BEAM PUMPS
Fundamentals and Applications

PRD009

COURSE DESCRIPTION

The Beam Pumps Fundamentals and Applications course provides a comprehensive understanding of beam pump systems in the oil and gas industry. Participants will learn about fluid properties, well productivity, artificial lift methods, and the applications and limitations of beam pumps. The course covers sucker rod systems, pump components, rod strings, tubing anchors, pumping units, prime movers, and common sucker rod problems.

COURSE GOAL

To enhance the participants' knowledge, skills, and attitudes necessary to understanding of beam pump systems and their practical applications in the oil and gas industry.

COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Understand fluid properties and their impact on well productivity.
- Analyze well productivity using Vogel IPR and system graph.
- Select suitable artificial lift methods based on well conditions.
- Identify and troubleshoot issues in sucker rod systems and pump components.
- Evaluate and optimize rod strings, tubing anchors, and pumping units.
- Assess prime mover options for beam pump systems.
- Implement preventive measures for common sucker rod problems.
- Apply theoretical knowledge to practical scenarios.
- Make informed decisions in beam pump operations.
- Contribute effectively to the field as professionals.

WHO SHOULD ATTEND

- Supervisors.
- Production engineers.
- S. Operators.
- Operators.

COURSE DURATION

5 Working Days

COURSE OUTLINES

1. Fundamentals Fluid Properties.

2. Well Productivity.
   - Productivity Index.
   - Vogel IPR / System Graph.

3. Introduction to Artificial Lift.
   - Artificial lift concept.
   - Popular artificial lift methods.
   - Artificial lift types.
   - Applications & limitations.

4. Sucker rod systems.
   - Subsurface pump components.
   - Rod string.
   - Tubing anchors.
   - Pumping units.
   - Prime mover.
   - Sucker rod problems.