

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX010919\
 Data File : VX006965.D
 Acq On : 09 Jan 2019 15:13
 Operator : JC/MD
 Sample : K1082-10
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :

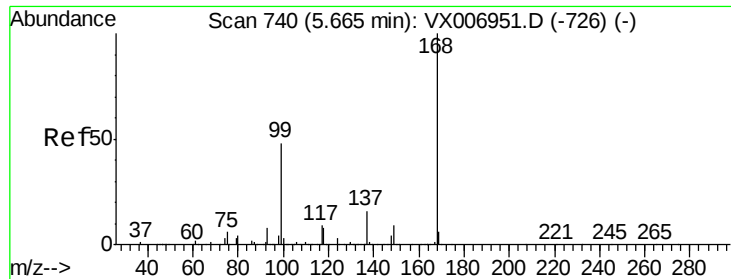
Quant Time: Jan 10 00:56:10 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X010819W.M
 Quant Title : SW846 8260
 QLast Update : Tue Jan 08 14:06:59 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	640726	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	992055	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	911714	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	446379	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	6.07	65	342098	51.09	ug/l	0.00
Spiked Amount			Recovery	=	102.18%	
35) Dibromofluoromethane	5.51	113	305665	48.11	ug/l	0.00
Spiked Amount			Recovery	=	96.22%	
50) Toluene-d8	8.71	98	1174070	50.49	ug/l	0.00
Spiked Amount			Recovery	=	100.98%	
62) 4-Bromofluorobenzene	11.13	95	417060	51.44	ug/l	0.00
Spiked Amount			Recovery	=	102.88%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chloromethane	1.32	50	1298	0.212	ug/l	94
8) Diethyl Ether	2.20	74	9880	2.333	ug/l	100
11) Tert butyl alcohol	3.02	59	4356	2.758	ug/l #	84
13) Acrolein	2.29	56	216	3.397	ug/l #	13
14) Allyl chloride	2.86	41	55959	5.545	ug/l #	29
16) Acetone	2.45	43	31099	9.394	ug/l	93
18) Methyl Acetate	2.78	43	18686	1.949	ug/l	96
20) Methylene Chloride	2.86	84	1624966	260.464	ug/l	95
25) 2-Butanone	4.70	43	5178	1.093	ug/l	99
29) Tetrahydrofuran	5.16	42	1038	0.337	ug/l #	17
36) 1,1-Dichloropropene	5.66	75	40795	4.730	ug/l #	49
38) Carbon Tetrachloride	5.67	117	56582	6.520	ug/l #	14
43) Isopropyl Acetate	6.46	43	33543	2.300	ug/l	97
48) Methyl methacrylate	7.68	41	17854	2.384	ug/l #	12
49) 1,4-Dioxane	7.73	88	84	Below Cal	#	1
51) 4-Methyl-2-Pentanone	8.62	43	164080	17.504	ug/l #	49
54) cis-1,3-Dichloropropene	8.62	75	82681	8.530	ug/l #	62
57) 1,3-Dichloropropane	9.54	76	17759	1.601	ug/l #	43
59) 2-Hexanone	9.54	43	235020	32.901	ug/l #	51
68) m/p-Xylenes	10.36	106	4918	0.380	ug/l	97
74) N-amyl acetate	10.69	43	22419	1.769	ug/l #	56
76) 1,2,3-Trichloropropane	11.13	75	195763	21.642	ug/l #	40
80) 1,3,5-Trimethylbenzene	11.51	105	8449	0.321	ug/l	97
81) trans-1,4-Dichloro-2-buten	11.13	75	195763	64.153	ug/l #	10
84) 1,2,4-Trimethylbenzene	11.80	105	10771	0.407	ug/l	95
90) Hexachloroethane	12.59	117	517	3.017	ug/l #	18
95) Naphthalene	13.83	128	254827	7.923	ug/l	99

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

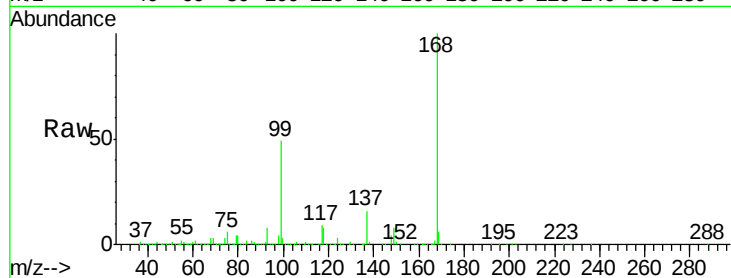
Instrument :
MSVOA_X
ClientSampleId :

Tot Ion:168 Resp: 640726

Ion Ratio Lower Upper

168 100

99 48.9 41.8 62.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

250000

200000

150000

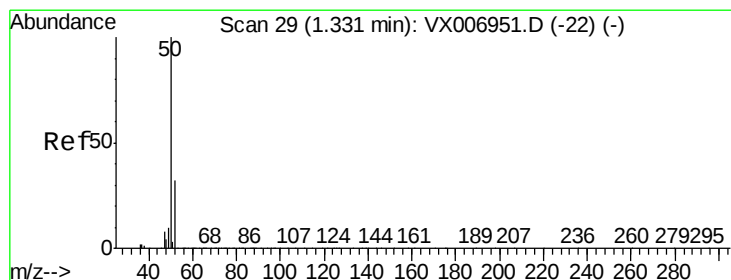
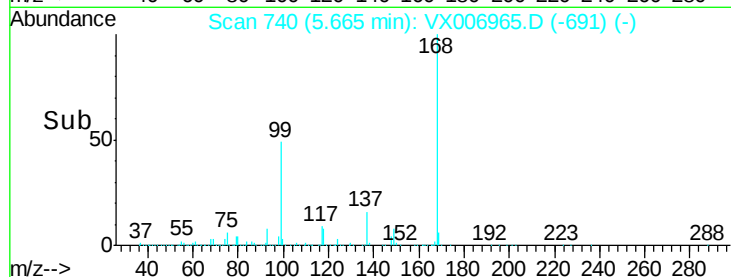
100000

50000

0

Time-->

5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.212 ug/l

RT: 1.32 min Scan# 28

Delta R.T. -0.01 min

Lab File: VX006965.D

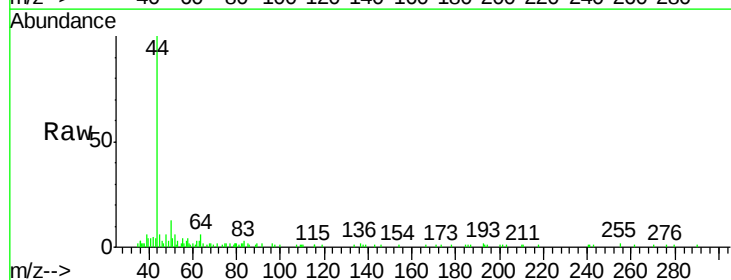
Acq: 09 Jan 2019 15:13

Tgt Ion: 50 Resp: 1298

Ion Ratio Lower Upper

50 100

52 28.7 25.4 38.2



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.32

800

600

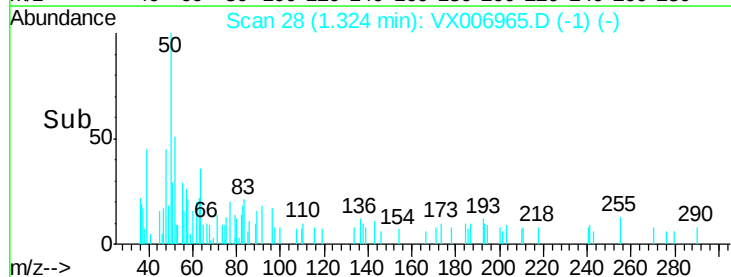
400

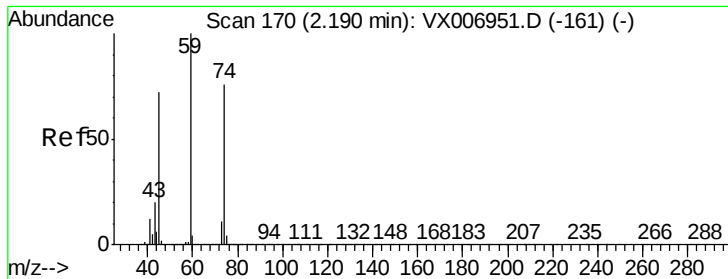
200

0

Time-->

1.30 1.35





#8

Diethyl Ether

Concen: 2.333 ug/l

RT: 2.20 min Scan# 171

Delta R.T. 0.01 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

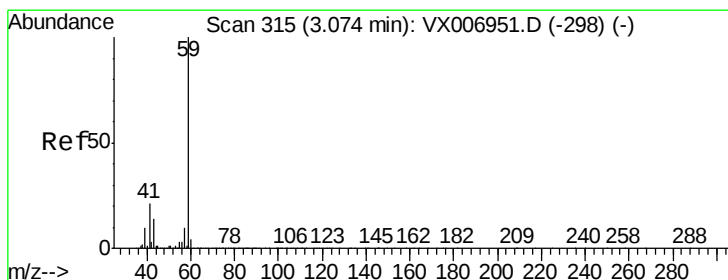
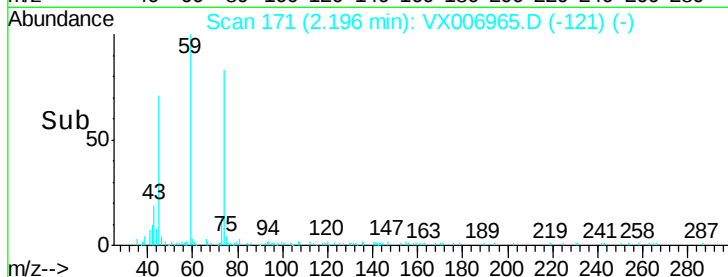
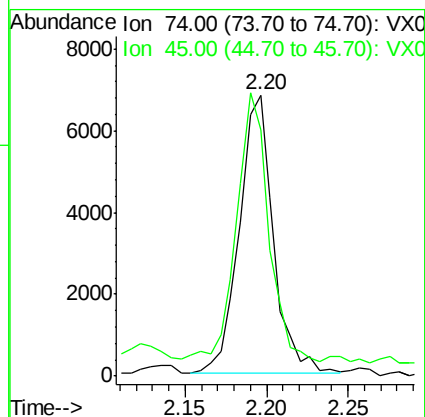
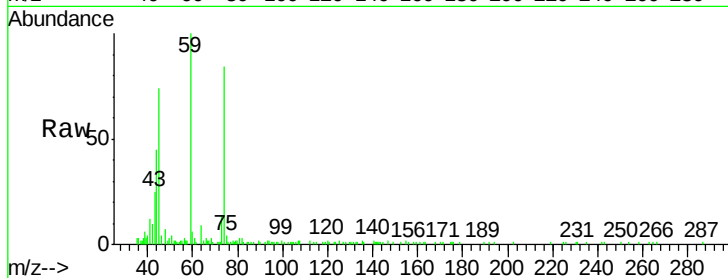
ClientSampleId :

Tot Ion: 74 Resp: 9880

Ion Ratio Lower Upper

74 100

45 92.4 46.3 138.9



#11

Tert butyl alcohol

Concen: 2.758 ug/l

RT: 3.02 min Scan# 306

Delta R.T. -0.06 min

Lab File: VX006965.D

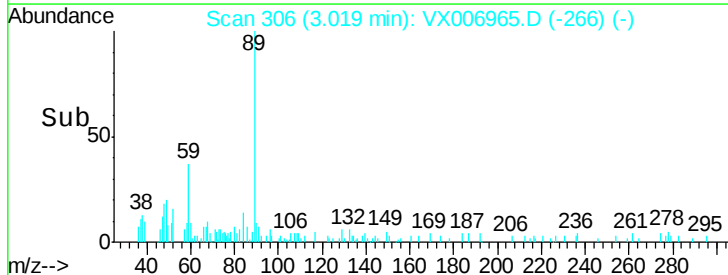
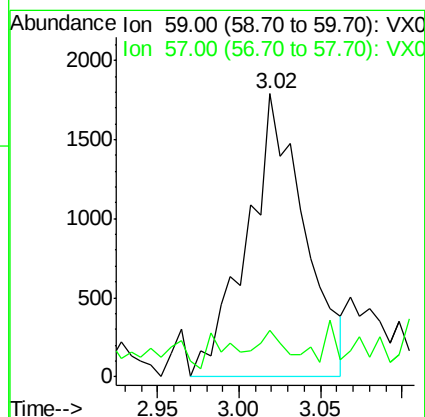
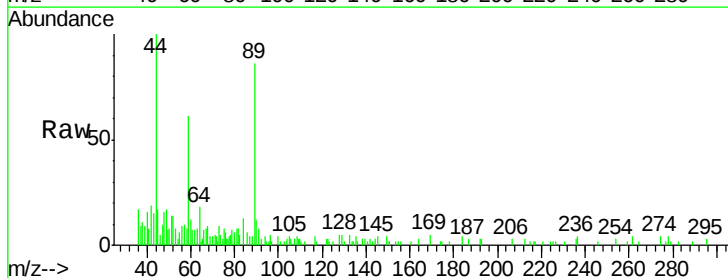
Acq: 09 Jan 2019 15:13

