

Data File : VL034797.D
Acq On : 5 Mar 2020 15:50
Operator : SY/AP
Sample : L1704-07
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-1-4

Quant Time: Mar 06 03:43:18 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030420AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Mar 04 06:36:39 2020
QLast Update : Wed Mar 04 06:36:39 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1026438	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.18	114	2102272	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.10	117	2067815	10.00	ppbv	-0.04

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.44 95 1785585 10.36 ppbv -0.04
Spiked Amount 10.000 Range 65 - 135 Recovery = 103.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.01	85	88329	0.527	ppbv	94
3) Chlorodifluoromethane	2.95	51	77212	0.660	ppbv #	85
4) Chloromethane	3.11	50	35555	0.564	ppbv	99
9) Propene	2.98	41	54036	1.174	ppbv	84
10) Heptane	8.11	43	4006	0.034	ppbv #	27
11) Trichlorofluoromethane	3.92	101	43757	0.292	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.46	101	5406	0.052	ppbv #	46
13) Ethanol	3.57	45	90076	5.711	ppbv #	38
15) Acetone	3.82	43	682551	5.553	ppbv	97
16) 1,3-Butadiene	3.28	39	3219	0.058	ppbv #	40
17) tert-Butyl alcohol	4.29	59	40584	0.419	ppbv	94
19) Isopropyl Alcohol	3.95	45	160265	2.176	ppbv #	89
20) Methylene Chloride	4.32	84	106145	2.420	ppbv #	92
23) Vinyl Acetate	5.06	43	172154	1.044	ppbv #	90
25) Ethyl Acetate	5.67	43	123005	0.579	ppbv #	81
26) Hexane	5.68	57	148253	1.598	ppbv #	42
29) Chloroform	5.74	83	5396	0.035	ppbv #	83
34) 2-Butanone	5.24	43	39880	0.292	ppbv	98
35) Carbon Tetrachloride	7.01	117	5563	0.035	ppbv #	62
36) Benzene	6.89	78	41824	0.233	ppbv #	87
39) 1,2-Dichloropropane	7.18	63	616184	8.499	ppbv #	24
44) 2,2,4-Trimethylpentane	7.87	57	10484	0.033	ppbv #	42
53) Toluene	9.83	91	171480	0.902	ppbv	97
58) Ethyl Benzene	12.73	91	24535	0.096	ppbv	92
59) m/p-Xylene	13.01	91	10210	0.046	ppbv #	31
60) o-Xylene	13.72	91	31317	0.140	ppbv	83

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

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A-1-4

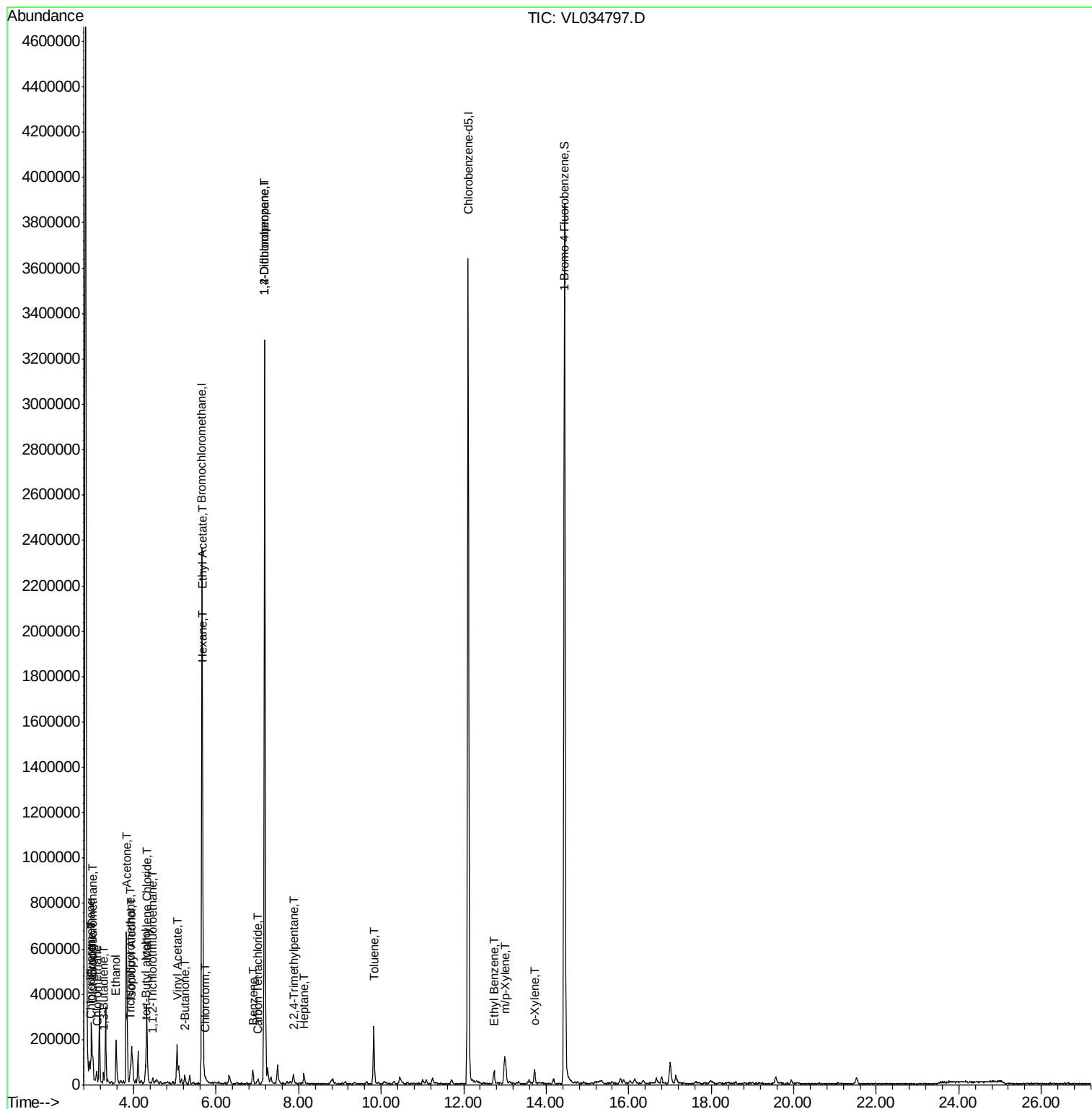
Quant Time: Mar 06 03:43:18 2020

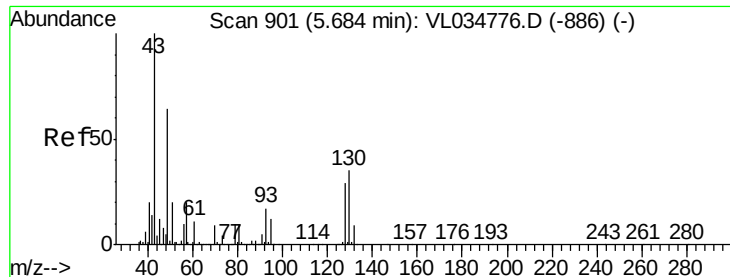
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL030420AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Mar 04 06:36:39 2020

QLast Update : Wed Mar 04 06:36:39 2020

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.03 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

A-1-4

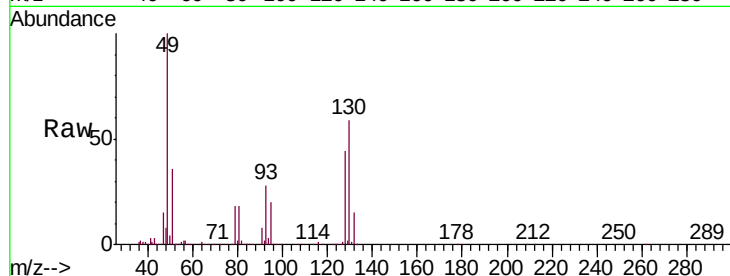
Tgt Ion: 49 Resp: 1026438

Ion Ratio Lower Upper

49 100

128 44.6 21.6 64.6

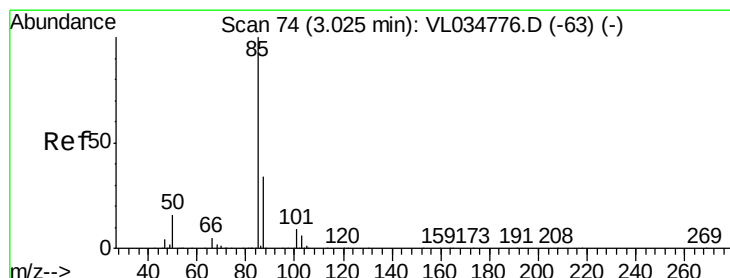
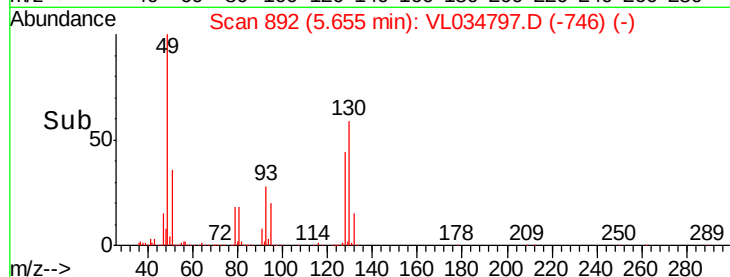
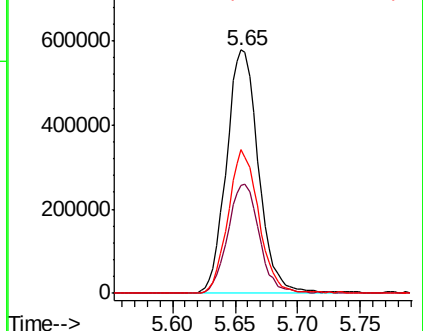
130 57.2 27.4 82.2



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: 0.527 ppbv

RT: 3.01 min Scan# 69

Delta R.T. -0.02 min

Lab File: VL034797.D

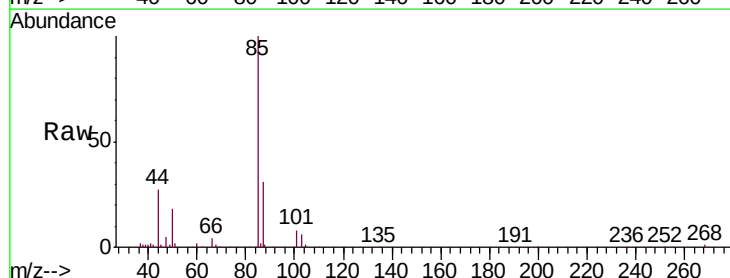
Acq: 5 Mar 2020 15:50

Tgt Ion: 85 Resp: 88329

Ion Ratio Lower Upper

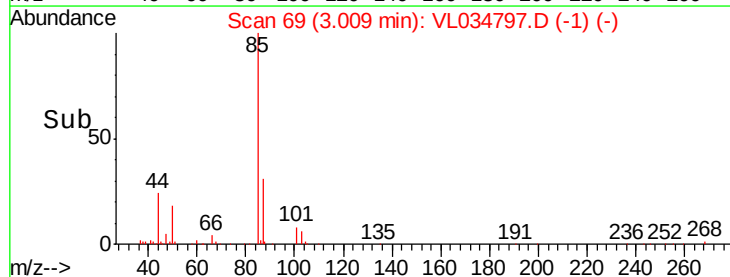
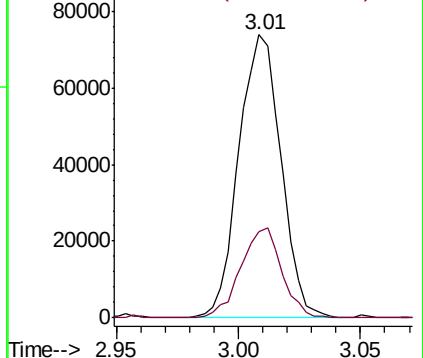
85 100

