

Data File : VL033542.D

Acq On : 4 Apr 2019 20:58

Operator : SY/AP

Sample : K2096-04

Misc : 400ml/MSVOA_L

ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
A-4

Quant Time: Apr 05 01:59:30 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	877123	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1673284	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2158170	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1682321	9.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.40%

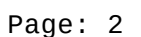
Target Compounds

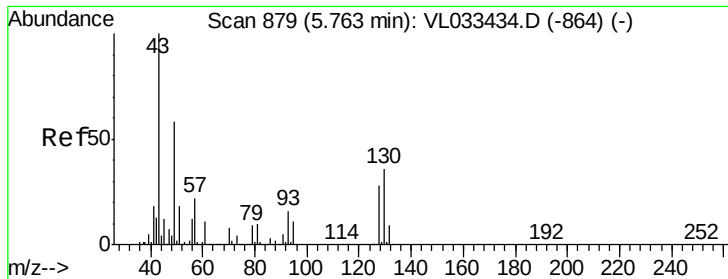
					Qvalue	
2) Dichlorodifluoromethane	3.08	85	112862	0.882	ppbv	93
3) Chlorodifluoromethane	2.99	51	151180	1.497	ppbv #	74
4) Chloromethane	3.17	50	29085	0.544	ppbv	92
9) Propene	3.05	41	43327	1.022	ppbv #	76
10) Heptane	8.24	43	38280	0.338	ppbv	98
11) Trichlorofluoromethane	4.00	101	40849	0.259	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.55	101	5671	0.054	ppbv	94
13) Ethanol	3.66	45	1906419	173.726	ppbv	64
15) Acetone	3.90	43	961062	9.113	ppbv	99
16) 1,3-Butadiene	3.34	39	7025	0.168	ppbv #	29
17) tert-Butyl alcohol	4.04	59	17103	0.882	ppbv	100
19) Isopropyl Alcohol	4.03	45	451064	6.762	ppbv #	96
20) Methylene Chloride	4.41	84	232665	5.197	ppbv	97
21) Allyl Chloride	4.41	41	8101	0.122	ppbv #	36
23) Vinyl Acetate	5.15	43	53920	0.359	ppbv #	87
25) Ethyl Acetate	5.77	43	410014	2.095	ppbv #	86
26) Hexane	5.78	57	434770	4.997	ppbv #	48
30) Cyclohexane	7.25	84	4469	0.065	ppbv #	1
31) cis-1,2-Dichloroethene	5.76	61	13804	0.160	ppbv #	30
34) 2-Butanone	5.33	43	50893	0.506	ppbv	96
35) Carbon Tetrachloride	7.13	117	4829	0.041	ppbv #	79
36) Benzene	7.00	78	14076	0.100	ppbv	98
39) 1,2-Dichloropropane	7.29	63	440131	8.003	ppbv #	25
41) Tetrahydrofuran	5.78	42	175594	3.176	ppbv #	50
43) Methyl Methacrylate	8.13	69	2334	0.041	ppbv #	1
53) Toluene	9.94	91	1402199	8.594	ppbv	100
59) m/p-Xylene	13.15	91	16155	0.063	ppbv #	100
60) o-Xylene	13.84	91	21006	0.084	ppbv	88
74) 1,2,4-Trimethylbenzene	16.93	105	34839	0.121	ppbv #	69

(#)=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: VL033542.D

Acq: 4 Apr 2019 20:58

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MSVOA_L

ClientSampleId :

A-4

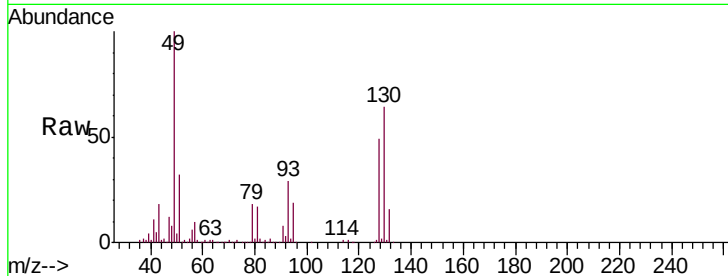
Tgt Ion: 49 Resp: 877123

Ion Ratio Lower Upper

49 100

128 49.1 24.0 72.0

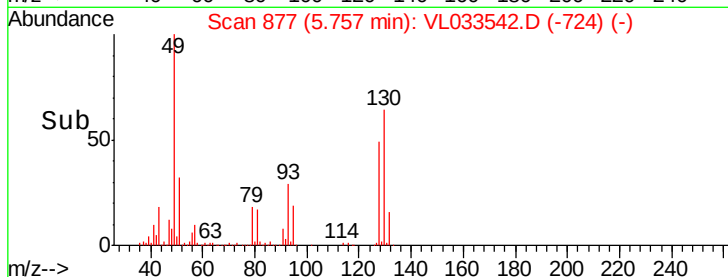
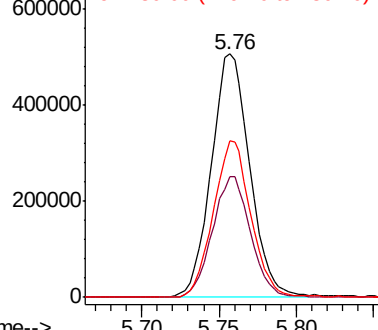
130 63.3 31.2 93.6



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: 0.882 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033542.D

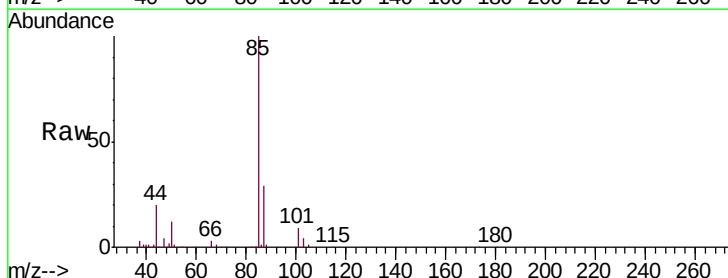
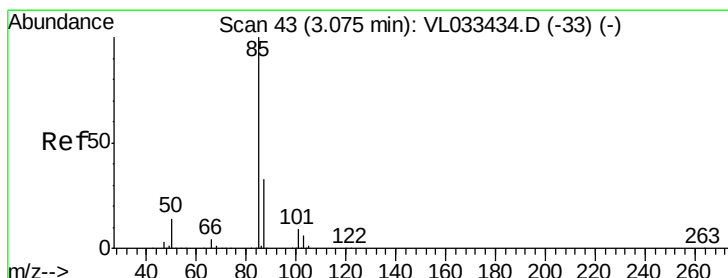
Acq: 4 Apr 2019 20:58

Tgt Ion: 85 Resp: 112862

Ion Ratio Lower Upper

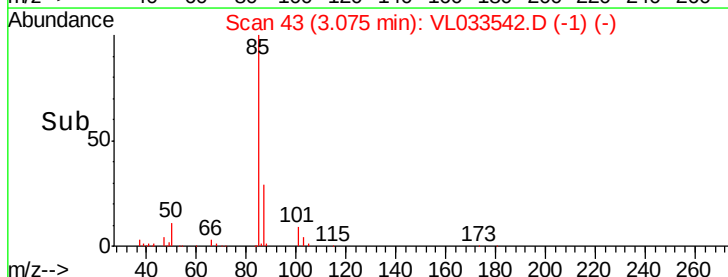
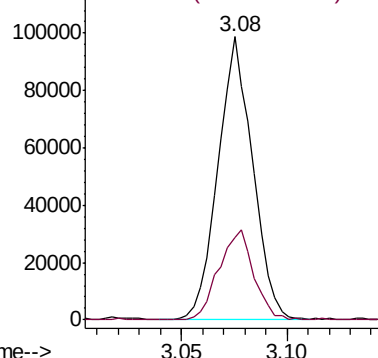
85 100

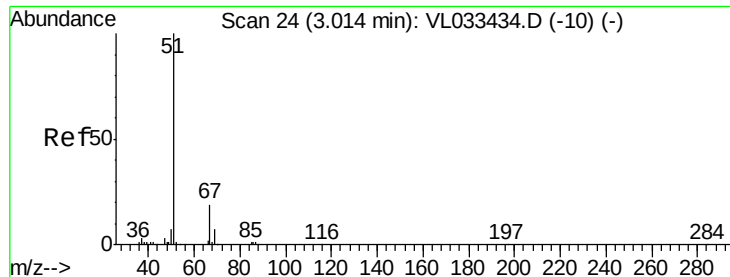
87 29.2 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

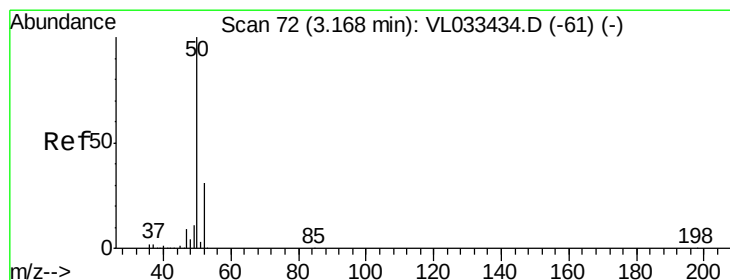
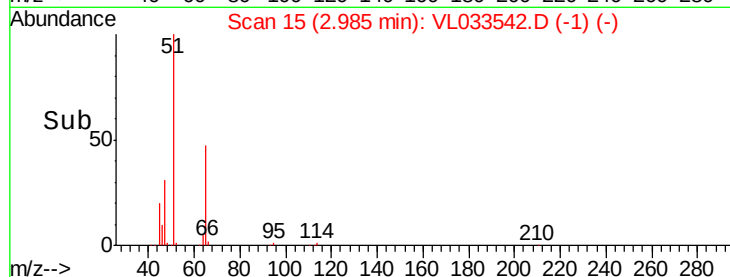
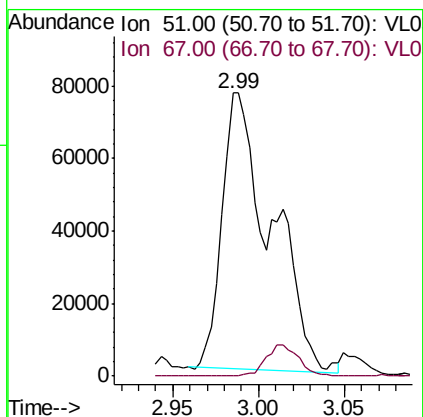
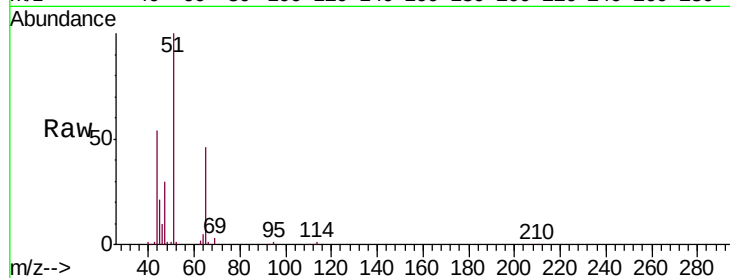




#3
 Chlorodifluoromethane
 Concen: 1.497 ppbv
 RT: 2.99 min Scan# 15
 Delta R.T. -0.03 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

