

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX073019\
 Data File : VX011203.D
 Acq On : 30 Jul 2019 18:27
 Operator : JC/SP
 Sample : K4026-05DL 5X
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 19 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 Z3-0673DL

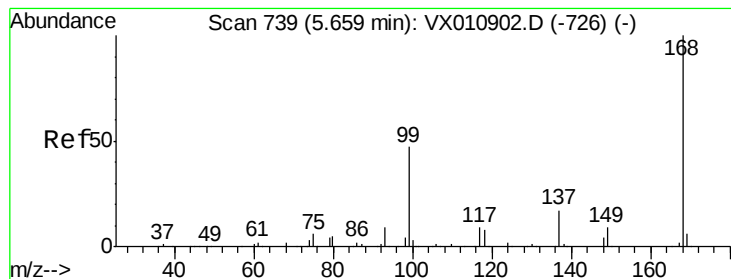
Quant Time: Jul 31 08:41:45 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X071619W.M
 Quant Title : SW846 8260
 QLast Update : Wed Jul 24 05:39:23 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	213907	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	305462	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	277678	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	134145	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	104420	45.89	ug/l	0.00
Spiked Amount			Recovery	=	91.78%	
35) Dibromofluoromethane	5.50	113	88962	45.88	ug/l	0.00
Spiked Amount			Recovery	=	91.76%	
50) Toluene-d8	8.71	98	355112	48.83	ug/l	0.00
Spiked Amount			Recovery	=	97.66%	
62) 4-Bromofluorobenzene	11.13	95	122879	45.97	ug/l	0.00
Spiked Amount			Recovery	=	91.94%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	1.20	85	20	0.555	ug/l #	43
3) Chloromethane	1.33	50	512	0.260	ug/l #	15
4) Vinyl Chloride	1.41	62	5743	2.862	ug/l	91
5) Bromomethane	1.64	94	779	0.689	ug/l #	56
11) Tert butyl alcohol	3.02	59	5999	11.319	ug/l #	76
16) Acetone	2.45	43	1136	1.105	ug/l #	82
20) Methylene Chloride	2.85	84	526	0.241	ug/l	86
21) trans-1,2-Dichloroethene	3.16	96	3550	1.756	ug/l	97
27) cis-1,2-Dichloroethene	4.59	96	6008	2.568	ug/l	92
29) Tetrahydrofuran	5.11	42	206	0.220	ug/l #	36
36) 1,1-Dichloropropene	5.65	75	14771	5.887	ug/l #	49
38) Carbon Tetrachloride	5.66	117	20079	7.680	ug/l #	17
40) Benzene	6.15	78	11703	1.523	ug/l	94
44) Trichloroethene	7.21	130	730	0.321	ug/l	94
49) 1,4-Dioxane	7.78	88	42	0.730	ug/l #	28
65) Chlorobenzene	10.13	112	238611	41.838	ug/l	99
67) Ethyl Benzene	10.26	91	3095	0.319	ug/l	92
76) 1,2,3-Trichloropropane	11.13	75	61235	25.296	ug/l #	35
81) trans-1,4-Dichloro-2-buten	11.13	75	61235	62.968	ug/l #	11
87) 1,3-Dichlorobenzene	12.02	146	1040	0.240	ug/l	91
88) 1,4-Dichlorobenzene	12.02	146	1040	0.234	ug/l	89
90) Hexachloroethane	12.69	117	367	0.289	ug/l #	6

(#) = 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. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

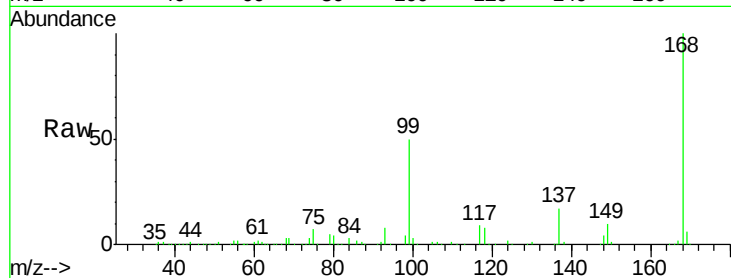
Z3-0673DL

Tgt Ion:168 Resp: 213907

Ion Ratio Lower Upper

168 100

99 50.5 37.6 56.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.66

80000

60000

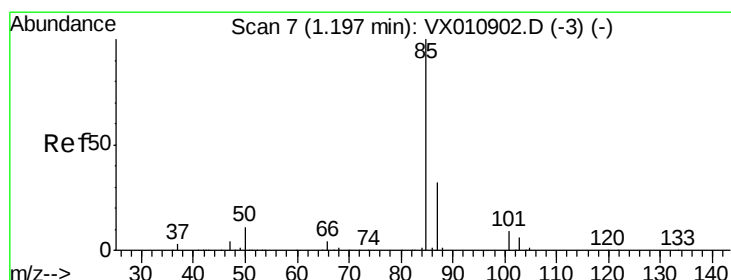
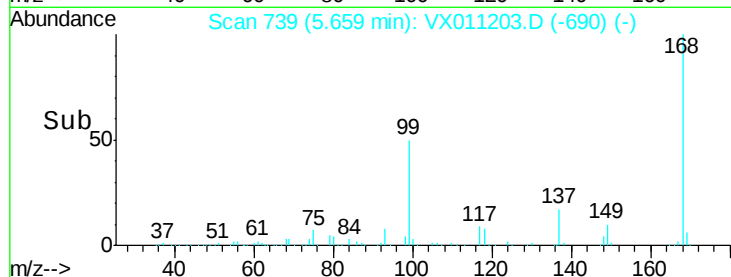
40000

20000

0

Time-->

5.50 5.60 5.70 5.80 5.90



#2

Dichlorodifluoromethane

Concen: 0.555 ug/l

RT: 1.20 min Scan# 7

Delta R.T. 0.00 min

Lab File: VX011203.D

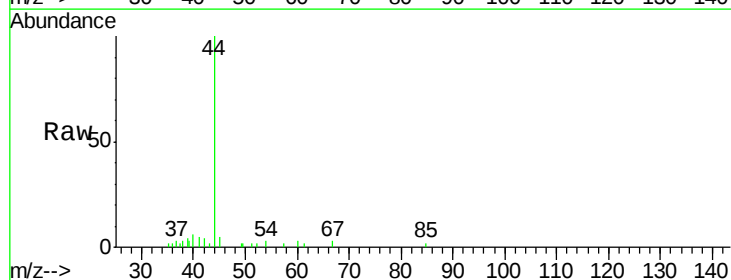
Acq: 30 Jul 2019 18:27

Tgt Ion: 85 Resp: 20

Ion Ratio Lower Upper

85 100

87 0.0 15.9 47.7#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.20

60

50

40

30

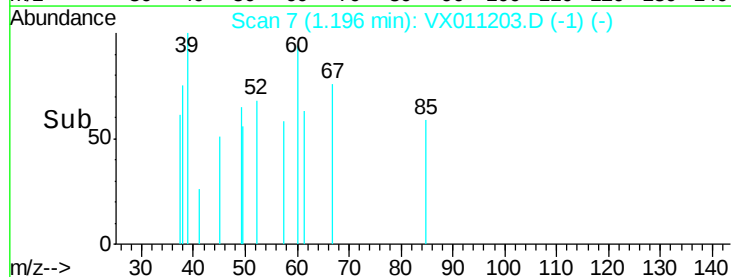
20

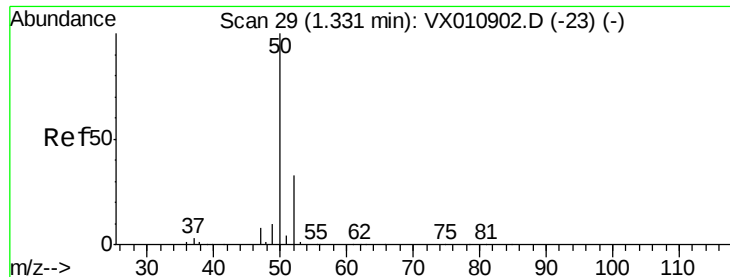
10

0

Time-->

1.18 1.19 1.20 1.21





#3

Chloromethane

Concen: 0.260 ug/l

RT: 1.33 min Scan# 29

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

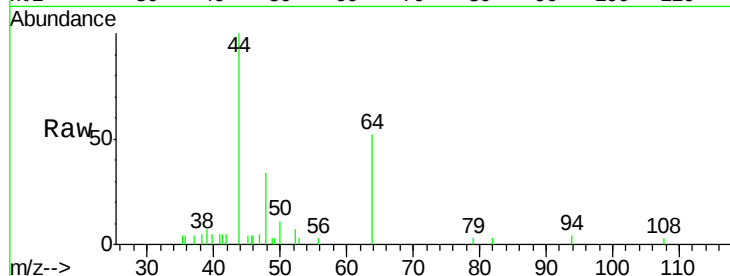
Z3-0673DL

Tgt Ion: 50 Resp: 512

Ion Ratio Lower Upper

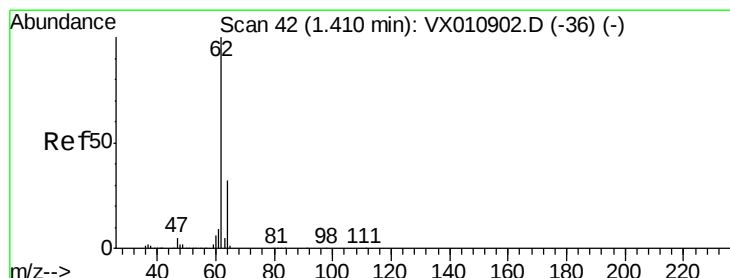
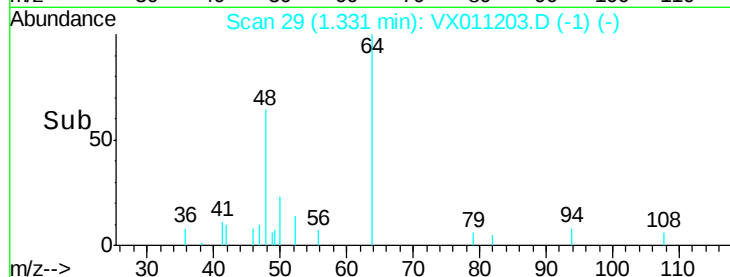
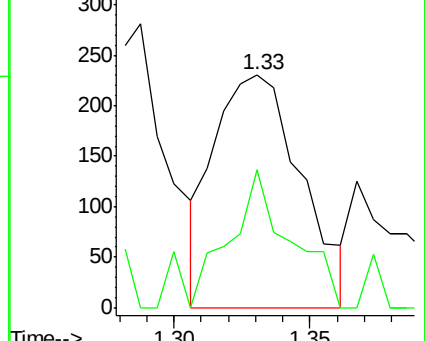
50 100