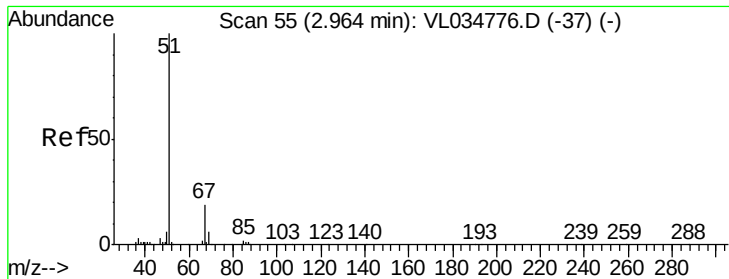
87 30.5 27.2 40.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.660 ppbv

RT: 2.95 min Scan# 50

Delta R.T. -0.02 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

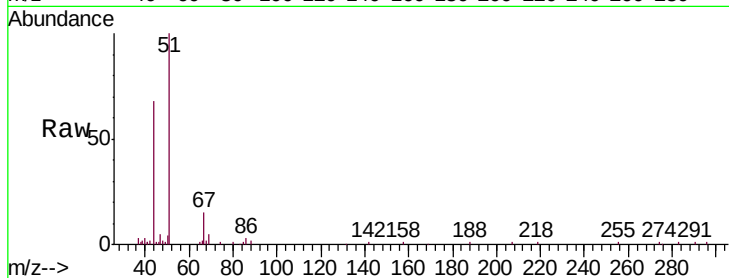
A-1-4

Tgt Ion: 51 Resp: 77212

Ion Ratio Lower Upper

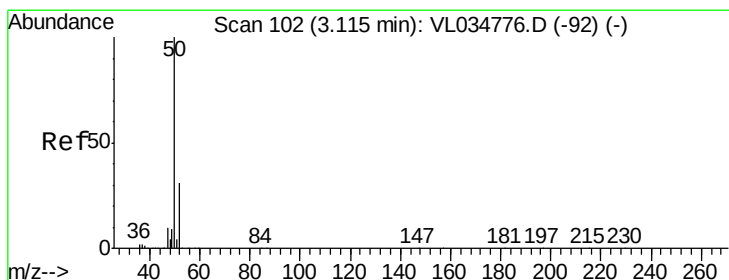
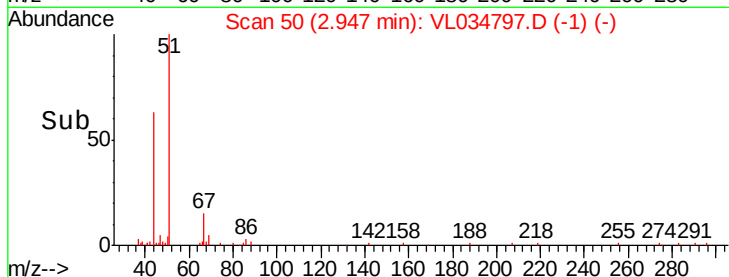
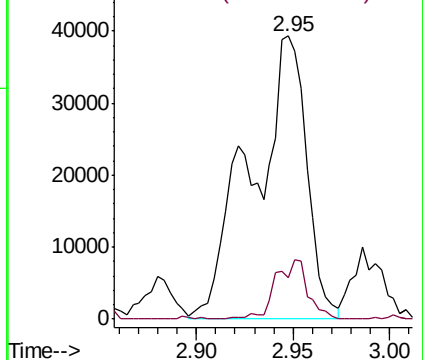
51 100

67 12.3 15.3 22.9#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.564 ppbv

RT: 3.11 min Scan# 99

Delta R.T. -0.01 min

Lab File: VL034797.D

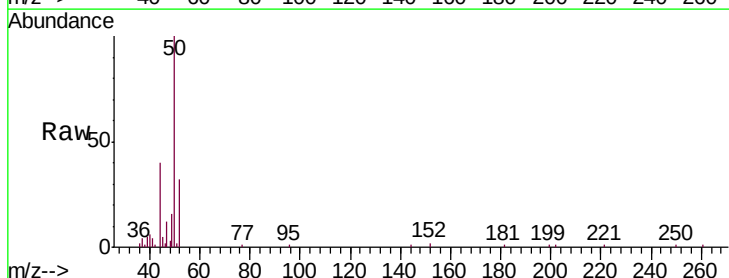
Acq: 5 Mar 2020 15:50

Tgt Ion: 50 Resp: 35555

Ion Ratio Lower Upper

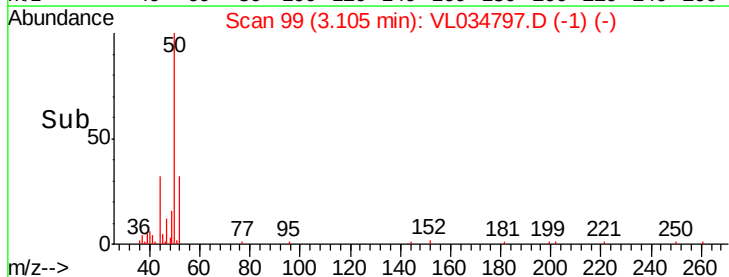
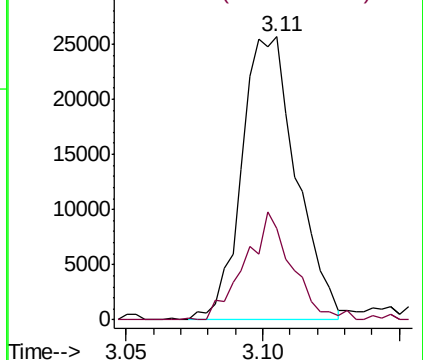
50 100

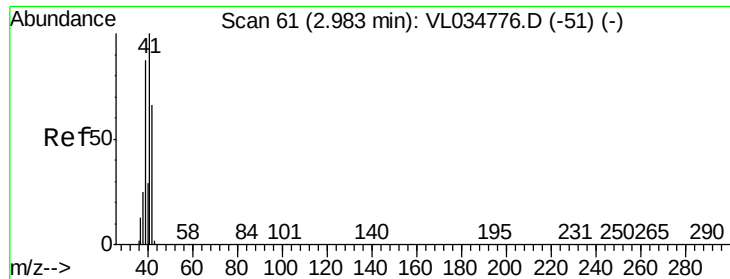
52 30.7 25.0 37.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.174 ppbv

RT: 2.98 min Scan# 60

Delta R.T. -0.00 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

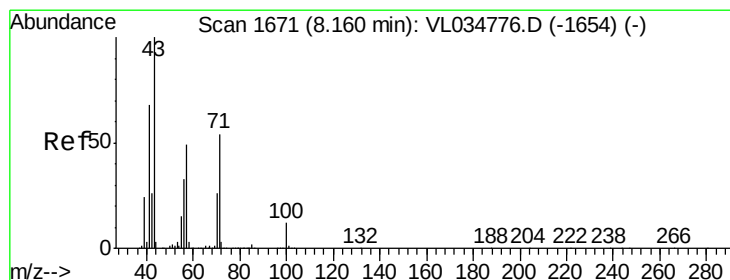
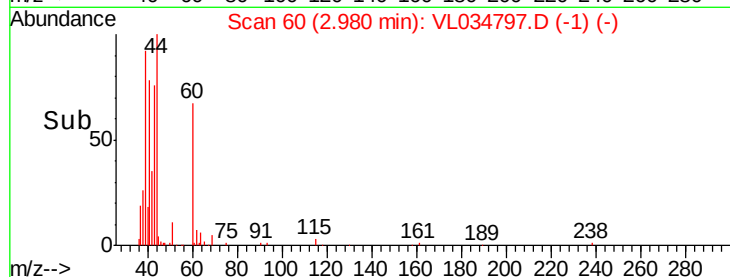
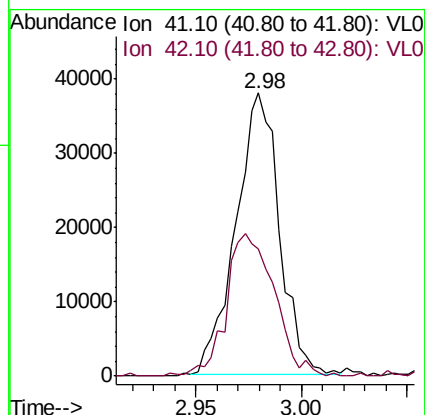
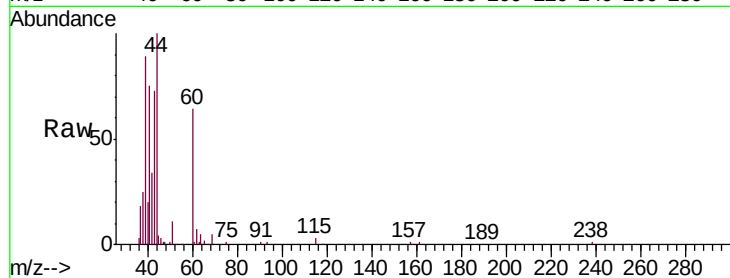
A-1-4

Tgt Ion: 41 Resp: 54036

Ion Ratio Lower Upper

41 100

42 56.3 55.6 83.4



#10

Heptane

Concen: 0.034 ppbv

RT: 8.11 min Scan# 1657

Delta R.T. -0.05 min

Lab File: VL034797.D

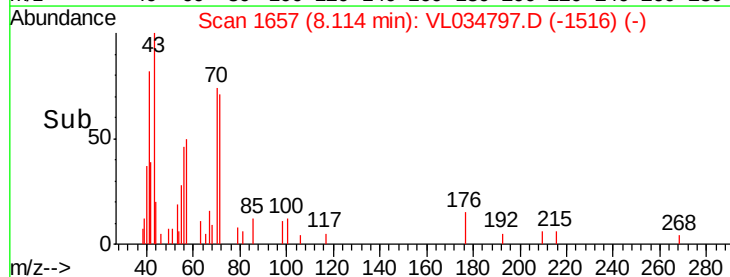
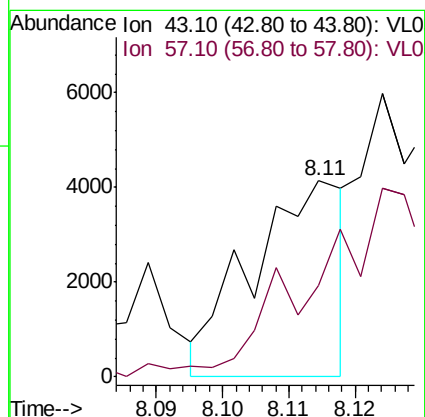
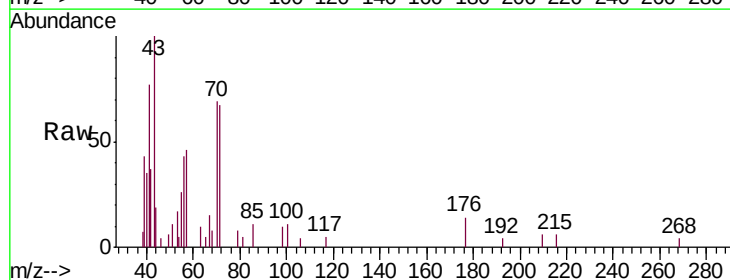
Acq: 5 Mar 2020 15:50

