Training - Completion Design and Calculations

CDESIGN-EN-P | Face-to-face only | 5 days

This course provides a thorough understanding of completion design, tubing movement and forces

Level
Skilled

Public
Completion engineers or technicians

Objectives
Attendees will be able to implement the following skills:

- Analyze data and decide which element(s) or parameter(s) of a completion equipment must be modified to solve problems related to tubing movement
- Write a completion program taking tubing behavior into account
- Analyze correctly a tubing behavior-related problem encountered during operation and provide an adequate solution

Pedagogical & technical resources

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Assessment of achievements

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prerequisites
No prerequisites are necessary to follow this course

Responsable
IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

COMPLETION EQUIPMENT — 1 day

Review of completion equipment:

- Tubing, Tubing hangers, Packers, DHSV, Nipples.
- X-mas trees & wellhead.

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GENERAL PRINCIPLES — 1 day

Presentation of the problem.
Parameters to be verified (worst place and case) and possible cures.
Reference state and present states of the well, various conventions.
Calculation principle.
Computation of temperature and pressure changes.

CASE OF A DOWNHOLE BINDING DEVICE PERMITTING FREE TUBING MOVEMENT — 1 day

Temperature effect.
Ballooning effect.
Piston effects (not including buckling).
Effect of the friction resulting from the fluid flow.
Buckling effect:

- Awareness to the key parameters.
- Buckling criteria.
- Location of the neutral point and determination of the movement resulting from buckling.

Global effect: movement of the sliding binding device, tension force at the wellhead...

CASE OF A DOWNHOLE BINDING DEVICE PERMITTING NO TUBING MOVEMENT — 1 day

Calculation principle.
Estimation of flink.
Determination of flink taking buckling into account.

CASE STUDY — 0.75 day

KNOWLEDGE ASSESSMENT — 0.25 day

Sessions

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.
Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com

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