52 81.1 26.4 39.6#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0



#4

Vinyl Chloride

Concen: 2.862 ug/l

RT: 1.41 min Scan# 42

Delta R.T. -0.00 min

Lab File: VX011203.D

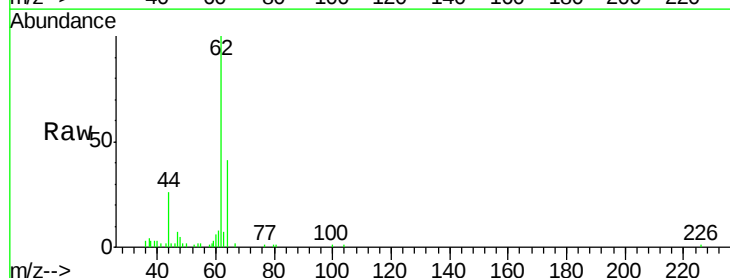
Acq: 30 Jul 2019 18:27

Tgt Ion: 62 Resp: 5743

Ion Ratio Lower Upper

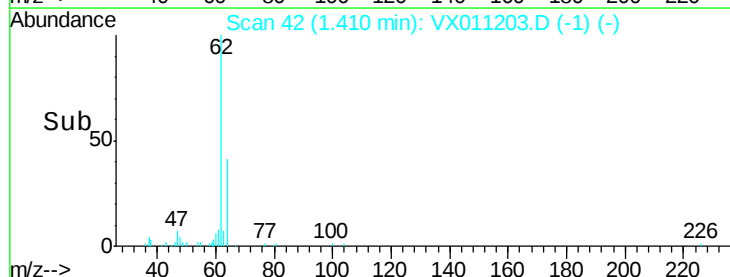
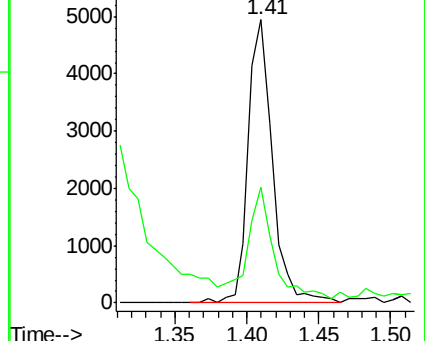
62 100

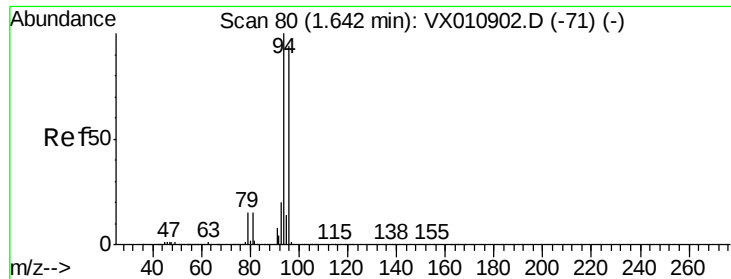
64 37.1 25.7 38.5



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0





#5

Bromomethane

Concen: 0.689 ug/l

RT: 1.64 min Scan# 79

Delta R.T. -0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampled :

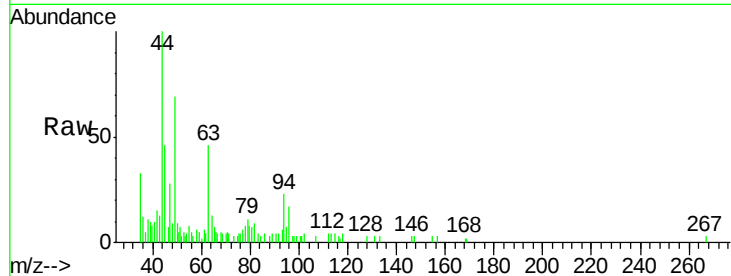
Z3-0673DL

Tgt Ion: 94 Resp: 779

Ion Ratio Lower Upper

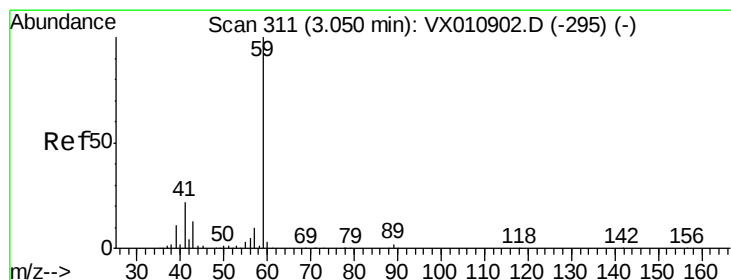
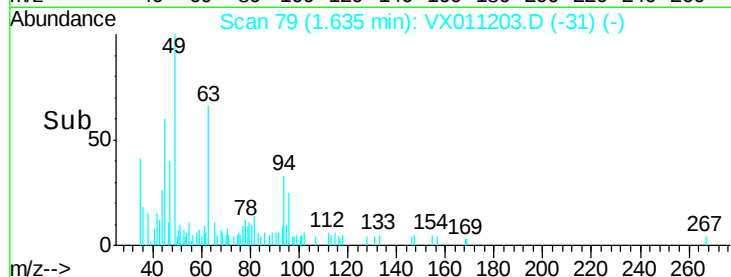
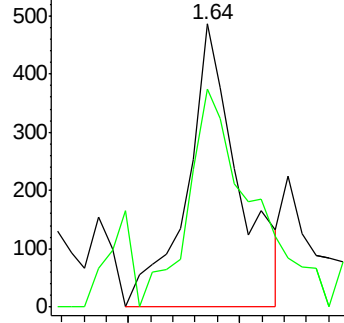
94 100

96 52.1 75.6 113.4#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0



#11

Tert butyl alcohol

Concen: 11.319 ug/l

RT: 3.02 min Scan# 306

Delta R.T. -0.03 min

Lab File: VX011203.D

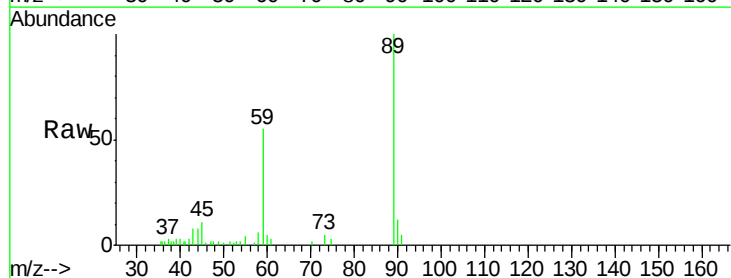
Acq: 30 Jul 2019 18:27

Tgt Ion: 59 Resp: 5999

Ion Ratio Lower Upper

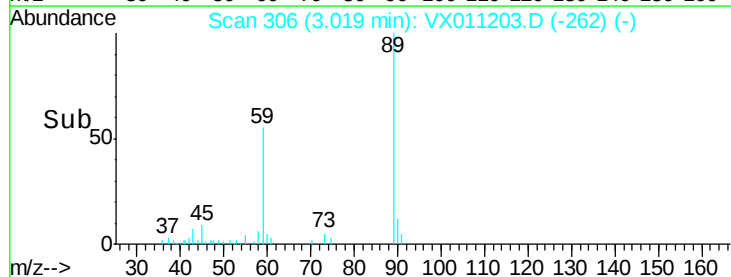
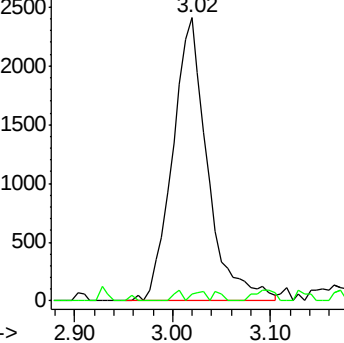
59 100

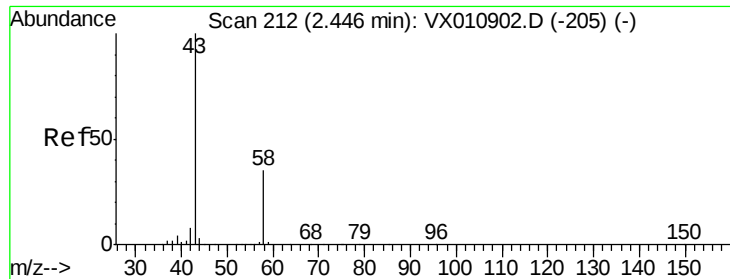
57 0.9 7.9 11.9#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0





#16

Acetone

Concen: 1.105 ug/l

RT: 2.45 min Scan# 213

Delta R.T. 0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

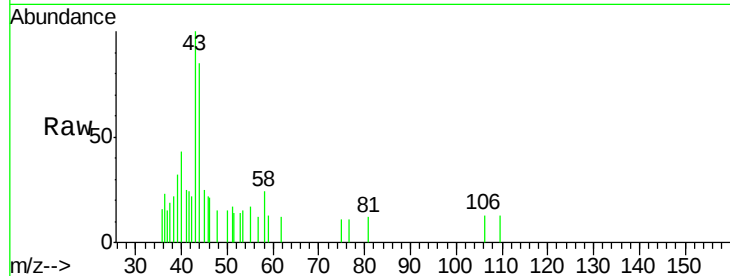
Z3-0673DL

Tgt Ion: 43 Resp: 1136

Ion Ratio Lower Upper

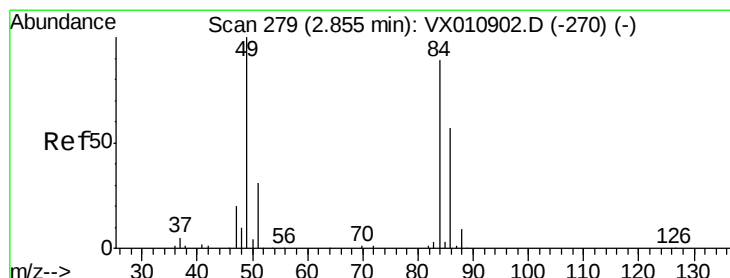
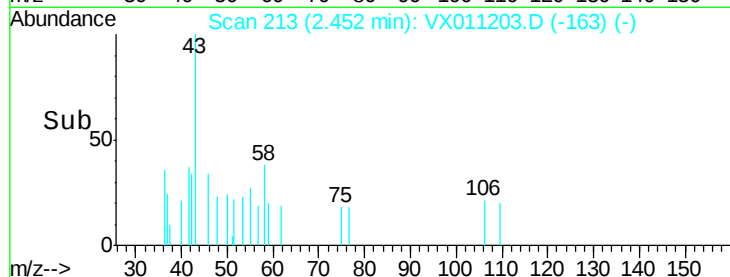
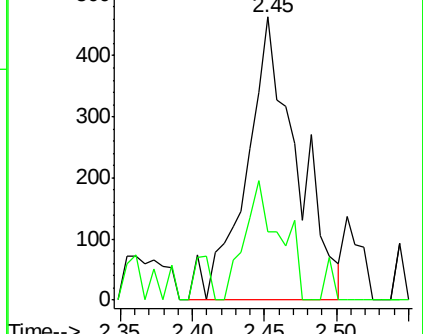
43 100

