DE053: Production Technology: Design, Analyse and Optimise Wells and Production Systems
Training Description:

The Production Technologist’s mission is to design, construct, operate and maintain any well, so that it is safe for use from spud to abandonment, delivering maximum value to the business. Production Technology is the discipline that integrates subsurface and surface in the oil and gas upstream industry. Traditionally, Production Technologists are known as “Well Doctors”, as their focus area is the well. However, their remit extends from the reservoir, through the well into the production system and export. Over the years, the Production Technologist has taken centre stage in the development of Well, Reservoir and Facility Management and Production Optimisation.

This intensive training course lays the foundation for Production Technology, covering the essential components of the discipline, with theory, exercises and group work. In addition, we will cover the application of Production Technology on Well Performance, Completion Design, Perforating, Artificial Lift, Stimulation, Sand Management, Well, Reservoir and Facility Management and Production Optimisation.

The whole course is highly interactive with opportunities for participants to share their experience and expertise. At the end of the course, there is an opportunity to brainstorm and troubleshoot real issues, that participants have, which they can take back and apply their learnings to their wells and fields.

The course will highpoint:

➢ The role of the production technology
➢ Essential components of the production technology discipline
➢ The application of production technology in the oil and gas business
➢ Fundamentals of well completion design
➢ How to maximise oil and gas production and recovery

Training Objectives:

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

✓ Define the role of the production technology function in the oil and gas business
✓ Describe the essential components of the production technology discipline
✓ Explain how the basic applications of production technology tools and techniques work
✓ Apply the fundamentals of well completion design
✓ Describe how to maximise oil and gas production and recovery

Personal Impact:

✓ Apply well completion design to improve well integrity and safe well operations
✓ Analyse well performance to optimise production and injection
✓ Recommend artificial lift and stimulation techniques
✓ Apply Integrated Sand Management to the production system
✓ Implement Well, Reservoir and Facility Management
✓ Carry out Production System Optimisation with an integrated team

Organisational Impact:

✓ Improved well completion design to safeguard well integrity and well operations
✓ Skilled well performance analysis to optimise production and injection
✓ Optimal artificial lift and stimulation solutions
Safe operations from Integrated Sand Management to the production system
Implementation of Well, Reservoir and Facility Management
Production System Optimisation with an integrated team

Training Designed for:
This course is intended for New Production Technologists, Reservoir Engineers, Geoscientists & Petrophysicists, Well Engineers, Drilling Engineers and Well Services personnel, Production Engineers, Facility Engineers and other Surface Engineers, and Managers who want to maximise production and recovery.

Training Program:

**DAY ONE:**
- PRE-TEST
- Introduction
- Well Fundamentals and Inflow
  - Production Technology Introduction
  - The DNA of a Well – What Makes A Well
  - PVT
  - Inflow Theory
  - Inflow Performance Relationship

**DAY TWO:**
- Outflow and Perforating
  - Outflow Theory
  - Vertical Lift Performance
  - Perforating Theory
  - Perforating Selection

**DAY THREE:**
- Stimulation and Sand Management
  - Formation Damage
  - Stimulation Theory (Matrix Stimulation and Hydraulic Fracking)
  - Stimulation Selection
  - Downhole Sand Control
  - Integrated Sand Management

**DAY FOUR:**
- Artificial Lift, Well, Reservoir & Facility Management
  - Artificial Lift Theory (focus on Gas Lift and Electrical Submersible Pumps)
  - Artificial Lift Selection
  - Well, Reservoir & Facility Management Theory
  - Well, Reservoir & Facility Management Implementation

**DAY FIVE:**
- Production System Optimisation and Finding Solutions
  - Production System Optimisation
  - Finding Solutions Theory
  - Solutions Selection
• Participants’ Production Technology Challenges
  ❖ Course Conclusion
  ❖ POST-TEST and EVALUATION

Training Requirements:

“Hands-on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Please note that the above topics can be amended as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

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, Software & General Discussions
• Pre and Post Test

Training Certificate(s):

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

Training Fees:

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 - 13:30  Recess (Prayer Break & Lunch)
13:30 - 15:00  Last Session

For training registrations or in-house enquiries, please contact:
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Training & Career Development Department