

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX081219\
 Data File : VX011513.D
 Acq On : 13 Aug 2019 03:33
 Operator : JC/SP
 Sample : K4231-04
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 45 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 REACTOR-3-F-(3)

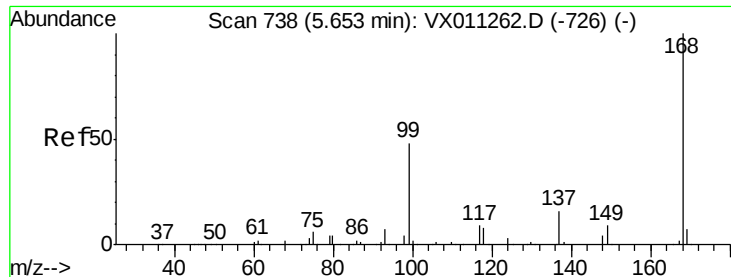
Quant Time: Aug 13 07:48:37 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X080119W.M
 Quant Title : SW846 8260
 QLast Update : Fri Aug 02 01:55:00 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	182639	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	279967	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	258539	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	115607	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	6.06	65	104392	56.76	ug/l	0.00
Spiked Amount			Recovery	=	113.52%	
35) Dibromofluoromethane	5.49	113	87669	47.96	ug/l	0.00
Spiked Amount			Recovery	=	95.92%	
50) Toluene-d8	8.71	98	332181	48.15	ug/l	0.00
Spiked Amount			Recovery	=	96.30%	
62) 4-Bromofluorobenzene	11.13	95	110873	45.01	ug/l	0.00
Spiked Amount			Recovery	=	90.02%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
5) Bromomethane	1.65	94	307	0.247	ug/l #	57
6) Chloroethane	1.77	64	102	Below Cal	#	11
11) Tert butyl alcohol	3.01	59	2382	6.517	ug/l #	84
13) Acrolein	2.28	56	350	1.115	ug/l #	25
16) Acetone	2.43	43	8706	9.945	ug/l	96
18) Methyl Acetate	2.76	43	895	0.447	ug/l	94
20) Methylene Chloride	2.85	84	2217	1.156	ug/l	90
25) 2-Butanone	4.68	43	1948	1.564	ug/l	91
29) Tetrahydrofuran	5.11	42	160	0.210	ug/l #	39
31) Cyclohexane	5.65	56	3525	1.488	ug/l #	28
36) 1,1-Dichloropropene	5.66	75	12321	5.041	ug/l #	50
38) Carbon Tetrachloride	5.65	117	17183	6.987	ug/l #	15
41) Methacrylonitrile	5.04	41	271	0.202	ug/l #	29
43) Isopropyl Acetate	6.43	43	20886	5.328	ug/l	99
48) Methyl methacrylate	7.68	41	1205	0.653	ug/l #	12
49) 1,4-Dioxane	7.82	88	19	0.355	ug/l #	29
51) 4-Methyl-2-Pentanone	8.61	43	20542	8.120	ug/l #	52
53) t-1,3-Dichloropropene	9.01	75	52	2.856	ug/l #	43
54) cis-1,3-Dichloropropene	8.62	75	9699	3.556	ug/l #	68
57) 1,3-Dichloropropane	9.54	76	2011	0.641	ug/l #	41
59) 2-Hexanone	9.54	43	25472	12.999	ug/l #	50
76) 1,2,3-Trichloropropane	11.13	75	56904	27.028	ug/l #	35
81) trans-1,4-Dichloro-2-buten	11.13	75	56904	70.165	ug/l #	10

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.01 min

Lab File: VX011513.D

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MSVOA_X

ClientSampleId :

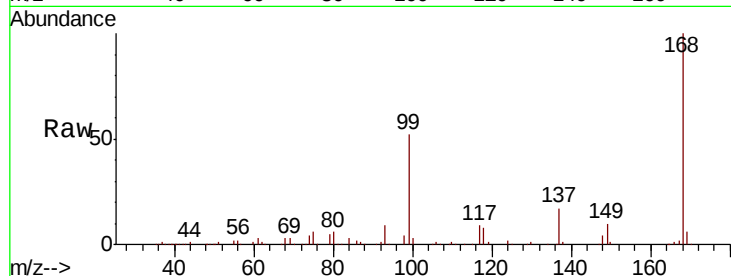
REACTOR-3-F(3)

Tgt Ion:168 Resp: 182639

Ion Ratio Lower Upper

168 100

99 51.8 38.5 57.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

60000

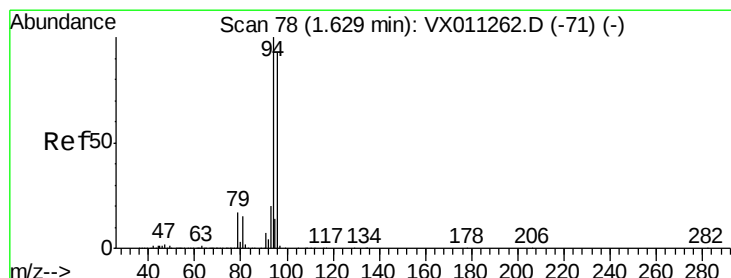
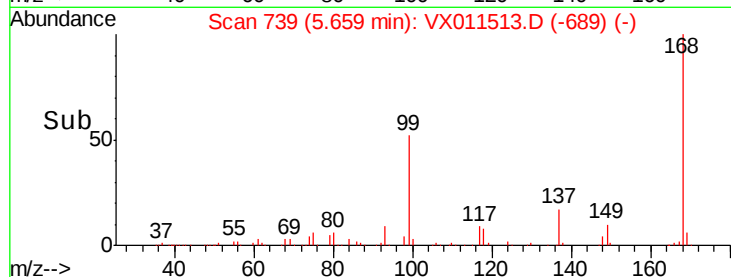
40000

20000

0

Time-->

5.50 5.60 5.70 5.80



#5

Bromomethane

Concen: 0.247 ug/l

RT: 1.65 min Scan# 81

Delta R.T. 0.02 min

Lab File: VX011513.D

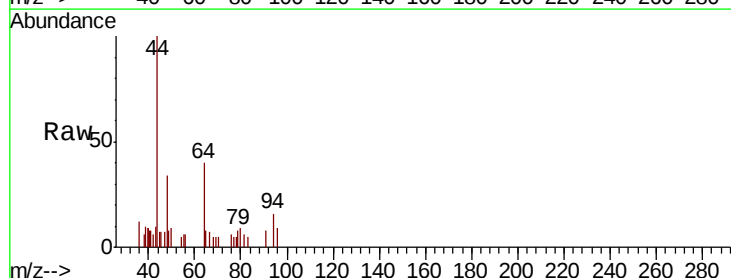
Acq: 13 Aug 2019 03:33

Tgt Ion: 94 Resp: 307

Ion Ratio Lower Upper

94 100

96 52.3 74.6 112.0#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.65

200

150

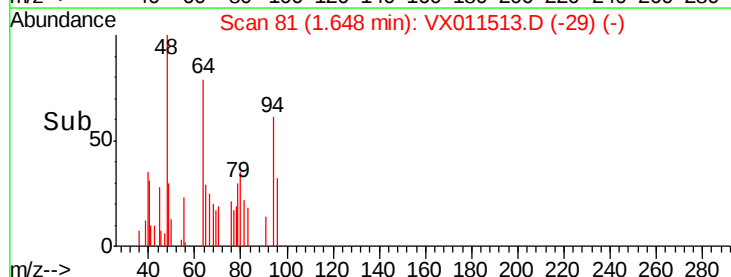
100

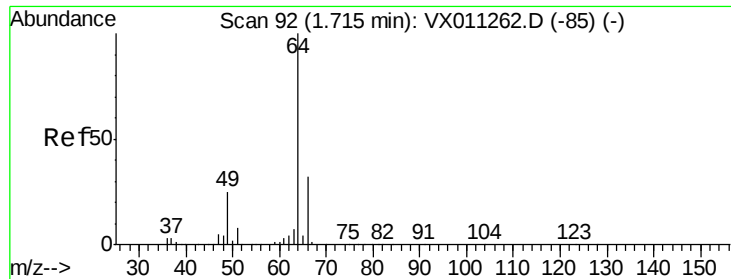
50

0

Time-->

1.60 1.65





#6

Chloroethane

Concen: Below Cal

RT: 1.77 min Scan# 101

Delta R.T. 0.06 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

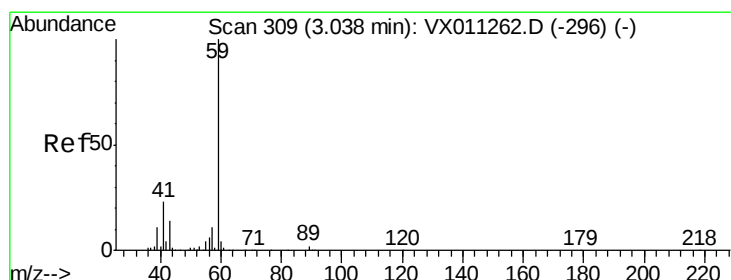
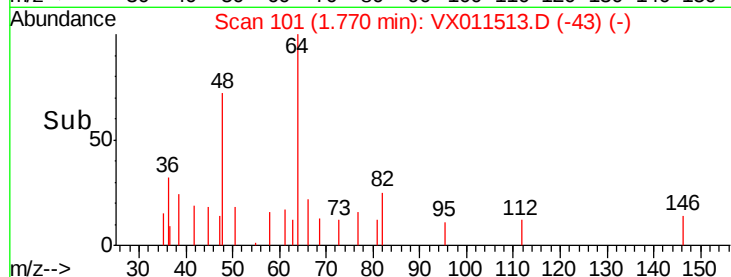
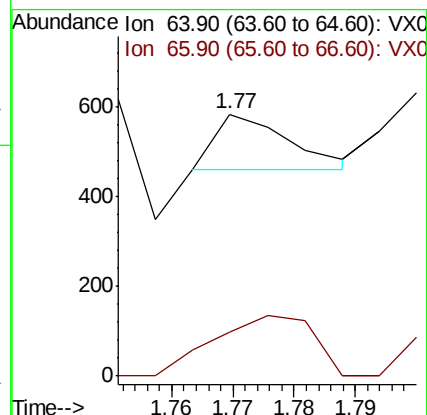
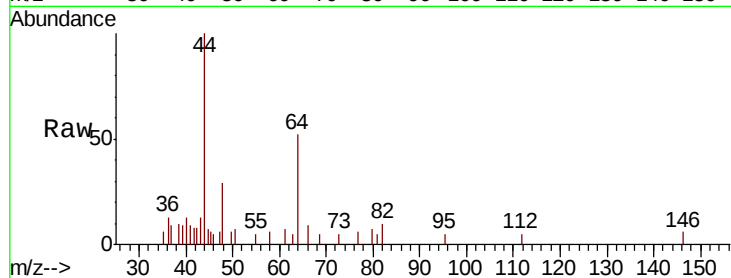
REACTOR-3-F-(3)