58 24.0 27.7 41.5#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#20

Methylene Chloride

Concen: 0.241 ug/l

RT: 2.85 min Scan# 279

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Tgt Ion: 84 Resp: 526

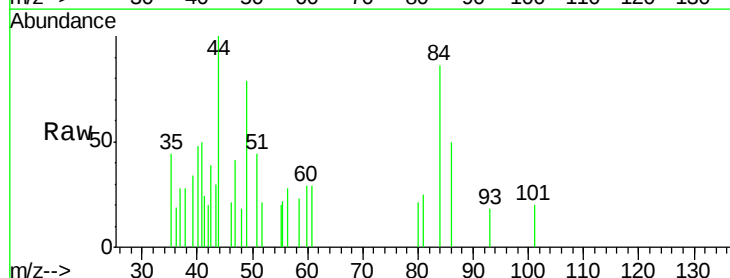
Ion Ratio Lower Upper

84 100

49 92.2 89.9 134.9

51 29.8 27.8 41.6

86 58.4 51.8 77.6

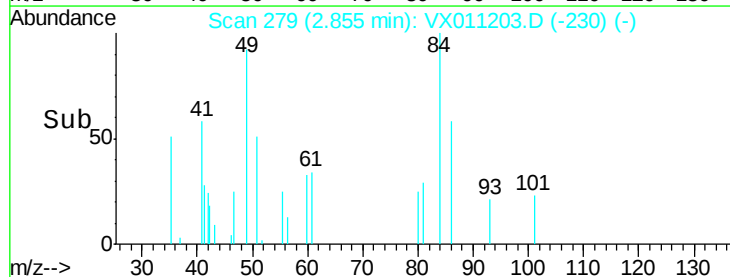
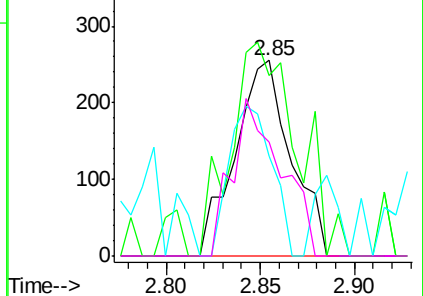


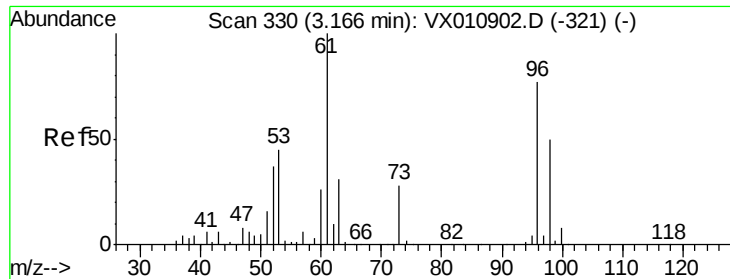
Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0





#21

trans-1,2-Dichloroethene

Concen: 1.756 ug/l

RT: 3.16 min Scan# 329

Delta R.T. -0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

Z3-0673DL

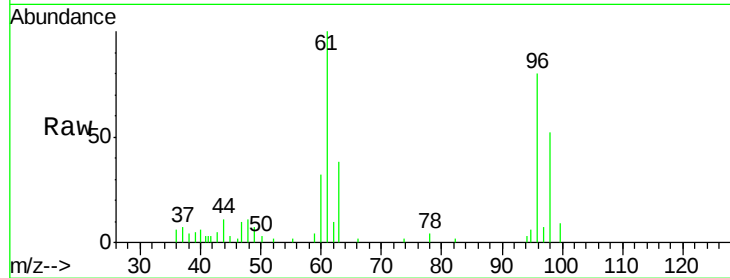
Tgt Ion: 96 Resp: 3550

Ion Ratio Lower Upper

96 100

61 124.9 104.2 156.2

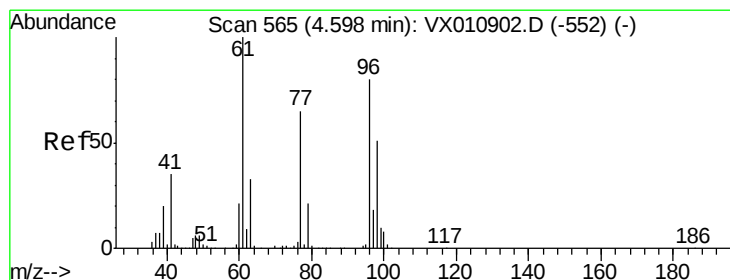
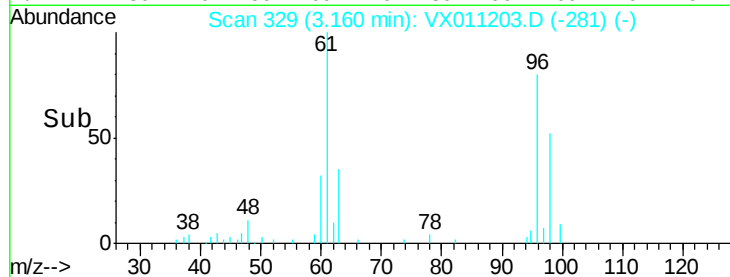
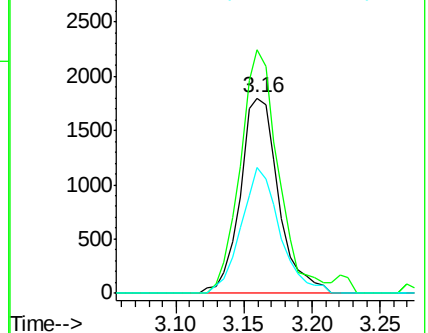
98 64.6 52.2 78.4



Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0



#27

cis-1,2-Dichloroethene

Concen: 2.568 ug/l

RT: 4.59 min Scan# 564

Delta R.T. -0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

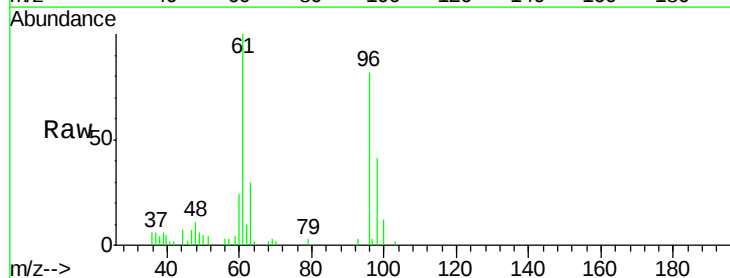
Tgt Ion: 96 Resp: 6008

Ion Ratio Lower Upper

96 100

61 121.7 0.0 269.0

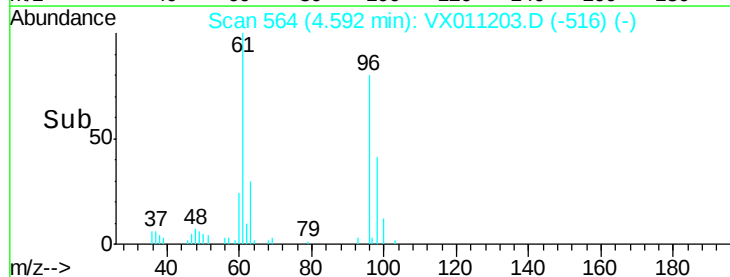
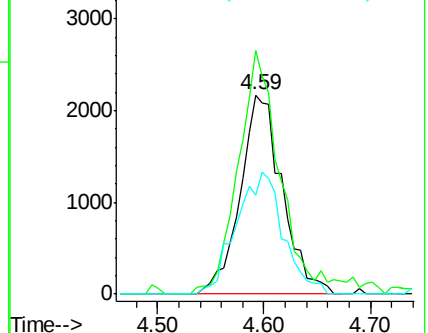
98 68.5 0.0 131.4

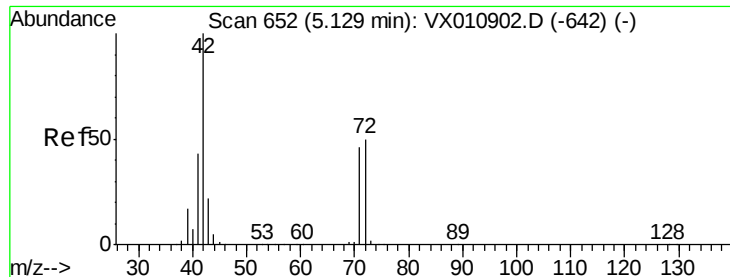


Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0





#29

Tetrahydrofuran

Concen: 0.220 ug/l

RT: 5.11 min Scan# 649

Delta R.T. -0.02 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

Z3-0673DL

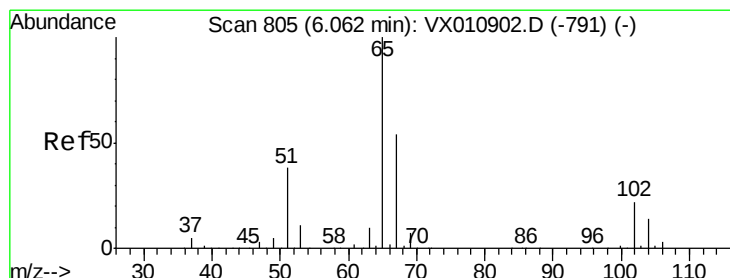
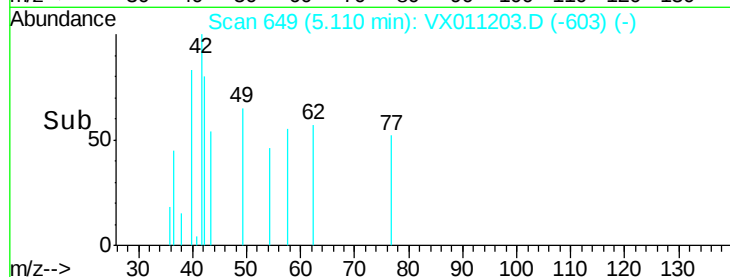
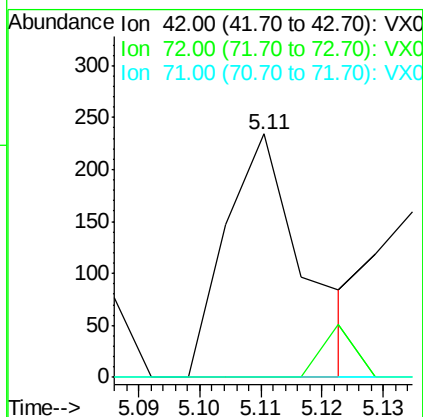
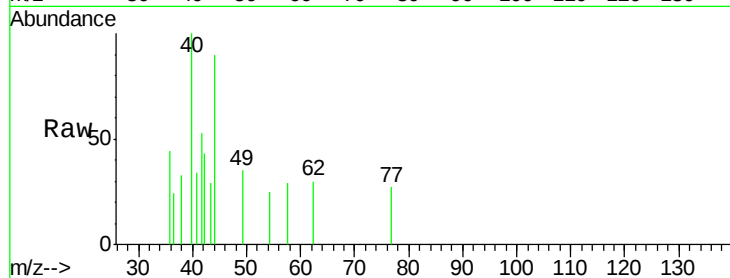
Tgt Ion: 42 Resp: 206

