

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF031619\
 Data File : VF061982.D
 Acq On : 16 Mar 2019 18:28
 Operator : VA/AP
 Sample : K1861-01
 Misc : 5.08g/5mL/MSVOA-F/SOIL
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_F
 ClientSampleId :
 BF-06-031119

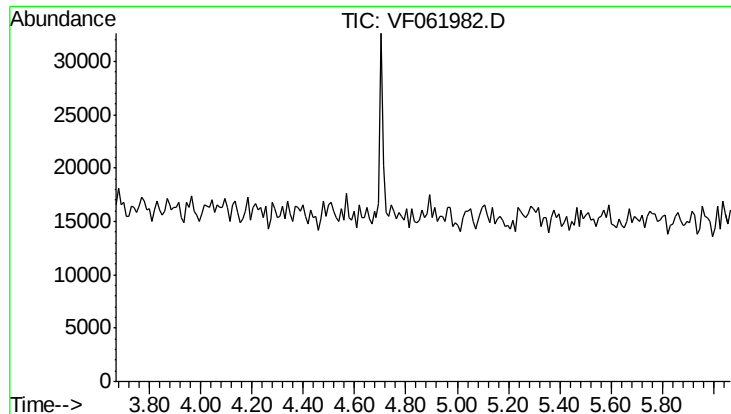
Quant Time: Mar 18 07:38:01 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_F\METHODS\82F031619S.M
 Quant Title : SW846 8260
 QLast Update : Mon Mar 18 07:28:40 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	0.00	168	0	0.00	ug/l	-4.87
34) 1,4-Difluorobenzene	6.05	114	78	50.00	ug/l	0.45
63) Chlorobenzene-d5	0.00	117	0	0.00	ug/l	-9.77
72) 1,4-Dichlorobenzene-d4	12.55	152	67	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	4.79	65	63	0.00	ug/l	-0.05
Spiked Amount 50.000			Recovery	=	0.00%	
35) Dibromofluoromethane	0.00	113	0	0.00	ug/l	
Spiked Amount 50.000			Recovery	=	0.00%	
50) Toluene-d8	0.00	98	0	0.00	ug/l	
Spiked Amount 50.000			Recovery	=	0.00%	
62) 4-Bromofluorobenzene	0.00	95	0	0.00	ug/l	
Spiked Amount 50.000			Recovery	=	0.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
37) Ethyl Acetate	4.47	43	75	237.137	ug/l #	19
40) Benzene	5.03	78	66	35.362	ug/l #	52
41) Methacrylonitrile	5.13	41	98	579.961	ug/l #	22
43) Isopropyl Acetate	7.45	43	64	171.031	ug/l #	38
46) Dibromomethane	6.72	93	66	251.178	ug/l #	3
48) Methyl methacrylate	7.26	41	91	376.276	ug/l #	20
49) 1,4-Dioxane	7.39	88	69	32075.080	ug/l #	15
51) 4-Methyl-2-Pentanone	8.93	43	66	248.377	ug/l #	36
56) Ethyl methacrylate	9.12	69	76	210.054	ug/l #	24
59) 2-Hexanone	10.22	43	197	1024.405	ug/l #	23
74) N-amyl acetate	11.37	43	150	141.427	ug/l #	43
76) 1,2,3-Trichloropropane	11.92	75	64	119.793	ug/l #	42
81) trans-1,4-Dichloro-2-buten	11.92	75	64	270.786	ug/l #	24
82) 4-Chlorotoluene	11.90	91	83	27.320	ug/l #	39
84) 1,2,4-Trimethylbenzene	12.31	105	61	16.288	ug/l #	26
85) sec-Butylbenzene	12.31	105	61	11.546	ug/l #	57
87) 1,3-Dichlorobenzene	12.60	146	127	60.281	ug/l #	26
88) 1,4-Dichlorobenzene	12.60	146	127	62.630	ug/l #	25
89) n-Butylbenzene	12.85	91	86	20.760	ug/l #	27
90) Hexachloroethane	13.03	117	61	60.632	ug/l #	18
92) 1,2-Dibromo-3-Chloropropan	13.57	75	63	513.844	ug/l #	1
93) 1,2,4-Trichlorobenzene	14.20	180	98	72.122	ug/l #	61
95) Naphthalene	14.47	128	717	293.391	ug/l #	70

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



#1

Pentafluorobenzene

Concen: 0.000 ug/l

Expected RT: 4.87 min

Lab File: VF061982.D

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Tot Ion: 168

Sig Exp Ratio

168 100

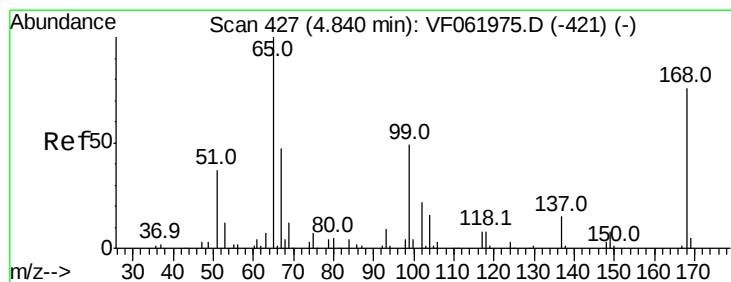
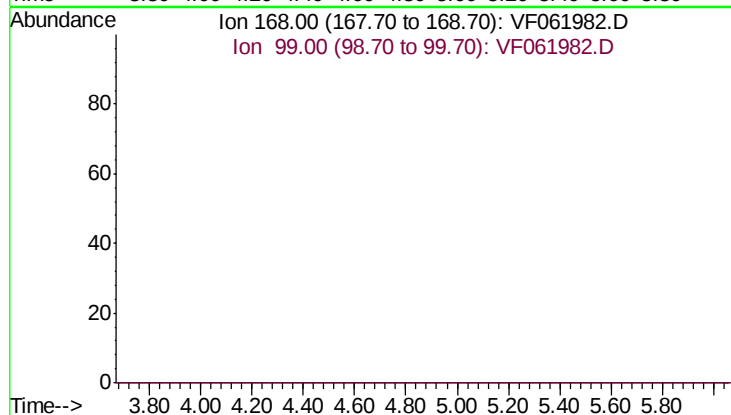
99 53.0

Instrument :

MSVOA_F

ClientSampleId :

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#33

1,2-Dichloroethane-d4

Concen: 0.000 ug/l

RT: 4.79 min Scan# 422

Delta R.T. -0.05 min

Lab File: VF061982.D

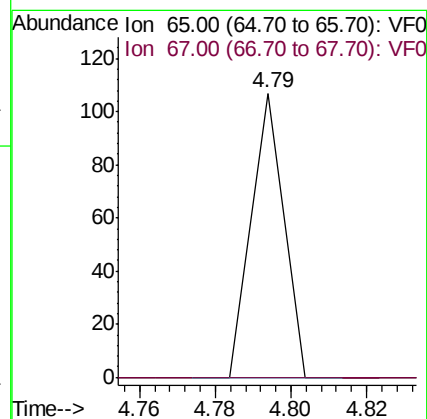
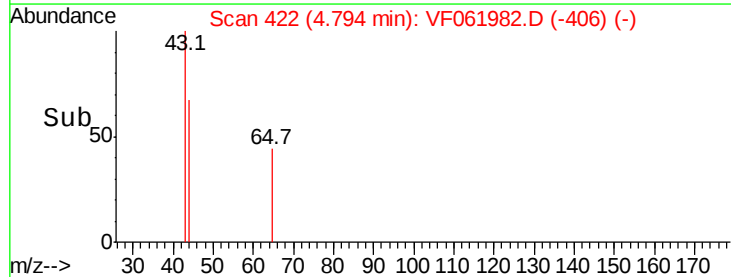
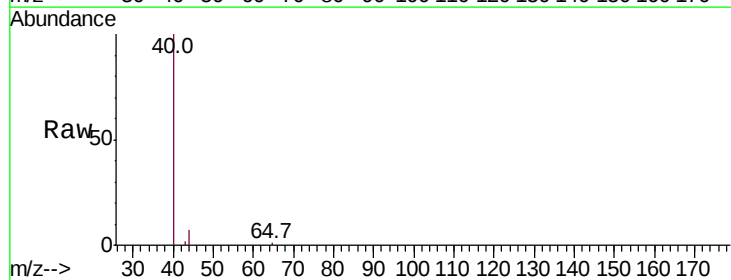
Acq: 16 Mar 2019 18:28

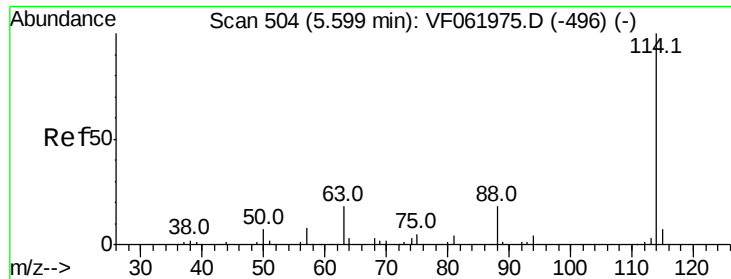
Tgt Ion: 65 Resp: 63

Ion Ratio Lower Upper

65 100

67 0.0 0.0 109.4





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.05 min Scan# 549

Delta R.T. 0.45 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

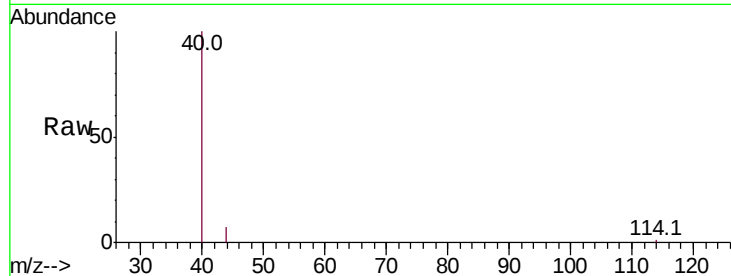
Tot Ion:114 Resp: 78

Ion Ratio Lower Upper

114 100

63 0.0 0.0 36.4

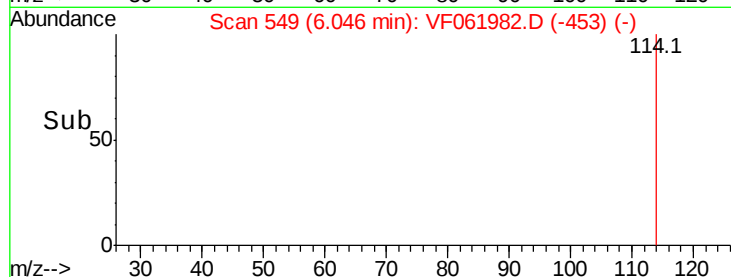
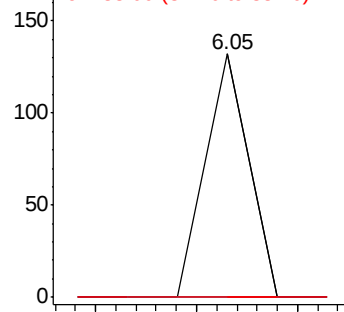
88 0.0 0.0 36.4