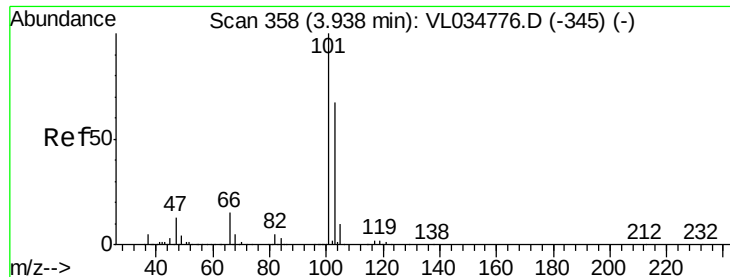
Tgt Ion: 43 Resp: 4006

Ion Ratio Lower Upper

43 100

57 0.0 40.5 60.7#

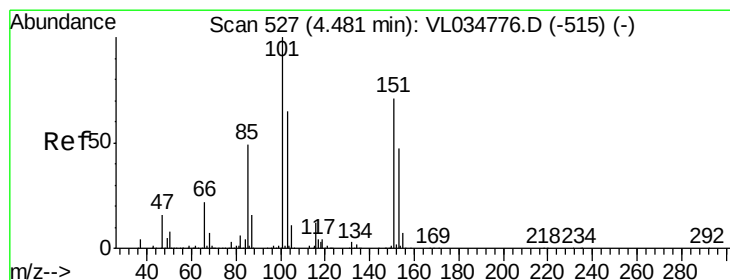
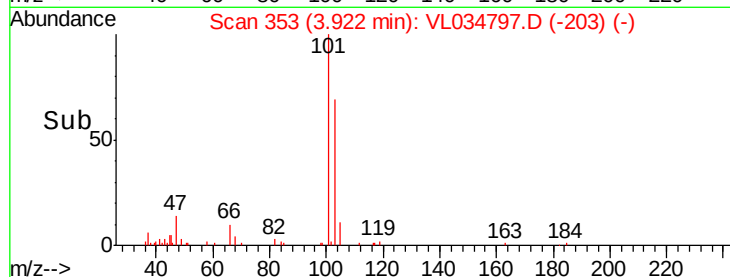
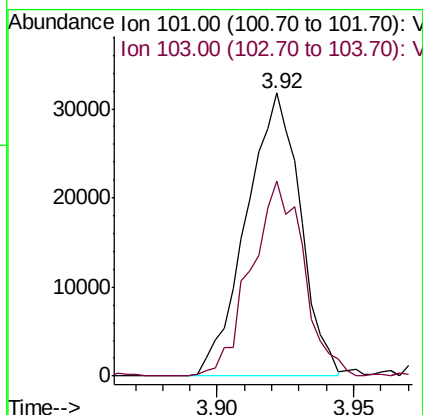
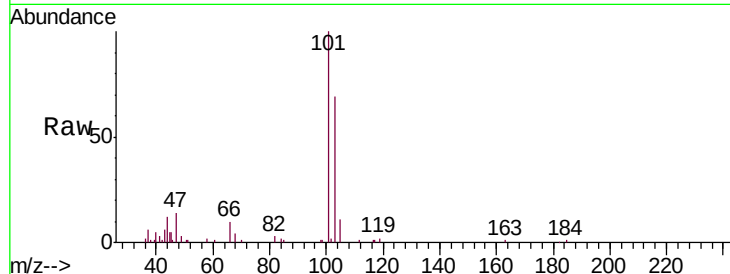




#11
 Trichlorofluoromethane
 Concen: 0.292 ppbv
 RT: 3.92 min Scan# 353
 Delta R.T. -0.02 min
 Lab File: VL034797.D
 Acq: 5 Mar 2020 15:50

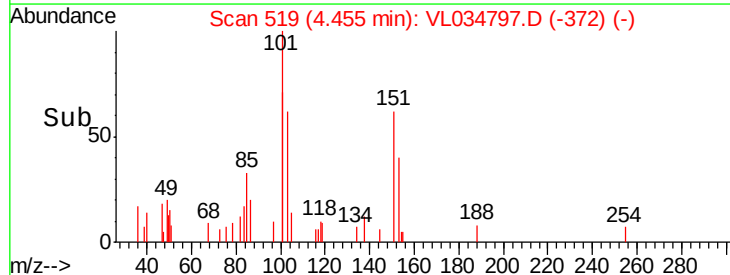
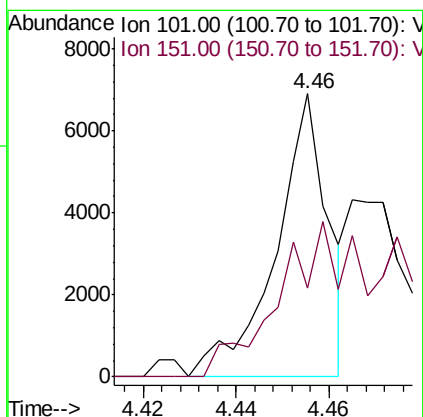
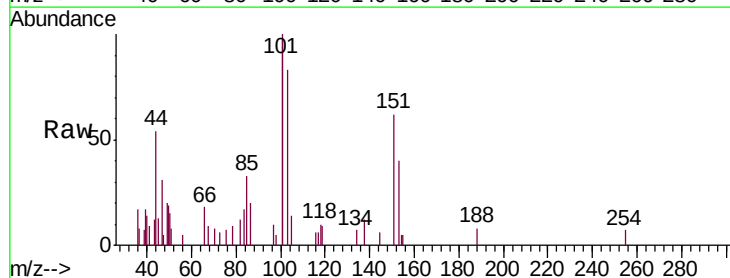
Instrument :
 MSVOA_L
 ClientSampleId :
 A-1-4

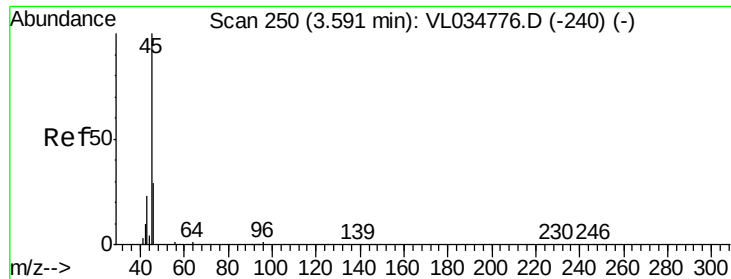
Tgt Ion:101 Resp: 43757
 Ion Ratio Lower Upper
 101 100
 103 68.8 53.6 80.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.052 ppbv
 RT: 4.46 min Scan# 519
 Delta R.T. -0.03 min
 Lab File: VL034797.D
 Acq: 5 Mar 2020 15:50

Tgt Ion:101 Resp: 5406
 Ion Ratio Lower Upper
 101 100
 151 115.1 56.6 85.0#

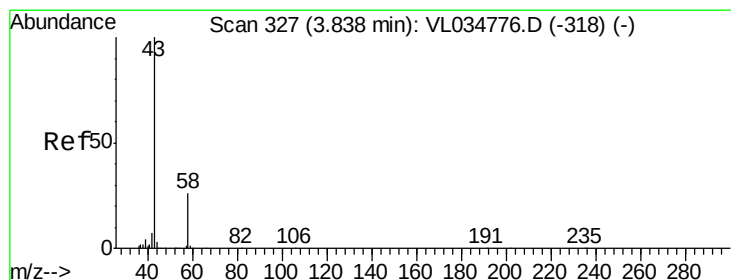
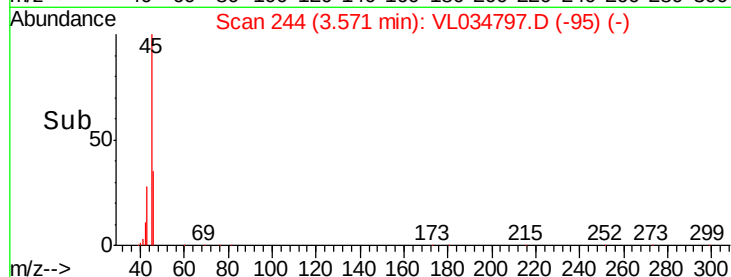
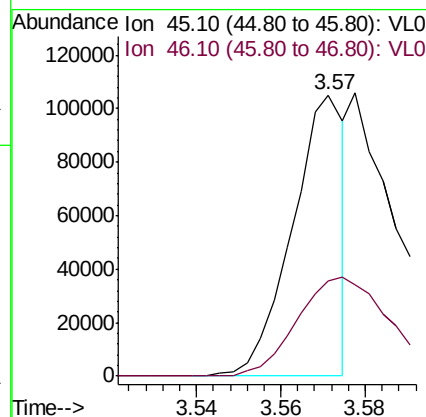
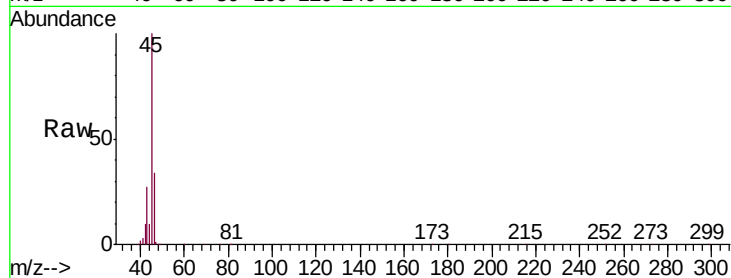




#13
Ethanol
Concen: 5.711 ppbv
RT: 3.57 min Scan# 244
Delta R.T. -0.02 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