Tgt Ion: 64 Resp: 102

Ion Ratio Lower Upper

64 100

66 80.3 25.1 37.7#



#11

Tert butyl alcohol

Concen: 6.517 ug/l

RT: 3.01 min Scan# 305

Delta R.T. -0.02 min

Lab File: VX011513.D

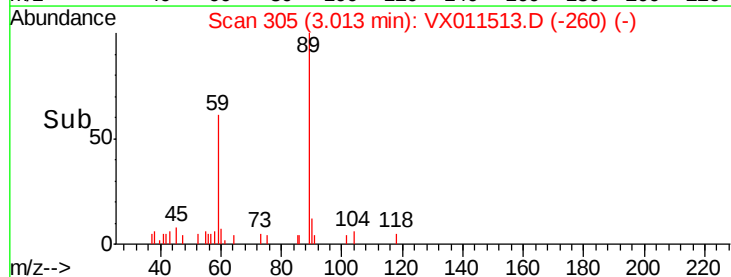
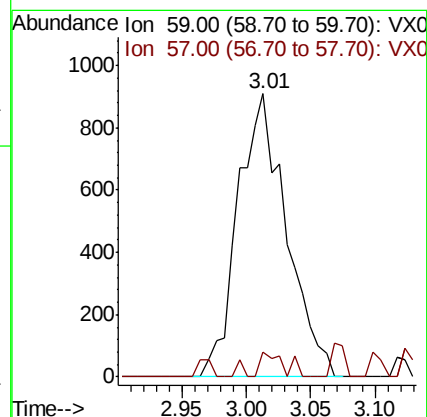
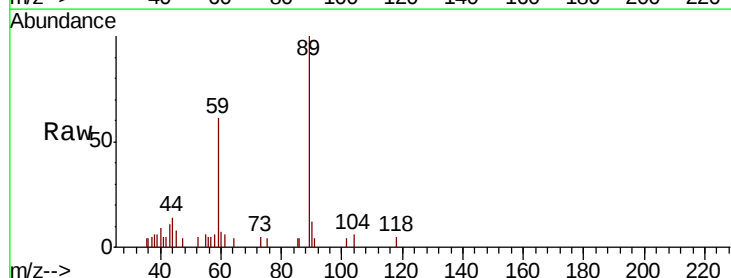
Acq: 13 Aug 2019 03:33

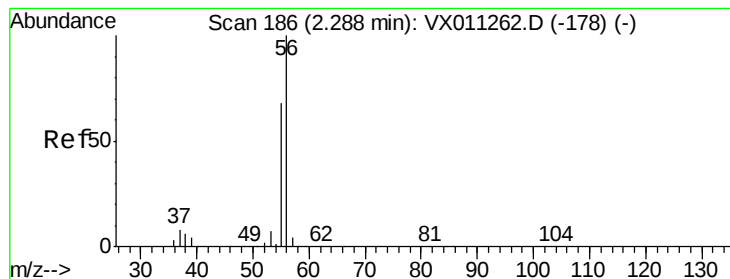
Tgt Ion: 59 Resp: 2382

Ion Ratio Lower Upper

59 100

57 4.2 8.3 12.5#





#13

Acrolein

Concen: 1.115 ug/l

RT: 2.28 min Scan# 185

Delta R.T. -0.01 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

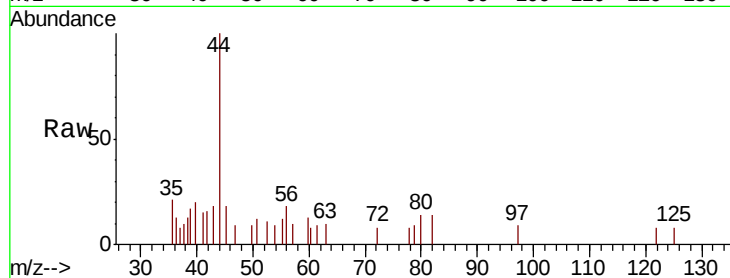
REACTOR-3-F(3)

Tgt Ion: 56 Resp: 350

Ion Ratio Lower Upper

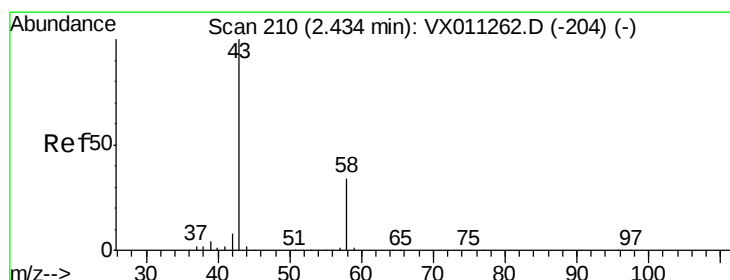
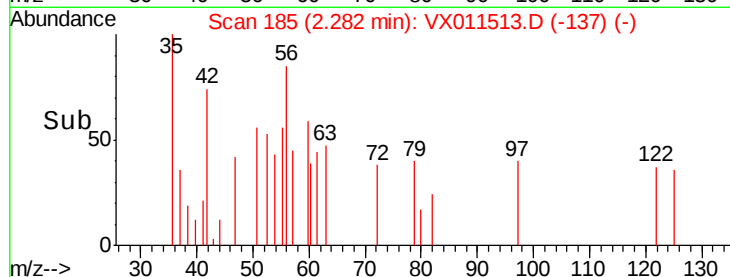
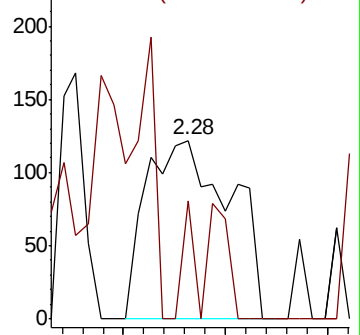
56 100

55 8.6 56.0 84.0#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 9.945 ug/l

RT: 2.43 min Scan# 210

Delta R.T. 0.00 min

Lab File: VX011513.D

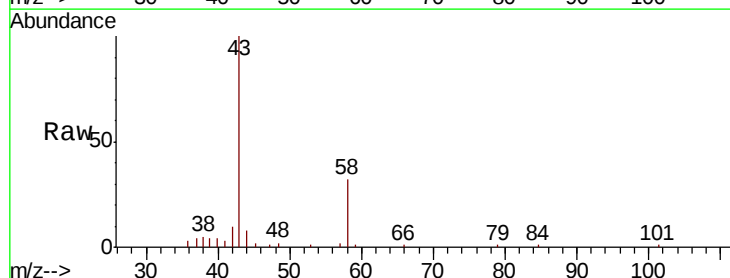
Acq: 13 Aug 2019 03:33

Tgt Ion: 43 Resp: 8706

Ion Ratio Lower Upper

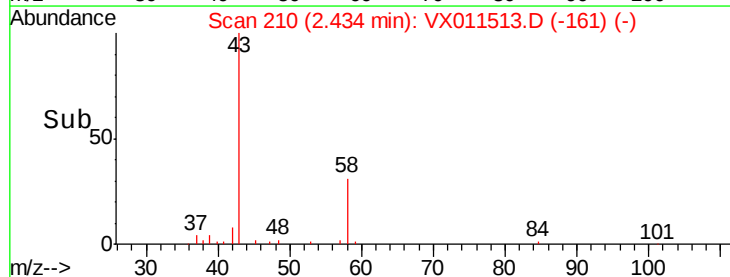
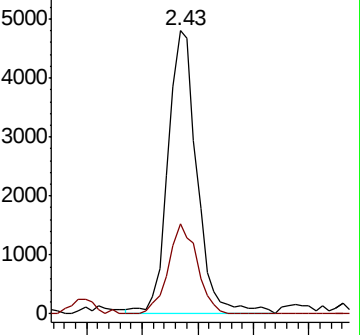
43 100

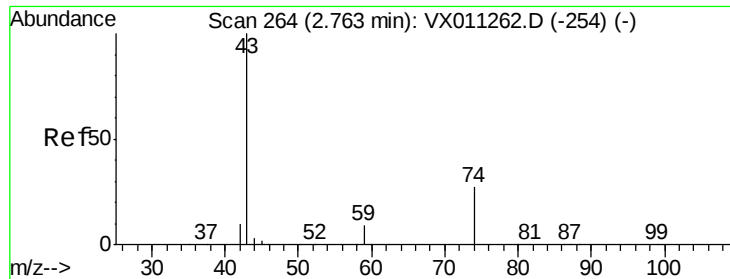
58 31.7 27.4 41.0



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

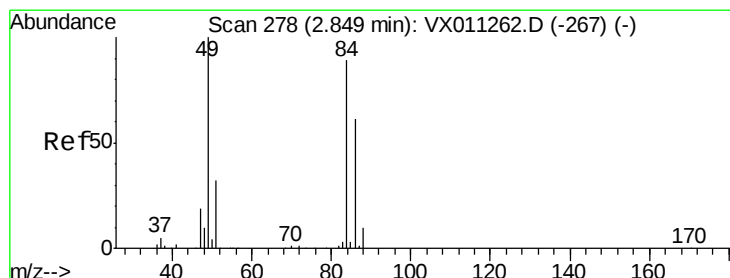
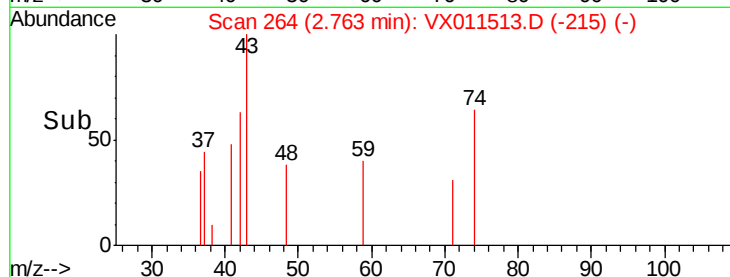
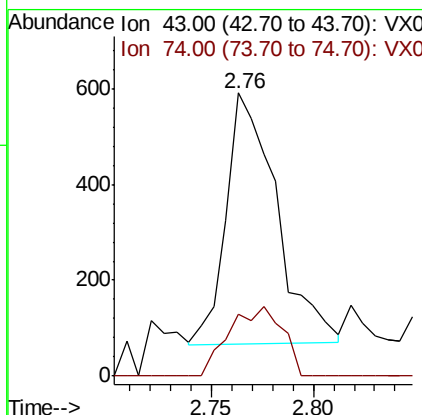
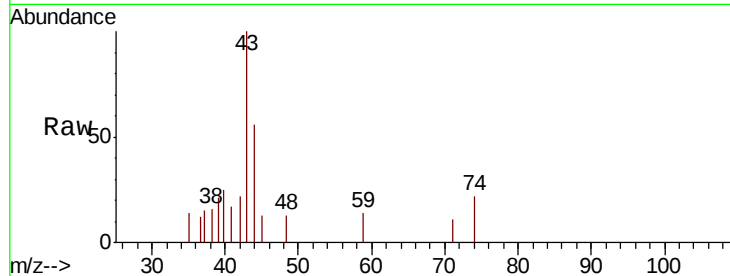




#18
Methyl Acetate
Concen: 0.447 ug/l
RT: 2.76 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