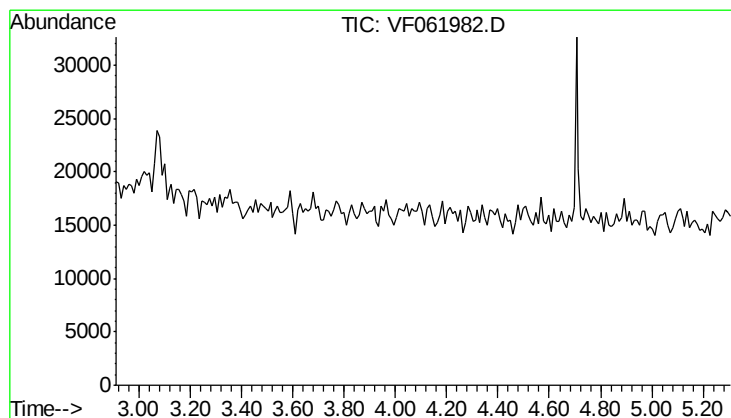
Abundance Ion 114.00 (113.70 to 114.70): VF061982.D

Ion 63.00 (62.70 to 63.70): VF061982.D

Ion 88.00 (87.70 to 88.70): VF061982.D



Time-->



#35

Dibromofluoromethane

Concen: 0.000 ug/l

Expected RT: 4.11 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

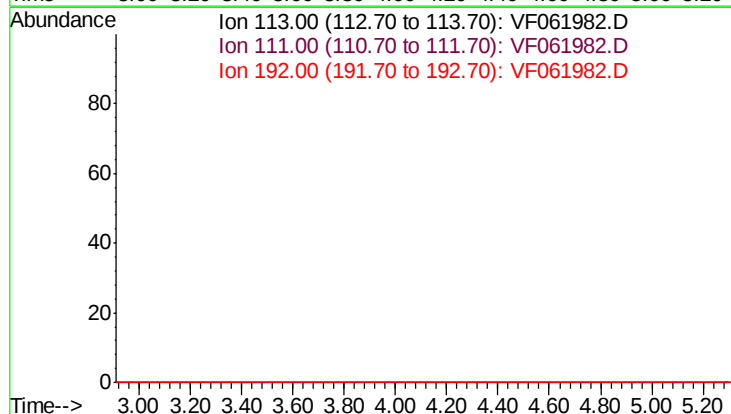
Tgt Ion: 113

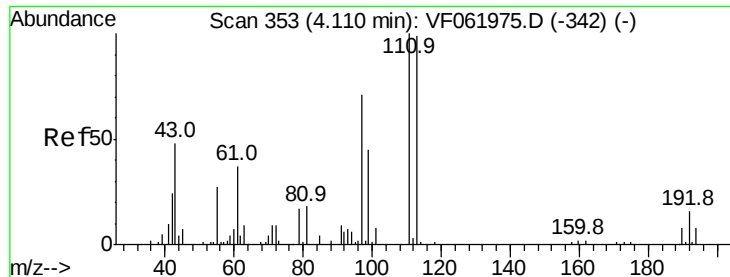
Sig Exp Ratio

113 100

111 101.0

192 16.3





#37

Ethyl Acetate

Concen: 237.137 ug/l

RT: 4.47 min Scan# 389

Delta R.T. 0.36 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

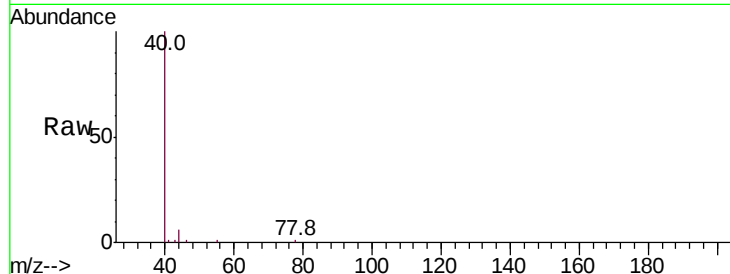
Tot Ion: 43 Resp: 75

Ion Ratio Lower Upper

43 100

61 0.0 59.8 89.6#

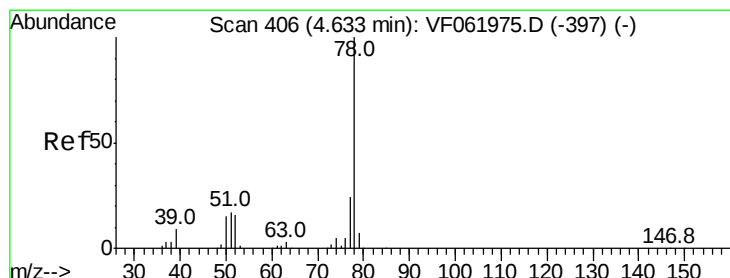
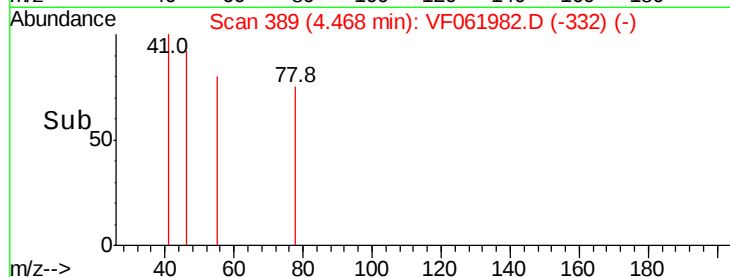
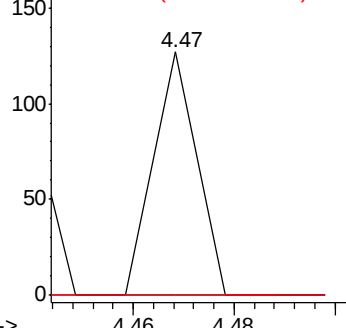
70 0.0 7.8 11.8#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 70.00 (69.70 to 70.70): VF0



#40

Benzene

Concen: 35.362 ug/l

RT: 5.03 min Scan# 446

Delta R.T. 0.40 min

Lab File: VF061982.D

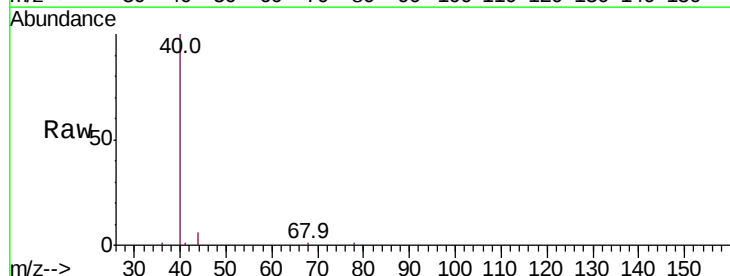
Acq: 16 Mar 2019 18:28

Tgt Ion: 78 Resp: 66

Ion Ratio Lower Upper

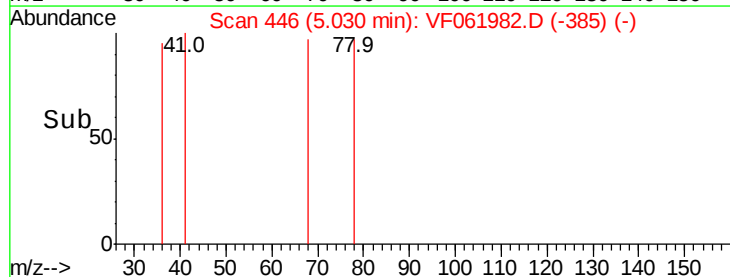
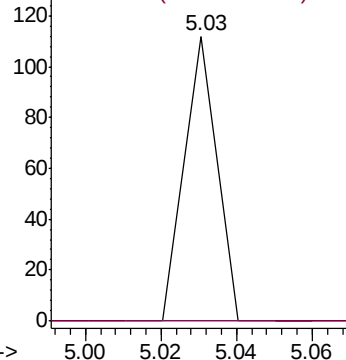
78 100

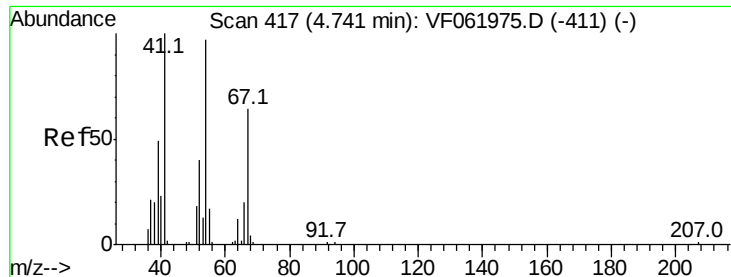
77 0.0 19.0 28.4#



Abundance Ion 78.10 (77.80 to 78.80): VF0

Ion 77.00 (76.70 to 77.70): VF0

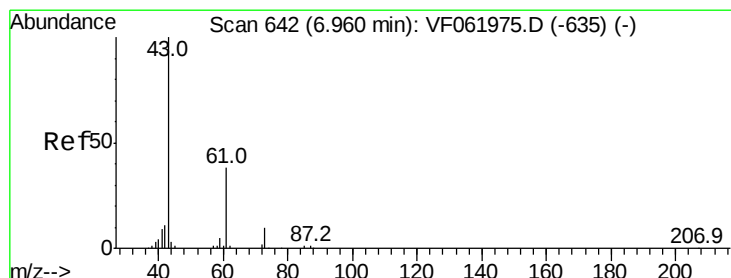
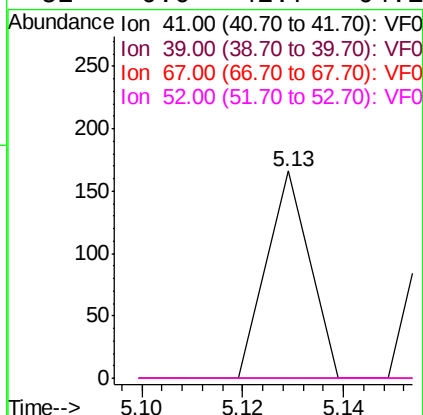
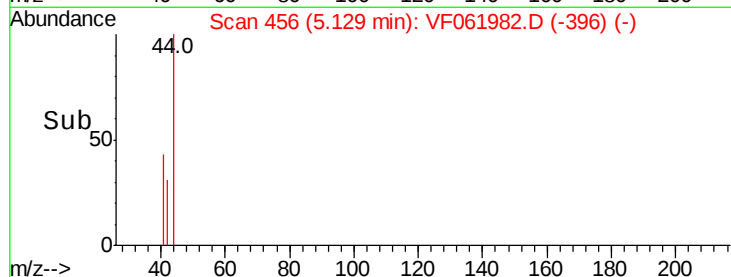
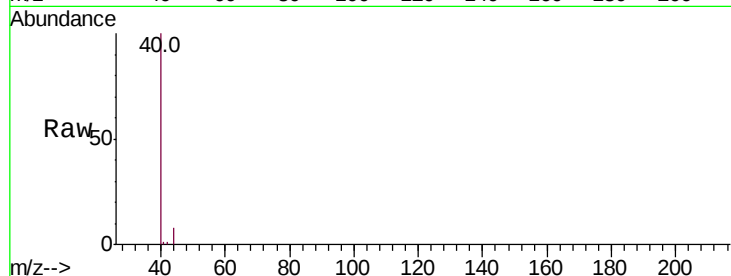