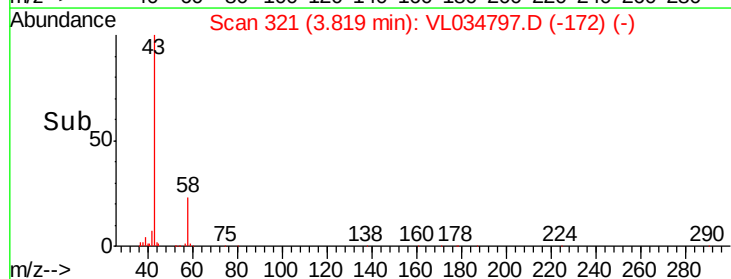
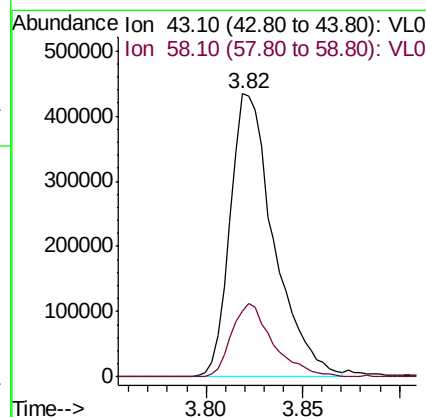
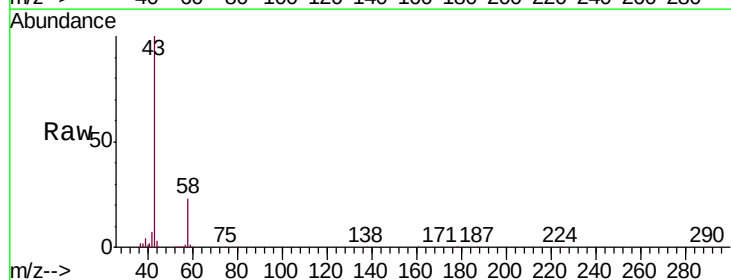
Instrument :
MSVOA_L
ClientSampleId :
A-1-4

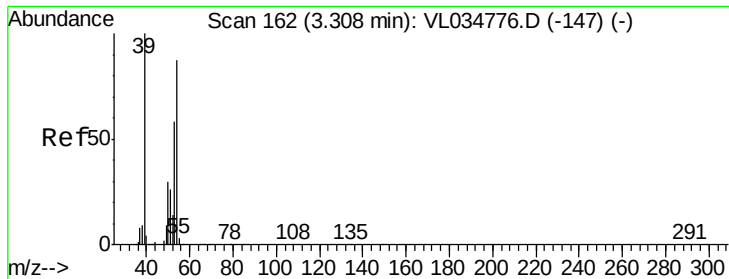
Tgt Ion: 45 Resp: 90076
Ion Ratio Lower Upper
45 100
46 0.0 14.7 58.9#



#15
Acetone
Concen: 5.553 ppbv
RT: 3.82 min Scan# 321
Delta R.T. -0.02 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Tgt Ion: 43 Resp: 682551
Ion Ratio Lower Upper
43 100
58 24.9 21.0 31.6

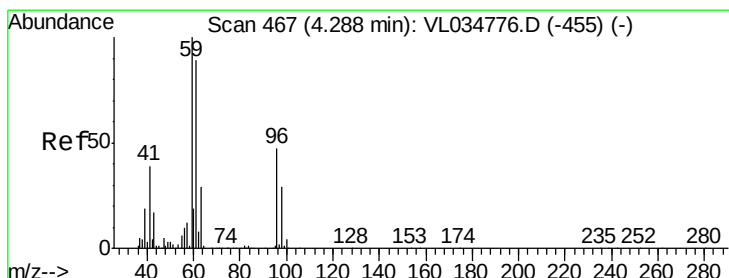
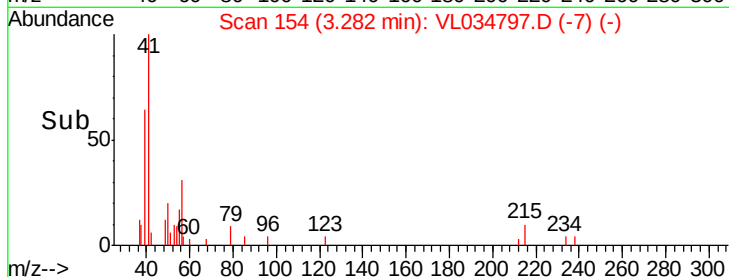
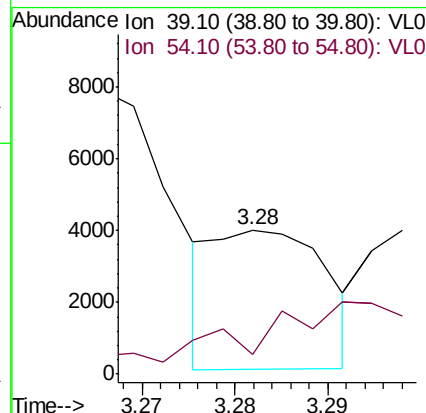
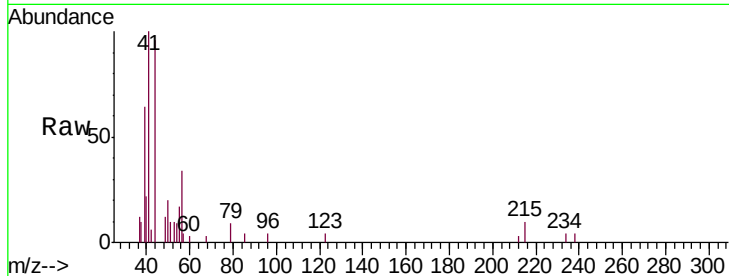




#16
1,3-Butadiene
Concen: 0.058 ppbv
RT: 3.28 min Scan# 154
Delta R.T. -0.03 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

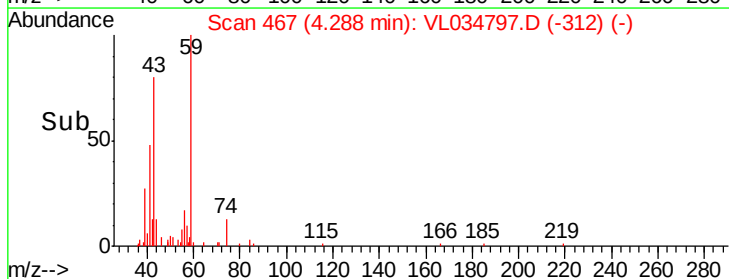
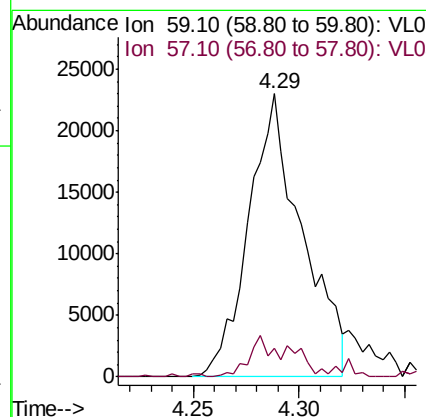
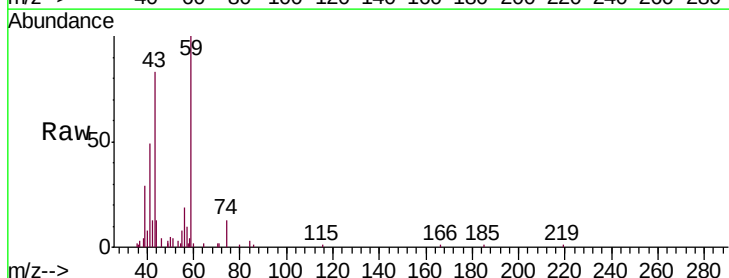
Instrument :
MSVOA_L
ClientSampleId :
A-1-4

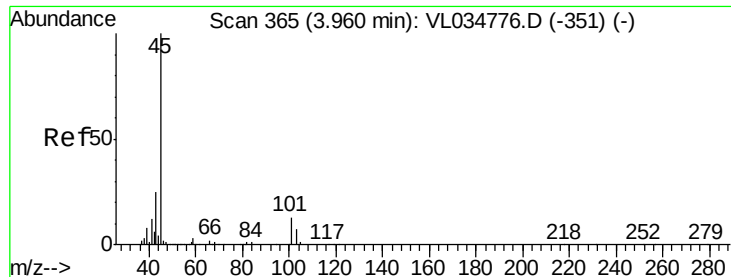
Tgt Ion: 39 Resp: 3219
Ion Ratio Lower Upper
39 100
54 133.1 64.2 96.2#



#17
tert-Butyl alcohol
Concen: 0.419 ppbv
RT: 4.29 min Scan# 467
Delta R.T. -0.00 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Tgt Ion: 59 Resp: 40584
Ion Ratio Lower Upper
59 100
57 12.9 8.6 13.0





#19

Isopropyl Alcohol

Concen: 2.176 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.01 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

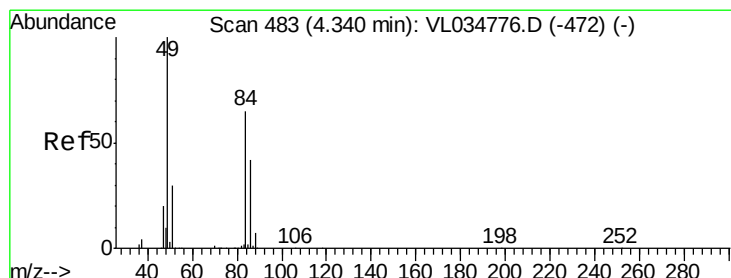
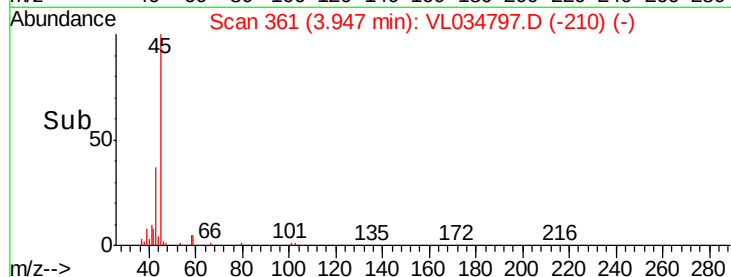
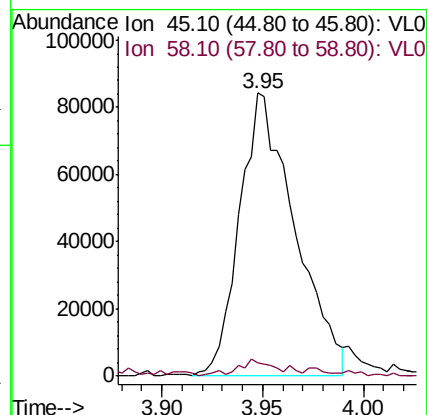
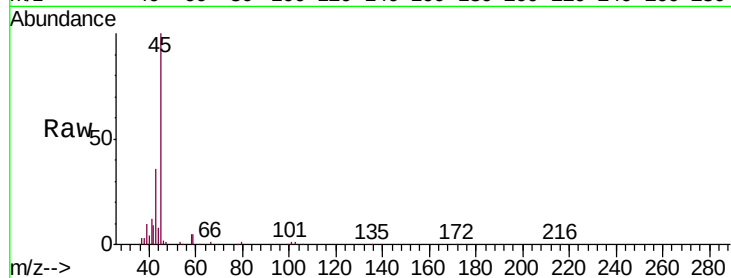
A-1-4

Tgt Ion: 45 Resp: 160265

Ion Ratio Lower Upper

45 100

58 6.0 1.8 2.8#



#20

Methylene Chloride

Concen: 2.420 ppbv

RT: 4.32 min Scan# 477

Delta R.T. -0.02 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Tgt Ion: 84 Resp: 106145

