

## USE OF WIRELINE LOGS FOR WELL STIMULATION OPTIMIZATION

### General:

Discipline: Petrophysics

Level: Intermediate

Duration: 5 days

Instructor(s): A. Meso

### Purpose:

This interactive, applications-driven training course will highlight the principles and applications of the main open and cased hole logging services used in the oil industry for professionals who work in the planning and execution of well stimulation services. The course will explore the tools response explained from their physical principles and their utilization in the successful planning of well stimulation services, most common cased hole technologies will be also covered explaining their main applications and limitations for well stimulation. The use of the wireline logs helps in the optimization of the well stimulation processes.

### Designed for:

Reservoir engineers in exploration and production departments, geologists, geophysicist and petrophysicist, petroleum and drilling engineers. In general, all other oil & gas industry professionals who are involved in stimulation services planification, execution and monitoring

### You Will:

- Understand the physical principles of main open and cased hole logging services used on the planification and evaluation of well stimulation services.
- Know the main applications and limitations of the different tool readings.
- Perform a quantitative formation evaluation on a simple lithology.
- Understand the uses and interpretation of cased hole services.

### Course Content:

- Introduction to Electrical Logs
- Stimulation of Wells and Electrical Logging
- Estimation of formation damage with multi-array tools
- Reservoir Porosity and Mechanical Properties
- Evaluation of Rock Strength and Natural Fractures
- Grain Size and Lithology
- Formation pressures
- Principles of Log Interpretation
- Importance of Cement Quality for well stimulation
- Evaluation of the state of the production casing prior to Stimulation
- Other important applications in the well stimulation process

**Software applications:**

- Microsoft Office

**Text and consulting books:**

- "Log Interpretation Principles / Applications", Schlumberger 1989
- "Log Interpretation Charts", Schlumberger, 1998
- "Fundamentals of Well Logs Interpretation 1,2", O. Serra Elsevier, Amsterdam 1984.
- "Logging While Drilling", Schlumberger, 1993