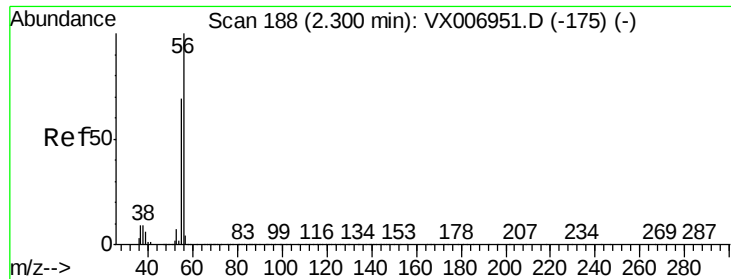
Tgt Ion: 59 Resp: 4356

Ion Ratio Lower Upper

59 100

57 4.5 8.5 12.7#





#13

Acrolein

Concen: 3.397 ug/l

RT: 2.29 min Scan# 187

Delta R.T. -0.01 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

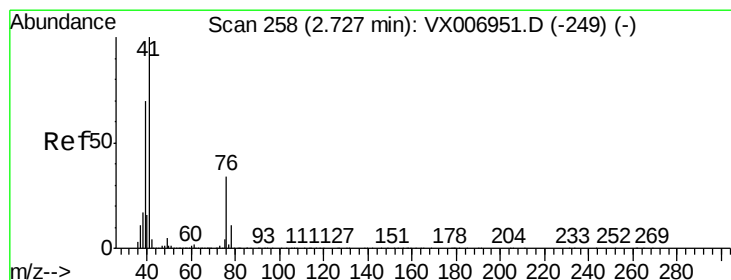
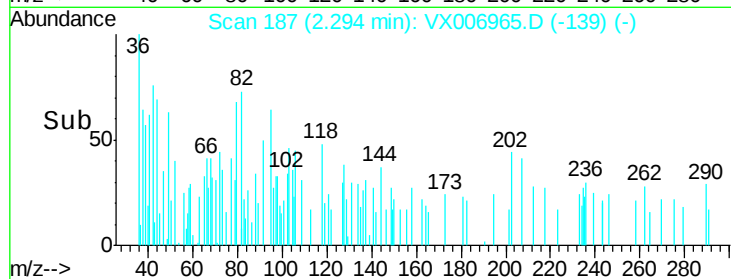
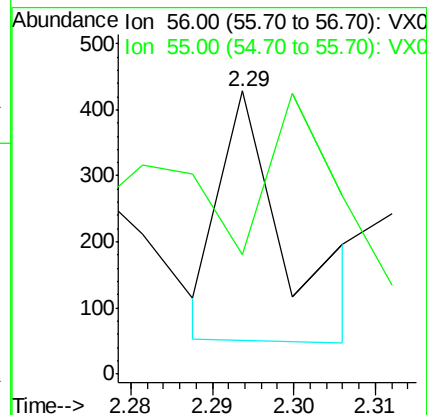
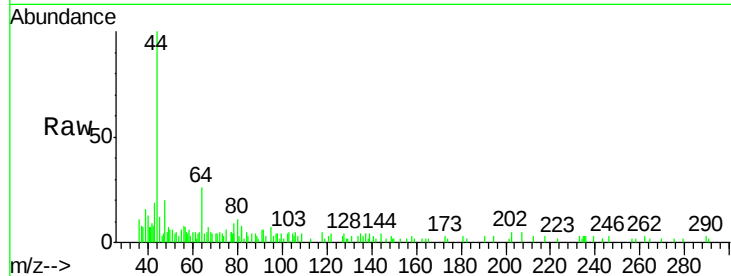
Instrument :
MSVOA_X
ClientSampled :

Tot Ion: 56 Resp: 216

Ion Ratio Lower Upper

56 100

55 0.0 58.2 87.4#



#14

Allyl chloride

Concen: 5.545 ug/l

RT: 2.86 min Scan# 280

Delta R.T. 0.13 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

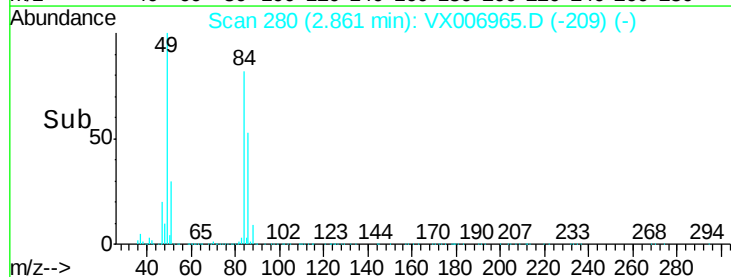
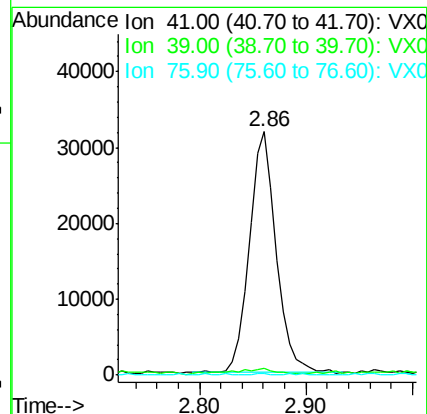
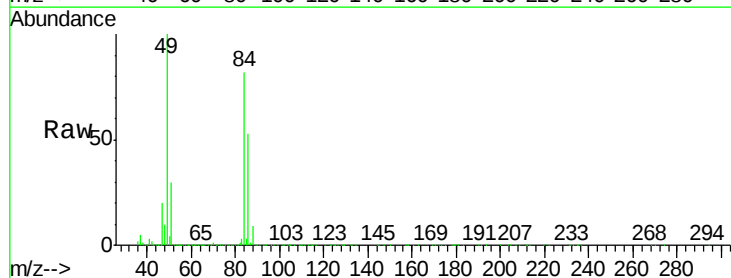
Tgt Ion: 41 Resp: 55959

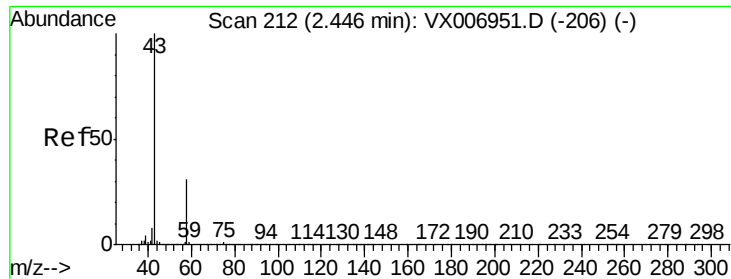
Ion Ratio Lower Upper

41 100

39 5.0 53.6 80.4#

76 0.2 27.4 41.2#

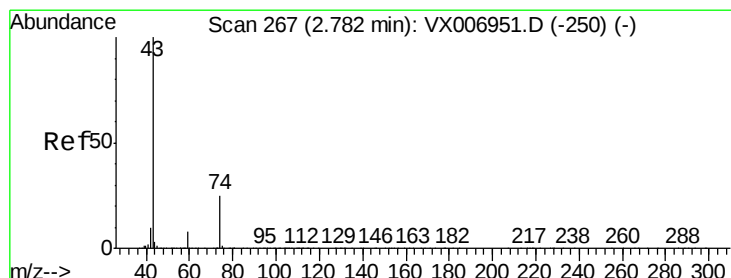
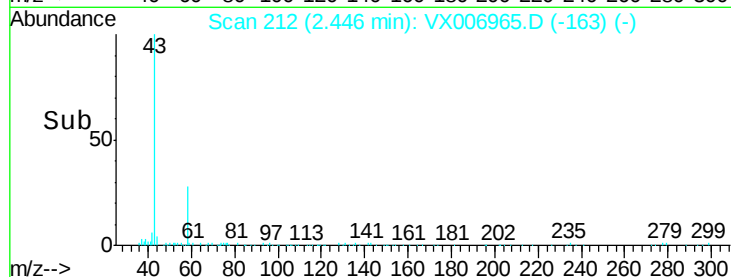
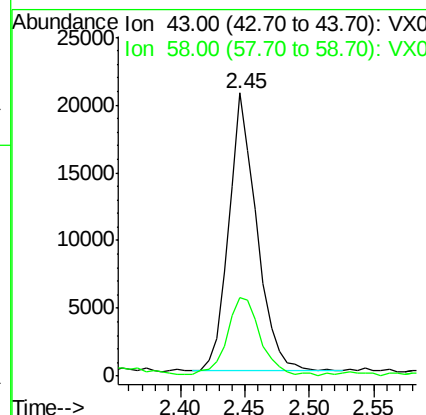
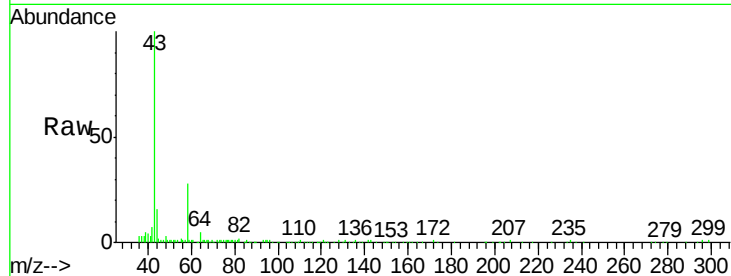




#16
Acetone
Concen: 9.394 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

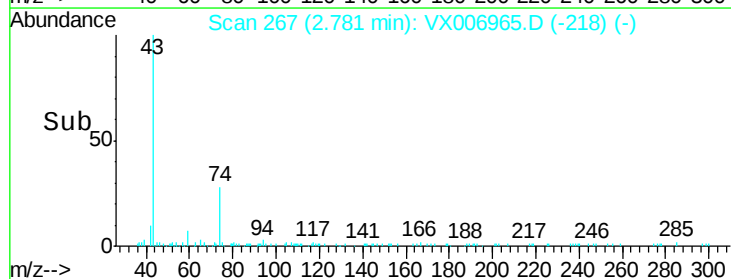
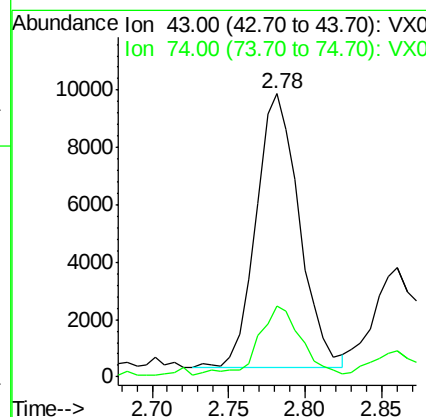
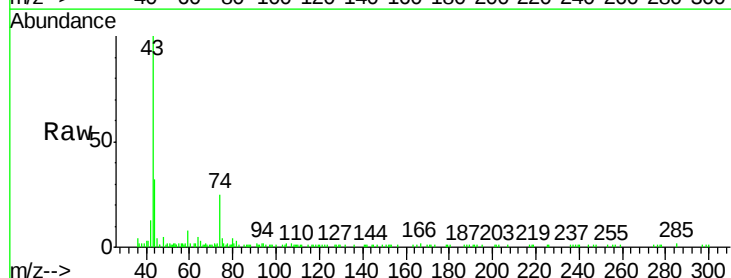
Instrument :
MSVOA_X
ClientSampleId :

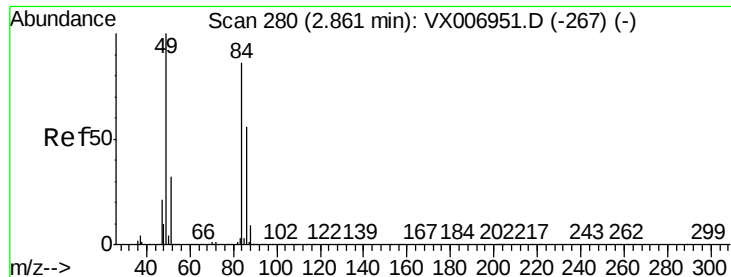
Tot Ion: 43 Resp: 31099
Ion Ratio Lower Upper
43 100
58 27.4 25.0 37.6



