



Drilbert Engineering Inc.
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The Woodlands, TX 77384

"Technical Training for the drilling industry"

Course Description

Trouble-Free Drilling Course

Program Objectives

This 4-day course will help the participants understand how to avoid down hole problems while drilling. The course is built around the book "Trouble-Free Drilling" by John Mitchell, and is supported by impressive macromedia "Flash" animations. This course summarizes the physics behind down hole problems and presents logical mitigation practices.

What you will learn:

Why the emphasis on drilling optimization needs to be on problem avoidance.
The mechanics of hole cleaning, wellbore instability, and differential sticking.
Communication and problem solving skills as they pertain to hole problems
Mitigation practices for minimizing stuck pipe costs. In particular:

- When to expect certain down hole problems
- How to prevent these down hole problems
- How to recognize when the problems are beginning to occur
- The pre-determined first actions to take at the onset of a problem.
- Freeing procedures if the pipe should become stuck..

Course Prerequisites

This course is designed for Derrickmen, Drillers, Tool Pushers, Drilling Supervisors, and Drilling Engineers with field experience. The course is intended to include both rig and office based personnel.

Course Outline

Day 1

- Introduction and pre-test
- The chain of events leading up to non productive time
- Communication and team morale
- Problem Solving
- Team building exercise
- Stuck Pipe Mechanism and freeing worksheet
- Hole cleaning in a vertical well

Day 2

- Hole cleaning in a high angle well
- Team building exercise (jeopardy game)
- Differential Sticking
- Mud Systems and Optimization of Solids Control

Day 3

- Wellbore Stability
- Team building exercise (jeopardy game)
- Wellbore Geometry
- Trends recognition and trend exercise

Day 4

- Freeing Procedures
- Drilling Jars
- Tripping Practices
- Problems associated with stuck pipe
- Exam

