

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF121218\
 Data File : VF061006.D
 Acq On : 12 Dec 2018 20:11
 Operator : VA/AP
 Sample : J6354-01RE
 Misc : 5.47g/5mL/MSVOA-F/SOIL
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 SOILRE

Quant Time: Dec 13 01:27:14 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F112618S.M
 Quant Title : SW846 8260
 QLast Update : Tue Nov 27 01:36:26 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	4.86	168	156890	50.00	ug/l	-0.05
34) 1,4-Difluorobenzene	5.59	114	202774	50.00	ug/l	-0.05
63) Chlorobenzene-d5	9.77	117	76877	50.00	ug/l	-0.04
72) 1,4-Dichlorobenzene-d4	12.55	152	14431	50.00	ug/l	-0.02

System Monitoring Compounds

33) 1,2-Dichloroethane-d4	4.84	65	64505	34.90	ug/l	-0.04
Spiked Amount	50.000		Recovery	=	69.80%	
35) Dibromofluoromethane	4.11	113	68368	42.50	ug/l	-0.04
Spiked Amount	50.000		Recovery	=	85.00%	
50) Toluene-d8	7.55	98	133528	28.18	ug/l	-0.04
Spiked Amount	50.000		Recovery	=	56.36%	
62) 4-Bromofluorobenzene	11.40	95	19819	9.20	ug/l	-0.03
Spiked Amount	50.000		Recovery	=	18.40%	

Target Compounds

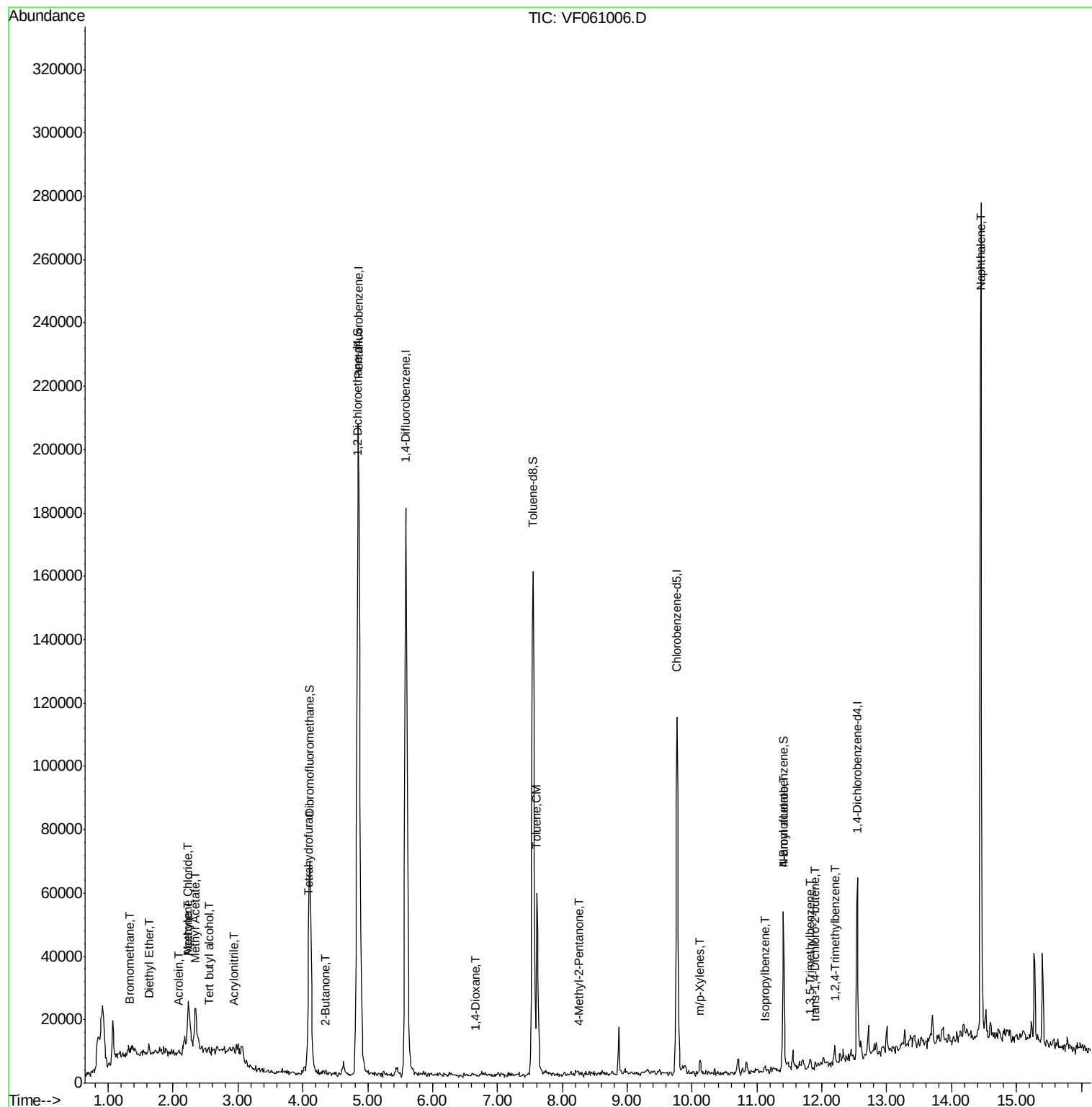
						Qvalue
5) Bromomethane	1.33	94	1397	1.391	ug/l #	33
8) Diethyl Ether	1.64	74	682	1.552	ug/l	90
11) Tert butyl alcohol	2.57	59	570	7.523	ug/l #	1
13) Acrolein	2.10	56	508	7.077	ug/l	84
15) Acrylonitrile	2.95	53	538	3.167	ug/l #	62
16) Acetone	2.23	43	20212	59.304	ug/l	96
18) Methyl Acetate	2.34	43	23951	41.611	ug/l	99
20) Methylene Chloride	2.23	84	2725	2.179	ug/l #	76
25) 2-Butanone	4.35	43	3453	5.857	ug/l #	57
29) Tetrahydrofuran	4.08	42	713	2.853	ug/l #	77
41) Methacrylonitrile	4.72	41	248	Below Cal	#	4
43) Isopropyl Acetate	6.92	43	810	Below Cal	#	49
49) 1,4-Dioxane	6.67	88	73	12.057	ug/l #	18
51) 4-Methyl-2-Pentanone	8.25	43	1983	2.353	ug/l	89
52) Toluene	7.62	92	20790	5.957	ug/l	86
68) m/p-Xylenes	10.13	106	1544	1.542	ug/l #	62
73) Isopropylbenzene	11.12	105	1142	1.001	ug/l	77
74) N-amyl acetate	11.41	43	418	1.587	ug/l #	40
80) 1,3,5-Trimethylbenzene	11.82	105	1696	1.832	ug/l	78
81) trans-1,4-Dichloro-2-buten	11.88	75	98	1.466	ug/l #	16
84) 1,2,4-Trimethylbenzene	12.20	105	3653	3.954	ug/l	95
95) Naphthalene	14.45	128	189760	330.296	ug/l	100

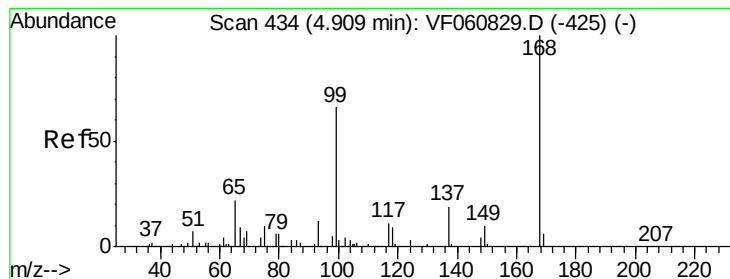
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260
QLast Update : Tue Nov 27 01:36:26 2018
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.86 min Scan# 428

Delta R.T. -0.05 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

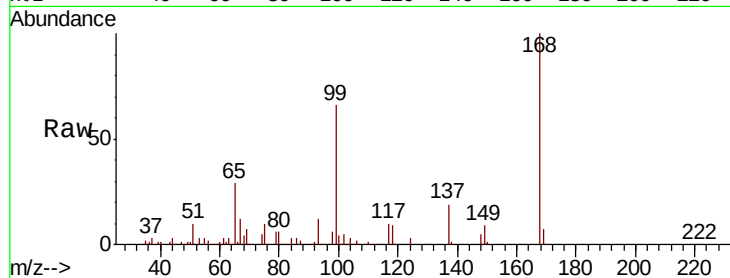
SOILRE

Tot Ion:168 Resp: 156890

Ion Ratio Lower Upper

168 100

99 66.2 52.6 79.0



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.86

60000

50000

40000

30000

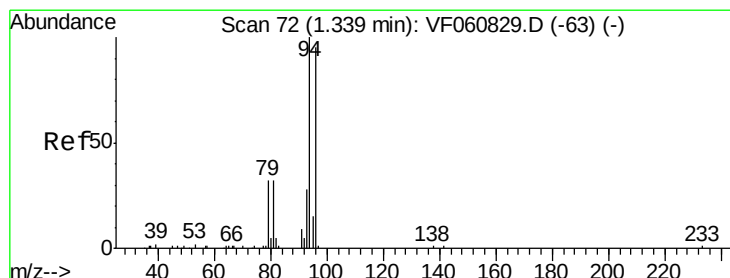
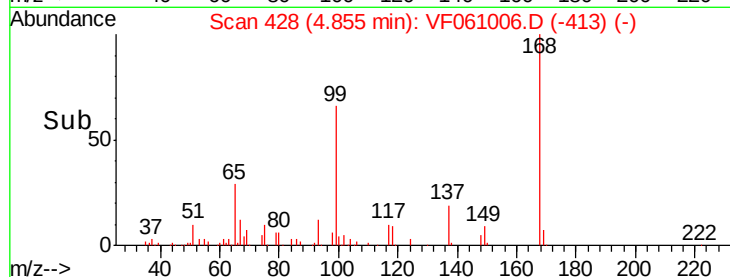
20000

