

# **An LDI Training Course Outline**

# DOWNHOLE PRODUCTION OPERATION

by Prof. Dr.-Ing.Ir. Bonar T.H. Barbun

## **Course Description**

How to optimize the production and solve many kind of problems in oil and gas production. Comprehend basic principles of calculation and conduct optimization when wells production operations, oil wells, gas and geothermal reservoir implemented.

## **Designed For**

Operator, Senior Operator, Engineer/Non Engineer

### You will learn

Participants will learn:

- 1. Comprehend basic principles of calculation and conduct optimization when wells production operations, oil wells, gas and geothermal reservoir implemented
- 2. Develop this production optimization implementation to improve wells and fields performance and production
- 3. Conduct simple diagnosis and comprehend settlement problems on production wells operation of, oil wells and gas and geothermal reservoir
- 4. Create a simple analysis of wells oil, gas and geothermal data, forecast performance and plan production operations development
- 5. Conduct simple quantitative calculations entire acquisition data: tubing, flowline, chokes, perforation, gravel-pack, sub-surface safety, wells valve, plan its development by considering capability from each well



- 6. Practice knowledge of production operations for settlement problems occur when cementation process, handling scale, sand, corrosion and damage of oil and gas wells
- 7. Understanding basic principles on design: cementation, workover, wells stimulation with acidizing and hydraulics rupture, planning workover, etc.

## **Course Content**

- 1. Geologic Considerations in producing Operation
- 2. Reservoir Considerations in Well Completions
- 3. Cementing Materials
- 4. Cement Additives
- 5. Well Completion Design
- 6. Tubing Strings
- 7. Packers and Subsurface Control Equipment
- 8. Perforating Oil and Gas Wells
- 9. Completion and Workover Fluids
- 10. Through-Tubing Production Logging
- 11. Problem Well Analysis
- 12. Parafin and Asphaltene
- 13. Squeeze Cementing-Remedial Cementing
- 14. Sand Control
- 15. Formation Damage
- 16. Hydraulic Fracturing
- 17. Scale Deposition, Removal, and Prevention
- 18. Workover and Completion Rigs Workover System

## **About Instructor**

#### Prof. 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

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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