#18
Methyl Acetate
Concen: 1.949 ug/l
RT: 2.78 min Scan# 267
Delta R.T. -0.00 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

Tgt Ion: 43 Resp: 18686
Ion Ratio Lower Upper
43 100
74 25.3 18.6 28.0



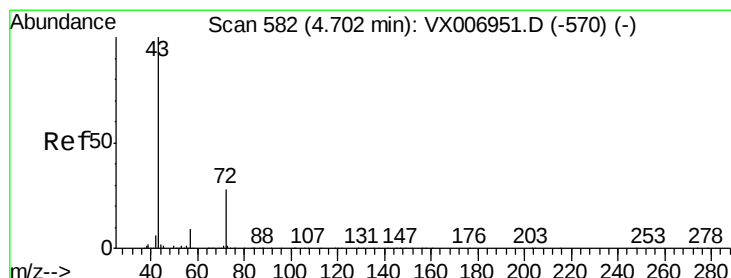
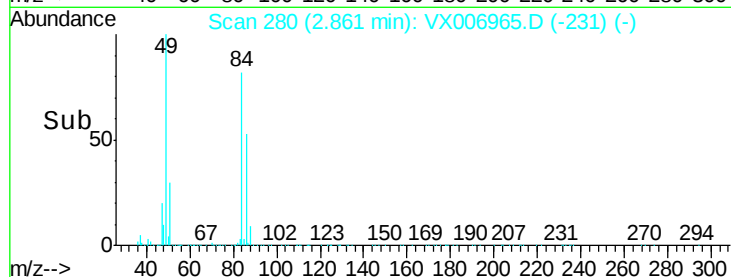
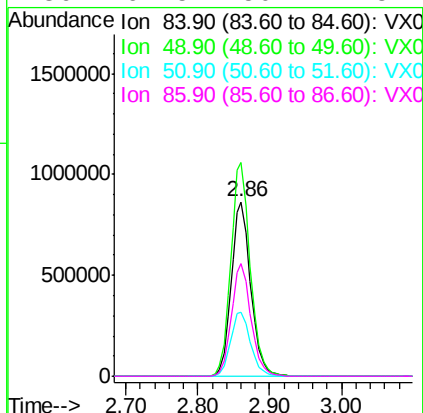
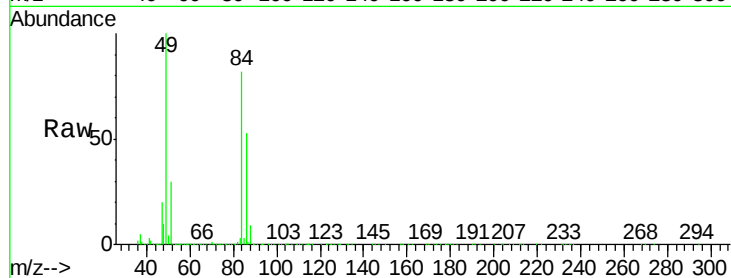


#20
Methvlene Chloride
Concen: 260.464 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.00 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

Instrument :
MSVOA_X
ClientSampleId :

Tot Ion: 84 Resp: 1624966

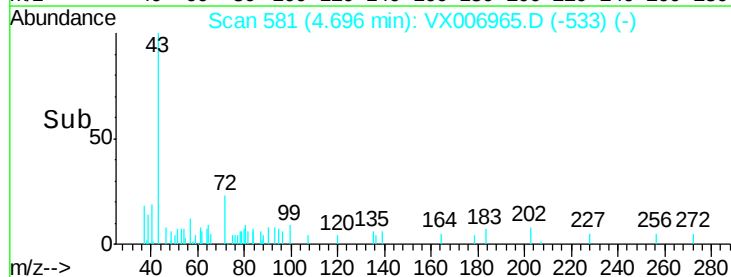
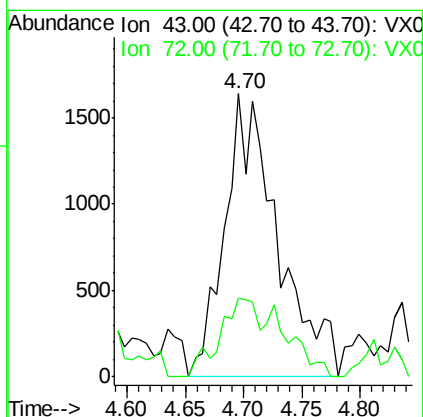
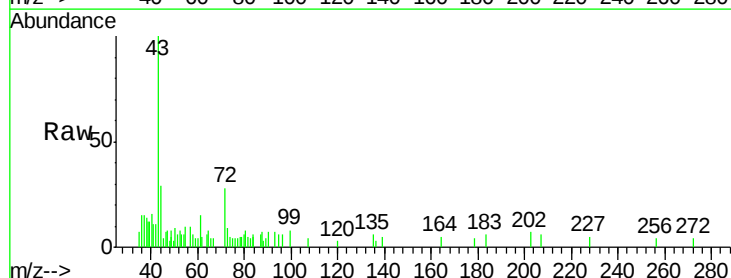
Ion	Ratio	Lower	Upper
84	100		
49	122.4	91.8	137.6
51	36.9	28.5	42.7
86	64.5	50.2	75.2

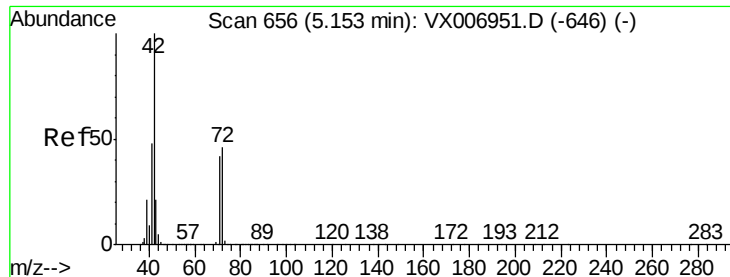


#25
2-Butanone
Concen: 1.093 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.01 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

Tgt Ion: 43 Resp: 5178

Ion	Ratio	Lower	Upper
43	100		
72	27.7	22.4	33.6

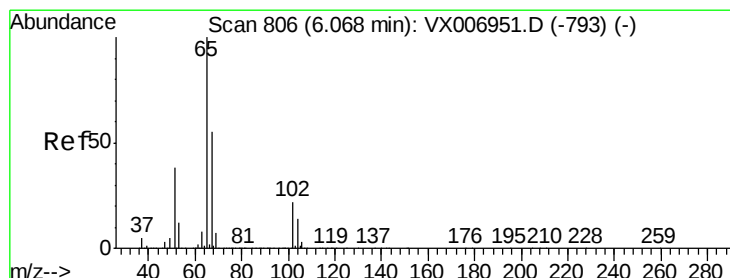
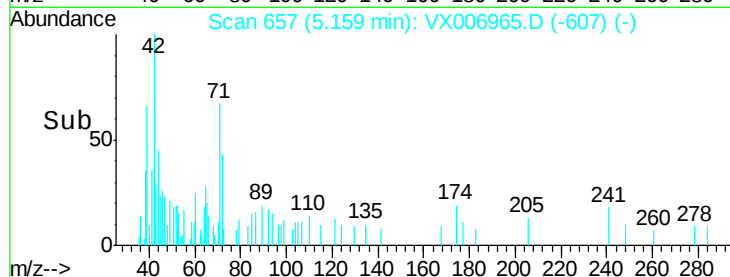
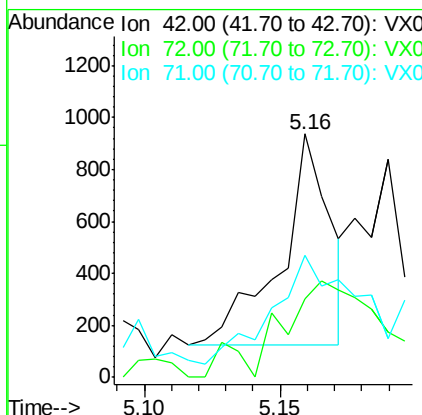
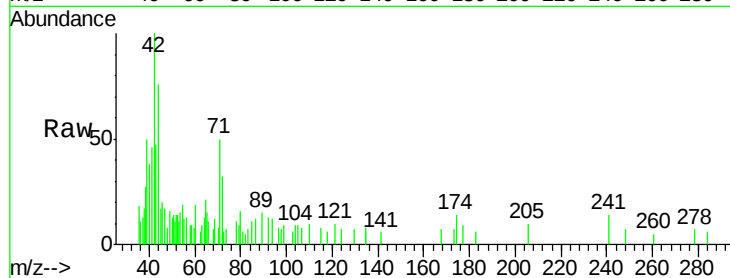




#29
Tetrahydrofuran
Concen: 0.337 ug/l
RT: 5.16 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

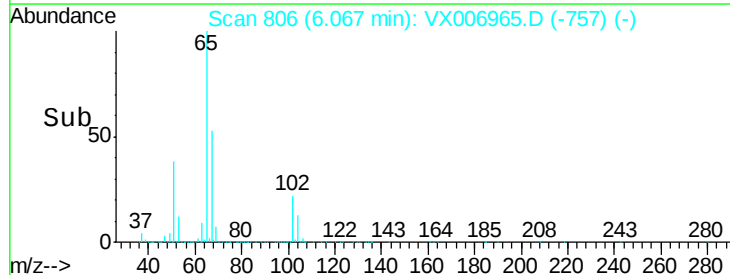
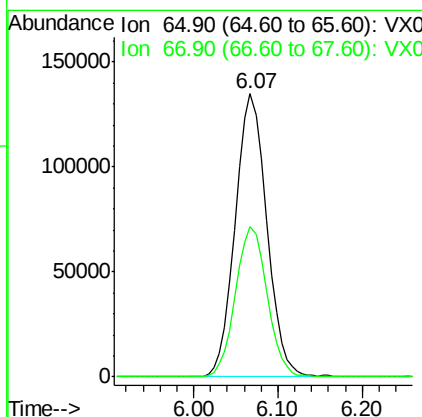
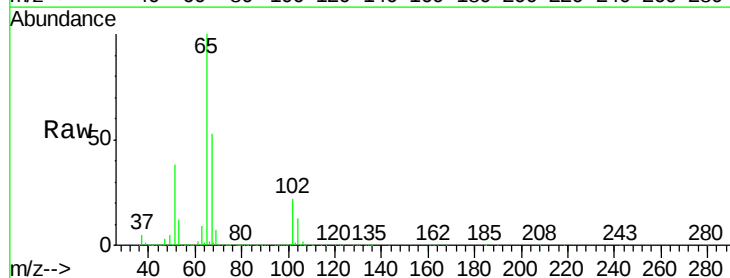
Instrument :
MSVOA_X
ClientSampled :

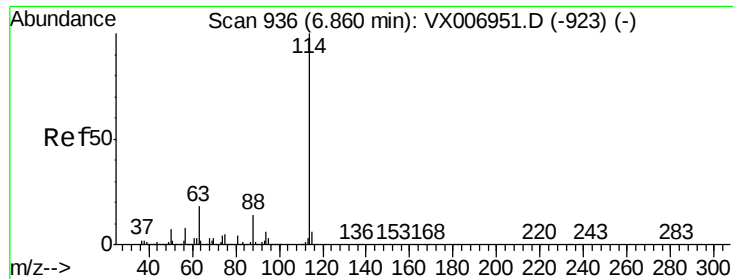
Tot Ion: 42 Resp: 1038
Ion Ratio Lower Upper
42 100
72 89.4 38.9 58.3#
71 116.5 36.2 54.4#



#33
1,2-Dichloroethane-d4
Concen: 51.089 ug/l
RT: 6.07 min Scan# 806
Delta R.T. -0.00 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

Tgt Ion: 65 Resp: 342098
Ion Ratio Lower Upper
65 100
67 53.3 0.0 105.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

ClientSampleId :