10000

0

Time-->

4.70 4.80 4.90 5.00 5.10



#5

Bromomethane

Concen: 1.391 ug/l

RT: 1.33 min Scan# 71

Delta R.T. -0.01 min

Lab File: VF061006.D

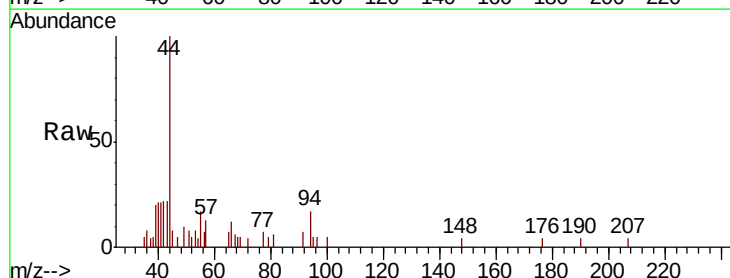
Acq: 12 Dec 2018 20:11

Tgt Ion: 94 Resp: 1397

Ion Ratio Lower Upper

94 100

96 30.2 75.9 113.9#



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

500

400

300

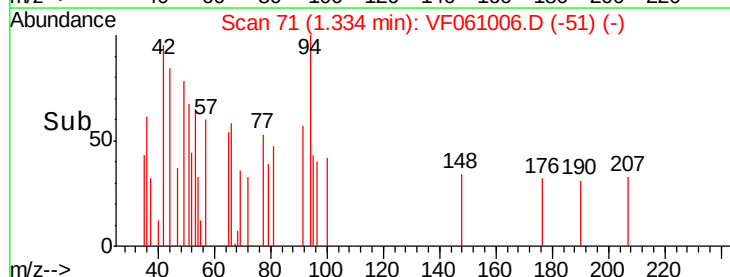
200

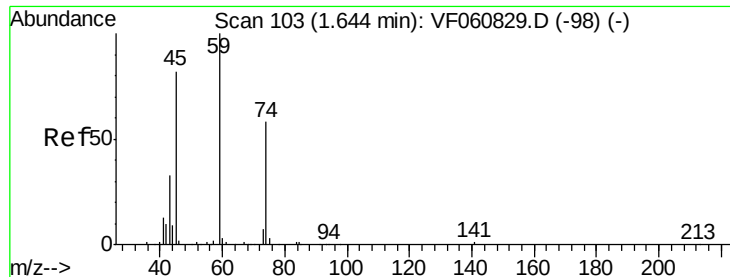
100

0

Time-->

1.30 1.35 1.40





#8

Diethyl Ether

Concen: 1.552 ug/l

RT: 1.64 min Scan# 102

Delta R.T. -0.01 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampled :

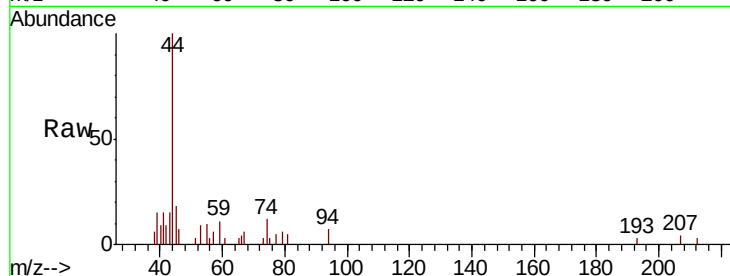
SOILRE

Tot Ion: 74 Resp: 682

Ion Ratio Lower Upper

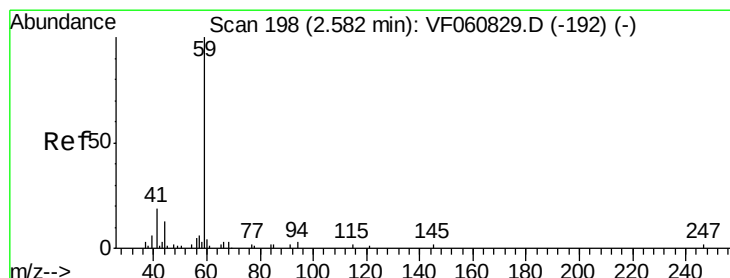
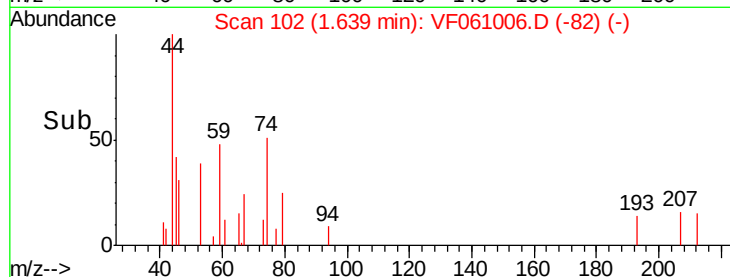
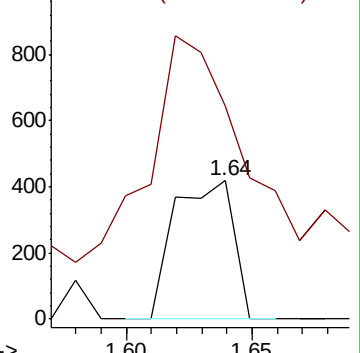
74 100

45 154.3 71.0 212.8



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0



#11

Tert butyl alcohol

Concen: 7.523 ug/l

RT: 2.57 min Scan# 196

Delta R.T. -0.01 min

Lab File: VF061006.D

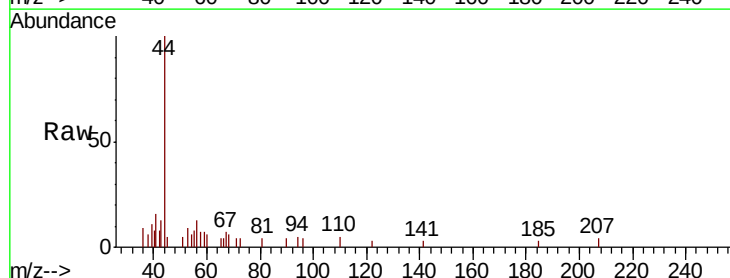
Acq: 12 Dec 2018 20:11

Tgt Ion: 59 Resp: 570

Ion Ratio Lower Upper

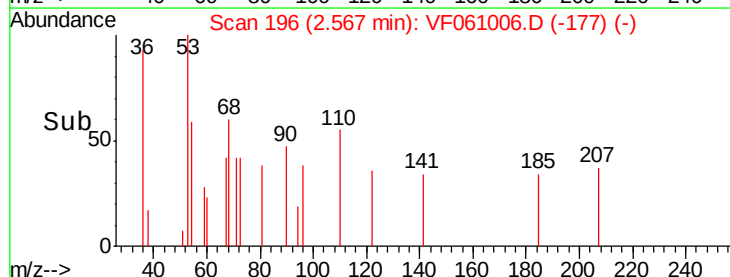
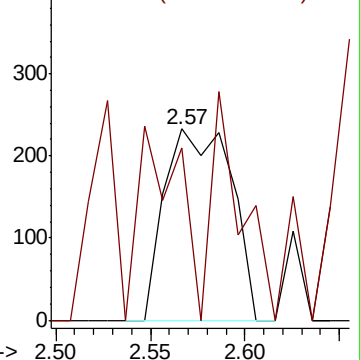
59 100

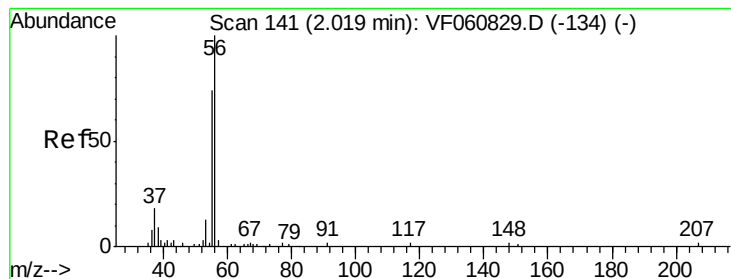
57 90.1 12.7 19.1#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0





#13

Acrolein

Concen: 7.077 ug/l

RT: 2.10 min Scan# 149

Delta R.T. 0.08 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampled :

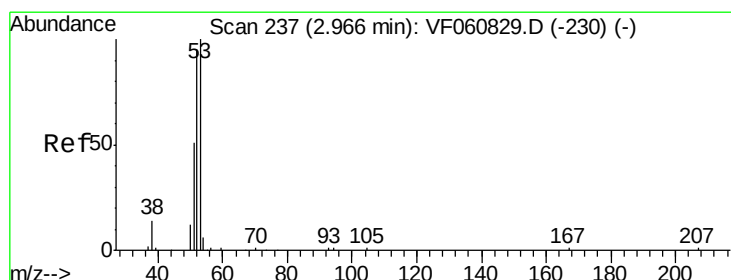
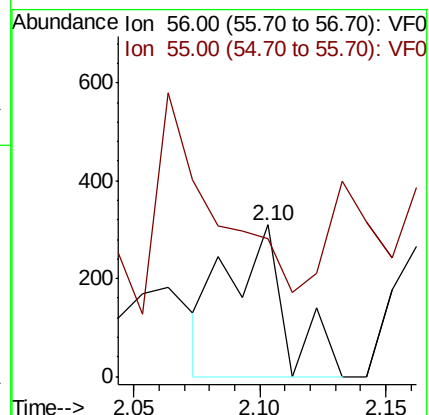
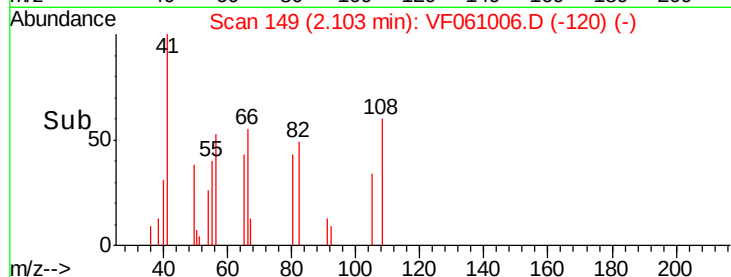
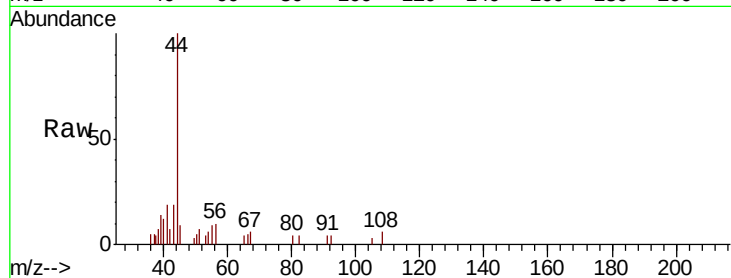
SOILRE

Tot Ion: 56 Resp: 508

Ion Ratio Lower Upper

56 100

55 90.6 61.2 91.8



#15

Acrylonitrile

Concen: 3.167 ug/l

RT: 2.95 min Scan# 235

Delta R.T. -0.01 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

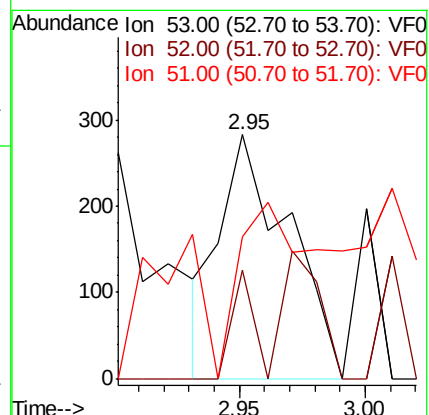
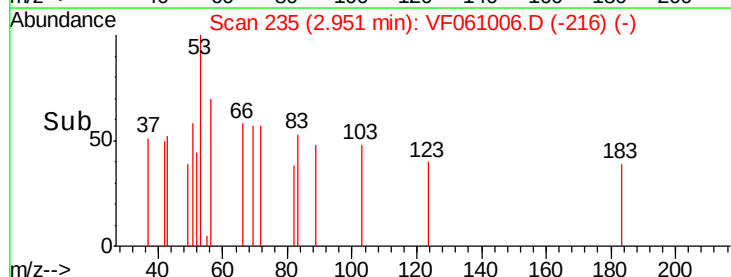
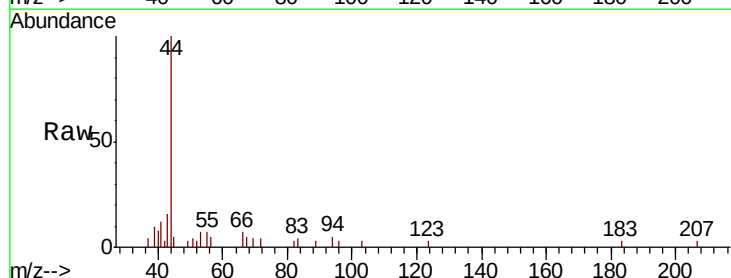
Tgt Ion: 53 Resp: 538

