

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF012419\
 Data File : VF061496.D
 Acq On : 24 Jan 2019 13:15
 Operator : VA/AP
 Sample : K1216-01RE
 Misc : 5.03g/5mL/MSVOA-F/SOIL
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 MULCH-1RE

Quant Time: Jan 25 04:08:00 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F011519S.M
 Quant Title : SW846 8260
 QLast Update : Wed Jan 16 04:51:59 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.91	168	134849	50.00	ug/l	0.05
34) 1,4-Difluorobenzene	5.64	114	205404	50.00	ug/l	0.05
63) Chlorobenzene-d5	9.81	117	107900	50.00	ug/l	0.05
72) 1,4-Dichlorobenzene-d4	12.58	152	25921	50.00	ug/l	0.04

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	4.88	65	66339	39.85	ug/l	0.05
Spiked Amount			Recovery	=	79.70%	
35) Dibromofluoromethane	4.15	113	74498	45.96	ug/l	0.05
Spiked Amount			Recovery	=	91.92%	
50) Toluene-d8	7.59	98	135453	30.50	ug/l	0.05
Spiked Amount			Recovery	=	61.00%	
62) 4-Bromofluorobenzene	11.44	95	29530	14.23	ug/l	0.04
Spiked Amount			Recovery	=	28.46%	

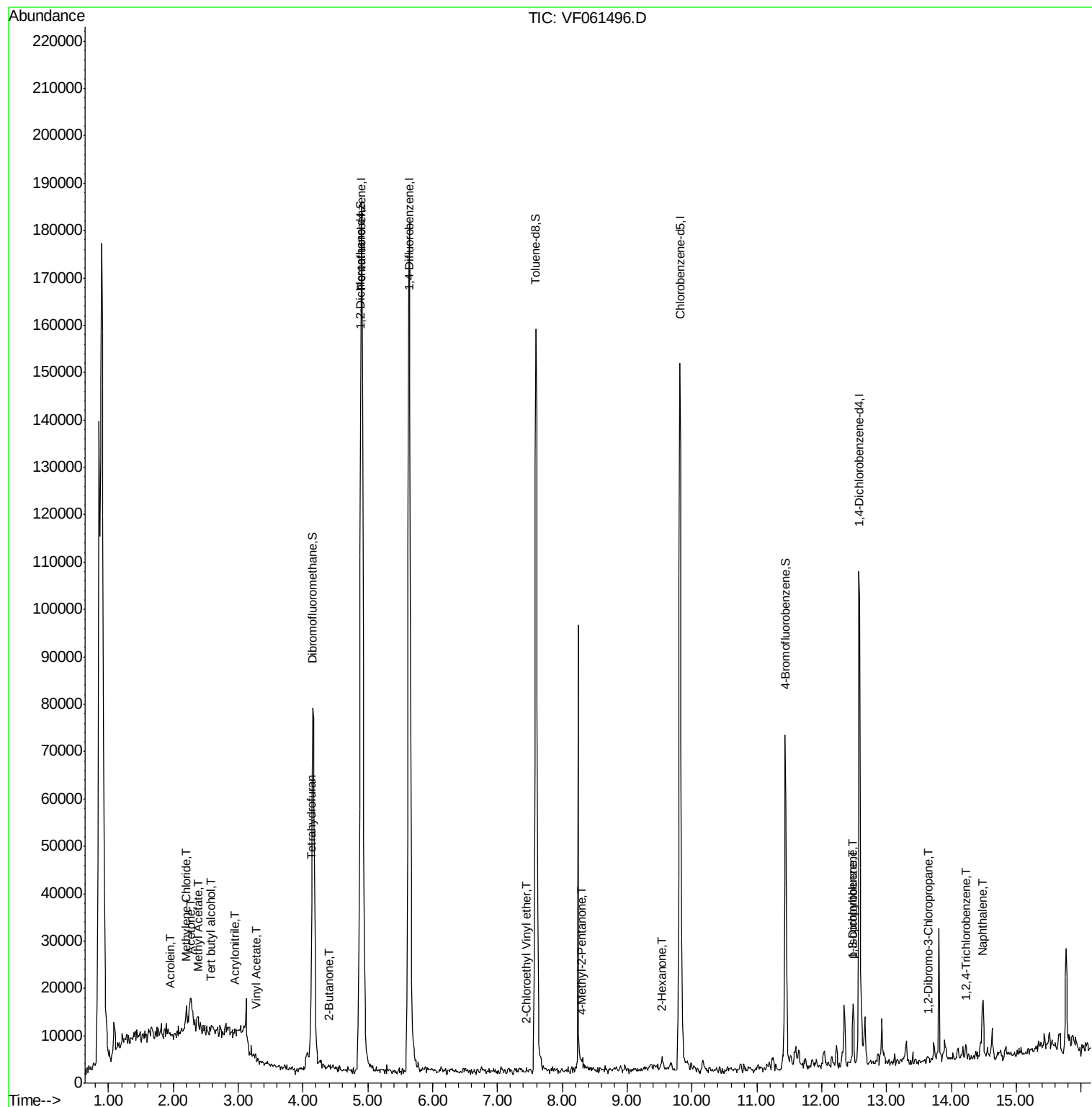
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	2.58	59	198	2.810	ug/l #	1
13) Acrolein	1.95	56	552	19.055	ug/l	89
14) Allyl chloride	2.11	41	484	Below Cal	#	48
15) Acrylonitrile	2.96	53	615	3.407	ug/l #	59
16) Acetone	2.26	43	7085	21.213	ug/l #	86
18) Methyl Acetate	2.38	43	5489	8.287	ug/l #	77
20) Methylene Chloride	2.21	84	3097	1.010	ug/l #	75
23) Vinyl Acetate	3.26	43	458	3.435	ug/l #	78
25) 2-Butanone	4.39	43	1576	2.837	ug/l #	53
29) Tetrahydrofuran	4.12	42	682	2.852	ug/l #	75
49) 1,4-Dioxane	6.71	88	63	Below Cal	#	34
51) 4-Methyl-2-Pentanone	8.29	43	2116	2.409	ug/l	92
58) 2-Chloroethyl Vinyl ether	7.45	63	121	28.408	ug/l #	47
59) 2-Hexanone	9.54	43	2780	4.539	ug/l	77
86) p-Isopropyltoluene	12.48	119	6308	3.213	ug/l	92
87) 1,3-Dichlorobenzene	12.49	146	671	1.079	ug/l	81
92) 1,2-Dibromo-3-Chloropropan	13.66	75	71	1.066	ug/l #	1
93) 1,2,4-Trichlorobenzene	14.22	180	630	1.080	ug/l #	75
95) Naphthalene	14.48	128	6481	5.847	ug/l #	95

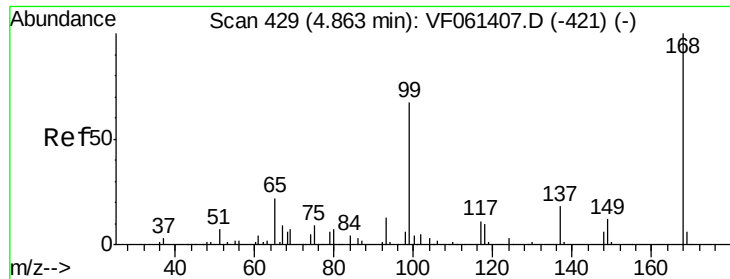
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.91 min Scan# 434

Delta R.T. 0.05 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

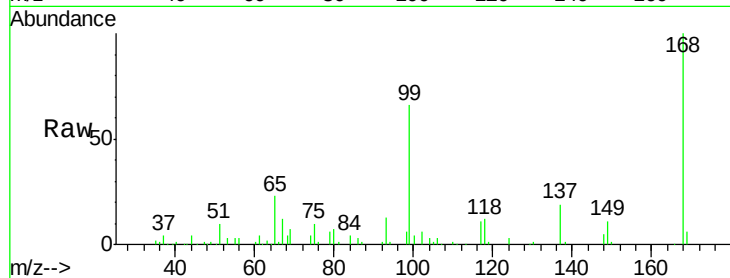
MULCH-1RE

Tot Ion:168 Resp: 134849

Ion Ratio Lower Upper

168 100

99 66.5 53.5 80.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.91

50000

40000

30000

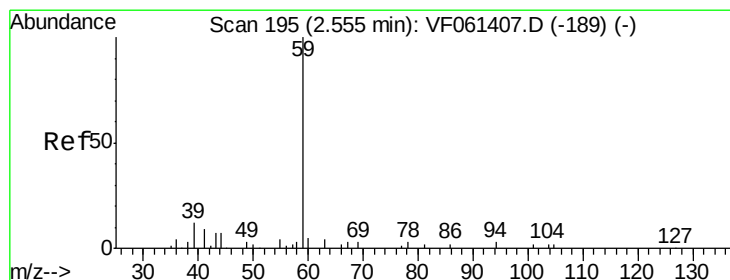
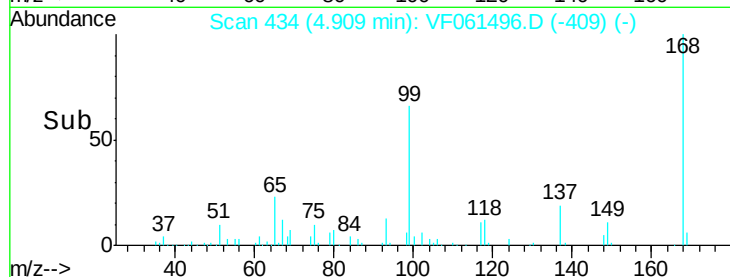
20000