Ion Ratio Lower Upper

42 100

72 9.2 39.8 59.8#

71 0.0 37.0 55.4#



#33

1,2-Dichloroethane-d4

Concen: 45.886 ug/l

RT: 6.06 min Scan# 805

Delta R.T. -0.00 min

Lab File: VX011203.D

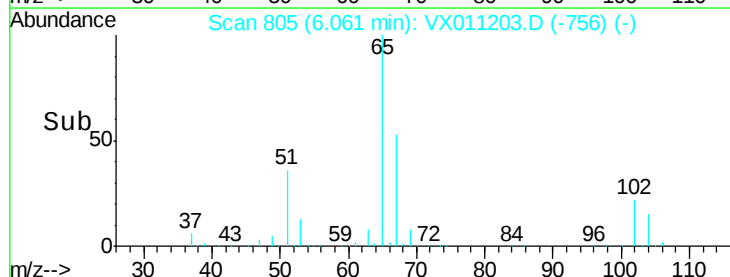
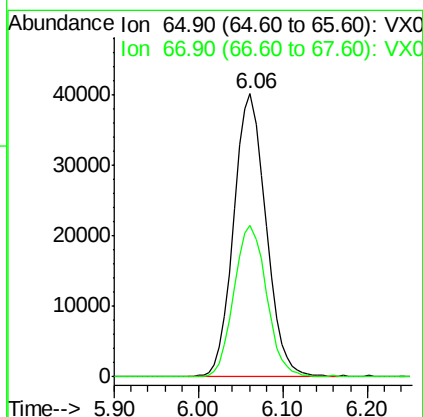
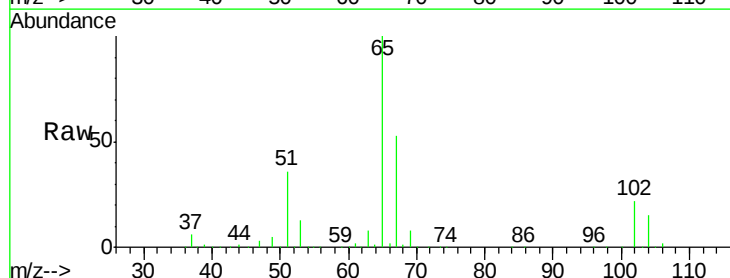
Acq: 30 Jul 2019 18:27

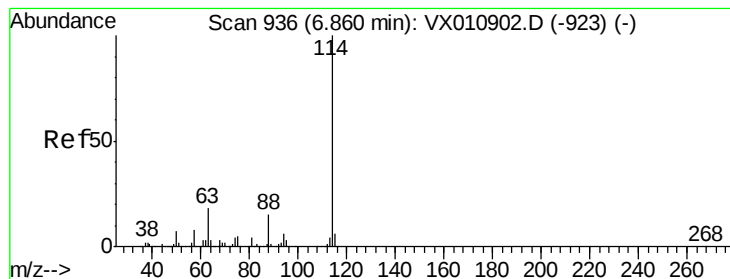
Tgt Ion: 65 Resp: 104420

Ion Ratio Lower Upper

65 100

67 53.8 0.0 107.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 935

Delta R.T. -0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

Z3-0673DL

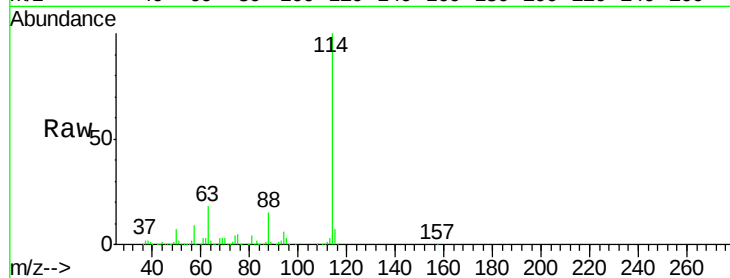
Tgt Ion:114 Resp: 305462

Ion Ratio Lower Upper

114 100

63 18.3 0.0 35.6

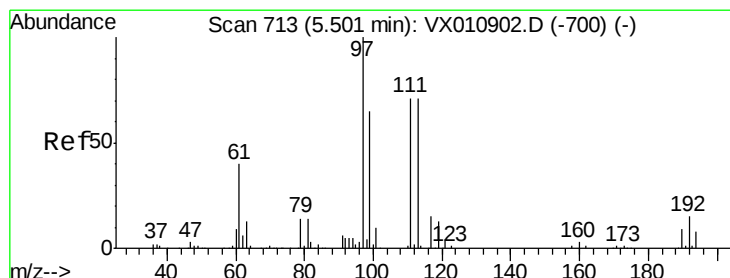
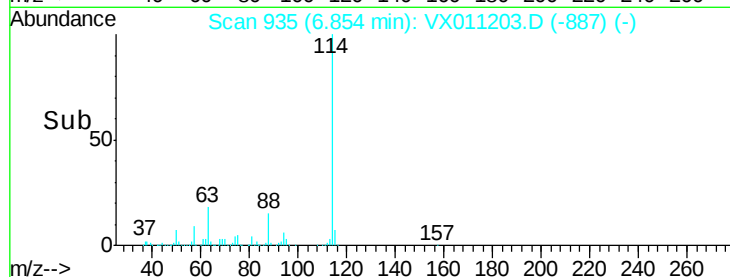
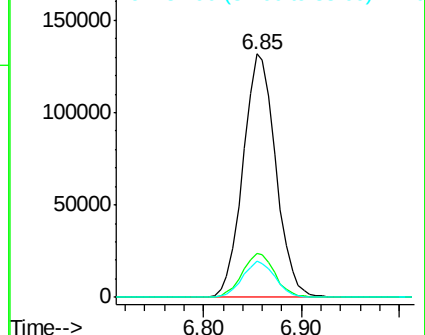
88 14.7 0.0 29.8



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: 45.884 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

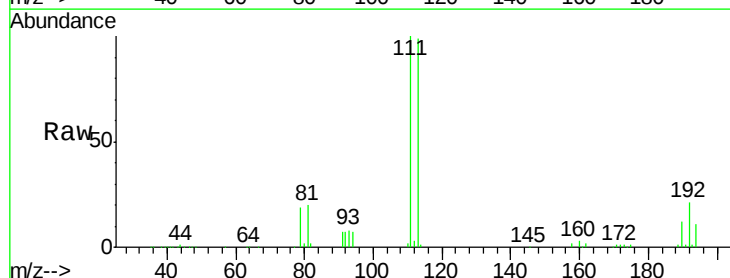
Tgt Ion:113 Resp: 88962

Ion Ratio Lower Upper

113 100

111 103.4 82.3 123.5

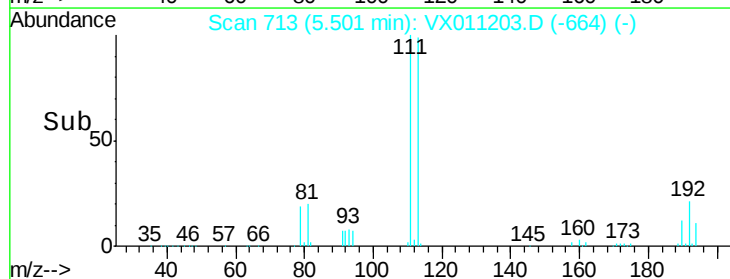
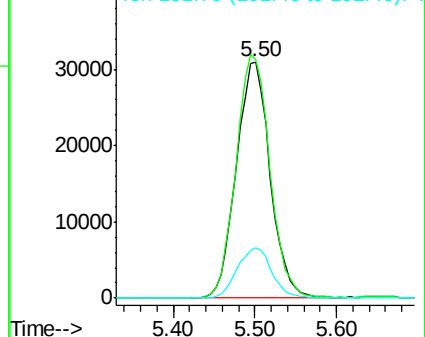
192 21.6 17.4 26.2

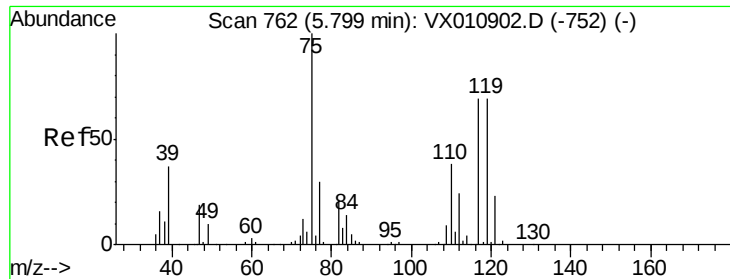


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

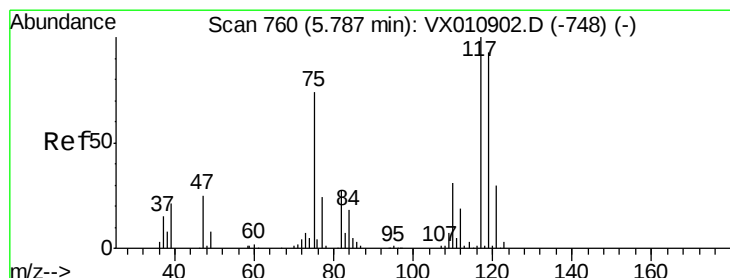
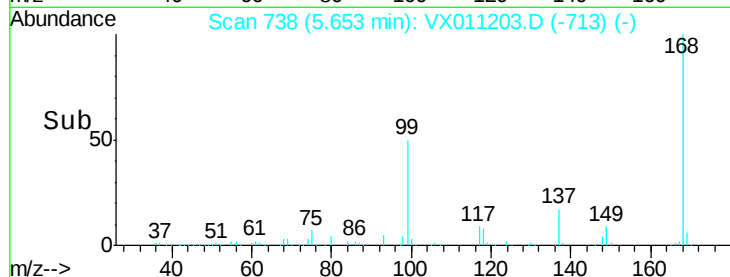
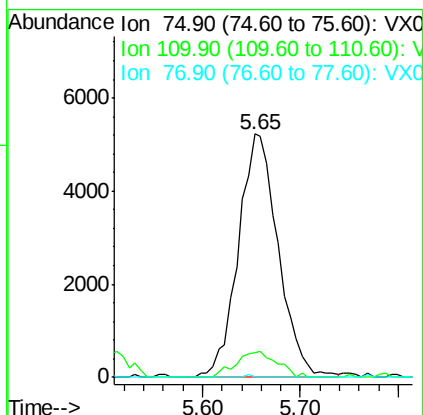
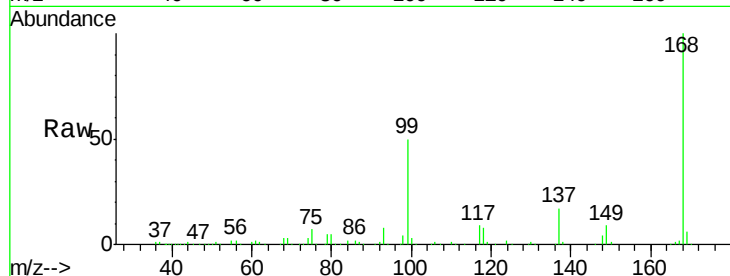