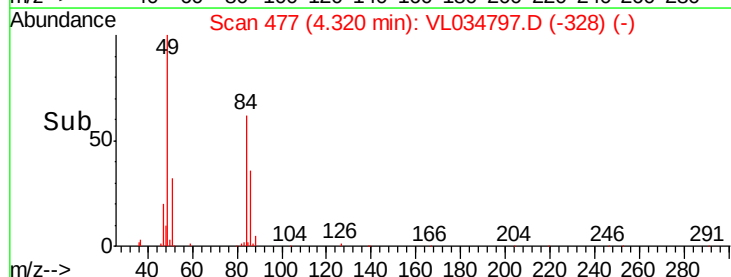
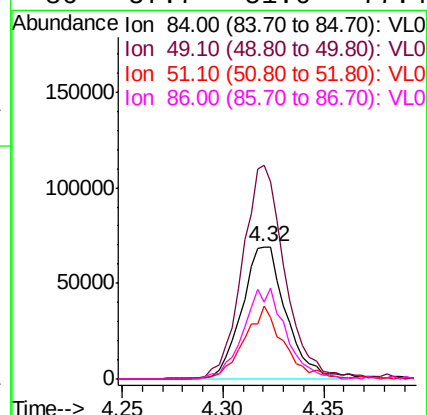
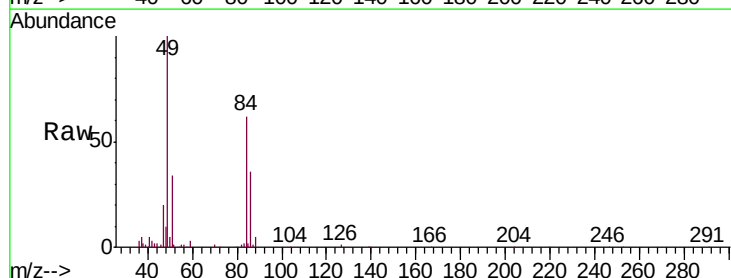
Ion Ratio Lower Upper

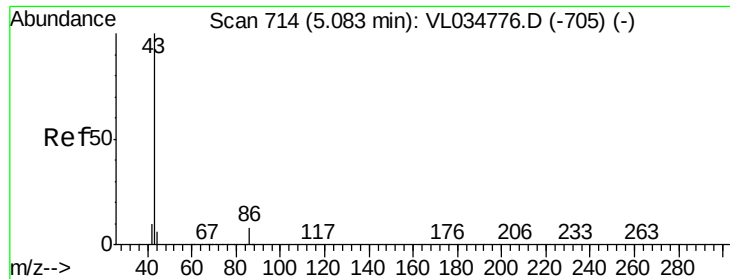
84 100

49 160.8 123.2 184.8

51 56.3 37.4 56.2#

86 57.7 51.6 77.4





#23

Vinyl Acetate

Concen: 1.044 ppbv

RT: 5.06 min Scan# 706

Delta R.T. -0.03 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

A-1-4

Tgt Ion: 43 Resp: 172154

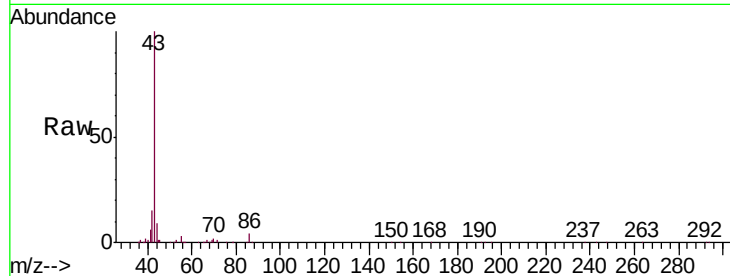
Ion Ratio Lower Upper

43 100

86 4.3 5.9 8.9#

42 14.5 8.2 12.2#

44 8.3 4.5 6.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0

150000

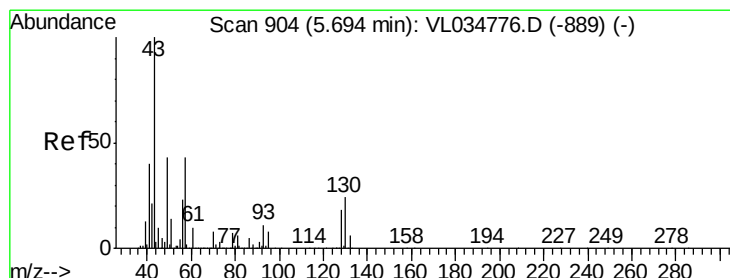
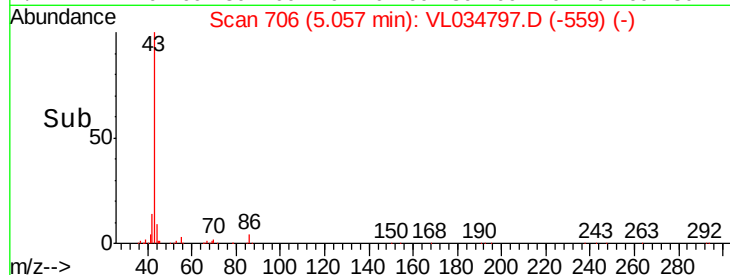
100000

50000

0

5.00 5.05 5.10

Time-->



#25

Ethyl Acetate

Concen: 0.579 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.02 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Tgt Ion: 43 Resp: 123005

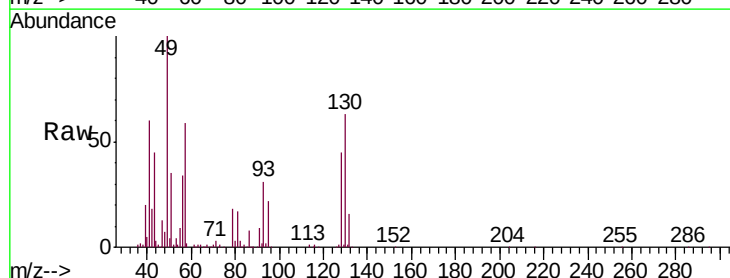
Ion Ratio Lower Upper

43 100

45 2.8 8.2 12.4#

61 1.8 7.5 11.3#

70 2.7 6.0 9.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

100000

80000

60000

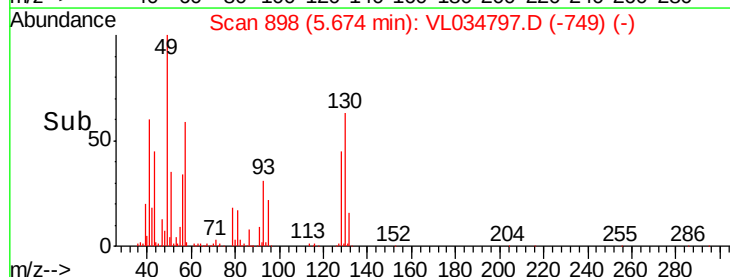
40000

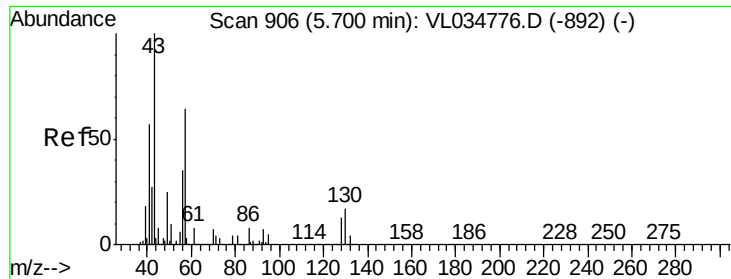
20000

0

5.60 5.65 5.70

Time-->

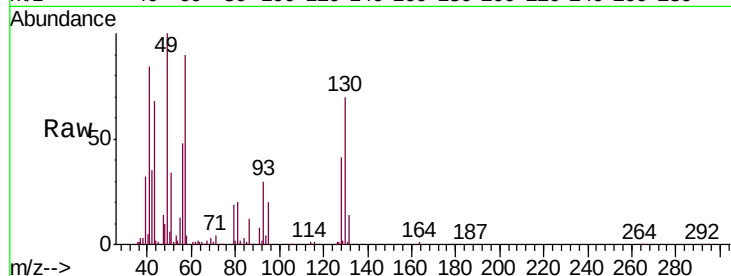




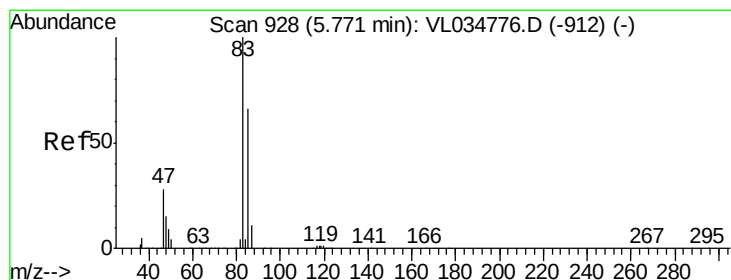
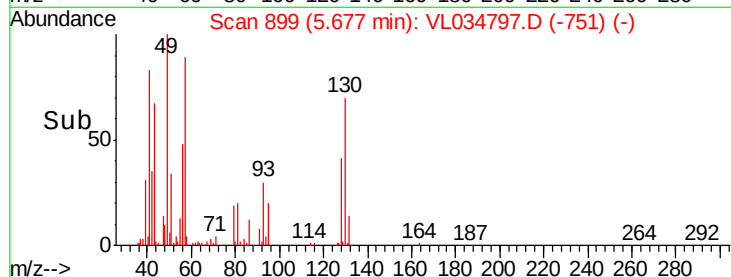
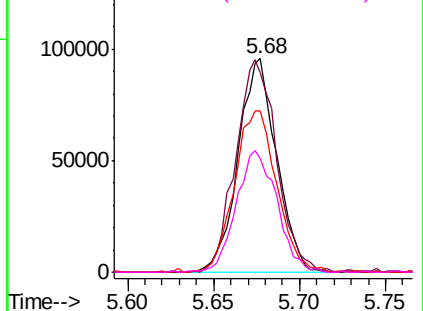
#26
Hexane
Concen: 1.598 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.02 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Instrument :
MSVOA_L
ClientSampleId :
A-1-4

Tgt Ion:	57	Resp:	148253
Ion	Ratio	Lower	Upper
57	100		
41	107.1	72.0	108.0
43	84.0	179.1	268.7#
56	60.8	42.6	63.8

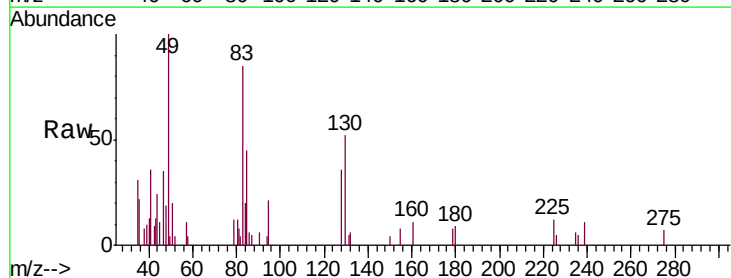


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

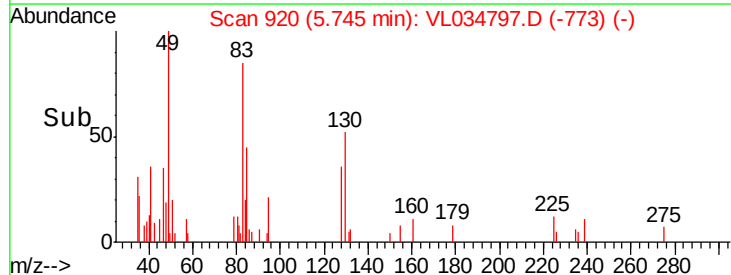
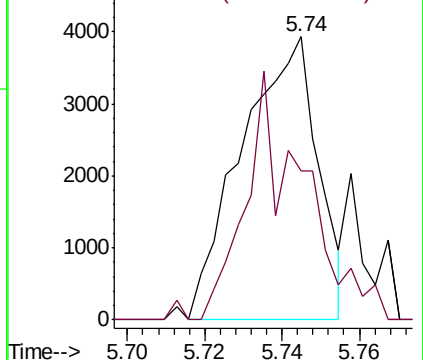