#41
Methacrylonitrile
Concen: 579.961 ug/l
RT: 5.13 min Scan# 456
Delta R.T. 0.39 min
Lab File: VF061982.D
Acq: 16 Mar 2019 18:28

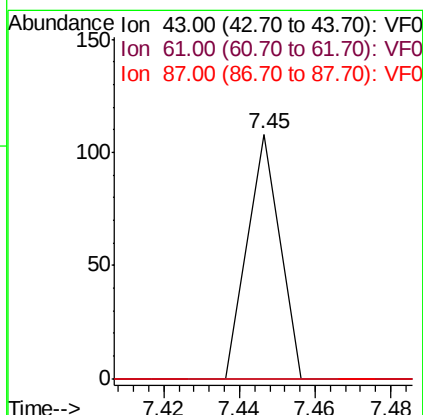
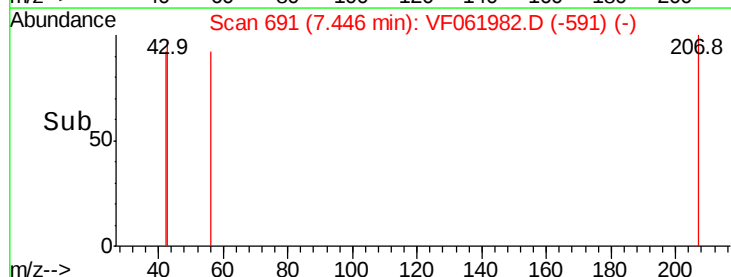
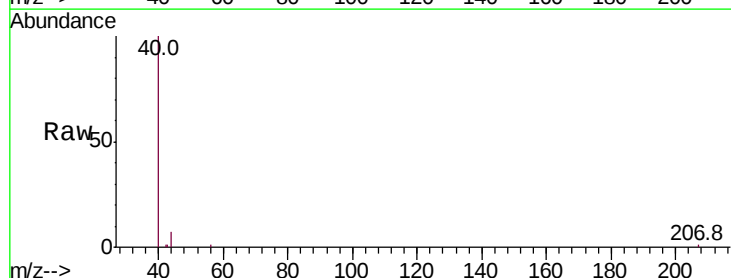
Instrument :
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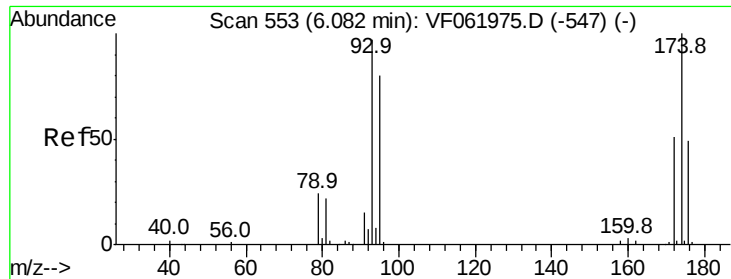
Tot Ion:	41	Resp:	98
Ion	Ratio	Lower	Upper
41	100		
39	0.0	46.2	69.4#
67	0.0	49.8	74.8#
52	0.0	42.7	64.1#



#43
Isopropyl Acetate
Concen: 171.031 ug/l
RT: 7.45 min Scan# 691
Delta R.T. 0.49 min
Lab File: VF061982.D
Acq: 16 Mar 2019 18:28

Tgt Ion:	43	Resp:	64
Ion	Ratio	Lower	Upper
43	100		
61	0.0	30.1	45.1#
87	0.0	0.4	0.6#





#46

Dibromomethane

Concen: 251.178 ug/l

RT: 6.72 min Scan# 617

Delta R.T. 0.63 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

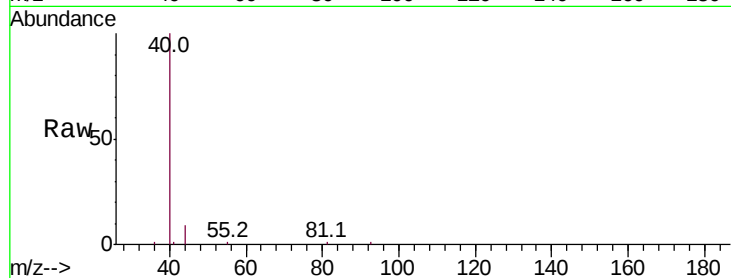
Tot Ion: 93 Resp: 66

Ion Ratio Lower Upper

93 100

95 0.0 65.7 98.5#

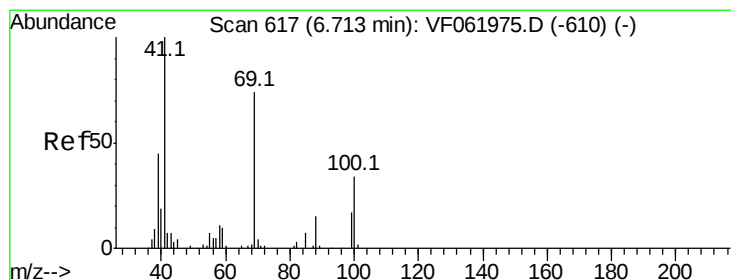
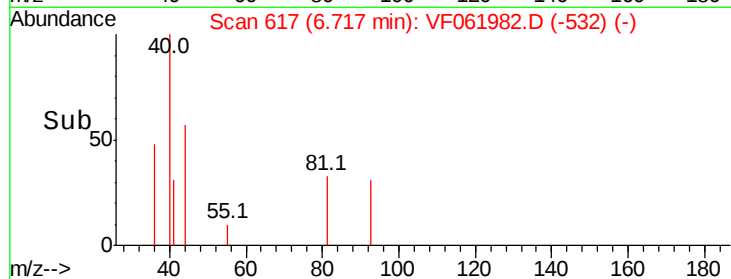
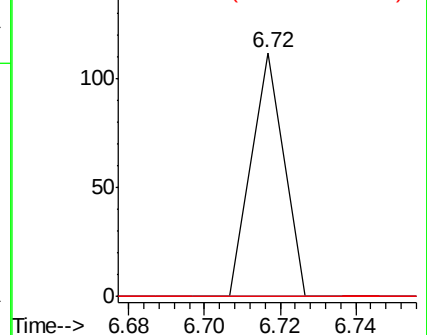
174 0.0 82.2 123.4#



Abundance Ion 93.00 (92.70 to 93.70): VF0

Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V



#48

Methyl methacrylate

Concen: 376.276 ug/l

RT: 7.26 min Scan# 672

Delta R.T. 0.55 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

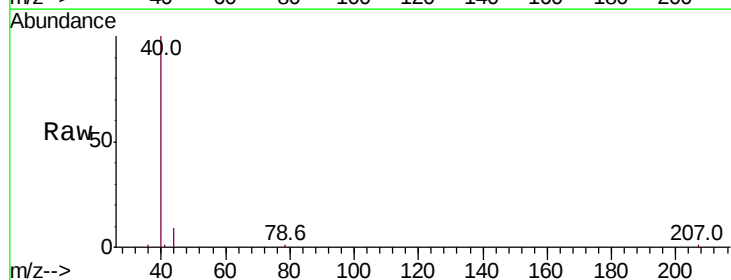
Tgt Ion: 41 Resp: 91

Ion Ratio Lower Upper

41 100

69 0.0 59.0 88.6#

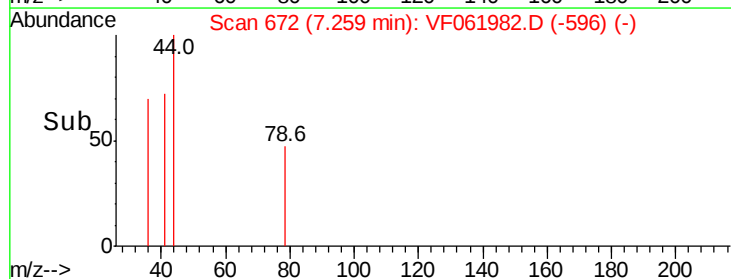
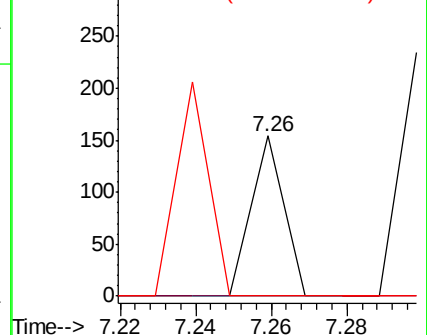
39 0.0 35.6 53.4#

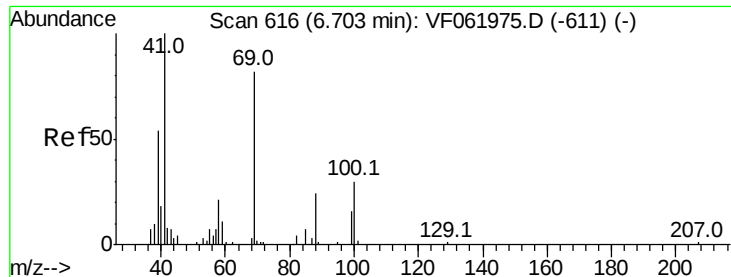


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0





#49

1,4-Dioxane

Concen: 32075.080 ug/l

RT: 7.39 min Scan# 685

Delta R.T. 0.68 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

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ClientSampleId :