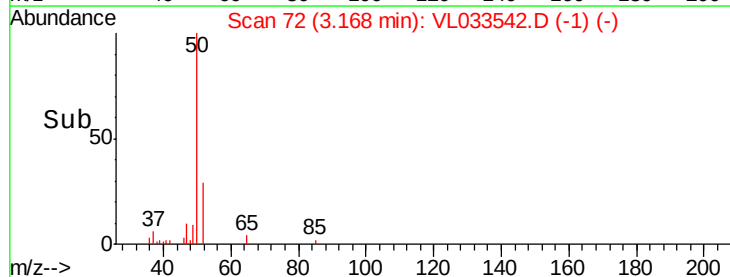
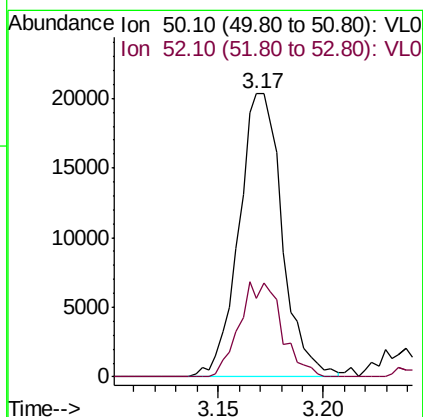
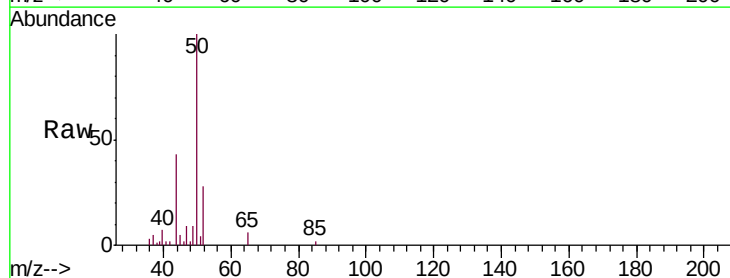
Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

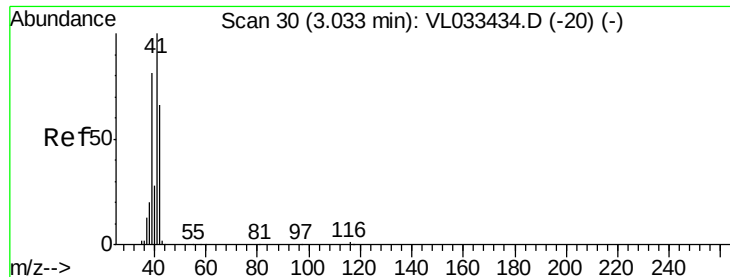
Tgt Ion: 51 Resp: 151180
 Ion Ratio Lower Upper
 51 100
 67 7.6 15.7 23.5#



#4
 Chloromethane
 Concen: 0.544 ppbv
 RT: 3.17 min Scan# 72
 Delta R.T. -0.00 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Tgt Ion: 50 Resp: 29085
 Ion Ratio Lower Upper
 50 100
 52 26.9 25.0 37.6





#9

Propene

Concen: 1.022 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.02 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

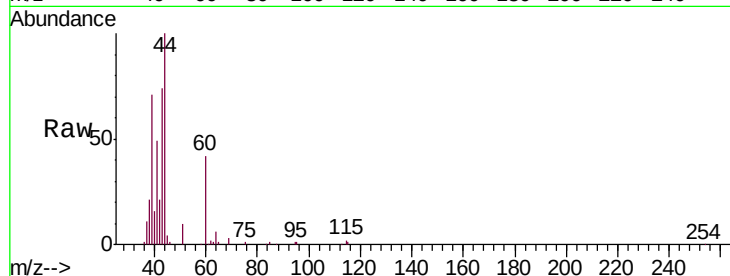
A-4

Tgt Ion: 41 Resp: 43327

Ion Ratio Lower Upper

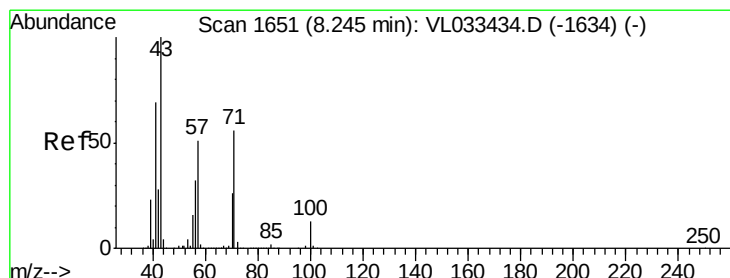
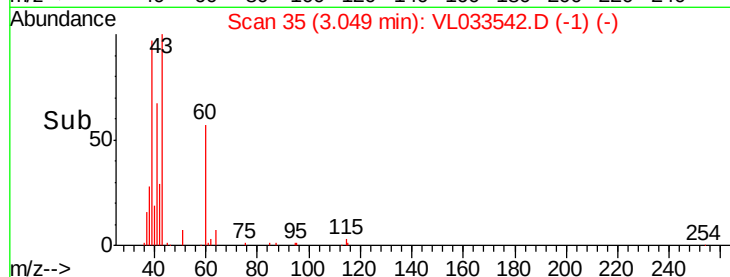
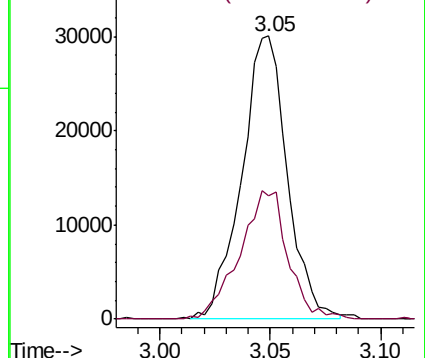
41 100

42 47.9 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: 0.338 ppbv

RT: 8.24 min Scan# 1650

Delta R.T. -0.00 min

Lab File: VL033542.D

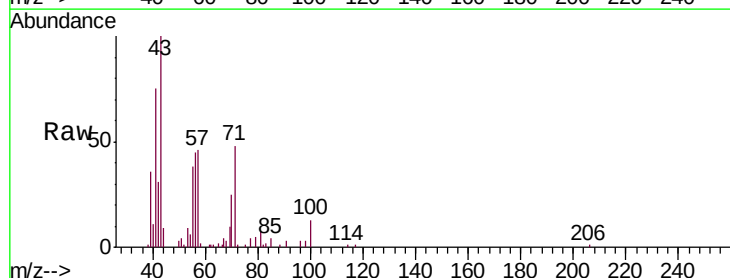
Acq: 4 Apr 2019 20:58

Tgt Ion: 43 Resp: 38280

Ion Ratio Lower Upper

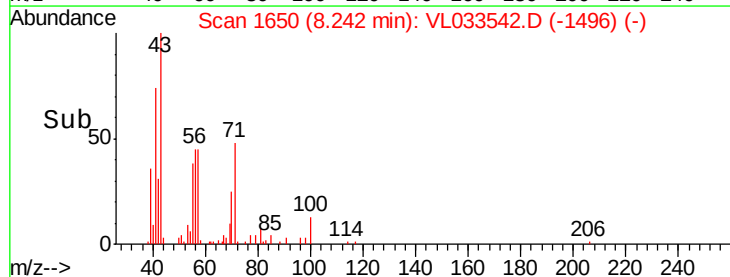
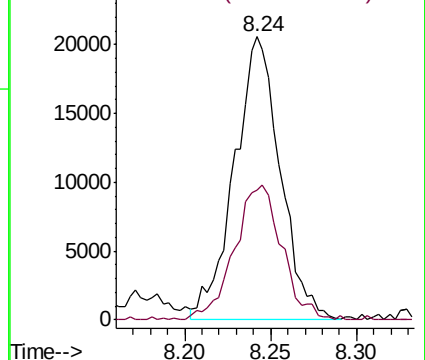
43 100

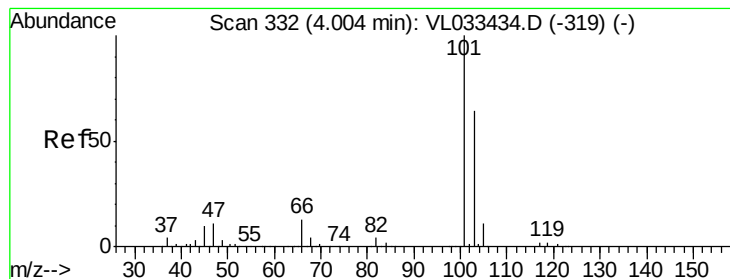
57 49.1 40.6 60.8



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 0.259 ppbv

RT: 4.00 min Scan# 331

Delta R.T. -0.00 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

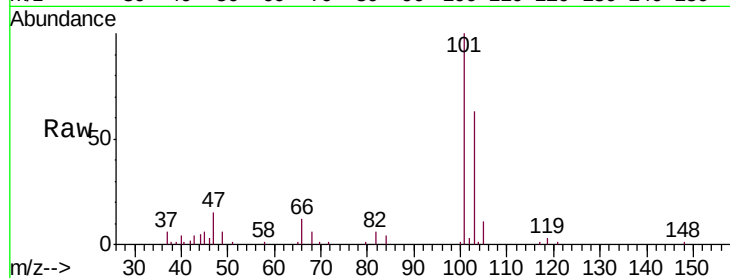
A-4

Tgt Ion:101 Resp: 40849

Ion Ratio Lower Upper

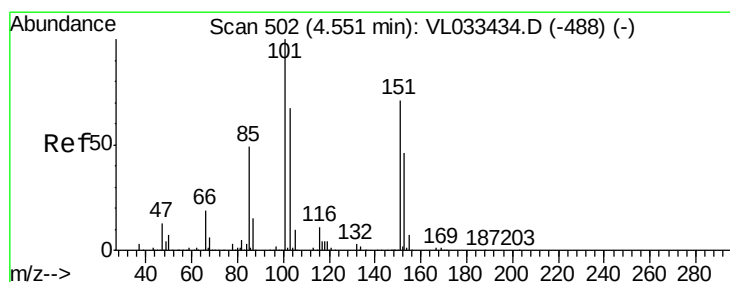
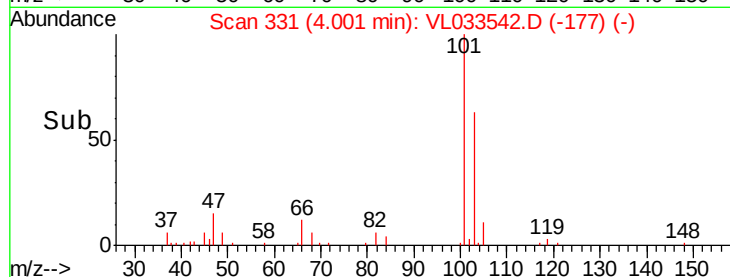
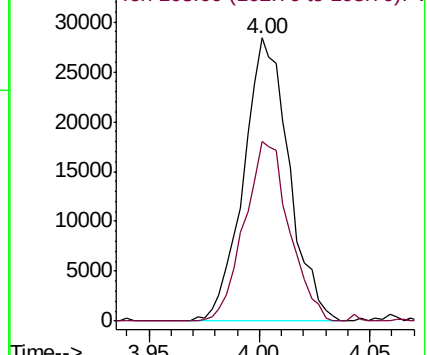
101 100

103 64.1 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.054 ppbv

RT: 4.55 min Scan# 502

Delta R.T. -0.00 min

Lab File: VL033542.D

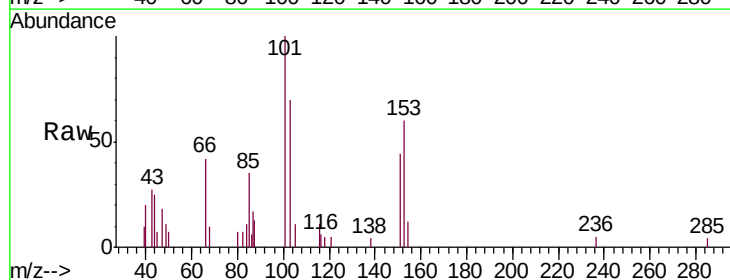
Acq: 4 Apr 2019 20:58

Tgt Ion:101 Resp: 5671

Ion Ratio Lower Upper

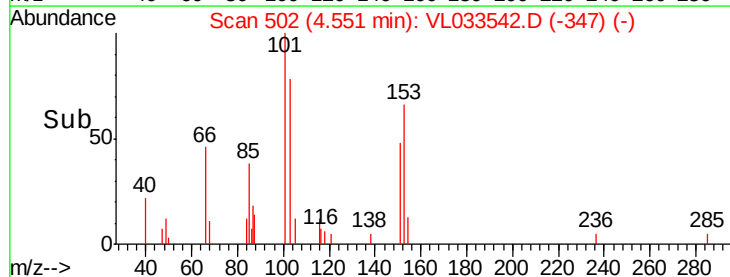
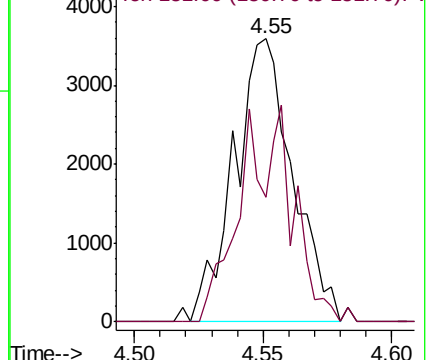
101 100

