Certificate No: 2016-APG-APE-001-05

Date: June 15th , 2016



CERTIFICATE OF ACCOMPLISHMENT

This is to certify that

FAHMI YUNISTYAWAN

ID NUMBER: APE-001-05

has completed

20 PRINCIPLES OF OIL GAS/PETROCHEMICAL PLANT DESIGN Training

Held by **Ap-Greid Oil & Gas Design Course** – Jakarta, May 28 th to June 5^{th} , 2016, covering the subjects as listed on the back page



20 PRINCIPLES OF OIL GAS/PETROCHEMICAL PLANT DESIGN Training

SUBJECTS

- 1. What Is Engineering Phase In Oil Gas/Petrochemical Project?
- 2. Conceptual of Engineering Work.
- 3. Oil & Gas as Source of Energy (Reservoir, Well and Its Alternatives)
- 4. Step Process of Engineering Work.
- 5. Front End Engineering Design (F.E.E.D)
- 6. Detail Design Engineering (D.E.D)
- 7. Material Analysis
- 8. Safety First In Process Engineering
- 9. HAZOP, HAZID Engineering
- 10. Process Specification & Data Sheet (DS)
- 11. Surface Production Facility (Separator, Scrubber, KO Drum, Flare)
- 12. Onshore and Offshore Production System
- 13. Green Field and Brown Field Process Engineering
- 14. Oil & Gas Process Engineering
- 15. Heat & Material Balance (HMB), Process Flow Diagram (PFD) and P&ID
- 16. Oil Treatment Process (General Process, Oil Heater, Desalter)
- 17. Gas Treatment Process (Gas Dehydration, CO₂ Removal, H₂S Removal,

Mercury Removal)

- 18. Produced Water Treatment
- 19. Erection and Construction.
- 20. Pre Commissioning and Start Up Commissioning