



DE226: Well Testing Equipment, Operation and Engineering

Training Description:

This intensive training course provides a clear understanding of the primary objective of Surface and down hole well testing. It covers how to assess well productivity by measuring the gas, oil and water flow rates from the well under controlled production conditions. Also, the participants will gain an understanding of the safe handling of the produced effluents (solids, liquids and gases) at high pressures and temperatures, which is a key objective and concern within the well testing operations, this will be achieved by design of equipment and operations including safety margins and protective equipment to guarantee the safety of people and integrity of the involved facilities and the environment.

The training course will also include an introduction to well testing equipment and instrumentation, to control, condition, monitor, and measure and sample the fluids that are produced from the reservoir during the production testing process. The training course contains an introduction to Well Testing equipment and instrumentation. It will help the participants to control, condition, monitor, measure and sample the fluids that are produced from the reservoir during the production testing process.

The course will highpoint:

- Well Testing Objectives
- Surface Well Testing
- Testing Data Acquisition
- Fluid Sampling and Analysis
- Drill-Stem Testing
- Subsea Landing String Systems
- Basics of Well Testing Interpretation

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Acquire the introduction to the variable nature of well interventions
- ✓ Locate the reasons for performing well test
- ✓ Gain a thorough understanding of well testing operations
- ✓ Know different types of equipment used in well testing operations
- ✓ Know the different types of well test
- ✓ Obtain advanced knowledge about surface & downhole well testing equipment description and operation
- ✓ Define the surface equipment functional requirements for well testing
- ✓ Specify the requirements for a well test program including safety
- ✓ Describe the function and operation of well test tools
- ✓ How to carry out the appropriate selection and positioning of gauges
- ✓ Acquire knowledge about reservoir understanding and reservoir concepts
- ✓ Specify the requirements for a well test program including safety
- ✓ Describe the function and operation of well test tools
- ✓ How to perform flow rate calculations
- ✓ Understand how well test planning is performed
- ✓ Learn how to conduct a well test
- ✓ How to follow agreed safety guide lines on surface pressure testing ESD
- ✓ How to carry out the appropriate selection and positioning of gauges

Training Designed for:

This course is intended for Reservoir Engineers, Senior Reservoir Engineers, Well Testers I, Well Testers II, Production Engineers, Petroleum Engineers, Production Supervisors, Geoscientists, Drilling Engineers and other disciplines engineers who want to understand well testing and interpretation techniques to design, analyze report, evaluate results or intelligently participate in the well testing process.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

FIVE DAYS:

- ❖ Introduction
- ❖ Well testing general introduction
- ❖ Objectives of a well test operation
- ❖ Impact on the design and equipment of the well test
- ❖ Evolution of equipment and operations
- ❖ Needs, requirements and results expected from a well test
- ❖ Surface Well Testing (SWT)
- ❖ SWT equipment, purpose, benefits, limitations, rig lay-out
- ❖ Operation of a 3-phase separator
- ❖ Choke manifold
- ❖ Tanks
- ❖ Testing Data Acquisition (TDA)
- ❖ Fluid Sampling and Analysis (FSA)
- ❖ TDA and FSA
- ❖ Down-hole and surface equipment and specifications
- ❖ Downhole gauges
- ❖ Fluid sample carriers
- ❖ Acquisition systems
- ❖ TDA and FSA
- ❖ Set-up and acquisition of well testing data
- ❖ Drill-Stem Testing (DST)
- ❖ DST down-hole equipment
- ❖ String design and diagrams
- ❖ Packers
- ❖ Safety joints
- ❖ Hydraulic jars
- ❖ Tester valves
- ❖ Circulation valves

- ❖ Safety valves
- ❖ DST tool preparation and operation
- ❖ Subsea Landing String Systems (SLSS)
- ❖ Safety considerations
- ❖ Tool space-out
- ❖ Impact on bop operations
- ❖ SLSS preparation and test SentTREE and retainer valve
- ❖ Basics of well testing interpretation
- ❖ Course Conclusion
- ❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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