



*Training Course:  
Advanced Gas Condensate Reservoir  
Management*

*12 - 23 October 2025*

*Dubai (UAE)*

*Residence Inn by Marriott Sheikh Zayed Road, Dubai*

## Training Course: Advanced Gas Condensate Reservoir Management

Training Course code: EN236171 From: 12 - 23 October 2025 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 8400 € Euro

### Introduction

Gas condensate reservoirs present complex challenges in production optimization, phase behavior, pressure maintenance, and reservoir performance forecasting. Due to condensate dropout and retrograde behavior, advanced strategies are required for their effective management. This 12-day expert-level training program, developed by Global Horizon Training Center, is designed to equip reservoir, production, and petroleum engineers with the advanced tools and techniques required to manage gas condensate reservoirs efficiently and maximize recovery while minimizing formation damage and operational risk.

### Objectives

By the end of this program, participants will be able to:

- Analyze gas condensate reservoir behavior under depletion and pressure variation.
- Interpret phase diagrams and compositional data for reservoir management.
- Model fluid properties using advanced PVT analysis.
- Optimize well and field performance under condensate banking effects.
- Implement enhanced recovery and pressure maintenance strategies.
- Apply simulation models for reservoir forecasting and scenario analysis.

### Target Audience

- Reservoir engineers and petroleum engineers
- Production and field development engineers
- Subsurface team leaders and project managers
- E&P professionals involved in complex gas reservoir management
- Technical staff supporting gas field development and recovery optimization

## Organizational Impact

Companies will benefit through:

- Improved recovery from gas condensate reservoirs
- More accurate forecasting and scenario planning
- Better integration of reservoir, production, and economic decisions
- Reduced operational risks from condensate banking and pressure loss
- Stronger decision-making for development planning and optimization

## Training Outline

### Day 1: Fundamentals of Gas Condensate Reservoirs

- Classification of gas condensate reservoirs
- Retrograde condensation and dew point behavior
- Differences from dry gas and oil reservoirs
- Introduction to management challenges

### Day 2: Advanced PVT and Phase Behavior

- Phase diagrams for condensate fluids
- Retrograde gas behavior and dew point suppression
- Compositional gradients and reservoir zoning
- Laboratory PVT tests and data interpretation

### Day 3: Fluid Characterization and EOS Modeling

- Equation of State EOS tuning and application
- Component lumping, splitting, and EOS fitting
- Using PVT packages e.g., PVTP, WinProp

- Fluid consistency checks and quality control

#### Day 4: Reservoir Rock-Fluid Interaction

- Condensate dropout and mobility reduction
- Capillary pressure and relative permeability effects
- Hysteresis and trapped condensate
- Laboratory core analysis for condensate flow

#### Day 5: Well Performance and Condensate Banking

- Inflow performance for gas condensate wells
- Effect of near-wellbore pressure drop
- Condensate blockage and damage zones
- Well productivity index in high-pressure gas reservoirs

#### Day 6: Pressure Maintenance and Enhanced Recovery

- Lean gas, rich gas, and NGL reinjection
- Gas cycling for condensate recovery
- Injection design and surface separation strategy
- Comparison of pressure maintenance methods

#### Day 7: Material Balance and Decline Curve Analysis

- Adaptation of material balance for gas condensate
- Cumulative production vs. pressure plots
- Decline curve analysis: Arps, Blasingame, Fetkovich
- Estimation of ultimate recovery and reserves

#### Day 8: Numerical Simulation of Gas Condensate Reservoirs

- Compositional vs. black-oil simulation
- Grid design and initialization

- History matching of gas and condensate production
- Sensitivity analysis and optimization scenarios

#### Day 9: Well Testing and Pressure Transient Analysis

- Multiphase flow considerations
- Well test interpretation in gas condensate reservoirs
- Skin factor estimation in condensate banked wells
- Diagnostic plots and derivative analysis

#### Day 10: Reservoir Surveillance and Monitoring

- Real-time production monitoring
- Downhole and surface data acquisition
- Key KPIs for reservoir performance
- Integrated field management systems

#### Day 11: Field Development Planning and Economic Evaluation

- Well spacing and infill drilling
- Selection of optimum development strategy
- Economic impact of recovery methods
- Cost-benefit analysis of gas cycling and reinjection

#### Day 12: Integrated Case Study

- Group case study: simulate and optimize a gas condensate field
- Design pressure maintenance, forecast production, and evaluate economics
- Presentation and peer review
- Final Q&A, wrap-up

## Registration form on the Training Course: Advanced Gas Condensate Reservoir Management

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Sheikh Zayed Road, Dubai **Training Course Fees:** 8400 € Euro

Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

### Delegate Information

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
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Official E-Mail: .....

### Company Information

Company Name: .....  
Address: .....  
City / Country: .....

### Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng): .....  
Position: .....  
Telephone / Mobile: .....  
Personal E-Mail: .....  
Official E-Mail: .....

### Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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### Easy Ways To Register

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