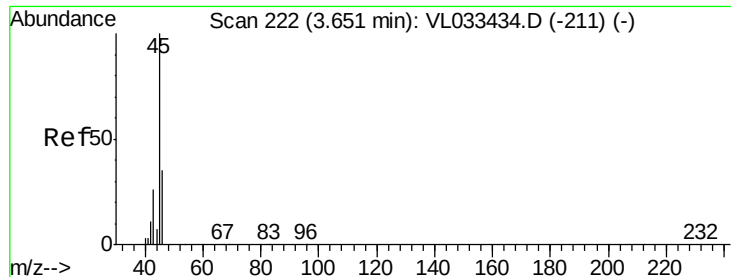
151 67.2 57.7 86.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 173.726 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

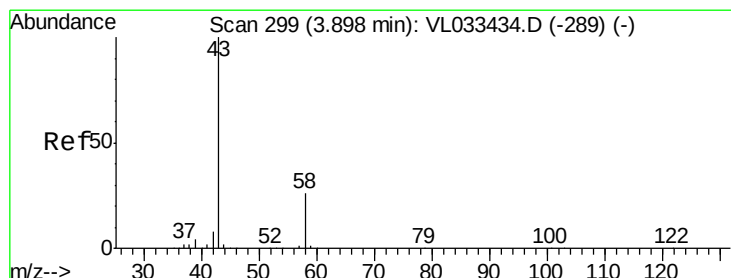
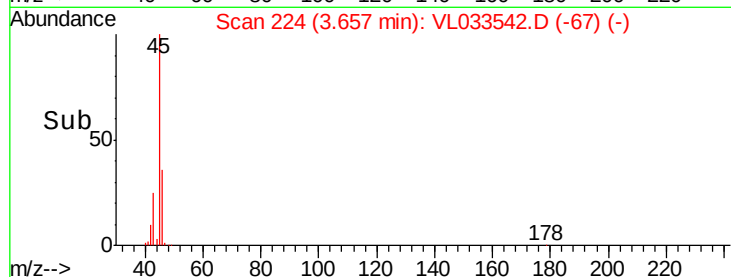
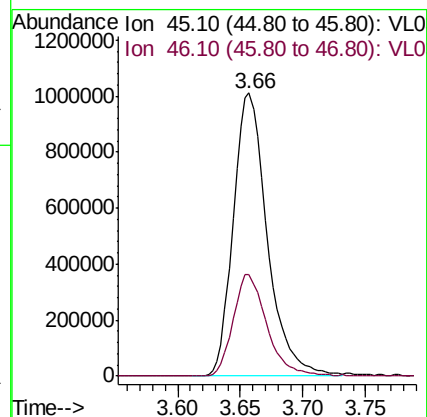
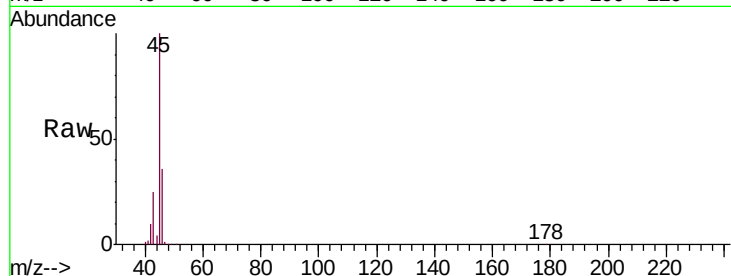
A-4

Tgt Ion: 45 Resp: 1906419

Ion Ratio Lower Upper

45 100

46 35.9 25.4 101.8



#15

Acetone

Concen: 9.113 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.00 min

Lab File: VL033542.D

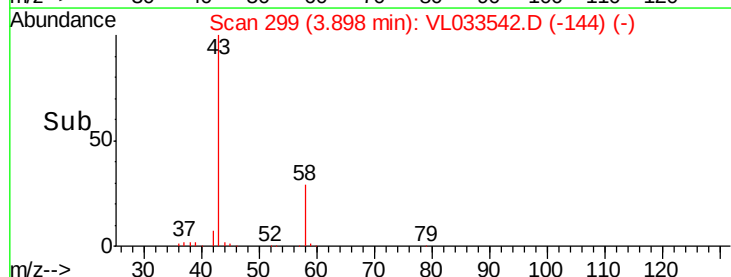
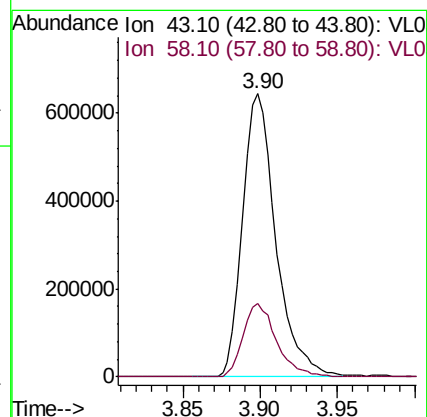
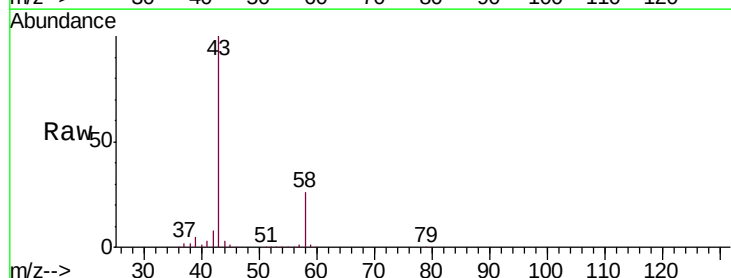
Acq: 4 Apr 2019 20:58

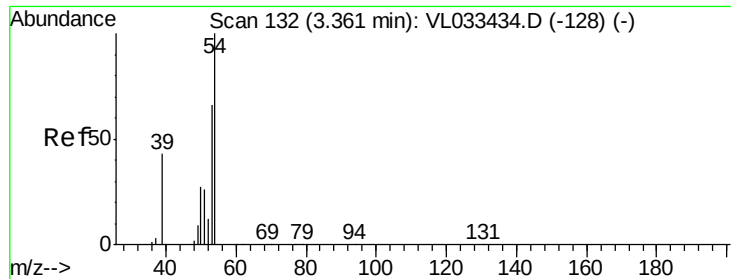
Tgt Ion: 43 Resp: 961062

Ion Ratio Lower Upper

43 100

58 26.3 20.5 30.7





#16

1,3-Butadiene

Concen: 0.168 ppbv

RT: 3.34 min Scan# 125

Delta R.T. -0.02 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

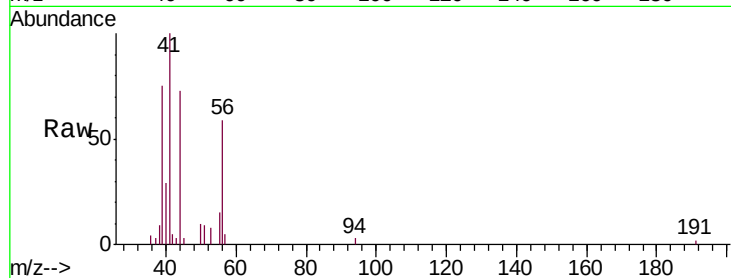
A-4

Tgt Ion: 39 Resp: 7025

Ion Ratio Lower Upper

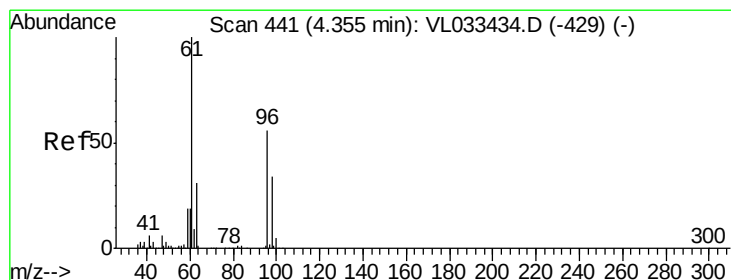
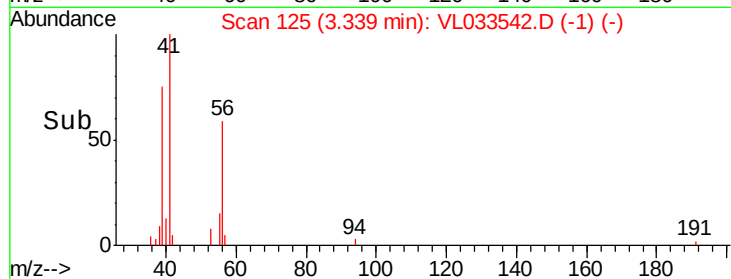
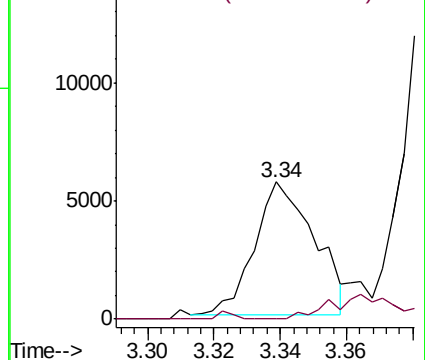
39 100

54 21.5 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: 0.882 ppbv

RT: 4.04 min Scan# 342

Delta R.T. -0.32 min

Lab File: VL033542.D

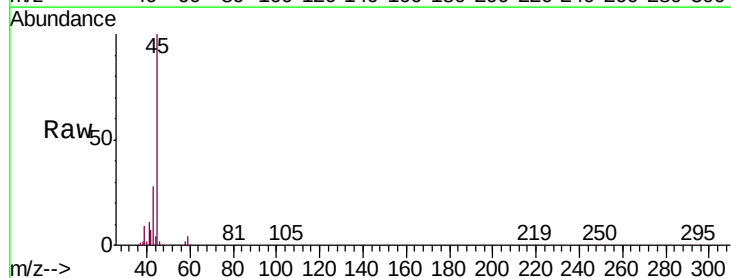
Acq: 4 Apr 2019 20:58

Tgt Ion: 59 Resp: 17103

Ion Ratio Lower Upper

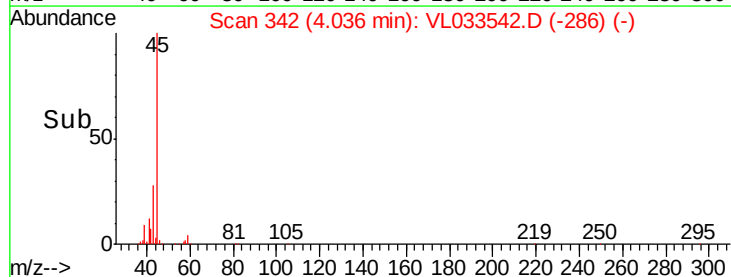
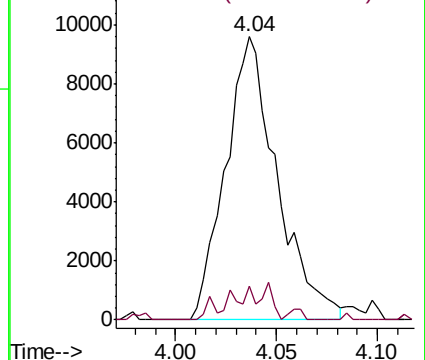
59 100

