RESERVOIR CHARACTERIZATION AND MODELING

E- 250

OBJECTIVES

To integrate the rock observations from outcrop, the field data and the new geosciences tools.

To acquire a common language and a shared understanding of technical concepts, therefore enhancing team working.

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

- share concepts and techniques of many disciplines
- integrate data from various origins
- integrate efficiently a working team, being aware of the possibilities but also limits of each techniques
- check the global consistency of available data.

COURSE CONTENT

RESERVOIR CHARACTERIZATION STUDIES: OVERVIEW

Introductory field trip session to familiarize participants with a range of reservoir facies; structural set-up; relationship between reservoir facies and their respective sedimentary environments; impact on petrophysical properties. A field trip on clastics will be performed in the Wessex and the carbonate course will be run in Belgium and Burgundy. A field trip in Spain will complete the program by covering all the main topics presented during the course.

CONCEPTS AND TECHNIQUES

Fundamentals and recent innovations in the core disciplines of reservoir fluids and dynamics, petrophysics, well logs and seismics will be presented. Optimization of data acquisition and management in terms of quality, timing and cost.

STRATIGRAPHIC AND STRUCTURAL ANALYSIS OF RESERVOIRS

Description and mapping of reservoir structures and heterogeneities. Assessment of their impact on fluid flow and reservoir development, fluid types and distribution patterns.

RESERVOIR HETEROGENEITIES

Field work on outcrops, examination of the relationship between reservoir facies, internal structures and heterogeneities, at scale and integration to geological model will be performed on reservoir analogues.

RESERVOIR MODELING AND TEAM WORK

Integration of data analysis, geostatistics, and up-scaling techniques with reference to case studies.

Team-work in the development of reservoir geological and petrophysical models, using deterministic and stochastic methods; with integration of seismic and dynamic constraints, identification of key heterogeneities, and quantification of uncertainties. Up-scaling of petrophysical models to appropriate fluid flow models for specific reservoir simulations.

CASE STUDIES

Two field cases will be used all along the program to highlight stakes of geological and reservoir to simulation.

Presentation and brief analysis of examples to illustrate validation of reservoir geological models by reservoir performance analysis. (Detailed reservoir simulation and analysis techniques are available through other programs).

***NB**: during this course, evaluations and tests will be performed to control the acquisition of the concepts and the techniques*

▲ Who should attend?

Geologists, geophysicists or Petroleum engineers involved in reservoir characterization and modelling studies.

▲ Duration

45 days

▲ Dates & Location

April 21 to June 20, 2008
Rueil-Malmaison (Paris)
Louvin (Belgium)
Roda (Spain)
Montpellier (France)
Dorset (UK)

▲ Tuition Fees

€ **26,500**

▲ Course Coordinator

Bernard MICHAUD

Ref. **RES / RCM**

A brochure is available on request

Course fees include accommodation during the field trips but do not include travel between Paris and the location field trips.