



**GEOLABS, INC.**

Geotechnical Engineering

## Rock Log Legend

### ROCK DESCRIPTIONS

	<b>BASALT</b>		<b>FINGER CORAL</b>
	<b>BOULDERS</b>		<b>LIMESTONE</b>
	<b>BRECCIA</b>		<b>SANDSTONE</b>
	<b>CLINKER</b>		<b>SILTSTONE</b>
	<b>COBBLES</b>		<b>TUFF</b>
	<b>CORAL</b>		<b>VOID/CAVITY</b>

### ROCK DESCRIPTION SYSTEM

#### ROCK FRACTURE CHARACTERISTICS

*The following terms describe general fracture spacing of a rock:*

<b>Massive:</b>	Greater than 24 inches apart
<b>Slightly Fractured:</b>	12 to 24 inches apart
<b>Moderately Fractured:</b>	6 to 12 inches apart
<b>Closely Fractured:</b>	3 to 6 inches apart
<b>Severely Fractured:</b>	Less than 3 inches apart

#### DEGREE OF WEATHERING

*The following terms describe the chemical weathering of a rock:*

<b>Unweathered:</b>	Rock shows no sign of discoloration or loss of strength.
<b>Slightly Weathered:</b>	Slight discoloration inwards from open fractures.
<b>Moderately Weathered:</b>	Discoloration throughout and noticeably weakened though not able to break by hand.
<b>Highly Weathered:</b>	Most minerals decomposed with some corestones present in residual soil mass. Can be broken by hand.
<b>Extremely Weathered:</b>	Saprolite. Mineral residue completely decomposed to soil but fabric and structure preserved.

#### HARDNESS

*The following terms describe the resistance of a rock to indentation or scratching:*

<b>Very Hard:</b>	Specimen breaks with difficulty after several "pinging" hammer blows. Example: Dense, fine grain volcanic rock
<b>Hard:</b>	Specimen breaks with some difficulty after several hammer blows. Example: Vesicular, vugular, coarse-grained rock
<b>Medium Hard:</b>	Specimen can be broke by one hammer blow. Cannot be scraped by knife. SPT may penetrate by ~25 blows per inch with bounce. Example: Porous rock such as clinker, cinder, and coral reef
<b>Soft:</b>	Can be indented by one hammer blow. Can be scraped or peeled by knife. SPT can penetrate by ~100 blows per foot. Example: Weathered rock, chalk-like coral reef
<b>Very Soft:</b>	Crumbles under hammer blow. Can be peeled and carved by knife. Can be indented by finger pressure. Example: Saprolite

Plate

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