10000

0

Time-->

4.80 4.90 5.00



#11

Tert butyl alcohol

Concen: 2.810 ug/l

RT: 2.58 min Scan# 198

Delta R.T. 0.03 min

Lab File: VF061496.D

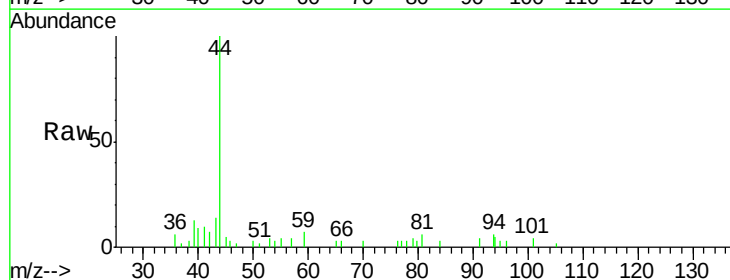
Acq: 24 Jan 2019 13:15

Tgt Ion: 59 Resp: 198

Ion Ratio Lower Upper

59 100

57 57.8 11.9 17.9#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.58

400

300

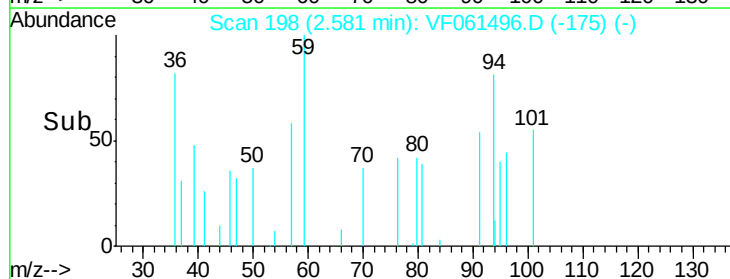
200

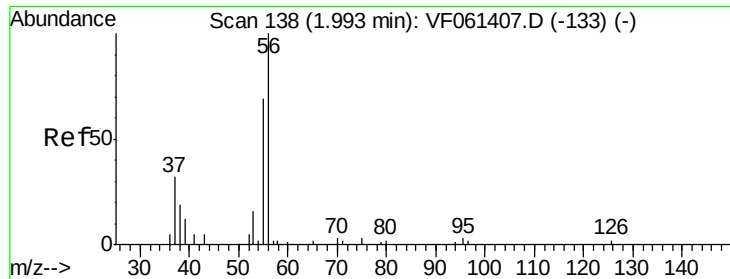
100

0

Time-->

2.56 2.58 2.60





#13

Acrolein

Concen: 19.055 ug/l

RT: 1.95 min Scan# 134

Delta R.T. -0.04 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampled :

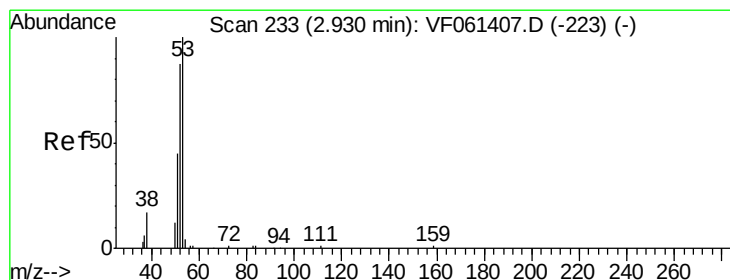
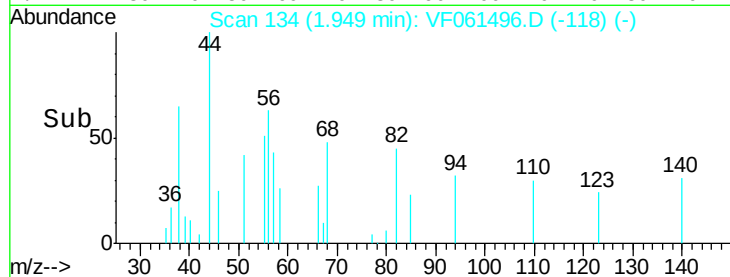
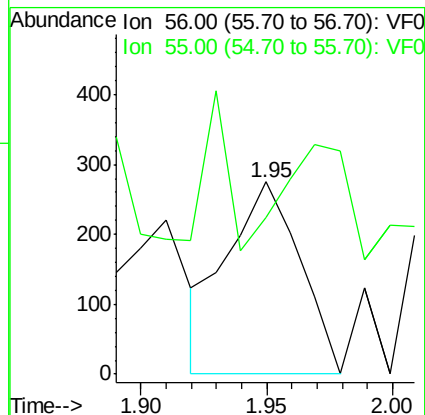
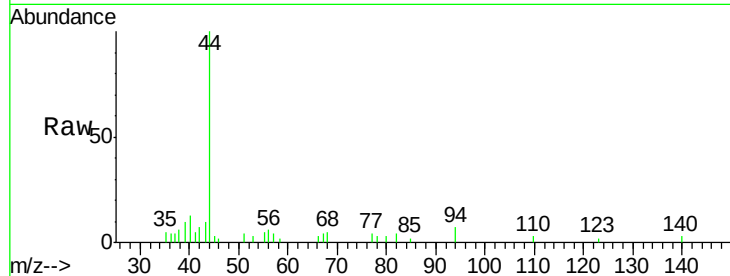
MULCH-1RE

Tot Ion: 56 Resp: 552

Ion Ratio Lower Upper

56 100

55 81.5 57.5 86.3



#15

Acrylonitrile

Concen: 3.407 ug/l

RT: 2.96 min Scan# 236

Delta R.T. 0.03 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

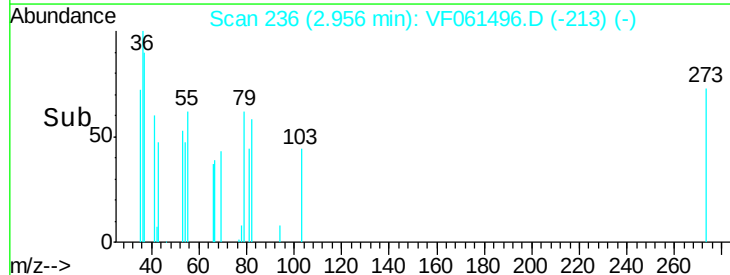
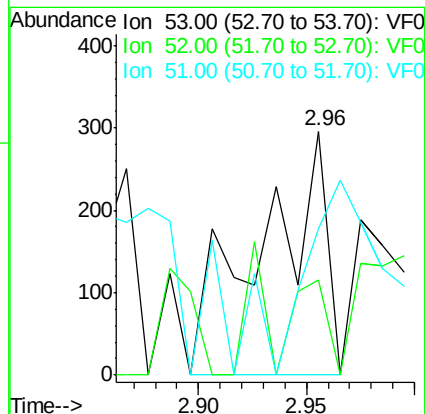
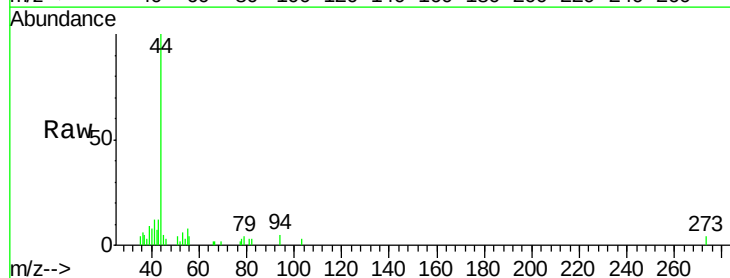
Tgt Ion: 53 Resp: 615

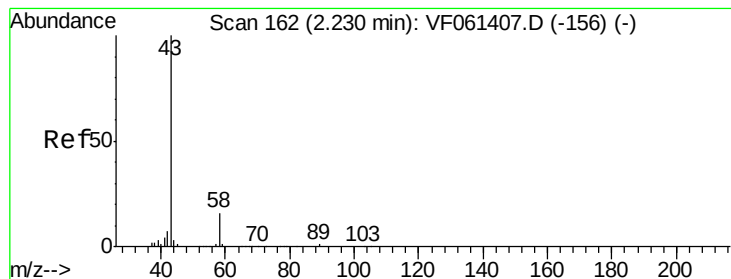
Ion Ratio Lower Upper

53 100

52 38.9 69.6 104.4#

51 59.8 36.8 55.2#





#16

Acetone

Concen: 21.213 ug/l

RT: 2.26 min Scan# 165

Delta R.T. 0.03 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

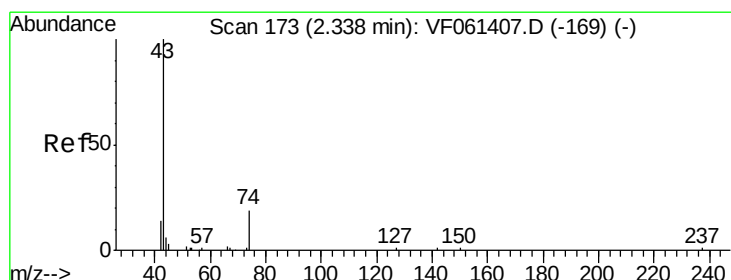
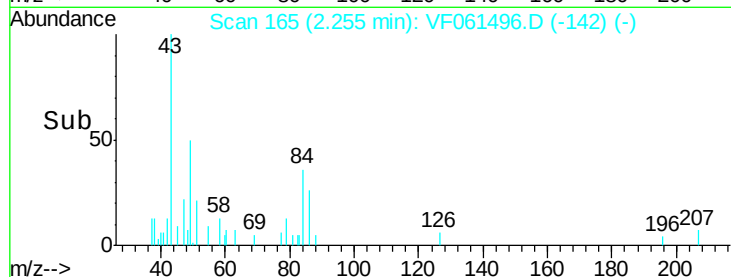
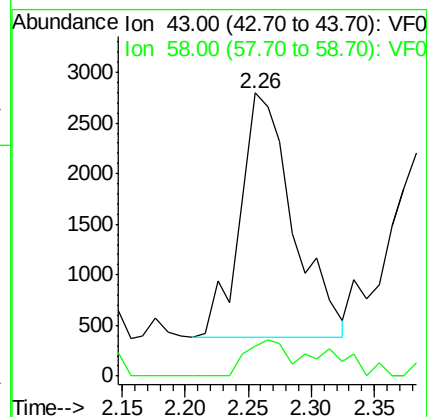
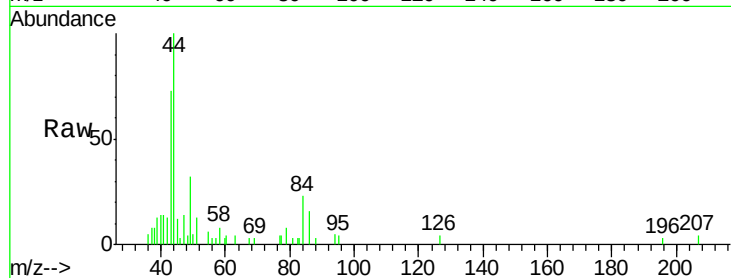
MULCH-1RE

