

WELL COMPLETIONS DESIGN & PERFORMANCE FOR PRODUCTION ENGINEERING

PRD043

COURSE DESCRIPTION

This course is designed to provide participants with up-to-date overview of the well completion and workover operations. The course covers the main factors influencing completion design, the overall approach to a well's flow capacity, the major types of completion configurations, the main phases in completion, the drilling and casing the pay zone, evaluating and restoring the cement job, perforating, treating the pay zone, the special case of horizontal wells, the general configuration of flowing well equipment, the production wellhead, the production string or tubing, packers, down hole equipment, subsurface safety valves, servicing & workover operations on killed wells, servicing & workover special cases and well stimulation.

COURSE GOAL

To enhance the participants' knowledge, skills, and attitudes necessary to develop and manage the well completion and workover operations program to build the knowledge of the participants related to working challenges.

COURSE OBJECTIVES

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

- Describe the general configuration of flowing well equipment.
- Illustrate the major types and phases of well completion.
- Analyze the drilling and casing the pay zone.
- Define the main factors influencing completion design and operation.
- Explain the overall approach to a well's flow capacity.
- Illustrate the production wellhead.
- Analyze production wellhead and production string or tubing.
- Describe the basic steps involved in the design of a routine work over procedure.

WHO SHOULD ATTEND

- Production and Completion Engineers.
- Drilling Supervisors.
- Well Engineers.
- Reservoir Engineers.
- Geologists.

COURSE DURATION

5 Working Days

COURSE OUTLINES

- Course overview & introduction.
- Major types of completion configurations.
- Main phases in completion.
- Drilling and casing the pay zone.
- Production wellhead.
- Production string or tubing.
- Main factors influencing completion design.
- Overall approach to a well's flow capacity.
- Evaluating and restoring the cement job.
- Perforating.
- Packers.
- Downhole equipment.
- Subsurface safety valves.
- Running procedure.
- Artificial Lift: pumping.
- Choosing an artificial lift process.
- ESP completion.
- ESP Surface and down hole components.
- Gas separation in ESP completion.
- ESP seal selection.
- Parts of pump electric cable for ESP.
- Fluid Volume calculation of ESP.
- TDH overview.
- PCP completion.
- PCP system efficiency.
- PCP diagnose problems and troubleshooting.
- PCP modeling, monitoring, control and analysis.
- Main types of well servicing and workover.
- Light well servicing and workover operations on live wells.
- Heavy servicing and workover operations on live wells.
- Servicing & workover fluids.
- Well stimulation and cases.