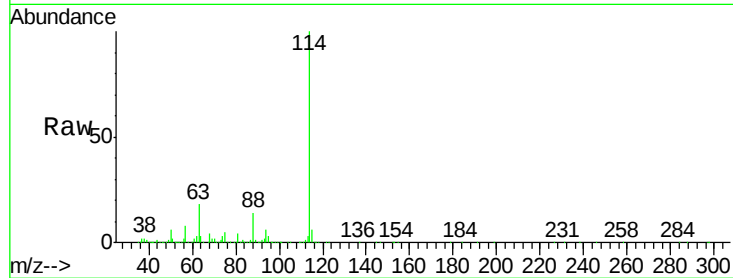
Tot Ion:114 Resp: 992055

Ion Ratio Lower Upper

114 100

63 17.8 0.0 34.8

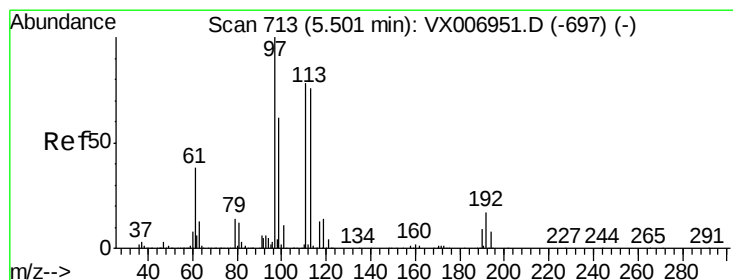
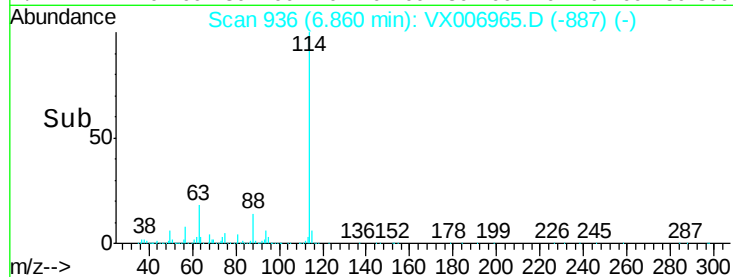
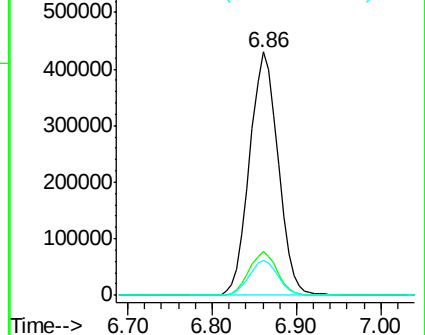
88 14.5 0.0 28.8



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 48.113 ug/l

RT: 5.51 min Scan# 714

Delta R.T. 0.01 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

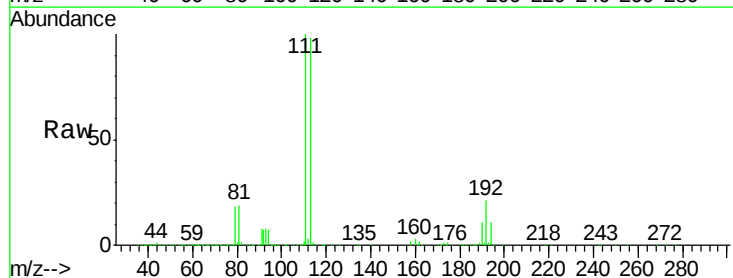
Tgt Ion:113 Resp: 305665

Ion Ratio Lower Upper

113 100

111 101.3 81.6 122.4

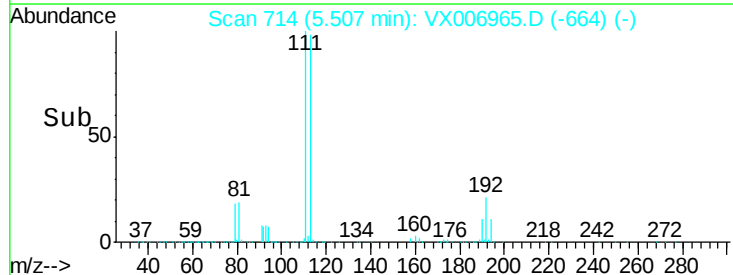
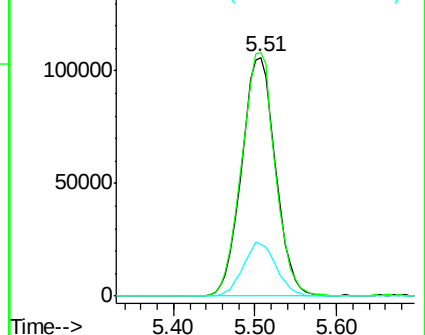
192 22.0 16.7 25.1

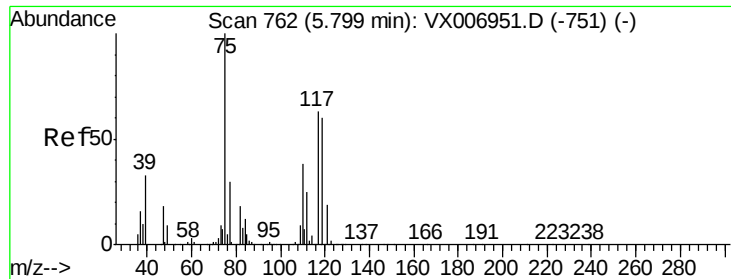


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

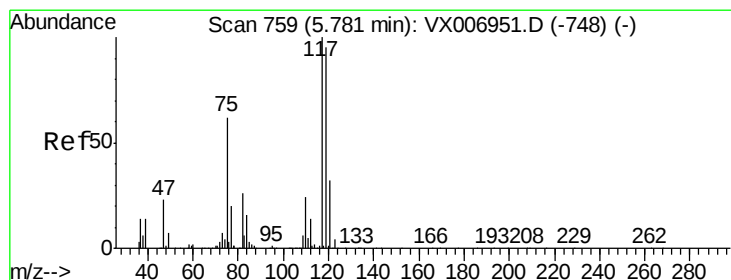
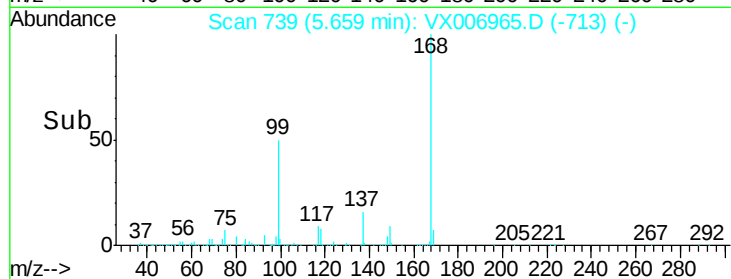
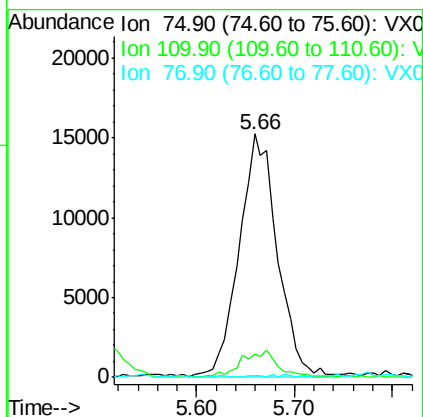
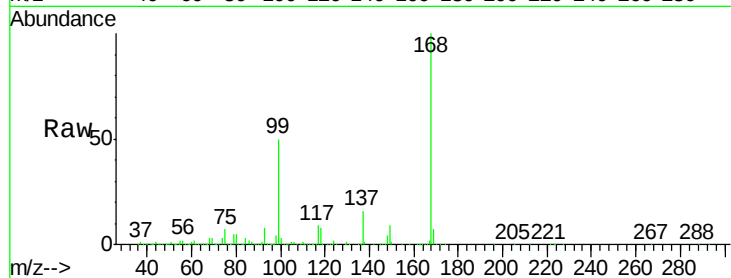




#36
 1,1-Dichloropropene
 Concen: 4.730 ug/l
 RT: 5.66 min Scan# 739
 Delta R.T. -0.14 min
 Lab File: VX006965.D
 Acq: 09 Jan 2019 15:13

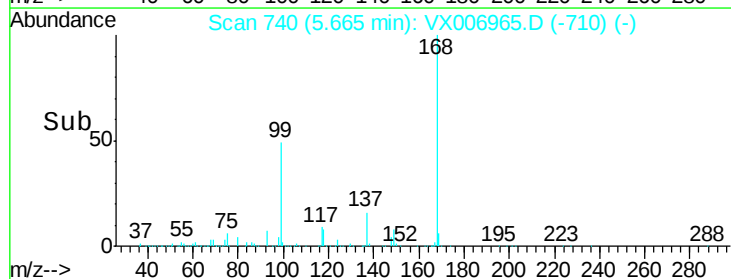
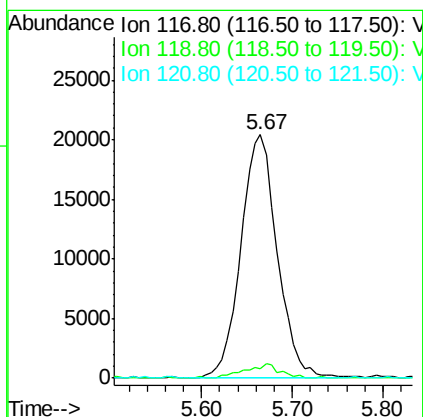
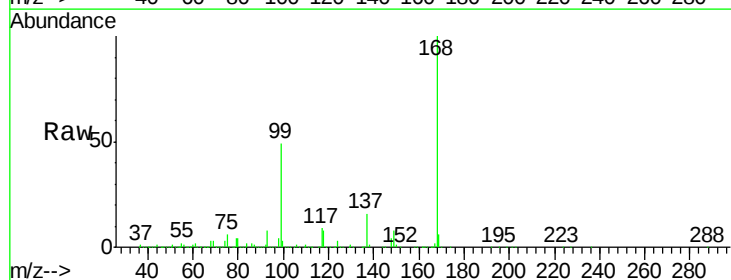
Instrument :
 MSVOA_X
 ClientSampleId :

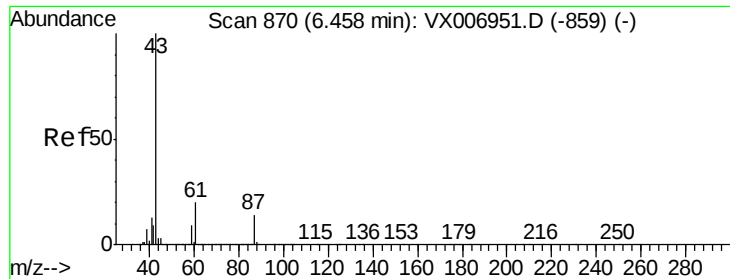
Tot Ion	Ratio	Lower	Upper
75	100		
110	10.6	20.2	60.5#
77	0.3	24.8	37.2#



#38
 Carbon Tetrachloride
 Concen: 6.520 ug/l
 RT: 5.67 min Scan# 740
 Delta R.T. -0.12 min
 Lab File: VX006965.D
 Acq: 09 Jan 2019 15:13

Tgt Ion	Ratio	Lower	Upper
117	100		
119	3.8	79.4	119.2#
121	0.3	24.0	36.0#



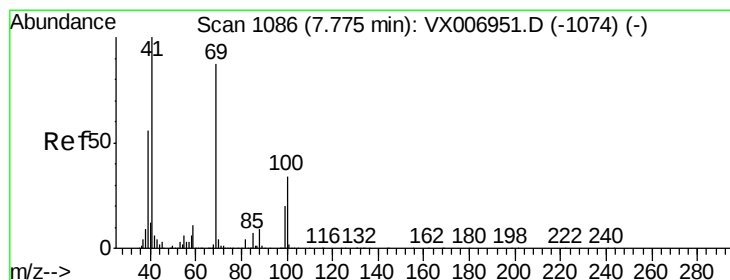
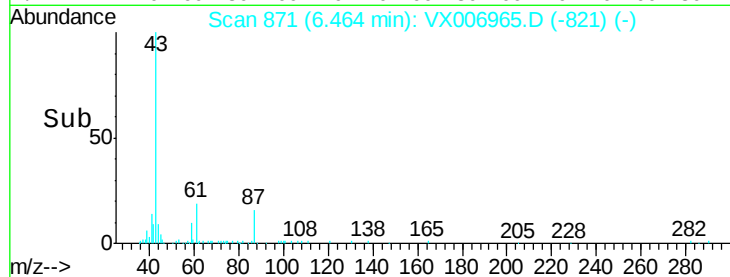
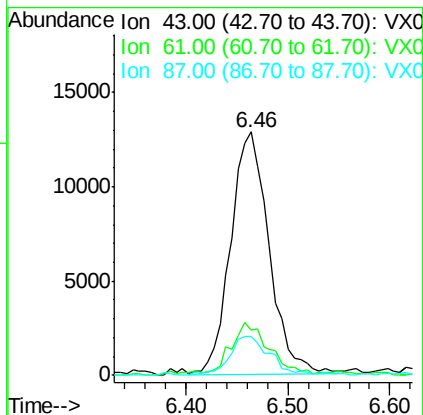
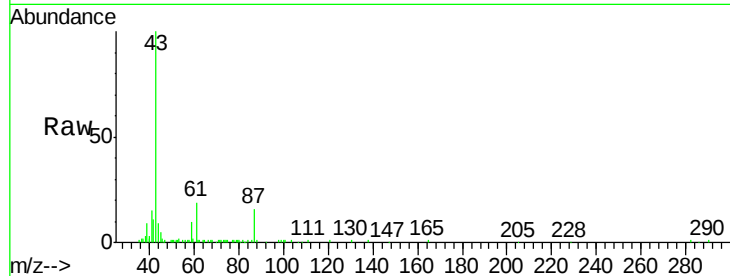