Tot Ion: 43 Resp: 7085

Ion Ratio Lower Upper

43 100

58 10.8 13.3 19.9#



#18

Methyl Acetate

Concen: 8.287 ug/l

RT: 2.38 min Scan# 178

Delta R.T. 0.05 min

Lab File: VF061496.D

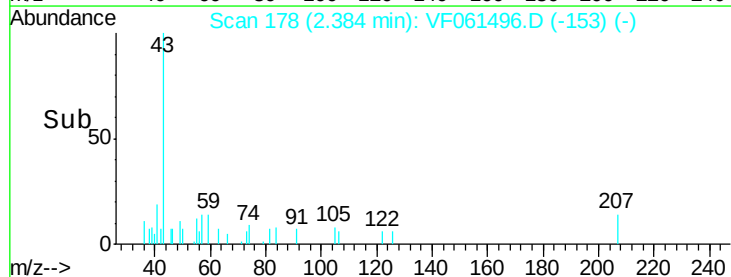
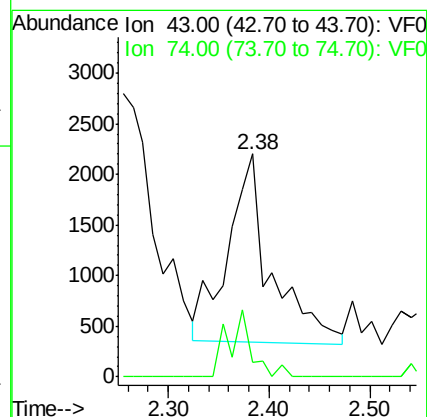
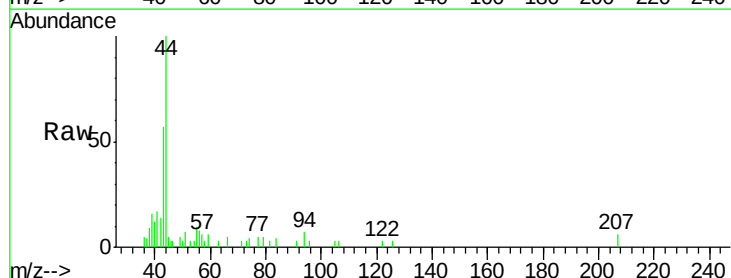
Acq: 24 Jan 2019 13:15

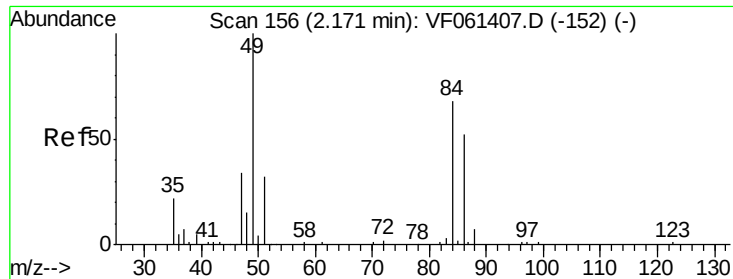
Tgt Ion: 43 Resp: 5489

Ion Ratio Lower Upper

43 100

74 6.7 13.4 20.0#

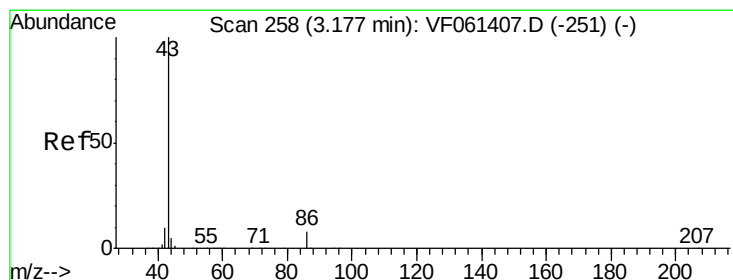
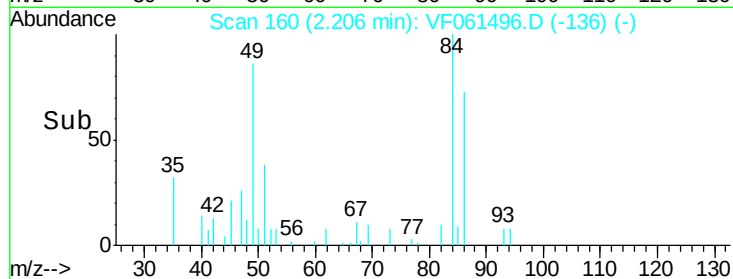
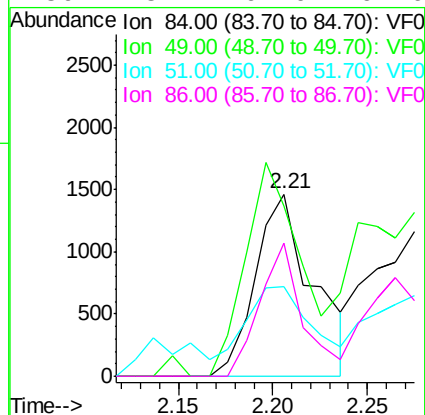
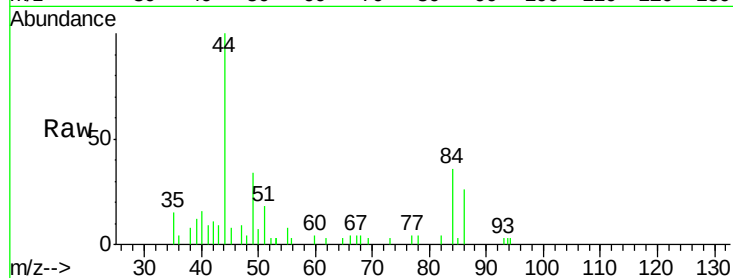




#20
Methvlene Chloride
Concen: 1.010 ug/l
RT: 2.21 min Scan# 160
Delta R.T. 0.04 min
Lab File: VF061496.D
Acq: 24 Jan 2019 13:15

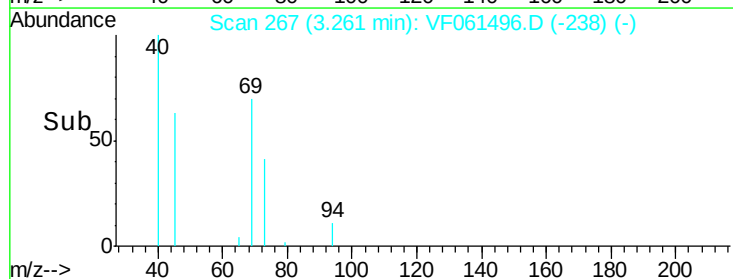
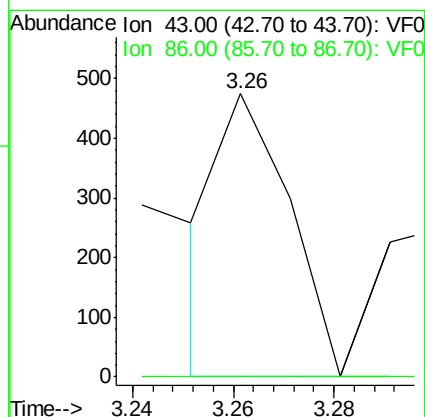
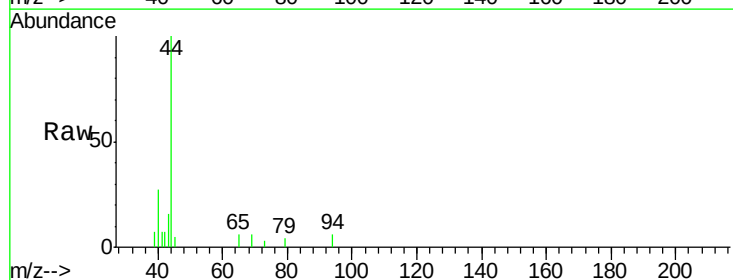
Instrument :
MSVOA_F
ClientSampleId :
MULCH-1RE

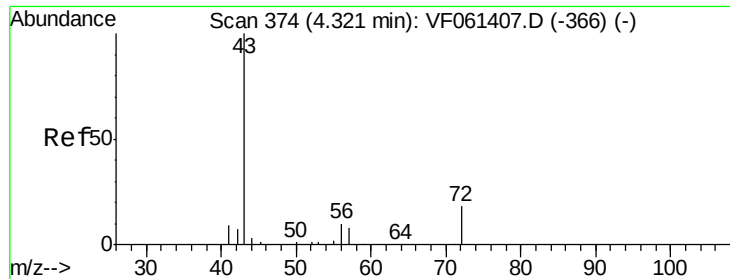
Tot Ion: 84 Resp: 3097
Ion Ratio Lower Upper
84 100
49 93.5 120.0 180.0#
51 48.8 38.6 58.0
86 73.2 61.0 91.6



