BLACKBIRD FOR TRAINING

Advanced Course in Well Testing Operations



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Introduction

Well testing operations are a fundamental element of the oil and gas industry, providing critical insight into reservoir characteristics, well performance, and future production behavior. This intensive one-week course delivers a comprehensive and integrated understanding of well testing principles, methodologies, and real-world applications.

The program is designed to equip participants with the technical knowledge and practical skills required to plan and execute well testing operations safely and efficiently. Participants will gain hands-on exposure to well testing equipment, operational best practices, and data interpretation techniques that support accurate reservoir evaluation in both onshore and offshore environments.

Course Objectives

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

- Understand the strategic importance of well testing in optimizing well and reservoir performance.
- Identify and apply appropriate well-testing methodologies for different operational scenarios.
- Recognize and utilize surface and downhole well testing equipment effectively.
- Perform well testing operations safely, following industry standards and best practices.
- Analyze and interpret well test data to evaluate reservoir conditions and predict well behavior.

Course Outlines

Day 1: Well Testing Fundamentals and Industry Applications

- Role of well testing in the oil and gas industry.
- Objectives and benefits of conducting well tests.
- Key terminology and fundamental well testing concepts.
- Overview of well test types and their practical applications.
- Introduction to surface and downhole well testing equipment.



Day 2: Well Testing Methodologies and Operational Planning

- Principles of initial pressure disturbance and reservoir response.
- Constant rate versus constant pressure testing conditions.
- Wellbore storage effects and management.
- Well test sequences and operational objectives.
- Planning, preparation, and execution strategies for well testing operations.

Day 3: Well Testing Equipment and Measurement Techniques

- Downhole well testing tools and data acquisition systems.
- Testing while drilling TWD and post-completion testing techniques.
- Wireline formation testing versus conventional testing methods.
- Surface testing equipment components and functionality.
- Measurement of oil, gas, and water flow rates.
- Equipment calibration and maintenance practices.

Day 4: Field Operations, Safety, and Professional Responsibilities

- Pre-test equipment inspections and operational readiness.
- Well-control procedures during testing operations.
- Perforation techniques, fluid behavior, and sampling processes.
- Role of stimulation in well testing activities.
- Safety management, risk assessment, and emergency response planning.
- Team roles, communication, regulatory compliance, and technical reporting.

Day 5: Data Interpretation, Case Studies, and Practical Application

- Fundamental well test interpretation concepts and superposition principles.
- Near-wellbore diagnostics and reservoir behavior identification.
- Reservoir boundary detection and analysis.
- Introduction to advanced interpretation techniques, including deconvolution.
- Practical interpretation exercises using real-world data.
- Course review, open discussions, and final evaluation.

Why Attend This Course: Wins & Losses!

- Earn a professionally recognized certification in well testing.
- Develop practical expertise in modern well testing tools and technologies.
- Strengthen your ability to interpret test data and assess reservoir performance.
- Stay current with industry best practices and advanced testing methodologies.
- Gain experience applicable to both onshore and offshore well testing operations.



Conclusion

Well testing is a critical discipline for evaluating and optimizing oil and gas reservoirs. This one-week intensive course provides a balanced combination of theory, field operations, and data interpretation, enabling participants to confidently perform well testing activities and make informed engineering decisions.

Join this program to enhance your technical capabilities and advance your expertise in well testing operations.

