

## Beam Pumps - BP

### COURSE

#### About the Course

This course will allow the user to become familiar with the beam pump system and its best application. Beam pumping is the most common and cost-effective artificial lift method. The course includes a detailed description of all the components in a beam pumping system, including the prime mover, belts/ sheaves/ gear box, PRs, wellhead/ stuffing box, sucker rods/ sinker bars and downhole pumps. Design and analysis, using industry computer software is also included. Exercises designed to illustrate the process and decision-making criteria to select the optimum lift method will be worked by participants throughout the course. Problems related to solids production, gas handling, and viscosity are addressed. The course also covers beam pumps and rod protection in horizontal wells, optimum placement of the pump, deviation surveys, and performance of gas separators. New methods of deepening the point of intake for horizontal and unconventional wells are presented with field cases.

#### Target Audience

Engineers and field technicians who are responsible for the selection, operation, and maintenance of beam pumping systems

#### You Will Learn

Participant will learn how to:

- Design systems with optimum efficiency, economical production, longer operating life, high energy efficiency, and safe performance
- Perform maintenance and monitor system performance using POC's (on/off and VSD types)
- Identify and select optional system components for optimum performance
- Design and analyze a system using computer software
- Monitor equipment performance with SCADA systems
- Apply best practices to extend system life

#### Course Content

- Reservoir characteristics
- Overview of artificial lift
- Design and analysis of the beam pump system

- Prime mover
- Belts
- Sheaves
- Gear box
- Unit
- Polished rod
- Wellhead/stuffing box
- Rods
- Pump
- Tubing
- Artificial lift efficiency
- Heavy oil considerations
- Gas separation/handling
- Best operating practices
- Component design
- System analysis
- Pump off controllers

## **Product Details**

Categories: Upstream

Disciplines: Production and Completions Engineering

Levels: Intermediate

Product Type: Course

Formats Available: In-Classroom

Instructors: PetroSkills Specialist James Lea