FIELD DENSITY TEST: SAND REPLACEMENT METHOD

CLIENT   :   DATE TESTING:

PROJECT   :

CALIBRATION		SET 1	SET 2
Calibration Mean mass of sand in cone of pouring cylinder (m_2)	g		
Volume of calibrating container (V)	cm³		
Mass Of sand before pouring (m_1)	g		
Mass Of sand after pouring (m_3)	g		
Mass of sand to fill calibrating container ($m_a = m_1 - m_3$)	g		
Bulk density of sand, $\rho_a = m_a/V$	g/cm³		
AVERAGE			

Test No.		P1	P2	P3	P4
Mass of Wet soil from hole , m_w	g				
Mass of Dry soil from hole , m_d	g				
Moisture loss, $m_w - m_d$	g				
Moisture content of soil from hole w (%), $(m_w - m_d)/m_d$	%				
Mass Of sand before pouring (m_4)	g				
Mass Of sand after pouring (m_5)	g				
Mass of sand used in test hole ($m_b = m_4 - m_5$)	g				
Bulk density of Soil, $\rho = (m_w/m_b)*\rho_a$	g/cm³				
Dry Density, $\rho_d = \dfrac{\rho}{1 + \dfrac{w(\%)}{100}}$	g/cm³				
Dry Unit Weight, γ_d	kN/m³				

Tested by: Checked by:

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Date: Date: