Play-Based Exploration: Mapping, Volumetrics & Risk Analysis

Course Description

This 3-day course focuses on all the key aspects of Play Based Exploration (PBE). It combines lectures with group mapping exercises from a real exploration play reflecting the state of knowledge at two periods of time: circa 1980 versus present day. This provides participants with powerful insights from actual results that can be compared to their predictions derived from making *common risk segment* (CRS) maps for estimating 1) play and prospect-specific chance, 2) ultimate trap density, and 3) future field size characteristics.

PBE is centered on the use of plays as the basic unit of exploration. Companies generate (and maintain in 'evergreen' fashion) 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. At the end of the course, participants are fully prepared to create and use consistent CRS maps. This course is intended for geoscientists, engineers, planners, landmen and commercial team members charged with creating value through petroleum exploration projects.

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 Subplays
6. Treatment of Chance – Plays vs. Prospects
7. Data Issues
8. Field Size Data – Pitfalls for Predicting the Future
9. Calculating Undiscovered Volumes
10. Risk Analysis for Plays vs. Prospects: Strategic Play Analysis
11. Play Based Exploration for Unconventional Plays
12. Play Ranking Techniques

Recipients of Training