#23
Vinyl Acetate
Concen: 3.435 ug/l
RT: 3.26 min Scan# 267
Delta R.T. 0.09 min
Lab File: VF061496.D
Acq: 24 Jan 2019 13:15

Tgt Ion: 43 Resp: 458
Ion Ratio Lower Upper
43 100
86 0.0 6.2 9.4#





#25

2-Butanone

Concen: 2.837 ug/l

RT: 4.39 min Scan# 381

Delta R.T. 0.07 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampled :

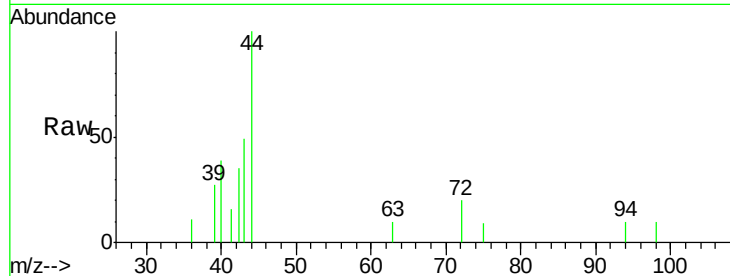
MULCH-1RE

Tot Ion: 43 Resp: 1576

Ion Ratio Lower Upper

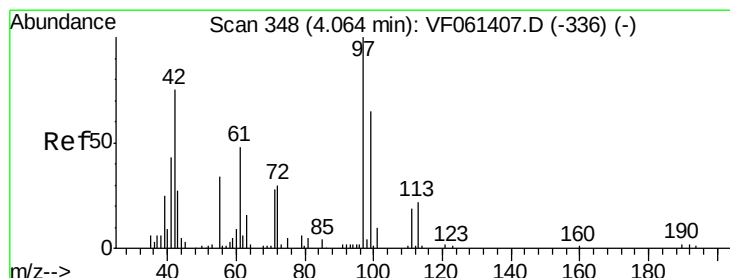
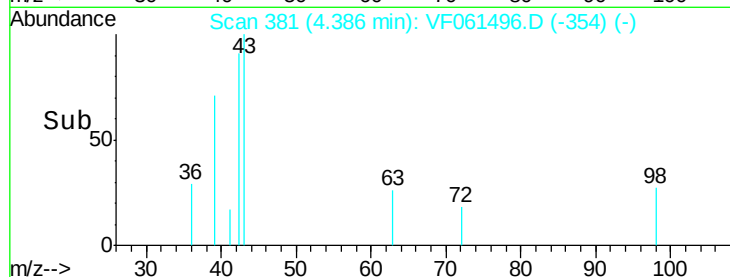
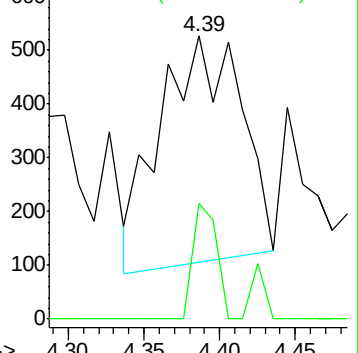
43 100

72 41.0 15.8 23.6#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0



#29

Tetrahydrofuran

Concen: 2.852 ug/l

RT: 4.12 min Scan# 354

Delta R.T. 0.06 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

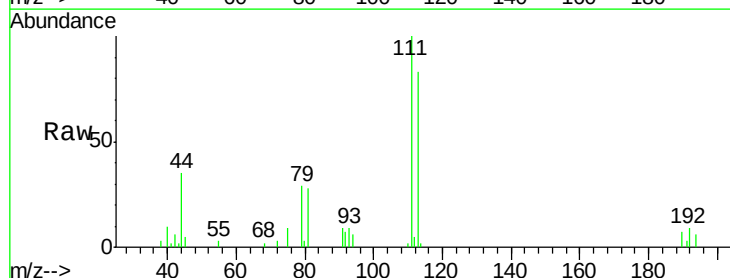
Tgt Ion: 42 Resp: 682

Ion Ratio Lower Upper

42 100

72 12.2 28.9 43.3#

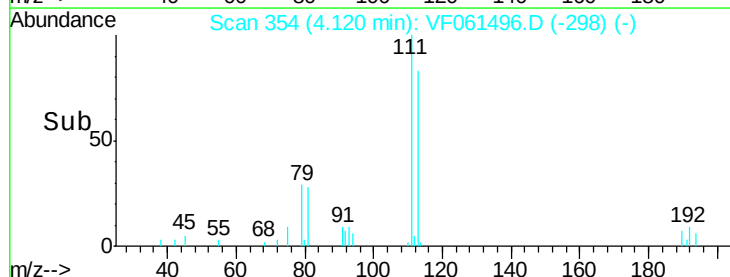
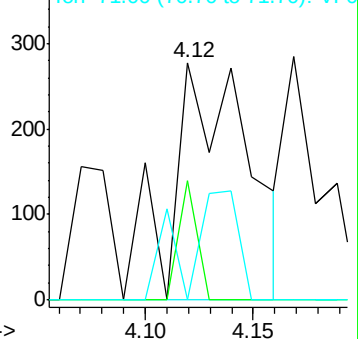
71 31.2 29.6 44.4

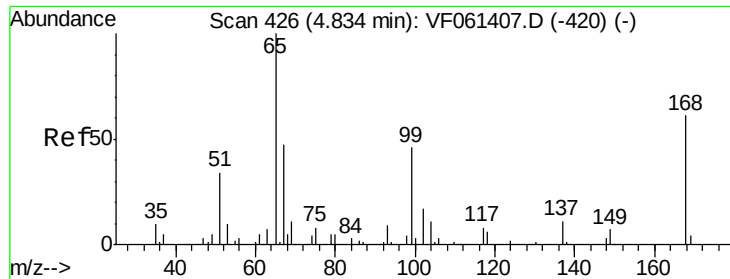


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

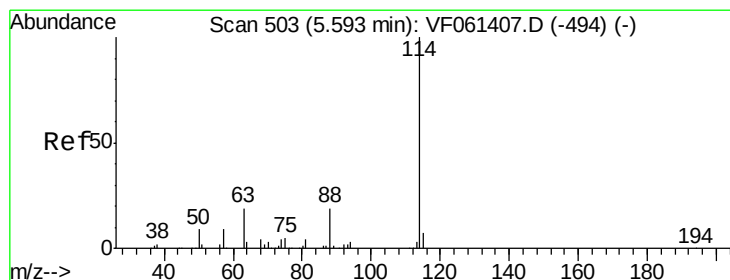
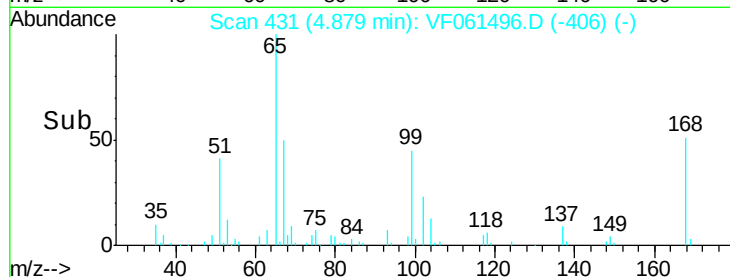
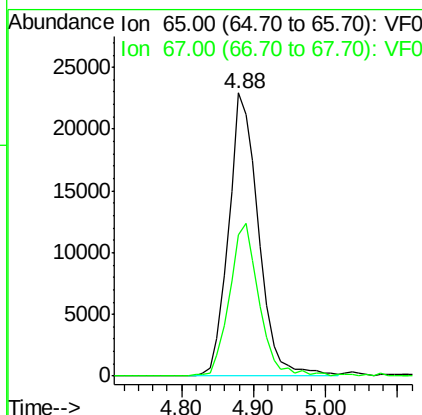
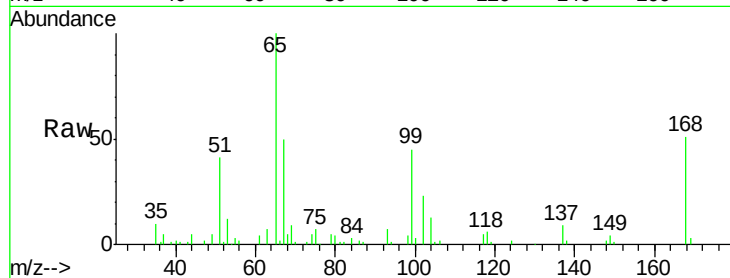




#33
 1,2-Dichloroethane-d4
 Concen: 39.846 ug/l
 RT: 4.88 min Scan# 431
 Delta R.T. 0.05 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

