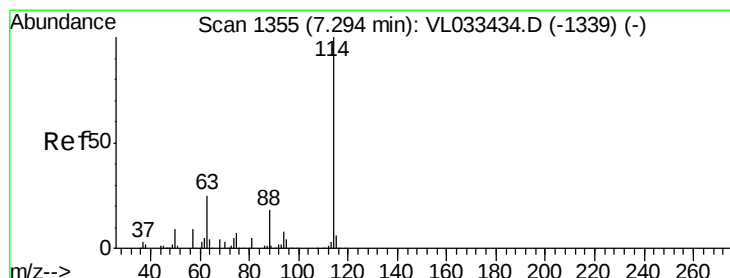
Tgt Ion: 114 Resp: 1961368

Ion Ratio Lower Upper

114 100

63 26.6 21.5 32.3

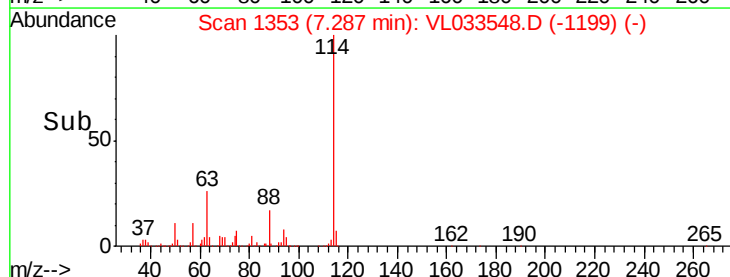
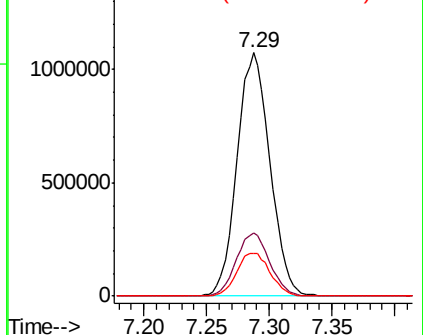
88 18.1 14.5 21.7