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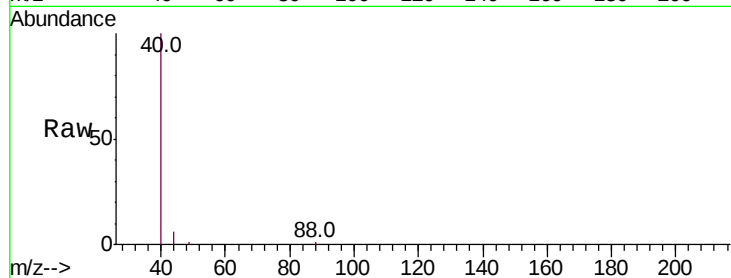
Tot Ion: 88 Resp: 69

Ion Ratio Lower Upper

88 100

43 0.0 31.2 46.8#

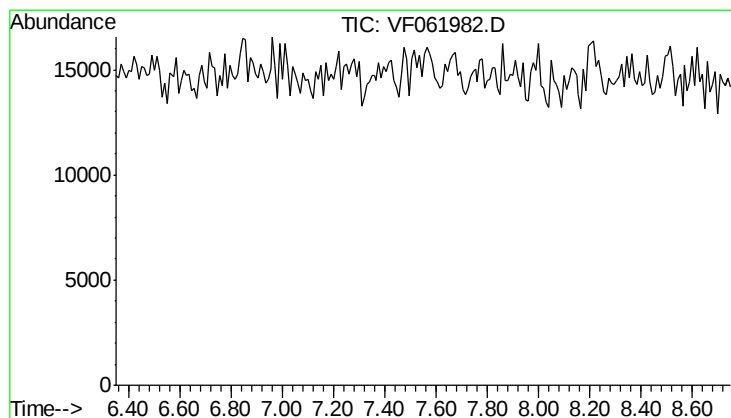
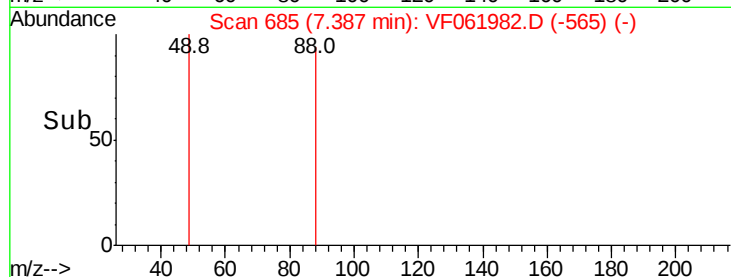
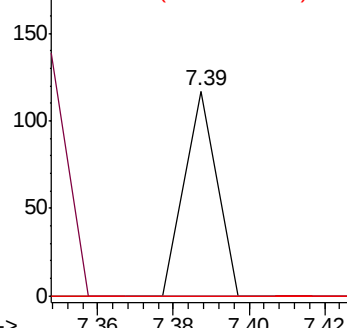
58 0.0 69.9 104.9#



Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#50

Toluene-d8

Concen: 0.000 ug/l

Expected RT: 7.55 min

Lab File: VF061982.D

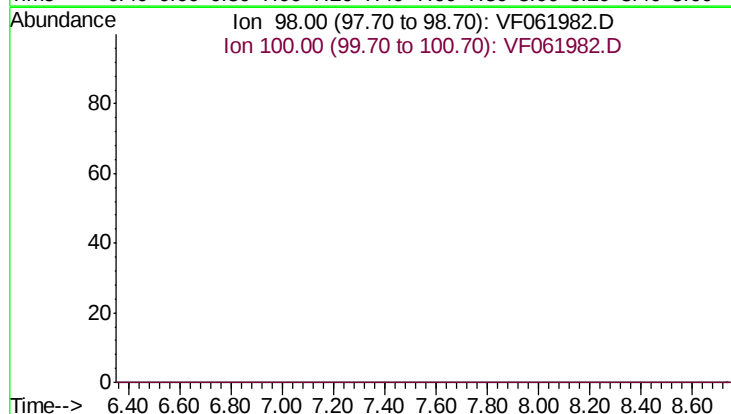
Acq: 16 Mar 2019 18:28

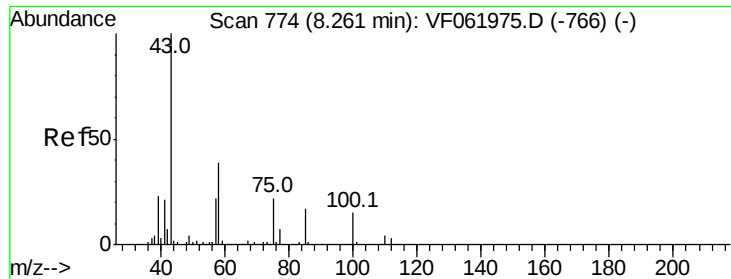
Tgt Ion: 98

Sig Exp Ratio

98 100

100 71.0





#51

4-Methyl-2-Pentanone

Concen: 248.377 ug/l

RT: 8.93 min Scan# 841

Delta R.T. 0.66 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

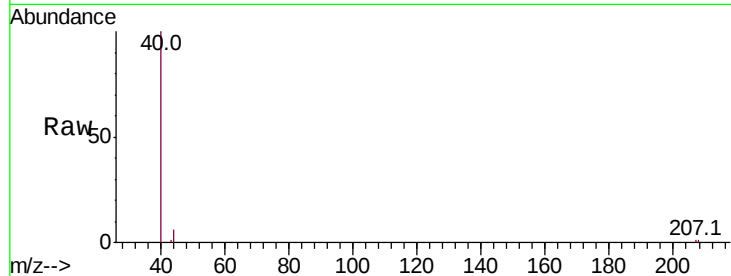
BF-06-031119

Tot Ion: 43 Resp: 66

Ion Ratio Lower Upper

43 100

58 0.0 31.1 46.7#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.93

120

100

80

60

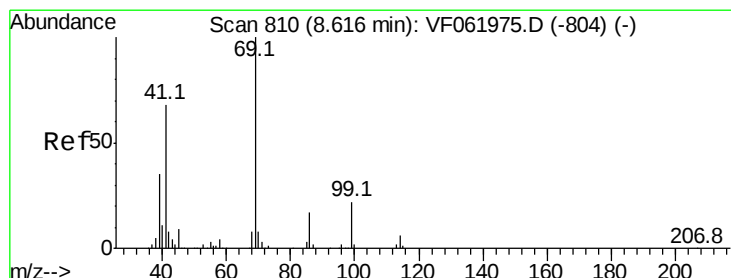
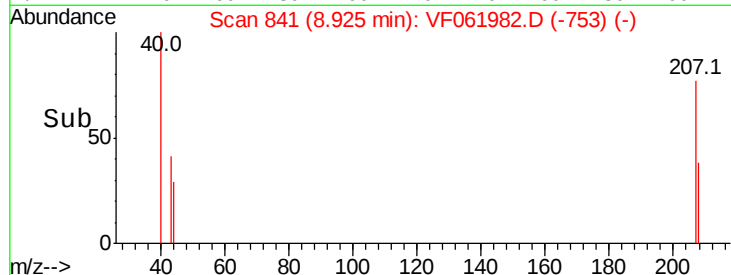
40

