



*Training Course:  
Petroleum Oil & Gas Reservoir Management:  
Upstream and Midstream Activities*

*16 - 27 August 2026  
Istanbul (Turkey)  
DoubleTree by Hilton Istanbul Esentepe*

## Training Course: Petroleum Oil & Gas Reservoir Management: Upstream and Midstream Activities

Training Course code: EN236548 From: 16 - 27 August 2026 Venue: Istanbul (Turkey) - DoubleTree by Hilton Istanbul Esentepe Training Course Fees: 11150 € Euro

### Introduction

The petroleum industry remains one of the most complex and strategically important sectors worldwide, requiring professionals to understand the entire value chain from reservoir discovery and development to transportation and midstream operations. Effective reservoir management is critical for maximizing hydrocarbon recovery, optimizing production performance, reducing operational risks, and ensuring long-term asset value.

This comprehensive 10-day training program, designed by Global Horizon Training Center, provides participants with an in-depth understanding of petroleum reservoirs and the integration of upstream and midstream activities. The program covers reservoir fundamentals, exploration and production processes, field development planning, production optimization, hydrocarbon transportation, storage systems, pipeline operations, and operational challenges across the oil and gas value chain.

The course is designed to provide both technical and operational perspectives, enabling participants to understand how reservoir performance directly influences production strategies and midstream infrastructure requirements. The program will be conducted by a single trainer and delivered through lectures, industry case studies, technical discussions, and practical examples without requiring specialized software, simulation systems, workshops, or laboratory activities.

### Objectives

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

- Understand the structure and characteristics of petroleum reservoirs.
- Explain the complete oil and gas value chain from upstream to midstream operations.
- Analyze reservoir behavior and production mechanisms.
- Understand reservoir evaluation and reserve estimation principles.
- Identify key exploration and production activities.
- Evaluate field development planning strategies.
- Understand drilling, completion, and production operations.
- Assess production optimization techniques and challenges.
- Understand hydrocarbon transportation and storage systems.
- Identify operational, safety, environmental, and economic considerations in upstream and midstream facilities.
- Improve decision-making related to reservoir performance and asset management.

### Course Methodology

The program will be delivered through:

- Interactive instructor-led presentations.
- Technical lectures and guided discussions.
- Industry case studies from international oil and gas operations.
- Reservoir and production performance analysis exercises.
- Group discussions and knowledge-sharing sessions.
- Review of actual field development and transportation projects.
- Problem-solving exercises based on operational scenarios.

## Organizational Impact

Upon completion of this program, organizations will benefit from:

- Enhanced understanding of reservoir and production operations.
- Improved coordination between upstream and midstream functions.
- Better reservoir management and production planning decisions.
- Increased awareness of operational risks and mitigation measures.
- Improved efficiency in hydrocarbon transportation and storage activities.
- Enhanced asset integrity and operational reliability.
- Better alignment between technical and commercial objectives.
- Stronger understanding of industry best practices and regulatory requirements.

## Target Audience

This program is suitable for:

- Petroleum Engineers
- Reservoir Engineers
- Production Engineers
- Drilling Engineers
- Operations Engineers
- Field Supervisors
- Pipeline Engineers
- Midstream Operations Personnel
- Asset Management Professionals
- Project Engineers
- Technical Managers
- Oil & Gas Professionals involved in upstream and midstream activities

## Outline

Day 1: Introduction to the Petroleum Industry and Reservoir Fundamentals

- Overview of the global oil and gas industry
- Petroleum value chain: upstream, midstream, and downstream sectors
- Introduction to petroleum geology
- Formation of hydrocarbons and petroleum systems
- Types of reservoirs and reservoir classifications
- Rock properties affecting reservoir performance
- Porosity, permeability, and fluid saturation concepts
- Reservoir fluids: oil, gas, and water characteristics

#### Day 2: Reservoir Characterization and Evaluation

- Reservoir data acquisition methods
- Geological and geophysical data interpretation
- Well logging fundamentals
- Core analysis and reservoir rock evaluation
- Reservoir mapping techniques
- Static reservoir characterization
- Reservoir heterogeneity and uncertainty
- Introduction to reservoir modeling concepts

#### Day 3: Reservoir Engineering Principles

- Reservoir pressure systems
- Reservoir drive mechanisms
- Material balance concepts
- Fluid flow in porous media
- Reservoir performance analysis
- Production forecasting fundamentals
- Reservoir surveillance practices
- Reservoir management strategies

#### Day 4: Exploration and Field Development Planning

- Exploration process and prospect evaluation
- Reserve estimation principles
- Classification of petroleum reserves
- Economic evaluation of reservoir projects
- Field development planning methodology
- Well placement strategies
- Production facility planning
- Risk assessment in field development projects

#### Day 5: Drilling and Well Completion Operations

- Drilling process overview
- Drilling rig components and functions
- Well design fundamentals
- Drilling fluids and their applications
- Casing and cementing operations
- Well completion methods
- Artificial lift systems overview
- Operational challenges in drilling and completions

#### Day 6: Production Operations and Optimization

- Production system components
- Surface production facilities
- Well testing fundamentals
- Production monitoring techniques
- Production optimization strategies
- Flow assurance considerations
- Water production management
- Production problem diagnosis and troubleshooting

#### Day 7: Enhanced Recovery and Reservoir Management

- Reservoir depletion management
- Secondary recovery methods
- Water flooding operations
- Gas injection techniques
- Enhanced Oil Recovery EOR concepts
- Reservoir performance monitoring
- Production enhancement opportunities
- Integrated reservoir management approaches

#### Day 8: Midstream Operations and Hydrocarbon Transportation

- Introduction to midstream operations
- Crude oil transportation systems
- Natural gas transportation networks
- Pipeline systems and infrastructure
- Pumping and compression stations
- Transportation planning and logistics
- Flow measurement fundamentals
- Midstream operational challenges

#### Day 9: Storage Facilities and Asset Integrity Management

- Crude oil storage systems
- Tank farm operations
- Natural gas storage concepts
- Pipeline integrity management
- Corrosion mechanisms and prevention
- Inspection and maintenance practices
- Asset reliability and lifecycle management
- Emergency response and contingency planning

#### Day 10: Operational Excellence, Risk Management, and Industry Best Practices

- HSE considerations in upstream and midstream operations
- Process safety fundamentals
- Environmental management in oil and gas facilities
- Operational risk assessment methodologies
- Regulatory and compliance requirements
- Production efficiency and performance indicators
- Lessons learned from industry case studies
- Future trends in reservoir management and midstream operations
- Integrated review of upstream and midstream activities
- Course summary and action planning.

## Registration form on the Training Course: Petroleum Oil & Gas Reservoir Management: Upstream and Midstream Activities

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Istanbul Esentepe **Training Course Fees:** 11150 € Euro

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

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 Official E-Mail: .....

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- Please find enclosed a cheque made payable to Global Horizon
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