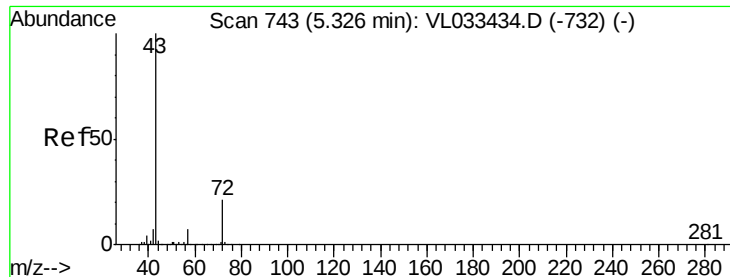


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





#34

2-Butanone

Concen: 0.243 ppbv

RT: 5.33 min Scan# 745

Delta R.T. 0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

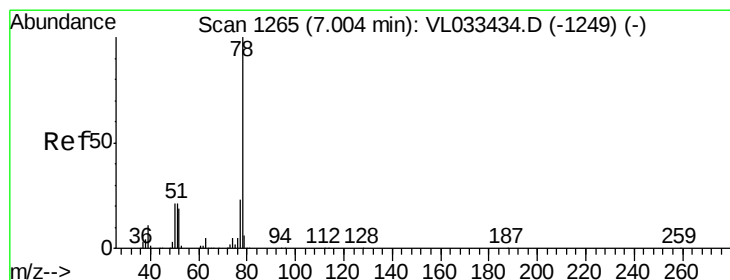
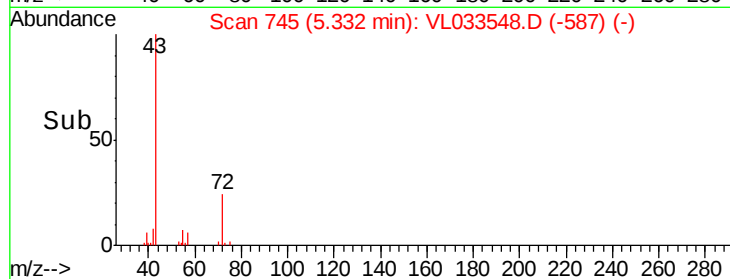
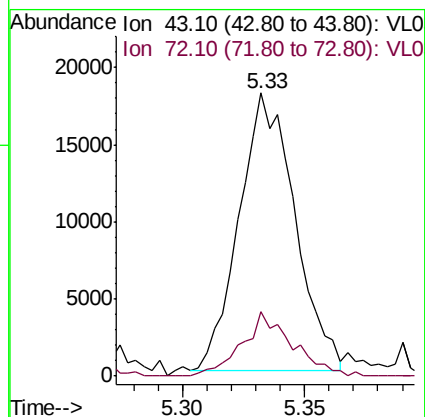
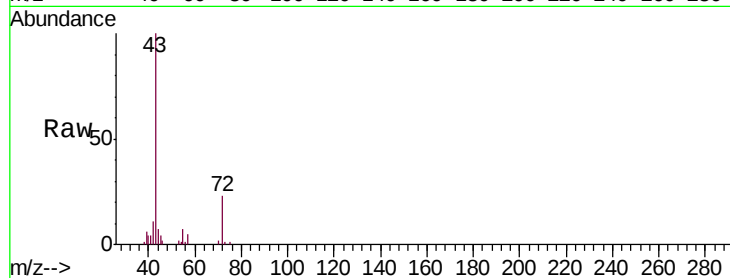
LIHA-IA2-DUP

Tgt Ion: 43 Resp: 28633

Ion Ratio Lower Upper

43 100

72 20.6 17.4 26.2



#36

Benzene

Concen: 0.196 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.00 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

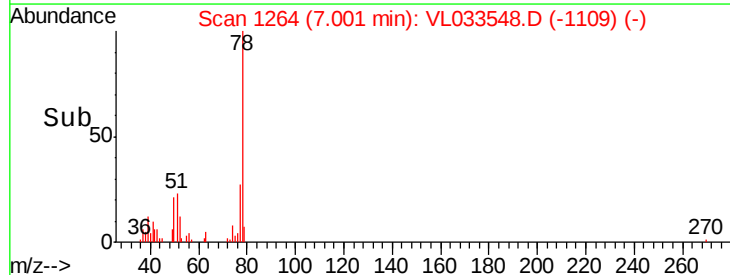
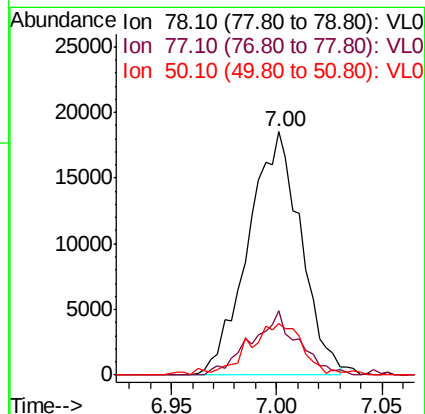
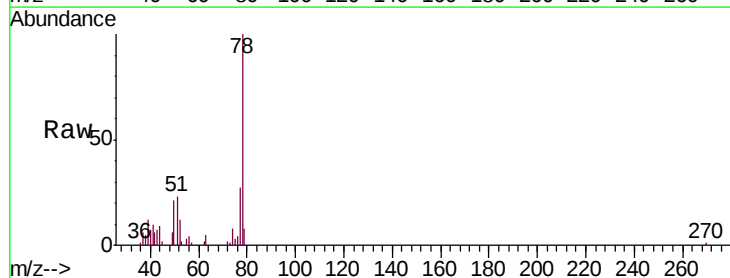
Tgt Ion: 78 Resp: 32229

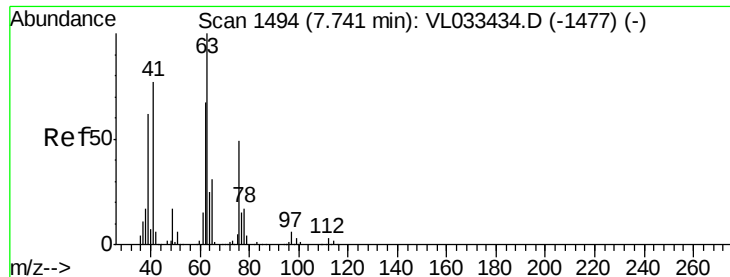
Ion Ratio Lower Upper

78 100

77 26.6 18.1 27.1

50 21.1 16.7 25.1





#39

1,2-Dichloropropane

Concen: 8.045 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.45 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

