

**TRAINING TITLE**

**ADVANCED WATER FLOODING & GAS INJECTION**

**Training Duration**

**5 day**

**Training Venue and Dates**

|          |   |   |                 |         |                |
|----------|---|---|-----------------|---------|----------------|
| Ref. No. | Advanced Water Flooding & Gas Injection | 5 | 25-29 Aug. 2025 | \$5,750 | ABU DHABI, UAE |
|----------|---|---|-----------------|---------|----------------|

In any of the 4 or 5-star hotels. The exact venue will be informed later.

**Training Fees**

- \$5,750 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

**Training Certificate**

**Define** Management Consultants Certificate of course completion will be issued to all attendees.

**TRAINING DESCRIPTION**

This course is designed to provide the trainees with a clear understanding of the engineering techniques employed for describing and evaluating candidate reservoir water flooding application. It also deals with developing models as predictive tools of oil recovery performance of a secondary oil recovery method and using the results of predictions to take and implement decisions regarding the field operations. At the end one or both of the objectives of water flooring enhance and accelerates the oil recovery that can be achieved.

**TRAINING OBJECTIVES** [www.definettraining.com](http://www.definettraining.com)

At the end of this course the delegates should be able to:

Discuss about the inflow and out flow performance as well as the total system analysis in production operations. And NODAL analysis, well surveillance

- Explain about the well completion Design and operations
- Explain about the perforation methods Design and safety precaution.
- Outline the several types of formation damage and the main causes for damage with set up a remedial action to increase production.
- Recognize the matrix acidizing and Hydraulic fracturing with considering the safety precaution.

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- Recognize the different types of production testing , analysis and evaluate the well productivity
- Diagnoses well production problems and set up remedial action ( work over)
- Explain about Well intervention for Productivity Enhancement .(Rig, Coiled tubing , wire line )
- Improve total well productivity ( Real case studies)
- Discuss about Corrosion control; and sand management
- Recognize the different types of artificial lift such as ESP, Gas lift, and Beam pump
- Design and operating the different types of artificial lift
- Discuss about what is new in Oil& Gas Production

### WHO SHOULD ATTEND?

- Reservoir Engineers
- Production Engineers
- Petroleum Engineers
- EOR Specialists
- Field Operators and Technicians
- Reservoir Simulation Specialists
- Geoscientists
- Academics and Researchers
- Consultants and Industry Experts

### 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 multiple-choice type will be made available on 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

### COURSE PROGRAM:

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|               |   |
|---------------|---|
| <b>Day 1:</b> | <p><b>Pre-Test</b><br/> <b>Introduction to Oil and Gas industry</b><br/> <b>Inflow and outflow performance:</b></p> <ul style="list-style-type: none"> <li>• <b>Well Performance and Productivity</b></li> <li>• <b>Types of Reservoir and production life system</b></li> <li>• <b>Reservoir inflow performance</b></li> <li>• <b>Well bore flow performance</b></li> <li>• <b>Flow through chokes &amp; types of choke</b></li> <li>• <b>Causes of productivity impairment</b></li> <li>• <b>How to monitoring the production flowing parameters &amp; sampling wells</b></li> <li>• <b>Total well Production System analysis</b></li> </ul>  |
| <b>Day 2:</b> | <p><b>Well completion system:</b><br/> <b>Well Surveillance and Problem Well Identification</b></p> <ul style="list-style-type: none"> <li>• <b>Types of well completion</b></li> <li>• <b>Well head and X-Mass Tree system</b></li> <li>• <b>Completion equipments</b></li> <li>• <b>Types of packer</b></li> <li>• <b>Completion accessories</b></li> <li>• <b>Completion Design</b></li> <li>• <b>Completion fluid</b></li> </ul> <p><b>Well Surveillance</b><br/> <b>Water flooding</b><br/> <b>Water flooding operations</b></p>   |
| <b>Day 3:</b> | <p><b>Well perforation</b><br/> <b>Gas injection</b><br/> <b>Gas injection operations</b><br/> <b>Productivity Enhancement</b></p> <ul style="list-style-type: none"> <li>• <b>Perforating methods</b></li> <li>• <b>Perforating equipments</b></li> <li>• <b>Basic perforating design</b></li> <li>• <b>what is necessary for the optimum flow path</b></li> <li>• <b>Perforating in highly deviated wells</b></li> </ul> <p><b>Formation Damage</b></p> <ul style="list-style-type: none"> <li>• <b>Types of formation damage</b></li> <li>• <b>Determination of flow efficiency and skin</b></li> <li>• <b>Causes of damage formation during Drilling, Completion and Production phase</b></li> <li>• <b>The remedial action to overcome the formation damage</b></li> <li>• <b>Microbial methods add to industry</b></li> </ul> <p><b>WAG/ Enhanced oil recovery</b><br/> <b>Type of Enhanced oil recovery(EOR)</b><br/> <b>Enhanced oil recovery operation</b></p> |

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|--------|---|
|        | <p>Heating method<br/>Chemical method<br/>Matrix Acidizing</p> <ul style="list-style-type: none"> <li>• Purpose and applications</li> <li>• Formation damage diagnosis</li> <li>• Cement quality &amp; well stimulation applicability</li> <li>• Acid types and concentration</li> <li>• Acid treatment design</li> <li>• Acid additives</li> <li>• Evaluation of acid treatments</li> <li>• Case studies</li> <li>• Safety precaution and environment protection</li> </ul> <p>Hydraulic fracturing</p> <ul style="list-style-type: none"> <li>• Fracture mechanics</li> <li>• Fracturing fluids and additives</li> <li>• Fracture treatment design</li> <li>• Acid fracturing</li> </ul>                |
| Day 4: | <p>Productivity Enhancement (cont.) and Well Controls<br/>Production testing:</p> <ul style="list-style-type: none"> <li>• Well testing Design</li> <li>• Testing analysis &amp; evaluation</li> <li>• Practical exercises</li> <li>• Real Case study (How to increase total production)</li> </ul> <p>Well production problems &amp; Workover operations:</p> <ul style="list-style-type: none"> <li>• Diagnoses and identify well problems</li> <li>• Well surveillance and production logging application</li> <li>• Workover operations</li> <li>• Coiled tubing applications</li> <li>• Type of well producing problems</li> <li>• Set up remedial proposal (work over) for well problems</li> </ul> |
| Day 5: | <p>Artificial Lift Methods:</p> <ul style="list-style-type: none"> <li>• Types of artificial lift</li> <li>• Selections Methods</li> <li>• Applications consideration</li> </ul> <p>Gas Lift:</p> <ul style="list-style-type: none"> <li>• Types of gas lift</li> <li>• Gas lift equipment</li> <li>• Designing a gas lift system</li> <li>• Gas lift operations</li> <li>• Video film CD-DVD</li> </ul>  |

**Electrical submersible pump (ESP)**

- ESP System selection
- ESP Component
- ESP Design
- problem solving

**Beam Pump (Sucker Rod Pump)**

- Beam pump selection
- Beam pump surface equipment
- Beam pump down hole equipment
- Beam pump system Design
- Beam pump operations and troubleshooting
- Video film CD-DVD
- Open Forum and general Discussion
- Post – test

**NOTE:**

**Pre-& Post Tests will be conducted.**

**Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.**



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