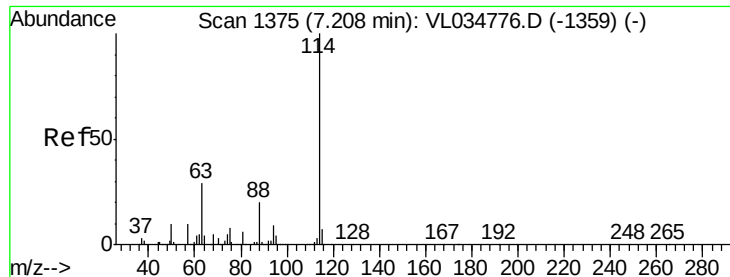
#29
Chloroform
Concen: 0.035 ppbv
RT: 5.74 min Scan# 920
Delta R.T. -0.03 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Tgt Ion:	83	Resp:	5396
Ion	Ratio	Lower	Upper
83	100		
85	52.8	53.0	79.4#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

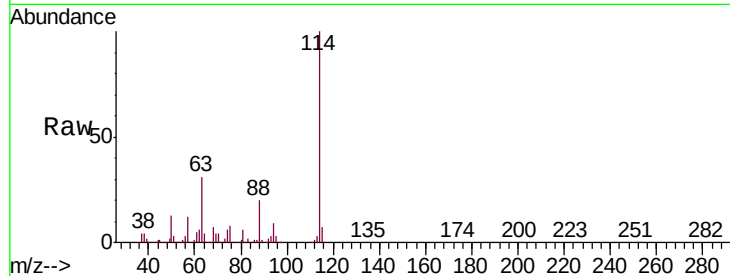




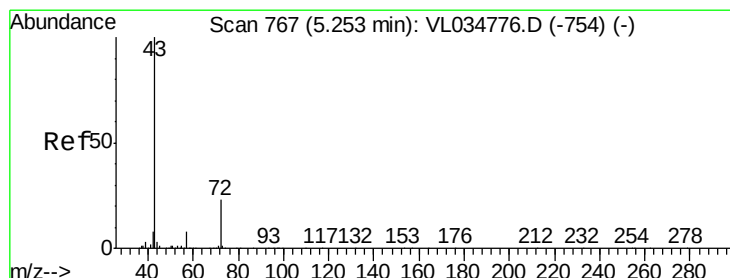
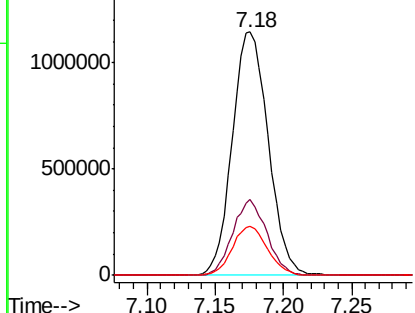
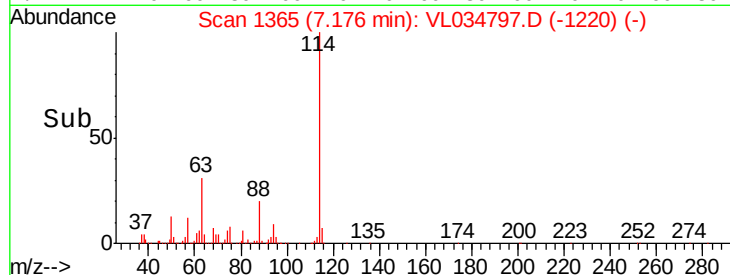
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. -0.03 min
 Lab File: VL034797.D
 Acq: 5 Mar 2020 15:50

Instrument :
 MSVOA_L
 ClientSampleId :
 A-1-4

Tgt Ion:114 Resp: 2102272
 Ion Ratio Lower Upper
 114 100
 63 29.6 23.6 35.4
 88 19.6 15.8 23.8

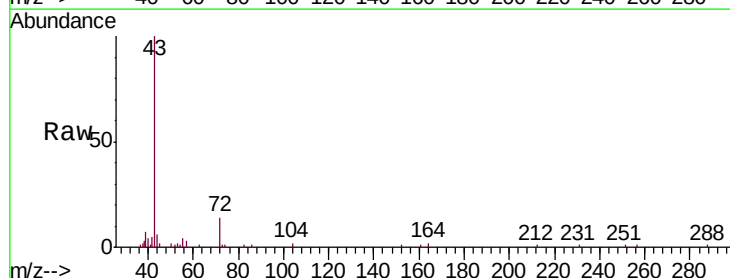


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

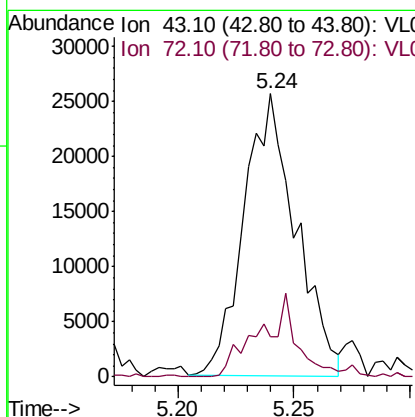
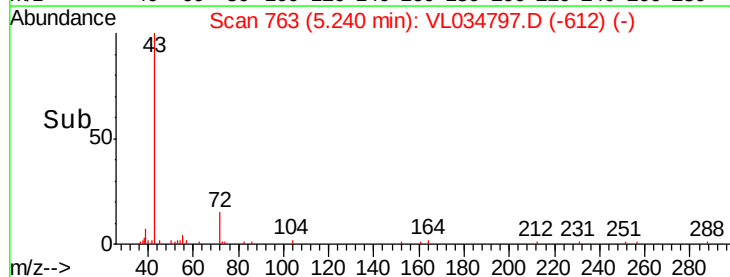


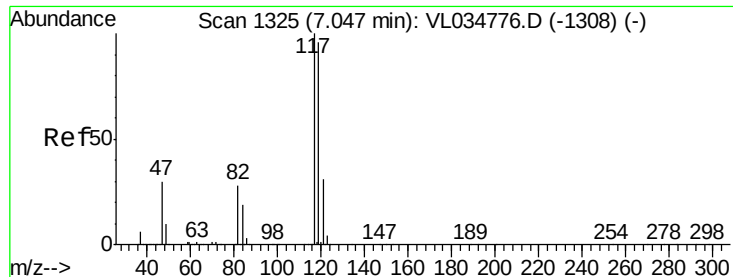
#34
 2-Butanone
 Concen: 0.292 ppbv
 RT: 5.24 min Scan# 763
 Delta R.T. -0.01 min
 Lab File: VL034797.D
 Acq: 5 Mar 2020 15:50

Tgt Ion: 43 Resp: 39880
 Ion Ratio Lower Upper
 43 100
 72 22.9 17.5 26.3



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

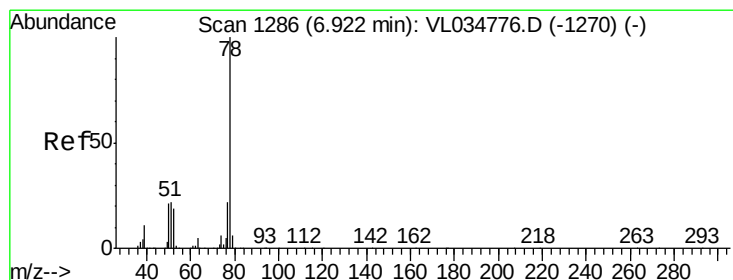
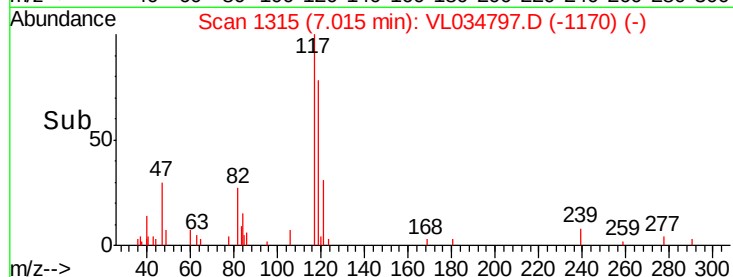
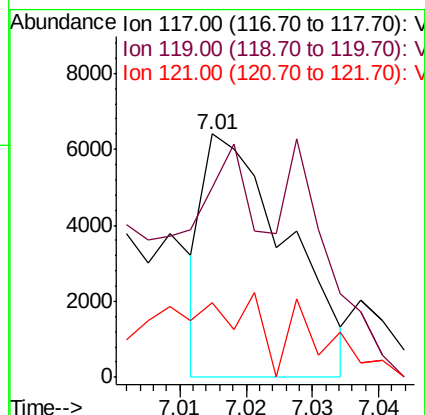
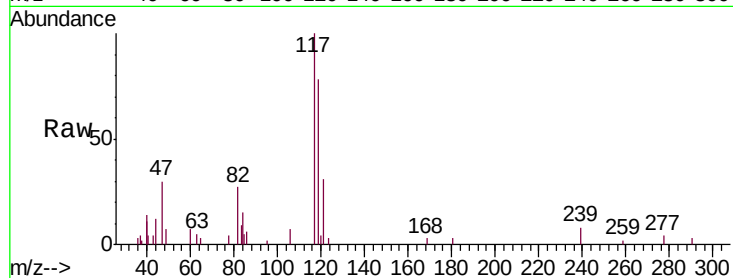




#35
Carbon Tetrachloride
Concen: 0.035 ppbv
RT: 7.01 min Scan# 1315
Delta R.T. -0.03 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

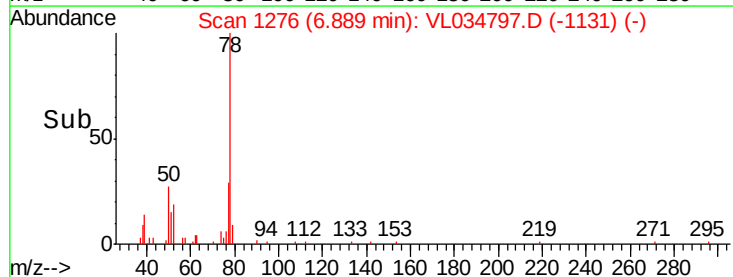
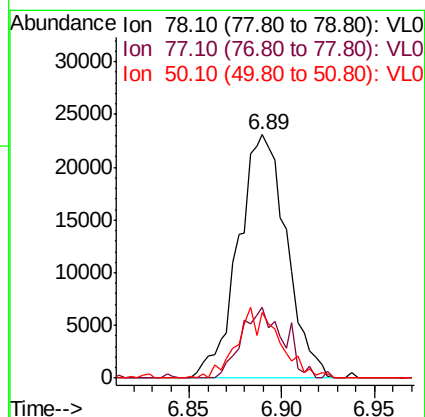
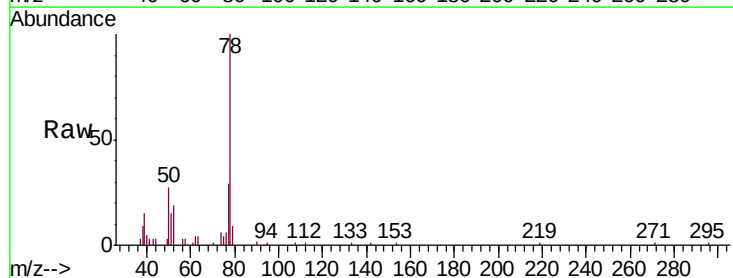
Instrument :
MSVOA_L
ClientSampled :
A-1-4