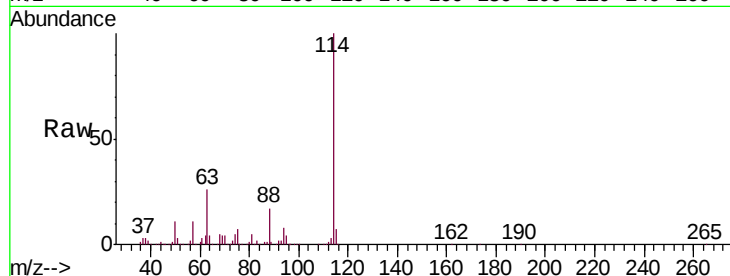
Tgt Ion: 63 Resp: 518627

Ion Ratio Lower Upper

63 100

41 0.0 61.2 91.8#

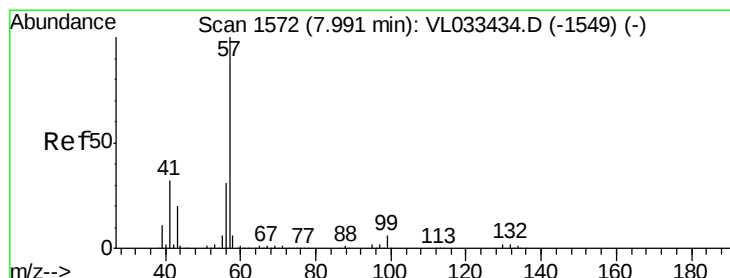
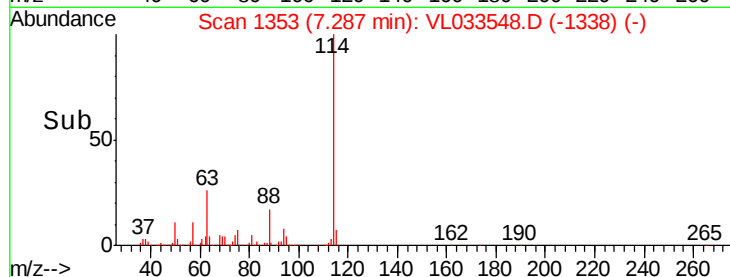
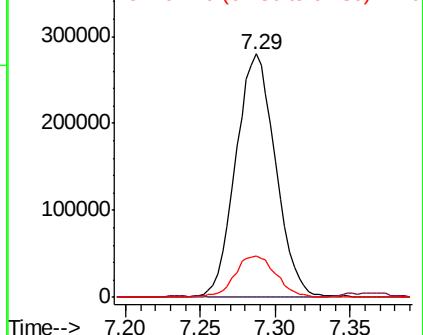
62 16.7 54.0 81.0#



