

GRAIN-SIZE ANALYSIS (HYDROMETER METHOD)

1. PROJECT					2. DATE				
3. BORING NUMBER			4. SAMPLE OR SPECIMEN NUMBER			5. CLASSIFICATION			
6. DISH NUMBER			7. GRADUATE NUMBER			8. HYDROMETER NUMBER/TYPE (151H/152H)			
9. DISPERSING AGENT USED					10. QUANTITY				
11. COMPOSITE CORRECTION			12. DECIMAL FINES (Block 29, DD Form 1206)			13. SPECIFIC GRAVITY OF SOLIDS (Block 6n, DD Form 1208) $G_s =$			

14. TIME	15. ELAPSED TIME, (T) minutes	16. ACTUAL HYDROMETER READING (R^1)	17. CORRECTED READING (R)	18. TEMP ($^{\circ}C$)	19. TEMPERATURE AND SPECIFIC GRAVITY CONSTANT (K)	20. EFFECTIVE DEPTH (L)	21. PARTICLE DIAMETER (D), mm	22. PERCENT FINER	
								a. PARTIAL	b. TOTAL

WEIGHT (Grams)	23. DISH + DRY SOIL	The particle diameter (D) is calculated from Stokes' equation using the corrected hydrometer reading. Use the following formula to solve for particle diameter (D): $D = K \sqrt[3]{L/T}$ Corrected hydrometer reading (R) = actual hydrometer reading (R^1) + composite correction
	24. DISH	
	25. DRY SOIL (W_s)	

W_s = Oven-dry weight (in grams) of soil used for hydrometer analysis

Hydrometer graduated in specific gravity (151H)

$$\text{Partial Percent Finer} = \left[\frac{G_s}{G_s - 1} \times \frac{100,000}{W_s} \right] (R - 1)$$

Hydrometer graduated in grams per liter (152H)

$$\frac{(R)(a)}{W_s} \times 100$$

(a = specific gravity of solids correction factor)

Total Percent Finer = Partial Percent Finer x Decimal fines (Block 12)

26. REMARKS

FROST GROUP:

27. TECHNICIAN (Signature)	28. COMPUTED BY (Signature)	29. CHECKED BY (Signature)
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