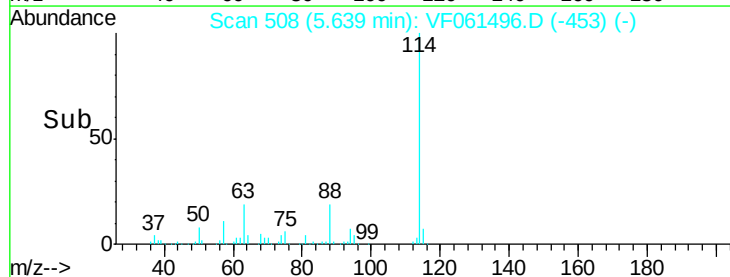
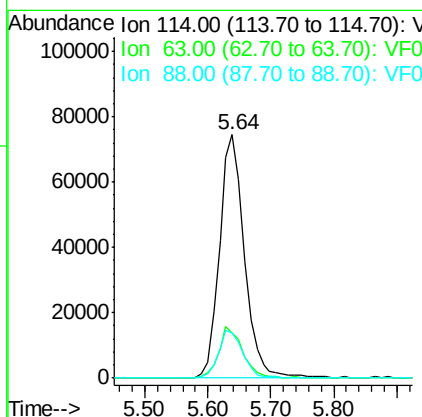
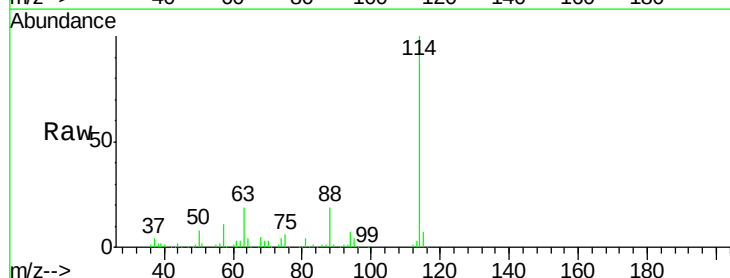
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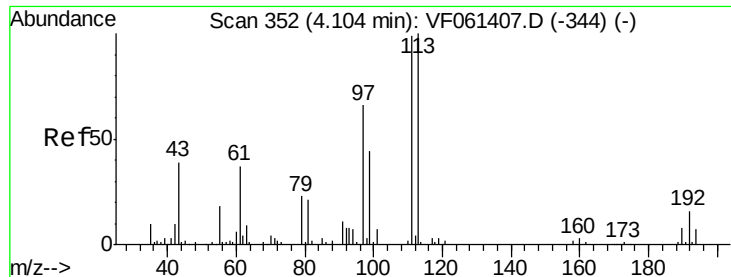
Tot Ion: 65 Resp: 66339
 Ion Ratio Lower Upper
 65 100
 67 49.7 0.0 99.8



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 5.64 min Scan# 508
 Delta R.T. 0.05 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

Tgt Ion: 114 Resp: 205404
 Ion Ratio Lower Upper
 114 100
 63 18.6 0.0 39.0
 88 18.6 0.0 37.4

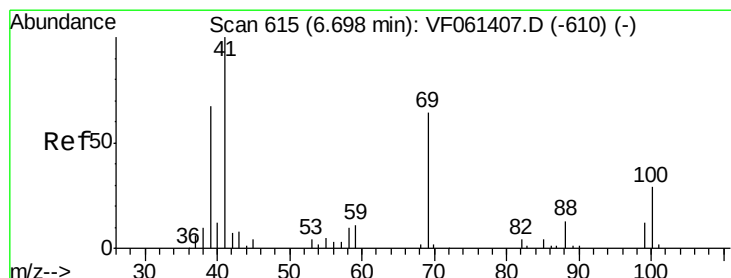
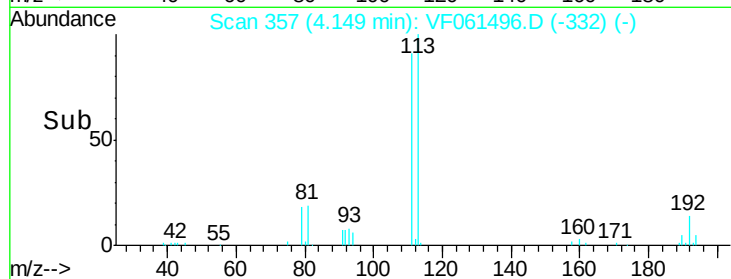
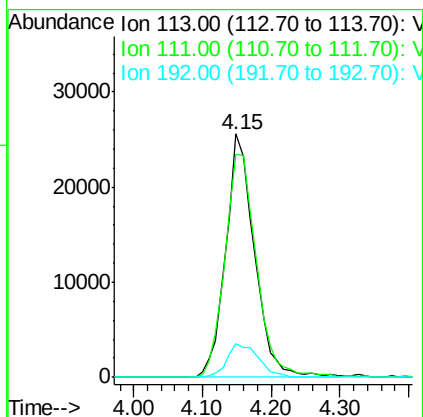
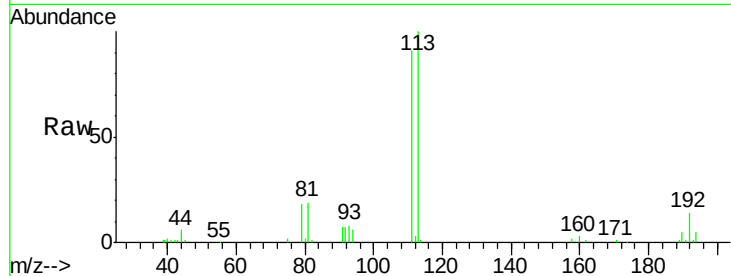




#35
 Dibromofluoromethane
 Concen: 45.963 ug/l
 RT: 4.15 min Scan# 357
 Delta R.T. 0.05 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

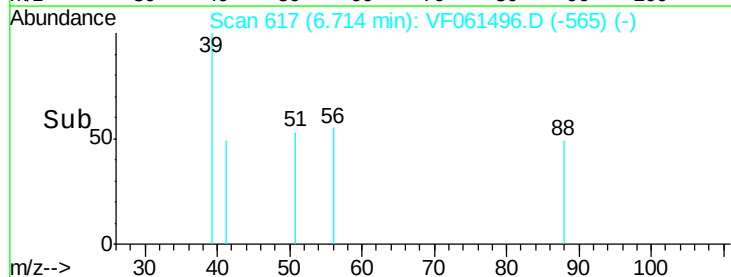
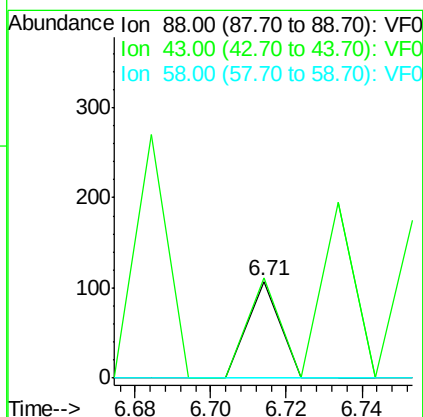
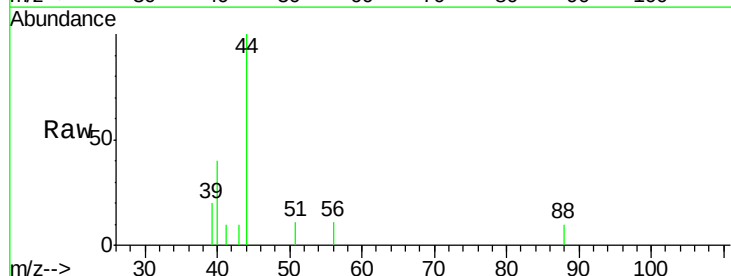
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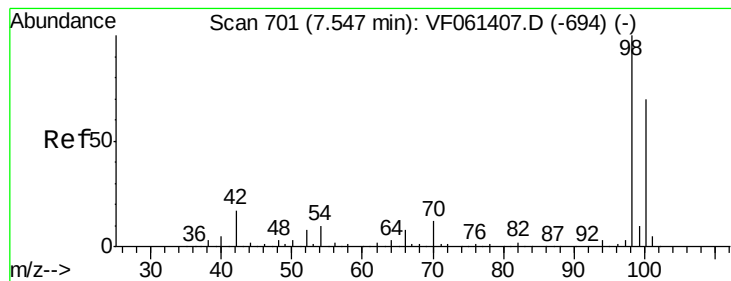
Tot Ion:113 Resp: 74498
 Ion Ratio Lower Upper
 113 100
 111 91.4 79.4 119.0
 192 13.9 12.4 18.6



#49
 1,4-Dioxane
 Concen: Below Cal
 RT: 6.71 min Scan# 617
 Delta R.T. 0.02 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

Tgt Ion: 88 Resp: 63
 Ion Ratio Lower Upper
 88 100
 43 103.7 55.5 83.3#
 58 0.0 59.9 89.9#





#50

Toluene-d8

Concen: 30.502 ug/l

RT: 7.59 min Scan# 706

Delta R.T. 0.05 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

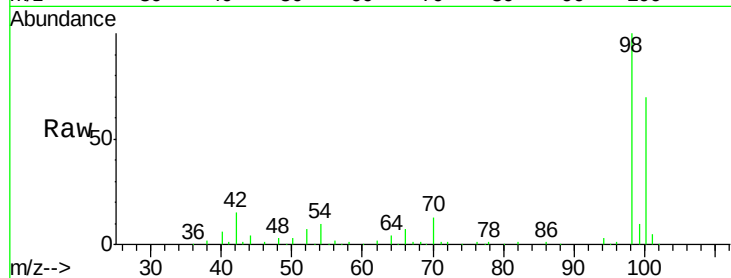
MULCH-1RE

Tot Ion: 98 Resp: 135453

Ion Ratio Lower Upper

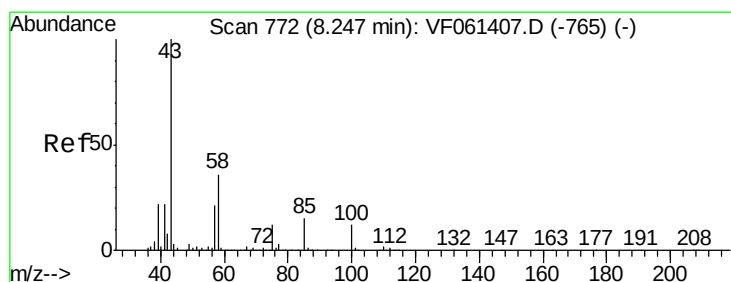
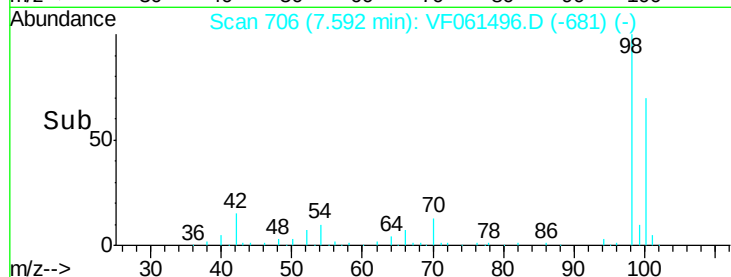
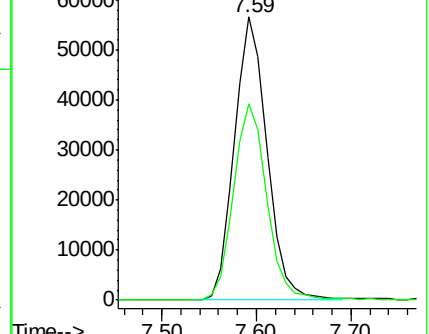
98 100

