Bore Purging Fact Sheet

PURPOSE

The purpose of groundwater sampling is to collect a water sample that represents the characteristics of water below the ground surface.

To obtain a representative sample it is necessary to remove the stagnant water from the bore casing before a sample is taken. This is called purging.

It is recommended that at least **three columns** of bore water be removed and the bore left to refill before taking a sample. This allows the pH, EC (electrical conductivity) and temperature of the ground water to stabilise, thereby ensuring that the sample is representative of the groundwater.

The volume of water required to be purged before a sample can be taken will depend on the diameter of the bore as well as the depth of the bores water column.

CALCULATING THE QUANTITY OF WATER TO PURGE

1. Calculate the *Water Column Length:*

   (Total Depth – Water Level).

   Total Depth - measure from the top of the bore casing to the bottom of the bore

   Water Level - measured from the top of the bore casing to the standing water level

2. Choose the approximate volume required to be purged per meter for your bore diameter:

CASING DIAMETER	VOLUME OF WATER TO PURGE PER METRE OF WATER COLUMN
50 mm	6 litres
80 mm	15 litres
100 mm	25 litres
125 mm	40 litres
150 mm	55 litres
200 mm	100 litres

Source: Adapted from the Waterwatch Technical Manual (Module 6)

3. Multiply *Water Column Length* by *per metre volume*. This is the **total** quantity of water to purge.

   For example a 100mm or 4 inch bore and a water column of 40 meters will require 1000L water to be purged: 25 litres x 40 = 1000 litres

For more information

Water Allocation Planning

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