

aractech

Global Learning for Operational Leaders

OIL AND GAS | OG-020

Best Practices of Enhanced Oil Recovery (EOR) Projects

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Course content

Why Attend

Enhanced Oil Recovery (EOR) technologies play a vital role in maximizing hydrocarbon recovery, extending field life, and improving the economic performance of mature reservoirs. This course provides participants with a practical understanding of modern EOR methods, reservoir screening, fluid characterization, chemical and thermal recovery techniques, gas injection processes, and field implementation best practices to support successful EOR project planning and execution.

Course Methodology

- The course combines technical presentations, engineering calculations, case studies, field examples, group discussions, reservoir evaluation exercises, and practical workshops based on real-world EOR applications.

Course Objectives

- Understand the principles and mechanisms of enhanced oil recovery processes
- Evaluate reservoir suitability for different EOR methods
- Analyze reservoir rock and fluid properties affecting EOR performance
- Apply chemical, gas, and thermal recovery techniques appropriately
- Assess technical and economic considerations for EOR projects
- Utilize field data and reservoir characterization to support EOR decisions

Target Audience

- Reservoir engineers
- Petroleum engineers
- Production engineers
- Field development engineers

Course outline

Detailed course outline

Day-by-day outline for Best Practices of Enhanced Oil Recovery (EOR) Projects.

Day 1 - Fundamentals of Enhanced Oil Recovery and Screening Methods

- Understanding the principles and objectives of enhanced oil recovery technologies
- Reviewing the major categories of EOR methods and their applications
- Understanding reservoir rock, fluid properties, and laboratory analysis requirements for EOR evaluation
- Applying reservoir screening techniques to select appropriate EOR methods
- Evaluating recovery efficiency through mobility control and displacement mechanisms
- Identifying operational challenges, uncertainties, and limitations associated with different EOR techniques

Day 2 - Reservoir Characterization and Fluid Evaluation

- Understanding reservoir properties influencing EOR performance
- Reviewing routine and advanced core analysis techniques for reservoir evaluation
- Examining reservoir fluid properties and phase behavior relevant to EOR processes
- Understanding downhole fluid sampling methods and reservoir fluid characterization
- Applying laboratory data to support EOR project design and performance prediction
- Utilizing reservoir characterization techniques for selecting optimal recovery strategies

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Day 3 - Waterflooding and Chemical EOR Technologies

- Understanding waterflood design principles and displacement mechanisms
- Reviewing chemical EOR methods and reservoir screening criteria
- Evaluating polymer flooding technologies, properties, and operational considerations
- Understanding alkaline-polymer and alkali-surfactant-polymer recovery processes
- Identifying operational challenges associated with chemical flooding projects
- Reviewing successful international field applications and lessons learned from chemical EOR projects

Day 4 - Gas Injection and Miscible Recovery Processes

- Understanding miscible and immiscible gas injection mechanisms
- Reviewing carbon dioxide and nitrogen injection techniques for improved oil recovery
- Determining reservoir conditions suitable for miscible gas injection projects
- Evaluating field selection criteria for carbon dioxide flooding operations
- Understanding simulation tools used to support gas injection project design and optimization
- Reviewing operational considerations and performance monitoring techniques for gas injection projects

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Day 5 - Thermal Recovery and Emerging EOR Technologies

- Understanding thermal recovery mechanisms and steam injection techniques
- Reviewing cyclic steam stimulation and continuous steam flooding operations
- Examining Steam-Assisted Gravity Drainage (SAGD) principles and applications
- Understanding in-situ combustion methods and air injection recovery processes
- Reviewing advanced thermal recovery technologies and field applications
- Exploring emerging EOR technologies including microbial, enzyme-assisted, and low-salinity water flooding

Seminar dates

Available seminar dates

Live dates and pricing for Best Practices of Enhanced Oil Recovery (EOR) Projects generated from the course details page.

Date	Location	Format	Fee
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