#43

Isopropyl Acetate
 Concen: 2.300 ug/l
 RT: 6.46 min Scan# 871
 Delta R.T. 0.01 min
 Lab File: VX006965.D
 Acq: 09 Jan 2019 15:13

Instrument :
 MSVOA_X
 ClientSampleId :

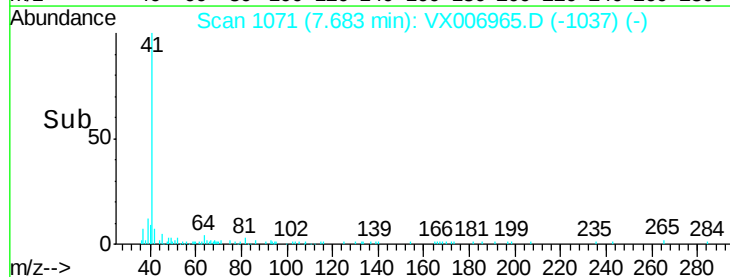
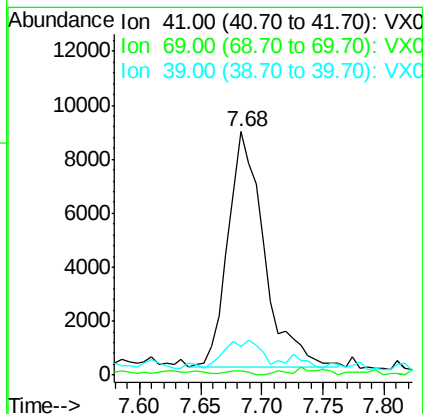
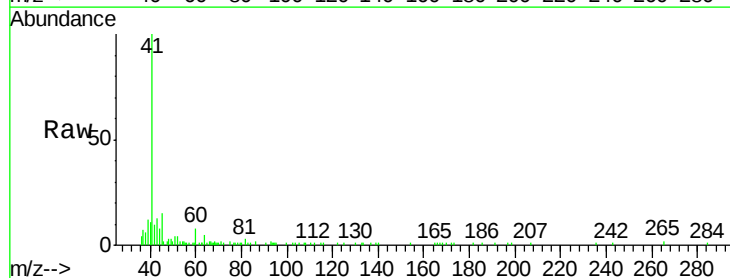
Tot Ion	Ratio	Lower	Upper
43	100		
61	22.0	16.8	25.2
87	16.8	12.4	18.6

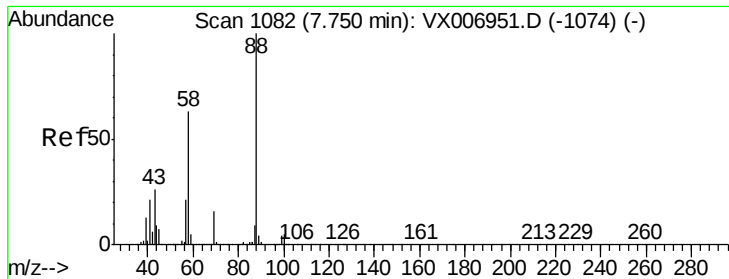


#48

Methyl methacrylate
 Concen: 2.384 ug/l
 RT: 7.68 min Scan# 1071
 Delta R.T. -0.09 min
 Lab File: VX006965.D
 Acq: 09 Jan 2019 15:13

Tgt Ion	Ratio	Lower	Upper
41	100		
69	1.1	72.4	108.6#
39	0.0	45.8	68.8#





#49

1,4-Dioxane

Concen: Below Cal

RT: 7.73 min Scan# 1079

Delta R.T. -0.02 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

ClientSampleId :

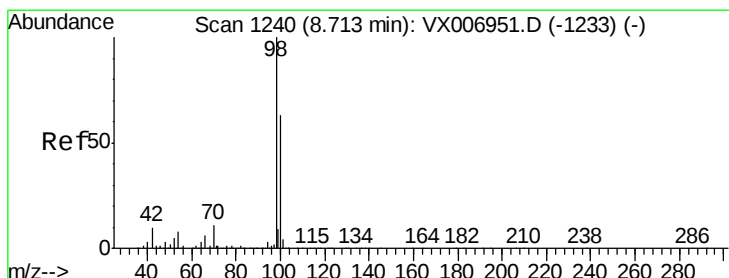
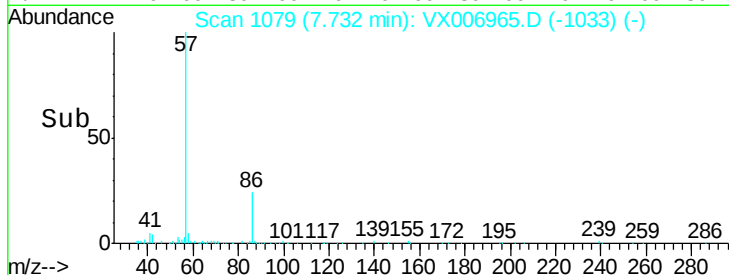
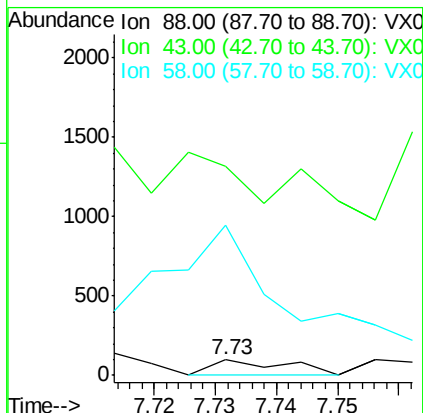
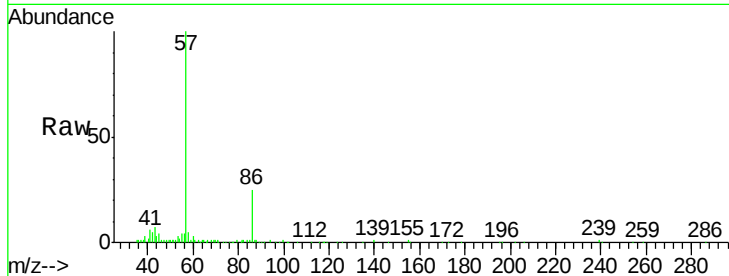
Tot Ion: 88 Resp: 84

Ion Ratio Lower Upper

88 100

43 0.0 22.2 33.4#

58 2278.6 51.0 76.4#



#50

Toluene-d8

Concen: 50.489 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX006965.D

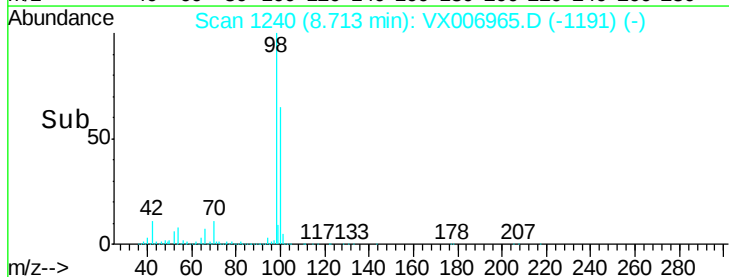
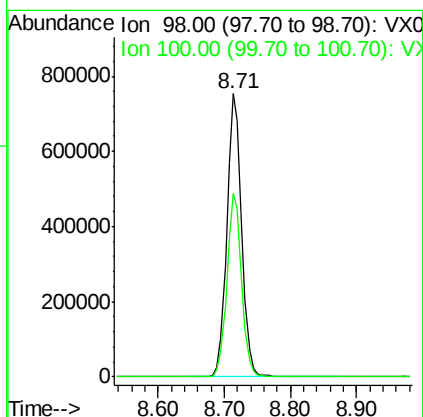
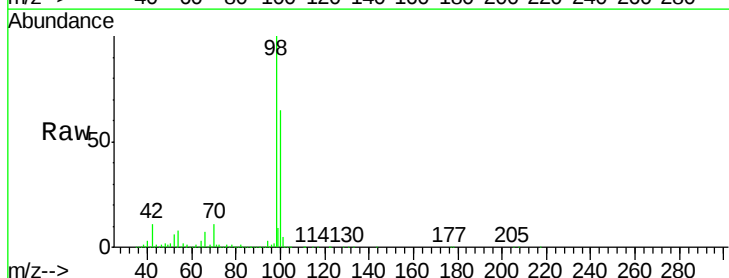
Acq: 09 Jan 2019 15:13

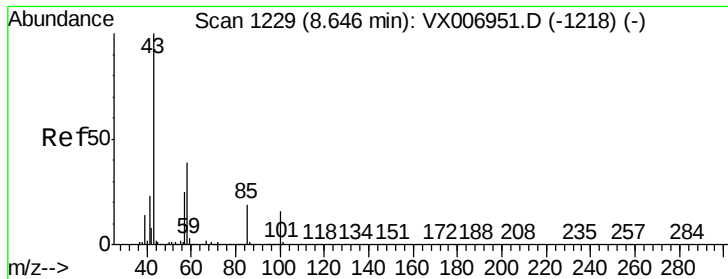
Tgt Ion: 98 Resp: 1174070

Ion Ratio Lower Upper

98 100

100 64.5 52.0 78.0





#51

4-Methyl-2-Pentanone

Concen: 17.504 ug/l

RT: 8.62 min Scan# 1224

Delta R.T. -0.03 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

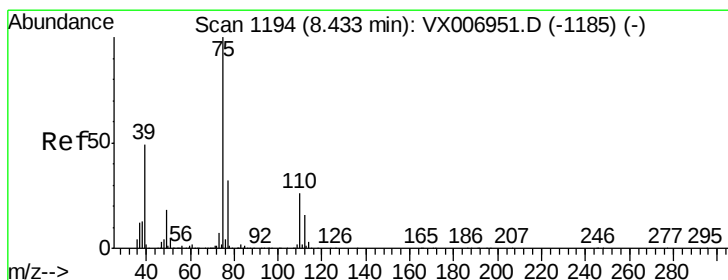
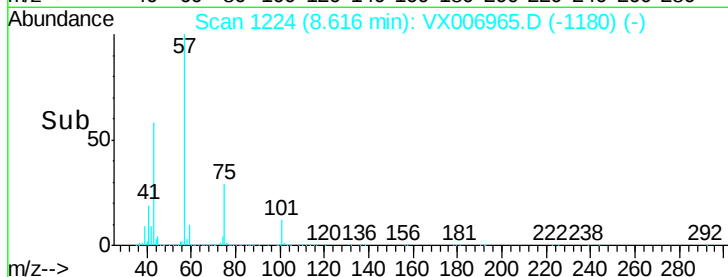
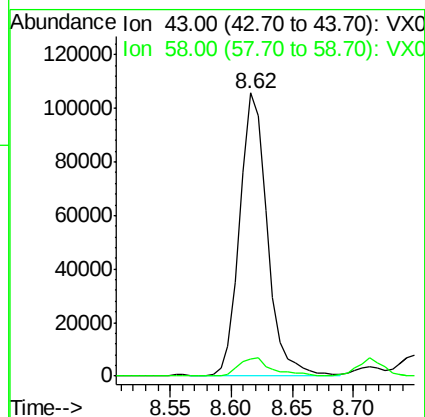
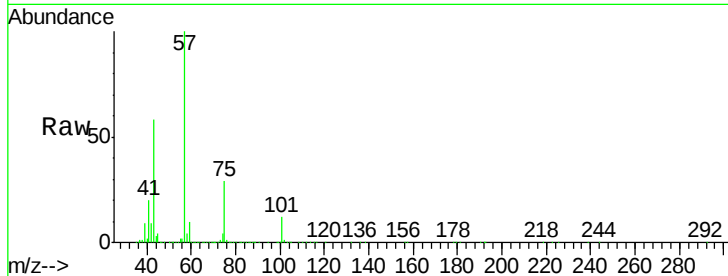
ClientSampleId :

