



Rock and Fluid Properties

MODULE

About the Skill Module

In this skill module, you will learn about reservoir rock properties: porosity and permeability, grain size, distribution, and sorting. You will also learn about reservoir fluids, physical and chemical properties, and the impact on these properties at reservoir and surface conditions. Reservoir classification and phase diagrams are also discussed. In the Hydrocarbon Recovery section, you will learn about primary recovery drives such as dissolved gas (solution gas) drive, water drive, gas cap expansion drive, and combination drives. You will also learn about enhanced oil recovery, including secondary and tertiary recoveries such as water flood, miscible flood, steam cycle, and steam drive, along with expected recovery efficiencies.

Target Audience

Those who need to achieve a context and understanding of E&P technologies in conventional and unconventional fields, and/or the role of technical departments in oil and gas operations, and/or be able to understand and use the language of the oilfield.

You Will Learn

- The basic reservoir rock properties and the significance of core samples
- The factors that affect porosity and how it is measured
- The factors that affect permeability and how it is measured
- How grain size, distribution, and sorting controls reservoir quality
- How to estimate reservoir economic potential
- The fundamental classification of hydrocarbons as paraffin, naphthene, and intermediate series
- API gravity classification and nomenclature for different crudes
- Reservoir conditions and stock tank conditions and their effect on reservoir fluids
- The relationship between fluid properties and phase behavior
- The importance of phase diagrams to understanding reservoir behavior
- How to differentiate conditions expressed on a phase diagram
- How to relate fluid properties and phase diagram conditions to "our reservoir"

Product Details

Categories: [Upstream](#)

Disciplines: [Reservoir Engineering](#)

Levels: Basic

Product Type: Individual Skill Module

Format: On-Demand

Duration: 3.5 hours (approx.)

\$395.00