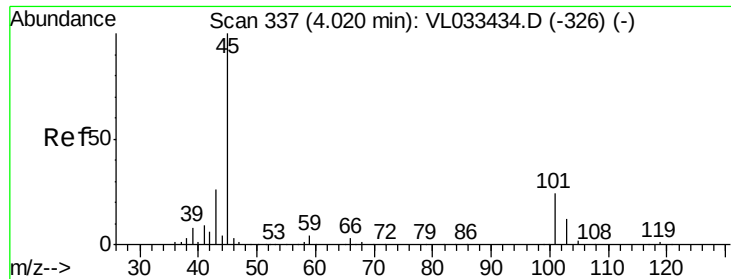
57 9.9 7.8 11.8



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#19

Isopropyl Alcohol

Concen: 6.762 ppbv

RT: 4.03 min Scan# 341

Delta R.T. 0.01 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

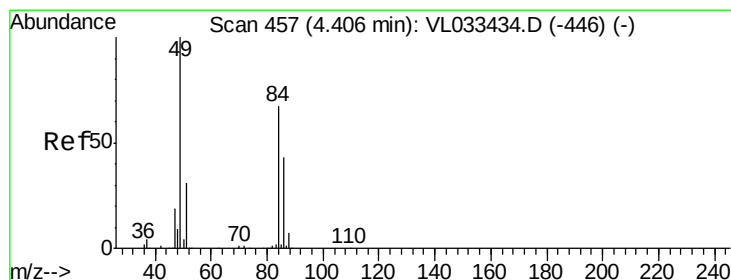
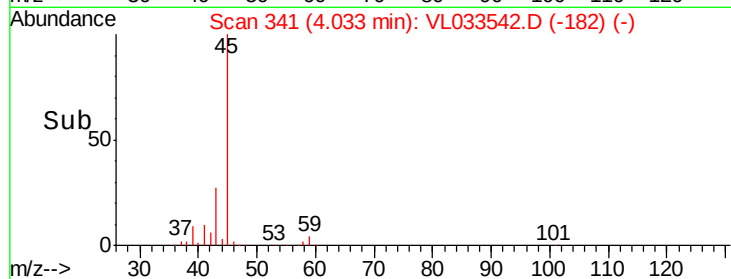
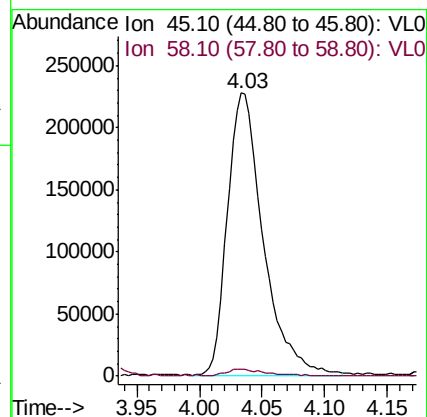
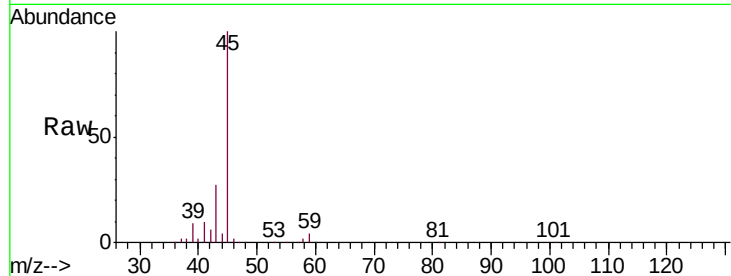
A-4

Tgt Ion: 45 Resp: 451064

Ion Ratio Lower Upper

45 100

58 3.2 1.4 2.2#



#20

Methylene Chloride

Concen: 5.197 ppbv

RT: 4.41 min Scan# 457

Delta R.T. -0.00 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Tgt Ion: 84 Resp: 232665

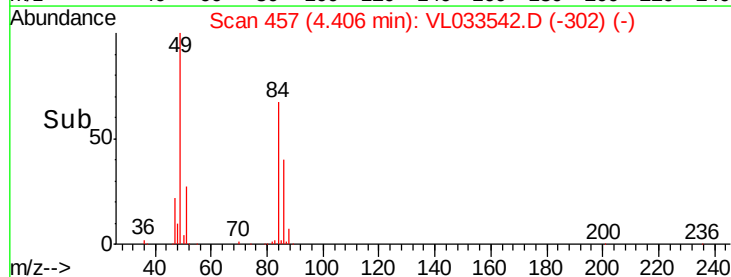
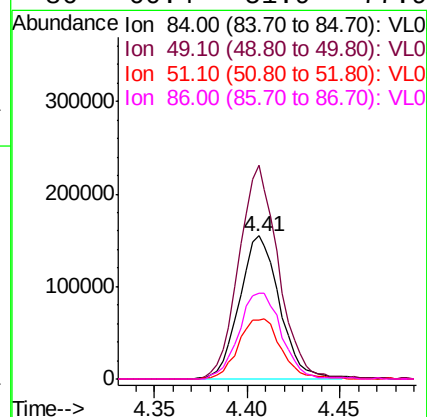
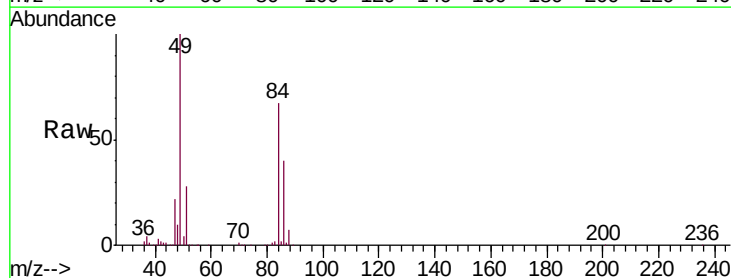
Ion Ratio Lower Upper

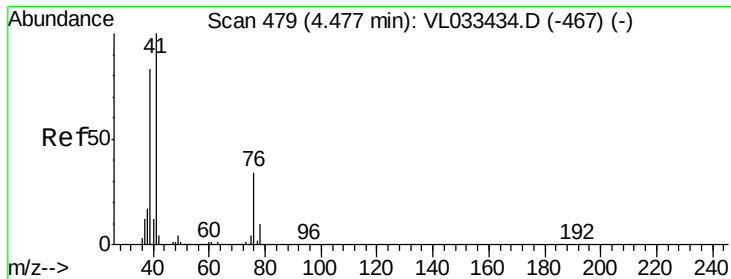
84 100

49 149.3 120.0 180.0

51 41.2 36.7 55.1

86 60.4 51.9 77.9

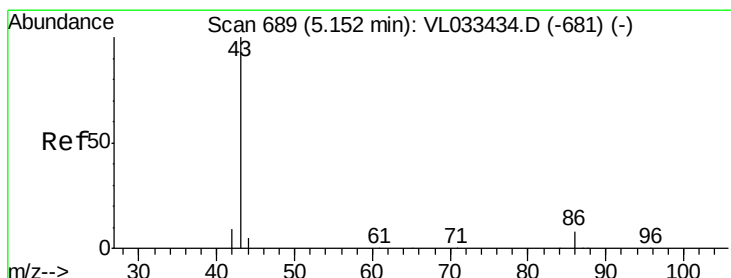
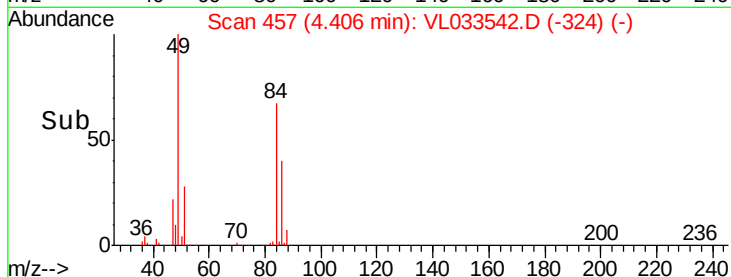
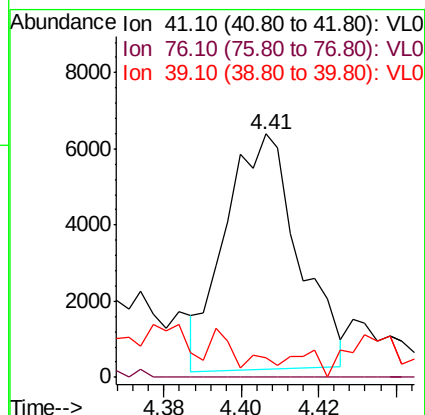
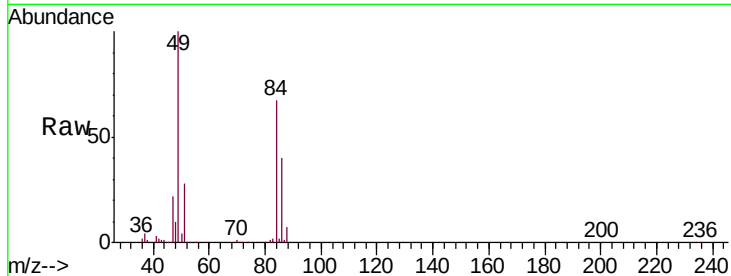




#21
 Allyl Chloride
 Concen: 0.122 ppbv
 RT: 4.41 min Scan# 457
 Delta R.T. -0.07 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

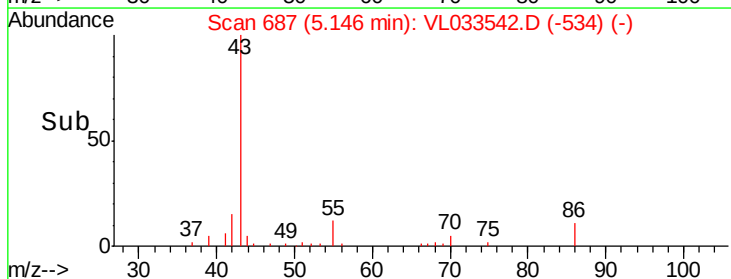
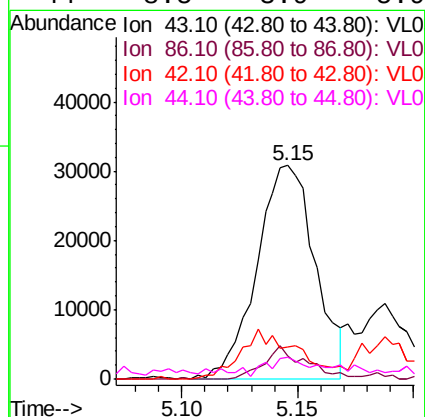
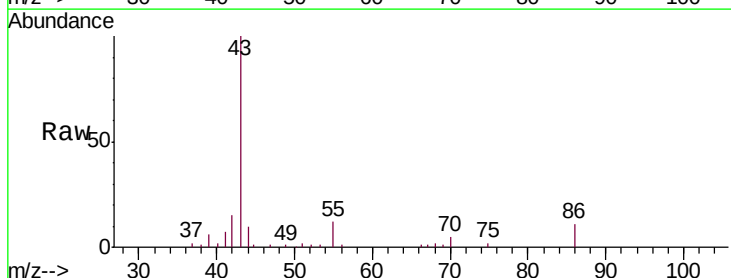
Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

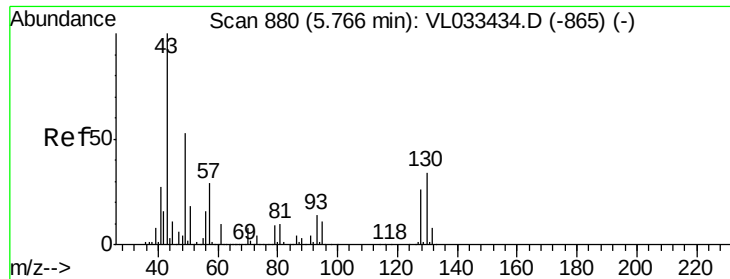
Tgt Ion: 41 Resp: 8101
 Ion Ratio Lower Upper
 41 100
 76 0.0 25.4 38.2#
 39 22.2 65.3 97.9#