Tot Ion: 43 Resp: 164080

Ion Ratio Lower Upper

43 100

58 8.0 31.8 47.6#



#54

cis-1,3-Dichloropropene

Concen: 8.530 ug/l

RT: 8.62 min Scan# 1225

Delta R.T. 0.19 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

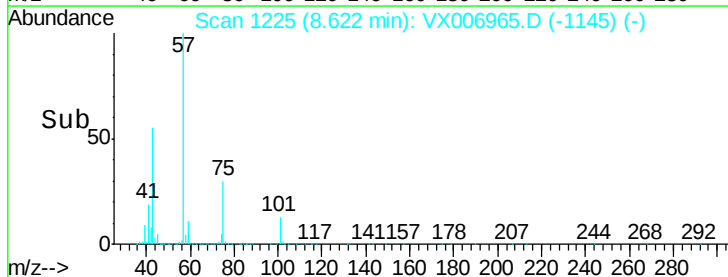
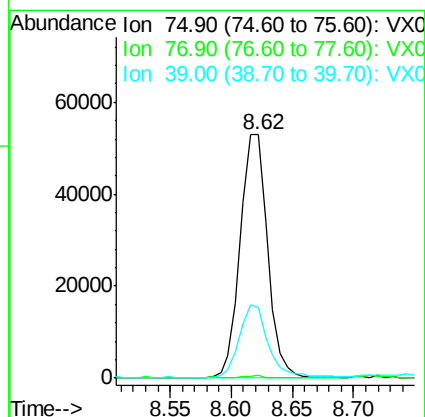
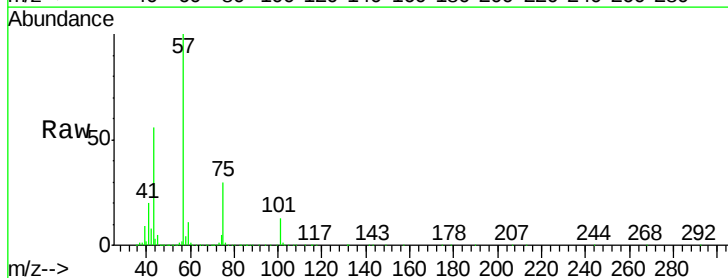
Tgt Ion: 75 Resp: 82681

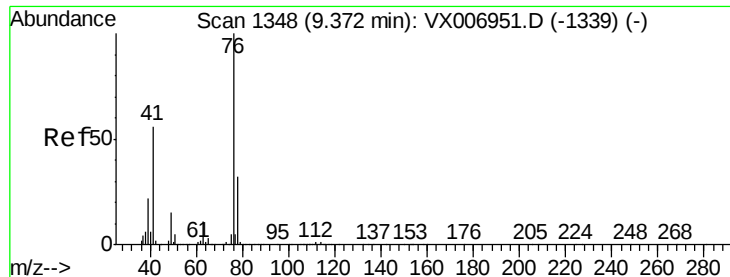
Ion Ratio Lower Upper

75 100

77 0.8 26.2 39.2#

39 29.0 36.7 55.1#





#57

1,3-Dichloropropane

Concen: 1.601 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.17 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

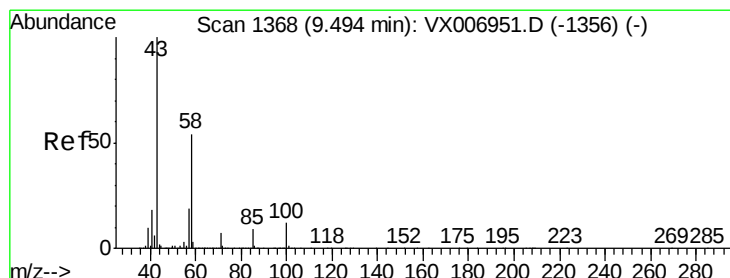
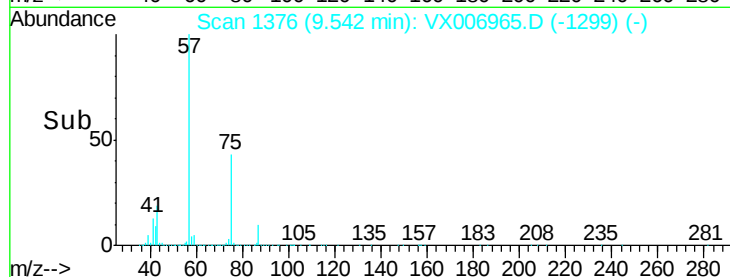
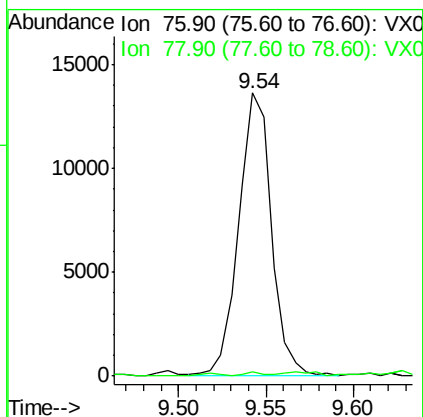
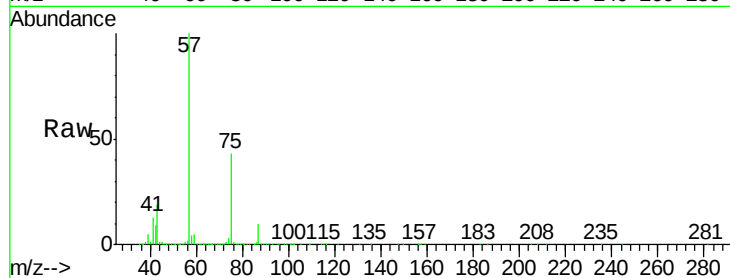
ClientSampleId :

Tot Ion: 76 Resp: 17759

Ion Ratio Lower Upper

76 100

78 0.8 26.0 39.0#



#59

2-Hexanone

Concen: 32.901 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.05 min

Lab File: VX006965.D

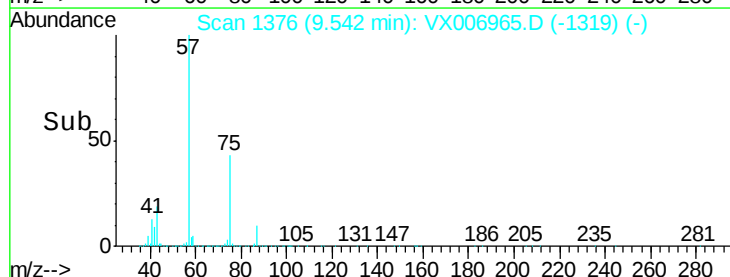
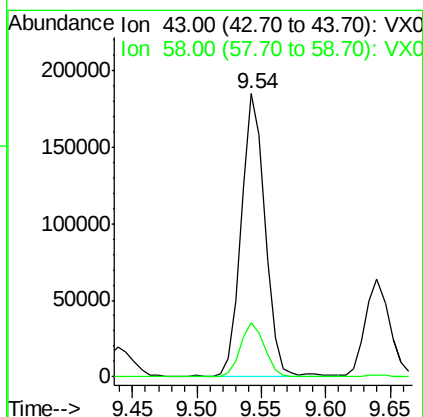
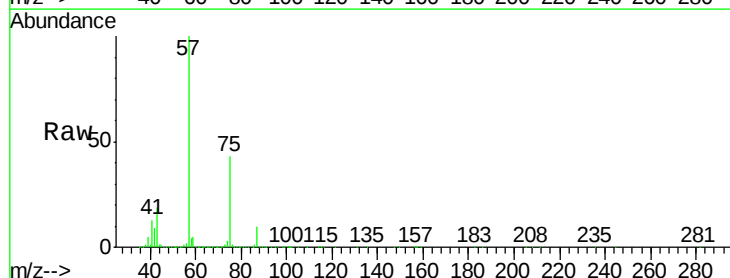
Acq: 09 Jan 2019 15:13

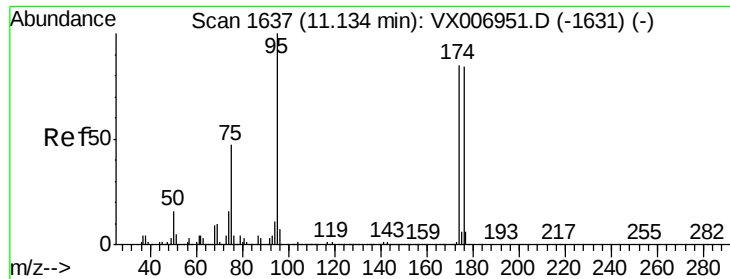
Tgt Ion: 43 Resp: 235020

Ion Ratio Lower Upper

43 100

58 19.8 27.7 83.1#





#62

4-Bromofluorobenzene

Concen: 51.445 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

ClientSampleId :

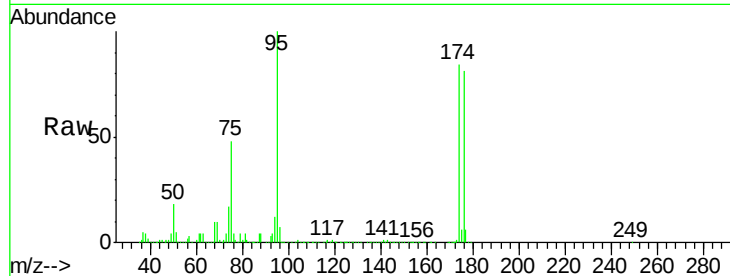
Tot Ion: 95 Resp: 417060

Ion Ratio Lower Upper

95 100

174 92.2 0.0 182.2

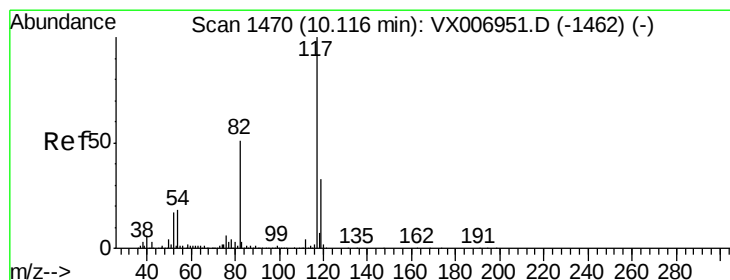
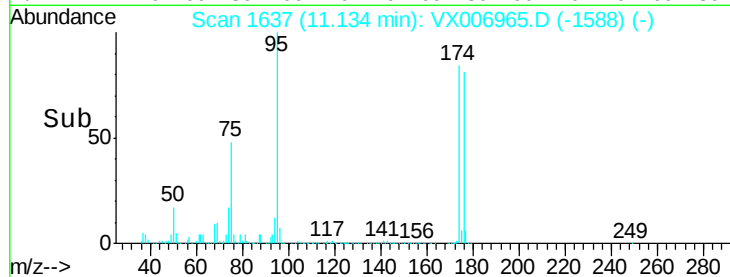
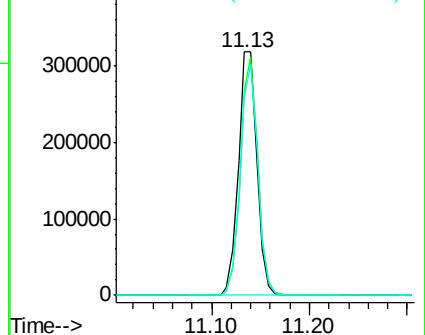
176 89.4 0.0 178.8



Abundance Ion 94.90 (94.60 to 95.60): VX006965.D (-1631) (-)

Ion 173.80 (173.50 to 174.50): VX006965.D (-1631) (-)

Ion 175.80 (175.50 to 176.50): VX006965.D (-1631) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.12 min Scan# 1470

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

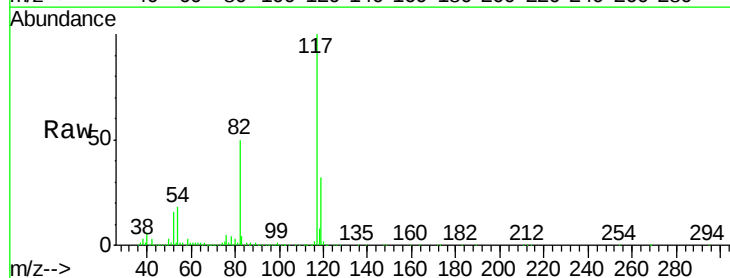
Tgt Ion: 117 Resp: 911714

Ion Ratio Lower Upper

117 100

82 50.3 41.0 61.6

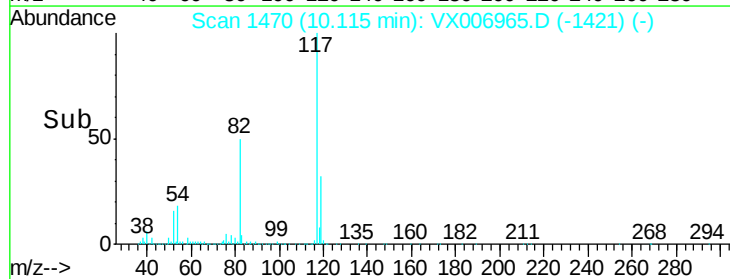
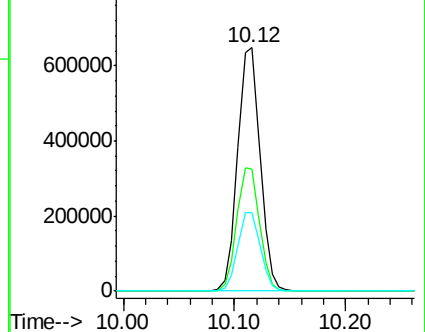
119 32.0 25.4 38.0