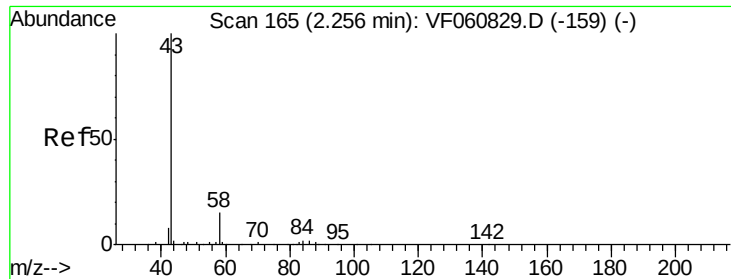
Ion Ratio Lower Upper

53 100

52 44.2 76.5 114.7#

51 58.0 40.7 61.1





#16

Acetone

Concen: 59.304 ug/l

RT: 2.23 min Scan# 162

Delta R.T. -0.02 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

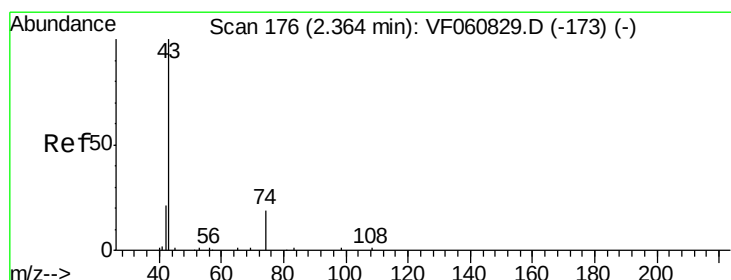
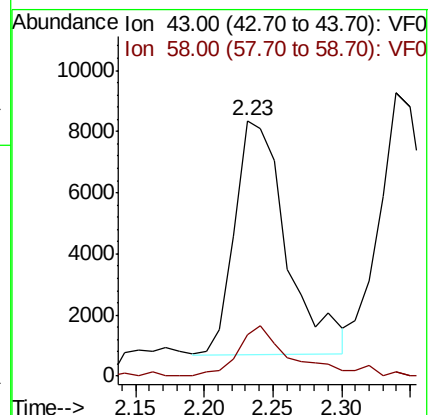
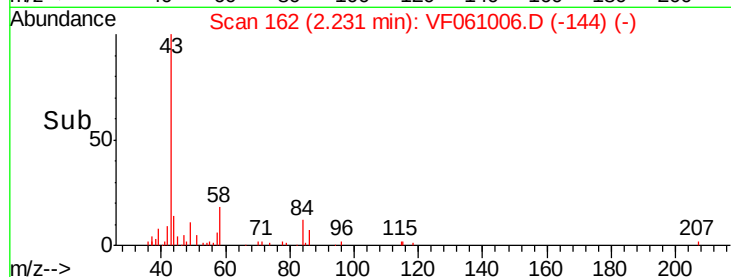
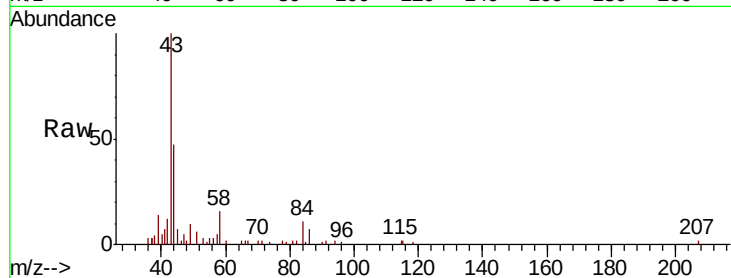
SOILRE

Tot Ion: 43 Resp: 20212

Ion Ratio Lower Upper

43 100

58 16.0 11.4 17.2



#18

Methyl Acetate

Concen: 41.611 ug/l

RT: 2.34 min Scan# 173

Delta R.T. -0.02 min

Lab File: VF061006.D

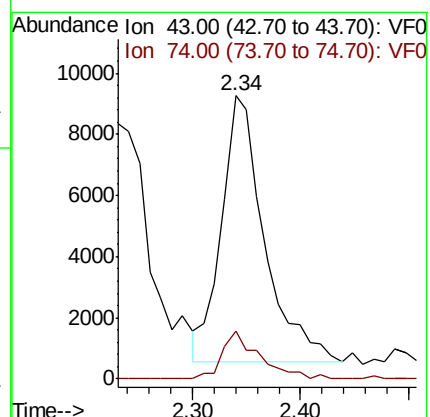
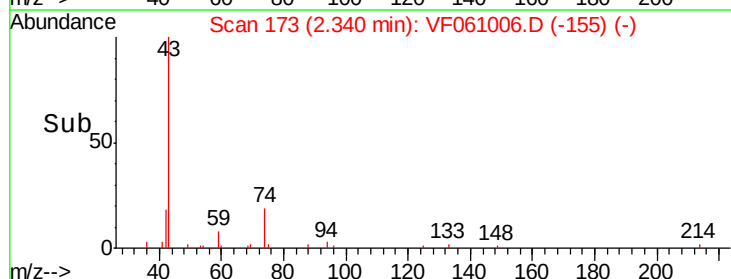
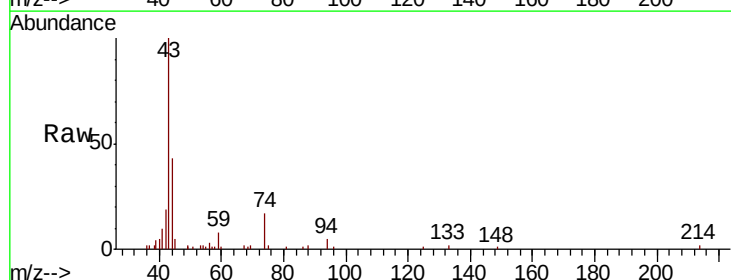
Acq: 12 Dec 2018 20:11

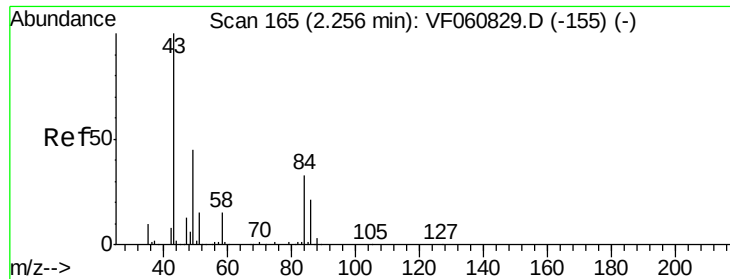
Tgt Ion: 43 Resp: 23951

Ion Ratio Lower Upper

43 100

74 17.1 13.3 19.9

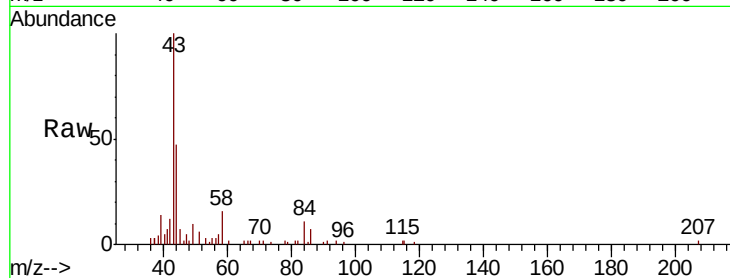




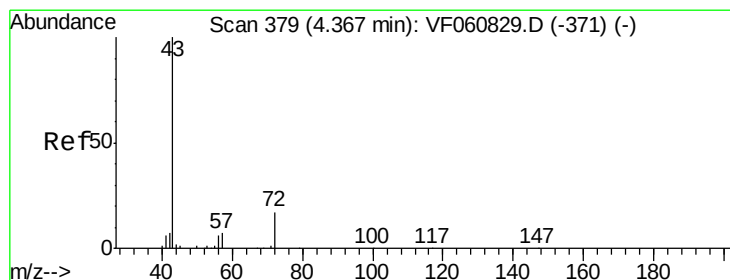
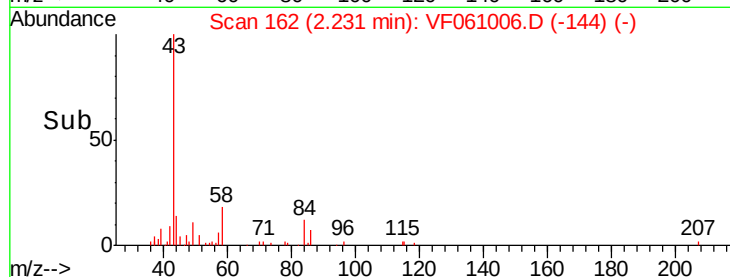
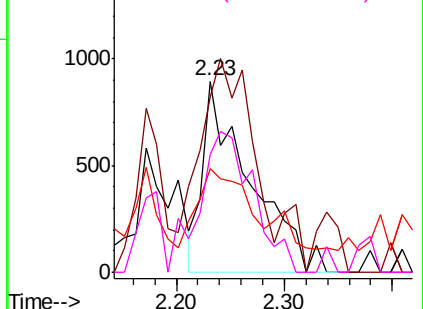
#20
Methylene Chloride
Concen: 2.179 ug/l
RT: 2.23 min Scan# 162
Delta R.T. -0.02 min
Lab File: VF061006.D
Acq: 12 Dec 2018 20:11

Instrument :
MSVOA_F
ClientSampleId :
SOILRE

Tot Ion: 84 Resp: 2725
Ion Ratio Lower Upper
84 100
49 91.4 111.3 166.9#
51 54.5 38.0 57.0
86 61.9 49.8 74.8

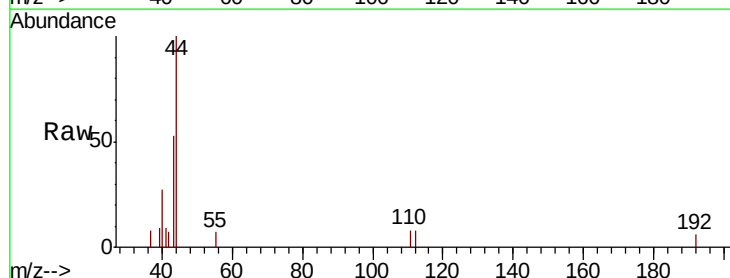


Abundance Ion 84.00 (83.70 to 84.70): VF0
Ion 49.00 (48.70 to 49.70): VF0
Ion 51.00 (50.70 to 51.70): VF0
Ion 86.00 (85.70 to 86.70): VF0