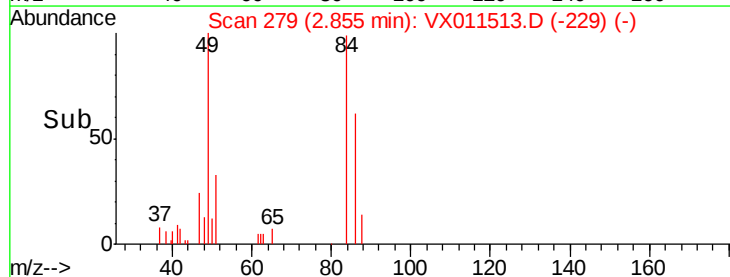
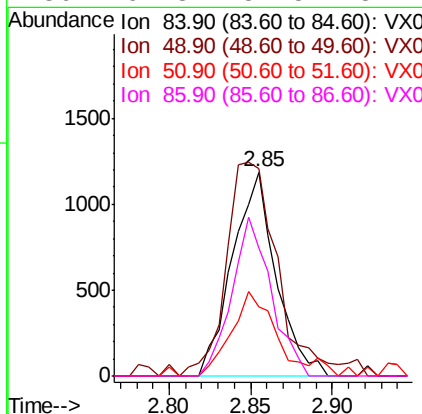
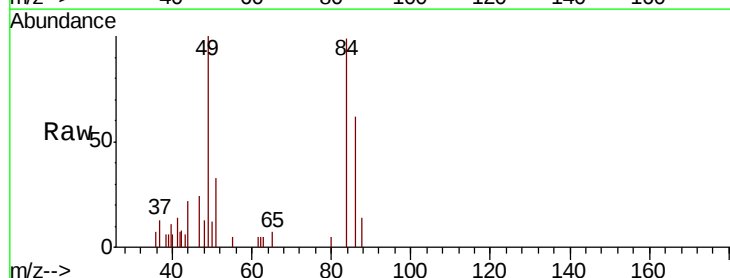
Instrument :
MSVOA_X
ClientSampleId :
REACTOR-3-F(3)

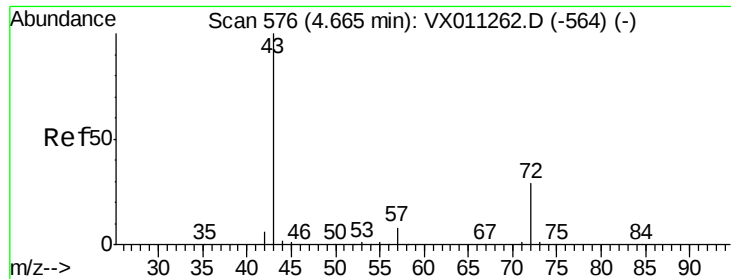
Tgt Ion: 43 Resp: 895
Ion Ratio Lower Upper
43 100
74 29.5 21.0 31.6



#20
Methylene Chloride
Concen: 1.156 ug/l
RT: 2.85 min Scan# 279
Delta R.T. 0.01 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

Tgt Ion: 84 Resp: 2217
Ion Ratio Lower Upper
84 100
49 96.8 89.3 133.9
51 33.8 28.3 42.5
86 62.8 54.5 81.7





#25

2-Butanone

Concen: 1.564 ug/l

RT: 4.68 min Scan# 578

Delta R.T. 0.01 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

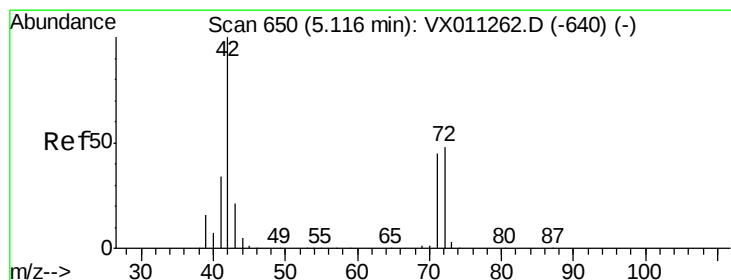
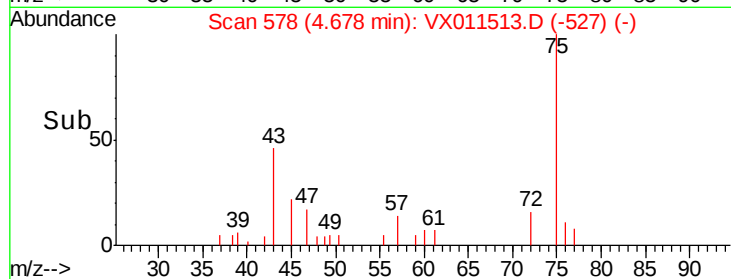
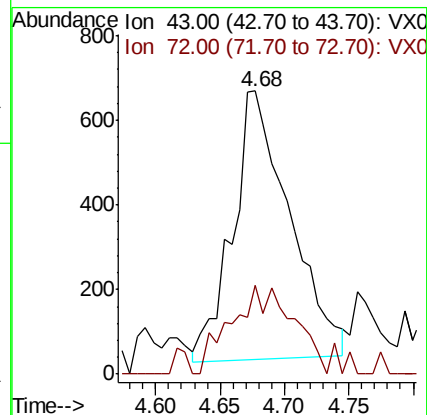
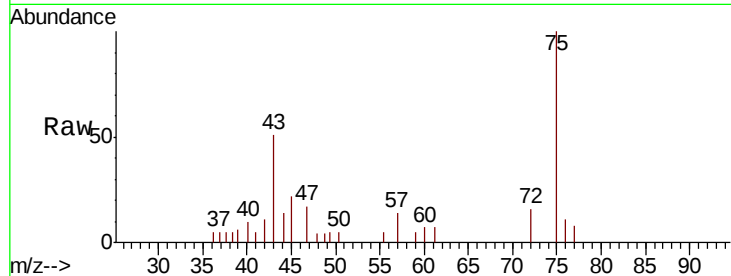
REACTOR-3-F(3)

Tgt Ion: 43 Resp: 1948

Ion Ratio Lower Upper

43 100

72 34.0 23.2 34.8



#29

Tetrahydrofuran

Concen: 0.210 ug/l

RT: 5.11 min Scan# 649

Delta R.T. -0.01 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

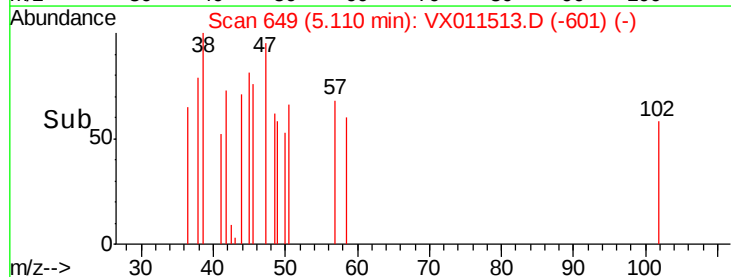
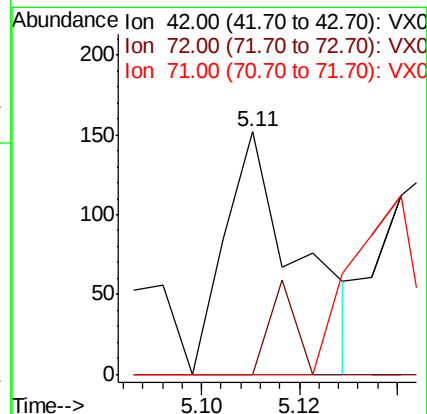
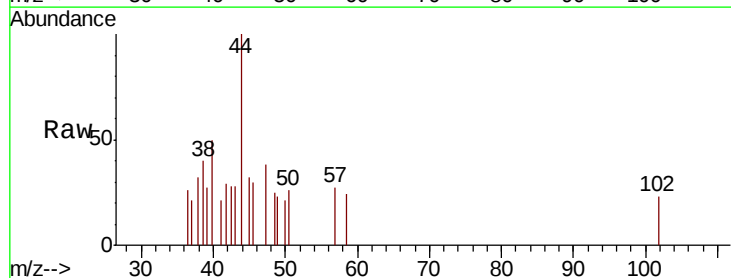
Tgt Ion: 42 Resp: 160

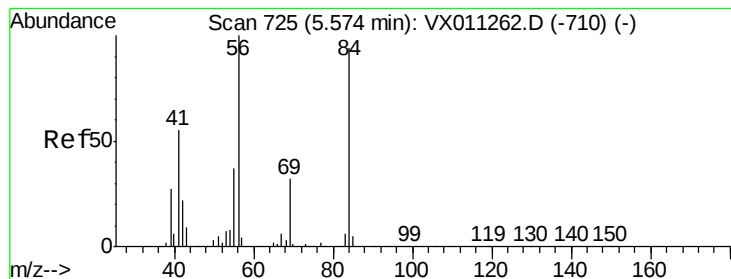
Ion Ratio Lower Upper

42 100

72 13.8 39.9 59.9#

71 0.0 36.9 55.3#





#31

Cyclohexane

Concen: 1.488 ug/l

RT: 5.65 min Scan# 738

Delta R.T. 0.08 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

REACTOR-3-F(3)

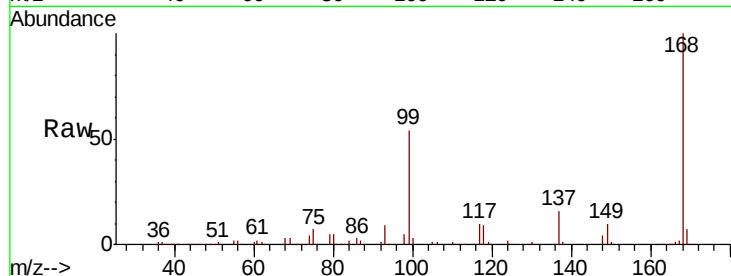
Tgt Ion: 56 Resp: 3525

Ion Ratio Lower Upper

56 100

69 168.2 25.5 38.3#

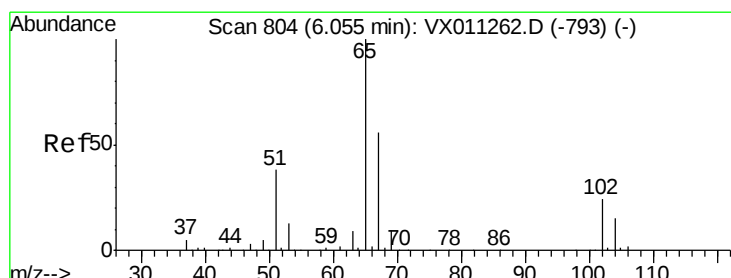
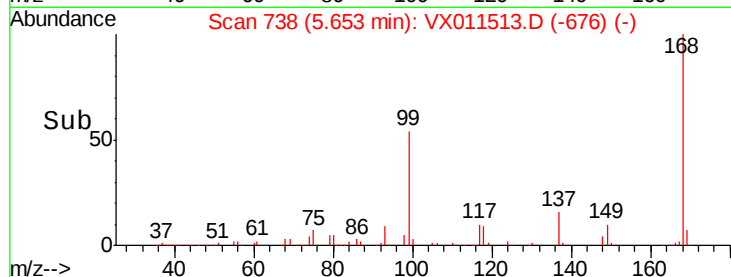
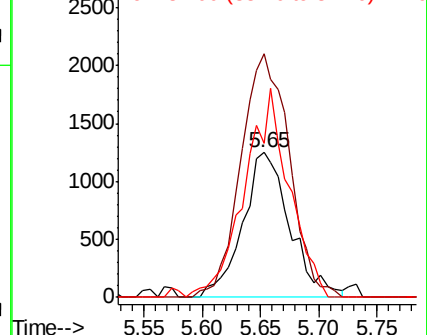
84 106.2 75.0 112.4