20

0

8.90 8.92 8.94

Time-->



#56

Ethyl methacrylate

Concen: 210.054 ug/l

RT: 9.12 min Scan# 861

Delta R.T. 0.51 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

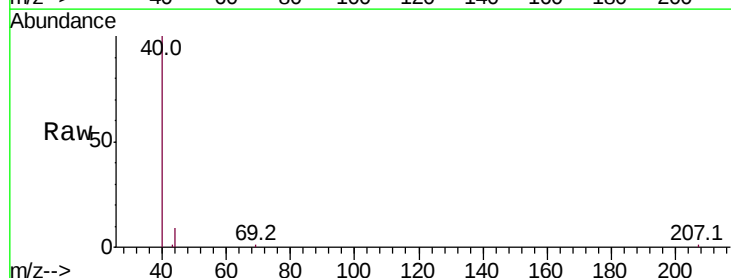
Tgt Ion: 69 Resp: 76

Ion Ratio Lower Upper

69 100

41 0.0 54.7 82.1#

39 0.0 27.9 41.9#



Abundance Ion 69.00 (68.70 to 69.70): VF0

Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

200

150

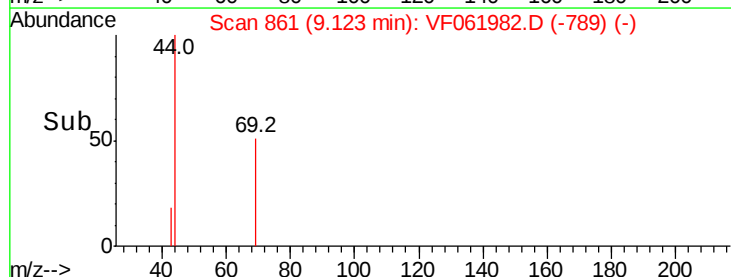
100

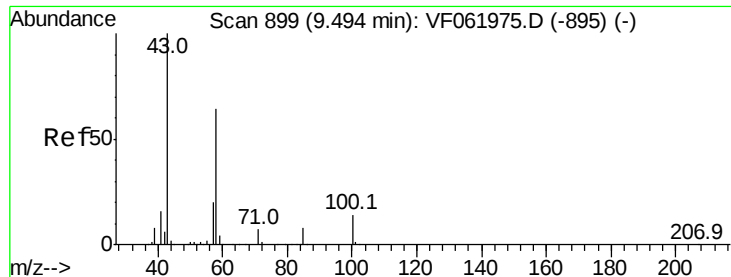
50

0

9.10 9.12 9.14

Time-->





#59

2-Hexanone

Concen: 1024.405 ug/l

RT: 10.22 min Scan# 972

Delta R.T. 0.72 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

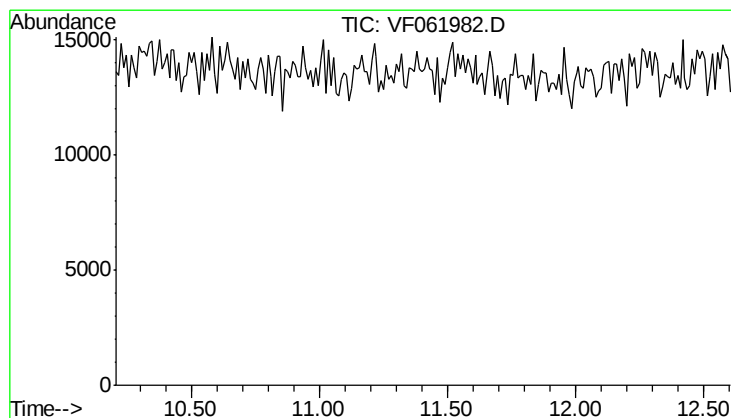
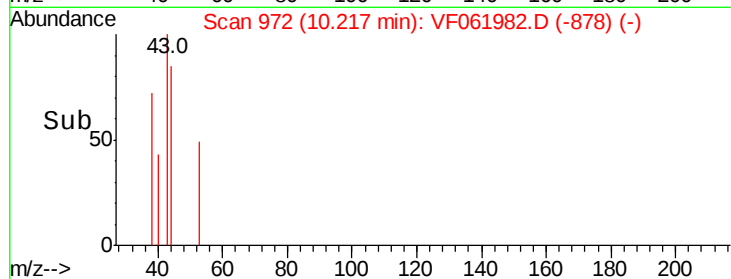
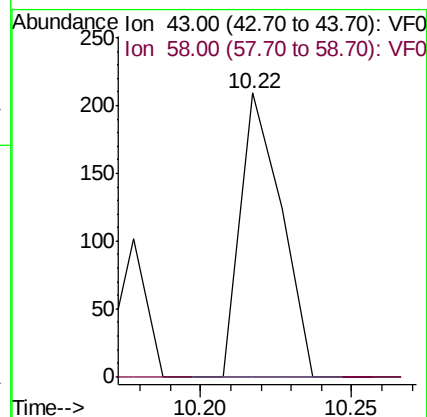
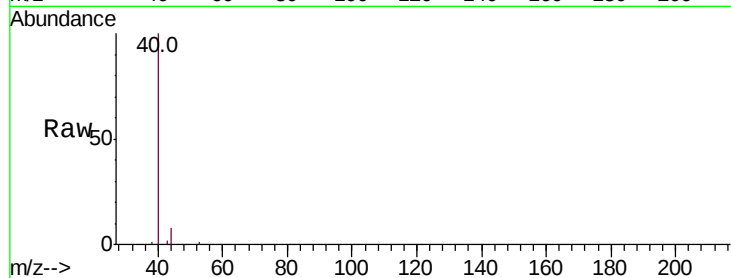
BF-06-031119

Tot Ion: 43 Resp: 197

Ion Ratio Lower Upper

43 100

58 0.0 28.4 85.2#



#62

4-Bromofluorobenzene

Concen: 0.000 ug/l

Expected RT: 11.41 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

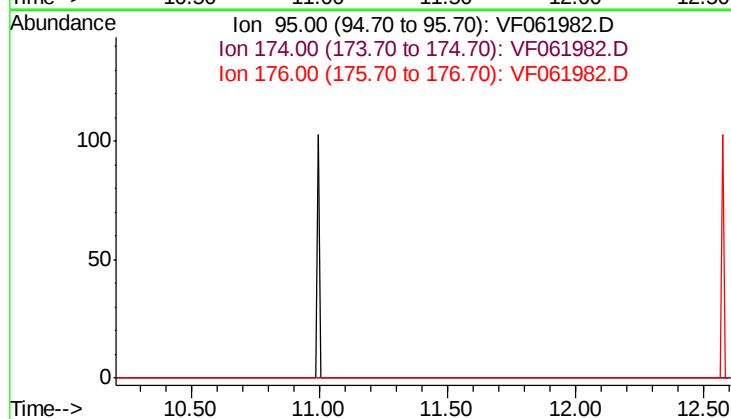
Tgt Ion: 95

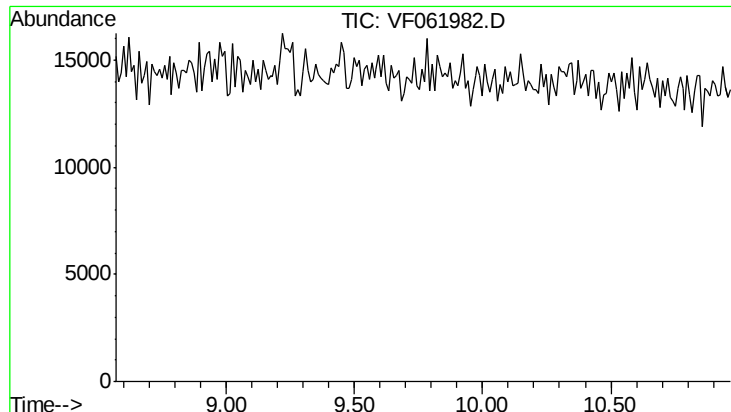
Sig Exp Ratio

95 100

174 74.7

176 71.7

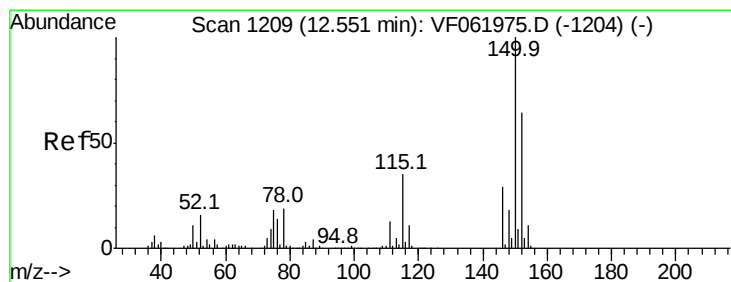
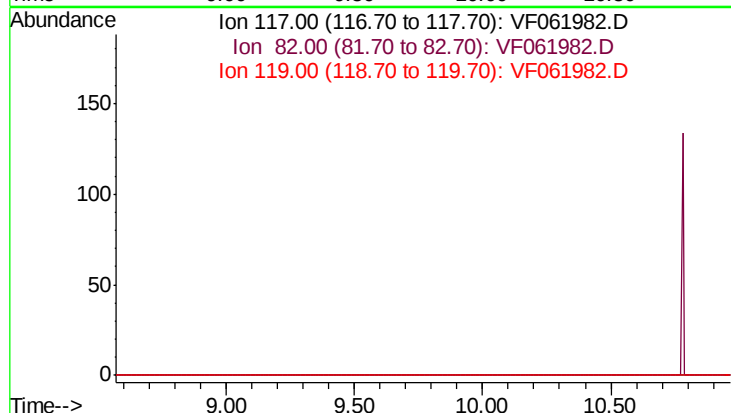




#63
 Chlorobenzene-d5
 Concen: 0.000 ug/l
 Expected RT: 9.77 min
 Lab File: VF061982.D
 Acq: 16 Mar 2019 18:28

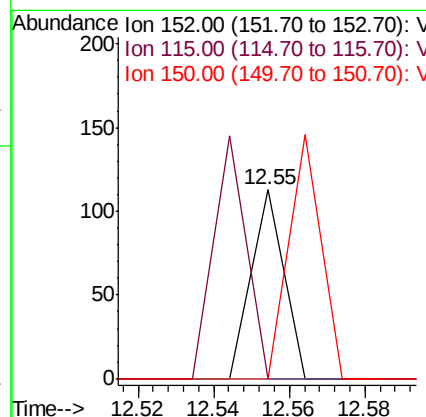
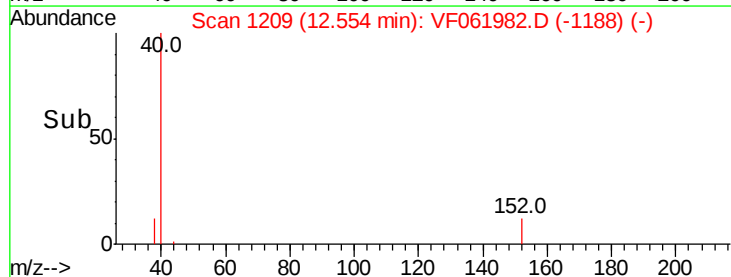
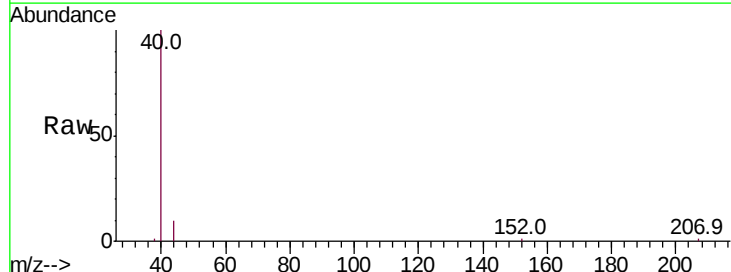
Instrument :
 MSVOA_F
 ClientSampleId :
 BF-06-031119

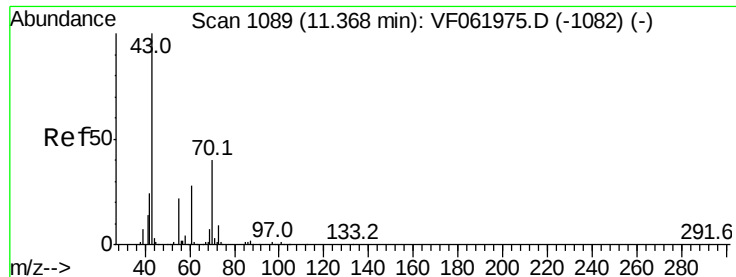
Tot Ion: 117
 Sig Exp Ratio
 117 100
 82 53.1
 119 31.7



#72
 1,4-Dichlorobenzene-d4
 Concen: 50.000 ug/l
 RT: 12.55 min Scan# 1209
 Delta R.T. 0.00 min
 Lab File: VF061982.D
 Acq: 16 Mar 2019 18:28

Tgt Ion: 152 Resp: 67
 Ion Ratio Lower Upper
 152 100
 115 0.0 27.3 81.9#
 150 0.0 0.0 316.2





#74

N-amvl acetate

Concen: 141.427 ug/l

RT: 11.37 min Scan# 1089

Delta R.T. 0.00 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

Tot Ion: 43 Resp: 150

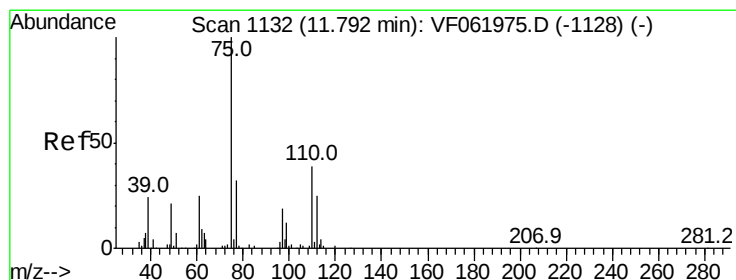
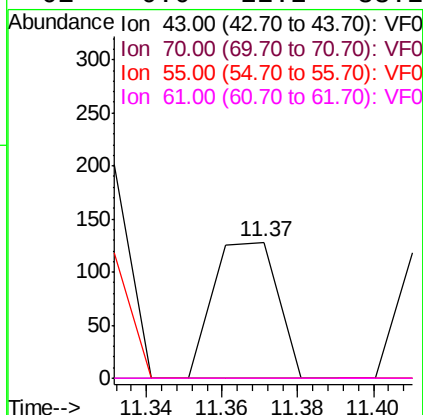
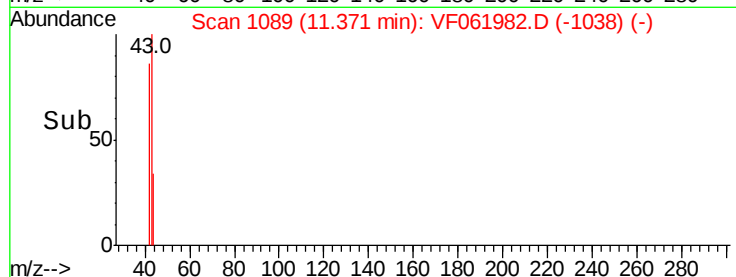
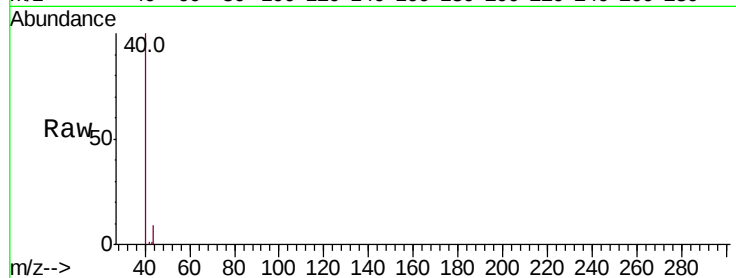
Ion Ratio Lower Upper

