

BenchLab 7300 Complex Resistivity System

The BenchLab 7300 Complex Resistivity System available with temperature, liquid and gas pore pressure. Temperature systems are floor models designed to measure petrophysical rock properties at reservoir pressures in a compact modular setup. This is a perfect system for Universities due to the size and ease of use.

Complex Resistivity Module

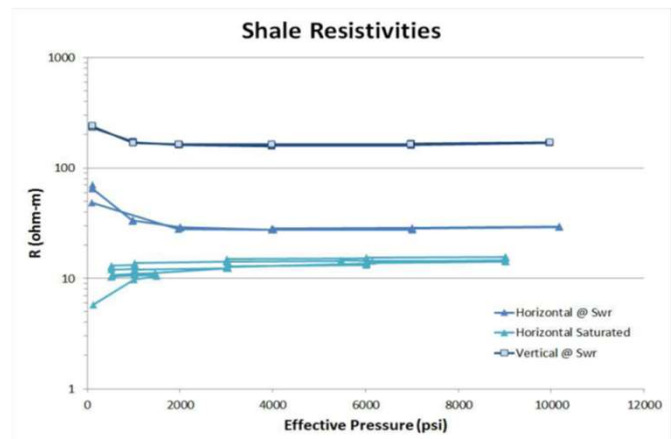
The CR7300 Complex Resistivity Test System is a compact transducer assembly for performing routine measurements of complex electrical impedance (formation factor) at frequencies from 0.02 Hz to 100 kHz. Measurements to be taken at confining pressures up to 10,000 psi.

Specifications

- 1-inch or 1.5-inch diameter samples
- Center frequency: 500 kHz to 1 MHz
- Computer controlled measurements
- Confining pressure: 400 psi to 10,000 psi
- Liquid pore pressure to 10,000 psi
- Gas pore pressure to 2,000 psi
- Temperatures available up to 200° C

Data Integration

The BenchLab is an integrated rock properties test platform. By combining multiple property measurement modules with variable confining pressures.



Example resistivity measurements made on shale as a function of stress, plug orientation, and saturation state.

Core Holder and Pressurization System

A Hassler core holder configuration is used. Samples sizes up to 1.5 inches in diameter and 6 inches in length can be measured and taken to confining pressures up to 10,000 psi. Pressure control and data acquisition functions are all computer controlled for automated testing.

Data Acquisition and Processing

The BenchLab series uses NER's latest Autolab 6 software, which can operate in both Windows and Linux environments. NER's in-house workflows for data reduction and reporting—for example, for low permeability and ultrasonic velocities—are available by default. Autolab 6 also allows scripting for unsupervised testing sequences and the use of virtual channels for extended feedback capabilities.