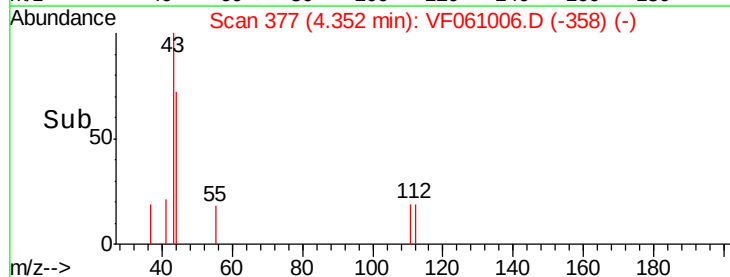
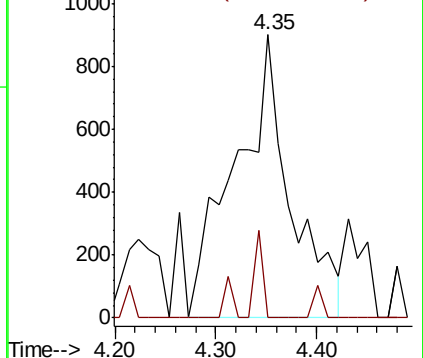


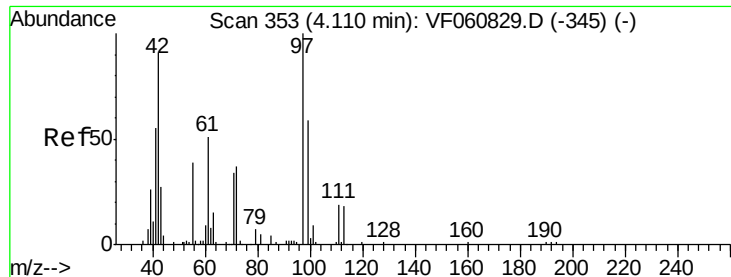
#25
2-Butanone
Concen: 5.857 ug/l
RT: 4.35 min Scan# 377
Delta R.T. -0.01 min
Lab File: VF061006.D
Acq: 12 Dec 2018 20:11

Tgt Ion: 43 Resp: 3453
Ion Ratio Lower Upper
43 100
72 0.0 15.4 23.2#



Abundance Ion 43.00 (42.70 to 43.70): VF0
Ion 72.00 (71.70 to 72.70): VF0





#29

Tetrahydrofuran

Concen: 2.853 ug/l

RT: 4.08 min Scan# 349

Delta R.T. -0.03 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

SOILRE

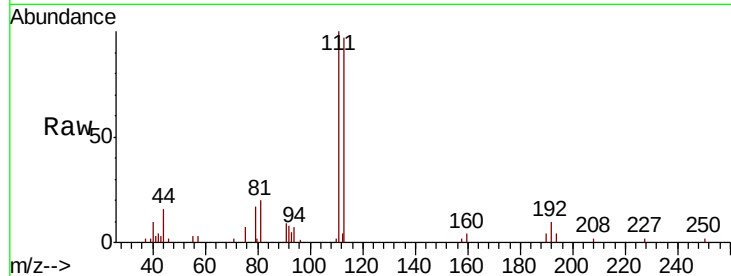
Tot Ion: 42 Resp: 713

Ion Ratio Lower Upper

42 100

72 14.0 31.9 47.9#

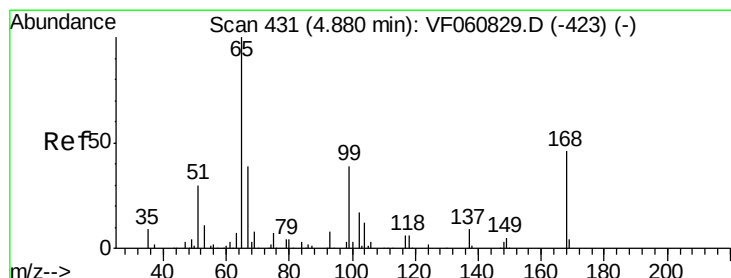
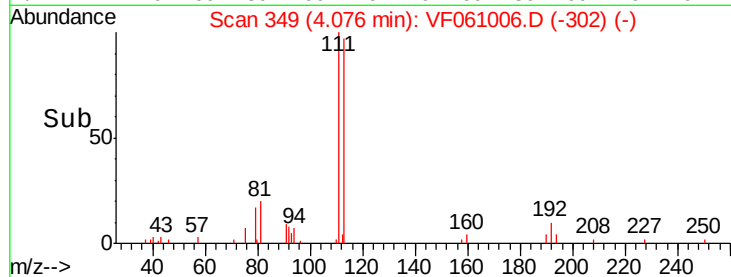
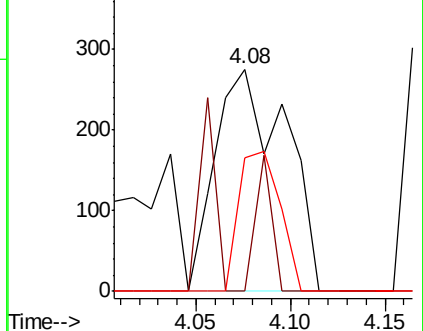
71 36.5 28.7 43.1



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: 34.901 ug/l

RT: 4.84 min Scan# 426

Delta R.T. -0.04 min

Lab File: VF061006.D

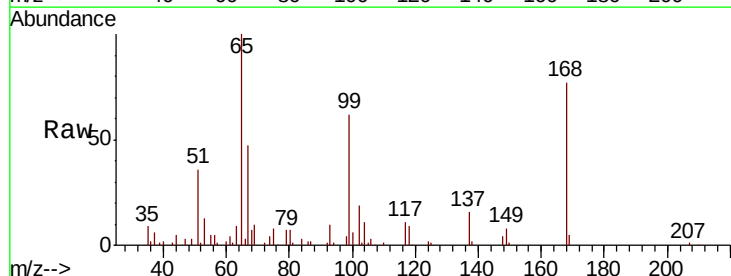
Acq: 12 Dec 2018 20:11

Tgt Ion: 65 Resp: 64505

Ion Ratio Lower Upper

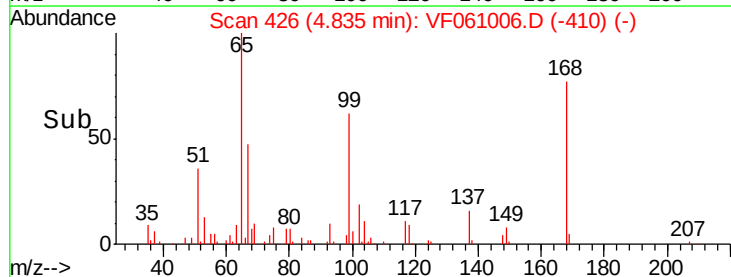
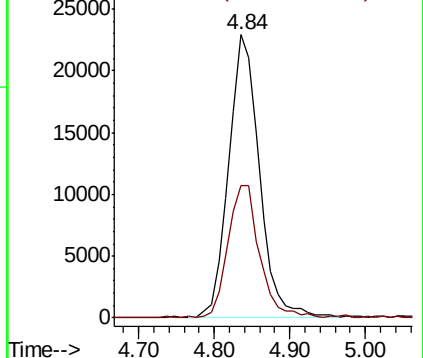
65 100

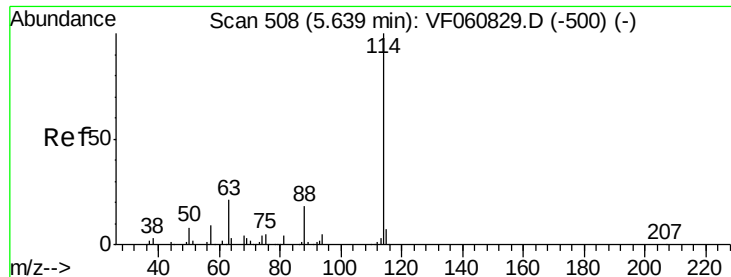
67 46.7 0.0 96.4



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.59 min Scan# 502

Delta R.T. -0.05 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

SOILRE

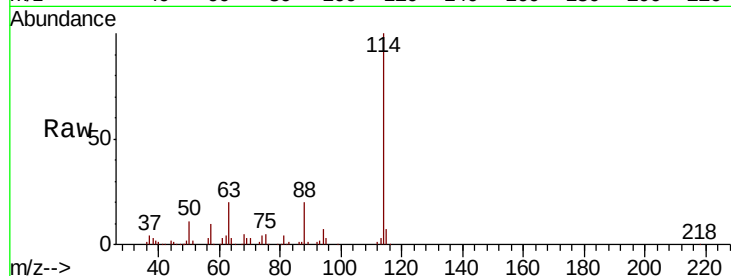
Tot Ion:114 Resp: 202774

Ion Ratio Lower Upper

114 100

63 20.3 0.0 41.6

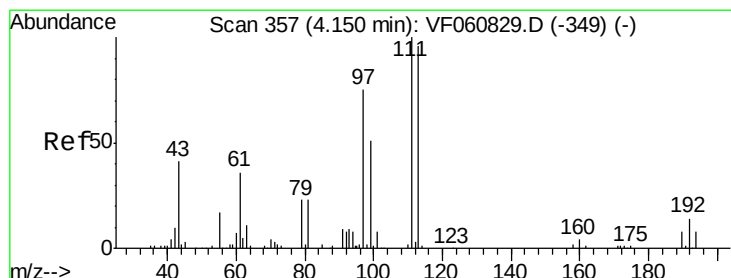
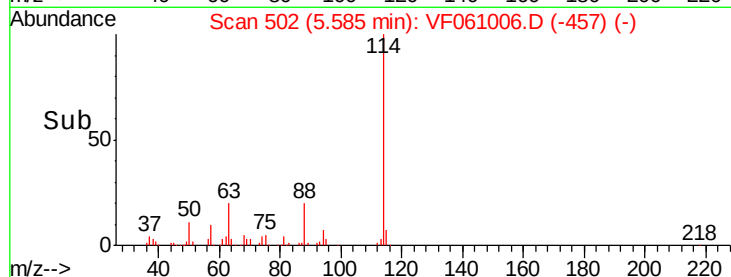
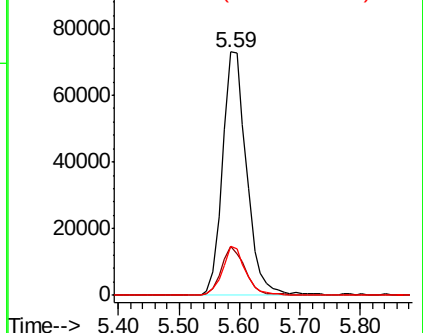
88 20.4 0.0 36.6



