

An LDI Training Course

Oil Country Tubular Goods (OCTG), Wellhead and Christmas Tree

by

Dr.Ing.- Ir. Bonar Tua Halomoan Marbun

Introduction

In oil and gas production, every well must have a means of controlling the flow of hydrocarbons to their respective collection facility. The accepted equipment used during this process is called the christmas tree.

In this course you will learn how the geology of ground and drilling condition require OCTG (Oil Country Tubular Goods) with different characteristics, also in this course will cover the equipment and operation of surface wellhead systems, which will include the christmas tree and the connections to the surface casing.

This course will provide the participants with the knowledge necessary to understand and enhance their operational aptitude of the surface wellhead system and associated equipment.

This course will also cover the components of the christmas tree, which consist of an arrangement of valves and piping, that allows isolation and flow control of the well. An understanding of the wellhead casing and tubing will also be provided to explain the connection of the christmas tree.

This 3 days intensive OCTG, Xmas Trees, Well Heads Operation and Testing training course will highlight:

- All components of a Well Head and of a Xmas Tree and installation sequence
- Investigation, mitigation and cure of SAP Pressures
- Casing and Tubing Seals (monitoring and leak repairs)
- Different Causes of SAP Pressures.
- Hazards originated by faulty wellheads (and their mitigation)

By the end of this training course, participants will learn to:

- Develop the knowledge relationship between surface (Well Heads) and downhole.
- Investigate leaks and identify cause of leak
- Determine Tubing pressures (based on depth of perfs, density of fluid and BHFP).
- Investigate SAP pressures based on well pressure monitoring using 2 and 3 pen recorders.
- Explain influence of corrosion models on MAASP pressures and on Well Life Cycle

Course Content:

Oil Country Tubular Goods (OCTG)

- Brief description of the different products used in an oil well
- Characteristics
- OCTG Production Process
- Finishing and Quality of tubular goods

Participant will learn how the geology of ground and drilling condition require OCTG with different characteristics, how tubular string design is performed, and how select products are manufactured and tested.

Surface and Subsurface Wellhead Systems

- Surface wellhead and christmas tree
- Casing string
- Surface wellhead system
- Wellhead subsystem components

Participants will be exposed to the basics of the wellhead subsystem, which will include the casing and coil tubing, as well as the general arrangement of the production drill string. In addition, participants will explore the requirements of the casing and tubing string needed to connect the christmas tree.

Surface Christmas Tree

- System and valves
- Christmas tree wellhead common components
- Christmas tree operation and controls

Participants will be exposed to the basics of the christmas tree, its operation, and its valve arrangement. Participants will be introduced to the associate equipment, as well as the piping required to attach the christmas tree to the wellhead. Hydraulic control systems required to operate the automatic valves on the christmas tree will also be discussed.

Audience

This course is mainly targeted to process operators, process technicians, and laboratory and maintenance personnel. It can also be applicable to employees working with equipment and materials purchasing, equipment procurement, job planning, and immediate supervisors to the working technicians.

Course Delivery

- This offline (face to face) course is conducted in Bahasa Indonesia
- Training hours are from 08:00 to 16:00 WIB
- Participants will receive course materials
- Participants will receive a certificate after completing the training

About Instructor:

Dr.Ing.- Ir. Bonar Tua Halomoan Marbun

Associate Professor

Head of Petroleum Engineering Study Program Institut Teknologi Bandung

Education:

Petroleum Engineering Bachelor Degree Bandung Institute of Technology, Institute of Petroleum Engineering, Bandung, Indonesia.

Petroleum Engineering Diplom Ingenieur Degree Clausthal University of Technology, Institute of Petroleum Engineering, Clausthal-Zellerfeld, Germany.

Dr.-Ingenieur in the field of Material Engineering and Science Clausthal University of Technology, Institute of Non-Metallic Materials, Clausthal-Zellerfeld, Germany.

Professional Experience

Member of Oil and Gas Independent Team Safety Control, General Directory of Oil and Gas, Ministry of Energy and Mineral Resources of Republic of Indonesia

Head of Petroleum Engineering Study Program, Institut Teknologi Bandung

He is currently holding the position of a Senior Trainer of **LDI Training** and he certified to conduct its courses.

For more information please contact to

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