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: 0.062 ppbv

RT: 7.98 min Scan# 1569

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

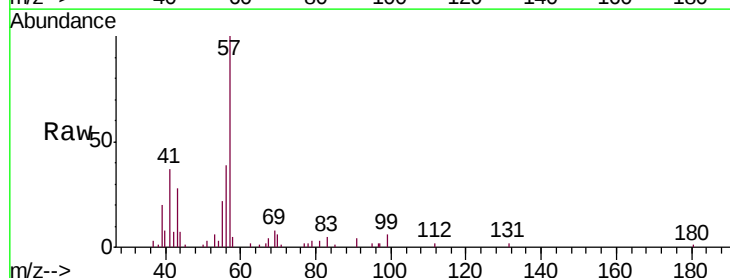
Tgt Ion: 57 Resp: 17752

Ion Ratio Lower Upper

57 100

41 108.1 26.0 39.0#

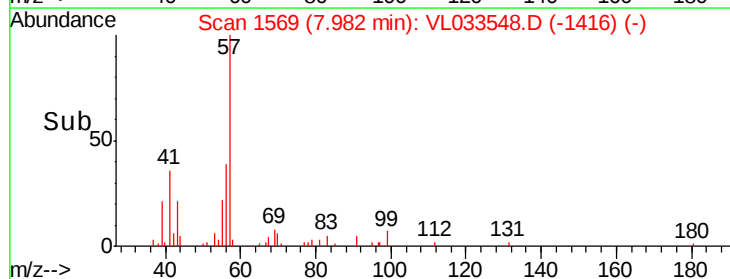
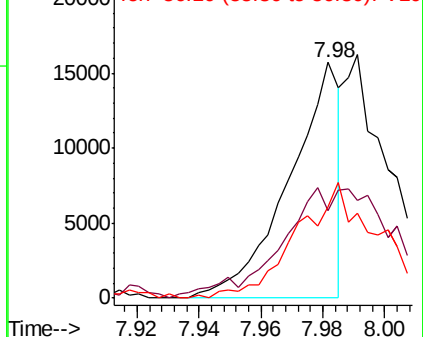
56 84.1 24.6 37.0#

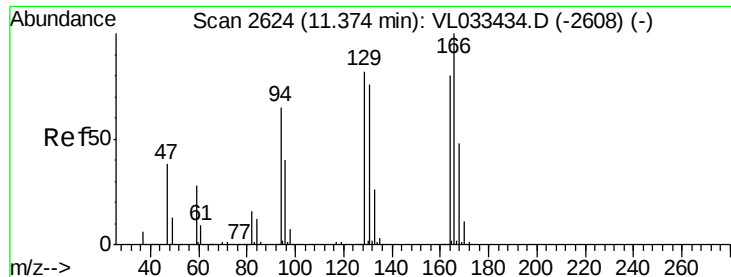


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#52

Tetrachloroethene

Concen: 0.388 ppbv

RT: 11.37 min Scan# 2622

Delta R.T. -0.01 min

Lab File: VL033548.D

Acq: 5 Apr 2019 00:53

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IA2-DUP

Tgt Ion:164 Resp: 24078

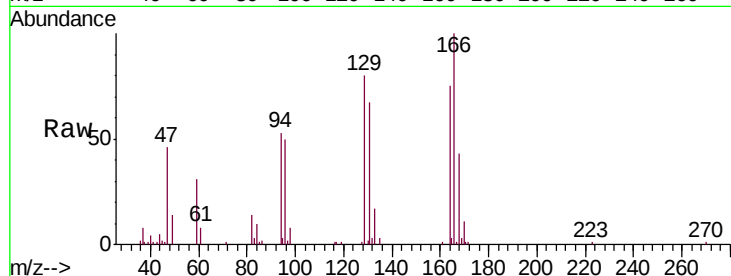
Ion Ratio Lower Upper

164 100

166 133.2 99.5 149.3

129 104.6 81.4 122.2

131 89.2 75.6 113.4

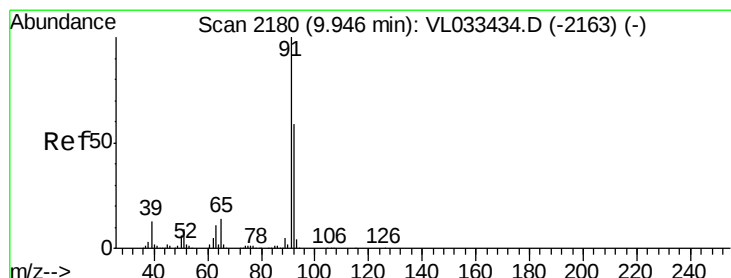
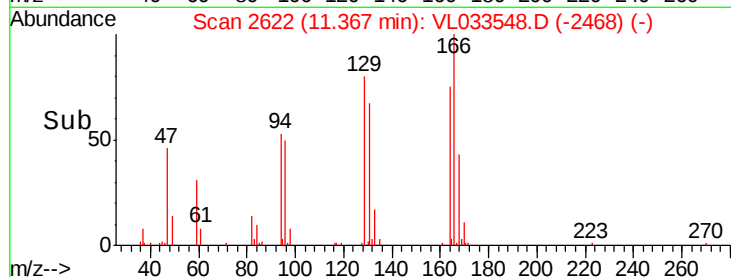
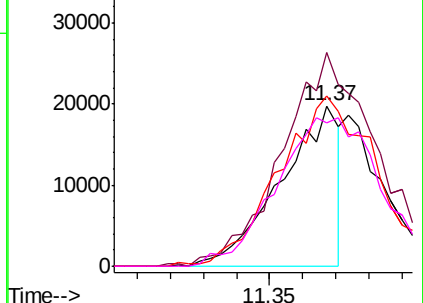


