

Training Title

Hydrocarbon Production & Operation

(Oil Exploration, Drilling, Well Completion & Testing, Reservoir Management & Artificial Lift)

Training Duration

5 days

Public Training Venue and Dates

Hydrocarbon Production & Operation (Oil Exploration, Drilling, Well Completion & Testing, Reservoir Management & Artificial Lift)	5	18-22 April	\$3,300	Abu Dhabi
Hydrocarbon Production & Operation (Oil Exploration, Drilling, Well Completion & Testing, Reservoir Management & Artificial Lift)	5	03-07 October	\$3,300	Abu Dhabi

Training Certificate

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

Training Fees

3300\$ per participant for Public Training including, Very useful Materials/ Handouts, Tea/Coffee, Breakfast, Snacks, Refreshments, International Buffet Lunch

Who Should Attend

This course is designed for Oil filed Technologists, project managers, plant managers, plant supervisors, Production Supervisors, technical staff, Operators and Technicians and contractor personnel involved in the production of oil and natural gas. The greatest benefit arises from discussing the underlying principles of the various processes and the cause of the common operating problems. You will also be able to see which processes are available to you to de-bottleneck or modify existing processes. The practical techniques and examples provide useful insights that are valuable in daily operations. Participants are encouraged to introduce any operating problems they have encountered for group discussion.

Course Description

This five day course is intended to cover different aspects of crude oil production right from the exploration stage. The course will cover exploration, drilling technology, various types of well completion and testing methods, artificial lift, reservoir pressure maintenance practices, work-over, well stimulation and production, storage, processing of crude oil. Deep-water Technology, being latest, is also included. The theory and practical aspects of geology, completion in horizontal and vertical well, multilateral wells, rig layout- components, various types of fluids used in drilling and work-over operations, enhanced oil recovery and various well stimulation techniques will be discussed.

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 motivate everybody to find the right answers. The delegates will also be encouraged to raise their own questions and share in the development of the right answers using their own analysis and experiences.

Course Objectives

- Review the basics of geology of the suitable rocks for favorable deposition of hydrocarbons
- Understanding the basics of drilling technology.
- In depth study of the well completion and various modes of testing
- Production from depleted zones by means of suitable modes of Artificial Lift.
- Reservoir management
- Imparting knowledge of Well repair and damage control.
- Enhancement of oil production through suitable stimulation techniques.
- Learn about surface production facilities.
- Highlight the frontier area of offshore technology including Deep Water.

Course Outline

The Following Topics will be covered in this course

DAY 1:

Basic of Oil Field Geology

- Terms and nomenclature of geology used in oil industry
- Petroleum: How it is formed and trapped, geology of the suitable rocks for favorable deposition of hydro-carbons
- Introduction to seismic survey

Introduction to Drilling technology

- Technical Definitions
- Practical Units
- Rotary Drilling practices
- Well Construction and Design of Casing String
- Drilling fluids
- Well control Equipment
- Fishing and fishing Tools
- Offshore drilling Practices
- Safety on the rig

DAY 2:

Well completion & testing

- Reservoir engineering aspects for well completion and testing
- Objectives of well testing
- Classification of well production test
- Various steps in well test programme
- Basis of completion design
- Types of well completion: open hole completion, cased hole completion, examples of typical offshore well completions,
- Slotted liner completion
- Artificial Lift : SRP, ESP, Gas Lift and Hydraulic lift completion
- Horizontal and multilayered completion
- Tail Pipe completion
- Perforation Techniques: over balanced and under balanced
- Well head equipments
- Down hole tools
- Well activation and flow measurements
- Well Test Concepts

DAY 3:

Artificial lift

- Need for artificial lift
- Various modes of lifts
- Selection criterion and design of suitable lift
- Trouble shooting
- Optimization

Reservoir pressure maintenance

- Need for reservoir health management
- Types of water injection methods, peripheral and spot injection
- Frontier areas of EOR
- Compatibility of injection fluids
- Monitoring

DAY 4:

Work over rig components

- Introduction
- Rig components
- Draw works
- Hoisting System
- Rotary equipment
- Mud Pumps
- Prime over

Work over Jobs

- Routine Servicing of the wells
- Usage of work-over fluids
- Main Repair Jobs
- Water and gas shut-off
- Casing Damage repair
- Fishing

Well Stimulation

- formation Damage
- various stimulation techniques
- gravel packing
- activation

DAY 5:

Production

- **Introduction to Group Gathering Stations**
- **Layout of GGS/GCS/ EPS/CTF**
- **Sour component handling**
- **Oil, Gas and water separation**
- **Demulsification and desalting**
- **Functioning of Heater Treater**
- **Overview of offshore process platforms**

Offshore Practices

- **Introduction to offshore technology**
- **Deep water: frontier area of technology**

Case Studies Discussions Last day review will be carried out.