100 69.5 55.6 83.4



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0



#51

4-Methyl-2-Pentanone

Concen: 2.409 ug/l

RT: 8.29 min Scan# 777

Delta R.T. 0.05 min

Lab File: VF061496.D

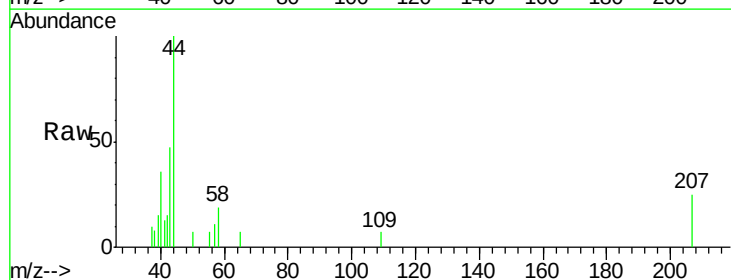
Acq: 24 Jan 2019 13:15

Tgt Ion: 43 Resp: 2116

Ion Ratio Lower Upper

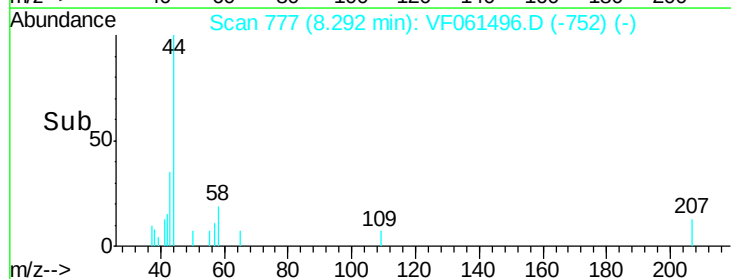
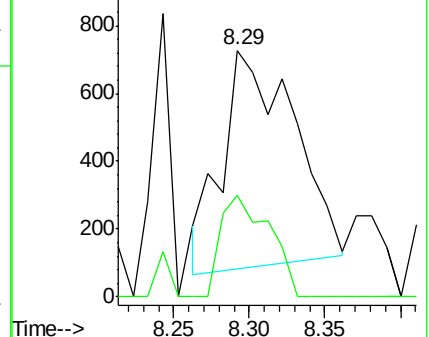
43 100

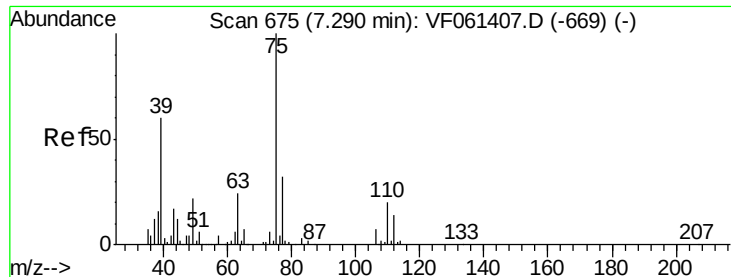
58 41.0 28.8 43.2



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#58

2-Chloroethyl Vinyl ether

Concen: 28.408 ug/l

RT: 7.45 min Scan# 692

Delta R.T. 0.16 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

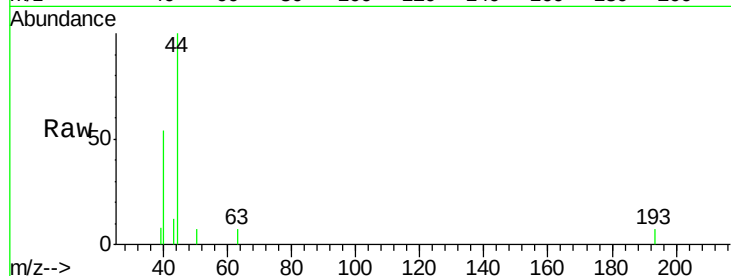
MULCH-1RE

Tot Ion: 63 Resp: 121

Ion Ratio Lower Upper

63 100

106 0.0 21.9 32.9#



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 106.00 (105.70 to 106.70): V

7.45

100

80

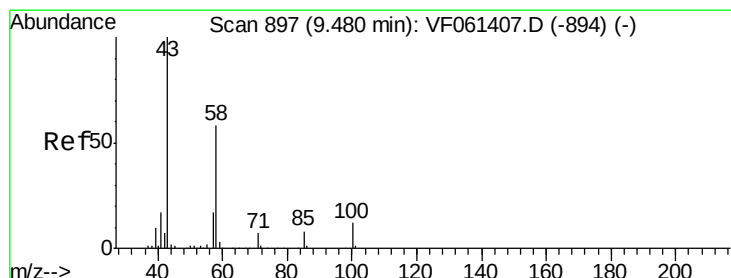
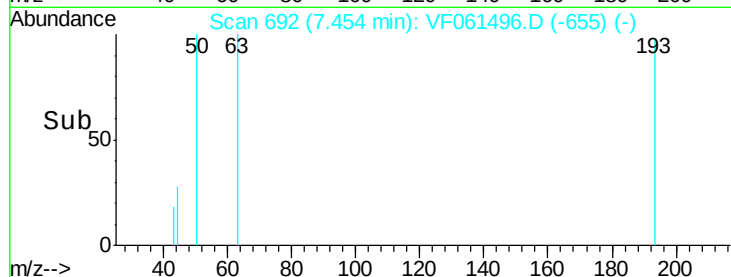
60

