

# AN LDI TRAINING COURSE

## BASIC PETROLEUM ENGINEERING

by  
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### INTRODUCTION

This course introduces to the participants the basic concepts and applications of petroleum engineering. Participants will learn how oil and gas are explored, drilled, and produced.

This course is useful to engineers and oilfield personnel who have no petroleum engineering background.

In this course, participants will learn:

- Petroleum geology and systems
- Exploration methods
- Rock properties
- Fluid properties
- Different types of petroleum reservoirs
- Reservoir drive mechanisms
- Reserve calculation
- Drilling rigs and equipment
- Drilling practices
- Well testing
- Well completion
- Artificial lifts
- Oil and gas processing and facilities

### COURSE CONTENT

#### I. Petroleum Industry

- Petroleum Industry Overview
- Oil and Gas Business Characteristic
- Exploration activity
- Production activity

## **II. Basic Petroleum Geology and Exploration**

- Geological Mapping
- Geophysics Exploration
- Structure and Stratigraphy Trap

## **III. Petroleum System**

- Petroleum Geologists Activity
  - Exploration Geologist
  - Production Geologist

## **IV. Reservoir Engineering**

- Physical Rock and Fluid Properties
- Physical Rock Properties
  - Porosity
  - Saturation
  - Permeability
  - Wettability
- Fluid Properties
  - Density and API Gravity
  - Viscosity
  - Pour Point, Dew Point, Flash Point
- Type of Reservoirs (Gas, Condensate, Oil )
- Drive Mechanism and Performance Reservoir
- Reservoir Reserve ( Volumetric, Material Balance, Decline Curve)

## **V. Drilling Engineering**

- Drilling Rigs
- Drilling equipment
- Drilling Operations
- Well construction

## **VI. Production Engineering**

- Well Testing
- Flowing Well
- Artificial Lift (Gas Lift, Sucker Rod Pump, ESP)
- Surface Facility
  - Flowline,
  - Pump and Compressor,

- Manifold,
- Separator,
- Gas Processing Plant,
- Tank Storage
- Production Operation

## TARGET AUDIENCE

This is a useful course for professionals working in the oil and gas industry such as:

- Engineers with no petroleum engineering background
- New engineers
- Drilling supervisors
- Geologists and geophysicists
- Production supervisors
- Production technicians
- Anyone who wants to understand how oil and gas are explored, drilled, and produced.

## ABOUT THE INSTRUCTOR

DR.-Ing. Rudi Rubiandini, R.S. has 30 years of experience in the oil and gas industry.

He has experience as a trainer in almost all Oil and Gas companies in Indonesia, manages Drilling Laboratories, he even created research laboratory equipment, he has been a professor at Institute Technology Bandung, has been a high-ranking official at the oil and natural gas institution BPMIGAS and SKK Migas, as well as being Deputy Minister of Energy and Mineral Resources.

Rudi Rubiandini is a frequent speaker at various scientific seminars and discussions in the fields of energy, petroleum and natural gas engineering. From his very long experience, this training will be very interesting in discussing with Trainers in various aspects.

## Training Confirmation

LDI Training will provide a Confirmation Letter after we receive registration according to the required quota.

For more information about the course please visit [lditraining.com](http://lditraining.com) or contact us at [lditrain@indo.net.id](mailto:lditrain@indo.net.id)