#23
 Vinyl Acetate
 Concen: 0.359 ppbv
 RT: 5.15 min Scan# 687
 Delta R.T. -0.01 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Tgt Ion: 43 Resp: 53920
 Ion Ratio Lower Upper
 43 100
 86 11.3 5.6 8.4#
 42 15.7 8.0 12.0#
 44 8.5 3.9 5.9#

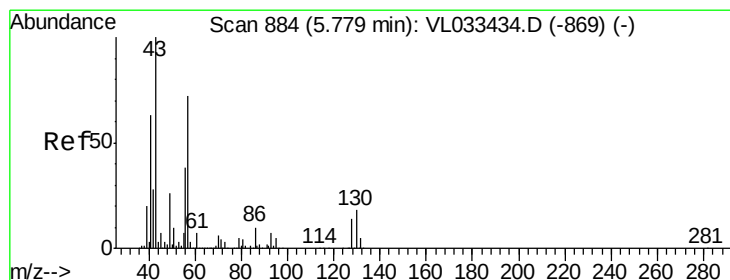
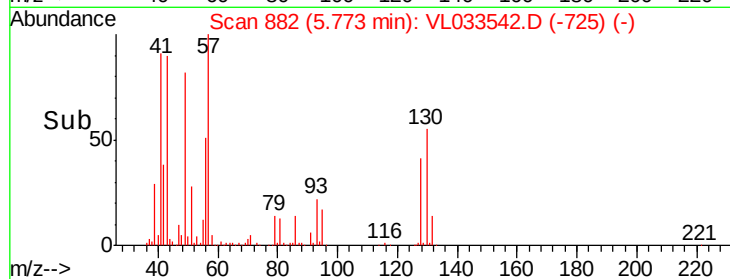
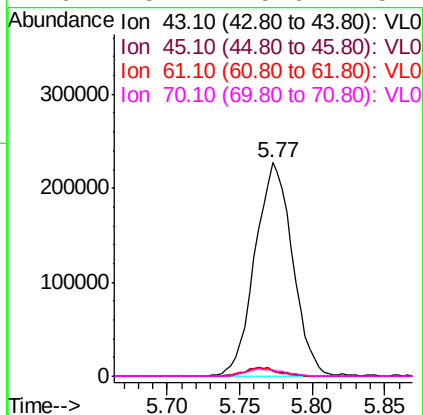
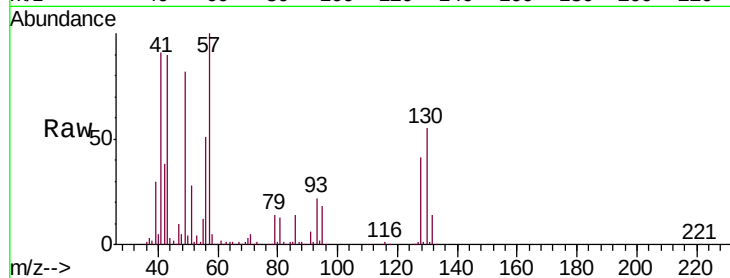




#25
Ethyl Acetate
Concen: 2.095 ppbv
RT: 5.77 min Scan# 882
Delta R.T. 0.01 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

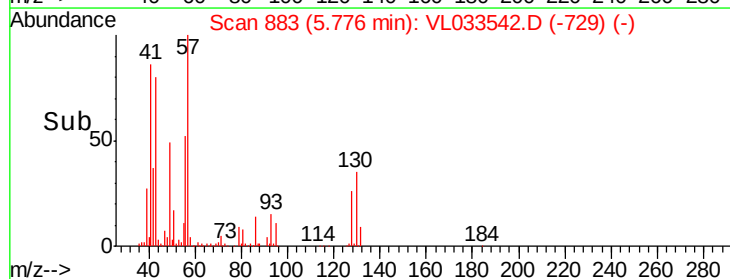
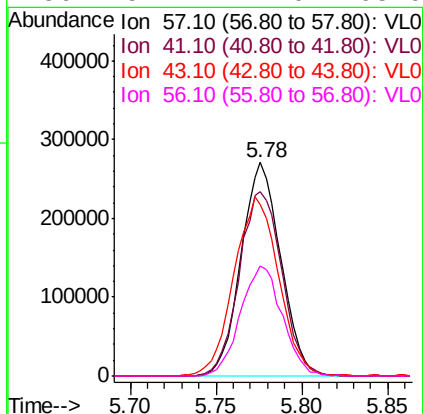
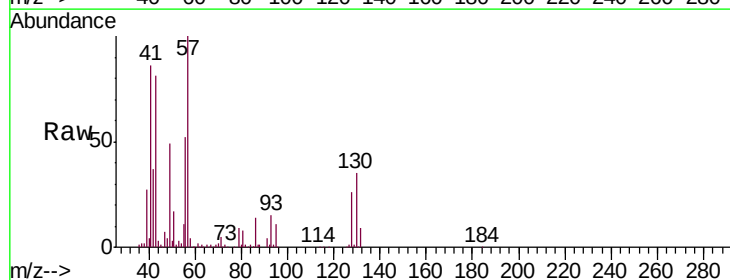
Instrument :
MSVOA_L
ClientSampleId :
A-4

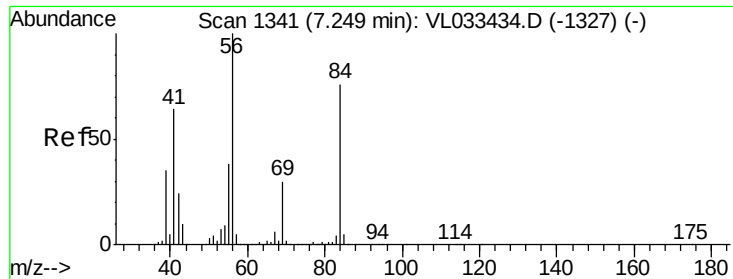
Tgt Ion:	43	Resp:	410014
Ion	Ratio	Lower	Upper
43	100		
45	4.1	7.8	11.6#
61	3.4	7.3	10.9#
70	3.4	5.6	8.4#



#26
Hexane
Concen: 4.997 ppbv
RT: 5.78 min Scan# 883
Delta R.T. -0.00 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

Tgt Ion:	57	Resp:	434770
Ion	Ratio	Lower	Upper
57	100		
41	93.0	70.7	106.1
43	94.6	182.6	274.0#
56	54.4	42.0	63.0

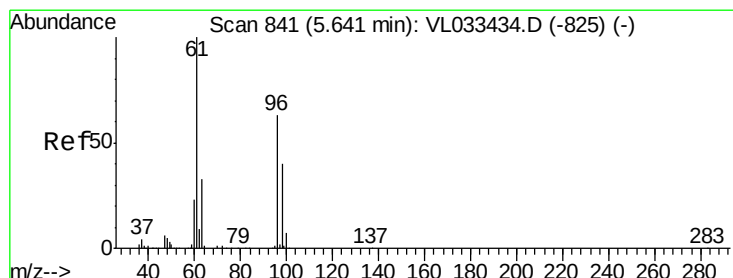
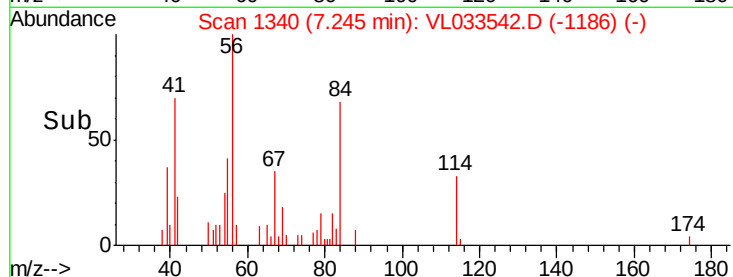
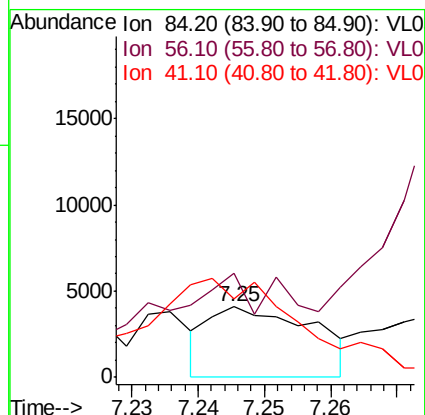
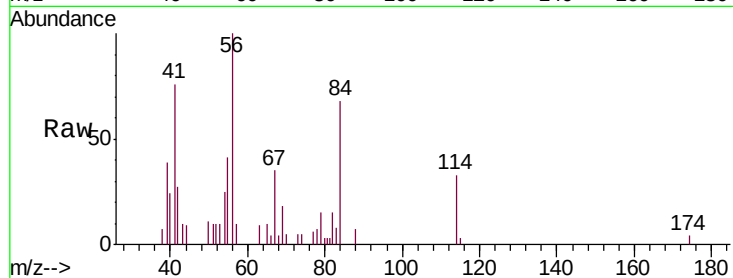




#30
Cyclohexane
Concen: 0.065 ppbv
RT: 7.25 min Scan# 1340
Delta R.T. -0.00 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

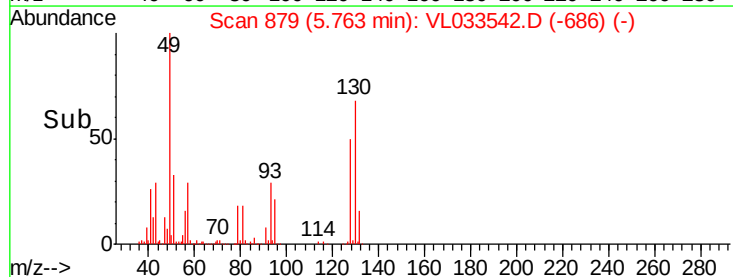
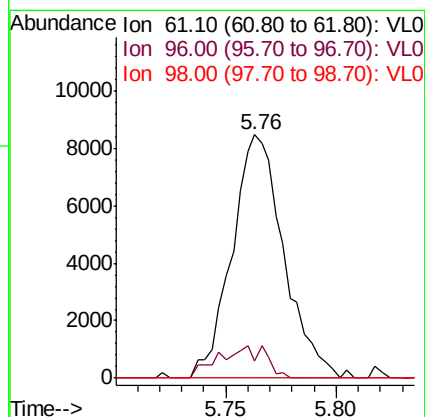
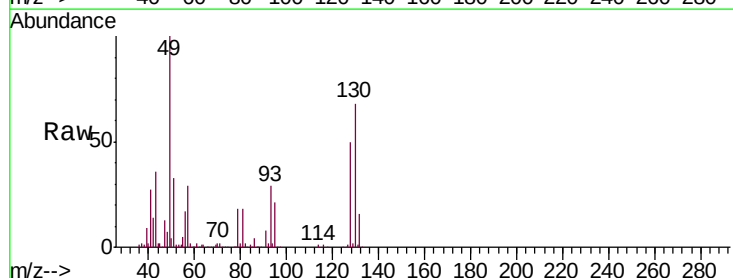
Instrument :
MSVOA_L
ClientSampleID :
A-4

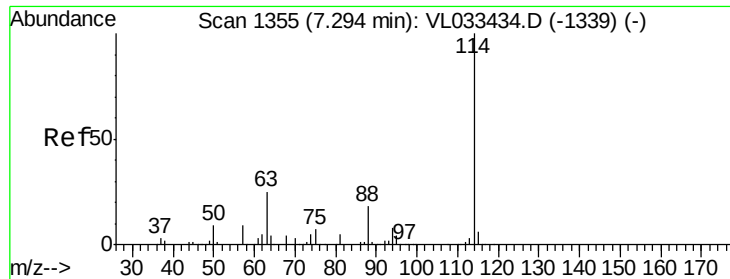
Tgt Ion: 84 Resp: 4469
Ion Ratio Lower Upper
84 100
56 0.0 109.7 164.5#
41 253.1 68.2 102.2#



