

Training - Geological Field Trip for Drillers



FTFP-EN-P



Face-to-face only



5 days

This course provides a practical understanding of petroleum systems, useful for integrating geological constraints and rock properties in drilling strategies which ultimately improve drilling models and reduce risk

Level

Awareness

Public

Non-geologists and drilling professionals with no experience in petroleum geology

Objectives

Attendees will be able to implement the following skills:

- review main components of a petroleum system, most common facies rocks and their physical properties
- grasp the scope and fundamentals of the petroleum trilogy
- analyze deformations and constraints, identify potential traps
- deduce implications for drilling campaigns
- understand the importance of reservoir engineering

Pedagogical & technical resources

Training includes classroom course with theoretical exercises and field trip observations in the Lacq gas province (Aspe valley - Pau, South-West of France) and on the Basque coast (Saint-Jean-de-Luz, Biarritz, Bidart - South-West of France)

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites

No prerequisites are necessary to follow this course

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

INTRODUCTION TO PETROLEUM GEOLOGY

2.5 days

Basin and sedimentary rocks - Petroleum system:

- Sedimentary basin - Definitions, structure and terminology.
- Sedimentary rocks - Description and main facies - Comparison clastic versus carbonates - Sedimentary process.

- Petroleum system - Source rock, reservoir rock and seal rock - Trapping and migration process.
- Reservoir engineering: seismic, modeling, accumulations and reserves, effluent behavior, enhanced recovery (EOR), introduction to non-conventional resources and their extraction techniques.
- Exercises: interpretation of geological cross section; identification of the petroleum components, petroleum system building; identification of potential prospects and implementation of exploration wells; analysis of limitations and drilling constraints.

FIELD TRIP IN THE PYRENEAN LACQ FIELD (ACTIVE MARGIN BASIN)

2.5 days

Presentation of the Lacq Basin. Relations with the Pyrenean structure:

- Structural overview of the Pyrenean chain. Geomorphology and structural context.
- Lacq basin: a petroleum system in the Jurassic, lower cretaceous carbonate domain. Source, reservoir and seal rocks.
- Structure of the reservoir, trapping and potential hydrocarbon migration.

Sedimentary study of the upper cretaceous clastic formation:

- The turbidites of St-Jean-de-Luz.
- Detail of the sedimentary complex. Observation of the clastic deposits. Analysis of the deposit unit in a turbidite system observation and relationship with carbonate series of the Lacq field.
- Analysis of the turbidites structure in St Jean de Luz. Syn and post sedimentary structures - Observation of "chair folding". Dissymmetry of the folding. Notions of pressure/stretching and under compacted zones.
- Comparison with turbidities facies of Gan (South of Pau) - Notion of lateral facies variation.

Synthesis and conclusions:

- Structural context of the Lacq gas field: an example of active margin basin in foothills domain.
- Elements of the petroleum system of the Lacq gas field: an example of petroleum system in carbonate domain.
- The upper cretaceous turbidite system: interest of this facies analysis to understand the Pyrenean structure.
- Field observation of the turbidite series structure: interest and consequences for drilling purpose.

Sessions

Pau - From 01/19/2026 to 01/23/2026

4320 €/HT

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com