#36
 1,1-Dichloropropene
 Concen: 5.887 ug/l
 RT: 5.65 min Scan# 738
 Delta R.T. -0.15 min
 Lab File: VX011203.D
 Acq: 30 Jul 2019 18:27

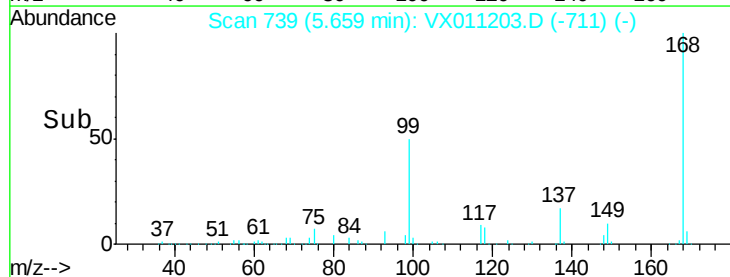
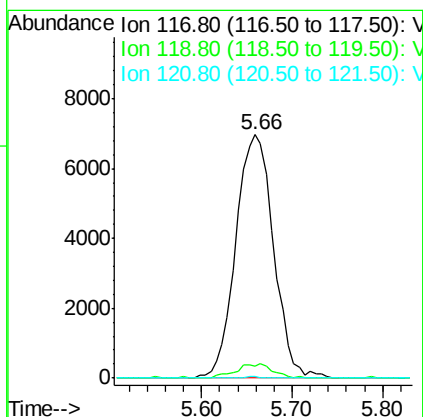
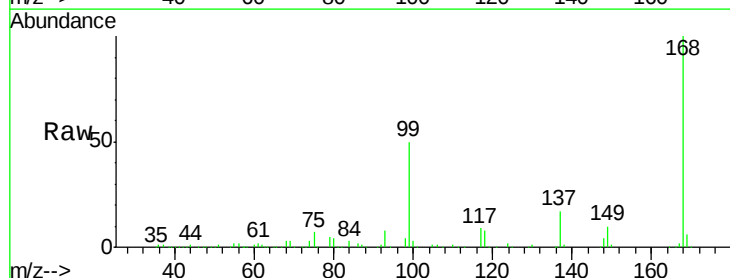
Instrument :
 MSVOA_X
 ClientSampleId :
 Z3-0673DL

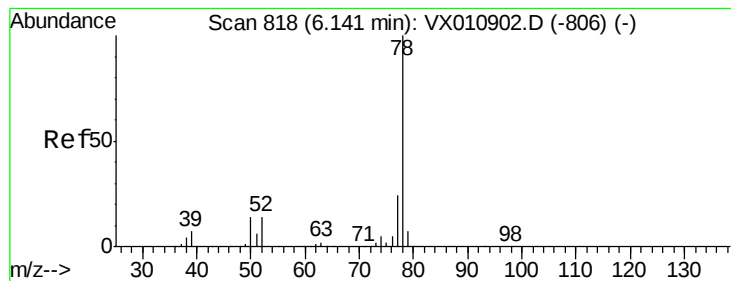
Tgt Ion: 75 Resp: 14771
 Ion Ratio Lower Upper
 75 100
 110 11.0 19.9 59.7#
 77 0.1 25.0 37.4#



#38
 Carbon Tetrachloride
 Concen: 7.680 ug/l
 RT: 5.66 min Scan# 739
 Delta R.T. -0.13 min
 Lab File: VX011203.D
 Acq: 30 Jul 2019 18:27

Tgt Ion: 117 Resp: 20079
 Ion Ratio Lower Upper
 117 100
 119 4.7 74.2 111.2#
 121 0.8 24.2 36.2#





#40

Benzene

Concen: 1.523 ug/l

RT: 6.15 min Scan# 819

Delta R.T. 0.01 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

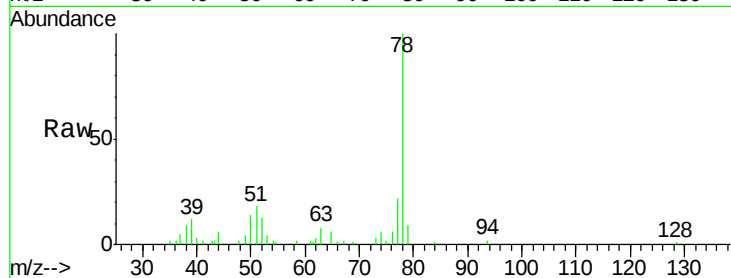
Z3-0673DL

Tgt Ion: 78 Resp: 11703

Ion Ratio Lower Upper

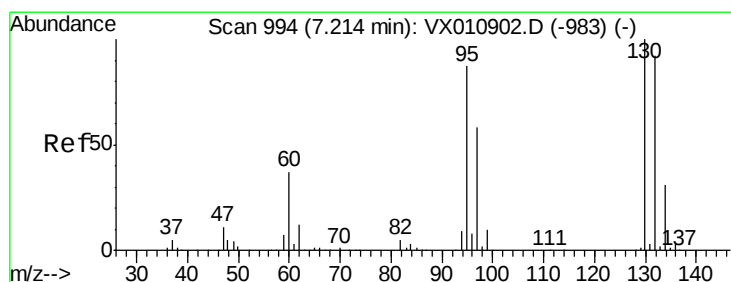
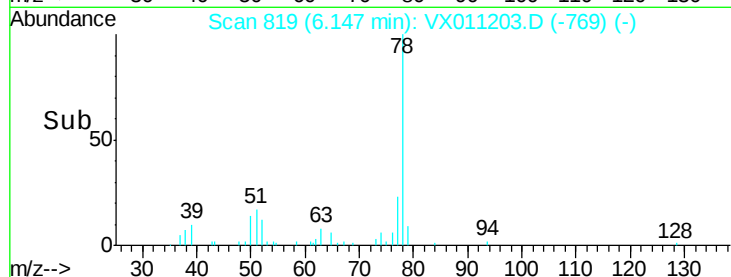
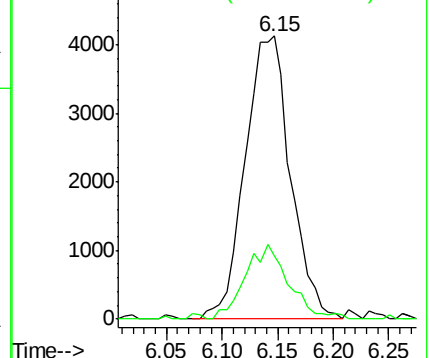
78 100

77 20.7 19.0 28.6



Abundance Ion 78.00 (77.70 to 78.70): VX0

Ion 77.00 (76.70 to 77.70): VX0



#44

Trichloroethene

Concen: 0.321 ug/l

RT: 7.21 min Scan# 994

Delta R.T. -0.00 min

Lab File: VX011203.D

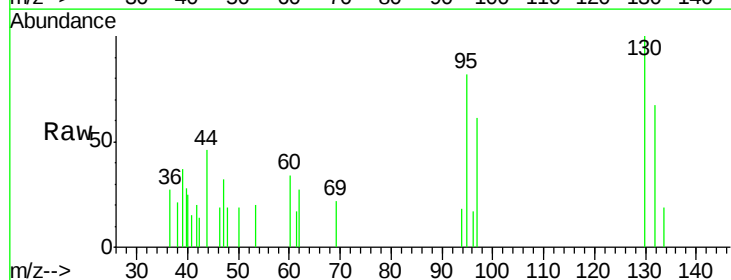
Acq: 30 Jul 2019 18:27

Tgt Ion: 130 Resp: 730

Ion Ratio Lower Upper

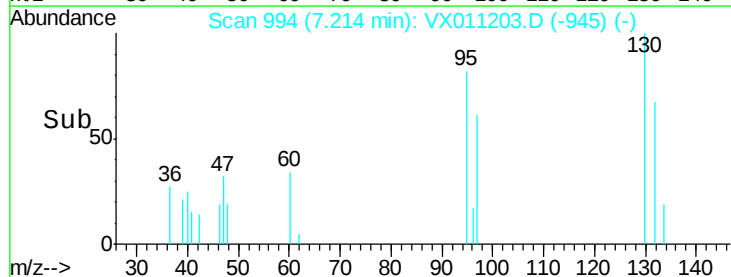
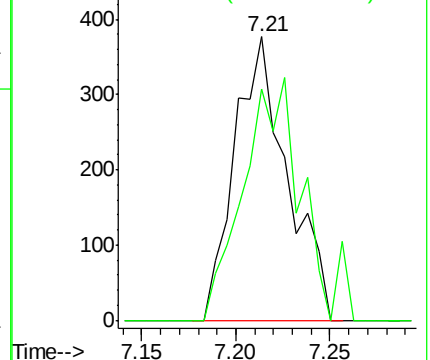
130 100

