Advanced Stuck Pipe Prevention and Fishing Operations Training Course



21 - 25 Dec 2026

Vienna

5800 € (Per Person)

Ref: #OG2470_98964

Course Introduction / Overview:

This comprehensive training course provides an in-depth exploration of the critical aspects of preventing and resolving stuck pipe incidents, a major cause of non-productive time and significant financial loss in the oil and gas industry. The curriculum is designed to equip participants with both the theoretical knowledge and practical skills necessary to mitigate risks and manage complex wellbore situations effectively. Drawing upon industry best practices and advanced engineering principles, the course delves into the root causes of pipe sticking, from wellbore instability and differential sticking to mechanical and solids-induced issues. As detailed by renowned author Dr. Robello Samuel in his works like "Advanced Drilling Engineering," a proactive approach is paramount. This course, offered by BIG BEN Training Center, emphasizes prevention through optimized drilling practices, BHA design, and drilling fluid management. Furthermore, it provides a systematic guide to fishing operations, covering everything from initial diagnosis and tool selection to advanced techniques for retrieving stuck equipment. Participants will gain the confidence to make critical decisions under pressure, ensuring safer, more efficient, and cost-effective drilling operations.

Target Audience / This training course is suitable for:

- Drilling Engineers.
- Wellsite Supervisors.
- Rig Managers.
- Tool pushers.
- Drillers and Assistant Drillers.
- Completion Engineers.
- Well Intervention Specialists.
- Subsurface and Reservoir Engineers.
- Health, Safety, and Environment (HSE) Professionals.
- Operations Geologists.

Target Sectors and Industries:

- Oil and Gas Exploration and Production (E&P) Companies.
- Drilling Contractor Companies.
- Well Service and Intervention Companies.
- Geothermal Energy Development.
- Oilfield Service Providers.
- Governmental Regulatory Bodies and National Oil Companies.
- Engineering and Consulting Firms.

Target Organizations Departments:

- Drilling and Completions Departments.
- Well Engineering and Planning Departments.
- Operations and Production Departments.
- Health, Safety, and Environment (HSE) Departments.
- Subsurface and Geoscience Teams.
- Asset Management and Integrity Teams.
- Research and Development Departments.

Course Offerings:

By the end of this course, the participants will have able to:

- Identify the primary mechanisms and root causes of stuck pipe incidents.
- Implement proactive strategies for stuck pipe prevention through proper well planning and execution.
- Analyze real-time drilling data to recognize early warning signs of potential sticking.
- Develop a systematic approach to diagnosing the type of stuck pipe situation.
- Select the most appropriate fishing tools and techniques for various scenarios.
- Design effective fishing bottom hole assemblies (BHA).
- Manage jarring and back-off operations safely and efficiently.
- Evaluate the economic feasibility of fishing operations versus sidetracking.
- Enhance operational safety and reduce non-productive time associated with wellbore issues.
- Apply lessons learned from industry case studies to their own operations.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, engaging, and practical, ensuring that participants can immediately apply the learned concepts in their work environment. This course moves beyond traditional lectures by incorporating a blended learning approach. We utilize a mix of expert-led presentations, detailed case studies of real-world stuck pipe and fishing incidents, and collaborative group discussions to foster a deep understanding of the subject matter. Participants will engage in hands-on exercises, including simulated scenarios for diagnosing stuck pipe mechanisms and selecting the appropriate fishing BHA. Team-based problem-solving activities will challenge attendees to develop comprehensive prevention and response plans for complex drilling situations. The instructor will facilitate open forums for sharing experiences and best practices, creating a rich learning environment. Continuous feedback and interactive Q&A sessions are integrated throughout the five days to ensure all concepts are thoroughly understood and to address specific challenges faced by the participants in their respective roles.

Course Agenda (Course Units):

Unit One: Fundamentals of Stuck Pipe Mechanisms

- Introduction to Stuck Pipe and its Economic Impact.
- Understanding Wellbore Instability and Geomechanics.
- Differential Sticking: Causes, Mechanisms, and Prevention.
- Mechanical Sticking: Key Seating, Under gauge Holes, and Junk.
- Solids-Induced Sticking: Poor Hole Cleaning and Cuttings Beds.
- Recognizing Early Warning Signs and Drilling Parameter Trends.
- The Role of Drilling Fluids in Stuck Pipe Prevention.

Unit Two: Proactive Stuck Pipe Prevention Strategies

- Best Practices in Well Planning and Design.
- Optimizing Bottom Hole Assembly (BHA) Design.
- Effective Hole Cleaning and Hydraulics Management.
- Torque and Drag Analysis and Real-Time Monitoring.
- Managing Equivalent Circulating Density (ECD).
- Drilling Practices: Tripping, Reaming, and Connection Procedures.
- Contingency Planning and Risk Assessment.

Unit Three: Initial Response and Stuck Pipe Diagnosis

- First Actions and Immediate Responses at the Rig Site.
- Systematic Data Gathering and Analysis.
- Techniques for Identifying the Sticking Mechanism.
- Introduction to Free Point Indicators and How They Work.
- Calculating Stuck Point and Free Point Depth.
- Decision-Making: Working the Pipe vs. Initiating Fishing.
- Communication Protocols and Reporting Procedures.

Unit Four: Conventional and Advanced Fishing Operations

- Overview of Fishing Tools and Equipment.
- Designing the Fishing Bottom Hole Assembly (BHA).
- Jarring Operations: Hydraulic and Mechanical Jars.
- Using Accelerators and Bumper Subs Effectively.
- Overshot and Spear Operations for Tubular Retrieval.
- Washover Operations and Pipe Cutting Techniques.
- Back-off Operations and Use of String Shots.

Unit Five: Complex Scenarios and Recovery Strategies

- Milling and Cutting Operations: Junk Mills, Section Mills, and Casing Cutters.
- Sidetracking as an Alternative to Fishing.
- Economic Analysis: Fishing vs. Sidetracking vs. Well Abandonment.
- Managing Fishing Operations in High-Angle and Horizontal Wells.
- Case Studies of Complex and Unconventional Fishing Jobs.
- Lessons Learned from Major Industry Incidents.
- Final Review and Course Assessment.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

Considering the high cost of non-productive time, at what point does the investment in advanced real-time monitoring for stuck pipe prevention yield a greater return than relying on reactive fishing solutions?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by adopting a holistic and integrated approach that balances prevention with remediation, a crucial duality often treated separately in other training programs. While many courses focus narrowly on either drilling practices or fishing tools, this program bridges the gap by demonstrating how decisions made during the well planning and drilling phases directly impact the probability and complexity of potential fishing operations. We move beyond a simple catalog of tools and techniques to instill a deep-seated diagnostic and strategic mindset. The curriculum is heavily rooted in real-world case studies, allowing participants to analyze both successful and unsuccessful operations to extract critical lessons. A significant emphasis is placed on the economic decision-making process, equipping engineers and supervisors with the skills to perform robust cost-benefit analyses when faced with the critical choice between continuing a complex fishing job or opting for a sidetrack. This pragmatic, business-oriented perspective, combined with rigorous technical instruction, ensures participants leave not just with knowledge of what to do, but with the wisdom to know why and when to do it.