

Play-Based Exploration: Mapping, Volumetrics & Risk Analysis

Course Description

This 3-day course focuses on all the key aspects of Play Based Exploration. PBE is centered on the use of plays as the basic unit of exploration decision-making. Companies generate and maintain maps of relative probability for large, genetically-related prospective areas. These maps apportion probability into shared/play-specific and local/prospect-specific areas. This course teaches the concepts needed to make these maps in a consistent way. Emphasis is placed on achieving consistency in mapped chance assessment, avoiding pitfalls in the process, and using appropriate analogs.

The course content combines lectures with group mapping exercises from a real exploration play reflecting the state of knowledge at two periods in time: circa 1980 versus present day. The unique opportunity to compare predictions for trap density, success rate, and future discovery size characteristics with actual results reveals the common mistakes that occur in the process and how to avoid them. At the end of the course, participants are fully prepared to create and use consistent CRS maps and make better predictions about future prospectivity.

Course Outline

1. Introduction
2. Basic Statistics and Risk Analysis Concepts
3. Petroleum Systems and Plays
4. Defining Plays, Vertically and Laterally
5. Dividing Plays into Sub-plays (Play Segments)
6. Treatment of Chance – Plays vs. Prospects
7. Data Issues and Key Well Analysis
8. Field Size Data – Pitfalls for Predicting the Future
9. Calculating Undiscovered Volumes
10. Risk Analysis for Plays
11. Play Based Exploration and Future Volumes for Unconventional Plays
12. Play Ranking Techniques

Who Should Attend

This course is intended for geoscientists, engineers, planners, landmen and commercial team members charged with creating value through petroleum exploration projects.

Recipients of Training

This course has been presented to multiple companies including Anadarko, Aramco, OMV, DONG, Wintershall, Santos, Woodside, Inpex, PTTEP, Pertamina, Cairn, Repsol, Sasol, Hess, Petronas and YPF.