

**TRAINING TITLE**  
**FISHING OPERATIONS**

**Training Duration**  
5 days

**Training Venue and Dates**

DE2024	FISHING OPERATIONS	5	06-10 Jan. 2025	\$6,500	Paris, France
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

**Training Fees**

- \$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

**Training Certificate**

Define Management Consultants Certificate of course completion will be issued to all attendees.

**TRAINING WORKSHOP DESCRIPTION**

- The training program provides details knowledge of Fishing Tools and their application.
- The course provides comprehensive and complete coverage and handling in the industry to understand and master the main issues that lead to stuck pipes. Stuck pipes are the main source of (NPT) Non-Productive Time that is associated with drilling operations, loss of circulation, and wellbore instability. Non-productive time costs companies thousands of dollars and preventing such incidents could save a lot of funds.
- How do you keep a pipe from drilling stuck?  
Stuck pipes can cost an organization thousands of dollars in costs if not handled or eliminated with high efficiency. This course from Zoe will produce professionals who can handle stuck pipes with a high degree of efficiency and reduce the operational costs that a company might face.
- Some of the main skills that will be delivered include how to analyze predict and make a contingency plan to avoid or in case there is a stuck pipe.

**COURSE OBJECTIVES:**

- Operational knowledge to specify tools and procedures to ensure the recovery of tools and/or equipment left downhole.
- Evaluate the techno-economics and risks involved in fishing as compared with other alternatives such as sidetracking.

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- Ability to specify tools and procedures to ensure the recovery of tools and/or equipment left downhole under supervision.
- Evaluate the economics and risks involved in fishing as compared with other alternatives such as sidetracking.
- Monitor fishing operations in the field and provide recommendations regarding the tools and methods being used.

### **WHO SHOULD ATTEND?**

- ✓ Drilling superintendents who need to understand the main concepts of stuck pipe prevention and fishing in drilling.
- ✓ Tool pushers that will interact with stuck pipes
- ✓ Senior drillers who will be undertaking drilling to prevent stuck pipes in the future.
- ✓ Drilling engineers play key roles in stuck pipe prevention through design and actualization.
- ✓ Mud engineers who seek to understand the problems associated with stuck pipes.
- ✓ Drilling supervisors are interested in knowing more about stuck pipe prevention.
- ✓ Any other professional whose interest is in stuck pipe prevention, fishing in drilling, tools, and their operation.

### **TRAINING METHODOLOGY**

**A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your questions and to share in the development of the right answers using your analysis and experiences. Tests of the multiple-choice type will be made available daily to examine the effectiveness of delivering the course.**

**Very useful Course Materials will be given.**

- **30% Lectures**
- **30% Workshops and work presentation**
- **20% Group Work& Practical Exercises**
- **20% Videos& General Discussions**

### **COURSE OUTLINE**

#### **DAY 01 - Module 1: Causes of stuck pipes.**

- Human activities and factors that may lead to stuck pipes.
- Deferring from set-out procedures.
- Tour change issues (most stuck pipe situations happen here)

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- Lack of team coordination
- Lack of proper and efficient communication
- Lack of adequate planning
- Failure to read and interpret warning signs.
- Use of tour change form to record conditions and identify the current trends.

## Module 2: Wellbore Stability

- Clay chemistry
- Chemical interaction in the wellbore
- Well site analysis.
- Physical interactions
- The Earth's stresses.
- Shale deposition and sedimentary rocks
- Well site analysis.
- Mechanical stress failure
- Mechanical conditions

## DAY 02 - Module 3: Rock Mechanics

- Drilling fluid effect on the borehole stability
- Mechanics and causes of faulting and fractures.
- Induced factors affecting borehole stability.
- Shale stabilization
- Geo mechanics and structural geology
- Causes of folding and their mechanics
- Borehole stability.

## Module 4: Introduction to Stuck Pipe

- Causes of stuck pipe
- Problems formation
- Definition of stuck pipe
- Reading and interpreting warning signs
- Responding to warning signs
- Mechanical causes of stuck pipes
- Cause of downtime
- Human error – *mainly lack of adequate communication.*
- Why stuck pipes are preventable.

## DAY 03: Module 5: Sticking Types

- Casing problems

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- Key seating
- Wellbore Geometry
- Inadequate hole cleaning
- Cement problems
- Junk in the holes
- Reactive formations
- Cause for most stuck pipe situations
- Geopressured formation
- Mobile formations
- Mechanical sticking
- Unconsolidated formation
- Differential sticking
- Drilling overbalance (most common cause)
- Formational sticking
- Fractured formations
- Faulted formations

#### **DAY 04: Module 6: Differential Sticking**

- Rotate
- Seal the wellbore.
- Mud formation
- Avoiding differential sticking
- Circulate
- Drill string flexing definition
- Moving the drill string up and down
- Definition of differential sticking
- Controlling the well pressure
- Efficient communications
- Filter cake definition
- Removing cuttings
- Circulating enough fluids in the hole
- Most common occurrence of differential sticking

#### **Module 7: Fishing Operations**

- Overshoot
- Reserve twists
- Small explosive charge
- Washing over
- Sidetracked hole
- Plugging the hole

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- Adding Jars to Fishing String
- Fracture joining
- Drill collars
- Drill pipes
- Twist off cases
- Free point indicator

### **DAY 05: Module 8: Broken Bit Cases**

- Using different bits
- Using a hollow basket
- Using magnet for fishing
- Break way of one of the conical cutters and leg down the hole with bearing
- Using explosive charge for too large pieces of metals

### **Module 9: Warning Signs**

- String weight changes
- Pump pressure changes
- Changes at the Shakers
- Name the mechanism – simulations.
- Gather clues.
- Torque changes
- Geometry mechanism
- Differential mechanism
- The hole is talking.
- Circulation rate changes
- Mud properties
- Three mechanisms
- Bridge mechanism
- Hole pack-off mechanism

### **Module 10: Prevention Plan**

- Differential
- Wellbore Geometry
- Hole pack
- Bridging
- Review of three stick mechanism
- Developing a stuck pipe prevention plan
  - Hydraulics
  - Shaker hand should communicate.

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- Mud logger examining cuttings to communicate with the driller.
- The mud must be ready and conditioned properly.
- Teamwork and communication
- Chemical mixing agents
- Case study

**TRAINING OUTCOME**

- Make decisions that are well-evaluated and cost-effective choices when planning fishing operations.
- Thoroughly understand and master the art of implementing effective drilling and best globally acceptable tripping practices.
- Review existing fishing plans and operations.
- Analyze and examine trends to locate fast enough, issues in wellbore.
- Oversee multiple functions of stuck pipe correction.
- Assess and evaluate the mechanics of wellbore hole issues and the main effects of wellbore core stability.
- Examine the main cause and the mechanisms that lead to stuck pipe issues and the involved future risks.
- Evaluate some of the common issues of stuck pipes such as hole cleaning, wellbore geometry, differential sticking, and wellbore instability.

**NOTE:**

**Pre & Post Tests will be conducted.**

**Case Studies, Group Exercises, Group Discussions, Last Day Review, and assessments will be carried out.**

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