43 100

70 0.0 31.9 47.9#

55 0.0 17.9 26.9#

61 0.0 22.2 33.2#



#76

1,2,3-Trichloropropane

Concen: 119.793 ug/l

RT: 11.92 min Scan# 1145

Delta R.T. 0.13 min

Lab File: VF061982.D

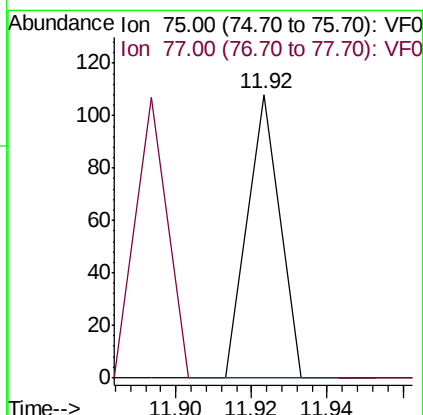
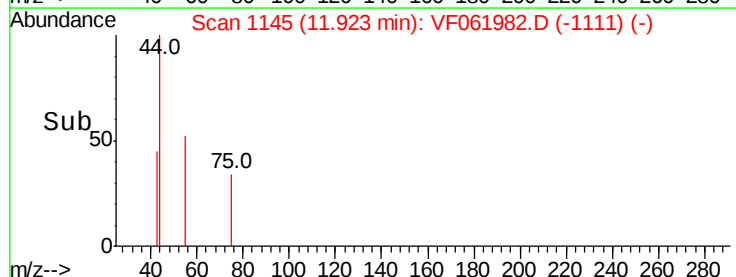
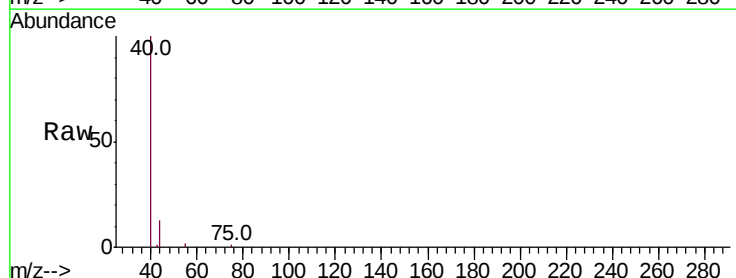
Acq: 16 Mar 2019 18:28

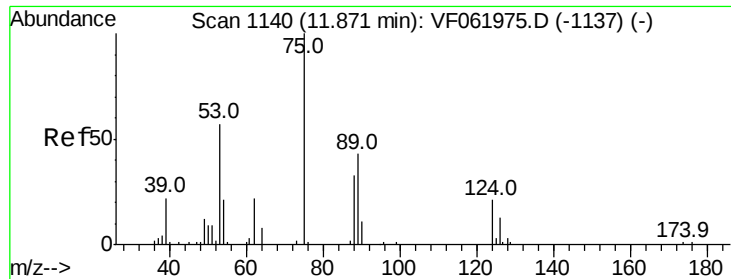
Tgt Ion: 75 Resp: 64

Ion Ratio Lower Upper

75 100

77 0.0 16.4 49.2#





#81

trans-1,4-Dichloro-2-butene

Concen: 270.786 ug/l

RT: 11.92 min Scan# 1145

Delta R.T. 0.05 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

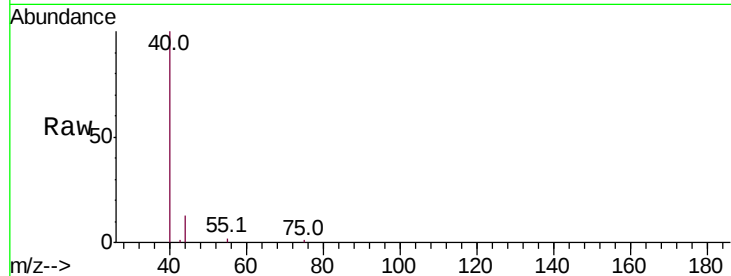
Tot Ion: 75 Resp: 64

Ion Ratio Lower Upper

75 100

53 0.0 49.0 73.6#

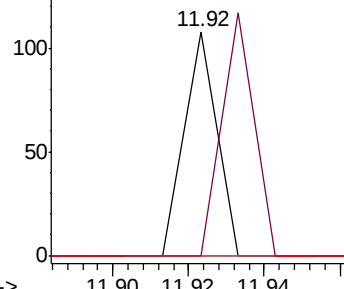
89 0.0 37.1 55.7#



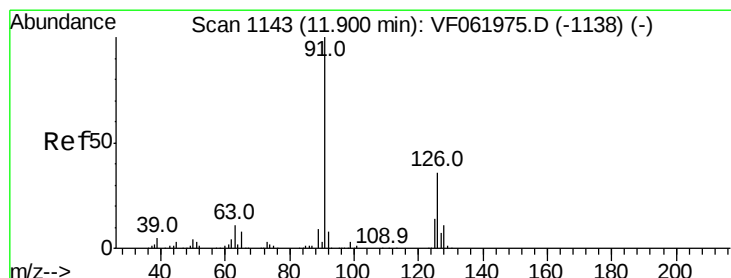
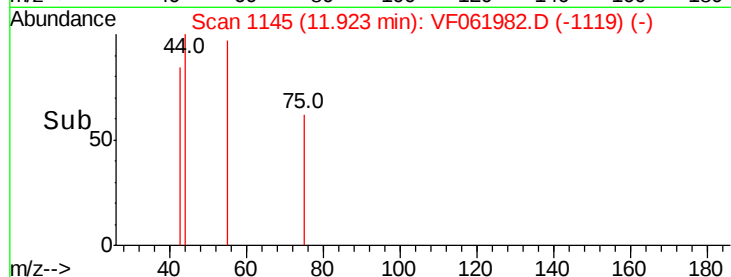
Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 53.00 (52.70 to 53.70): VF0

Ion 89.00 (88.70 to 89.70): VF0



Time-->



#82

4-Chlorotoluene

Concen: 27.320 ug/l

RT: 11.90 min Scan# 1143

Delta R.T. 0.00 min

Lab File: VF061982.D

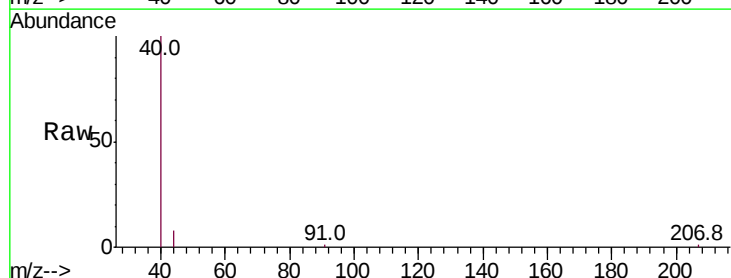
Acq: 16 Mar 2019 18:28

Tgt Ion: 91 Resp: 83

Ion Ratio Lower Upper

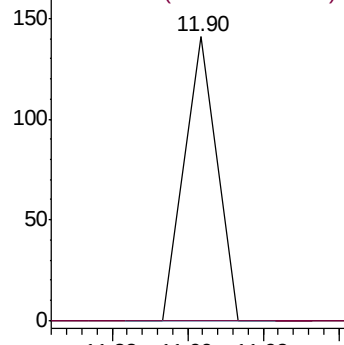
91 100

126 0.0 18.1 54.1#

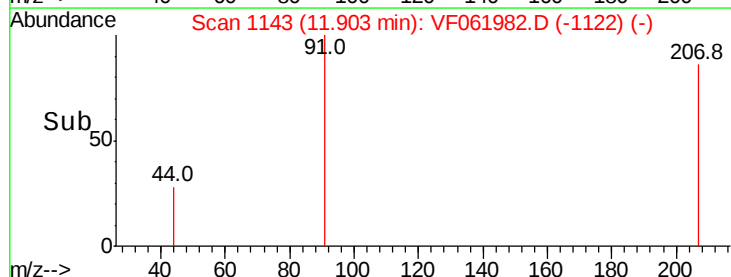


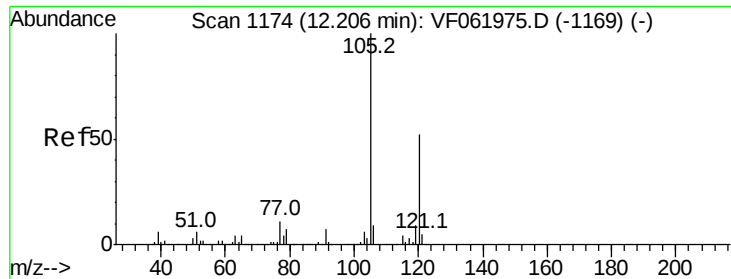
Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 126.00 (125.70 to 126.70): V



