

WELL CONTROL SPECIALIST: UNDERBALANCED OPERATIONS & WELL CONTROL TECHNIQUES

Start Date:	27/04/2026	End Date:	01/05/2026
Categories:	Oil & Gas	Venues:	London
Formats:	In Person	Instructors:	

OVERVIEW

This advanced course is designed to equip participants with specialized knowledge in well control principles, techniques, and underbalanced operations (UBO). It focuses on maintaining well integrity, preventing blowouts, managing wellbore pressures, and safely executing drilling operations under varying pressure conditions, ensuring operational safety and environmental protection.

OBJECTIVES

By the end of this course, participants will be able to: – Understand fundamental and advanced principles of well control and pressure management. – Apply underbalanced drilling (UBD) concepts and techniques to enhance drilling efficiency and safety. – Identify, prevent, and respond to well control incidents such as kicks and blowouts. – Design and implement well control procedures tailored to different well types and operational scenarios. – Integrate well control best practices into drilling operations, risk management, and emergency response plans.

COURSE OUTLINE

1- Principles of Well Pressure Control and Well Integrity Management
2- Fundamentals and Applications of Underbalanced Drilling (UBD) Techniques
3- Kick Detection, Shut-In Procedures, and Blowout Prevention Methods
4- Well Control Equipment (BOPs, Choke Manifolds) Operation and Maintenance
5- Advanced Well Control Scenarios, Emergency Response, and Risk Mitigation

TARGET AUDIENCE

All Supervisory Levels, Drilling Engineers, Wellsite Supervisors, Well Control Specialists, Rig Managers, Subsurface Engineers, HSE Professionals, and anyone involved in drilling operations, well interventions, or operational risk management.

METHODOLOGY

The course integrates technical lectures, hands-on calculations, well control simulation exercises, case study analysis of real incidents, group problem-solving, and scenario-based emergency response drills to ensure practical competence.

CONCLUSION

Upon completing the course, participants will possess advanced skills in maintaining well control, executing safe underbalanced operations, preventing major well control events, and safeguarding personnel, assets, and the environment.

DAILY AGENDA

Day 1: Fundamentals of Well Pressure Control and Kick Prevention

Review the basic physics of well pressure control, causes of kicks, and preventive techniques to maintain wellbore stability.

Day 2: Introduction to Underbalanced Drilling (UBD) Operations

Explore the concepts, advantages, risks, and key methods involved in UBD, including managed pressure drilling (MPD) systems.

Day 3: Well Control Incident Detection and Immediate Response

Learn kick detection methods, shut-in procedures, kill methods (driller's and engineer's methods), and initial response strategies.

Day 4: Well Control Equipment and Operational Procedures

Operate and maintain blowout preventers (BOPs), choke manifolds, and surface control systems; practice pressure control drills.

Day 5: Advanced Well Control Challenges and Emergency Management

Analyze complex well control scenarios, develop contingency plans, and conduct emergency simulations to prepare for critical incidents.

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