TETRA TECH
RPS ENERGY | **TRAINING**

N988: PRMS Reserves & Resource Assessment

Instructor(s):

Summary

The course investigates the classification and categorisation of resources within the SPE-PRMS systems. By the use of particular case studies, the course studies the boundaries between class and category when assessing resources for management and financial disclosure. The methodology for assessing hydrocarbons-in-place and resources is explained and the significance of uncertainty is described. Both deterministic and probabilistic approaches to volumetric assessment are outlined. The engineering toolkit, using static, decline curve, material balance and reservoir simulation, is described. Practical exercises and illustrations of the pitfalls and issues in resource categorisation are illustrated by examples.

Learning Outcomes

Participants will learn to:

1. Evaluate the different categories of reserves and resources.
2. Propose the reasons for uncertainty and the need to address it.
3. Assess the volumetric derivation of resources, both deterministically and probabilistically.
4. Appraise the limitations of resource assessment methods.
5. Assure resource assessments by integrating the relationship between volumes, development plans and economics.

Training Method

This is a classroom course comprising lectures, worked examples, case studies, discussions, and exercises.

Who Should Attend

The course is targeted at mid to senior level engineers and geoscientists needing to better understand the practice of Reserves and resource reporting.

Course Content

Introduction

- List of issues to be covered
- Key concepts
- Resource definitions and guidelines

Primary Resource Estimation Methods

- History and principles
- Framework of resource classification

- Petroleum resource management systems

SPE- PRMS Scheme

- The Project - critical concept and basis for the system
- Risk and uncertainty concepts
- Classification and categorisation
- Contingent Resources rankings
- Commercial considerations
- Reserves check list and "real-life" examples

Resource Booking Approach

Other Reporting Systems

Estimation Tools (Part 1)

- Analogues
- Volumetric derivation of hydrocarbons in-place
  - Principles of Monte Carlo analysis
  - Reserves vs. Contingent Resources

Assessment of Recovery Factor (RF)

Risk and Uncertainty in Resource Estimation

- Understanding and assessing uncertainty
- Deterministic methods vs. probabilistic methods
- Correlations and dependencies
- Undiscovered resources

Estimation Tools (Part 2)

- Decline curves - Reserves category guidance
- Material balance and numerical simulation - principles, application, and limitations

Commercial Considerations

Case Studies