

# RockProperty — Rock Properties Analysis



RockProperty is a petro-physical application used to compute and/or verify reservoir rock properties including: compressibility, elasticity, relative permeability and capillary pressure curves and formation heterogeneity.

## Main Functions

### Rock Compressibility Estimation

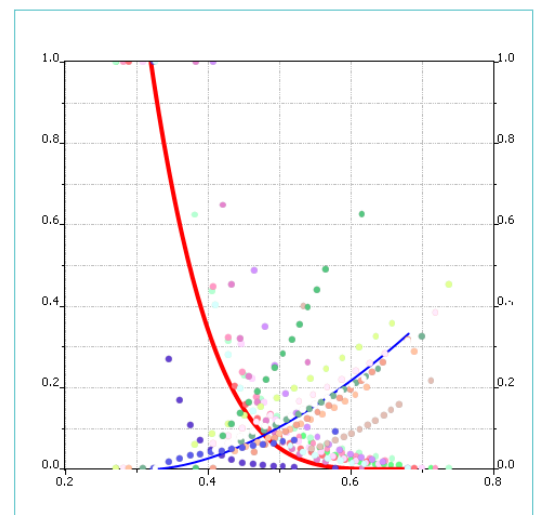
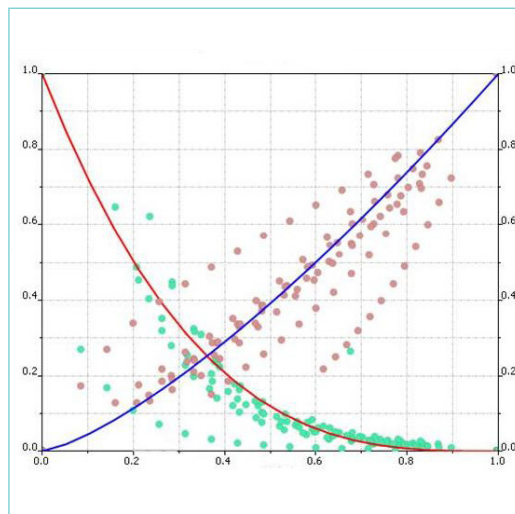
- Provide empirical correlations to estimate rock compressibility as well as oil, water and formation total compressibility.

### Reservoir Heterogeneity Analysis

- Use statistical and Lorenz Factor methods to analyze heterogeneity of any single layer or a group of layers.

### Evaluation of Parameters of Rock Mechanics

- Employ test data to compute parameters of rock mechanics, including Poisson's Ratio, elasticity modulus, tensile strength, shear strength, compressive strength, lateral and longitudinal strains.



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## Relative Permeability Curve

### Based on Experimental method

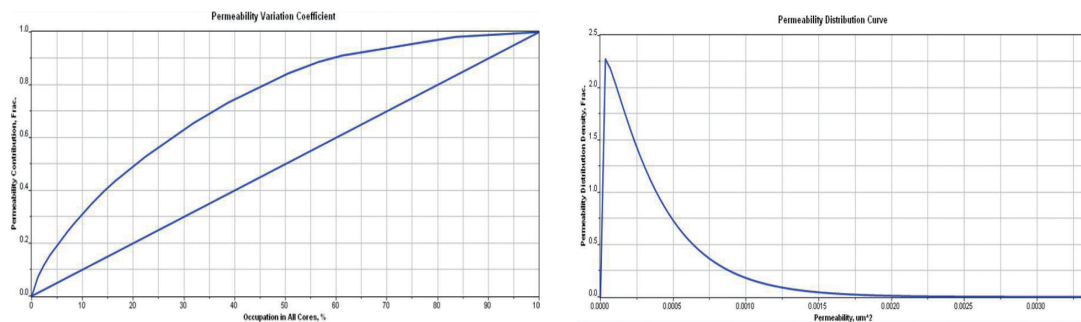
- Relative permeability curve can be derived through manual or automatic matching of normalized data

### • Based on Empirical Correlations

- Empirical correlations such as Corey, Pirson, Jones and Cheng, can be used to generate relative permeability curves.

## Capillary Pressure Curve

- Automatic or manual regression on correlations between water saturation - capillary pressure and water saturation - average capillary pressure using J-function.



## Main Features

- Provides complete post-processing. Results can be in graph and/or table format and exported to Word and Excel
- User-friendly interface enables fast queries and analysis of reservoir characteristics
- Data and results can be exchanged with 3rd party applications and reservoir simulators or directly used with other PEOffice modules for further reservoir engineering evaluation.

PEOffice® is a PC/network-based software platform for integrating oil and gas reservoir management, production analysis and design. PEOffice® provides systematic computations and comprehensive analysis for reservoir model management, reservoir performance analysis, production problem diagnosis, optimized design of production parameters and analysis of oil/gas gathering and transportation system. PEOffice is widely utilized by petroleum engineers onsite and in the back office to resolve production problems and to manage oil and gas field development.



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