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 84.00 (83.70 to 84.70): VX0



#33

1,2-Dichloroethane-d4

Concen: 56.757 ug/l

RT: 6.06 min Scan# 804

Delta R.T. 0.00 min

Lab File: VX011513.D

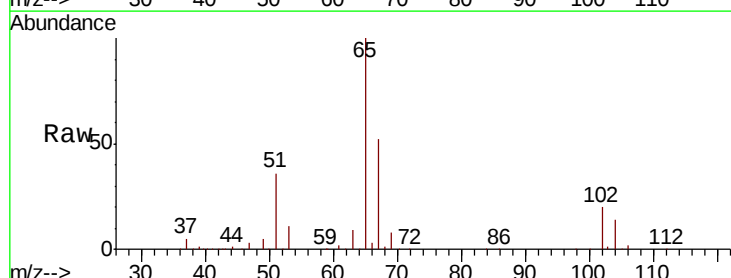
Acq: 13 Aug 2019 03:33

Tgt Ion: 65 Resp: 104392

Ion Ratio Lower Upper

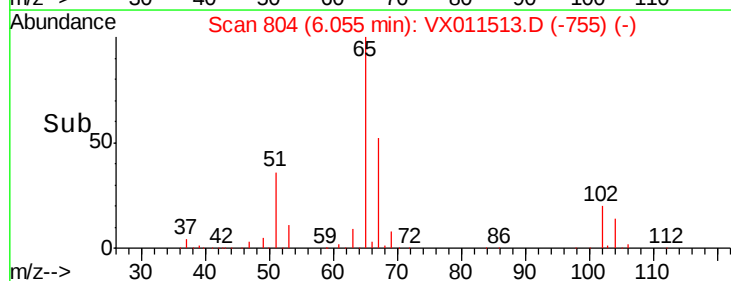
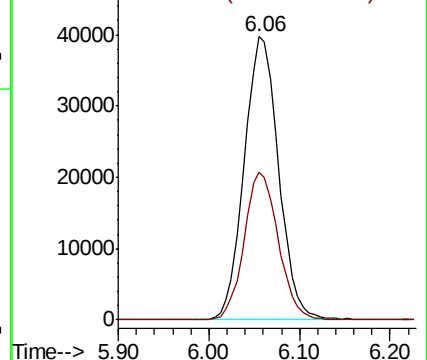
65 100

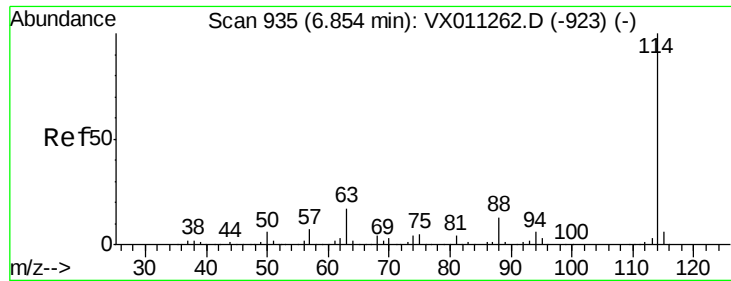
67 51.7 0.0 110.6



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0

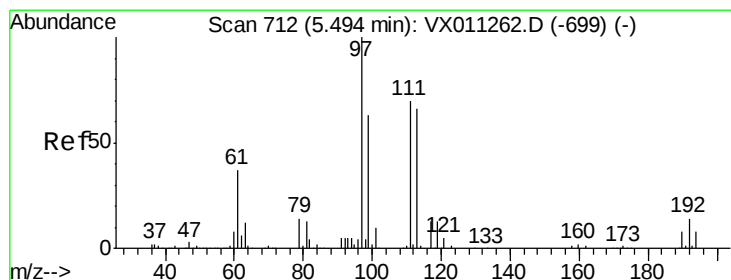
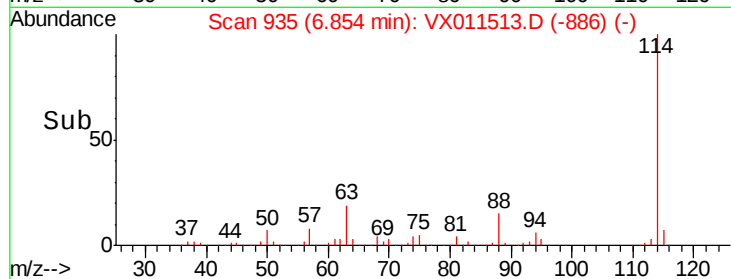
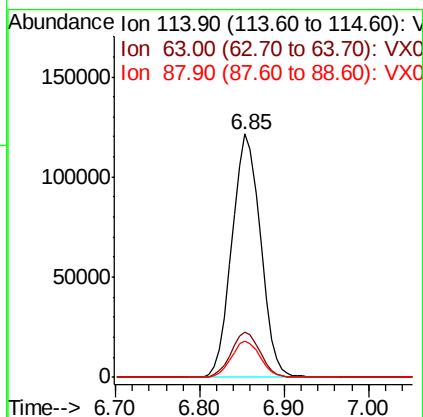
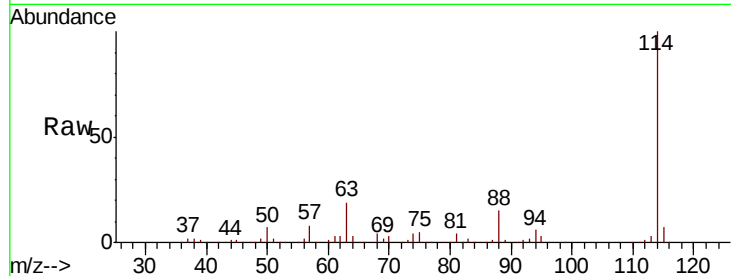




#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 6.85 min Scan# 935
 Delta R.T. 0.00 min
 Lab File: VX011513.D
 Acq: 13 Aug 2019 03:33

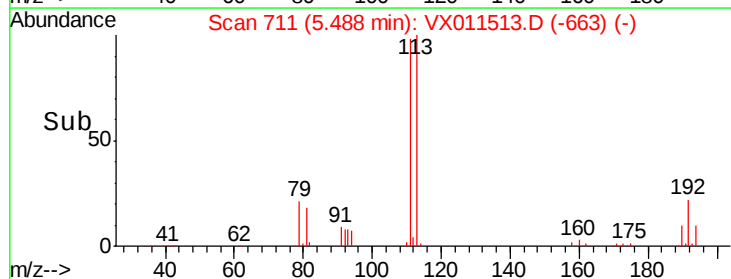
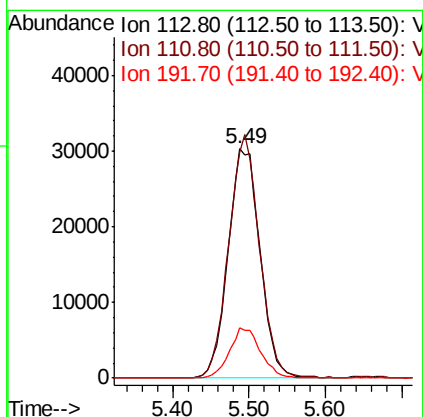
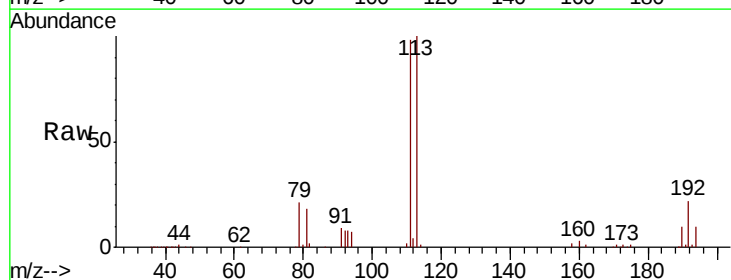
Instrument :
 MSVOA_X
 ClientSampleId :
 REACTOR-3-F(3)

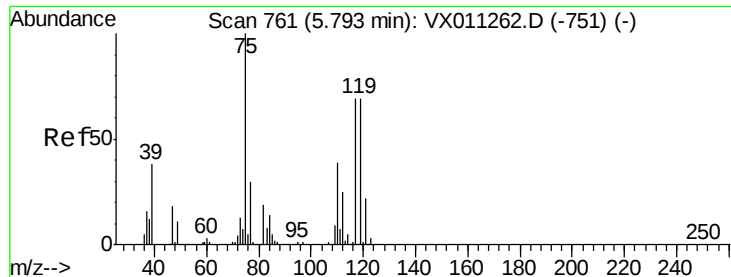
Tgt Ion:114 Resp: 279967
 Ion Ratio Lower Upper
 114 100
 63 18.8 0.0 34.0
 88 14.8 0.0 26.4



#35
 Dibromofluoromethane
 Concen: 47.963 ug/l
 RT: 5.49 min Scan# 711
 Delta R.T. -0.01 min
 Lab File: VX011513.D
 Acq: 13 Aug 2019 03:33

Tgt Ion:113 Resp: 87669
 Ion Ratio Lower Upper
 113 100
 111 101.9 81.9 122.9
 192 21.3 17.8 26.8





#36

1,1-Dichloropropene

Concen: 5.041 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.13 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

REACTOR-3-F(3)

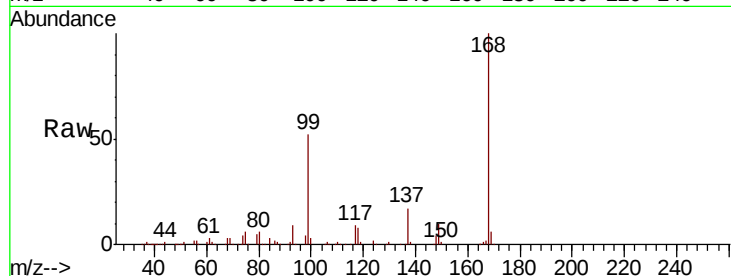
Tgt Ion: 75 Resp: 12321

Ion Ratio Lower Upper

75 100

110 12.2 20.0 59.9#

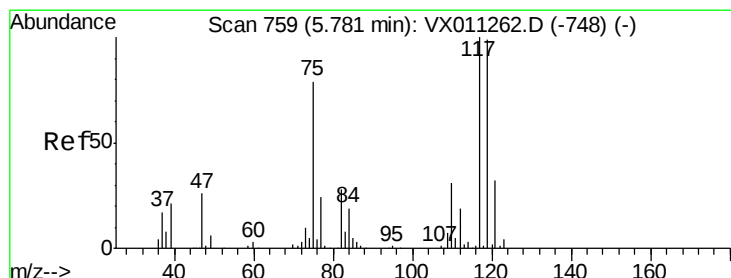
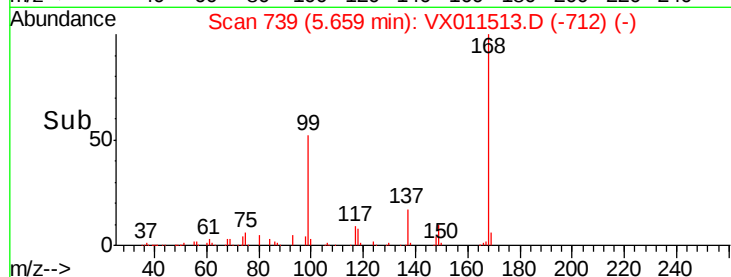
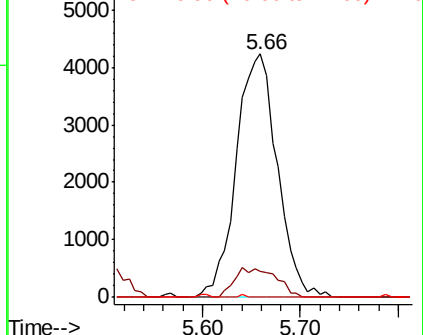
77 0.2 24.8 37.2#