40

20

0

Time--> 7.40 7.42 7.44 7.46 7.48



#59

2-Hexanone

Concen: 4.539 ug/l

RT: 9.54 min Scan# 903

Delta R.T. 0.06 min

Lab File: VF061496.D

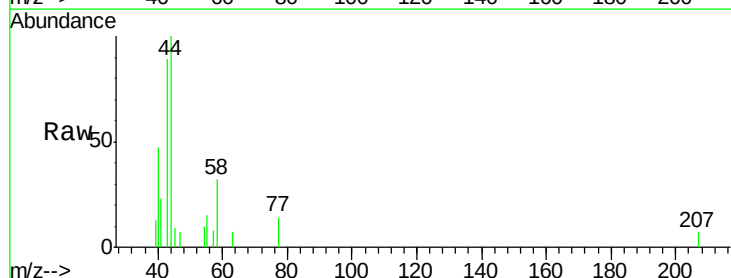
Acq: 24 Jan 2019 13:15

Tgt Ion: 43 Resp: 2780

Ion Ratio Lower Upper

43 100

58 35.6 25.9 77.6



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

9.54

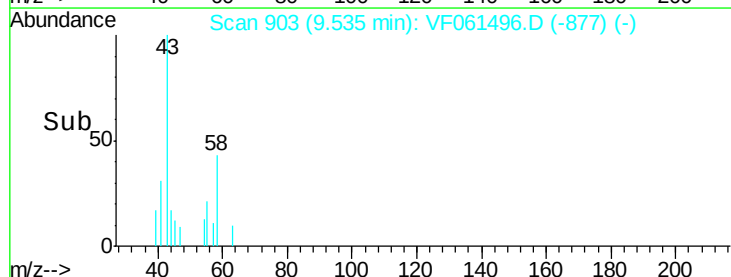
1500

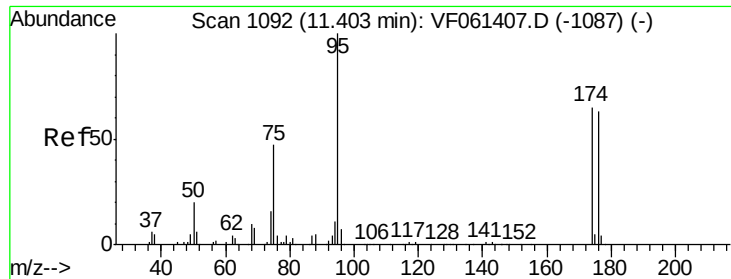
1000

500

0

Time--> 9.50 9.55 9.60





#62

4-Bromofluorobenzene

Concen: 14.232 ug/l

RT: 11.44 min Scan# 1096

Delta R.T. 0.04 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

MULCH-1RE

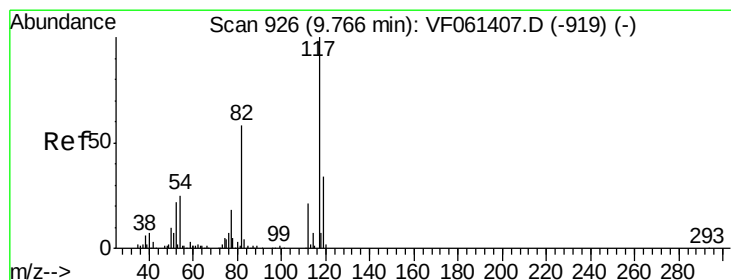
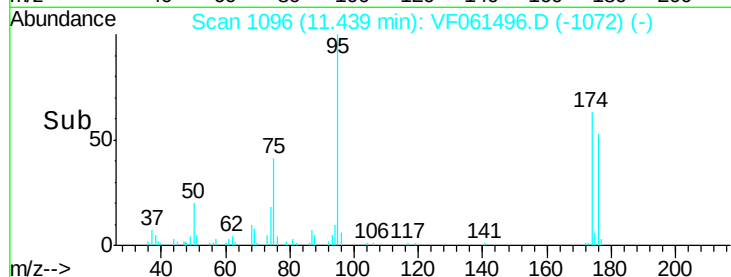
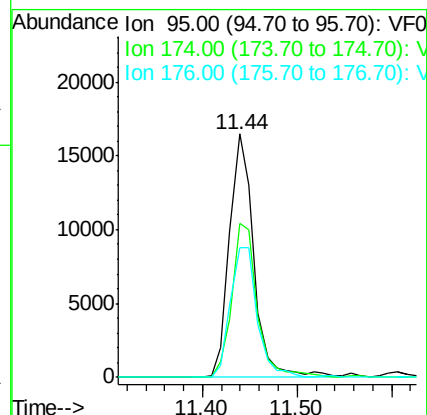
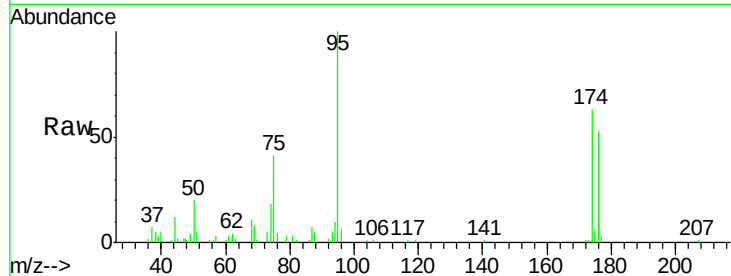
Tot Ion: 95 Resp: 29530

Ion Ratio Lower Upper

95 100

174 63.4 0.0 130.4

176 53.2 0.0 126.2



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.81 min Scan# 931

Delta R.T. 0.05 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

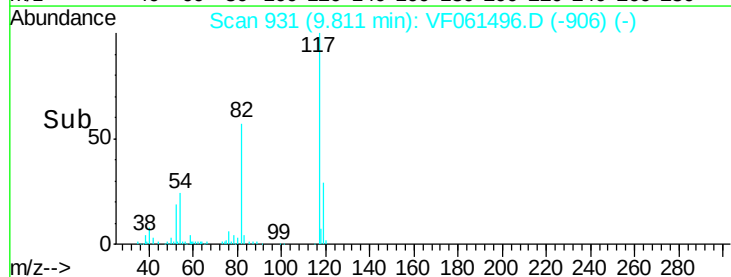
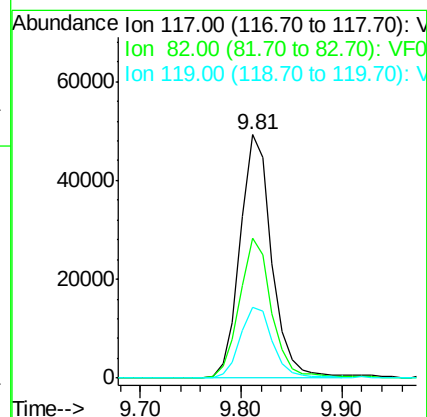
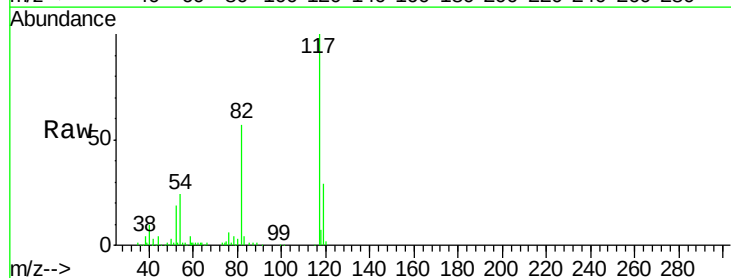
Tgt Ion: 117 Resp: 107900

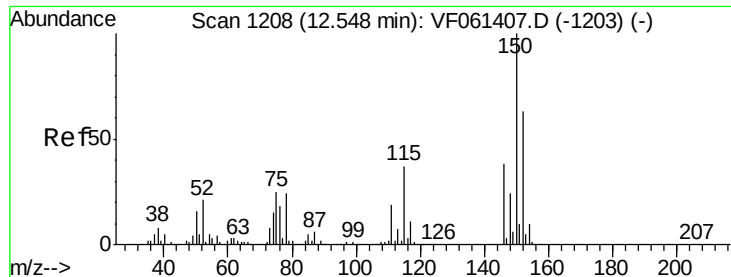
Ion Ratio Lower Upper

117 100

82 57.3 46.4 69.6

119 29.1 27.2 40.8





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.58 min Scan# 1212

Delta R.T. 0.04 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

MULCH-1RE

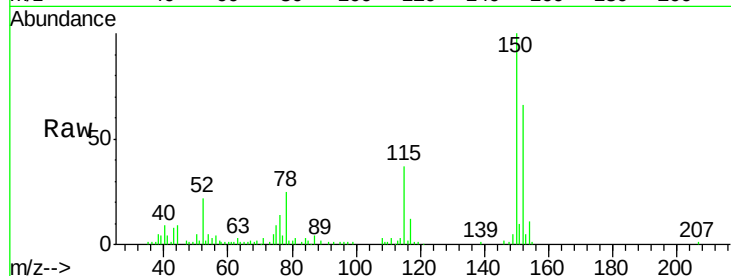
Tot Ion:152 Resp: 25921

Ion Ratio Lower Upper

152 100

115 55.9 30.0 90.0

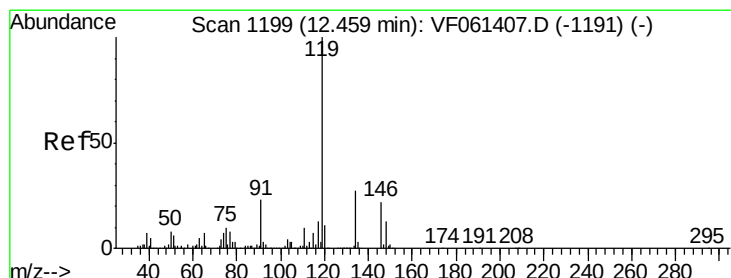
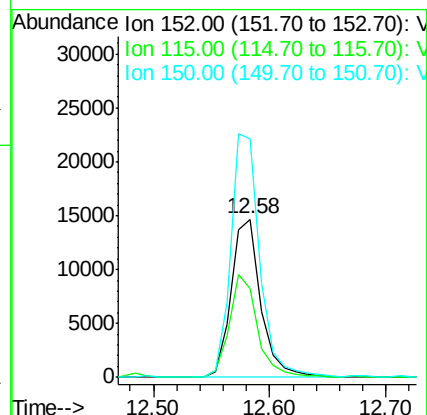
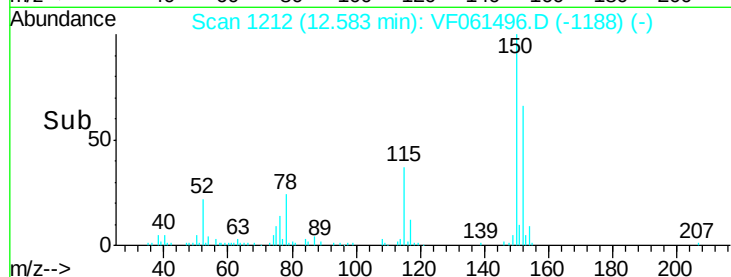
150 150.4 0.0 321.4



Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V



#86

p-Isopropyltoluene

Concen: 3.213 ug/l

RT: 12.48 min Scan# 1202

Delta R.T. 0.03 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

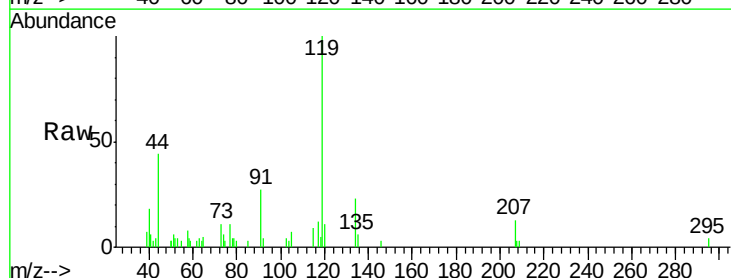
Tgt Ion:119 Resp: 6308

Ion Ratio Lower Upper

119 100

134 23.2 13.4 40.2

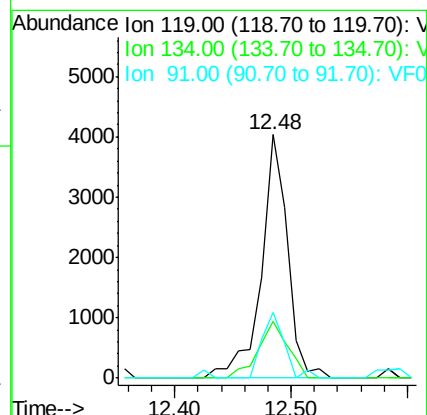
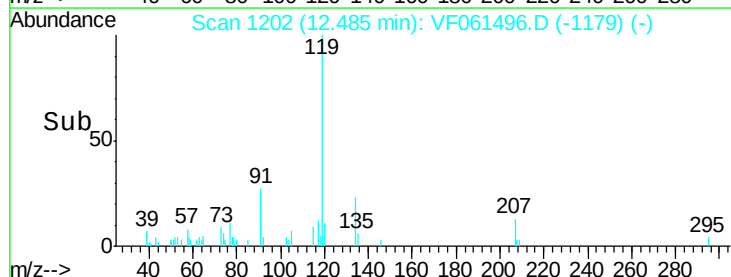
91 26.9 11.4 34.2

