

SOILS/SOIL-AGGREGATE

Metric / English  (M or E - Located on MATT Menu)

Project No. [ ] Material Code [ ] Lab. No. [ ]
Date Sampled [ ] Submitted By [ ] Quantity [ ]
Purp. Code [ ] Pit No. [ ] Spec Code [ ]
Date Tested [ ] Ident. [ ] Parish No. [ ]
From Station [ ] + [ ] To Station [ ] + [ ] Location [ ]
Hole No. [ ] Depth, m (ft) [ ] Log Distance, km (mi) [ ]
Item No. [ ] Sampled by: [ ]
Remarks 1 [ ]

Table with 8 columns: Time, (T) Elapsed Time, Temp °C, (h) Hydro Reading, (C) Correction, Corrected Reading, % Finer, Effect. Grain Size. Includes rows for 60 and 120 minutes.

RETAINED ON 2.00 mm (10) (TR 418 - Method H)
Mass Cup + Soil, g [ ]
Cup No. [ ]
Mass Cup, g [ ]
Mass Soil, g [ ]
RETAINED ON 425 μm (40) (TR 407 & 418 - Method H)
Mass Cup + Soil, g [ ]
Cup No. [ ]
Mass Cup, g [ ]
Mass Soil, g [ ]
RETAINED ON 75 μm (200) (TR 407 & 418 - Method H)
Mass Cup + Soil, g [ ]
Cup No. [ ]
Mass Cup, g [ ]
Mass Soil, g [ ]

Table with 3 columns: Size, Mass Retained (Wx) Gram, % (DOTD TR 407). Lists sieve sizes from 25.0 mm to 75 μm and various percentages.

LIQUID LIMIT
No. Blows [ ]
Mass Cup + Wet Soil, g [ ]
Mass Cup + Dry Soil, g [ ]
Mass Water, g [ ]
Factor [ ]
Cup No. [ ]
Mass Cup, g [ ]
Mass Dry Soil, g [ ]
% Moisture [ ]
PLASTIC LIMIT
Mass Cup + Wet Soil, g [ ]
Mass Cup + Dry Soil, g [ ]
Mass Water, g [ ]
Cup No. [ ]
Mass Cup, g [ ]
Mass Dry Soil, g [ ]
% Moisture [ ]

% Organic Matter (TR 413) [ ]
Liquid Limit (TR 428) [ ]
Plasticity Index (TR 428) [ ]
Natural Moisture Content, % (TR 403) [ ]
Optimum Moisture Content, % (TR 418) [ ]
Maximum Density, kg/m³ (lb/ft³) (TR 418) [ ]
Laboratory Compaction Method (TR 418) [ ]
% Cement (TR 432 or Plans) [ ]
% Lime (TR 416) [ ]
% Fly Ash [ ]
% Other (Additive) Material Code [ ] Percent [ ]
Soil Group (TR 423) [ ]
Classification (TR 423) [ ]
pH (TR 430) [ ]
Resistivity, ohm-cm (TR 429) [ ]
Classification Prefix (TR 423) (G=Siliceous Aggr. N=Non-Siliceous S=Shell) [ ]

Remarks 2 [ ]
Tested By: [ ] Checked By: [ ] APPROVED BY: [ ]
Date: [ ] Date: [ ] DATE: [ ]

Project No: \_\_\_\_\_

Lab Number: \_\_\_\_\_

Sampled By: \_\_\_\_\_

Date Rec'd. at Lab. \_\_\_\_\_

**Organic (DOTD TR 413)**

Oven Dry Soil & Dish \_\_\_\_\_  
 Mass Dish \_\_\_\_\_  
 Oven Dry Sample (A) \_\_\_\_\_  
 Furnace Dry Soil & Dish \_\_\_\_\_  
 Mass Dish \_\_\_\_\_  
 Furnace Dry Soil (B) \_\_\_\_\_  
 \_\_\_\_\_ % Organic

$$\frac{A - B}{A} \times 100$$

Tested By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Check By: \_\_\_\_\_ Date: \_\_\_\_\_

**Natural Moisture Content (DOTD TR 403)**

Mass Container & Wet Soil \_\_\_\_\_  
 Mass Container & Dry Soil \_\_\_\_\_  
 Mass Water \_\_\_\_\_  
 Mass Container \_\_\_\_\_  
 Mass Dry Soil \_\_\_\_\_  
 % Moisture \_\_\_\_\_

Tested By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Check By: \_\_\_\_\_ Date: \_\_\_\_\_

**Resistivity Value (DOTD TR 429)**

Dry Mass of Sample, g \_\_\_\_\_ Liquid Limit \_\_\_\_\_ PI \_\_\_\_\_

$$\text{Water Added for Slaking} = \text{Dry Mass} \times \frac{(\text{LL} - \text{PI})}{100} = \text{_____ mL}$$

H <sub>2</sub> O Added (mL)	Meter Rdg. (OHM - CM)	H <sub>2</sub> O Added (mL)	Meter Rdg. (OHM - CM)

Minimum Resistivity \_\_\_\_\_ OHM - CM  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Tested By: \_\_\_\_\_ Date: \_\_\_\_\_

**pH Value (DOTD TR 430)**

Time	
15 Minutes	
30 Minutes	
45 Minutes	
60 Minutes	
pH Value	

Tested By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Checked By: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Moisture-Density Relationship (DOTD 418, Method \_\_\_\_\_)**

Dens. Opt. Moist.

Wet Mass Density, kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	WWD								
Moisture Content, %	MC								
Dry Mass Density, kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	DWD								

Tested By: \_\_\_\_\_ Date: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

**Moisture - Density Relationship (DOTD TR 415, Family)**

Wet Mass \_\_\_\_\_ Zone No. \_\_\_\_\_  
 Moist. Cont. \_\_\_\_\_ Max. Dry Density \_\_\_\_\_ Opt. Moisture \_\_\_\_\_

Tested By: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Checked By: \_\_\_\_\_  
 Date: \_\_\_\_\_