

This course can be adapted to virtual classroom mode

Fundamentals of Facies Analysis & Rock-Typing

5 days
Overview

ROCKTYP-EN-A

LEVEL

Awareness

PURPOSE

This course provides participants with an integrated approach to facies analysis and rock-typing combining logs, core description, and laboratory petrophysical data.

LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:

- identify electrofacies from logs,
- identify log signatures and facies association,
- define rock-types with petrophysical data (logs and laboratory data),
- define Petrofacies from various relationships like Reservoir Quality Index, Winland R35 for net pay determination and other poro-perm transforms.

WAYS AND MEANS

Interactive presentations, practical exercises and hands-on activities.

LEARNING ASSESSMENT

Knowledge assessment with multiple-choice questions.

PREREQUISITES

Degree in geology, geophysics or reservoir engineering, or equivalent experience.

Agenda

OVERVIEW ON ELECTROFACIES ANALYSIS & ROCK-TYPING

1 d

Non-supervised approach and supervised approach for electrofacies analysis.
Preliminary quality control of logs with hands-on.
Integration of core description.
From electrofacies to rock-types with hands-on.

NON-SUPERVISED ANALYSIS

1 d

Probabilistic and neural network approaches.
Hands-on non-supervised electrofacies analysis.
Key points in non-supervised analysis.

SUPERVISED ANALYSIS

1 d

Hands-on supervised analysis with probabilistic approach.
Key points and pitfalls in supervised analysis.
Electrofacies analysis workflow.
Hands-on integration of electrofacies in sequence stratigraphy analysis.

ROCK-TYPES DETERMINATION

2 d

Porosity and permeability modeling (hands-on).

Rock quality index (RQI, FZI, etc.).

Rock-typing with petrophysical data and capillary pressure curves: hands-on.

Workflow for electrofacies to rock-type assignments.