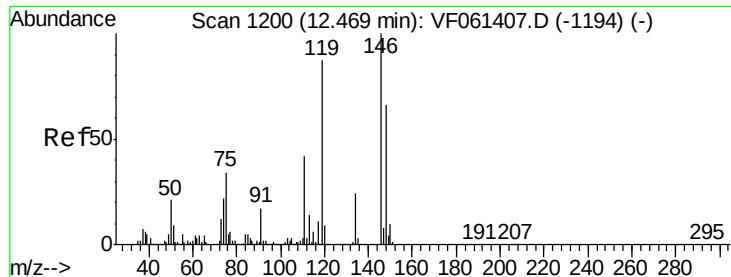


Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): VF0





#87

1,3-Dichlorobenzene

Concen: 1.079 ug/l

RT: 12.49 min Scan# 1203

Delta R.T. 0.03 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

Instrument :

MSVOA_F

ClientSampleId :

MULCH-1RE

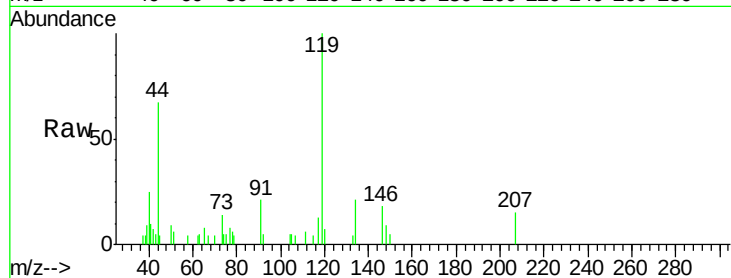
Tot Ion:146 Resp: 671

Ion Ratio Lower Upper

146 100

111 30.3 21.1 63.4

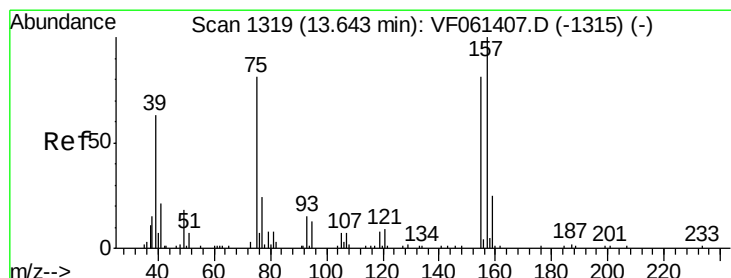
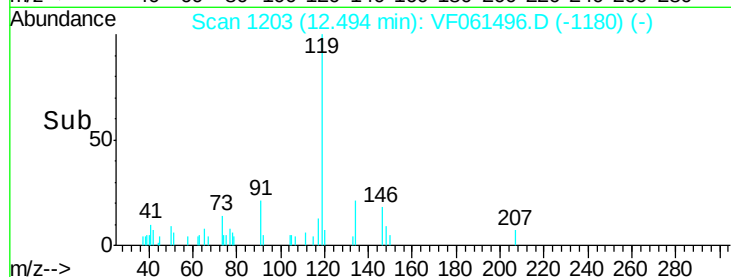
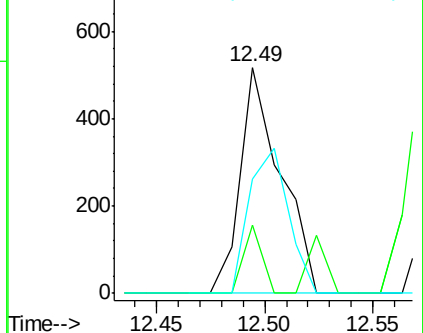
148 50.8 32.9 98.6



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.066 ug/l

RT: 13.66 min Scan# 1321

Delta R.T. 0.02 min

Lab File: VF061496.D

Acq: 24 Jan 2019 13:15

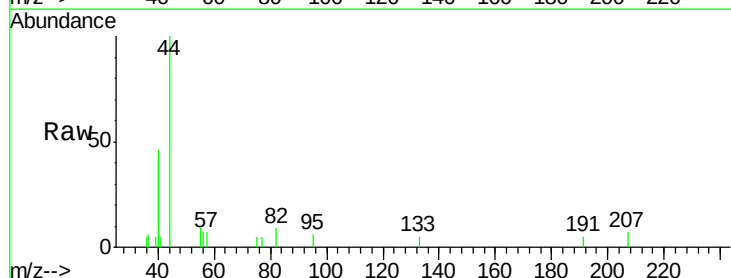
Tgt Ion: 75 Resp: 71

Ion Ratio Lower Upper

75 100

155 0.0 49.7 149.1#

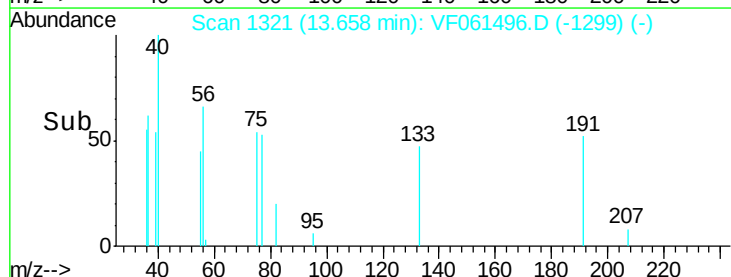
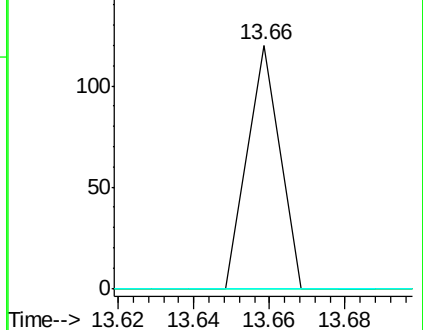
157 0.0 61.4 184.1#

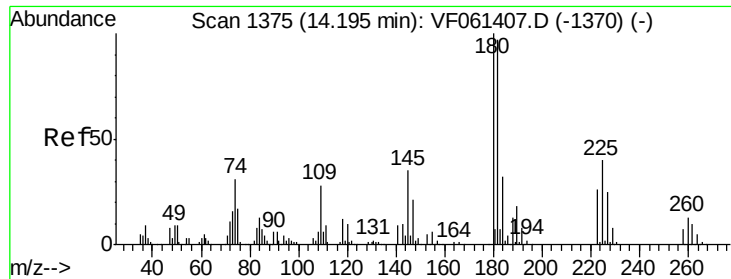


Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

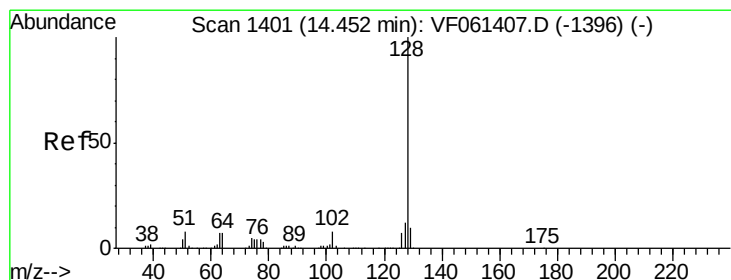
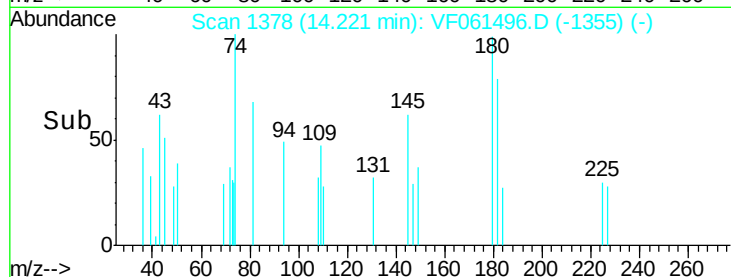
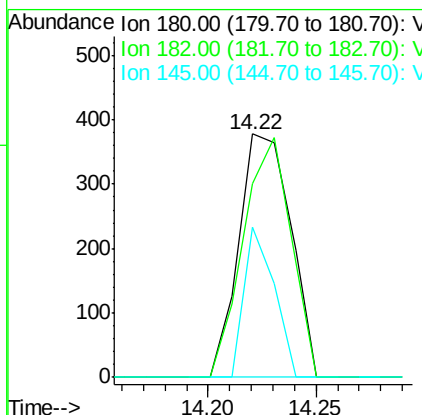
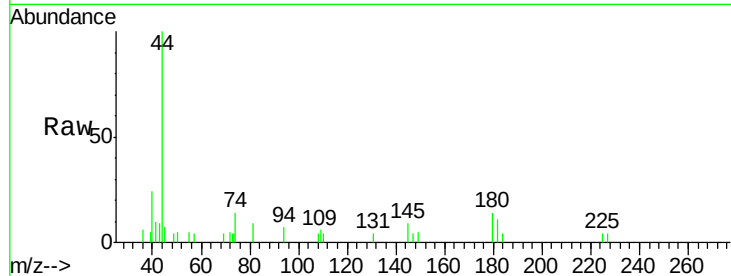




#93
 1,2,4-Trichlorobenzene
 Concen: 1.080 ug/l
 RT: 14.22 min Scan# 1378
 Delta R.T. 0.03 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

Instrument :
 MSVOA_F
 ClientSampled :
 MULCH-1RE

Tot Ion:180 Resp: 630
 Ion Ratio Lower Upper
 180 100
 182 79.4 48.5 145.6
 145 61.9 17.5 52.6#



#95
 Naphthalene
 Concen: 5.847 ug/l
 RT: 14.48 min Scan# 1404
 Delta R.T. 0.03 min
 Lab File: VF061496.D
 Acq: 24 Jan 2019 13:15

Tgt Ion:128 Resp: 6481
 Ion Ratio Lower Upper
 128 100
 127 13.4 9.5 14.3
 129 7.9 8.4 12.6#

