WATER RESOURCES ACT
(Cap.72:03)

(reg.102)

WATER RESOURCES REGULATIONS, 2018

FORM L

WATER OR WASTEWATER QUALITY SAMPLING PROCEDURES

The procedures to be followed where water/wastewater quality sample is taken for prosecution purposes shall include:

(a) The presence of the alleged polluter at the place and time of sampling;

(b) Where the intended analysis is to determine compliance with physical and chemical parameters, then a sample shall be taken and divided into three portions, each contained in an appropriate capacity container and preserved according to standard practice.

(c) Where the intended analysis is to determine compliance with microbiological parameters, then a sample shall be taken and divided into three portions, each contained in a sterile glass bottle and preserved according to standard practise;

(d) All three portions will be sealed in the presence of the alleged polluter who is required to sign an acknowledgement that he has witnessed the sampling process and the sample(s) collected are representative;

(e) One portion will be provided to the alleged polluter who may obtain his/her own independent analysis from a gazetted laboratory of his/her choice;

(f) One portion shall be sent by the Authority to a gazetted laboratory for analysis; and

(g) One portion shall be retained by the Authority for future reference provided that the storage of the sample is safe enough and the period of storage does not result in the deterioration of the sample.

Types of preservation suitable for different determinants

Determinant	Material of sample container	Method of preservations	Maximum time between sampling and analysis
Calcium	P or G	None needed	7 days
Chloride	P or G	None needed	7 days
Conductivity	P or G	None needed	7 days
Fluoride	P	None needed	7 days
Hardness	P or G	None needed	7 days
Magnesium	P or G	None needed	7 days
Potassium	P	None needed	7 days

Sodium	P	None needed	7 days
Sulphate	P or G	None needed	7 days
Alkalinity	P or G	Refrigeration at 4^0C	24 hours
BOD_5	G	Refrigeration at 4^0C	4-24 hours
Colour	P or G	Refrigeration at 4^0C	24 hours
Nitrogen:			
Ammonia	P or G	Refrigeration at 4^0C	1-7 days
Nitrite	P or G	Refrigeration at 4^0C	1-7 days
Nitrate	P or G	Refrigeration at 4^0C	24 hours
Organic	G	Refrigeration at 4^0C	24 hours
Odour	G	Refrigeration at 4^0C	6-24 hours
Phenols	G	Refrigeration at 4^0C	24 hours
Phosphorus:			
Total	P or G	Refrigeration at 4^0C	1-7 days
Orthophosphate	P or G	Filter on site, then refrigeration at 4^0C	24 hours
Silica	P	Filter on site, then refrigeration at 4^0C	
COD	G	H_2SO_4, 1-2 ml/litre of sample	1-7 days
Oil/Grease	G	H_2SO_4, 1-2 ml/litre of sample	1-7 days 24 hours
Nitrogen ammonia	P or G	HgC_{12}, 12-40 mg/litre of sample	
Nitrite	P or G	HgC_{12}, 12-40 mg/litre of sample	1-7 days
Nitrate	P or G	HgC_{12}, 12-40 mg/litre of sample	1-7 days
Organic	G	HgC_{12}, 12-40 mg/litre of sample	24 hours 24 hours
Metals:			
Total metals	P	HNO_3, 2-10ml/litre of sample	
Dissolved metals	P	Filter on site, then add HNO_3, 2-10ml/litre of sample	Many weeks Many weeks
Mercury	P	HNO_3, 5-10ml/litre of sample	
Cyanide	P	Add NaOH to give pH 10-11	7 days 7 days
Phenols	G	$CuSO_4$ $5H_2O$), 1g/litre of sample then H_3PO_4 to give pH 4	24 hours
Chlorine	G		Immediately
Dissolved Oxygen	G		Analyse as soon as possible,
pH	P or G		preferably on site Analyse as soon as possible,
Solids:			
Dissolved	P or G		preferably on site
Total	P or G		24 hours
Turbidity	P or G		7 days
Radiological Tests Alpha, beta and radium	P or G	HNO_3 to pH<2	4-24 hours 6 months
Pesticides Tests: Pesticides	G, Teflon-cap	Cool, 40c, pH 5-9[e]	7 days until extraction, 40 days after extraction

a) P= Polyethylene; G = Glass

b) The times quoted are only rough indicators;

c) The maximum time depends on the type of sample;

d) Analysis can be started on site and completed in a laboratory

The pH adjustment may be performed upon receipt at the laboratory and may be omitted if the samples are extracted within 72 hours of collection. For the analysis of aldrin, add 0.008% $Na_2S_2O_3$.