



abc laboratories

Methods for Sampling

T03 – Soil Sampling and Measurement

Purpose

Infiltration is defined as the flow of water from aboveground into the subsurface. Infiltration is an indicator of the soil's ability to allow water movement into and through the soil profile. Groundwater infiltration testing can provide valuable information on the soil's ability to support vegetation growth, recharge groundwater resources, and manage storm water runoff. It can also help identify potential issues such as soil erosion, flooding, and water pollution.

Procedure

1. Clearly label the sample container with Project ID, time, location, your name and date.
2. Locate soil source as identified by your supervisor/trainer and determine appropriate and safe access route.
3. Record location description on your test worksheet.
4. Record the environmental, site conditions and any other variables that may affect the quality of your sample.
5. Prepare your sample label correctly, legibly, and accurately.

Transcribe using your marker the below information onto your sample jar.

Test Request/Sample Number	YOUR SCHOOL INITIALS/003 (e.g. ABC003)
Location	YOUR LOCATION CHOICE (e.g. F Block Garden)
Date	TODAY'S DATE
Samplers Initials	YOUR INITIALS

6. Locate the ring on the surface of the soil, then place the block of wood on top of the ring. Gently tap with the hammer to drive the ring 50 mm into the soil. **Use the spirit level to check that the ring is level.**
7. Slowly fill the ring to a ponding depth of 50 mm, taking care to minimise disturbance of the soil surface. Start the timer when the water level reaches 50 mm.
8. Using the 250 mL measuring cylinder, maintain the water level at 50 mm mark. After 30 seconds, record the volume poured.

9. Maintain the water level at 50 mm for 5 minutes, recording the volume required to do so every 30 seconds. Record your results on the worksheet.
10. After 5 minutes has elapsed and all measurements are recorded, repeat the process from step 6 to step 8 but from the 150mm mark.
11. Record your measurements on the worksheet.
12. Using the small scoop, obtain a sample of the surface soil and place in sample jar.
13. Record the time the sample was taken on your sample jar and in your worksheet.
14. Decontaminate the infiltration test equipment and securely stow equipment and sample in your sample crate for transportation to the laboratory.
15. Transpose your groundwater infiltration data into the LIMS.

Test Report

The following shall be reported:

- (a) Sample identification
- (b) Date tested
- (c) Sampling method
- (d) Volume required to fill the ground infiltration apparatus at each time interval