Abundance Ion 163.90 (163.60 to 164.60): V

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: 9.523 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033548.D

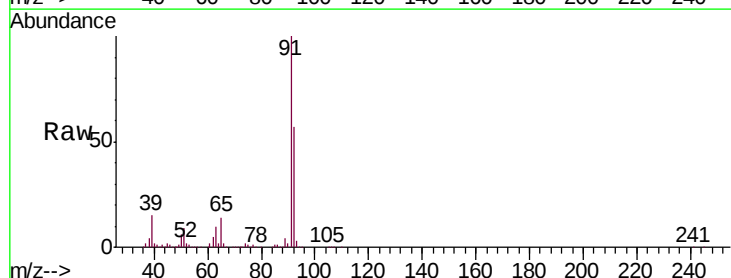
Acq: 5 Apr 2019 00:53

Tgt Ion: 91 Resp: 1821124

Ion Ratio Lower Upper

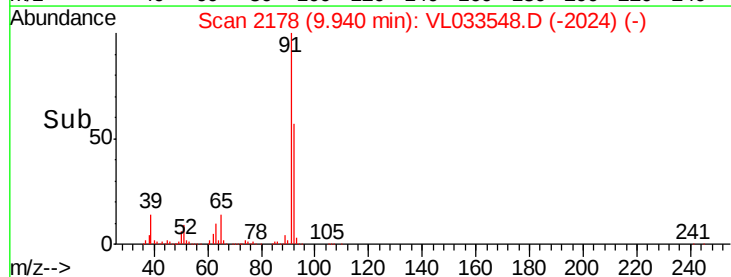
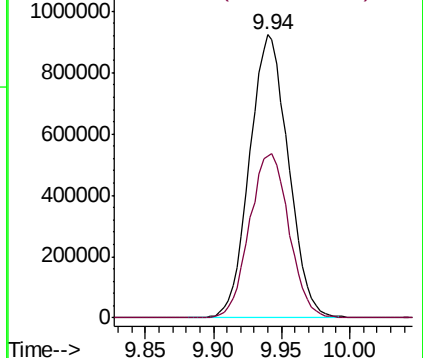
91 100

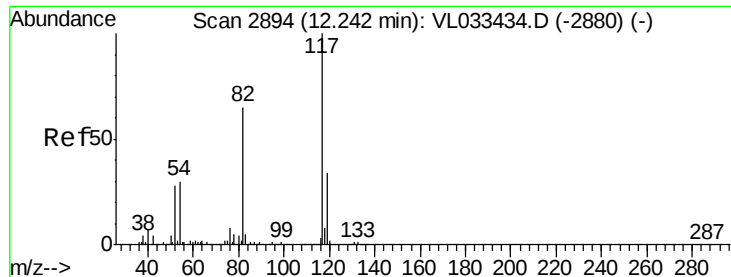
92 59.1 47.4 71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

