

COURSE OVERVIEW DE0295
Coiled Tubing Well Intervention (Basic)

Course Title

Coiled Tubing Well Intervention (Basic)

Course Date/Venue

April 27-May 01, 2025/Al Buraimi Meeting Room, Sheraton Oman Hotel, Muscat

Course Reference

DE0295

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.



Coiled Tubing is the process of running a reel continuous tubing into a well that is still under pressure. Coiled Tubing equipment is portable and modular although modern reels are reaching high transport weights and offers quick rig-up times. The maximum working depth of Coiled Tubing is usually determined by the amount of tubing that can be spooled onto a reel rather than the TVD. Highly deviated wells can cause problems with Coiled Tubing as, like wireline, gravity is required to keep the tubing moving down the well-bore. This can now be overcome to a certain extent with the use of downhole “tractors” which pull the coiled tubing from the bottom. Coiled Tubing can be used for a very wide range of jobs such as, Nitrogen lifting wells, clean-up operations, spotting acid at the perforations, fishing operations, spotting cement and PLT.



This course is designed to provide participants with a detailed and up-to-date overview of Coiled Tubing Operations. It covers the coiled tubing reel and well control equipment; the power packs and hydraulic systems; the transport and rig-up procedures for coiled tubing units including applications and clean-up operations and procedures; the processes and safety considerations of nitrogen lifting wells; and the methods of spotting acid at perforations.

During this interactive course, participants will learn the fishing operations, coiled tubing job design, acidizing and stimulation techniques; the coiled tubing interventions planning and the role of downhole “tractors”; the cementing and zonal isolation techniques; the PLT (production logging tool) and properties and handling of downhole fluids; the most commonly used downhole tools for specific operations; the overall operational performance; the real-time monitoring and data interpretation; the common issues of performance troubleshooting; working safely with liquid nitrogen; the general safety protocols in coiled tubing operations; the prevention and management of kick situations; and the selection and usage of appropriate personal protective equipment (PPE).

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on coiled tubing operations
- Identify coiled tubing equipment, well control equipment, coiled tubing application, job design acidizing and stimulation techniques
- Manage and execute coiled tubing interventions
- Increase overall operational performance during coiled tubing interventions
- Select the most commonly used downhole tools and explain their function
- Work safely with liquid nitrogen
- Identify the components and specifications of the coiled tubing reel and the components and usage of well control equipment
- Recognize power packs and hydraulic systems and carryout transport and rig-up procedures for coiled tubing units
- Employ coiled tubing applications and clean-up operations and procedures
- Apply processes and safety considerations of nitrogen lifting wells and the methods of spotting acid at perforations
- Illustrate fishing operations, coiled tubing job design and acidizing and stimulation techniques
- Plan coiled tubing interventions, identify the role of downhole “tractors” in coiled tubing operations and apply cementing and zonal isolation techniques using coiled tubing
- Recognize PLT (production logging tool) and properties and handling of downhole fluids
- Identify the most commonly used downhole tools and apply tool selection criteria for specific operations
- Determine overall operational performance during coiled tubing interventions and carryout real-time monitoring and data interpretation
- Identify and address the common issues of performance troubleshooting
- Work safely with liquid nitrogen and apply general safety protocols in coiled tubing operations
- Carryout prevention and management of kick situations as well as select and use appropriate personal protective equipment (PPE)

Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides overview of all significant aspects and considerations of coiled tubing operations for production engineers, drilling supervisors, well engineers, resources engineers, petroleum engineers and those interested in applying CT technology for workover services, drilling, completions and production operations and those who need an update on the latest CT technology.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Fee

US\$ 8,000 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation


Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

-  British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

-  The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Ms. Diana Helmy, PgDip, MSc, BSc, is a **Senior Petroleum & Geologist** with extensive years of experience within the **Oil & Gas, Refinery and Petrochemical** industries. Her expertise widely covers in the areas of **Tubular & Pipe Handling, Tubular Strength, Casing & Tubing Design, Production/Injection Loads** for Casing Strings & Tubing, **Drilling Loads, Drilling & Production Thermal Loads, Well Architecture, Wellhead Integrity, Well Integrity & Artificial Lift, Well Integrity Management, Well Completion & Workover, Applied Drilling**