#31
cis-1,2-Dichloroethene
Concen: 0.160 ppbv
RT: 5.76 min Scan# 879
Delta R.T. 0.12 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

Tgt Ion: 61 Resp: 13804
Ion Ratio Lower Upper
61 100
96 6.8 50.6 76.0#
98 0.0 32.2 48.2#

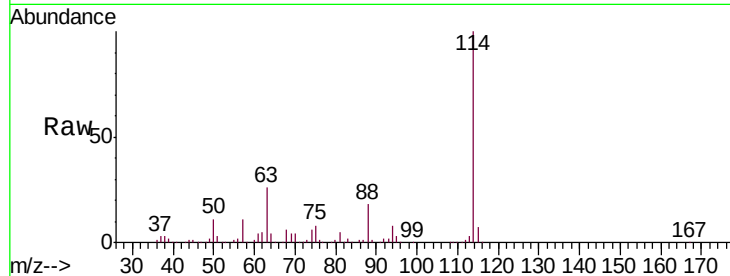




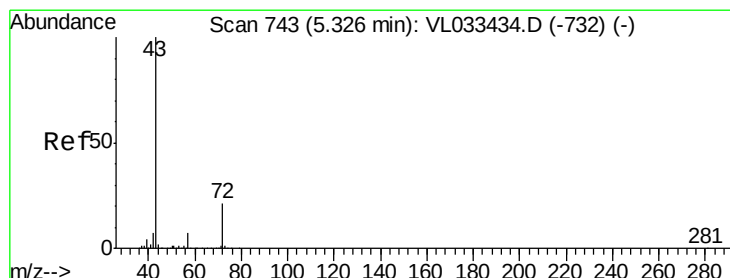
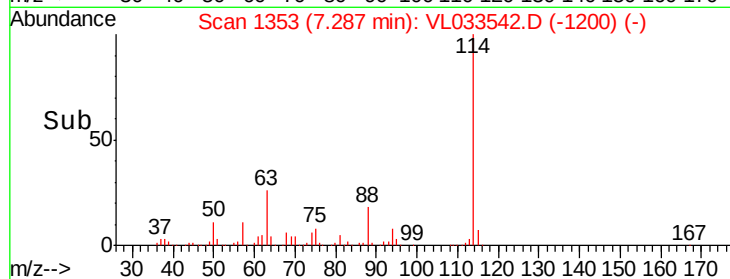
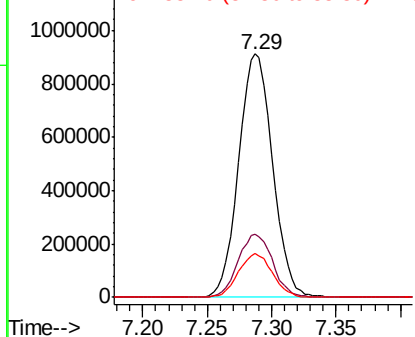
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Tgt Ion:114 Resp: 1673284
 Ion Ratio Lower Upper
 114 100
 63 26.5 21.5 32.3
 88 18.0 14.5 21.7

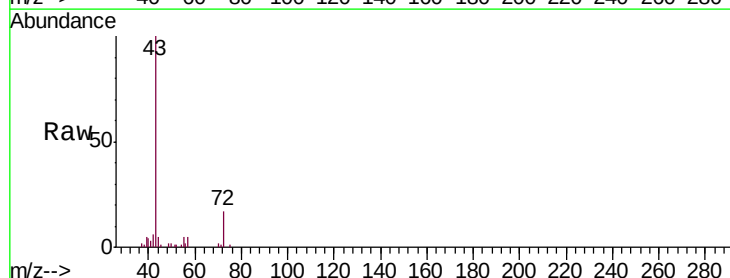


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

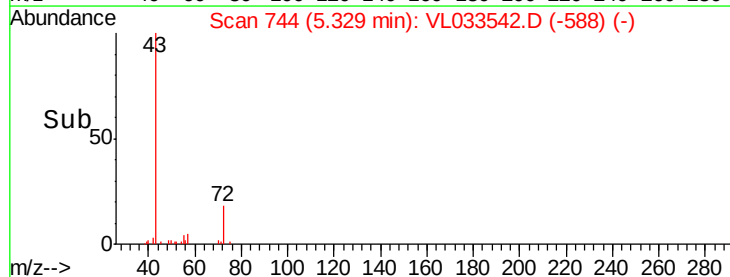
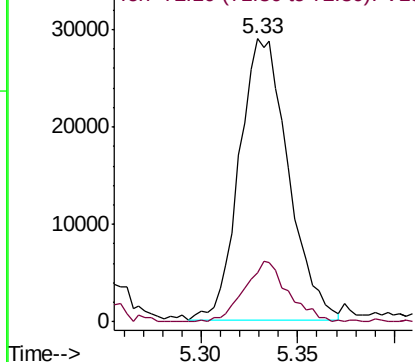


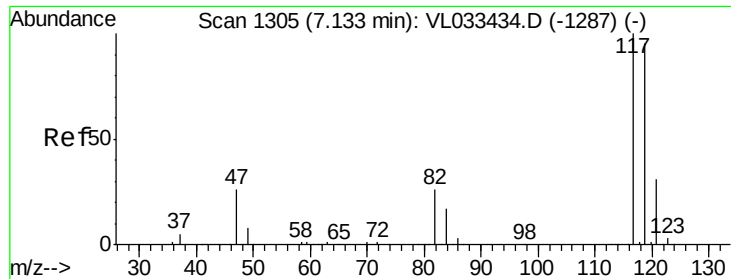
#34
 2-Butanone
 Concen: 0.506 ppbv
 RT: 5.33 min Scan# 744
 Delta R.T. 0.00 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Tgt Ion: 43 Resp: 50893
 Ion Ratio Lower Upper
 43 100
 72 19.7 17.4 26.2



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





#35

Carbon Tetrachloride

Concen: 0.041 ppbv

RT: 7.13 min Scan# 1303

Delta R.T. -0.01 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

Instrument :

MSVOA_L

ClientSampleId :

A-4

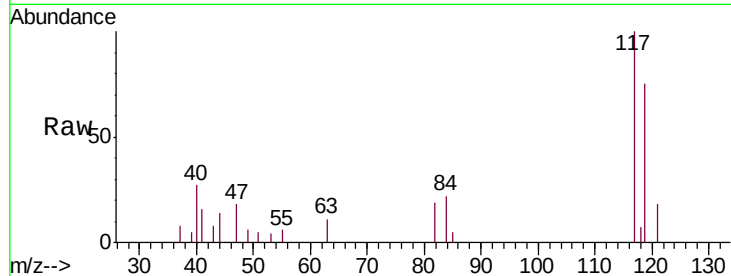
Tgt Ion: 117 Resp: 4829

Ion Ratio Lower Upper

117 100

119 75.4 75.8 113.8#

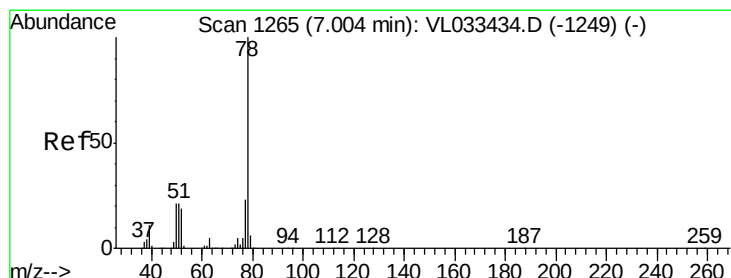
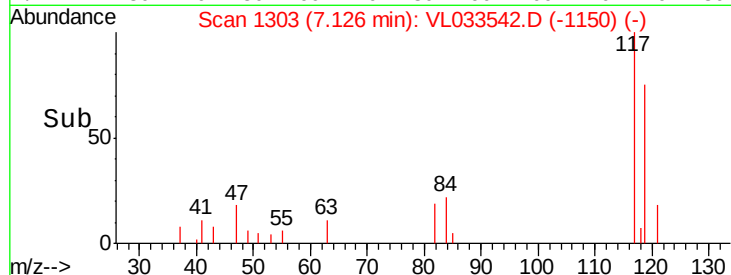
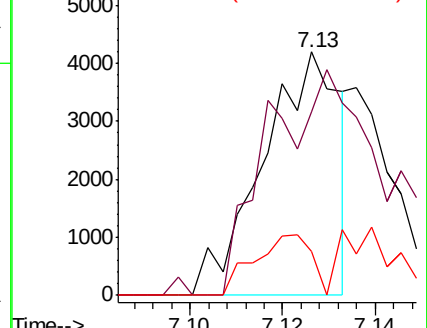
121 18.1 24.7 37.1#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.100 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.00 min

Lab File: VL033542.D

Acq: 4 Apr 2019 20:58

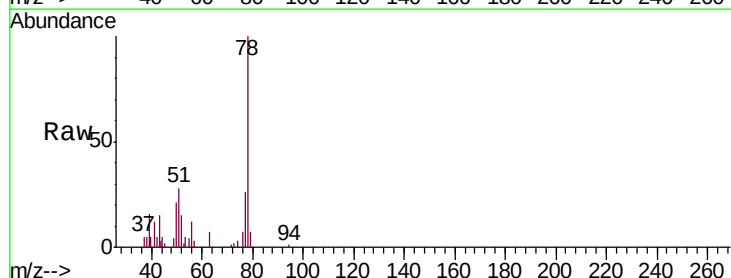
Tgt Ion: 78 Resp: 14076

Ion Ratio Lower Upper

78 100

77 20.9 18.1 27.1

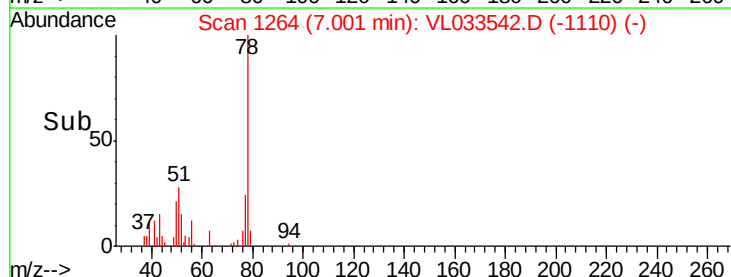
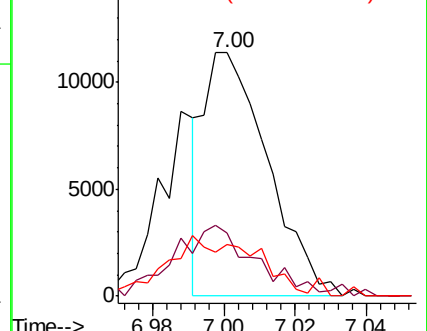
50 21.0 16.7 25.1