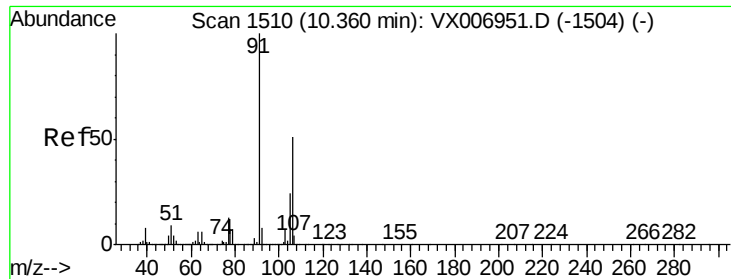


Abundance Ion 116.90 (116.60 to 117.60): VX006965.D (-1462) (-)

Ion 82.00 (81.70 to 82.70): VX006965.D (-1462) (-)

Ion 118.90 (118.60 to 119.60): VX006965.D (-1462) (-)





#68

m/p-Xvlenes

Concen: 0.380 ug/l

RT: 10.36 min Scan# 1510

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

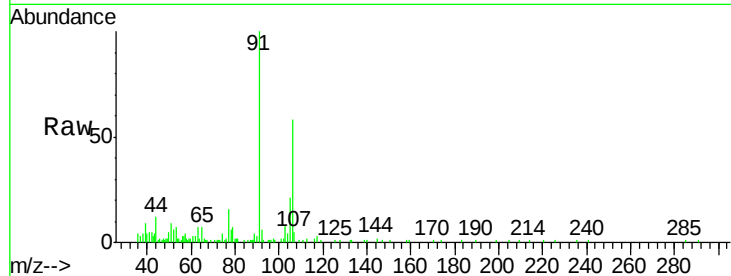
ClientSampleId :

Tot Ion:106 Resp: 4918

Ion Ratio Lower Upper

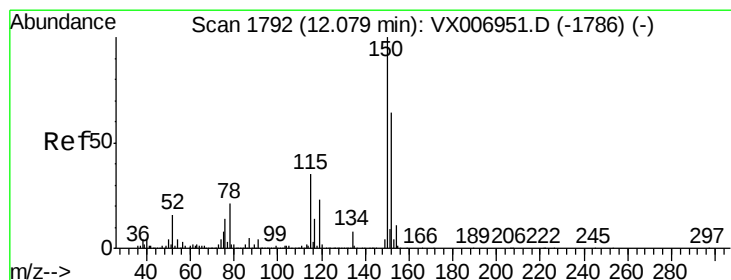
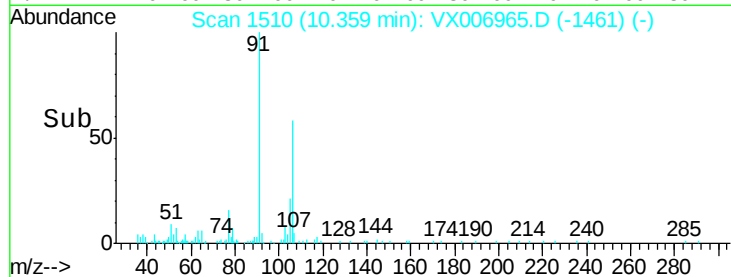
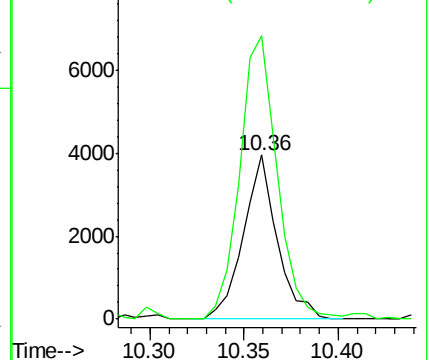
106 100

91 190.8 155.8 233.6



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

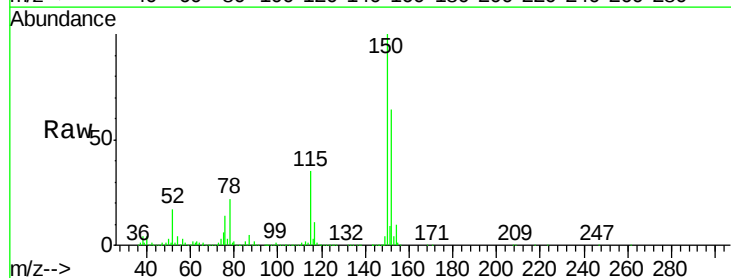
Tgt Ion:152 Resp: 446379

Ion Ratio Lower Upper

152 100

115 54.6 39.1 117.2

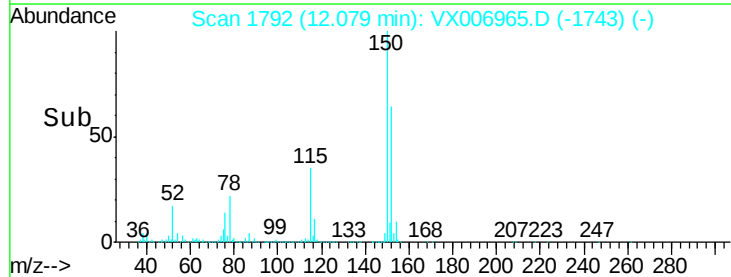
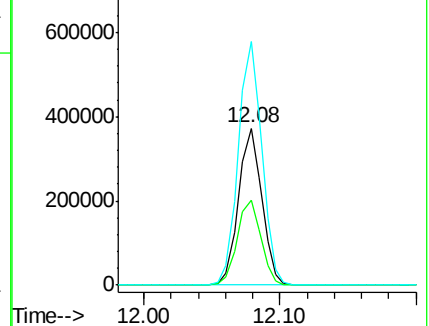
150 156.2 0.0 344.8

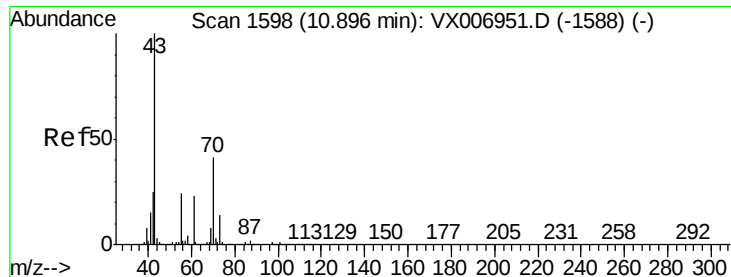


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#74

N-amyl acetate

Concen: 1.769 ug/l

RT: 10.69 min Scan# 1565

Delta R.T. -0.20 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

ClientSampleId :

Tot Ion: 43 Resp: 22419

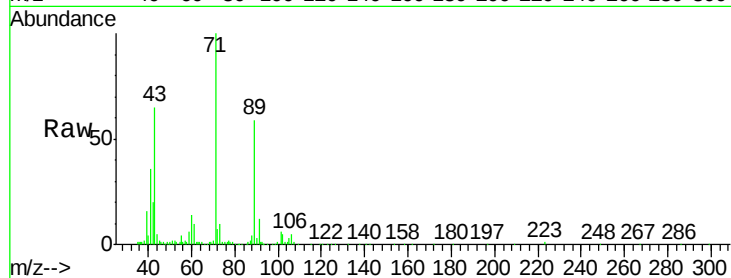
Ion Ratio Lower Upper

43 100

70 3.3 35.8 53.8#

55 6.6 19.4 29.0#

61 15.9 20.1 30.1#

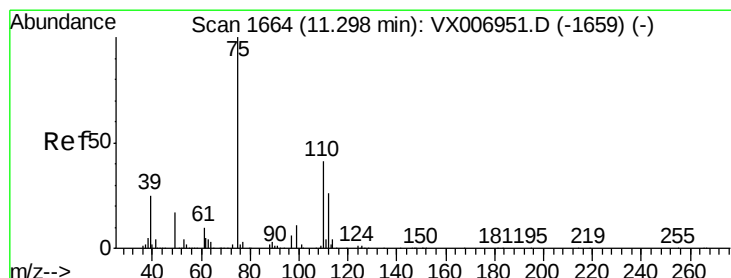
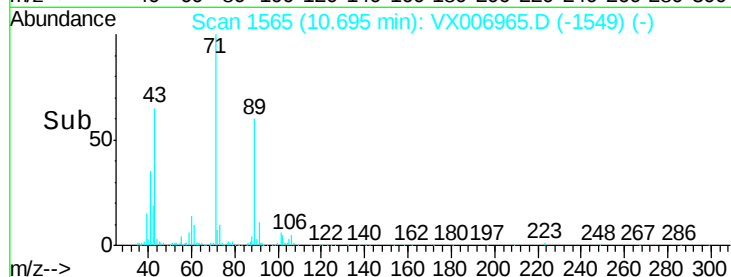
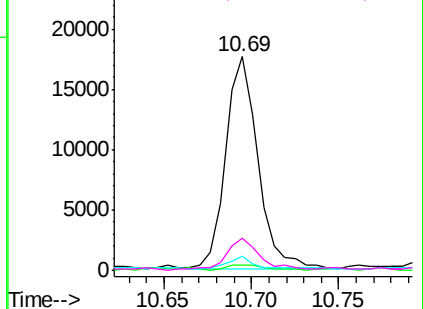


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 70.00 (69.70 to 70.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

Ion 61.00 (60.70 to 61.70): VX0



#76

1,2,3-Trichloropropane

Concen: 21.642 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX006965.D

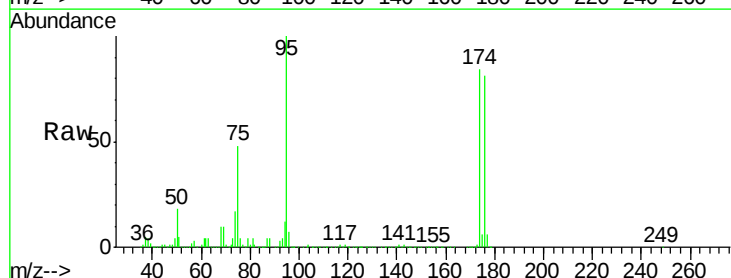
Acq: 09 Jan 2019 15:13

Tgt Ion: 75 Resp: 195763

Ion Ratio Lower Upper

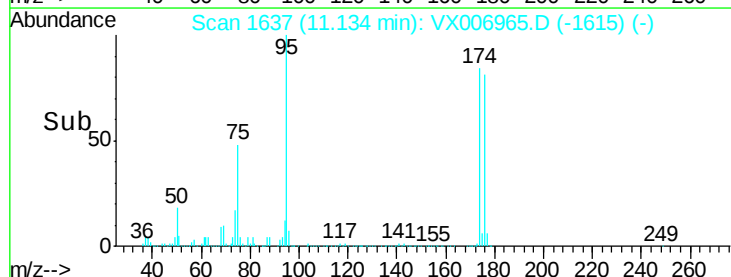
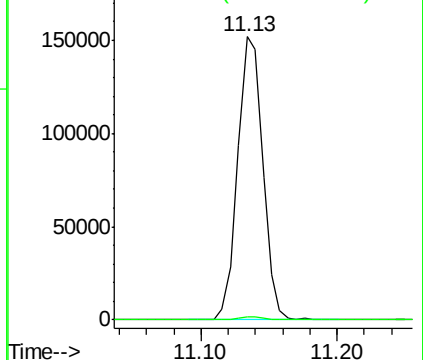
75 100

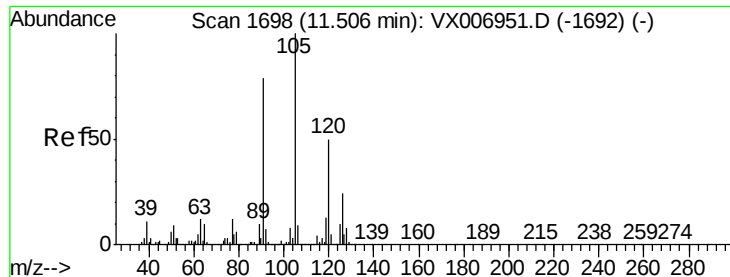
77 1.3 18.5 55.5#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#80

