PetroSkills

Reservoir Flow Properties

MODULE

About the Skill Module

This skill module discusses the extensions and limitations of Darcy's Law. This skill module also includes the application of Darcy's Law to gas an oil and how the law can be applied to homogenize to calculate effective permeability.

See demo online learning module

Target Audience

Engineers or geoscientists who will occupy the position of reservoir engineer, and any other technically trained individual who desires a more in-depth foundation in reservoir engineering.

You Will Learn

Participants will learn how to:

- Explain the origin of Darcy's law and how it evolved
- State the difference between gravity and the pressure gradients, and how they play a role in determining the rate of which fluid could flow in the porous medium
- Identify the differences between the equations of Linear versus radial flow when calculating the flow
- Explain how heterogeneities affect the flow in porous medium, and how Darcy's law can be applied to homogenize to calculate effective permeability
- Differentiate between oil and gas flow
- Apply Darcy's law to gas and oil
- Calculate the amount of fluid that is flowing when you have single cell phase vs single phase oil
- Describe the Importance of non-Darcy effect on well performance
- Apply Darcy's law when calculating the rate of the of oil and gas well
- Identify the differences between layers in parallel and layers in series
- Discuss the effective permeability of both layers in parallel and layers in series
- State limitations of Darcy's law
- Assess the differences between gas and oil reservoirs
- Describe the effect of non-Darcy flow

Product Details

Categories: Upstream

Disciplines: Reservoir Engineering

Levels: Basic

Product Type: Individual Skill Module

Format: On-Demand

Duration: 2.5 hours (approx.)

$250.00