Abundance Ion 74.90 (74.60 to 75.60): VX011513.D (-712) (-)

Ion 109.90 (109.60 to 110.60): VX011513.D (-712) (-)

Ion 76.90 (76.60 to 77.60): VX011513.D (-712) (-)



#38

Carbon Tetrachloride

Concen: 6.987 ug/l

RT: 5.65 min Scan# 738

Delta R.T. -0.13 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

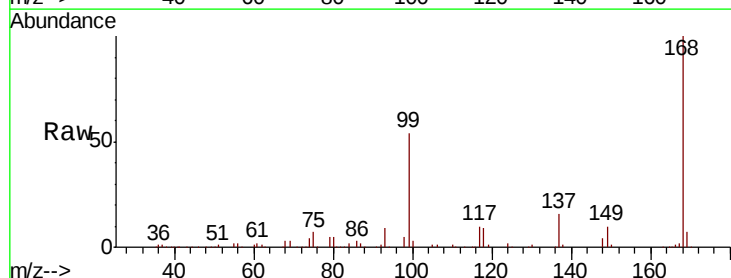
Tgt Ion: 117 Resp: 17183

Ion Ratio Lower Upper

117 100

119 5.6 79.0 118.4#

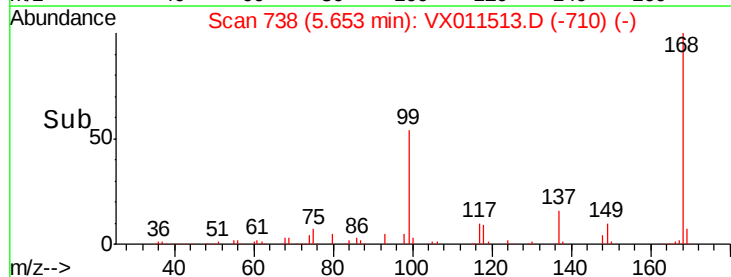
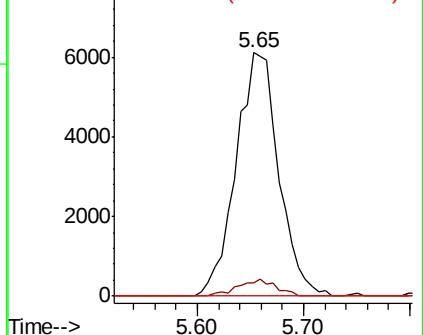
121 0.0 25.9 38.9#

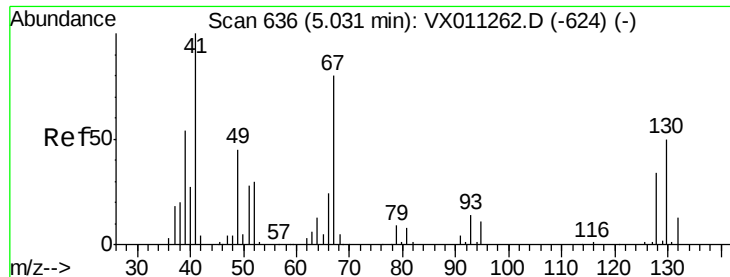


Abundance Ion 116.80 (116.50 to 117.50): VX011513.D (-710) (-)

Ion 118.80 (118.50 to 119.50): VX011513.D (-710) (-)

Ion 120.80 (120.50 to 121.50): VX011513.D (-710) (-)





#41

Methacrylonitrile

Concen: 0.202 ug/l

RT: 5.04 min Scan# 637

Delta R.T. 0.01 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

REACTOR-3-F(3)

Tgt Ion: 41 Resp: 271

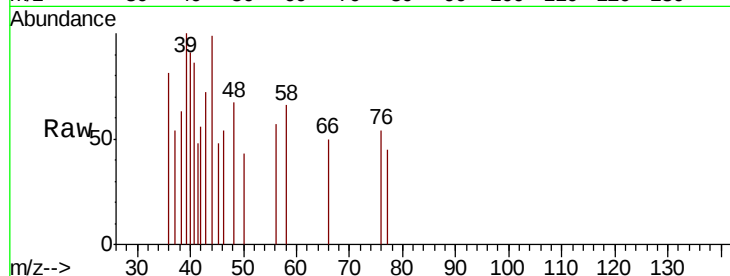
Ion Ratio Lower Upper

41 100

39 0.0 43.0 64.6#

67 0.0 65.1 97.7#

52 25.8 24.8 37.2

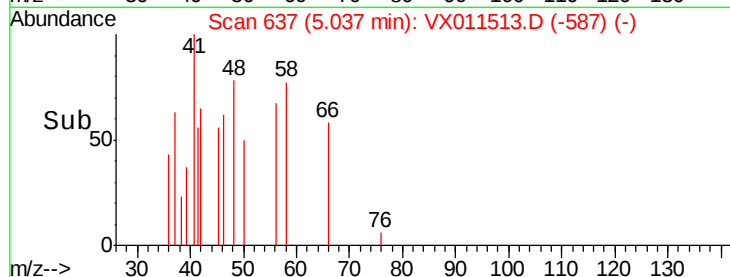
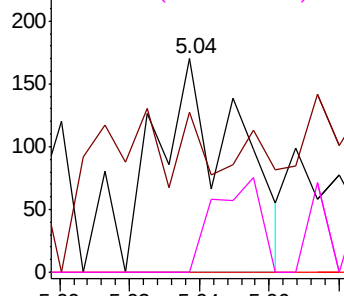


Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 67.00 (66.70 to 67.70): VX0

Ion 52.00 (51.70 to 52.70): VX0



#43

Isopropyl Acetate

Concen: 5.328 ug/l

RT: 6.43 min Scan# 866

Delta R.T. -0.01 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

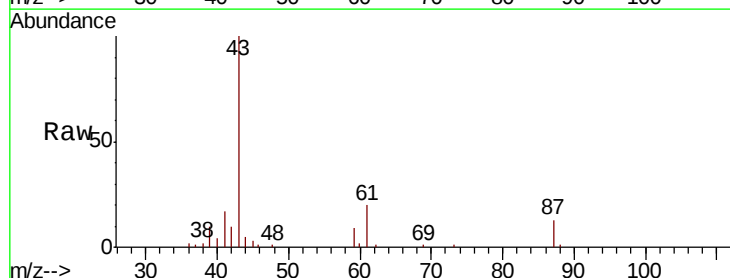
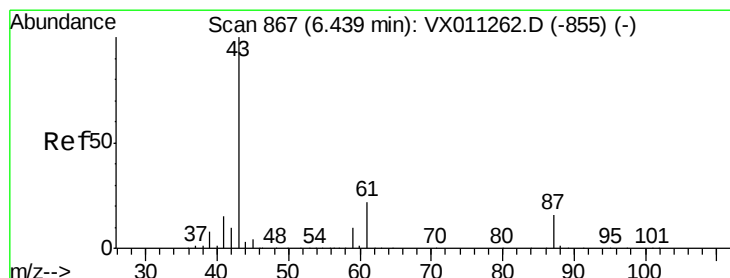
Tgt Ion: 43 Resp: 20886

Ion Ratio Lower Upper

43 100

61 19.9 16.5 24.7

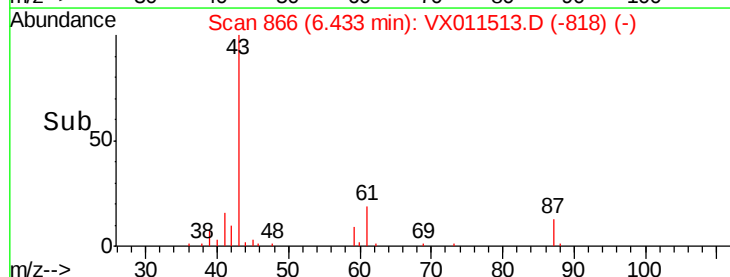
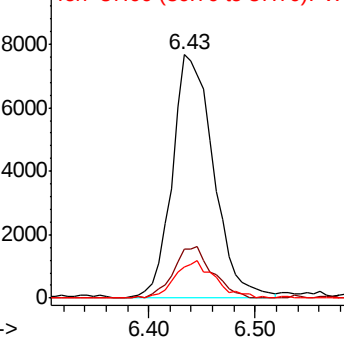
87 14.8 12.1 18.1

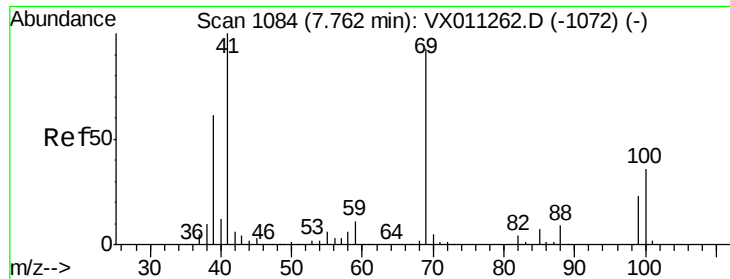


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

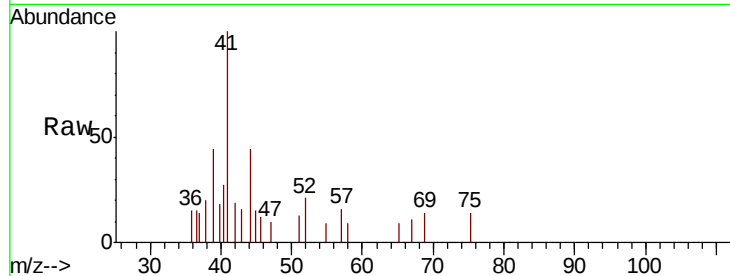




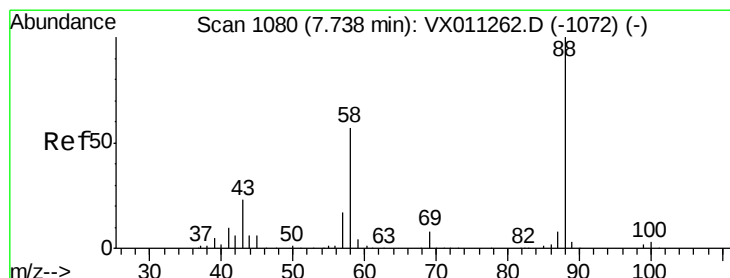
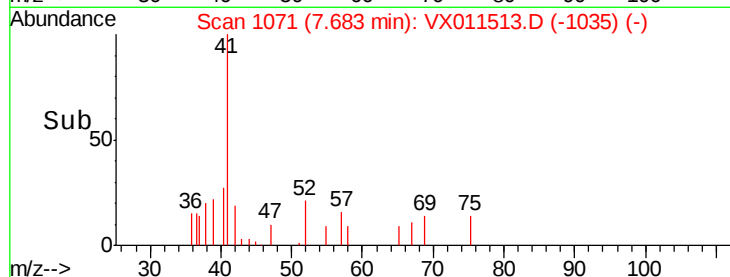
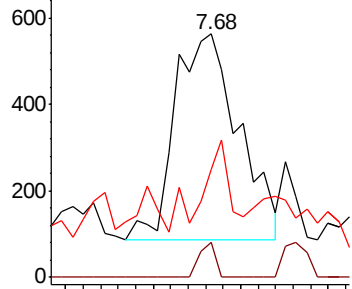
#48
Methyl methacrylate
Concen: 0.653 ug/l
RT: 7.68 min Scan# 1071
Delta R.T. -0.08 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

