

Training Title

RESERVOIR ENGINEERING FOR NON-RESERVOIR ENGINEERS

Training Duration

5 days

Training Venue and Dates

REF DE097	RESERVOIR ENGINEERING FOR NON-RESERVOIR ENGINEERS	5	06-10 January 2025	\$5,500	Dubai, UAE
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In any of the 5-star hotels. The exact venue will be informed once finalized.

Training Fees

- \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch.

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

TRAINING INTRODUCTION

This Five-day course is designed for professionals who work with, or rely on, analyses provided by reservoir engineers, or who otherwise need to understand and communicate with them on a technical or commercial basis. Those who would benefit from this course include geologists, geophysicists, Petro physicists, facility, and operations engineers, drilling and production engineers, pipeline engineers, and economic/business analysts. The course provides an understanding of the underlying value and limitations of the analyses provided by reservoir engineers, as well as a better understanding of the required data and assumptions involved in the practice of reservoir engineering. Participants will obtain an understanding of routine reservoir engineering calculations, the data required to perform these calculations, the primary tools and techniques used by reservoir engineers, and the information gained by the application of those techniques. The limitations of the extrapolation of the results to the decision-making process will also be covered. Throughout the course, the impact of the data, assumptions and technical limitations are related to the economic impact they have on reservoir management.

TRAINING OBJECTIVES

At the end of the training, the participants will be able to:

- Learn how reservoir engineers assess the value of an asset.
- Understand the physics of petroleum reservoirs.
- Learn how primary reserves are estimated based on production and reservoir pressure data.

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- Understand how evaluation and recovery of oil and gas reserves is done (classification of reserves, recovery factors, volumetric of oil and gas reservoirs)
- Learn how well and reservoir performance are characterized using pressure transient data.
- Learn how flow simulation is used to forecast production.
- Know concepts of fluid flow through porous media
- Know fluid properties in reservoir engineering (fluid types, phase behaviour, correlations, and equations of state)
- Gain knowledge of fundamental rock properties (porosity, wettability, capillary pressure, permeability, relative permeability, and other concepts)
- Know how material balance calculations is performed (material balance concept, drive index, water influx models)
- Know about decline curve analysis.
- Understand reservoir simulation basics.
- Know about enhanced Oil Recovery (EOR) methods.
- Facilitate communication between reservoir engineers and geoscientists.

WHO SHOULD ATTEND?

Geologists, Geophysicists, Petro physicists, Facility and Operations Engineers, Drilling and Production Engineers, Pipeline Engineers, and Economic/Business analysts.

TRAINING METHODOLOGY:

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of the multiple-choice type will be made available on a daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

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DAILY OUTLINE

- Pre-Course Test
- Reservoir geological description
- Rock Properties
 - Basic Rock Properties

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- Relative Permeability
- Wettability
- Capillary Pressure
- Hydrocarbon phase behavior
 - Example PVT Studies.
- Fluid and Pressures Distributions including Pressure vs. Depth and Capillary Pressure.
- Volumetric reserve estimates
 - Reserve classifications,
 - Probabilistic reserve estimates.
- Fluid Flow
 - Darcy’s Law
 - Well Inflow
- Vertical Lift (Tubing) Performance and Artificial Lift
- Reservoir Drive Mechanisms
 - Material balance and fluid displacement.
 - Gas reservoirs
 - p/Z diagrams.
- Well testing,
 - Pressure transient analysis methods
 - Build-up curve examples.
- Gas well testing and AOF analysis.
- Oil-water displacement - mobility ratio, Buckley-Leverett, displacement efficiency
- Reservoir Monitoring
- Production Forecasting
- Enhanced Oil Recovery
- Post-Course Test

NOTE:

Pre & Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day Review & Assessments will be carried out.

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