

# **BASIC PETROLEUM ENGINEERING PRACTICES**

**By LDI Instructor**

## **Course Description**

This course is a basic introduction to most aspects of the Petroleum Engineering discipline which includes Reservoir, Production and Drilling Engineering as well as related topics. This course lays the groundwork for further specialized training in advanced courses for oil company and service company personnel. The course focuses on the field and application approach; and includes classroom exercises, fundamental engineering problems and basic field exercises. Basic Petroleum Engineering Practices will set the foundation for technical professionals with regards to technology and its engineering applications. The course starts out with a brief introduction of the history and current state of the oil and gas industry. Next, reservoir fluids, petroleum geology, and petroleum reservoirs are discussed. Then, various facets of exploration technology, drilling engineering and operations, well completion technology, and production technology are covered before finishing with surface processing of produced fluids.

## **Designed For**

Engineers, engineering trainees, technical managers and assistants, technicians, geologists, geophysicists, chemists, physicists, service company personnel, sales representatives, and data processing personnel

## **You will learn**

**Participants will learn how to:**

1. Basic petroleum geology
2. Reservoir fluid and rock properties

3. Fundamentals of reservoir fluid flow
4. Oil and gas reservoir classification, definition, delineation and development
5. Unconventional resources
6. Fundamentals of drilling, well completion, and production operations
7. Basics of casing design and primary cementing
8. Primary and enhanced recovery mechanisms
9. Surface operations

## **Course Content**

1. Reservoir fluid properties
2. Petroleum geology
3. Reservoir properties and evaluation
4. Unconventional resources
5. Exploration technology
6. Drilling engineering
7. Well completion, stimulation and workover
8. Well testing and formation damage
9. Production operations
10. Recovery methods
11. Surface processing