Instrument :
MSVOA_X
ClientSampleId :
REACTOR-3-F(3)

Tgt Ion: 41 Resp: 1205
Ion Ratio Lower Upper
41 100
69 4.2 74.5 111.7#
39 0.0 48.6 72.8#

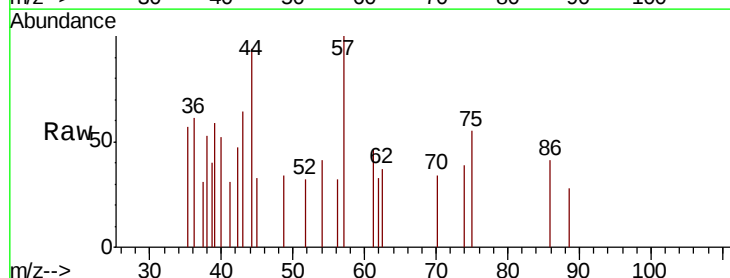


Abundance Ion 41.00 (40.70 to 41.70): VX0
Ion 69.00 (68.70 to 69.70): VX0
Ion 39.00 (38.70 to 39.70): VX0

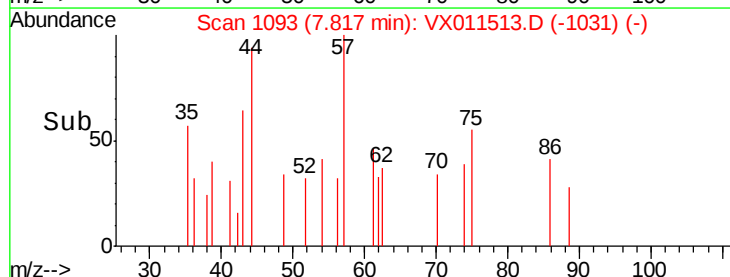
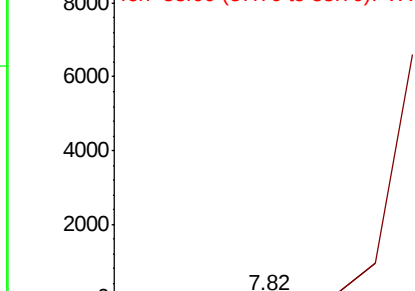


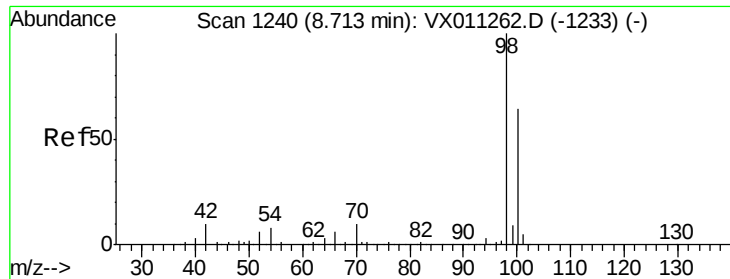
#49
1,4-Dioxane
Concen: 0.355 ug/l
RT: 7.82 min Scan# 1093
Delta R.T. 0.08 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

Tgt Ion: 88 Resp: 19
Ion Ratio Lower Upper
88 100
43 0.0 22.2 33.2#
58 0.0 47.8 71.8#



Abundance Ion 88.00 (87.70 to 88.70): VX0
Ion 43.00 (42.70 to 43.70): VX0
Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 48.145 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

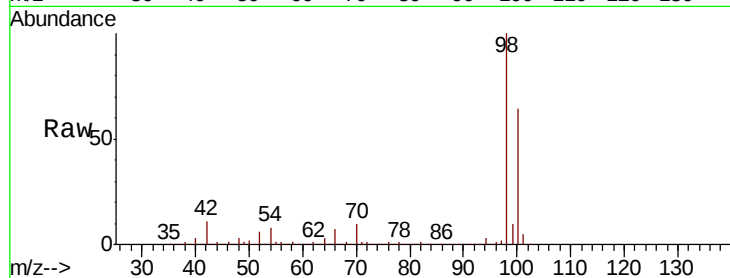
REACTOR-3-F(3)

Tgt Ion: 98 Resp: 332181

Ion Ratio Lower Upper

98 100

100 63.9 51.7 77.5



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX

8.71

250000

200000

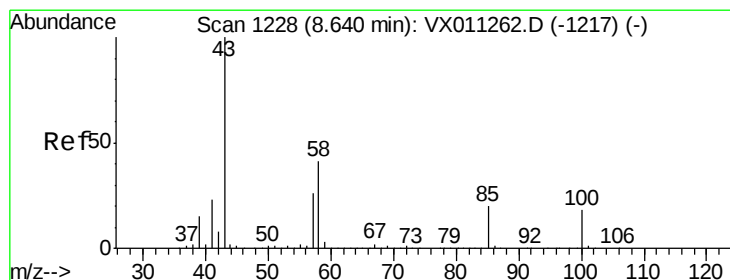
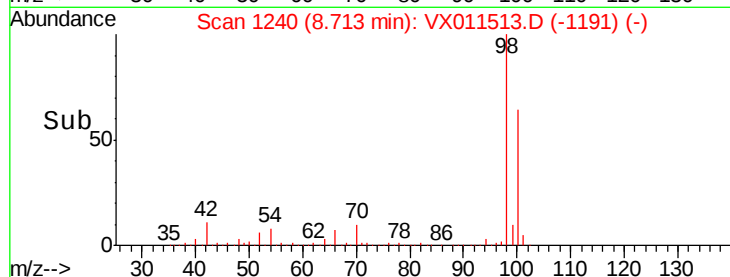
150000

100000

50000

0

Time--> 8.60 8.70 8.80



#51

4-Methyl-2-Pentanone

Concen: 8.120 ug/l

RT: 8.61 min Scan# 1223

Delta R.T. -0.03 min

Lab File: VX011513.D

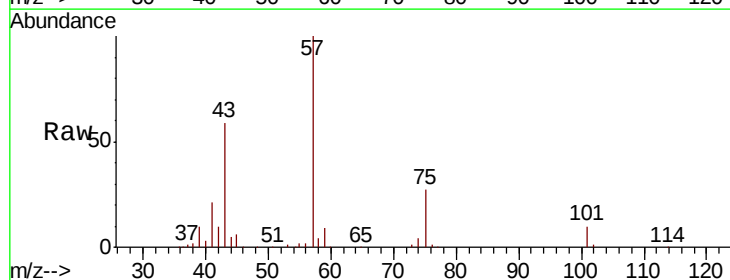
Acq: 13 Aug 2019 03:33

Tgt Ion: 43 Resp: 20542

Ion Ratio Lower Upper

43 100

58 10.3 32.3 48.5#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

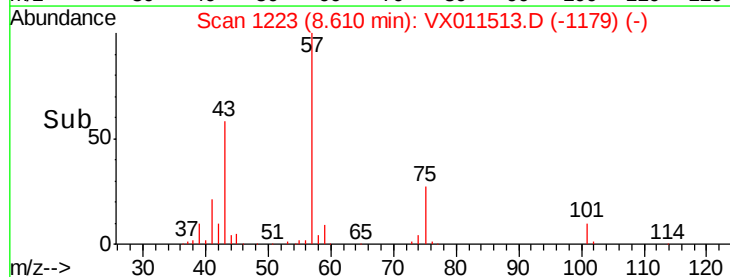
15000

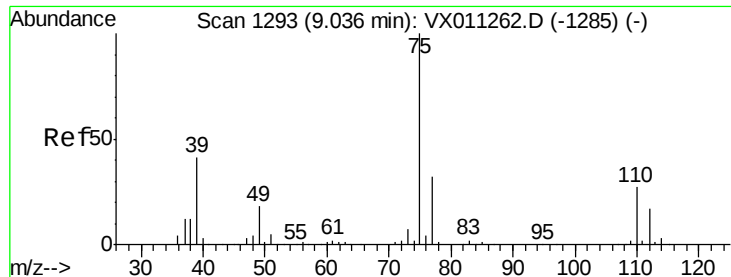
10000

5000

0

Time--> 8.55 8.60 8.65 8.70

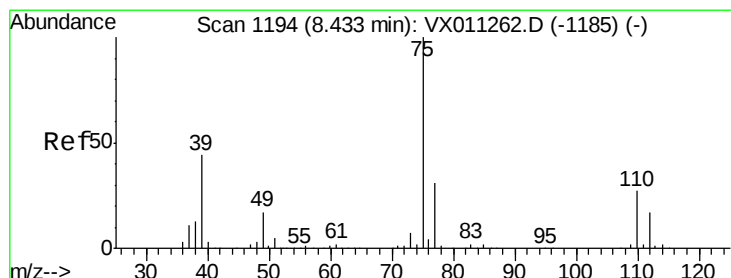
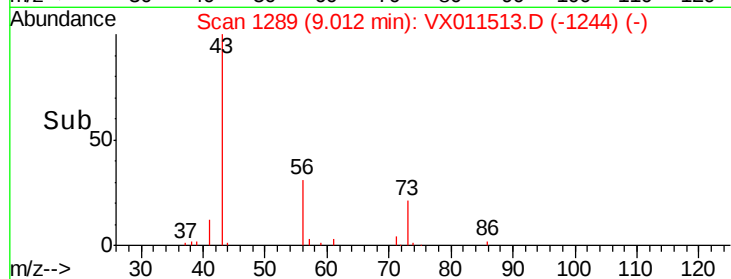
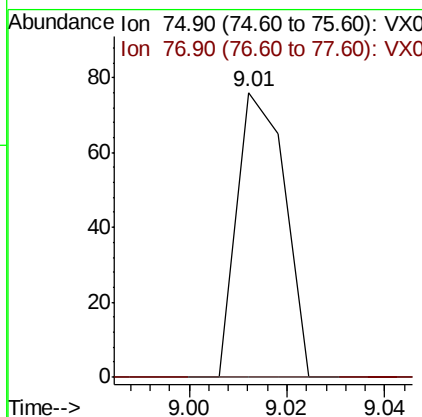
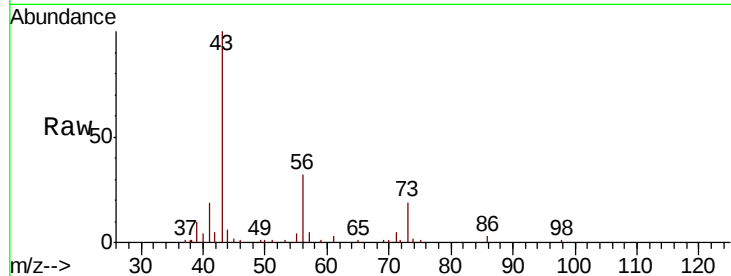