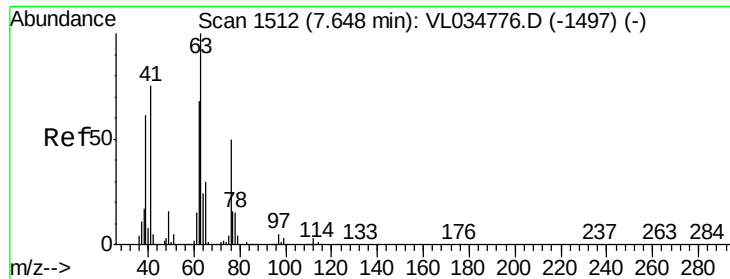
Tgt Ion: 117 Resp: 5563
Ion Ratio Lower Upper
117 100
119 55.3 76.8 115.2#
121 15.3 24.6 37.0#



#36
Benzene
Concen: 0.233 ppbv
RT: 6.89 min Scan# 1276
Delta R.T. -0.03 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Tgt Ion: 78 Resp: 41824
Ion Ratio Lower Upper
78 100
77 29.0 18.0 27.0#
50 26.8 16.9 25.3#





#39

1,2-Dichloropropane

Concen: 8.499 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.47 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

A-1-4

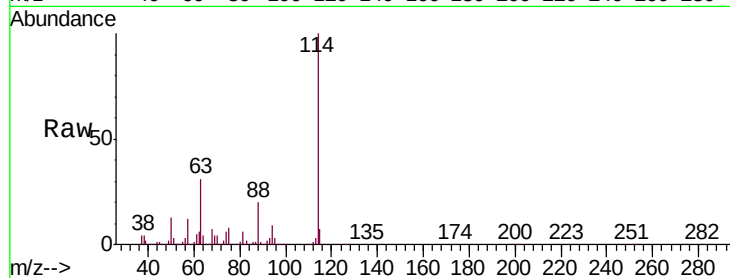
Tgt Ion: 63 Resp: 616184

Ion Ratio Lower Upper

63 100

41 0.0 60.3 90.5#

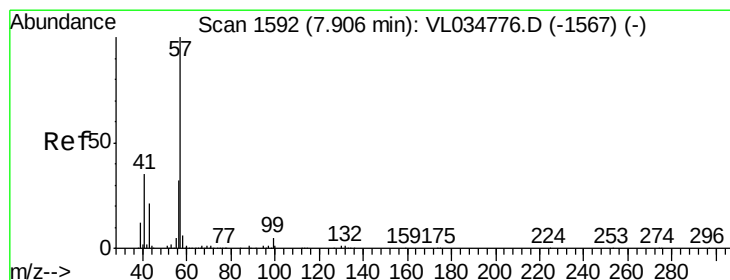
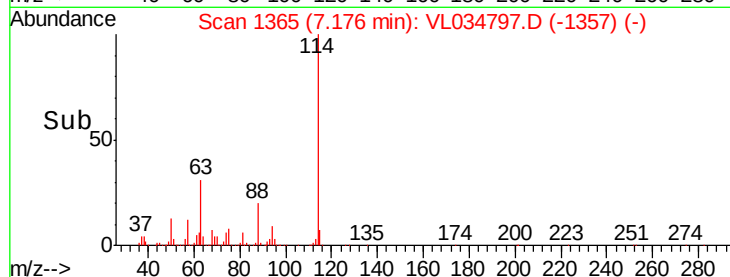
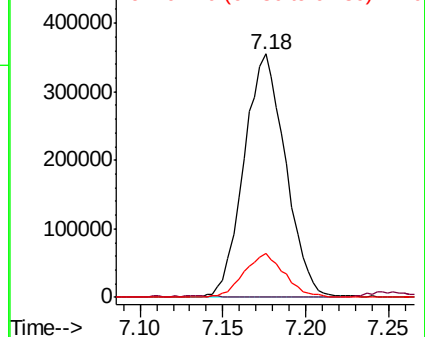
62 18.1 54.5 81.7#



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: 0.033 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.04 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

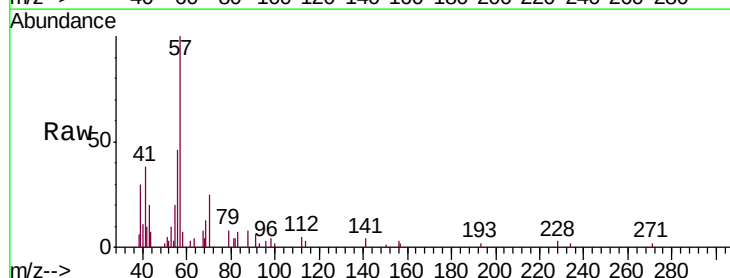
Tgt Ion: 57 Resp: 10484

Ion Ratio Lower Upper

57 100

41 0.0 27.4 41.0#

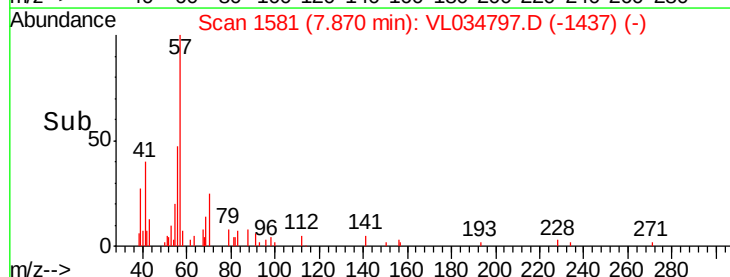
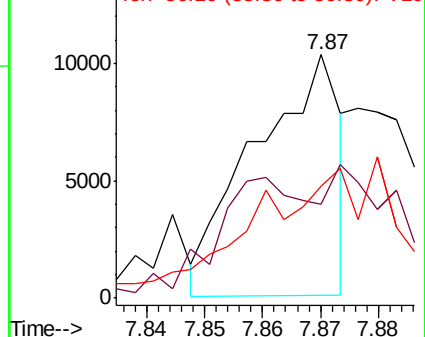
56 0.0 25.0 37.6#

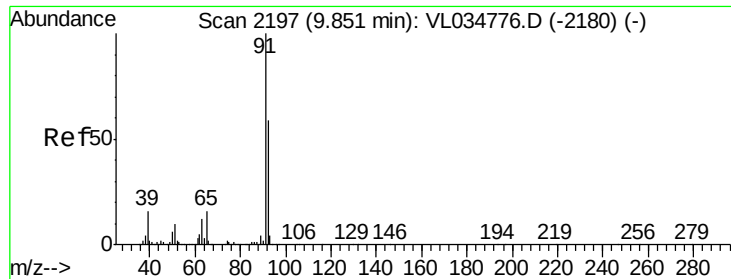


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.902 ppbv

RT: 9.83 min Scan# 2189

Delta R.T. -0.03 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampleId :

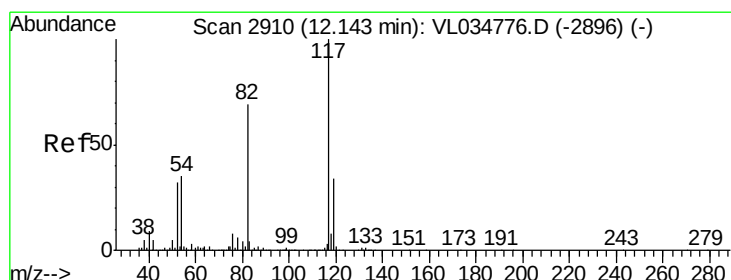
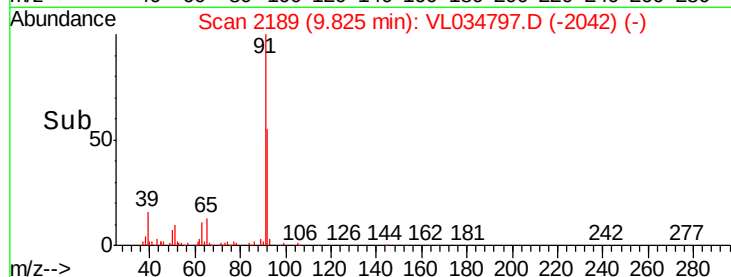
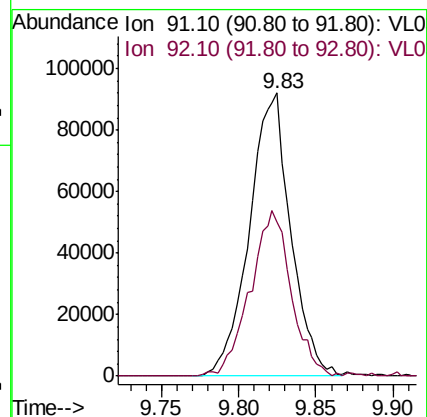
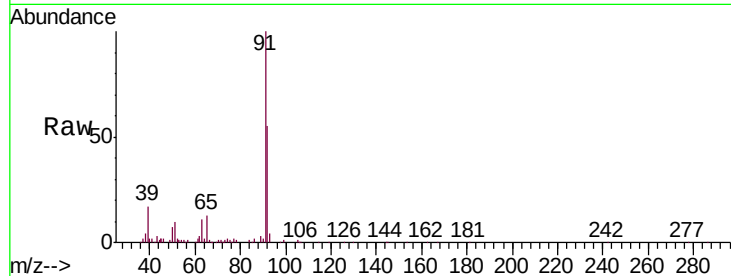
A-1-4

Tgt Ion: 91 Resp: 171480

Ion Ratio Lower Upper

91 100

92 58.3 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. -0.04 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

