PRODUCTION PERFORMANCE ENHANCEMENT

PRD053

COURSE DESCRIPTION

The course is designed to provide comprehensive information's to all aspects of the well performance analysis, production system component, artificial lifting systems and production enhancement techniques . The course will be conducted as lecturers and attendees will be actively encouraged to participate. The course content will be fully illustrated with actual data of well completion and operations' cases to aid understanding and help to overcome any difficult problems. Comprehensive course notes will be provided, which will form a valuable source of reference afterwards.

COURSE GOAL

To enhance the participants' knowledge, skills, and abilities necessary for enhancing the performance of oil and gas production.

COURSE OBJECTIVES

By the end of this training course, participants will have:

- Full understanding of the production system component.
- Full understanding of the produced fluids properties.
- Full understanding of the well completion.
- The ability to supervise different stimulation operations.
- Full understanding of well testing types and operations.
- The experience to deal with well's problem to improve well's performance.

WHO SHOULD ATTEND

This course is suitable to a wide range of professionals and will greatly benefit:

- Production engineers
- Production supervisor and operators.
- Production operators
- Field maintenance supervisors and operators.
- Safety engineers
- Petroleum and reservoir engineers
- Production technologist

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Day One
    - Introduction Into basic reservoir characteristics and production system
    - Inflow performance and productivity index for oil wells and gas wells.
    - Outflow performance
    - Well completions applied to vertical, deviated and horizontal wells
    - Reservoir Fluids: fluid properties: GOR, Bubble point Pressure
    - Reservoir drive mechanisms and associated production problems
    - Multiphase flow
2. Day Two
    - Production Logging tools and application
    - Cement and corrosion evaluation logs
    - Meaning of production logging and its basic downhole string.
    - Well testing
    - Gas wells performance
    - Oil wells performance
    - Choke performance and wells' optimization
    - Static flowing pressure temperature surveys' operation and analysis
    - How to improve wells' performance
    - Perforation operations
3. Day Three
    - Causes of formation damage
    - Diagnosis of formation damage
    - Candidate selection for matrix treatments
    - Acid treatment design in carbonates
    - Acid treatment design in sandstones
    - Additives used in acidizing and their functions
    - Placement techniques
    - Hydraulic fracture
4. Day Four
    - Why do we need lifting?
    - Selection of artificial lifting systems

- Gas lift technology
- Gas lift down hole equipment
- Unloading and gas lift wells' problems
- Electrical submersible pump
- ESP surface and down hole equipment
- ESP installation
- ESP troubleshooting
- Sucker rod systems
- Hydraulic pumping system

5. Day Five

- Hydrates
- Organic and inorganic scales
- Emulsion problems
- Sustained annulus pressure
- Tubing leaks and straddle systems
- Gas and water shut off
- Water loading problem mitigation
- Sand control systems (rig and rig less operations)
- Lifting and clean out operation
- Case History
- Table discussion for production problems' solving.