Time-->





#84

1,2,4-Trimethylbenzene

Concen: 16.288 ug/l

RT: 12.31 min Scan# 1184

Delta R.T. 0.10 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

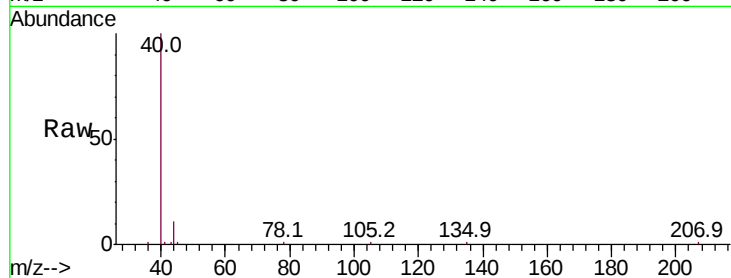
BF-06-031119

Tot Ion:105 Resp: 61

Ion Ratio Lower Upper

105 100

120 0.0 25.9 77.8#



Abundance Ion 105.00 (104.70 to 105.70): V

120 Ion 120.00 (119.70 to 120.70): V

100 12.31

80

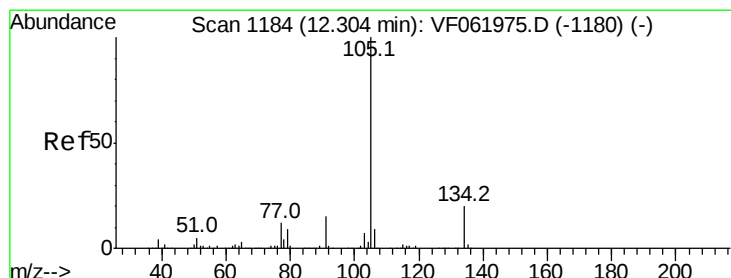
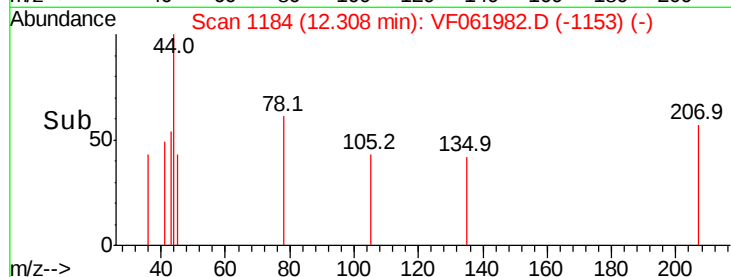
60

40

20

0

Time--> 12.28 12.30 12.32 12.34



#85

sec-Butylbenzene

Concen: 11.546 ug/l

RT: 12.31 min Scan# 1184

Delta R.T. 0.00 min

Lab File: VF061982.D

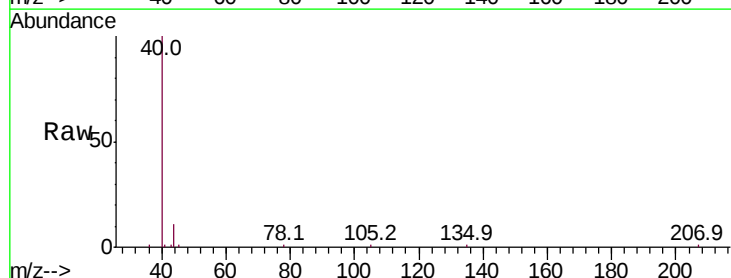
Acq: 16 Mar 2019 18:28

Tgt Ion:105 Resp: 61

Ion Ratio Lower Upper

105 100

134 0.0 10.0 29.8#



Abundance Ion 105.00 (104.70 to 105.70): V

120 Ion 134.00 (133.70 to 134.70): V

100 12.31

80

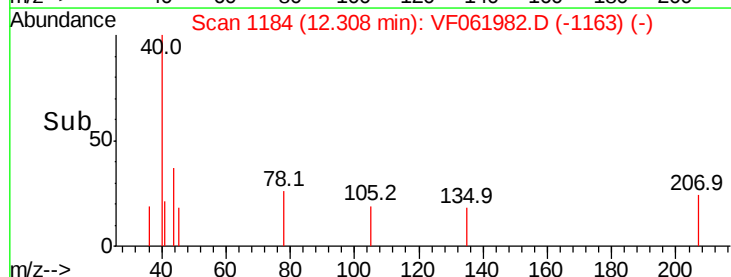
60

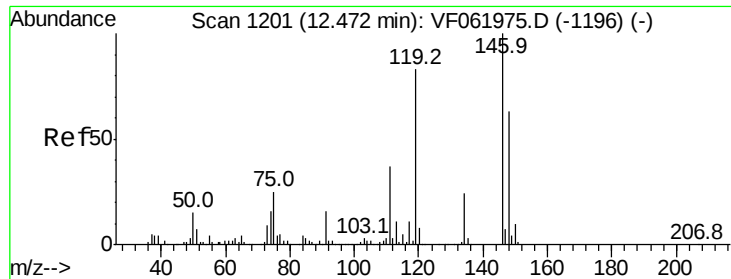
40

20

0

Time--> 12.28 12.30 12.32 12.34





#87

1,3-Dichlorobenzene

Concen: 60.281 ug/l

RT: 12.60 min Scan# 1214

Delta R.T. 0.13 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

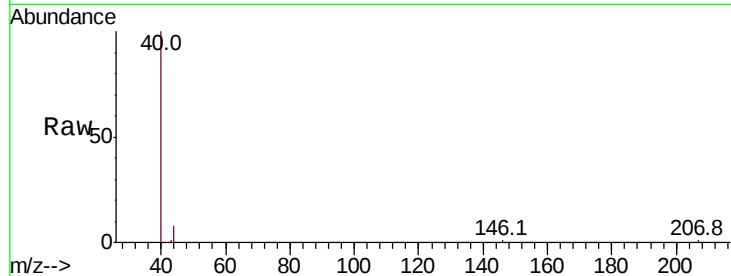
Tot Ion:146 Resp: 127

Ion Ratio Lower Upper

146 100

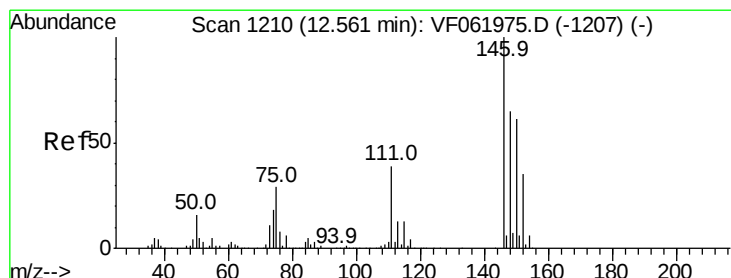
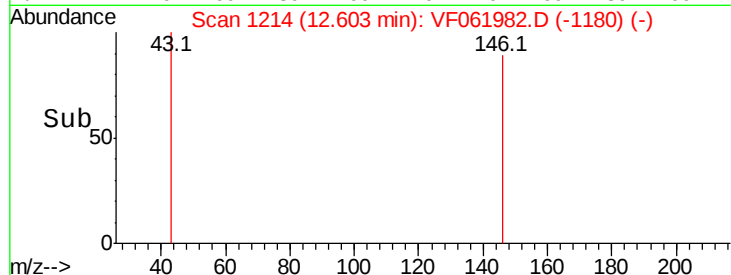
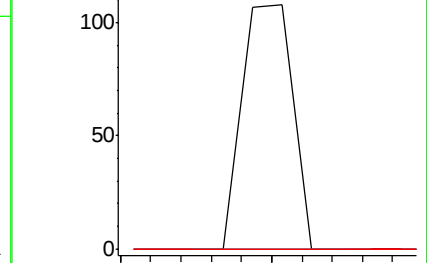
111 0.0 18.6 55.8#

148 0.0 31.3 93.9#



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

12.60



#88

1,4-Dichlorobenzene

Concen: 62.630 ug/l

RT: 12.60 min Scan# 1214

Delta R.T. 0.04 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

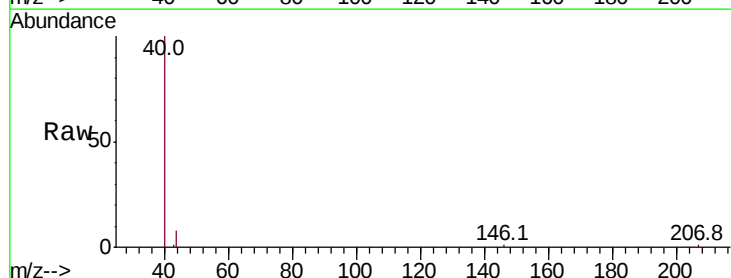
Tgt Ion:146 Resp: 127

Ion Ratio Lower Upper

146 100

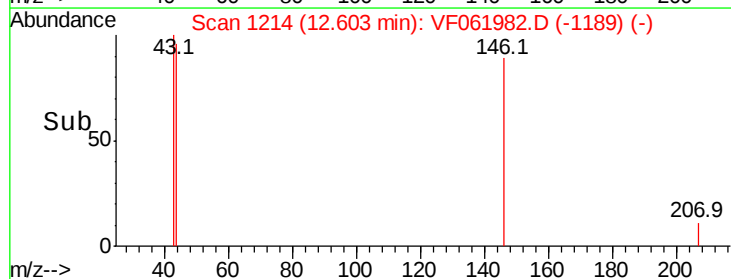
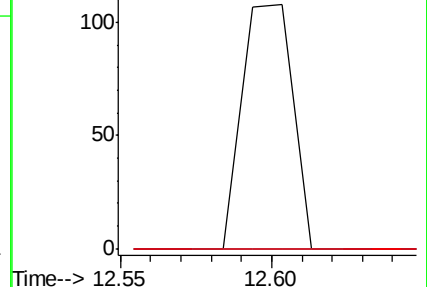
111 0.0 19.4 58.1#

