

# **An LDI Training Course**

# INTRODUCTION TO OIL and GAS INDUSTRY

A 3-day course on the A to Z of petroleum exploration, drilling and production

## Introduction

This 3-day course is designed for non-technical personnel who work in the oil and gas industry. The main objective of the course is to give the participants an understanding on how oil and gas are explored, drilled and produced.

By attending this course, participants will have a clear overview of oil and gas operations and appreciation of the company activities, policies and priorities.

Here are the benefits of attending this course.

- Understand how the oil and gas are explored, drilled and produced
- Gain insight on the structure and needs of oil and gas companies
- Perform your job better and contribute more to your company
- Anticipate and respond faster to the needs of the O & G industry
- Able to communicate and present your ideas more easily to the various departments.

## Course Content

#### **ROCKS AND GEOLOGY**

- Nature of the earth's crust
- Sedimentation process
- Types of rocks and their characteristics
- The origin of oil and gas
- Types of petroleum deposits
- Permeability and porosity



#### **EXPLORATION METHODS**

- Geological survey
- Seismic survey
- Gravity survey
- Magnetic survey

### **DRILLING OPERATIONS**

- Exploration vs. development drilling
- Drilling rigs and equipment
- Casing and cementing
- Drill pipes and drill collars
- Bottom hole assembly and bits
- Blowout prevention system
- Drilling problems and solutions
- Mud logging operation
- Electric logging methods
- Directional and horizontal wells
- Drilling fluids: types and uses
- Floating drilling
- Drill stem testing (DST)
- Coring and core analysis
- PVT analysis

## WELL COMPLETION AND PRODUCTION

- Well completion equipment and types
- Acidizing and fracturing
- Sand control methods
- Tubing and packers
- Flow control equipment
- Wireline operations
- Artificial lifts: Gas lifts and ESP
- Gas oil ratios and water production
- Production problems and solutions
- Christmas trees and well heads

#### **WORKOVER OPERATIONS**

- The reason for workover
- Types of workover
- Equipment used in workover
- Workovers techniques and procedures
- Snubbing and hydraulics workover
- Coiled tubing units and operations



#### **OIL AND GAS HANDLING FACILITIES**

- Oil and gas processing
- Types and uses of separators
- Emulsion treatment
- Gas dehydration
- Storage tanks
- Pipeline pigging operations
- Corrosion control systems

#### **OIL & GAS RESERVOIRS**

- Types of reservoirs
- Estimating petroleum reserves
- Reservoir drive mechanisms
- Production forecasting
- Well testing
- Enhanced oil recovery
- Waterflood and steamflood

# Who Should Attend

This course is very useful to:

- Lawyers
- Contracts Personnel
- Secretaries and administration assistants
- Accountants and finance staff
- HR staff
- Purchasing agents
- Logistics and warehouse personnel
- Bankers
- Anyone new to the O&G industry

# Comment from Previous Participants

- This course is very important to employees of oil and gas companies
- It really improved my knowledge about oil and gas operations
- Competent instructor clear explanation
- It gives me new motivation to develop my career within the company



# For more information please contact

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