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0



#35

Dibromofluoromethane

Concen: 42.500 ug/l

RT: 4.11 min Scan# 352

Delta R.T. -0.04 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

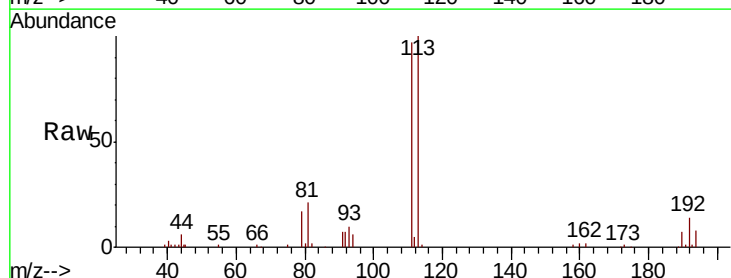
Tgt Ion:113 Resp: 68368

Ion Ratio Lower Upper

113 100

111 96.7 83.0 124.6

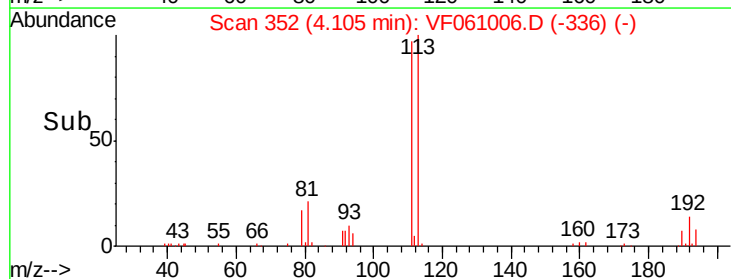
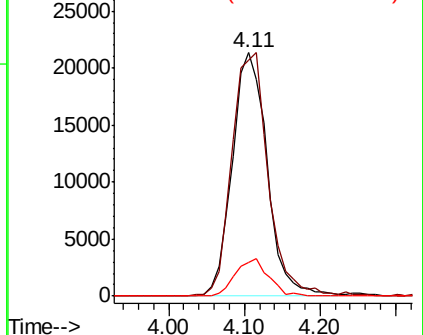
192 14.1 12.3 18.5

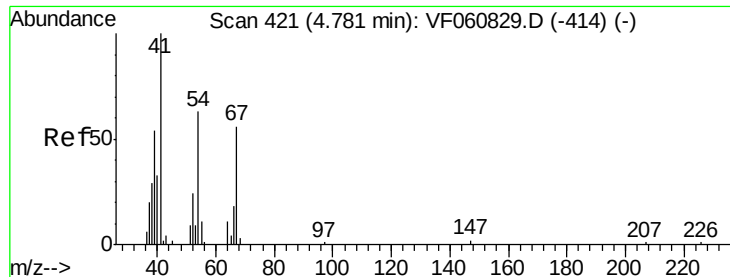


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V





#41

Methacrylonitrile

Concen: Below Cal

RT: 4.72 min Scan# 414

Delta R.T. -0.06 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampled :

SOILRE

Tot Ion: 41 Resp: 248

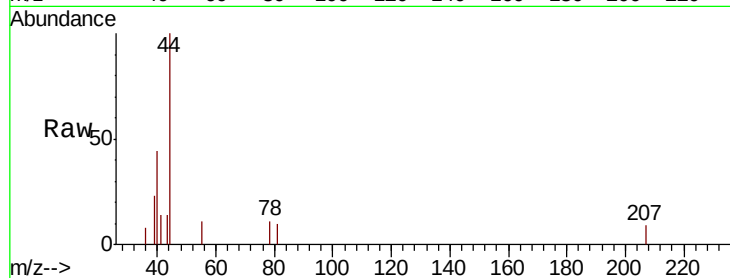
Ion Ratio Lower Upper

41 100

39 169.8 53.0 79.6#

67 0.0 43.8 65.6#

52 0.0 37.8 56.8#

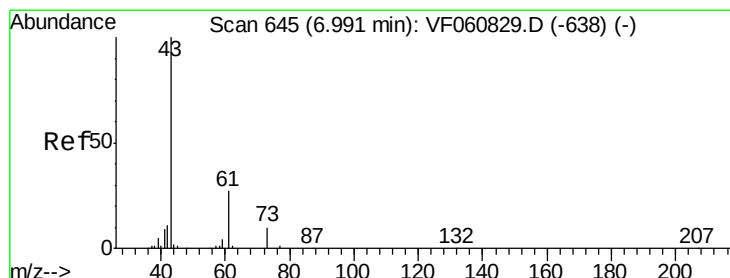
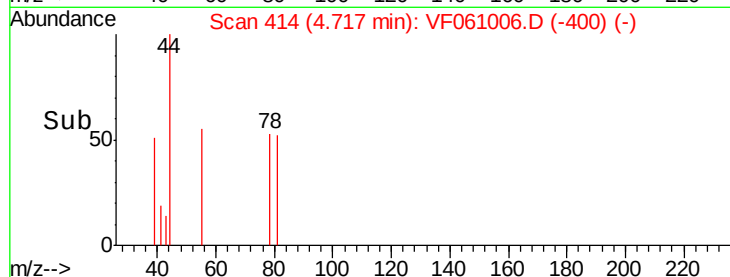
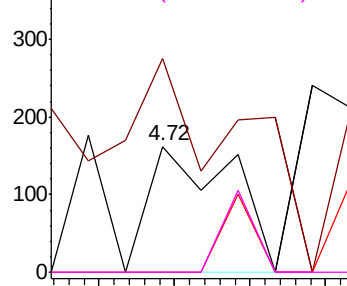


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

Ion 67.00 (66.70 to 67.70): VF0

Ion 52.00 (51.70 to 52.70): VF0



#43

Isopropyl Acetate

Concen: Below Cal

RT: 6.92 min Scan# 637

Delta R.T. -0.07 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

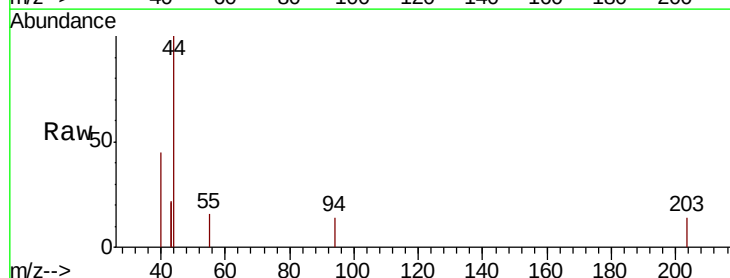
Tgt Ion: 43 Resp: 810

Ion Ratio Lower Upper

43 100

61 0.0 21.4 32.0#

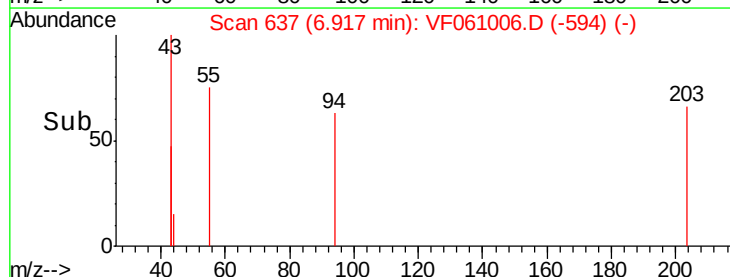
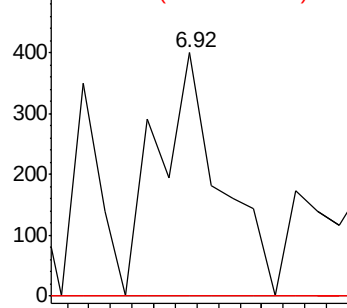
87 0.0 0.2 0.4#

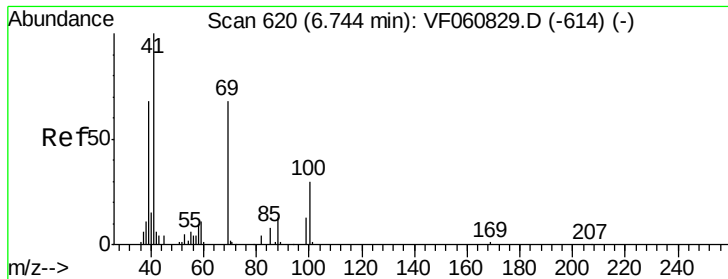


Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 87.00 (86.70 to 87.70): VF0





#49

1,4-Dioxane

Concen: 12.057 ug/l

RT: 6.67 min Scan# 612

Delta R.T. -0.07 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

SOILRE

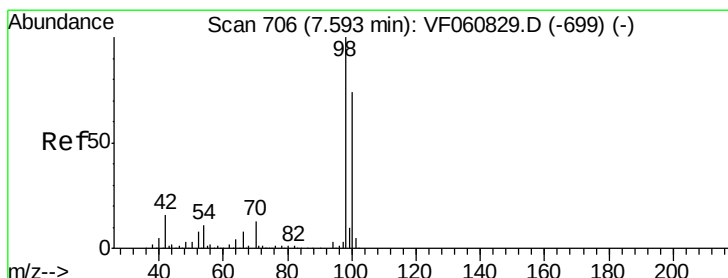
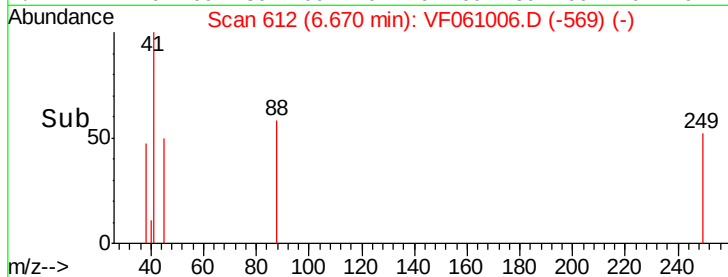
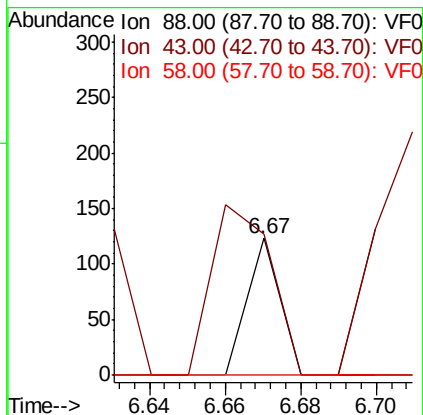
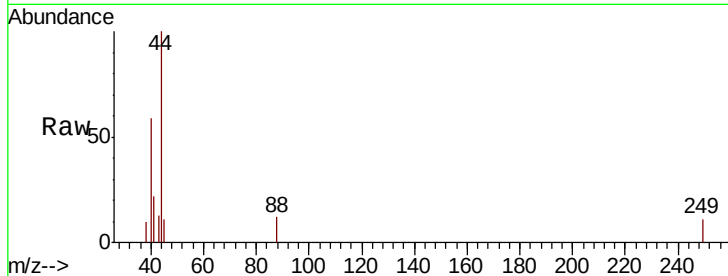
Tot Ion: 88 Resp: 73

