

Training Title

**DIRECTIONAL DRILLING & WELL PLACEMENT FOR HIGH ANGLE & COMPLEX WELLS**

Training Duration

5 days

Training Venue and Dates

<b>Directional Drilling &amp; Well Placement for High Angle &amp; Complex Wells</b>	<b>5</b>	<b>28<sup>th</sup> Oct-01<sup>st</sup> Nov, 2024</b>	<b>\$6,500</b>	<b>Vienna, Austria.</b>
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*Trainings will be conducted in any of the 5 star hotels.*

Training Fees

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

Training Certificate

*Prolific Consultants FZE Certificate of Course Completion will be issued to all attendees.*

**COURSE OVERVIEW**

**COURSE DESCRIPTION**

*This course will deliver a comprehensive understanding of modern directional drilling techniques and the industry standards used in well placement.*

*The evolution of directional drilling tools and techniques that are used to achieve high accuracy well positioning are detailed with reference to the fundamental engineering that underlies the equipment we work with, and the procedures and practices we work to.*

*This is very much an operationally focused course which looks to deliver a detailed understanding of not just the narrow field of the Directional Driller's work, but all the associated areas of risk that can result from the practices, tools and techniques that they may use.*

*The knowledge from this course can be directly applied to ongoing drilling operations or future well planning and will have a dramatic impact on drilling performance.*

*All the topics are placed in their operational context and an understanding of how each topic is interrelated with the other subject areas in the course is developed throughout the week. Throughout the course areas in which directional drilling can adversely impact the well cost or increase the well risk are detailed and the mitigations for these risks are discussed.*

**COURSE OBJECTIVES:**

*By the end of the course, you will feel confident in your understanding of:*

- ✓ *Why life-threatening well-to-well collisions happen and how even large technically driven companies make mistakes. You will be given the knowledge to understand how to avoid these catastrophic events*
- ✓ *How the role of the Industry Steering Committee on Wellbore Surveying Accuracy has shaped the requirements for modern well placement. You will understand what these standards are and why we must work to them*
- ✓ *When to use high-cost technology like rotary steerable systems and when these systems are of little value*
- ✓ *How to push the drilling envelope further and increase the drilling radius of any rig to deliver more fluids back to the asset*
- ✓ *How to use the evolving science of geomechanics alongside the increasing volume of formation evaluation while drilling data is available in real time to deliver substantially lower NPT on any drilling project*
- ✓ *How to work with a geology team to geo-place or geo-steer a well path within specific lithologies or a specific fluid type*

**SUITABLE FOR:**

- *A drilling engineer, well site supervisor, tool pusher, rig manager or field support personnel*
- *A geoscientist or reservoir engineer looking to get better value from your interactions with the drilling team*
- *A professional involved in improving drilling performance and cutting drilling costs.*

**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 motivate everybody find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course. Very useful Course Materials will be given.*

**COURSE OUTLINE :-**

**TOPICS COVERED**

- *How increasing hole angle creates significant problems and NPT because of hole cleaning, we look at how to identify, address and mitigate these problems*
- *The origins of torque and drag in the well bore and how they impact our ability to increase our drilling radius from any rig. Why drag impacts horizontal lateral lengths*
- *Delivering world beating ERD wells with limited rig capabilities*

- *How to design the Bottom Hole Assembly (BHA) for low angle wells and how this fundamental design must change as the well inclination increases*
- *How the tendency of the Bottom Hole Assembly to build, drop or hold angle must be designed to match the desired well profile and how this is achieved to deliver wells with the lowest tortuosity*
- *The evolution of directional drilling technology, the key drivers for this and why so many wells are now drilled with high-cost rotary steering tools*
- *Surveying the well, the key technologies used to survey the well and how mistakes in well positioning are made*
- *The fundamental quality assurance and quality control of wellbore surveys How the accuracy of MWD surveying can be improved by advanced survey processing techniques*
- *The principle of uncertainty and its effect on probability for well anti-collision and target sizing*
- *Well positional calculations and how our best techniques can be undermined by poor rig site practices*
- *How wells are deflected and steered, using magnetic, gravity and inertial tool face measurements*
- *Shock and vibration of the downhole equipment, its origins, its impact and how to reduce or remove this unwanted problem, reduce NPT and improve performance*
- *Multilateral wells, their place in reducing production costs, their drilling and economic risks and benefits*

Case Studies, Last Day Review, Discussions & Pre & Post Assessments will be carried out.

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