#53
t-1,3-Dichloropropene
Concen: 2.856 ug/l
RT: 9.01 min Scan# 1289
Delta R.T. -0.02 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

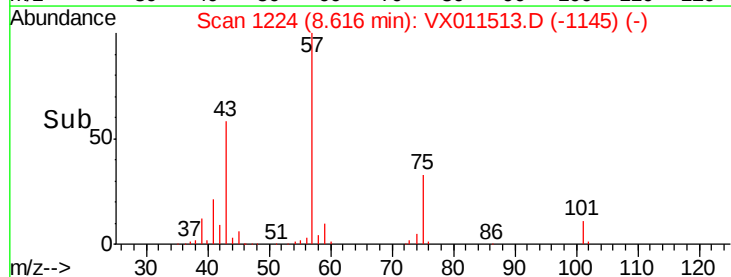
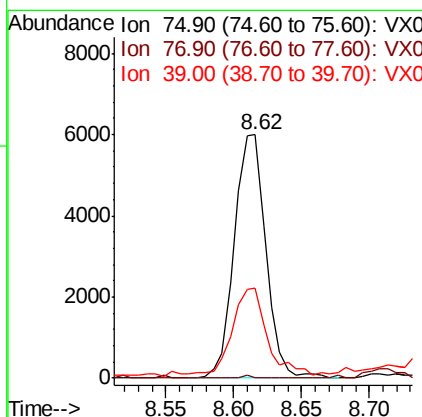
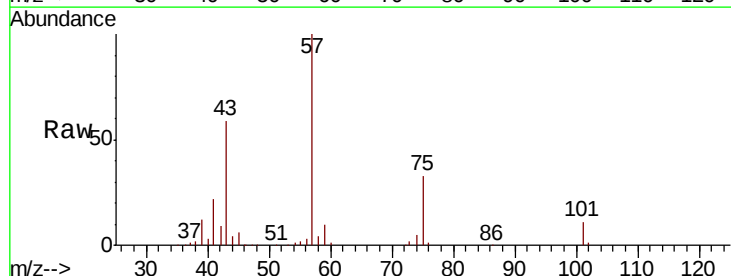
Instrument :
MSVOA_X
ClientSampleId :
REACTOR-3-F(3)

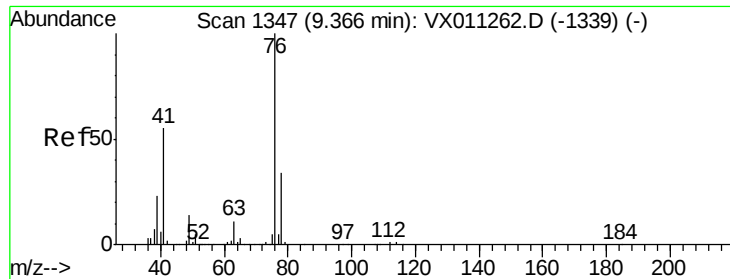
Tgt Ion: 75 Resp: 52
Ion Ratio Lower Upper
75 100
77 0.0 25.4 38.0#



#54
cis-1,3-Dichloropropene
Concen: 3.556 ug/l
RT: 8.62 min Scan# 1224
Delta R.T. 0.18 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

Tgt Ion: 75 Resp: 9699
Ion Ratio Lower Upper
75 100
77 0.0 25.0 37.6#
39 35.2 35.3 52.9#

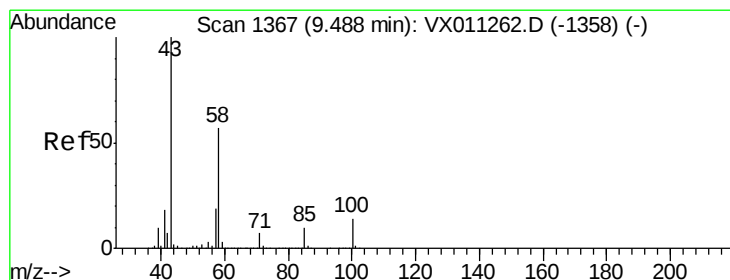
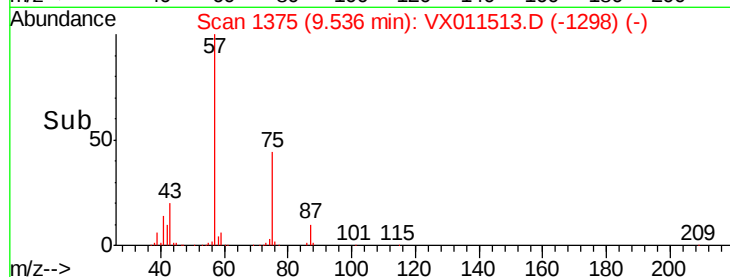
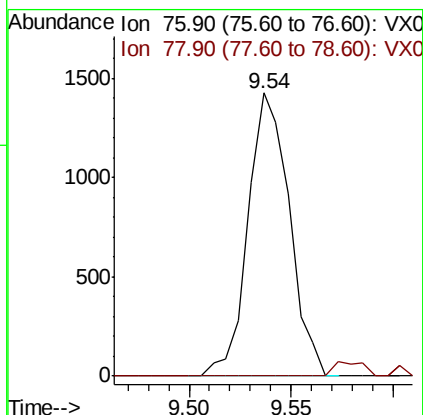
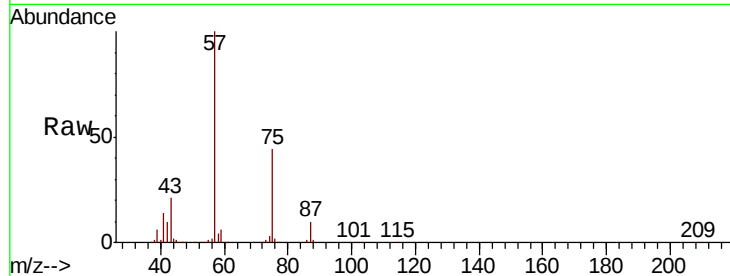




#57
 1,3-Dichloropropane
 Concen: 0.641 ug/l
 RT: 9.54 min Scan# 1375
 Delta R.T. 0.17 min
 Lab File: VX011513.D
 Acq: 13 Aug 2019 03:33

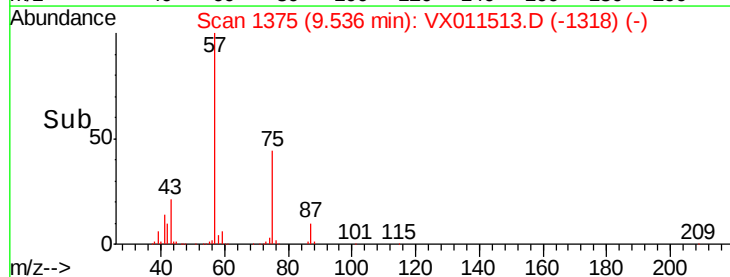
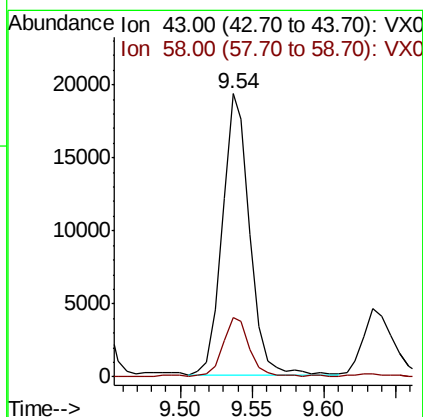
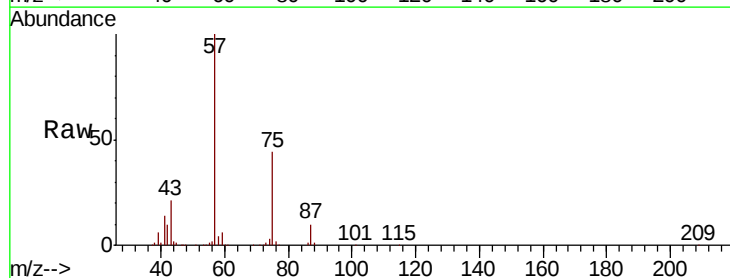
Instrument :
 MSVOA_X
 ClientSampleId :
 REACTOR-3-F(3)

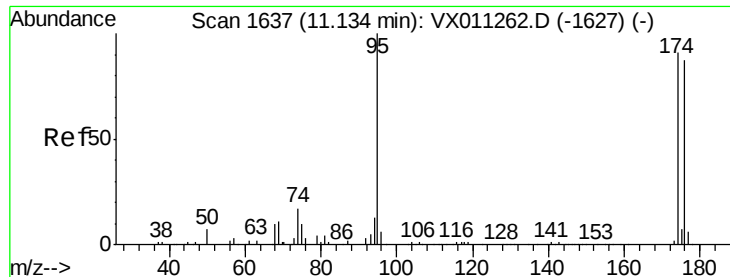
Tgt Ion: 76 Resp: 2011
 Ion Ratio Lower Upper
 76 100
 78 0.0 26.6 40.0#



#59
 2-Hexanone
 Concen: 12.999 ug/l
 RT: 9.54 min Scan# 1375
 Delta R.T. 0.05 min
 Lab File: VX011513.D
 Acq: 13 Aug 2019 03:33

