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## GEOTECHNICAL ANALYSIS

Uniaxial Compression	ASTM D2938-68, ISRM
Triaxial Compression	ASTM D2664-86, ISRM
Confining Pressure – (Up To 10,000 PSI On 2.5", 2.155", 2.000", And 1.875 ")	
Confining Pressure – (Up To 5,000 PSI On 3")	
Compression Prep	ASTM D4543-85 Modified - Total Parallelism
Axial Young's Modulus	ASTM D3148-86
Lateral Young's Modulus	ASTM D3148-86
Poisson's Ratio	ASTM D3148-86
Sonic Velocities	ASTM D2845-90, ISRM
Sonic Poisson's Ratio	ASTM D2845-90
Sonic Modulus	ASTM D2845-90
Water Content	ASTM D2216
Bulk Density	ISRM
Atterberg Limits	ASTM D4318-84
Indirect Tensile	ASTM D3967-86, ISRM Brazilian 0.5:1 Length-To-Diameter
Slake Durability	ASTM D4644-87, ISRM - Two Cycles
Swelling Strain	ISRM - 24 Hours
3-Point Flexural Strength	Needs At Least 6" Core
Shear Strength	

Geotechnical Testing is performed in compliance with either the American Society for Testing and Materials (ASTM) or the International Society for Rock Mechanics (ISRM), as appropriate. Our laboratory uses state-of-the-art equipment with documented calibration such as in-house Moorehouse Compression Rings for calibration of load cells.

If the length-to-diameter ratio (L/D) for the Uniaxial Compressive Sample is less than 2.0, the strength will be corrected according to ASTM D2938-86. Uniaxial Compressive Strength on coal samples is normally performed on a 1:1 L/D ratio or corrected to a 1:1 basis.