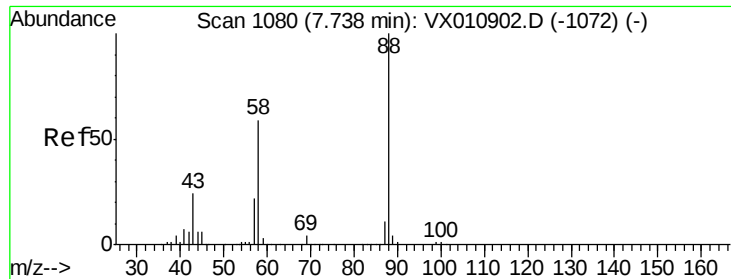
95 81.7 0.0 174.8



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

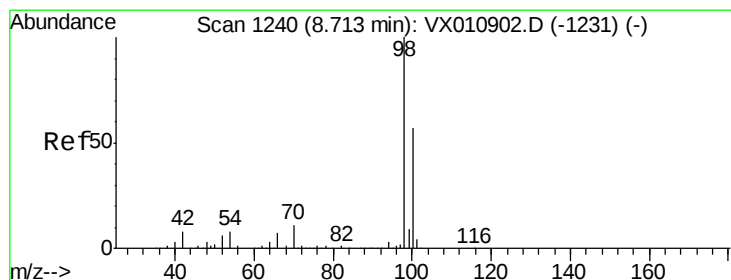
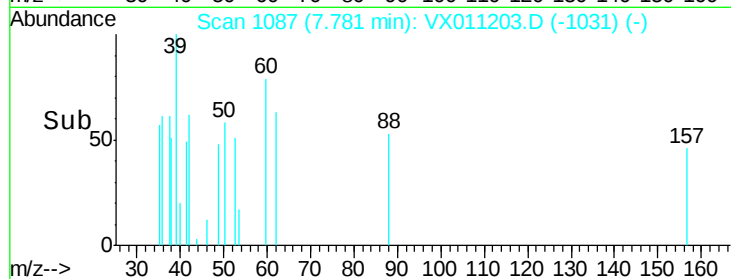
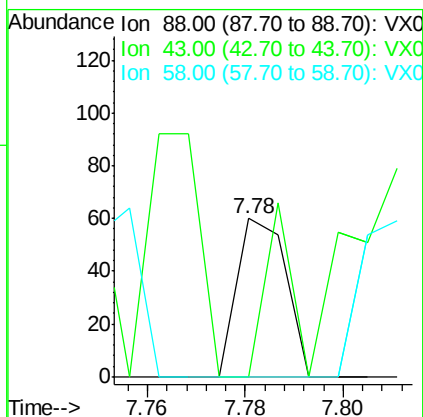
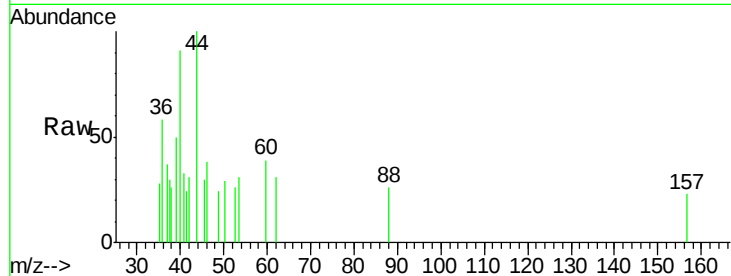




#49
1,4-Dioxane
Concen: 0.730 ug/l
RT: 7.78 min Scan# 1087
Delta R.T. 0.04 min
Lab File: VX011203.D
Acq: 30 Jul 2019 18:27

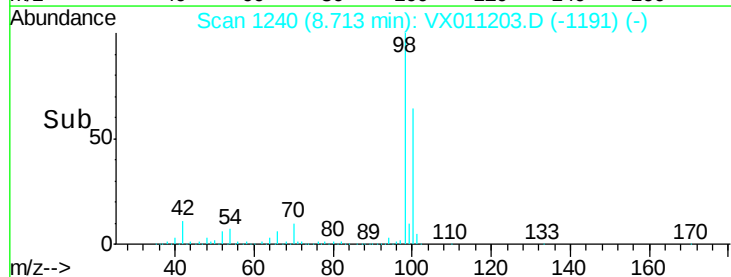
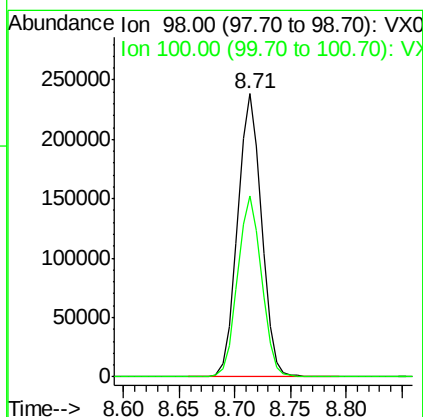
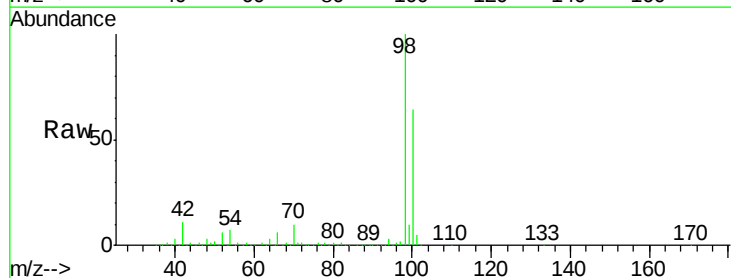
Instrument :
MSVOA_X
ClientSampled :
Z3-0673DL

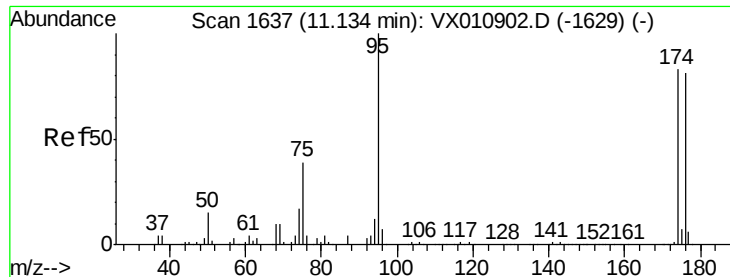
Tgt Ion: 88 Resp: 42
Ion Ratio Lower Upper
88 100
43 57.1 22.9 34.3#
58 0.0 49.8 74.8#



#50
Toluene-d8
Concen: 48.834 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX011203.D
Acq: 30 Jul 2019 18:27

Tgt Ion: 98 Resp: 355112
Ion Ratio Lower Upper
98 100
100 64.2 50.6 75.8





#62

4-Bromofluorobenzene

Concen: 45.972 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampled :

Z3-0673DL

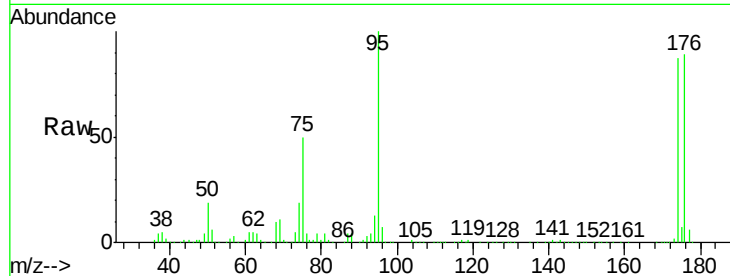
Tgt Ion: 95 Resp: 122879

Ion Ratio Lower Upper

95 100

174 91.7 0.0 180.6

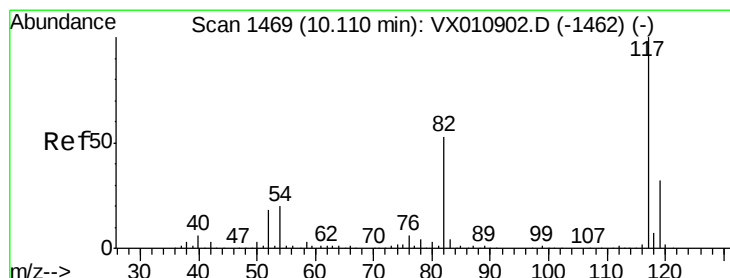
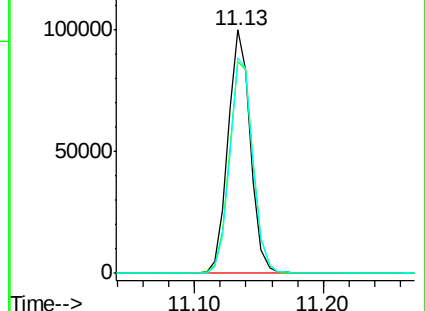
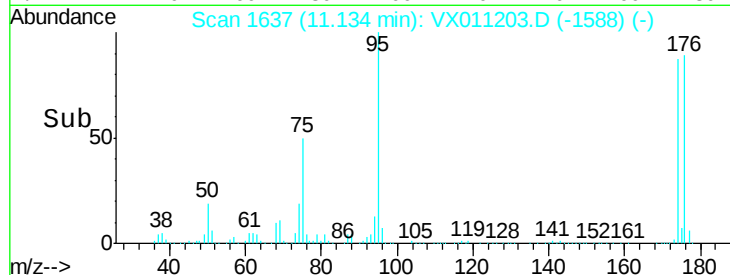
176 90.8 0.0 173.8



Abundance Ion 94.90 (94.60 to 95.60): VX011203.D (-1588) (-)

Ion 173.80 (173.50 to 174.50): VX011203.D (-1588) (-)

Ion 175.80 (175.50 to 176.50): VX011203.D (-1588) (-)



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

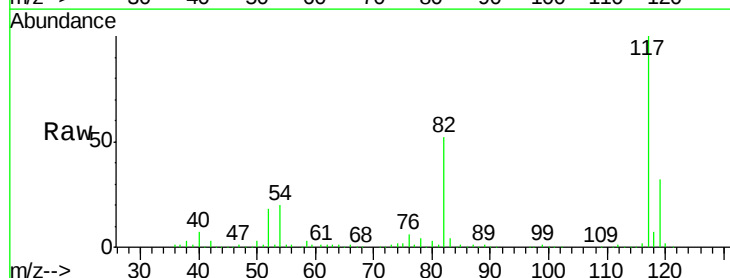
Tgt Ion: 117 Resp: 277678

Ion Ratio Lower Upper

117 100

82 52.0 42.6 63.8

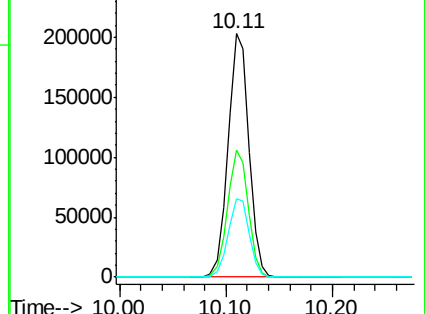
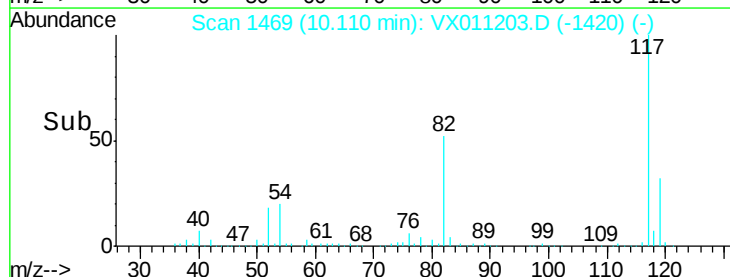
119 32.4 25.9 38.9