Ion Ratio Lower Upper

88 100

43 103.3 42.0 63.0#

58 0.0 61.8 92.8#



#50

Toluene-d8

Concen: 28.179 ug/l

RT: 7.55 min Scan# 701

Delta R.T. -0.04 min

Lab File: VF061006.D

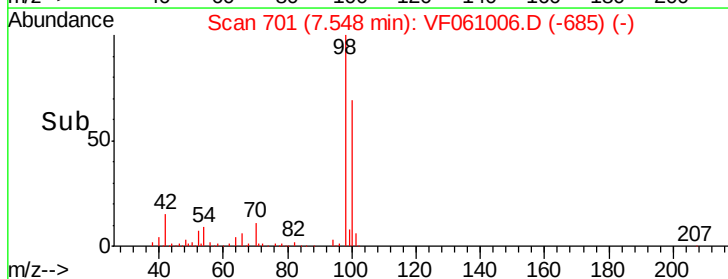
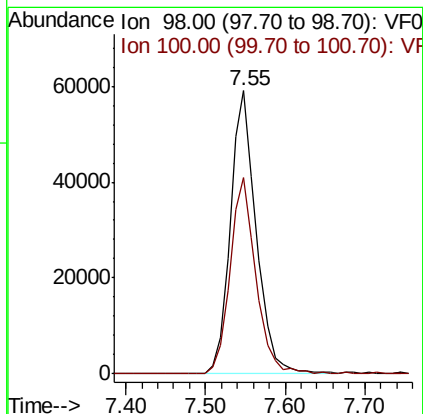
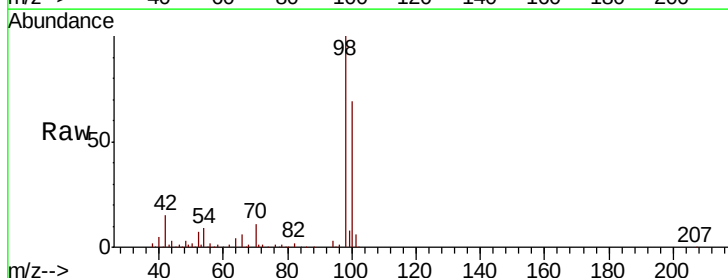
Acq: 12 Dec 2018 20:11

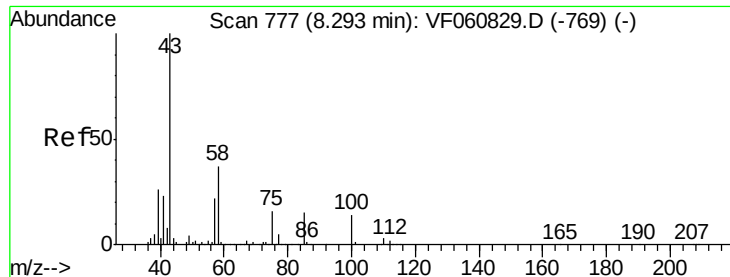
Tgt Ion: 98 Resp: 133528

Ion Ratio Lower Upper

98 100

100 69.4 59.3 88.9





#51

4-Methyl-2-Pentanone

Concen: 2.353 ug/l

RT: 8.25 min Scan# 772

Delta R.T. -0.04 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

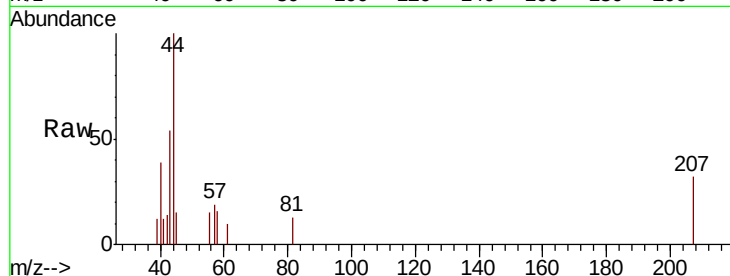
SOILRE

Tot Ion: 43 Resp: 1983

Ion Ratio Lower Upper

43 100

58 30.5 29.7 44.5



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.25

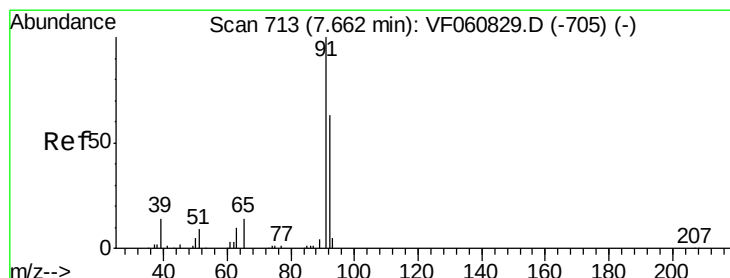
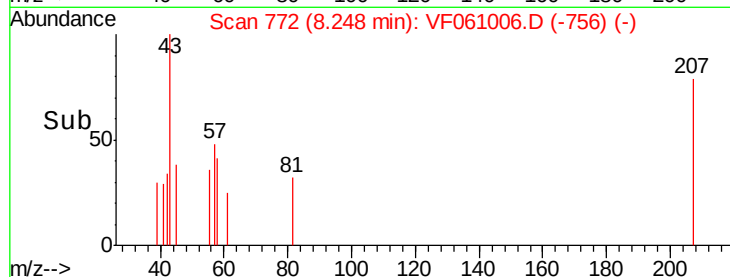
600

400

200

0

Time--> 8.10 8.20 8.30



#52

Toluene

Concen: 5.957 ug/l

RT: 7.62 min Scan# 708

Delta R.T. -0.04 min

Lab File: VF061006.D

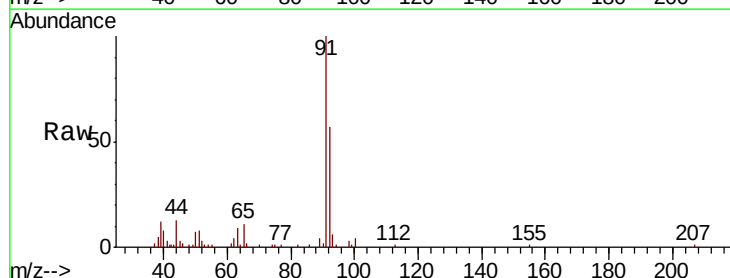
Acq: 12 Dec 2018 20:11

Tgt Ion: 92 Resp: 20790

Ion Ratio Lower Upper

92 100

91 176.0 126.2 189.2



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

7.62

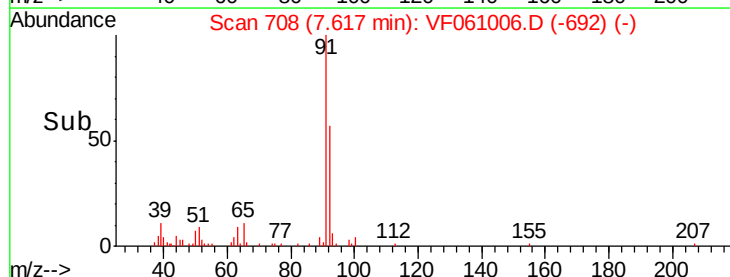
15000

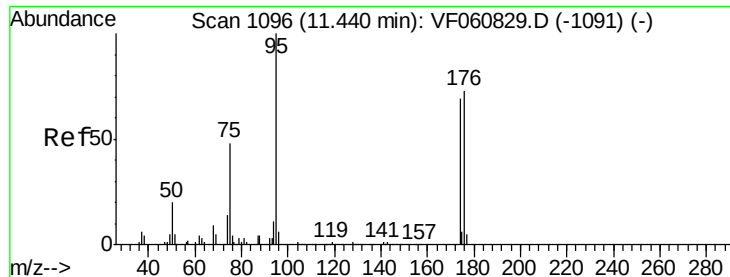
10000

5000

0

Time--> 7.50 7.60 7.70





#62

4-Bromofluorobenzene

Concen: 9.203 ug/l

RT: 11.40 min Scan# 1092

Delta R.T. -0.03 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

SOILRE

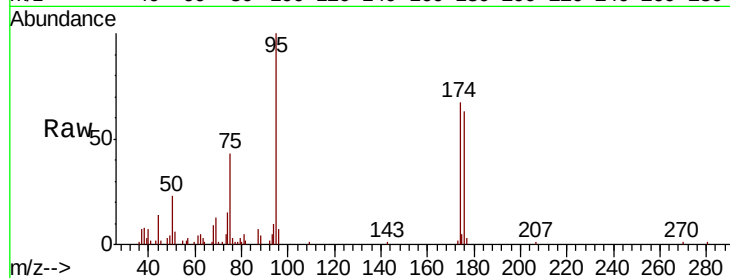
Tot Ion: 95 Resp: 19819

Ion Ratio Lower Upper

95 100

174 67.2 0.0 138.2

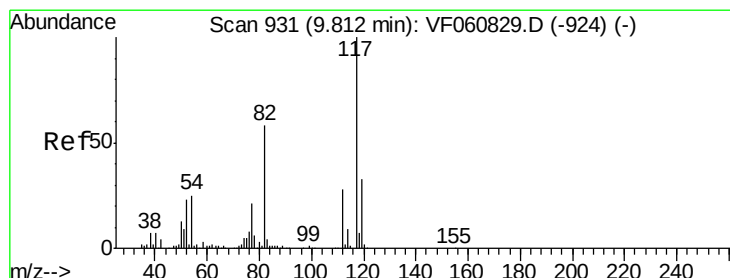
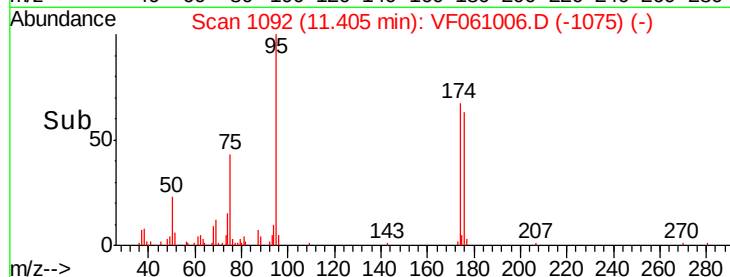
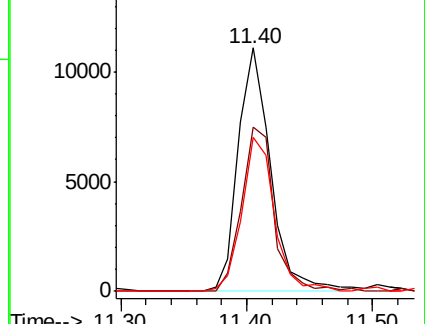
176 63.4 0.0 146.2



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): VF0

Ion 176.00 (175.70 to 176.70): VF0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.77 min Scan# 926

Delta R.T. -0.04 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

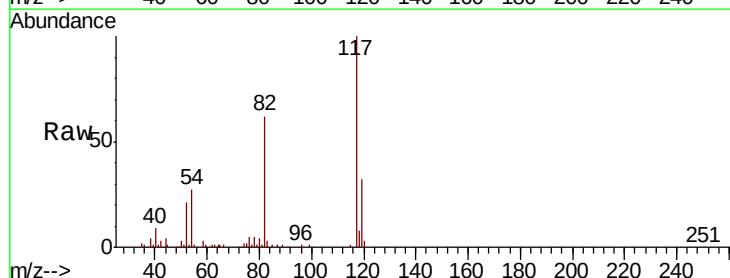
Tgt Ion: 117 Resp: 76877

Ion Ratio Lower Upper

117 100

82 62.2 46.6 69.8

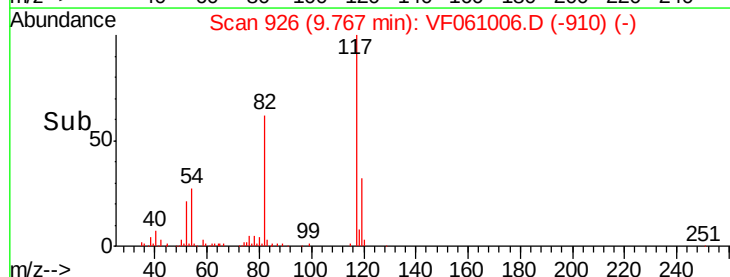
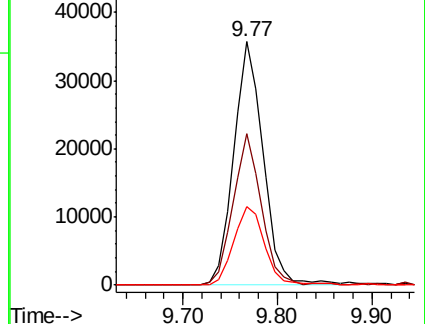
119 32.4 26.4 39.6