Practices, Horizontal Drilling, Petroleum Production, Resource & Reserve Evaluation, Reserves Estimation & Uncertainty, Methods for Aggregation of Reserves & Resources, Horizontal & Multilateral Wells, Well Completion & Stimulation, Artificial Lift System Selection & Design, Well Testing & Oil Well Performance, Well Test Design Analysis, Well Test Operations, Well Testing & Perforation, Directional Drilling, Formation Damage Evaluation & Preventive, Formation Damage Remediation, Drilling & Formation Damage, Simulation Program for The International Petroleum Business, Well Testing & Analysis, Horizontal & Multilateral Wells & Reservoir Concerns, Oil & Gas Analytics, Petrophysics & Reservoir Engineering, Subsurface Geology & Logging Interpretation, Petroleum Geology, Geophysics, Seismic Processing & Exploration, Seismic Interpretation, Sedimentology, Stratigraphy & Biostratigraphy, Petroleum Economy, Core Analysis, Well Logging Interpretation, Core Lab Analysis & SCAL, Sedimentary Rocks, Rock Types, Core & Ditch Cuttings Analysis, Clastic, Carbonate & Basement Rocks, Stratigraphic Sequences, Petrographically Analysis, Thin Section Analysis, Scanning Electron Microscope (SEM), X-ray Diffraction (XRD), Cross-Section Tomography (CT), Conventional & Unconventional Analysis, Porosity & Permeability, Geological & Geophysical Model, Sedimentary Facies, Formation Damage Studies & Analysis, Rig Awareness, 2D&3D Seismic Data Processing, Static & Dynamic Correction, Noise Attenuation & Multiple Elimination Techniques, Velocity Analysis & Modeling and various software such as Petrel, OMEGA, LINUX, Kingdom and Vista. She is currently a **Senior Consultant wherein she is responsible in different facets of **Petroleum & Process Engineering** from managing **asset integrity, well integrity process, pre-commissioning/commissioning** and **start up** onshore & offshore process facilities.**

During her career life, Ms. Diana worked as a **Reservoir Geologist, Seismic Engineer, Geology Instructor, Geoscience Instructor & Consultant** and **Petroleum Geology Researcher** from various international companies like the **Schlumberger, Corex Services for Petroleum Services, Petrolia Energy Supplies** and **Alexandria University**.

Ms. Diana has a **Postgraduate Diploma in Geophysics, Master's degree in Petroleum Geology and Geophysics** and a **Bachelor's degree in Geology**. Further, she is a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)** and has delivered numerous trainings, courses, workshops, seminars and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 27th of April 2025

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to Coiled Tubing Operations
0930 – 0945	Break
0945 - 1030	Coiled Tubing Equipment
1030 - 1130	Components & Specifications of the Coiled Tubing Reel
1130 - 1230	Well Control Equipment: Components & Usage
1230 – 1245	Break
1245 - 1330	Power Packs & Hydraulic Systems
1330 - 1415	Transport & Rig-up Procedures for Coiled Tubing Units
1415 - 1430	Recap
1430	Lunch & End of Day One

Day 2: Monday, 28th of April 2025

0730 – 0930	Coiled Tubing Applications
0930 – 0945	Break
0945 - 1030	Clean-up Operations & Procedures
1030 - 1130	Nitrogen Lifting Wells: Processes & Safety Considerations
1130 - 1230	Spotting Acid at Perforations: Importance & Methods
1230 – 1245	Break
1245 - 1330	Fishing Operations: Techniques & Tools
1330 - 1415	Coiled Tubing Job Design: Planning & Considerations
1415 - 1430	Recap
1430	Lunch & End of Day Two

Day 3: Tuesday, 29th of April 2025

0730 - 0930	Acidizing & Stimulation Techniques: Overview & Applications
0930 – 0945	Break
0945 - 1030	Coiled Tubing Interventions: Methods & Planning
1030 - 1130	Role of Downhole “Tractors” in Coiled Tubing Operations
1130 - 1230	Cementing & Zonal Isolation Techniques using Coiled Tubing
1230 – 1245	Break
1245 - 1330	PLT (Production Logging Tool) & its Importance
1330 - 1415	Downhole Fluids: Properties & Handling
1415 - 1430	Recap
1430	Lunch & End of Day Three

Day 4: Wednesday, 30th of April 2025

0730 - 0930	Most Commonly Used Downhole Tools
0930 – 0945	Break
0945 - 1030	Tool Selection Criteria for Specific Operations
1030 - 1130	Overall Operational Performance during Coiled Tubing Interventions
1130 - 1230	Real-time Monitoring & Data Interpretation

1230 – 1245	Break
1245 - 1330	Performance Troubleshooting: Identifying & Addressing Common Issues
1330 - 1415	Case Studies: Analysis of Real-world Coiled Tubing Operations
1415 - 1430	Recap
1430	Lunch & End of Day Four

Day 5: Thursday, 01st of May 2025

0730 - 0930	Work Safely with Liquid Nitrogen: Handling, Storage & Operational Considerations
0930 - 0945	Break
0945 - 1045	General Safety Protocols in Coiled Tubing Operations
1045 - 1230	Prevention & Management of Kick Situations
1230 – 1245	Break
1245 – 1345	Personal Protective Equipment (PPE) Selection & Usage
1345 – 1400	Course Conclusion
1400 – 1415	POST-TEST
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

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