Training - Introduction to Basin Exploration

INFOBAS-EN-P | Face-to-face only | 5 days

This course provides a practical knowledge of petroleum exploration. It aims to develop required competencies for an effective participation in multidisciplinary project teams

Level

Awareness

Public

Non-geoscientific technicians interested in petroleum exploration techniques, young professionals in geosciences with limited experience in the E&P industry

Objectives

Attendees will be able to implement the following skills:

- Understand exploration strategy and follow the standard exploration workflow
- Get familiar with most common exploration techniques, via a multidisciplinary approach and data integration
- Acquire requested competences for basin analysis in order to assess the hydrocarbon potential and identify potential plays and related prospects

Pedagogical & technical resources

- Short daily lectures followed by exercises and hands-on sessions
- Both individual work (exercises) and team work (short case study)

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

Responsable

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

BASIN EXPLORATION CHALLENGES, STRATEGY & WORKFLOW — 1 day

Basin potential evaluation, play concept assessment and prospect generation.
Risk analysis. Probability of success.
Prospect ranking. Decision-making process. License block leasing.
Examples.

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BASIN EXPLORATION METHODS & TOOLS — 3 days

Basin analysis:

- Geodynamics: earth deformation and basin structuration (extensional & compressional).
- Review of geological environments and related reservoir distribution.
- Sedimentary basins: sediment infill and associated traps (structural & stratigraphic).
- Hands-on practice on real examples.

Petroleum systems:

- The petroleum trilogy: source rocks, reservoir rocks and seal rocks.
- Source rock potential and maturity evaluation: hydrocarbon generation.
- Structural evolution, hydrocarbon expulsion, migration and entrapment, relative timing of events.
- Hands-on practice on real examples.

Seismic interpretation:

- Review of acquisition techniques.
- Seismic interpretation: objectives and methodology.
- Structural interpretation of basins in extensional and compressional contexts.
- Stratigraphic interpretation of basin fill.
- Hands-on practice on real examples.

Well log analysis:

- Wireline log acquisition and well log analysis.
- Review of logging tools and recorded parameters.
- “Quick-look” qualitative well-log interpretation.
- Hands-on practice on real examples.

EVALUATION OF BASIN PETROLEUM POTENTIAL — 1 day

Basin potential evaluation: tectono-stratigraphic framework, petroleum trilogy, entrapment, migration and timing.
Play assessment and mapping for exploration opportunities. Sweet spots identification.
Prospect definition and related geological risk analysis (“Prospect review card”).
Workshop on a case study.

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

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