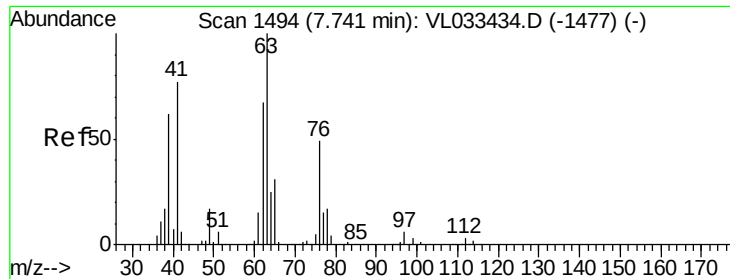


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

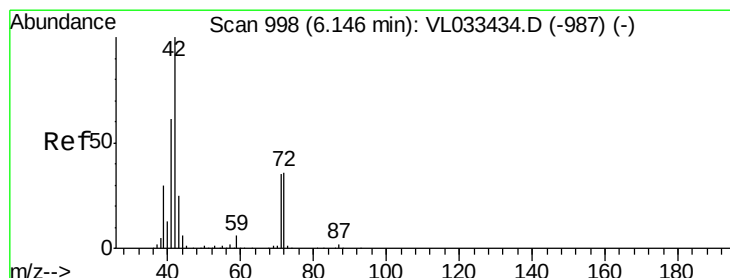
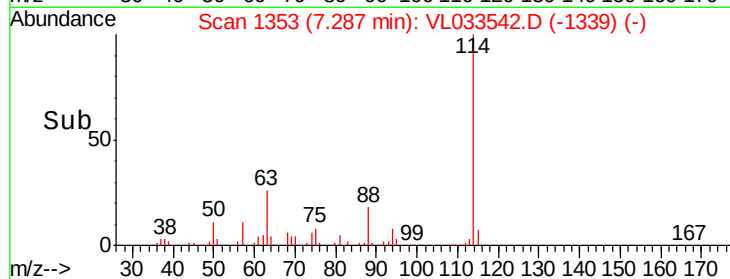
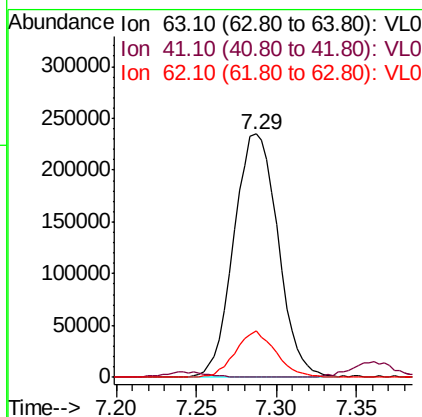
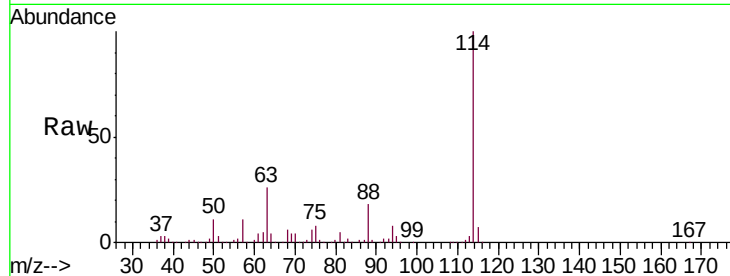




#39
 1,2-Dichloropropane
 Concen: 8.003 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.45 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

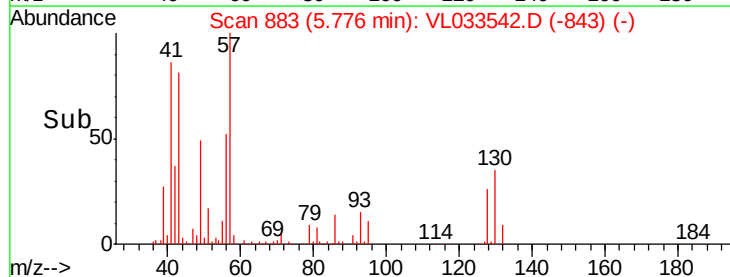
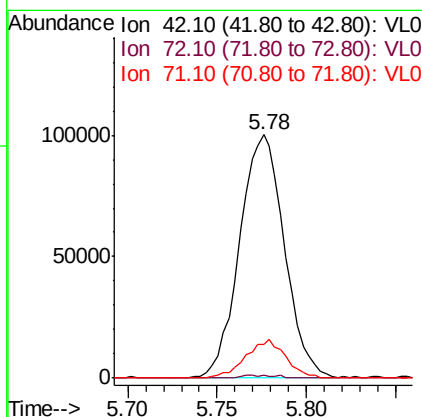
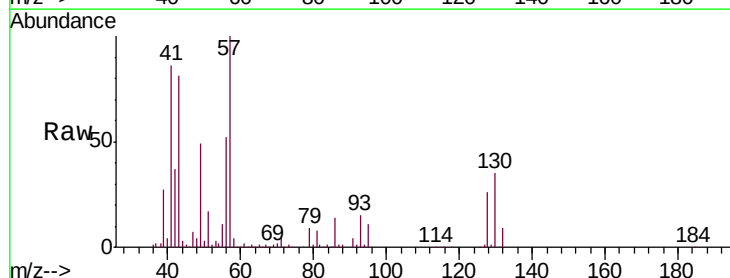
Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

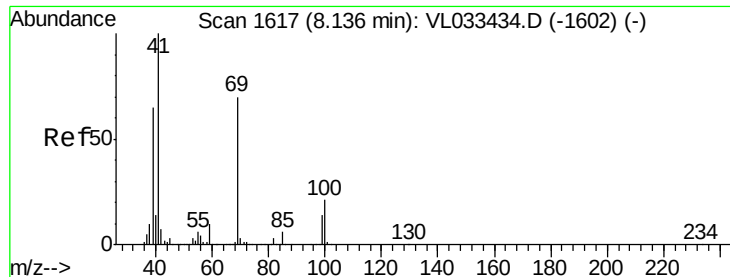
Tgt Ion: 63 Resp: 440131
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 19.2 54.0 81.0#



#41
 Tetrahydrofuran
 Concen: 3.176 ppbv
 RT: 5.78 min Scan# 883
 Delta R.T. -0.37 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Tgt Ion: 42 Resp: 175594
 Ion Ratio Lower Upper
 42 100
 72 1.0 30.2 45.2#
 71 14.1 29.4 44.2#

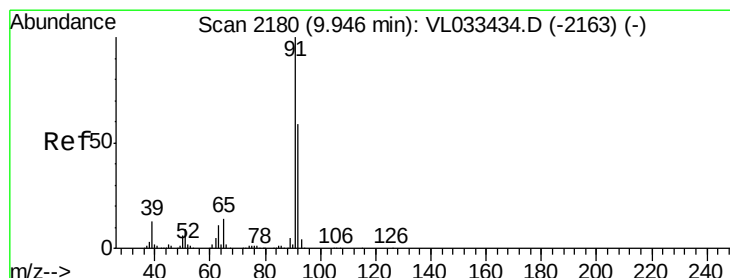
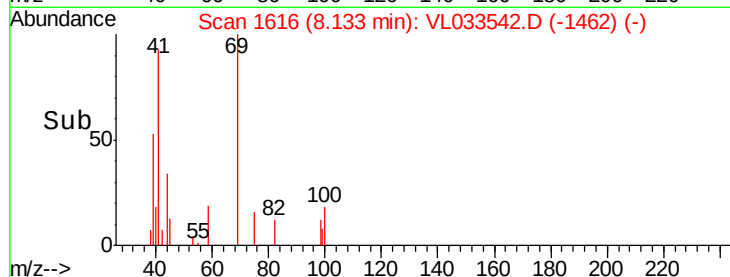
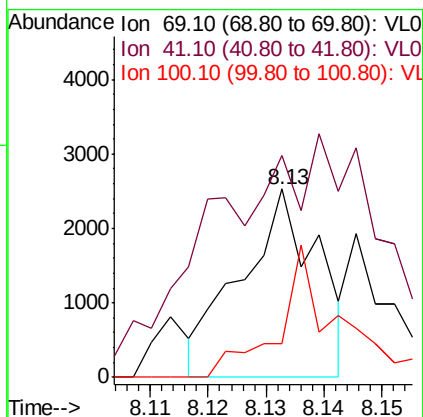
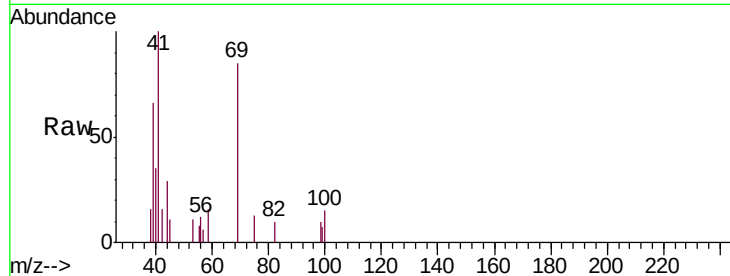




#43
Methyl Methacrylate
Concen: 0.041 ppbv
RT: 8.13 min Scan# 1616
Delta R.T. -0.00 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

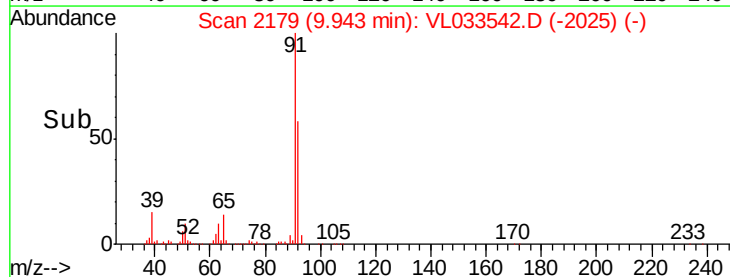
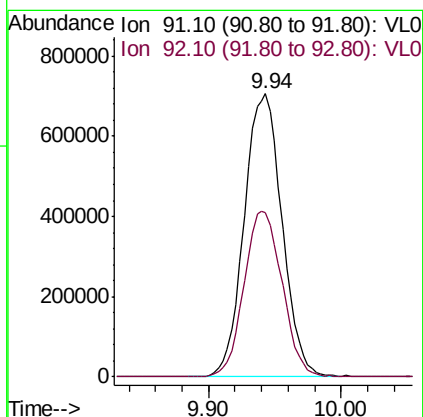
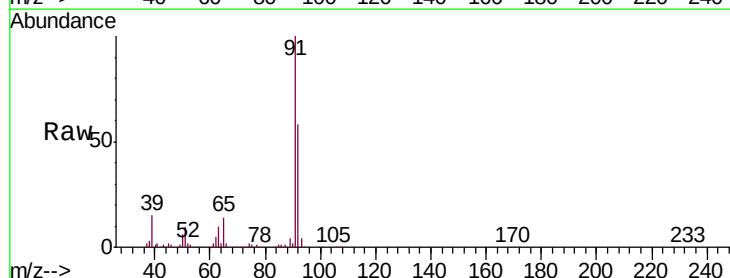
Instrument :
MSVOA_L
ClientSampleId :
A-4

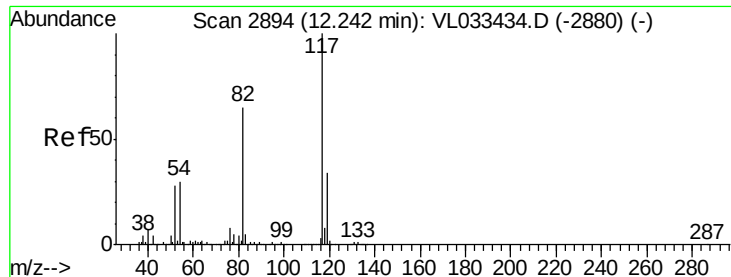
Tgt Ion: 69 Resp: 2334
Ion Ratio Lower Upper
69 100
41 360.5 116.6 174.8#
100 58.9 24.4 36.6#



#53
Toluene
Concen: 8.594 ppbv
RT: 9.94 min Scan# 2179
Delta R.T. -0.00 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

