

Well-Completion Equipment & Procedures for Flowing Wells

5 days

EQTP-EN-P

Overview

LEVEL

Skilled

PURPOSE

This course provides the knowledge and skills needed to choose and operate completion equipment for flowing wells.

LEARNING OBJECTIVES

Upon completion of the course, participants will be able to:
assess which equipment is required in a conventional case,
design the corresponding completion procedure,
work on complex completion issues with specialists.

WAYS AND MEANS

Equipment and cutaway tools display in Pau.

For in-house courses held elsewhere, in as much as a completion shop is made available, a visit will be organized to the said shop.

Summary notes prepared and presented by the participants.

Application to a real case (project) for the participants in the "Drilling & Completion Engineering" training course.

LEARNING ASSESSMENT

Quiz.

PREREQUISITES

Basic knowledge of drilling and completion operations or production engineering.

Agenda

WELL-COMPLETION EQUIPMENT

1.5 d

Functions to be carried out and corresponding equipment.
Production string(s) configurations (conventional or tubing less, single or multi-zones).
Production wellhead: tubing head spool and Christmas tree (components, design).
Tubing and connections (main characteristics, criteria of choice).
Packers and accessories (drillable or permanent, retrievable).
Bottom hole devices (landing nipples, circulating devices...) and relevant wireline equipment.
Subsurface safety valve (subsurface controlled, surface controlled).
Equipment of gas storage wells.

FUNDAMENTALS OF TUBING MOVEMENT & FORCES

1 d

Point to be verified.
Packer permitting free motion (tubing movement, tension on the tubing hanger).
Packer permitting no motion (packer to tubing force, tension on the tubing hanger).

WELL-COMPLETION PREPARATION & IMPLEMENTATION

1.5 d

Preparing for operations.

Safety recommendations during completion operations.

Standard running-in and start-up steps:

Case of a packer set directly with the tubing string.

Case of a packer set prior to the running-in of the tubing string.

Operating recommendations.

ADVANCED COMPLETION

0.75 d

Tubing less completion.

Intelligent completion.

Multilateral completion.

Deep water completion.

Single trip multizones gravel pack system.

KNOWLEDGE ASSESSMENT

0.25 d