CONCEPT

Reserves Estimation and PRMS Classification: Booking, Reporting and Reconciliation

22 – 26 November 2026
Jeddah - Corniche four-star



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Introduction:

Reserves estimation drives borrowing capacity, asset value and development funding, yet many organisations book volumes from inconsistent classifications, unreconciled estimates and undocumented assumptions, so revisions surprise management and auditors. This Core Concept course trains reserves specialists to apply the Petroleum Resources Management System PRMS to classify reserves, contingent resources and prospective resources, assign 1P, 2P and 3P and 1C, 2C and 3C categories, and defend every estimate through reporting, governance and audit. Participants assemble a Reserves Booking Dossier and Year-on-Year Reconciliation Pack for a multi-field portfolio.

Course Objectives:

- Classify petroleum volumes as reserves, contingent resources or prospective resources and assign project maturity sub-classes using the PRMS resources classification framework
- Assign 1P, 2P and 3P reserves and 1C, 2C and 3C contingent resources categories with documented evidence for each incremental volume
- Estimate recoverable volumes by volumetric, analogue and performance-based methods and select the method that fits the data available at each project stage
- Apply deterministic and probabilistic estimation, including arithmetic and statistical aggregation, and explain the difference between them in a reserves submission
- Test commerciality, economic limit and net entitlement at overview level before volumes are booked as reserves
- Prepare a reserves report with a year-on-year reconciliation and governance evidence that withstands internal review and external audit

Target Audience:

- Reservoir engineers who prepare field reserves estimates and annual reserves submissions
- Geoscientists who supply gross rock volume, net pay and in-place ranges to reserves evaluations
- Planning and portfolio staff who convert project decisions and budgets into reserves maturity changes
- Reserves coordinators who compile, check and report corporate reserves and resources inventories
- Asset team leads who approve booked volumes and answer reserves questions from management and auditors

Course Outline:

Day 1: Reserves Booking Context and the PRMS Framework

- Reserves Estimate Uses: Asset Valuation, Borrowing Base and Development Funding
- PRMS Sponsoring Societies and the Framework Purpose
- Resources Classification Framework: Total Petroleum Initially-In-Place to Unrecoverable Volumes
- Project-Based Resource Evaluation and the Reference Point for Sales Quantities
- Current-State Review of a Corporate Reserves Inventory and Booking Calendar

Day 2: Classification, Categorisation and Project Maturity

- Reserves, Contingent Resources and Prospective Resources Class Boundaries
- Commerciality Tests: Final Investment Decision Intent, Approvals and Development Timing
- Project Maturity Sub-Classes from On Production to Prospect
- Proved, Probable and Possible Reserves with 1P, 2P and 3P Definitions
- Contingent Resources 1C, 2C, 3C and Prospective Resources Low, Best and High Estimates

Day 3: Volumetric, Analogue and Performance-Based Estimation

- Volumetric Equation Inputs: Gross Rock Volume, Net-to-Gross, Porosity, Saturation and Formation Volume Factor
- Recovery Factor Selection from Reservoir Analogues and Development Concept
- Decline Curve Analysis: Exponential, Hyperbolic and Harmonic Fits for Proved Developed Producing Volumes
- Material Balance Estimates at Overview for Pressure-Supported Reserves Checks
- Proved Developed and Proved Undeveloped Reserves Split by Well and Project

Day 4: Uncertainty, Aggregation, Economics and Entitlement

- Deterministic Incremental and Scenario Approaches Versus Probabilistic Monte Carlo Ranges
- P90, P50 and P10 Outputs and Their Mapping to Reserves Categories
- Arithmetic Summation Versus Statistical Aggregation Across Fields and Portfolios
- Economic Limit, Price and Cost Assumptions and Licence Expiry Cut-Offs at Overview
- Net Entitlement Volumes Under Concession and Production Sharing Terms at Overview

Day 5: Case Study: Reserves Reporting, Reconciliation and Audit Readiness

- Case Data Pack Review: Multi-Field Portfolio with Producing, Development and Discovery Projects
- Year-on-Year Reserves Reconciliation by Production, Revisions, Extensions, Discoveries and Acquisitions
- Reserves Governance: Qualified Estimator Roles, Evaluator Independence and Approval Workflow
- Internal Reserves Audit and External Reserves Evaluation Readiness Checklist
- Reserves Booking Dossier and Year-on-Year Reconciliation Pack Presentation to a Review Panel

Skills You Will Gain:

- Petroleum Resources Classification
- Reserves Categorisation
- Project Maturity Assessment
- Volumetric Range Estimation
- Decline Curve Reserves Evaluation
- Probabilistic Aggregation
- Reserves Reconciliation
- Reserves Audit Preparation

Why Attend This Course:

- Take back a Reserves Booking Dossier and Year-on-Year Reconciliation Pack built on a multi-field portfolio case
- Defend every booked barrel with a traceable class, category and project maturity decision instead of a single unexplained number
- Anticipate the questions auditors and reserves committees raise on revisions, undeveloped volumes and aggregation
- Compare reserves booking practice with engineers, geoscientists and planners from operators, partners and consultancies

Conclusion:

Booked reserves are only as credible as the classification, estimation and documentation behind them. The week moves from the purpose of reserves estimates and the PRMS framework, through class boundaries, commerciality, project maturity and the reserves and contingent resources categories, to volumetric, analogue and performance-based estimation, uncertainty, aggregation, economic limit and entitlement. The final day turns this work into a Reserves Booking Dossier and Year-on-Year Reconciliation Pack ready for the next reserves committee and audit.