

Advanced Topics in Risk Analysis Featuring Complex Traps (2/3 Day Course)

Course Description

This two- or three-day course covers advanced topics that are intended to reinforce and expand upon the concepts learned in Rose & Associates flagship Risk Analysis course. The course's focus is providing the attendees competency in the valuation of complex traps.

This course begins by ensuring a common language of what defines a complex trap and why they are important and difficult to appropriately assess. A general workflow for evaluating complex traps is presented. Concepts such as chance dependencies between zones and play segments, the value of information, and the impact of aggregation on well, and platform development decisions. Exercises, examples and discussions help illustrate and reinforce the concepts presented. A closing real-world exercise, using project data, integrates the complex trap concepts.

Complex Traps form a significant portion of today's prospect inventory. Our subsurface professionals often struggle to appropriately characterize resource development's with conditional chance assessment. Further, communication of the prospect potential and value is often mis-represented, usually too conservative and decision-makers can find the increasingly complex outputs confusing. This course is relevant to all sub-surface professionals and their leadership who are evaluating complex traps, by giving them tools and skills for evaluating complex traps and improving decision making.

Course Outline

1. Introduction
2. Complex Trap Assessment Workflow
3. Overview of Segment and Play Analysis
4. Modelling Dependent Chance Factors
5. Utilizing Aggregation Principles to model the Impact of a conditional probabilities on a Program of Wells
6. Utilizing Aggregation Principles to develop a "Hub and Spoke" economic hub for an aggregation of prospects to a common platform.
7. Optional exercise (3 Day class) on evaluating an asset which crosses a lease line with differing ownership.
8. Optional exercise (3 Day class) on "Hub & Spoke" development with conditional dependencies between certain prospects.
9. Optional exercise (3 Day class) on modeling imperfect seismic.
10. Development of a Frontier Basin Exercise – featuring a simplified Bayesian methodology
11. Real-World Exercise – Mandarin Prospect, a complex trap with multiple segments, zones and both lateral and vertical dependencies
12. Summary