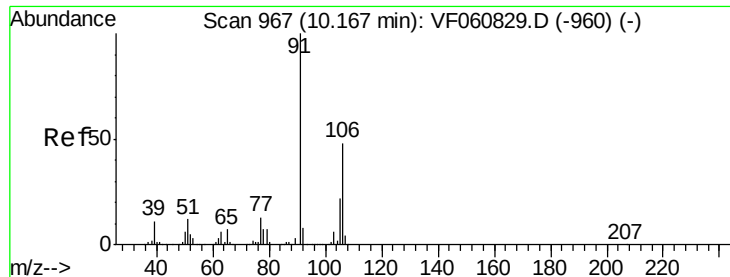


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0

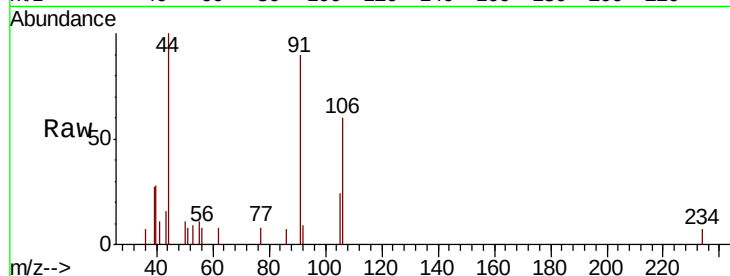




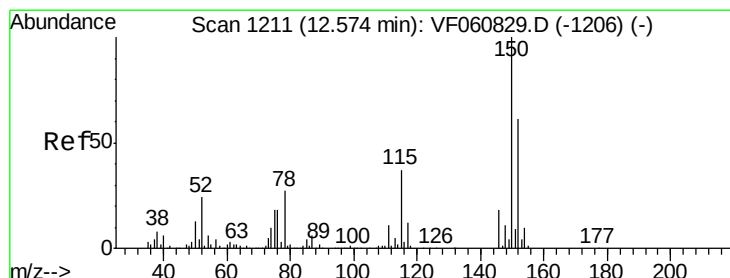
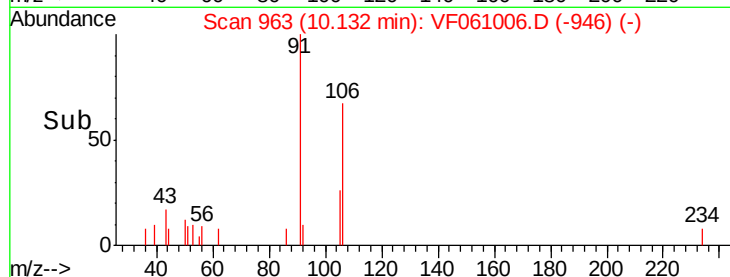
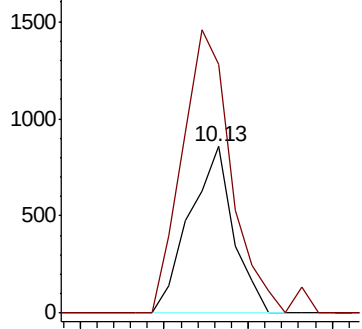
#68
m/p-Xylenes
Concen: 1.542 ug/l
RT: 10.13 min Scan# 963
Delta R.T. -0.03 min
Lab File: VF061006.D
Acq: 12 Dec 2018 20:11

Instrument :
MSVOA_F
ClientSampled :
SOILRE

Tot Ion:106 Resp: 1544
Ion Ratio Lower Upper
106 100
91 149.5 166.7 250.1#

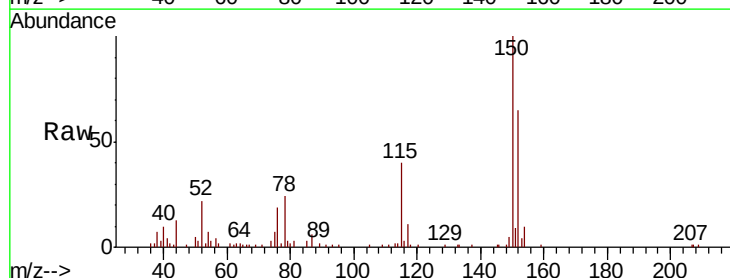


Abundance Ion 106.00 (105.70 to 106.70): V
Ion 91.00 (90.70 to 91.70): VF0

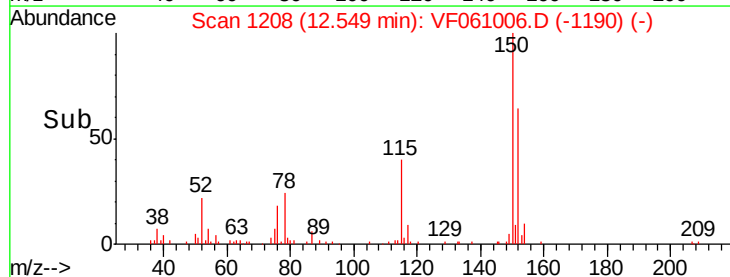
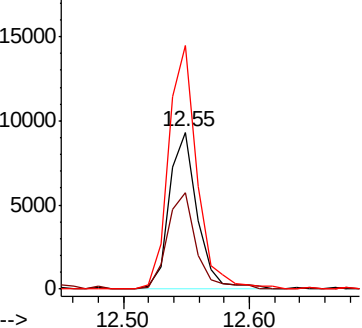


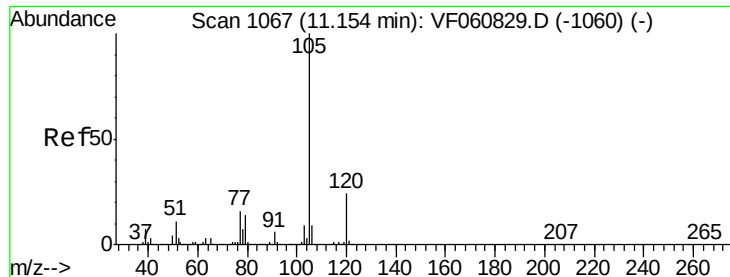
#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.55 min Scan# 1208
Delta R.T. -0.02 min
Lab File: VF061006.D
Acq: 12 Dec 2018 20:11

Tgt Ion:152 Resp: 14431
Ion Ratio Lower Upper
152 100
115 61.7 30.1 90.5
150 155.0 0.0 327.6



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





#73

Isopropylbenzene

Concen: 1.001 ug/l

RT: 11.12 min Scan# 1063

Delta R.T. -0.03 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampleId :

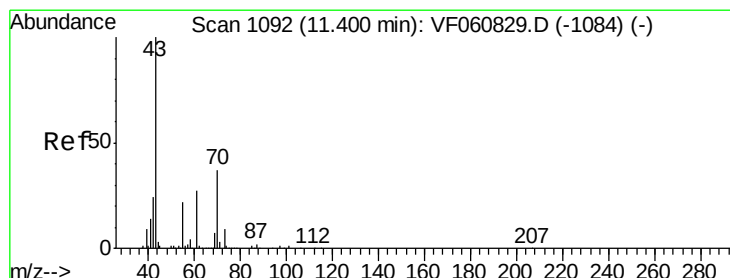
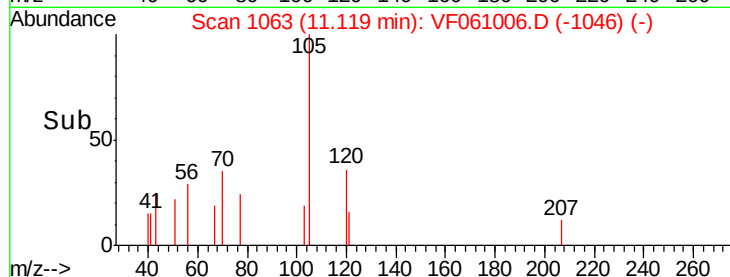
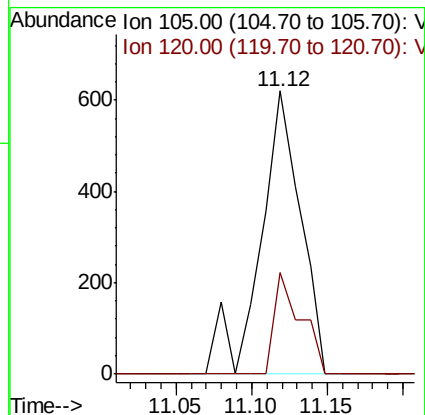
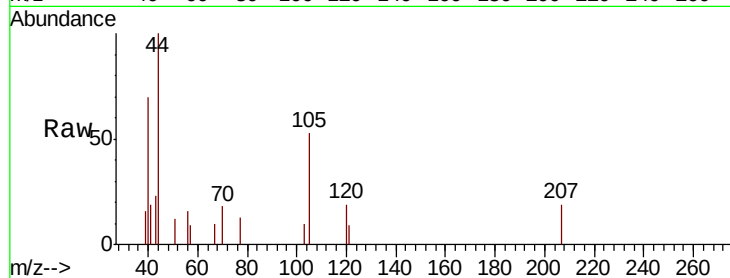
SOILRE

Tot Ion:105 Resp: 1142

Ion Ratio Lower Upper

105 100

120 35.8 12.2 36.4



#74

N-ethyl acetate

Concen: 1.587 ug/l

RT: 11.41 min Scan# 1093

Delta R.T. 0.01 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Tgt Ion: 43 Resp: 418