Tgt Ion: 91 Resp: 1402199
Ion Ratio Lower Upper
91 100
92 59.0 47.4 71.0

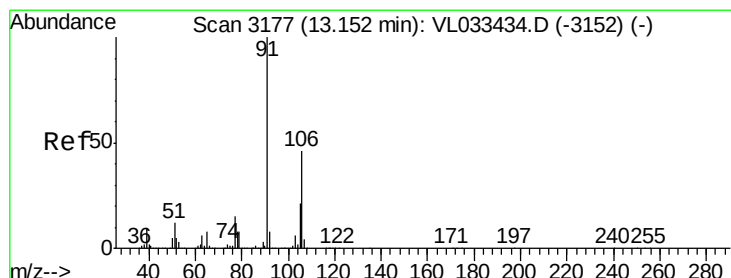
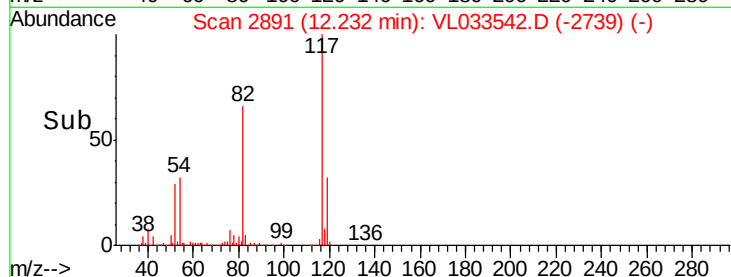
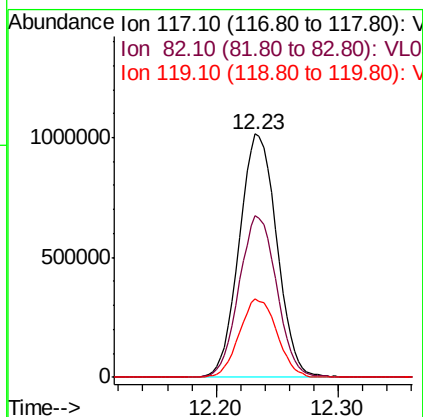
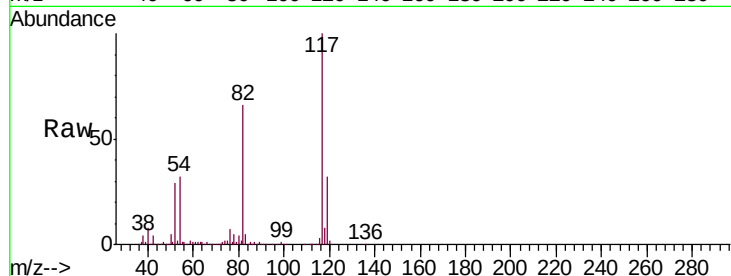




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

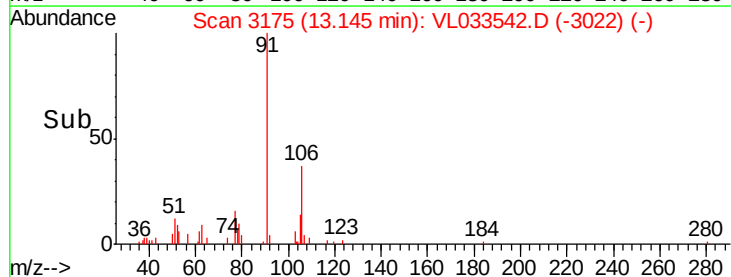
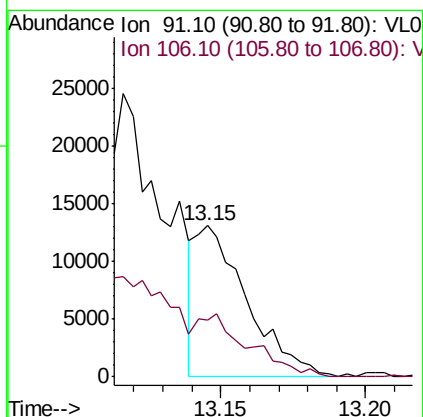
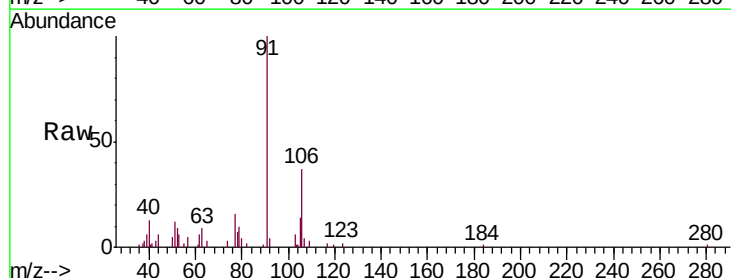
Instrument :
MSVOA_L
ClientSampled :
A-4

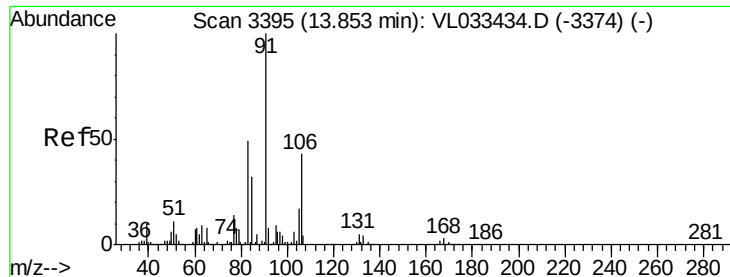
Tgt Ion:117 Resp: 2158170
Ion Ratio Lower Upper
117 100
82 66.8 51.5 77.3
119 32.4 25.5 38.3



#59
m/p-Xylene
Concen: 0.063 ppbv
RT: 13.15 min Scan# 3175
Delta R.T. -0.01 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

Tgt Ion: 91 Resp: 16155
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0

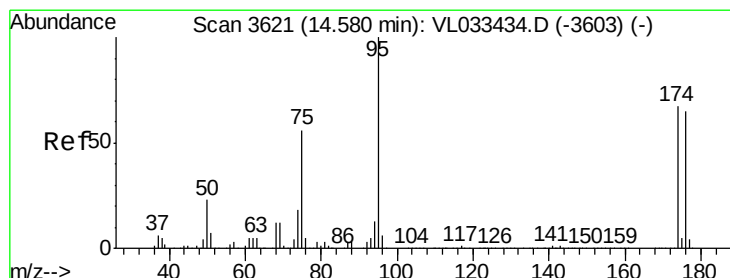
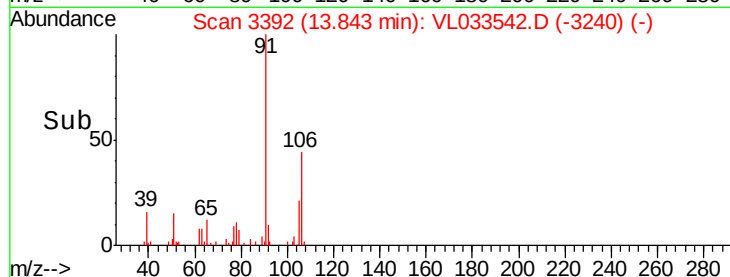
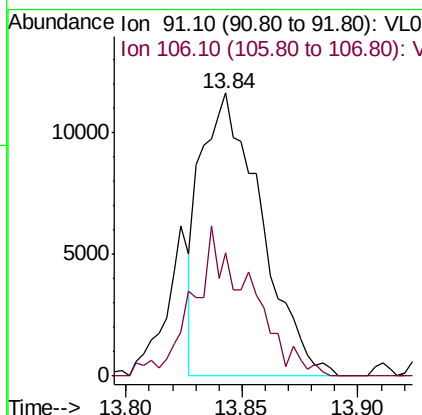
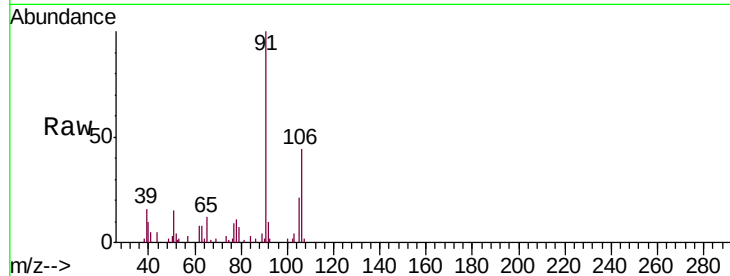




#60
o-Xylene
Concen: 0.084 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

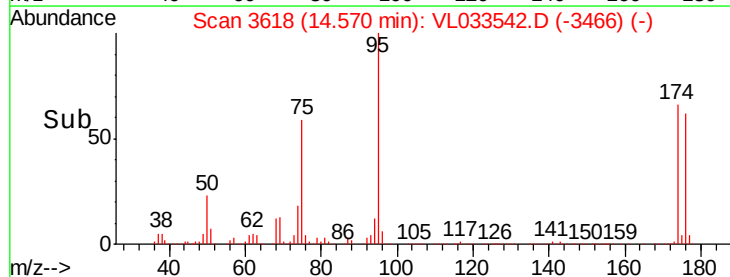
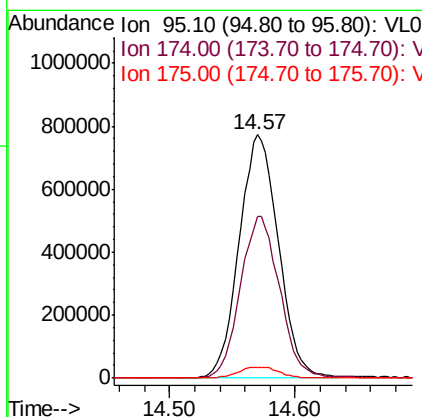
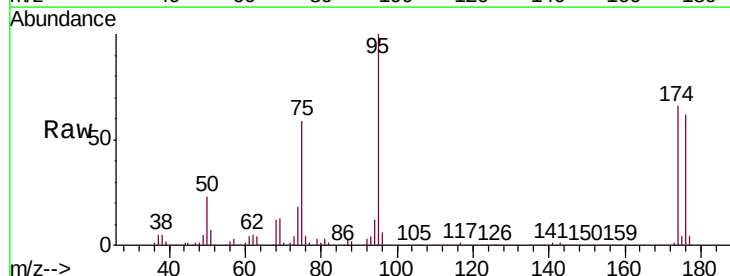
Instrument :
MSVOA_L
ClientSampleId :
A-4

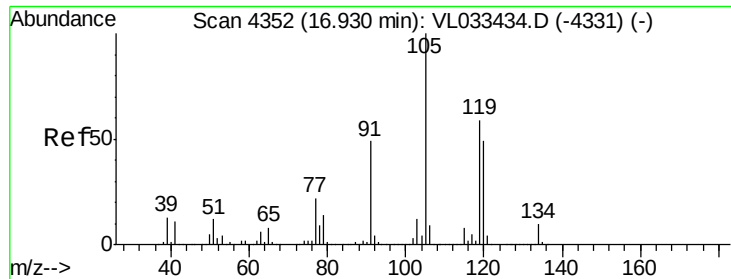
Tgt Ion: 91 Resp: 21006
Ion Ratio Lower Upper
91 100
106 50.7 21.4 64.3



#68
1-Bromo-4-Fluorobenzene
Concen: 9.943 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033542.D
Acq: 4 Apr 2019 20:58

Tgt Ion: 95 Resp: 1682321
Ion Ratio Lower Upper
95 100
174 66.9 52.9 79.3
175 4.8 3.8 5.6

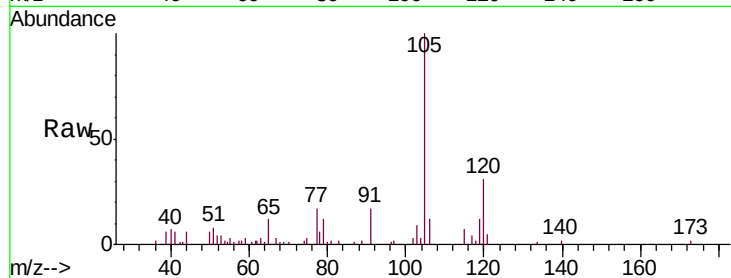




#74
 1,2,4-Trimethylbenzene
 Concen: 0.121 ppbv
 RT: 16.93 min Scan# 4351
 Delta R.T. -0.00 min
 Lab File: VL033542.D
 Acq: 4 Apr 2019 20:58

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Tgt Ion:	105	Resp:	34839
Ion	Ratio	Lower	Upper
105	100		
120	35.2	39.0	58.6#
91	17.6	40.0	60.0#
77	13.7	17.5	26.3#



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