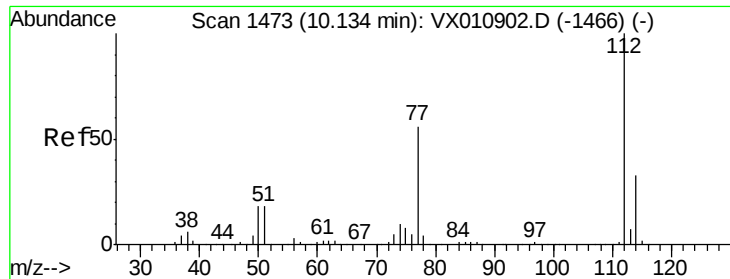


Abundance Ion 116.90 (116.60 to 117.60): VX011203.D (-1420) (-)

Ion 82.00 (81.70 to 82.70): VX011203.D (-1420) (-)

Ion 118.90 (118.60 to 119.60): VX011203.D (-1420) (-)

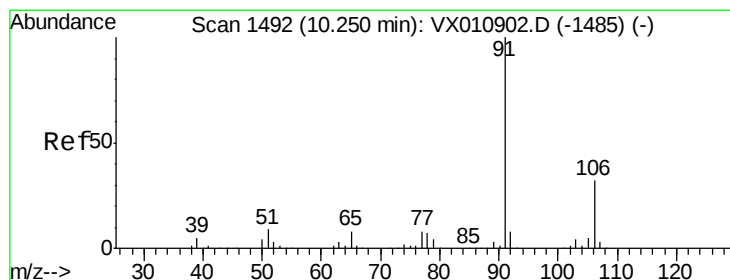
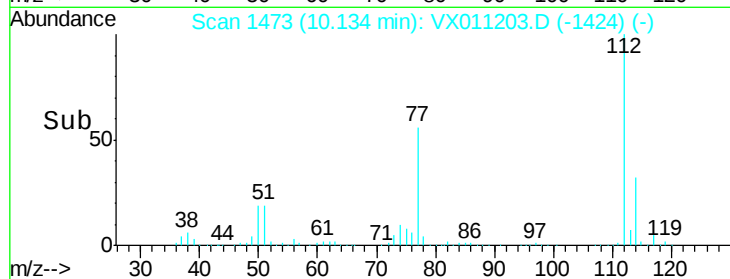
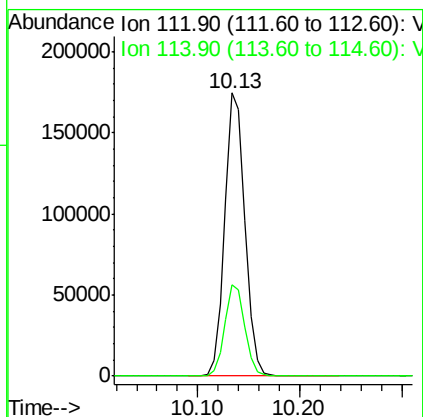
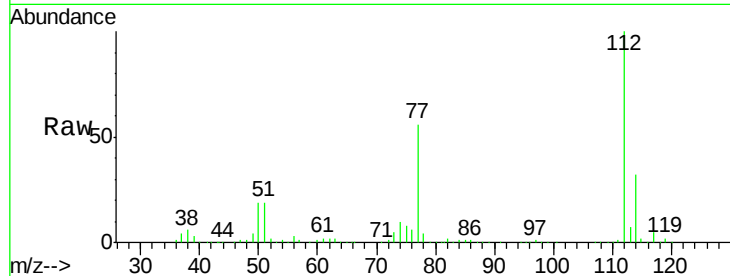




#65
Chlorobenzene
Concen: 41.838 ug/l
RT: 10.13 min Scan# 1473
Delta R.T. -0.00 min
Lab File: VX011203.D
Acq: 30 Jul 2019 18:27

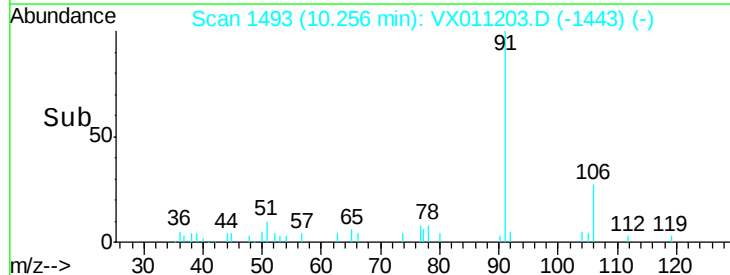
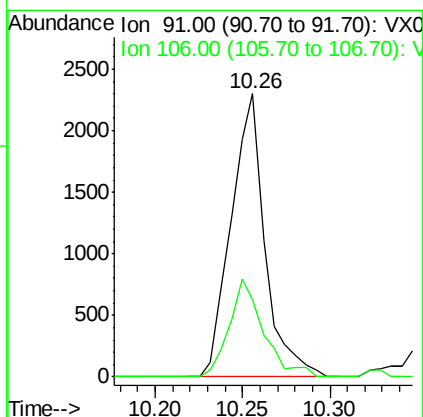
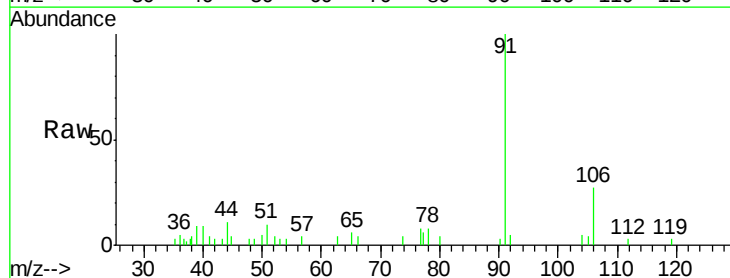
Instrument :
MSVOA_X
ClientSampleId :
Z3-0673DL

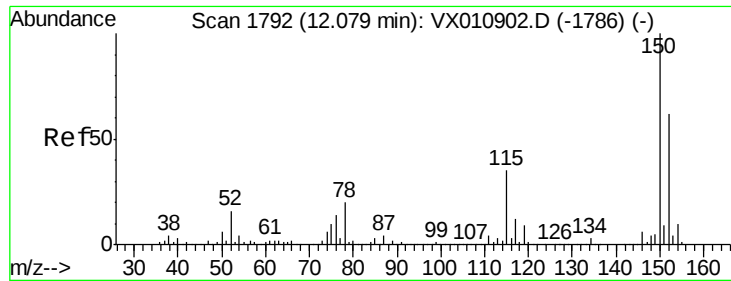
Tgt Ion: 112 Resp: 238611
Ion Ratio Lower Upper
112 100
114 32.3 26.2 39.4



#67
Ethyl Benzene
Concen: 0.319 ug/l
RT: 10.26 min Scan# 1493
Delta R.T. 0.01 min
Lab File: VX011203.D
Acq: 30 Jul 2019 18:27

Tgt Ion: 91 Resp: 3095
Ion Ratio Lower Upper
91 100
106 27.2 25.4 38.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

Z3-0673DL

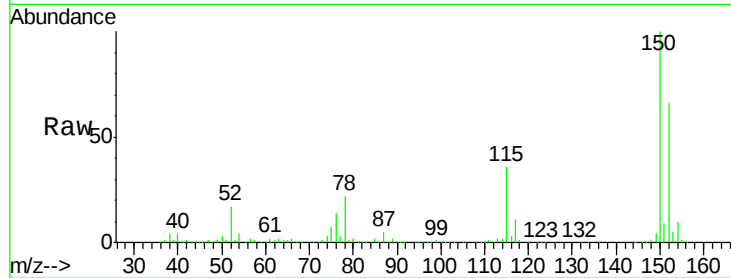
Tgt Ion:152 Resp: 134145

Ion Ratio Lower Upper

152 100

115 56.1 39.7 119.1

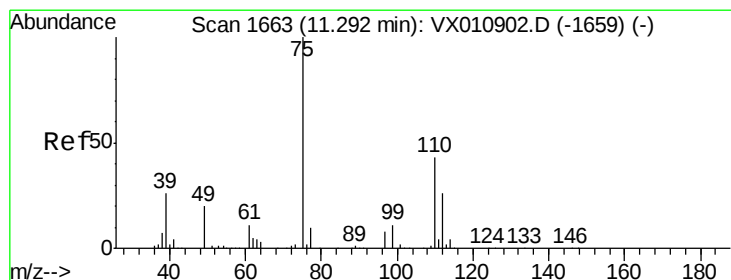
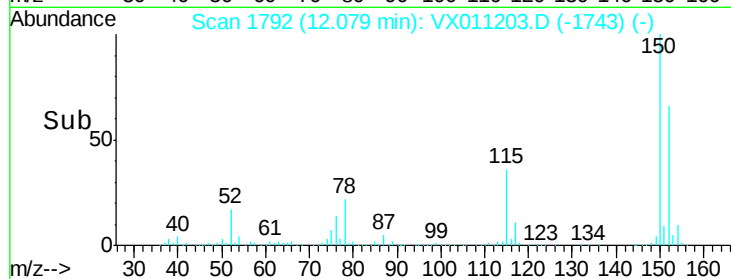
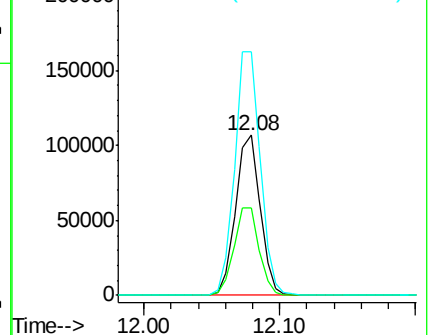
150 158.3 0.0 345.6



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: 25.296 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX011203.D

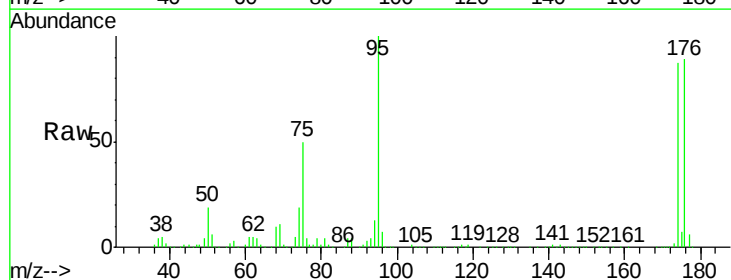
Acq: 30 Jul 2019 18:27

Tgt Ion: 75 Resp: 61235

Ion Ratio Lower Upper

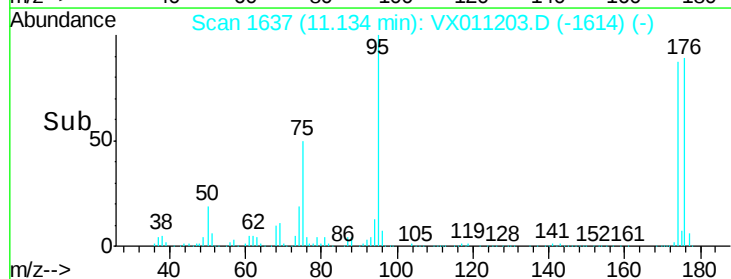
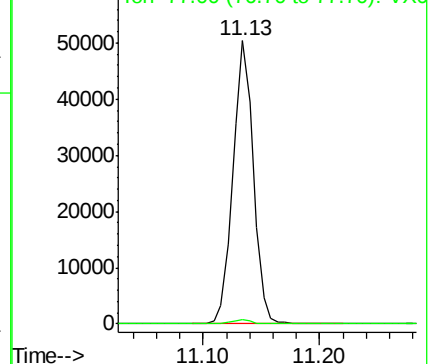
75 100