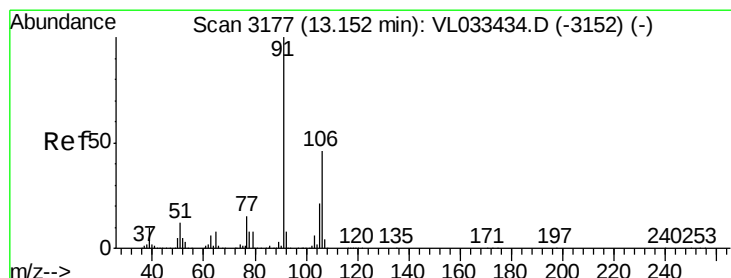
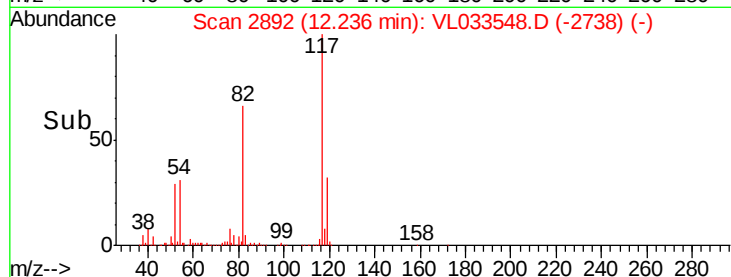
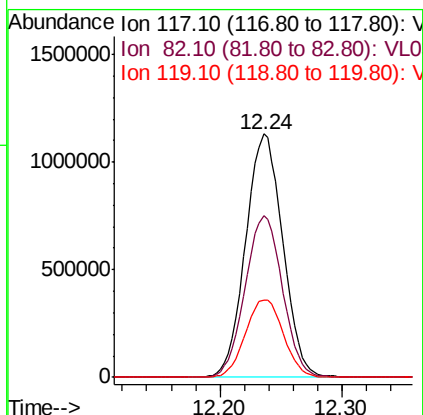
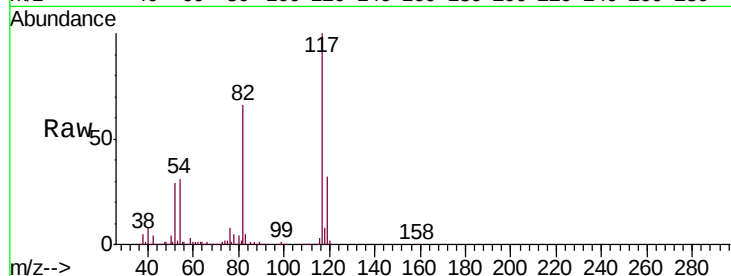




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

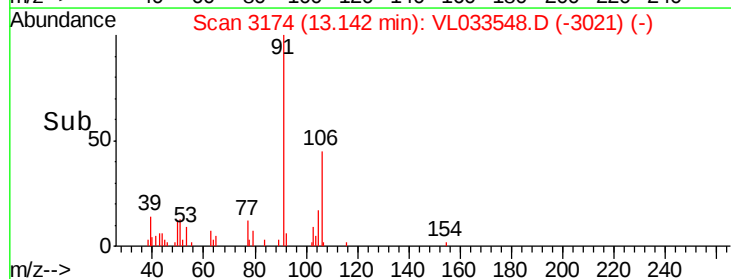
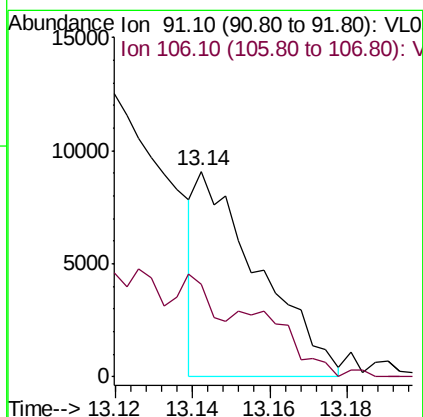
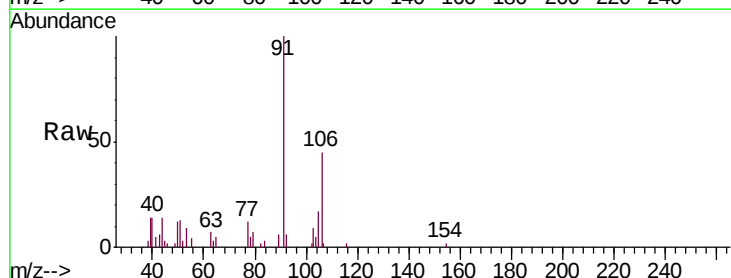
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

