

Project: gINT Example
 Project Location: Somewhere, USA
 Project Number: Project 1 - ABC-12345

Key to Soil Symbols and Terms

TERMS DESCRIBING CONSISTENCY OR CONDITION

COARSE-GRAINED SOILS (major portions retained on No. 200 sieve): includes (1) clean gravel and sands and (2) silty or clayey gravels and sands. Condition is rated according to relative density as determined by laboratory tests or standard penetration resistance tests.

Descriptive Terms	Relative Density	SPT Blow Count
Very loose	0 to 15 %	< 4
Loose	15 to 35 %	4 to 10
Medium dense	35 to 65 %	10 to 30
Dense	65 to 85 %	30 to 50
Very dense	85 to 100 %	> 50

FINE-GRAINED SOILS (major portions passing on No. 200 sieve): includes (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shearing strength, as indicated by penetrometer readings, SPT blow count, or unconfined compression tests.

Descriptive Terms	Unconfined Compressive Strength kPa	SPT Blow Count
Very soft	< 25	< 2
Soft	25 to 50	2 to 4
Medium stiff	50 to 100	4 to 8
Stiff	100 to 200	8 to 15
Very stiff	200 to 400	15 to 30
Hard	> 400	> 30

GENERAL NOTES

- Classifications are based on the United Soil Classification System and include consistency, moisture, and color. Field descriptions have been modified to reflect results of laboratory tests where deemed appropriate.
- Surface elevations are based on topographic maps and estimated locations.
- Descriptions on these boring logs apply only at the specific boring locations and at the time the borings were made. They are not guaranteed to be representative of subsurface conditions at other locations or times.

Major Divisions	Group Symbols	Typical Names	Laboratory Classification Criteria	Particle Size	Material					
Coarse-Grained soils (More than half the material is larger than No. 200 sieve size)	Gravels (More than half of coarse fraction is larger than No. 4 sieve size)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3 Not meeting all gradation requirements for GW Atterberg limits below "A" line or P.I. less than 4 Atterberg limits above "A" line or P.I. greater than 7 $C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3 Not meeting all gradation requirements for SW Atterberg limits below "A" line or P.I. less than 4 Atterberg limits above "A" line or P.I. greater than 7	Determine percentages of sand and gravel from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve) coarse-grained soils are classified as follows: Less than 5 percent..... GW, GF, SW, SP More than 12 percent..... GM, GC, SM, SC 6 to 12 percent..... Borderline cases requiring dual symbols**	Sieve sizes < #200 #200 to #40 #40 to #10 #10 to #4	mm < 0.074 0.074 to 0.42 0.42 to 2.00 2.00 to 4.76			
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines							
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	GM*	Silty gravels, gravel-sand-silt mixtures							
		GC						Clayey gravels, gravel-sand-silt mixtures		
	Sands with fines (Appreciable amount of fines)	SW	Well-graded sands, gravelly sands, little or no fines							
		SP	Poorly-graded sands, gravelly sands, little or no fines							
		SM*	Silty sands, sand-silt mixtures							
		SC						Clayey sands, sand-clay mixtures		
	Fine-Grained soils (More than half the material is smaller than No. 200 sieve size)	Silt and Clays (Liquid limit less than 60)	ML					Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	Plasticity Chart 	mm 4.76 to 19.1 19.1 to 76.2 76.2 to 304.8 304.8 to 914.4
			CL					Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays		
OL			Organic silts and organic silty clays of low plasticity							
Silt and Clays (Liquid limit greater than 60)		MH	Inorganic silts, micaceous or distomaceous fine sandy or silty soils, organic silts							
		CH	Inorganic clays of high plasticity, fat clays							
		OH	Organic clays of medium to high plasticity, organic silts							
		Highly Organic Soils	Pt	Peat and other highly organic soils						

* Division of GM and SM groups into subdivisions of d and u are for roads and airfields only. Subdivision is based on Atterberg Limits: suffix d used when L.L. is 23 or less and the P.I. is 6 or less; the suffix u is used when L.L. is greater than 26.
 ** Borderline classifications used for soils possessing characteristics of two groups are designated by combinations of groups symbols. For example; GW-GC, well-graded gravel-sand mixture with clay binder.