Tgt Ion: 43 Resp: 25472
 Ion Ratio Lower Upper
 43 100
 58 19.8 28.2 84.6#

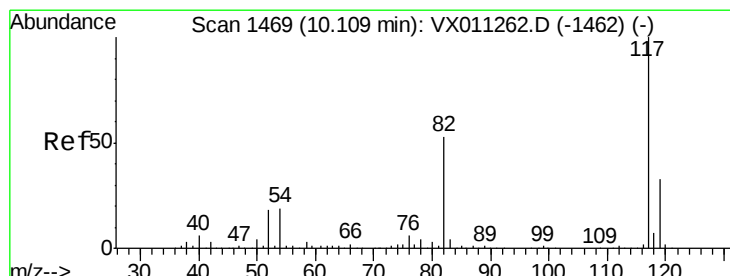
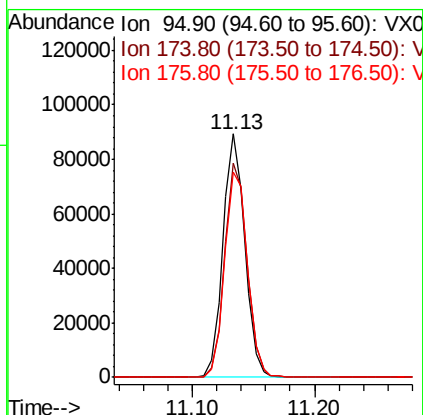
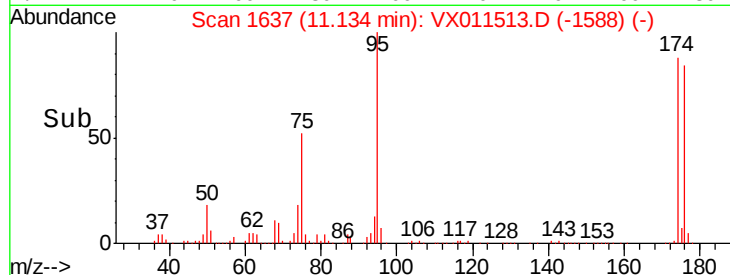
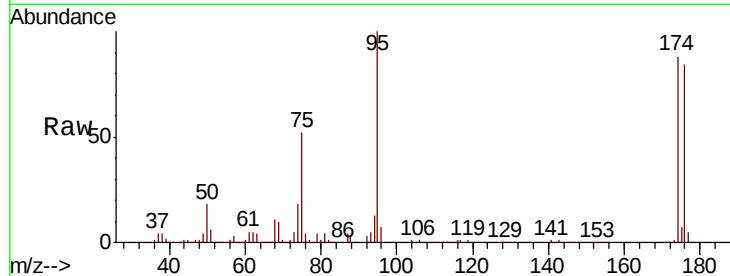




#62
4-Bromofluorobenzene
Concen: 45.009 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

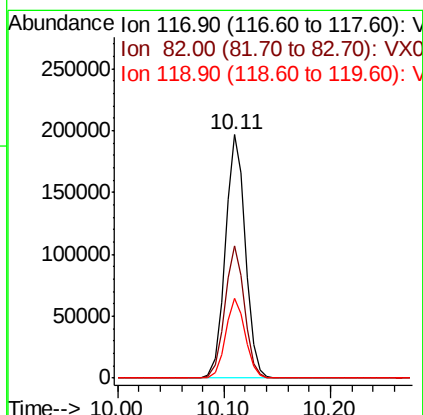
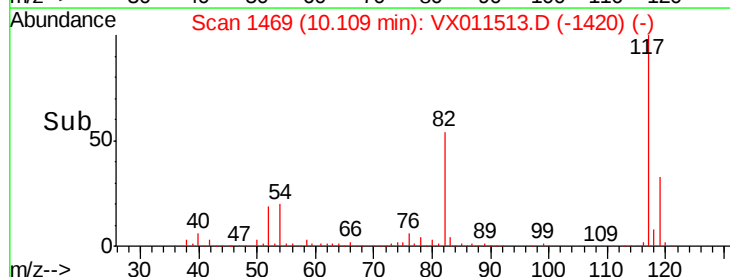
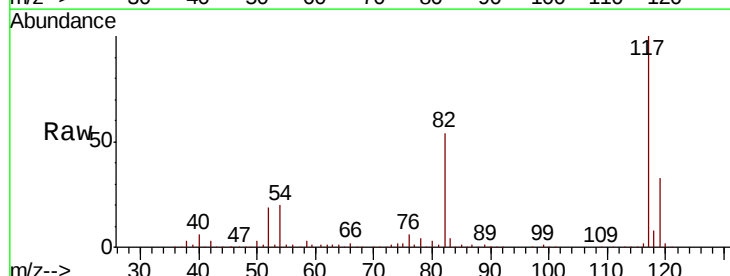
Instrument :
MSVOA_X
ClientSampleId :
REACTOR-3-F(3)

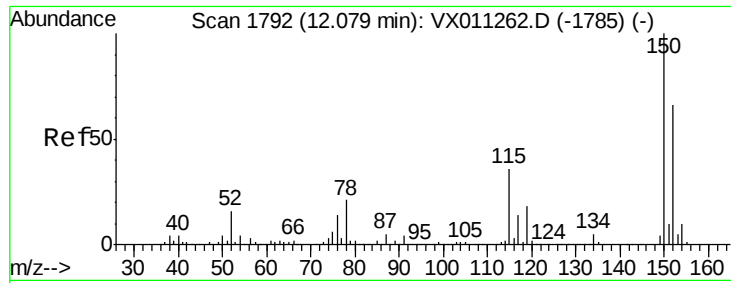
Tgt Ion: 95 Resp: 110873
Ion Ratio Lower Upper
95 100
174 89.7 0.0 191.2
176 87.7 0.0 184.8



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX011513.D
Acq: 13 Aug 2019 03:33

Tgt Ion: 117 Resp: 258539
Ion Ratio Lower Upper
117 100
82 54.4 42.2 63.2
119 32.6 26.6 39.8





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. 0.00 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

REACTOR-3-F(3)

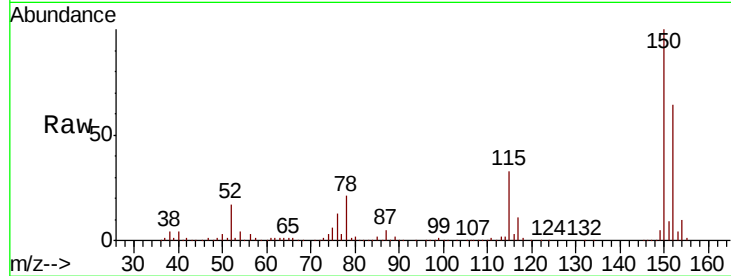
Tgt Ion: 152 Resp: 115607

Ion Ratio Lower Upper

152 100

115 55.3 40.0 119.9

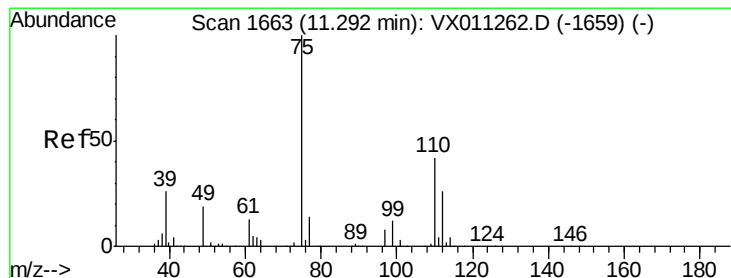
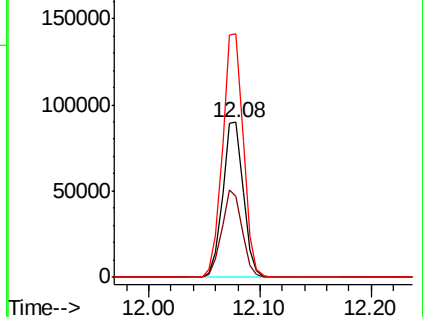
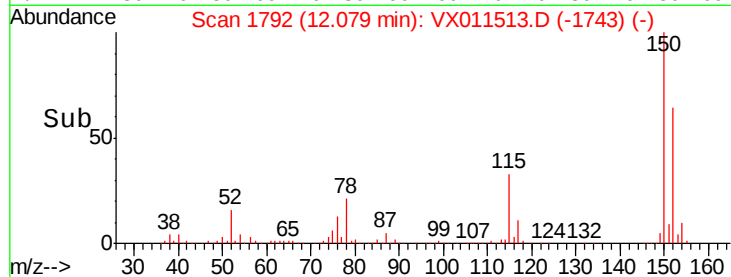
150 157.5 0.0 350.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 27.028 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX011513.D

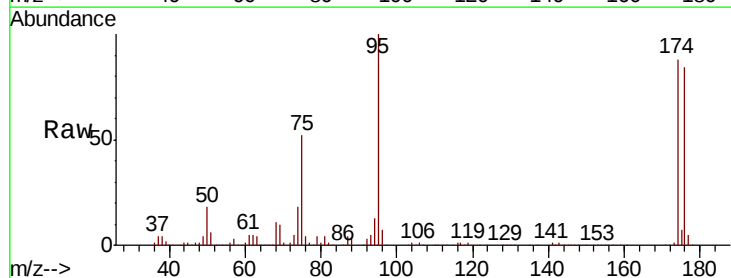
Acq: 13 Aug 2019 03:33

Tgt Ion: 75 Resp: 56904

Ion Ratio Lower Upper

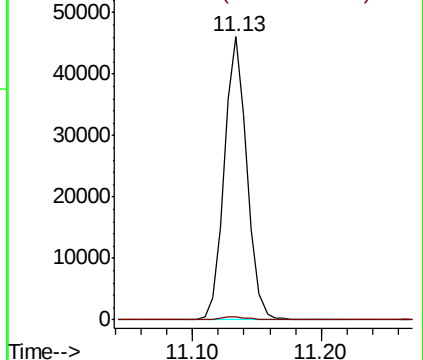
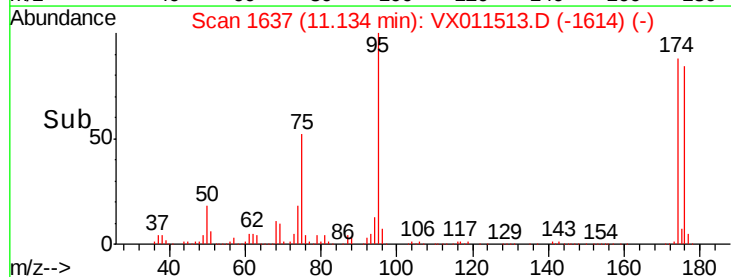
75 100

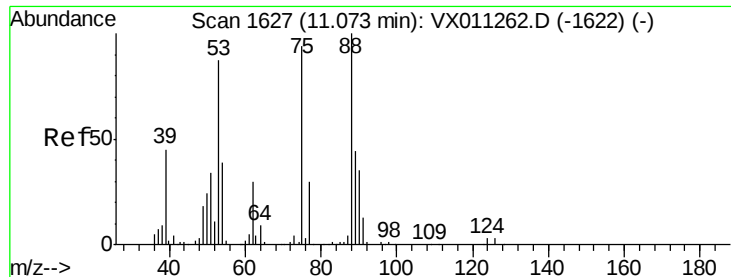
77 1.3 21.1 63.4#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 70.165 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX011513.D

Acq: 13 Aug 2019 03:33

Instrument :

MSVOA_X

ClientSampleId :

REACTOR-3-F-(3)

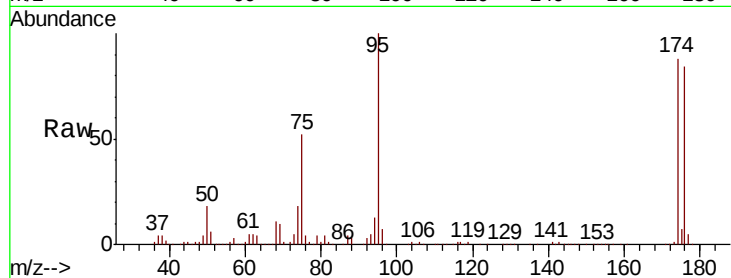
Tgt Ion: 75 Resp: 56904

Ion Ratio Lower Upper

75 100

53 0.3 78.2 117.4#

89 0.1 37.9 56.9#



Abundance

Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