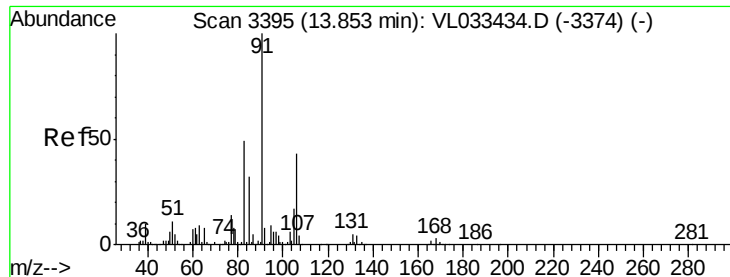
Tgt Ion:117 Resp: 2375404
Ion Ratio Lower Upper
117 100
82 66.8 51.5 77.3
119 32.7 25.5 38.3



#59
m/p-Xylene
Concen: 0.036 ppbv
RT: 13.14 min Scan# 3174
Delta R.T. -0.01 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion: 91 Resp: 10216
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0

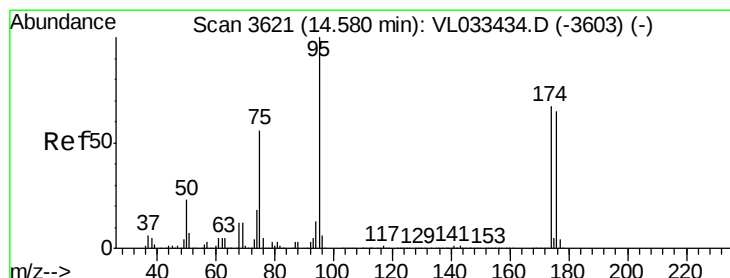
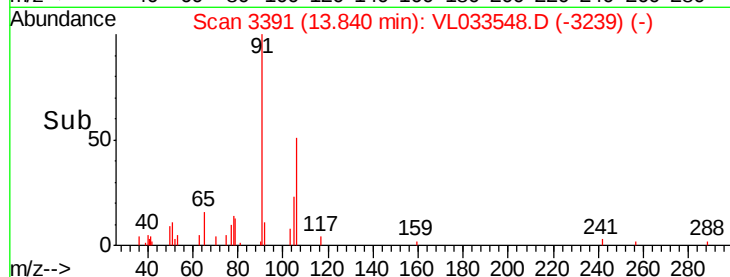
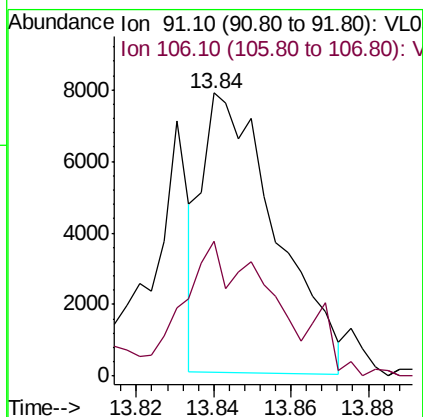
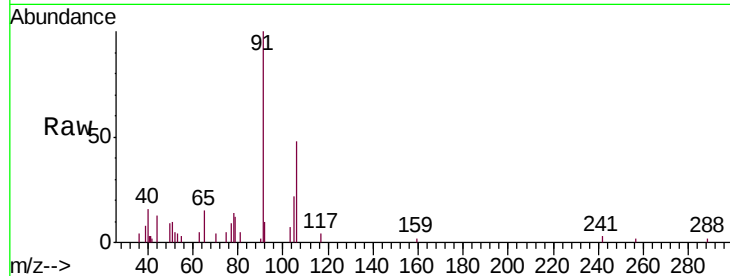




#60
o-Xylene
Concen: 0.038 ppbv
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IA2-DUP

Tgt Ion: 91 Resp: 10344
Ion Ratio Lower Upper
91 100
106 67.0 21.4 64.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.678 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033548.D
Acq: 5 Apr 2019 00:53

Tgt Ion: 95 Resp: 1988414
Ion Ratio Lower Upper
95 100
174 66.3 52.9 79.3
175 4.8 3.8 5.6