1,3,5-Trimethylbenzene

Concen: 0.321 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

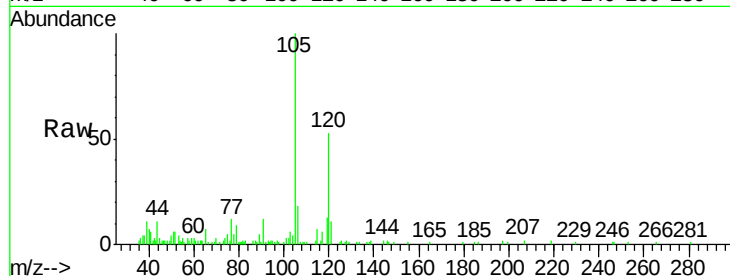
ClientSampleId :

Tot Ion:105 Resp: 8449

Ion Ratio Lower Upper

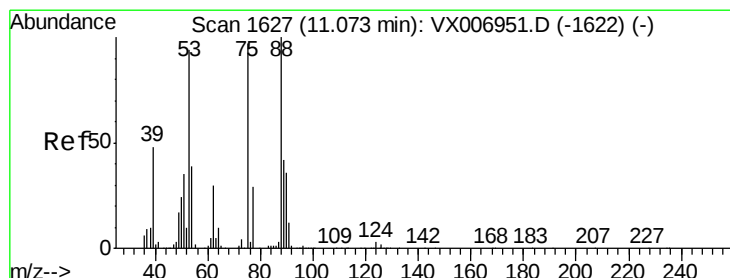
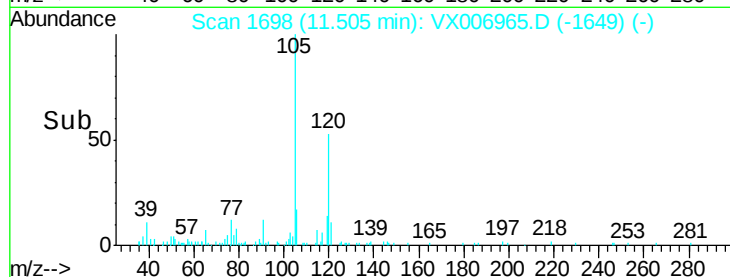
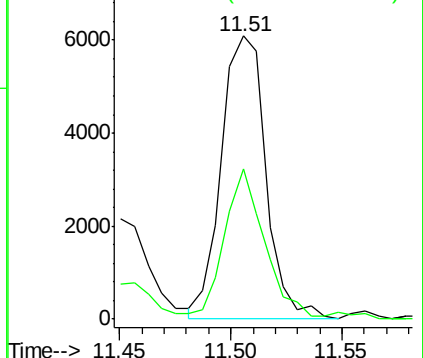
105 100

120 48.4 25.1 75.3



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: 64.153 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

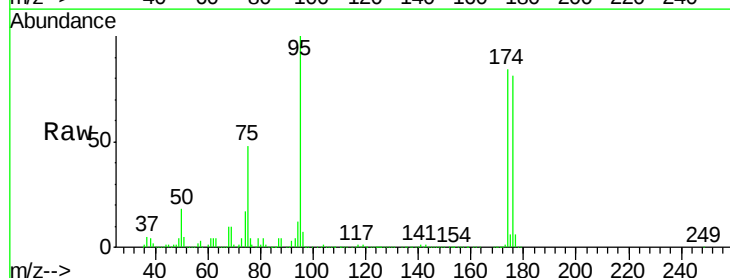
Tgt Ion: 75 Resp: 195763

Ion Ratio Lower Upper

75 100

53 0.2 79.7 119.5#

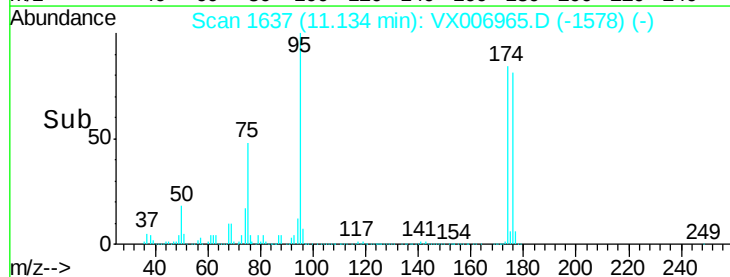
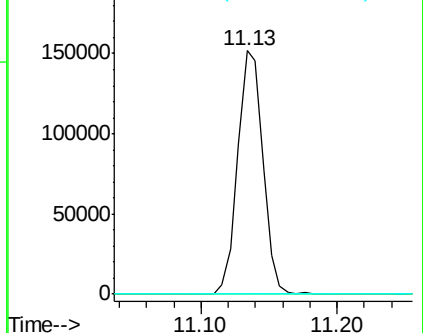
89 0.0 38.0 57.0#

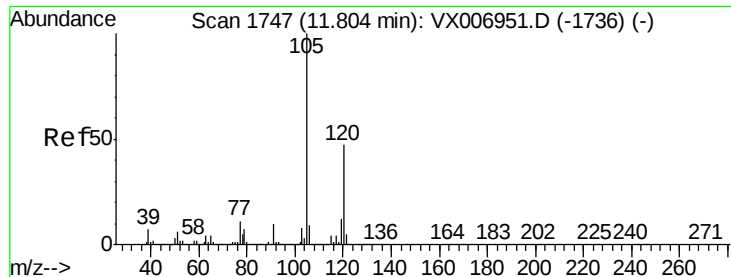


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

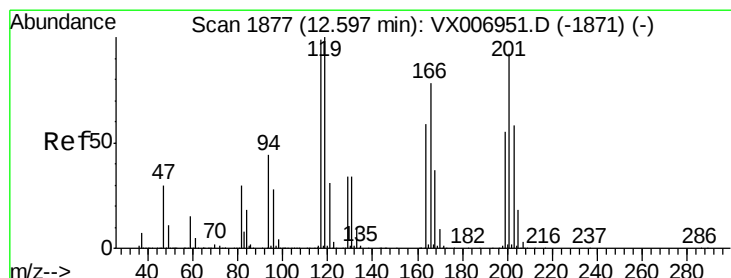
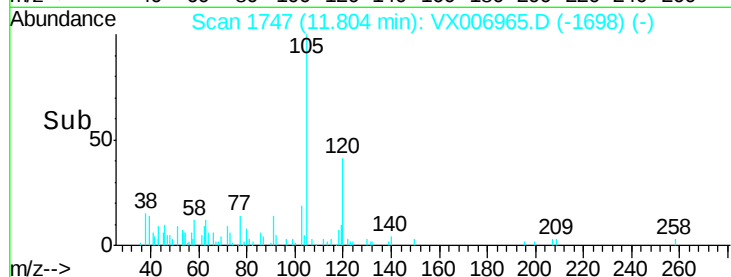
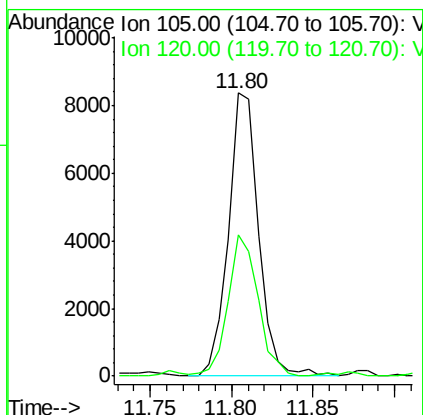
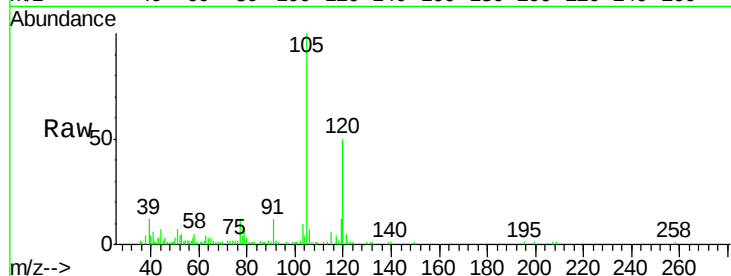




#84
1,2,4-Trimethylbenzene
Concen: 0.407 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

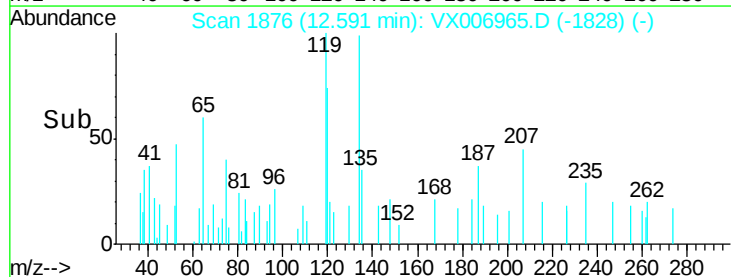
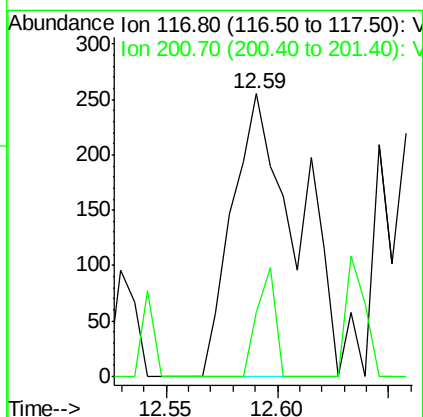
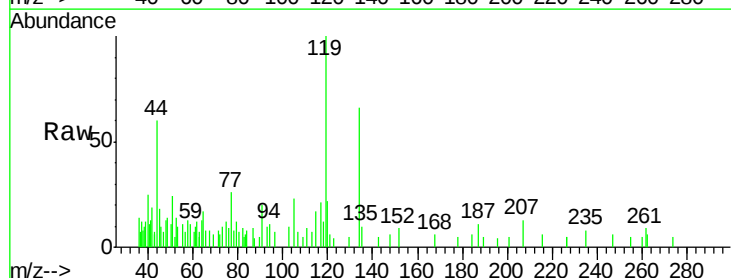
Instrument :
MSVOA_X
ClientSampleId :

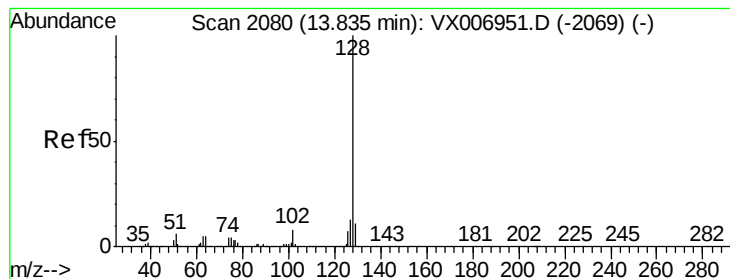
Tot Ion:105 Resp: 10771
Ion Ratio Lower Upper
105 100
120 49.7 23.2 69.6



#90
Hexachloroethane
Concen: 3.017 ug/l
RT: 12.59 min Scan# 1876
Delta R.T. -0.01 min
Lab File: VX006965.D
Acq: 09 Jan 2019 15:13

Tgt Ion:117 Resp: 517
Ion Ratio Lower Upper
117 100
201 11.0 42.9 128.7#





#95

Naphthalene

Concen: 7.923 ug/l

RT: 13.83 min Scan# 2080

Delta R.T. -0.00 min

Lab File: VX006965.D

Acq: 09 Jan 2019 15:13

Instrument :

MSVOA_X

ClientSampleId :

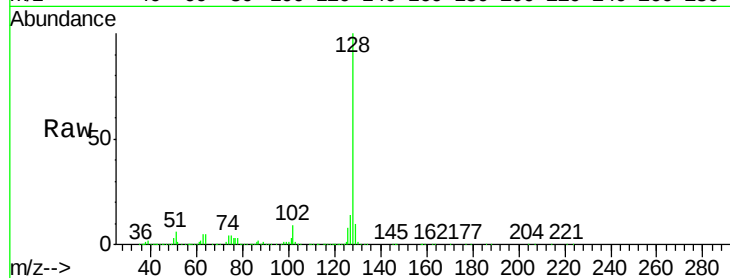
Tot Ion:128 Resp: 254827

Ion Ratio Lower Upper

128 100

127 13.2 10.1 15.1

129 10.8 8.6 13.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