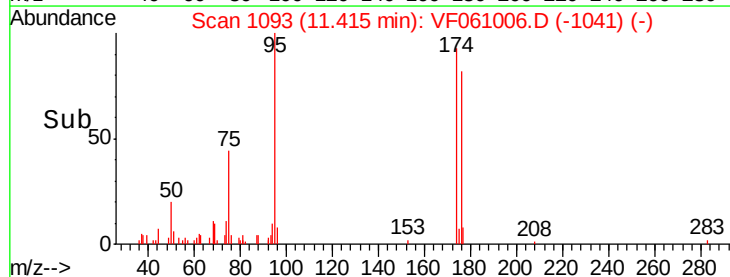
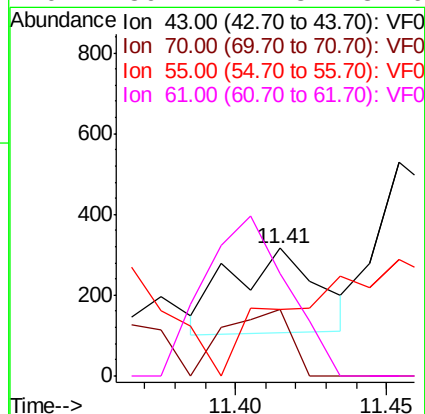
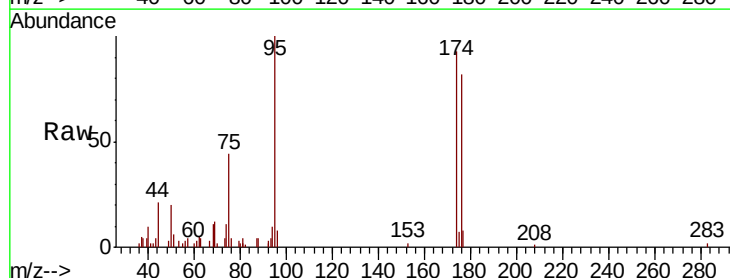
Ion Ratio Lower Upper

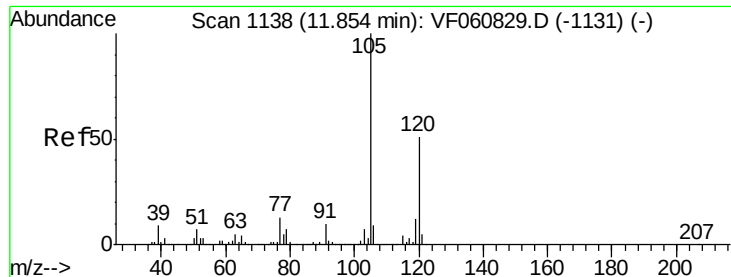
43 100

70 51.9 29.6 44.4#

55 52.5 17.2 25.8#

61 80.1 21.8 32.6#





#80

1,3,5-Trimethylbenzene

Concen: 1.832 ug/l

RT: 11.82 min Scan# 1134

Delta R.T. -0.03 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

Instrument :

MSVOA_F

ClientSampled :

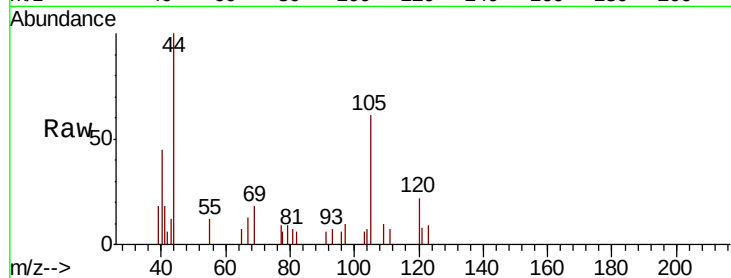
SOILRE

Tot Ion:105 Resp: 1696

Ion Ratio Lower Upper

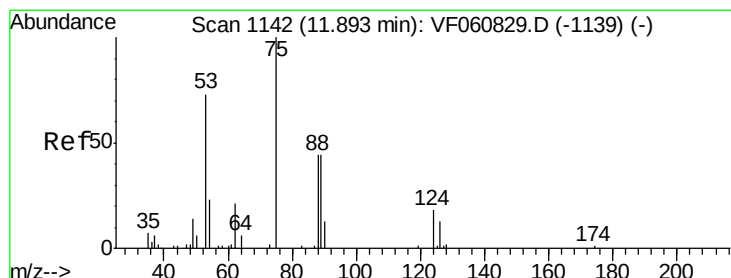
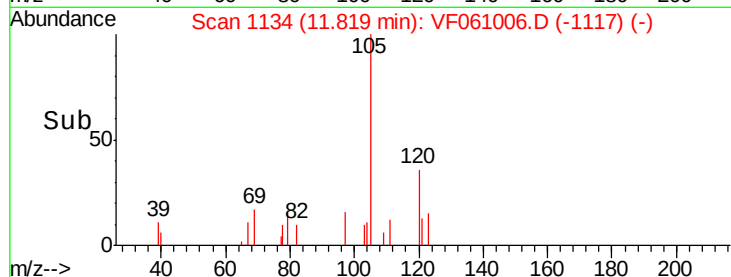
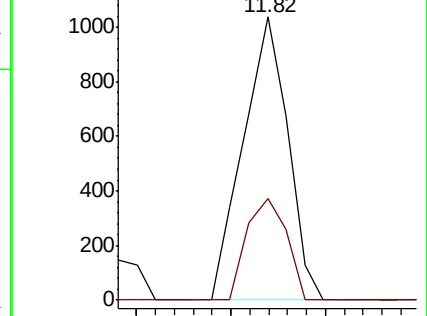
105 100

120 35.9 25.8 77.3



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#81

trans-1,4-Dichloro-2-butene

Concen: 1.466 ug/l

RT: 11.88 min Scan# 1140

Delta R.T. -0.01 min

Lab File: VF061006.D

Acq: 12 Dec 2018 20:11

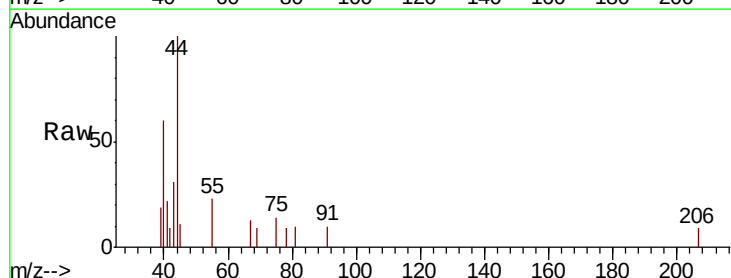
Tgt Ion: 75 Resp: 98

Ion Ratio Lower Upper

75 100

53 0.0 65.9 98.9#

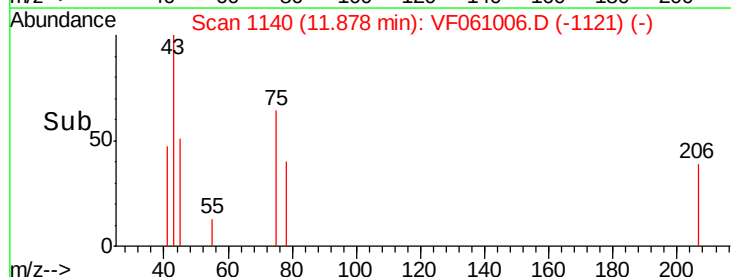
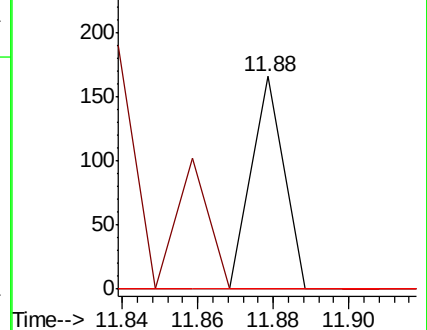
89 0.0 38.8 58.2#

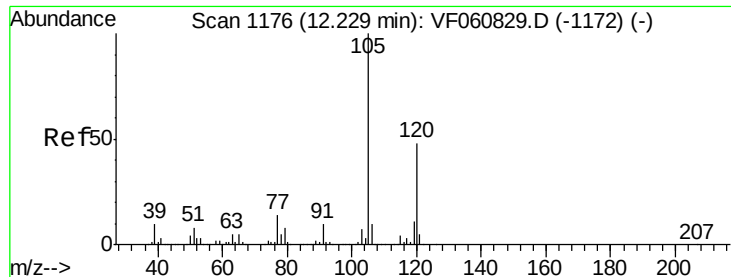


Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 53.00 (52.70 to 53.70): VF0

Ion 89.00 (88.70 to 89.70): VF0

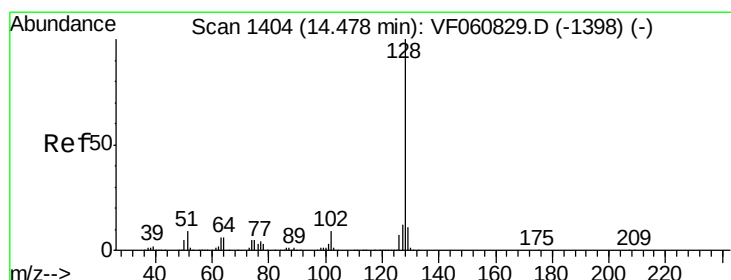
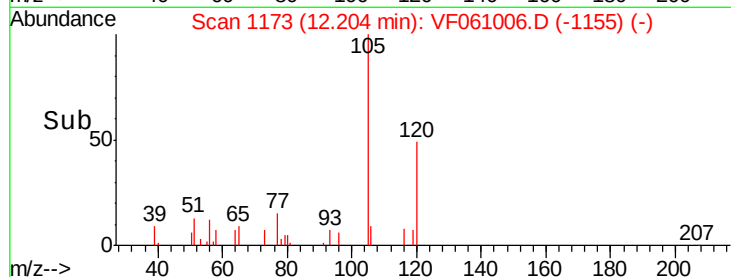
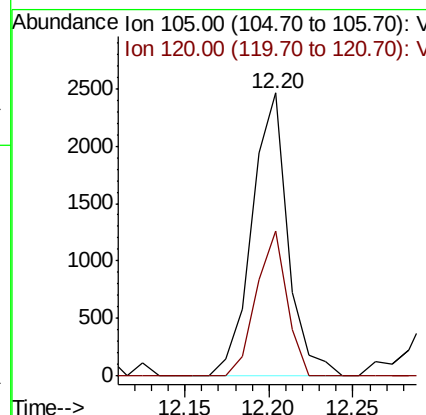
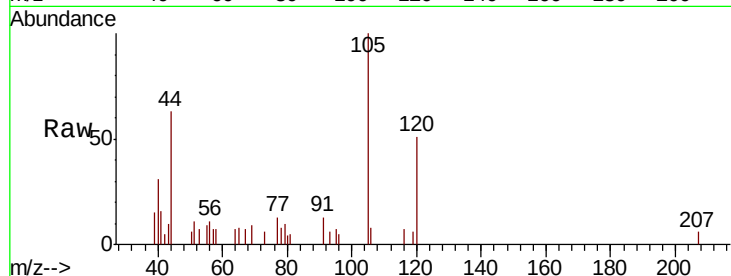




#84
 1,2,4-Trimethylbenzene
 Concen: 3.954 ug/l
 RT: 12.20 min Scan# 1173
 Delta R.T. -0.02 min
 Lab File: VF061006.D
 Acq: 12 Dec 2018 20:11

Instrument :
 MSVOA_F
 ClientSampled :
 SOILRE

Tot Ion:105 Resp: 3653
 Ion Ratio Lower Upper
 105 100
 120 51.3 23.8 71.5



#95
 Naphthalene
 Concen: 330.296 ug/l
 RT: 14.45 min Scan# 1401
 Delta R.T. -0.02 min
 Lab File: VF061006.D
 Acq: 12 Dec 2018 20:11

Tgt Ion:128 Resp: 189760
 Ion Ratio Lower Upper
 128 100
 127 12.5 9.9 14.9
 129 11.4 9.1 13.7

