



# Performance Examination - Soils

## Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass (ASTM D2216-19)

Candidate Name: \_\_\_\_\_ NICET ID: \_\_\_\_\_

Apparatus	Trial 1	Trial 2
<b>Oven</b> Maintains 110 ± 5 °C (230 ± 9 °F)		
<b>Balance</b> For samples 200 g or less readable to 0.01 g, for > 200 g readable to 0.1 g		
<b>Water Content Containers</b> Resistant to corrosion or change in mass, uniquely identified, and matched with a lid, if the lid is used.		

Procedures	Trial 1	Trial 2
1. A representative sample of moist soil selected		
2. Maximum particle size (100% passing) vs. minimum sample mass		
3. Method A: No.4 – 20 g, 3/8 in. – 50g, 3/4 in. – 250 g, 1.5 in – 1 kg, 3 in – 5 kg		
4. Method B: No.10 – 20 g, No.4 – 100 g, 3/8 in. – 500 g, 3/4 in. – 2.5 kg, 1.5 in – 10 kg, 3 in – 50 kg		
5. Mass of clean, dry container plus lid (if used) determined and container ID # recorded		
6. The sample placed in a container, immediately covered with lid, and weighed		
7. If water content data is to be used to calculate other relationships, such as moist or dry mass, then specimen mass up to 200 g determined using a balance accurate to 0.01 g		
8. Lid removed, a container placed in the oven, and sample dried to constant mass		
9. Water content calculated to nearest 0.1 % (ASTM Method A only: to nearest 1%) by the following formula: % moisture = mass of water x 100 mass of oven dry soil		

**First Attempt:** Pass: \_\_\_\_\_ Fail: \_\_\_\_\_ **Second Attempt:** Pass: \_\_\_\_\_ Fail: \_\_\_\_\_

**Exam Administration:** Remote \_\_\_\_\_ In-Person \_\_\_\_\_

**Comments:**

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**Examiner Name:** \_\_\_\_\_ **Examiner Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_