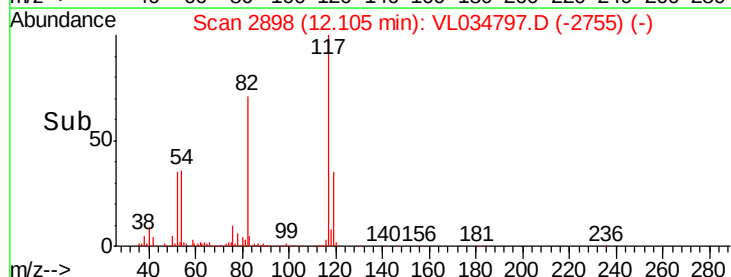
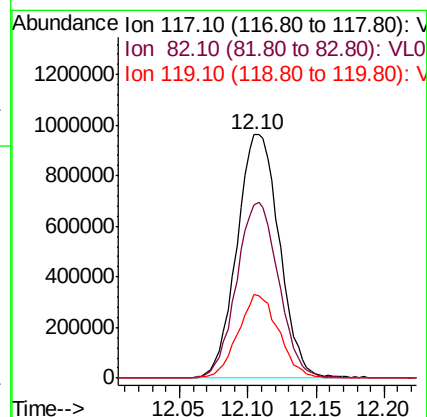
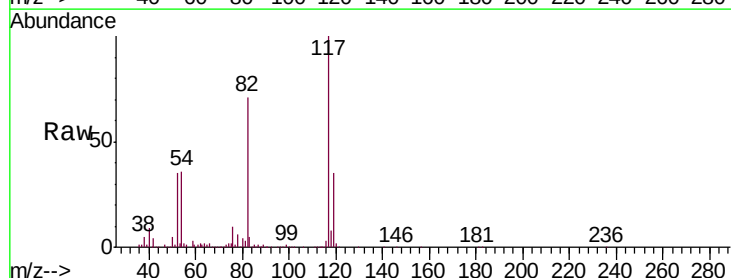
Tgt Ion: 117 Resp: 2067815

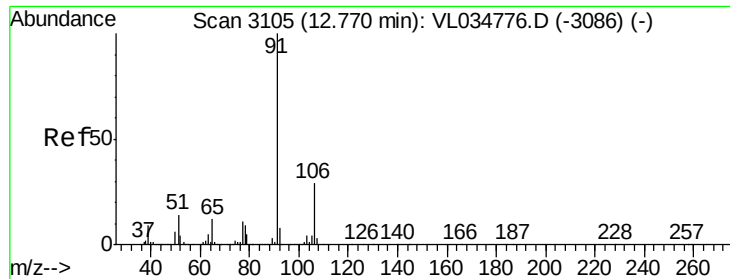
Ion Ratio Lower Upper

117 100

82 72.2 53.9 80.9

119 33.1 25.0 37.4





#58

Ethyl Benzene

Concen: 0.096 ppbv

RT: 12.73 min Scan# 3092

Delta R.T. -0.04 min

Lab File: VL034797.D

Acq: 5 Mar 2020 15:50

Instrument :

MSVOA_L

ClientSampled :

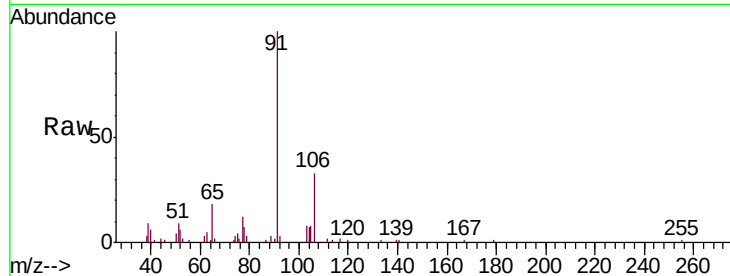
A-1-4

Tgt Ion: 91 Resp: 24535

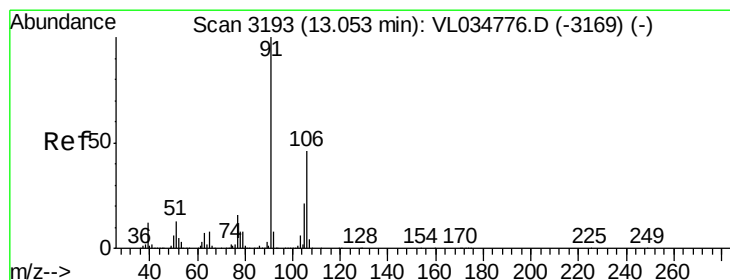
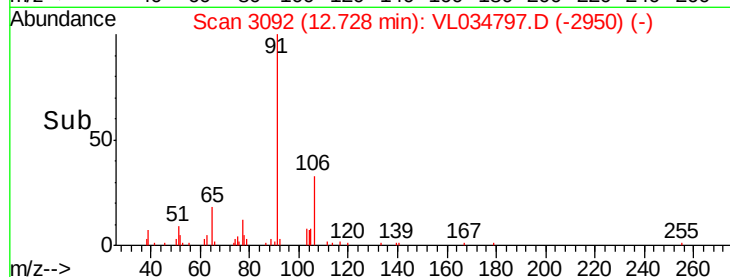
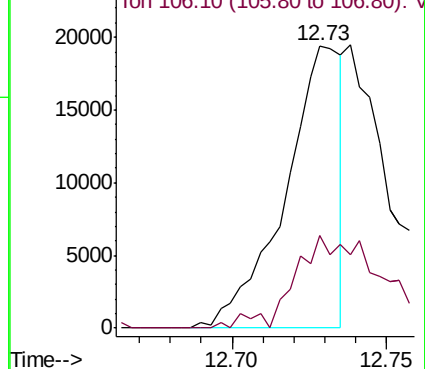
Ion Ratio Lower Upper

91 100

106 32.8 22.8 34.2



Abundance Ion 91.10 (90.80 to 91.80): VL0



#59

m/p-Xylene

Concen: 0.046 ppbv

RT: 13.01 min Scan# 3179

Delta R.T. -0.05 min

Lab File: VL034797.D

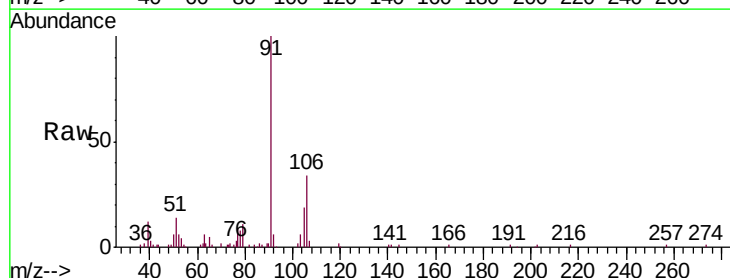
Acq: 5 Mar 2020 15:50

Tgt Ion: 91 Resp: 10210

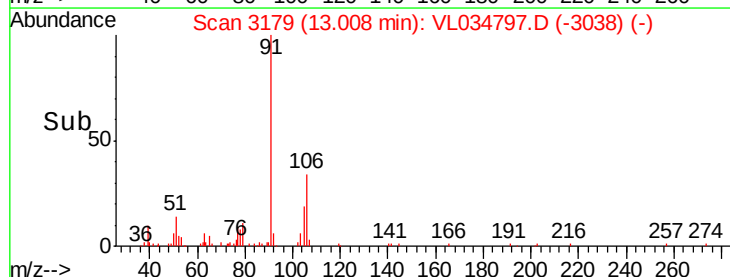
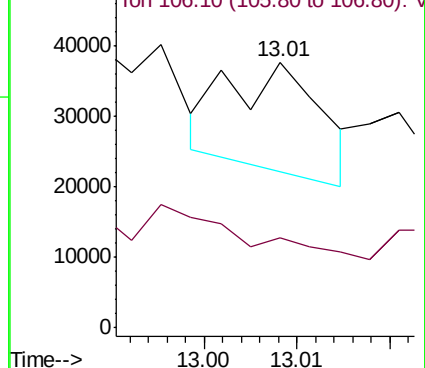
Ion Ratio Lower Upper

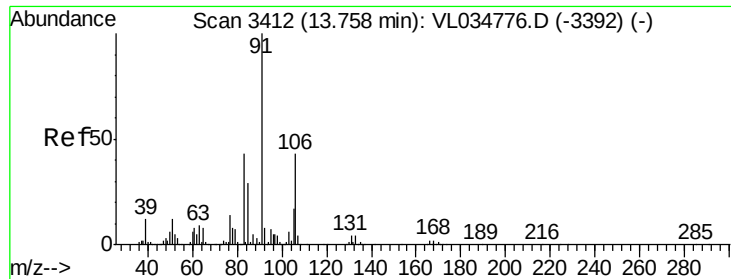
91 100

106 0.0 35.8 53.8#



Abundance Ion 91.10 (90.80 to 91.80): VL0

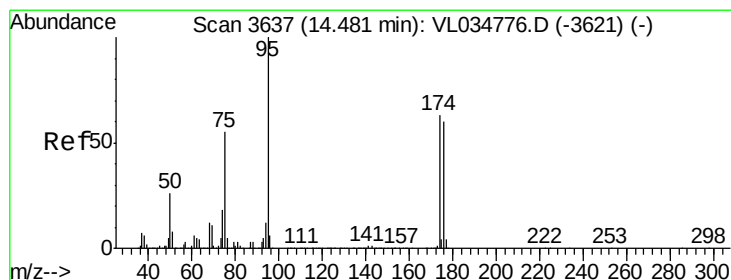
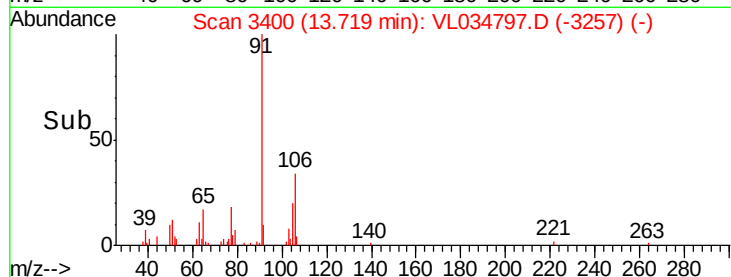
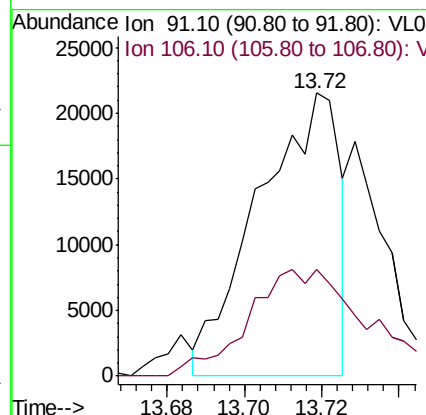
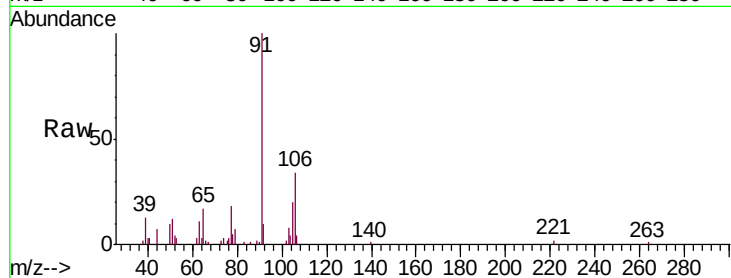




#60
o-Xylene
Concen: 0.140 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.04 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Instrument :
MSVOA_L
ClientSampleId :
A-1-4

Tgt Ion: 91 Resp: 31317
Ion Ratio Lower Upper
91 100
106 54.1 21.7 65.1



#68
1-Bromo-4-Fluorobenzene
Concen: 10.356 ppbv
RT: 14.44 min Scan# 3625
Delta R.T. -0.04 min
Lab File: VL034797.D
Acq: 5 Mar 2020 15:50

Tgt Ion: 95 Resp: 1785585
Ion Ratio Lower Upper
95 100
174 62.8 50.6 76.0
175 4.6 3.8 5.6

