

Table 4. Results for recovery.

Compound Name	Concentration µg/L	Recovery %	Concentration µg/L	Recovery %	Concentration µg/L	Recovery %
Dichlorvos	0.8	99 ~ 117	4	103 ~ 116	8	123 ~ 139
Hexachlorobenzene	0.16	108 ~ 111	0.8	98 ~ 105	1.6	101 ~ 111
Alpha-Lindane	0.16	112 ~ 118	0.8	113 ~ 119	1.6	118 ~ 119
Lindane	0.16	112 ~ 118	0.8	115 ~ 117	1.6	117 ~ 119
Atrazine	0.8	104 ~ 112	4	114 ~ 116	8	115 ~ 118
Beta-Lindane	0.16	106 ~ 113	0.8	115 ~ 117	1.6	115 ~ 117
Delta-Lindane	0.16	103 ~ 113	0.8	110 ~ 119	1.6	117 ~ 119
Dimethoate	0.8	104 ~ 111	4	103 ~ 117	8	129 ~ 139
Heptachlor	0.16	104 ~ 111	0.8	103 ~ 105	1.6	108 ~ 114
Chlorothalonil	0.8	98 ~ 113	4	96 ~ 108	8	102 ~ 107
Acetochlor	0.8	110 ~ 117	4	116 ~ 119	8	117 ~ 119
Chlorpyrifos	0.8	121 ~ 131	4	123 ~ 127	8	133 ~ 138
Parathion-Methyl	0.8	101 ~ 110	4	80 ~ 94	8	95 ~ 108
Malathion	0.8	88 ~ 99	4	83 ~ 97	8	102 ~ 119
Parathion	0.8	98 ~ 108	4	101 ~ 111	8	115 ~ 119
o,p'-DDT	0.16	118 ~ 119	0.8	97 ~ 101	1.6	109 ~ 118
Machette	0.4	100 ~ 114	2	117 ~ 119	4	118 ~ 120
p,p'-DDT	0.16	116 ~ 119	0.8	115 ~ 118	1.6	117 ~ 119
p,p'-DDE	0.16	116 ~ 119	0.8	92 ~ 95	1.6	99 ~ 108
p,p'-DDD	0.16	118 ~ 119	0.8	108 ~ 113	1.6	109 ~ 118
Diethyl Phthalate	0.8	94 ~ 119	4	83 ~ 107	8	104 ~ 113
Benzo[a]pyrene	0.00808	131 ~ 139	0.0404	93 ~ 104	0.0808	101 ~ 109
Deltamethrin	0.8	96 ~ 108	4	110 ~ 119	8	110 ~ 118

Summary

In this study, a method for the determination of 23 SVOCs in drinking water was established utilizing a liquid-liquid extraction and GC/MS technique. The large volume injection method coupled with the solvent venting configuration of the D-Swafer lowered the method detection limit, and eliminated the influence of the large solvent volume. The results for precision, recovery and linearity achieved by the method met the requirements of SVOC monitoring in drinking water. The method can also be used for the determination of SVOCs in surface and ground water, demonstrating the robustness and flexibility of the method.