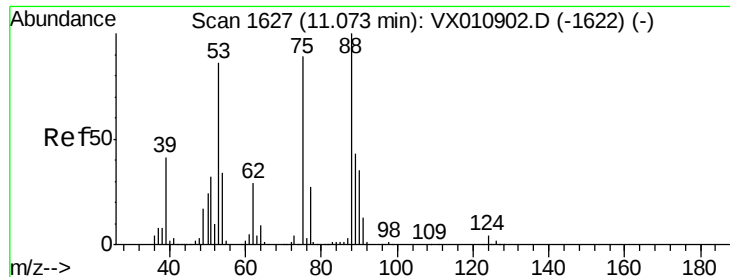
77 1.5 21.3 64.0#



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: 62.968 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

Instrument :

MSVOA_X

ClientSampleId :

Z3-0673DL

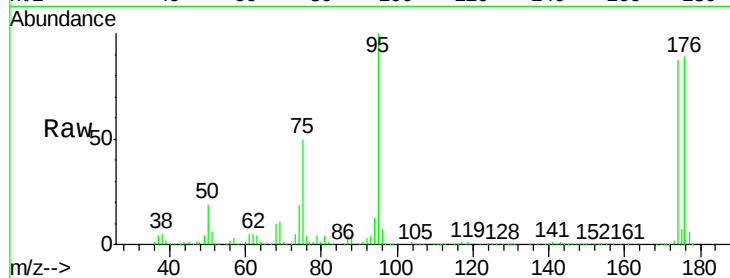
Tgt Ion: 75 Resp: 61235

Ion Ratio Lower Upper

75 100

53 0.4 76.7 115.1#

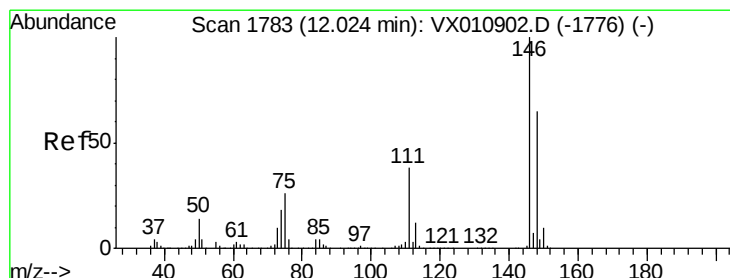
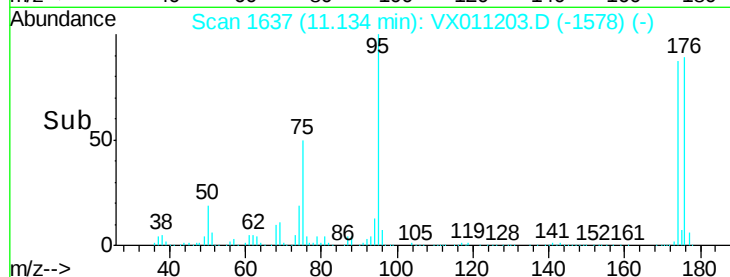
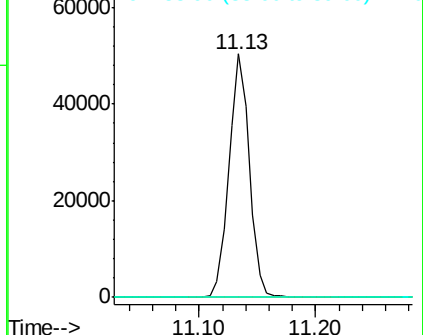
89 0.0 38.5 57.7#



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



#87

1,3-Dichlorobenzene

Concen: 0.240 ug/l

RT: 12.02 min Scan# 1783

Delta R.T. -0.00 min

Lab File: VX011203.D

Acq: 30 Jul 2019 18:27

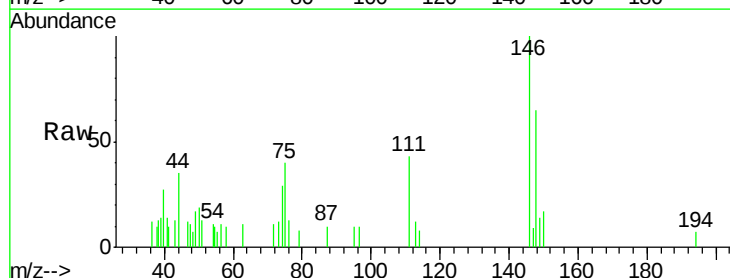
Tgt Ion: 146 Resp: 1040

Ion Ratio Lower Upper

146 100

111 47.1 18.9 56.9

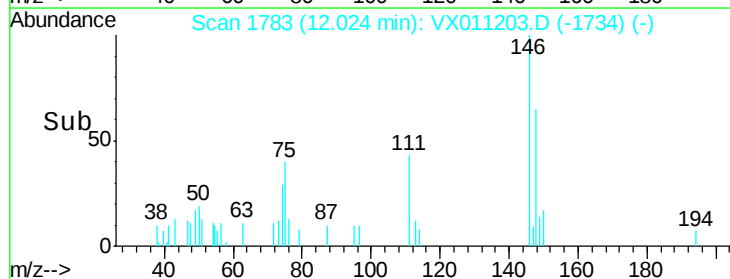
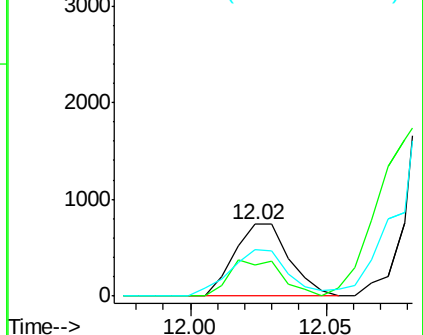
148 68.9 32.2 96.6

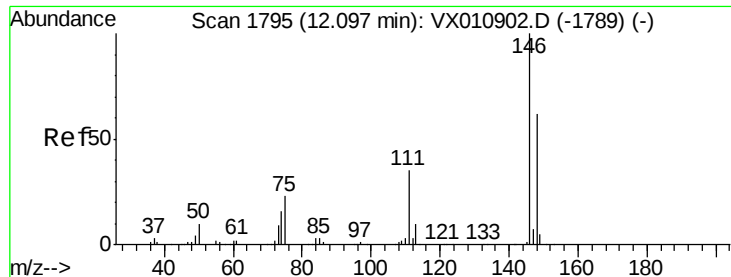


Abundance Ion 145.90 (145.60 to 146.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 147.90 (147.60 to 148.60): V

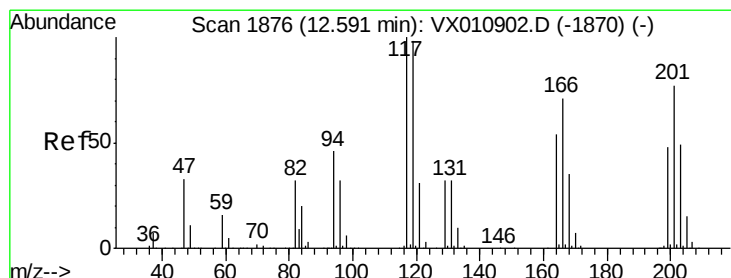
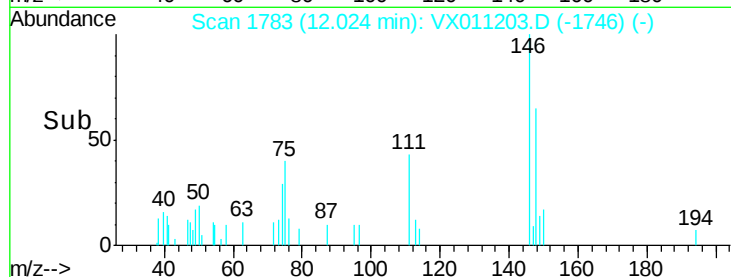
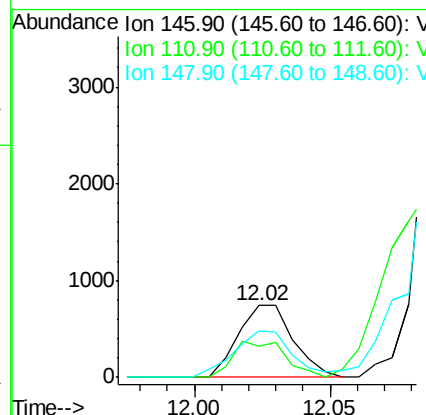
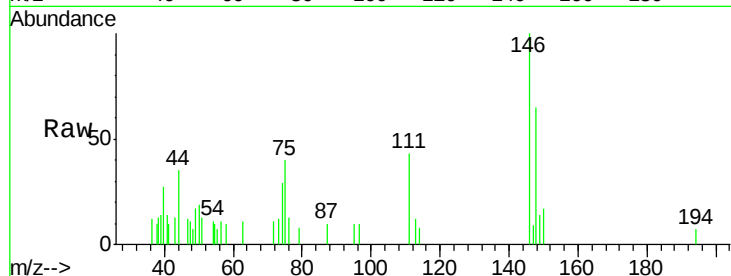




#88
 1,4-Dichlorobenzene
 Concen: 0.234 ug/l
 RT: 12.02 min Scan# 1783
 Delta R.T. -0.07 min
 Lab File: VX011203.D
 Acq: 30 Jul 2019 18:27

Instrument :
 MSVOA_X
 ClientSampleId :
 Z3-0673DL

Tgt Ion:146 Resp: 1040
 Ion Ratio Lower Upper
 146 100
 111 47.1 18.6 55.8
 148 68.9 31.6 94.7



#90
 Hexachloroethane
 Concen: 0.289 ug/l
 RT: 12.69 min Scan# 1893
 Delta R.T. 0.10 min
 Lab File: VX011203.D
 Acq: 30 Jul 2019 18:27

Tgt Ion:117 Resp: 367
 Ion Ratio Lower Upper
 117 100
 201 0.0 43.3 129.8#