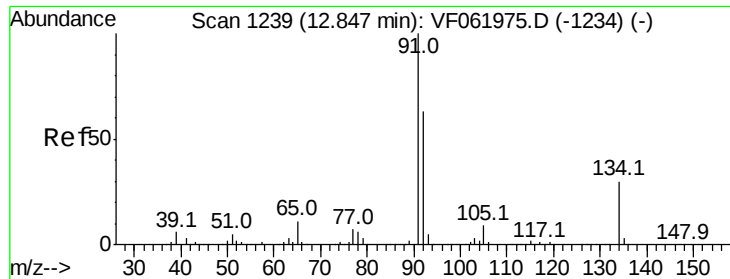
148 0.0 32.4 97.0#



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

12.60





#89

n-Butylbenzene

Concen: 20.760 ug/l

RT: 12.85 min Scan# 1239

Delta R.T. 0.00 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

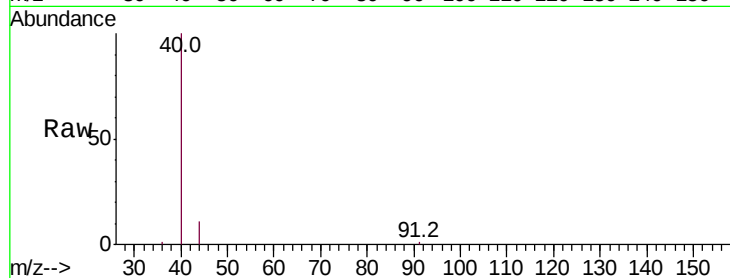
Tot Ion: 91 Resp: 86

Ion Ratio Lower Upper

91 100

92 0.0 31.7 95.1#

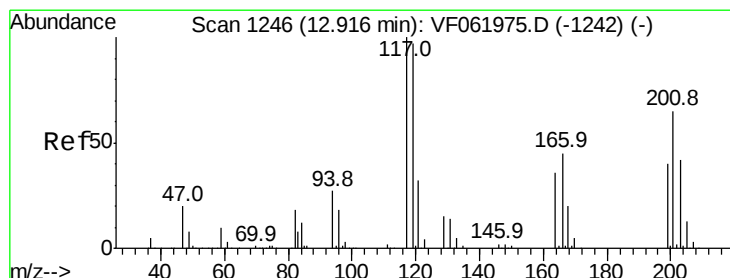
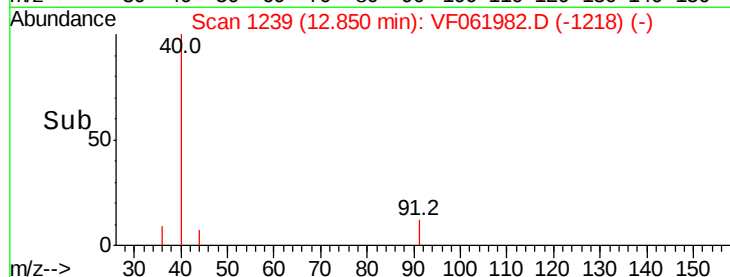
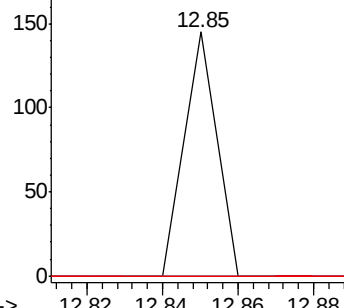
134 0.0 15.1 45.3#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 92.00 (91.70 to 92.70): VF0

Ion 134.00 (133.70 to 134.70): V



#90

Hexachloroethane

Concen: 60.632 ug/l

RT: 13.03 min Scan# 1257

Delta R.T. 0.11 min

Lab File: VF061982.D

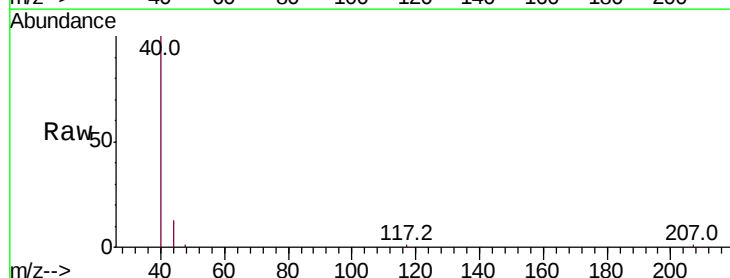
Acq: 16 Mar 2019 18:28

Tgt Ion: 117 Resp: 61

Ion Ratio Lower Upper

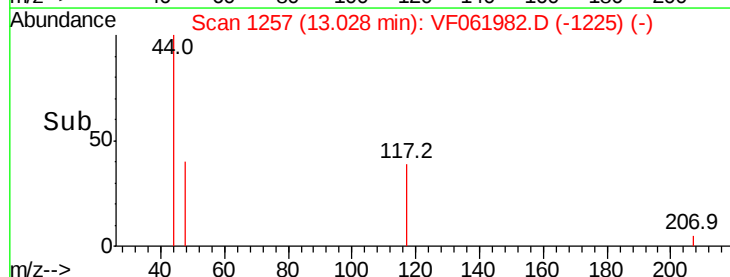
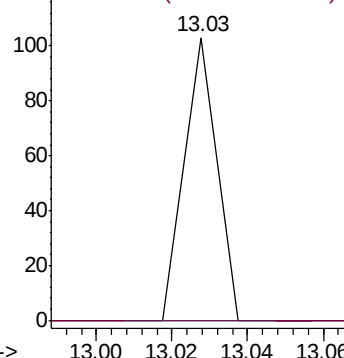
117 100

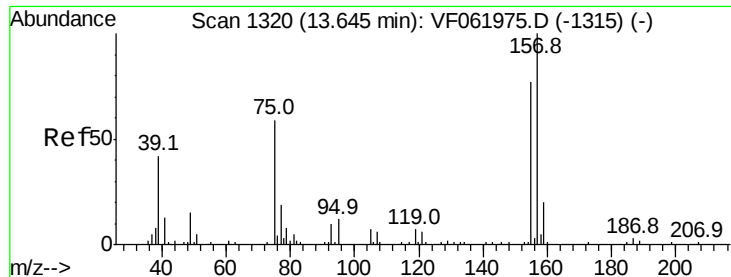
201 0.0 32.5 97.5#



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 201.00 (200.70 to 201.70): V





#92

1,2-Dibromo-3-Chloropropane

Concen: 513.844 ug/l

RT: 13.57 min Scan# 1312

Delta R.T. -0.08 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

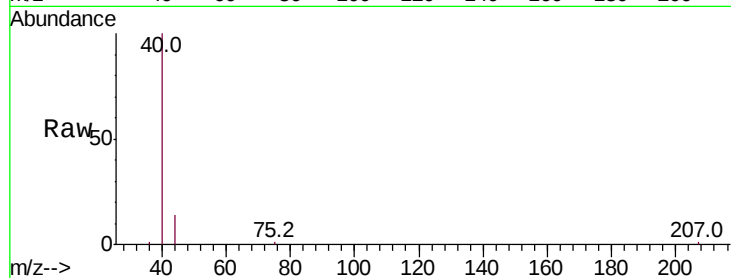
Tot Ion: 75 Resp: 63

Ion Ratio Lower Upper

75 100

155 0.0 65.0 195.1#

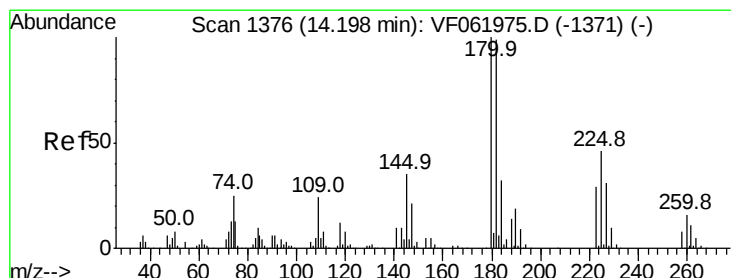
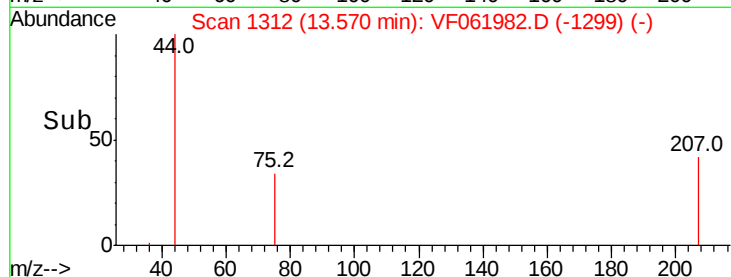
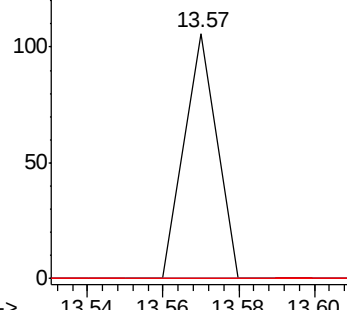
157 0.0 84.7 254.0#



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: 72.122 ug/l

RT: 14.20 min Scan# 1376

Delta R.T. 0.00 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

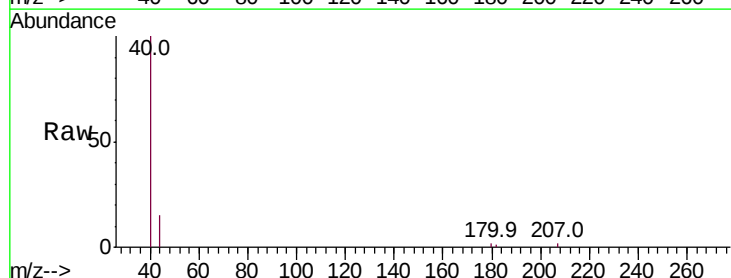
Tgt Ion:180 Resp: 98

Ion Ratio Lower Upper

180 100

182 67.9 49.6 149.0

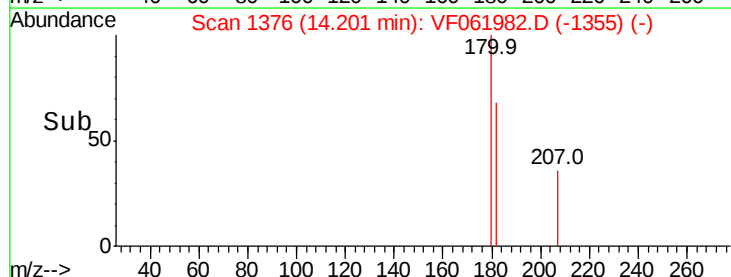
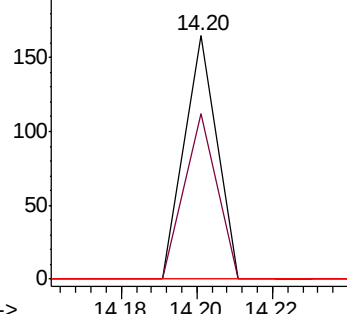
145 0.0 17.5 52.5#

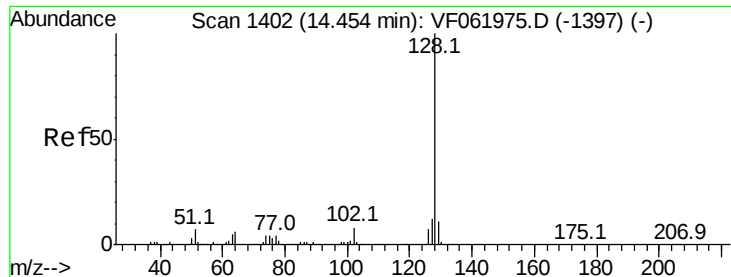


Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#95

Naphthalene

Concen: 293.391 ug/l

RT: 14.47 min Scan# 1403

Delta R.T. 0.01 min

Lab File: VF061982.D

Acq: 16 Mar 2019 18:28

Instrument :

MSVOA_F

ClientSampleId :

BF-06-031119

Tot Ion:128 Resp: 717

Ion Ratio Lower Upper

128 100

127 0.0 9.3 13.9#

129 0.0 9.1 13.7#

