

SAND PRODUCTION MANAGEMENT

General:

Discipline: Completion, Production

Level: Basic/Intermediate

Duration: 4 days

Instructor: Jairo Balcacer

Purpose:

This course will present the basic topics from rock mechanics to equipment, emphasizing in the estimation and available methods to efficiently control the sand production. The course will present details on gravel-pack design and placement as well as description of surface and downhole screens and associated equipment.

Designed for:

This course is addressed to well intervention, completion and production engineers as well as rig supervisors who deal with sand production associated problems.

You Will Learn:

- Recognise the cost to the companies generated by the sand production
- The steps involved in design of the completion planning phase
- Different solutions in terms of screens or liners
- Different solutions in terms of techniques to control the sand particles

Course Content:

Sand Production in Oil and Gas Wells

- Causes of sand production
- Rock mechanics considerations
- Sand production prediction

Completion and Production Practices

- Plain slotted liners
- Wire-wrapped screens
- Prepack screens and Premium screens

Gravel Packing

- Open hole gravel packs (external)
- Gravel selection, sizing, quality
- Surface and downhole tools
- Gravel placement open hole and cased hole
- Example cased hole gravel pack design
- Fluids and slurry requirements
- Quality control

Frac-and-Pack Techniques

- Well selection criteria
- Basic treatment design

Consolidation Techniques

- Chemical consolidation
- Consolidated gravel packs

Sand Control in Heavy Oil Producing Wells

- Gravel packing
- Other control methods

Software applications:

- MS Excel spreadsheets

Text and Consulting books:

- "Petroleum Engineering Handbook", Society of Petroleum Engineers

