COURSE OVERVIEW DE0118
Completions & Workover

Course Title
Completions & Workover

Course Date/Venue
September 30-October 04, 2024/The Paragon Meeting Room, The H Hotel, Dubai, UAE

Course Reference
DE0118

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.

Once a well has been drilled to total depth, it must be decided whether it can be made to produce oil and gas in profitable amounts. Perhaps only one out of six wells drilled can ever produce enough petroleum to recover costs and offer profit. Even then, that one well must be completed properly. Recompletion costs are high, and a bad completion may ruin a well. Completion must be done right the first time.

During the field life cycle, some reservoirs undergo some physical and chemical changes. This leads to loss of revenue as the wells are no longer operating at their optimal conditions. Hence, workover and well intervention practices are required to safely and efficiently restore the wells back to production.

This course is designed to provide participants with up-to-date overview of completions and workovers. It covers the types and objective of completion operations according to reservoir and production data; the natural flow and artificial lift including single, dual gas lift, ESP well completion; the completion equipment and completion fluid, pressure test function; the tubing specification as thread, grade, weight and material; and the use of API designing and material selection for sweet and sour gas.

Further, the course will also discuss the equipment and tender document; the ability to design, plan, execute open hole and cased hole completion and prepare well program; the logistic and service companies; the ability to run completion string on site according to sequence of well procedure and HSE; the operational steps in the completion program; the main factors influencing completion design; the head valves types and applications; the overall approach to a well's flow capacity and recognize major types of completion configurations; the main phases in completion and considerations, drilling and casing the pay zone; and the cement job, perforating and treating the pay zone.

During this interactive course, participants will learn the special case of horizontal wells, production wellhead and production string or tubing; the packers, downhole equipment, subsurface safety valves, running procedure, artificial lift pumping and gas lift; artificial lift process and completion management artificial lift operations in open and cased holes; the main types of well servicing and workover, light well servicing, heavy servicing and workover operations on live wells and servicing and workover operations on killed wells; the deviated, multiple zone, subsea, horizontal, multilateral and HPHT completion; and the well stimulation, hydraulic fracturing and acid stimulation.

Course Objectives

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

- Apply and gain an in-depth knowledge on completions and workovers
- Demonstrate operational knowledge and understanding on the types and objective of completion operations according to reservoir and production data
- Demonstrate operational knowledge and understanding of natural flow and artificial lift including single, dual gas lift, ESP well completion
- Demonstrate operational knowledge and understanding of completion equipment and completion fluid, pressure test function
- Demonstrate operational knowledge and understanding of tubing specification as thread, grade, weight and material
- Ability to use API designing and material selection for sweet and sour gas
- Ability to order the equipment and evaluate tender document
- Ability to design, plan, execute open hole and cased hole completion and prepare well program
- Coordinate with logistic and service companies
- Ability to run completion string on site according to sequence of well procedure and HSE
- Optimize operational steps in the completion program
- Identify main factors influencing completion design as well as well head valves types and applications
- Apply overall approach to a well's flow capacity and recognize major types of completion configurations
- Determine main phases in completion and considerations, drilling and casing the pay zone

- Evaluate and restore the cement job as well as discuss perforating and treating the pay zone
- Analyze the special case of horizontal wells, production wellhead and production string or tubing
- Discuss packers, downhole equipment, subsurface safety valves, running procedure, artificial lift pumping and gas lift
- Choose an artificial lift process and apply completion management artificial lift operations in open and cased holes
- Identify the main types of well servicing and workover, light well servicing, heavy servicing and workover operations on live wells and servicing and workover operations on killed wells
- Discuss deviated, multiple zone, subsea, horizontal, multilateral and HPHT completion
- Illustrate well stimulation, hydraulic fracturing and acid stimulation

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, sample video clips of the instructor's actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an up-to-date knowledge and techniques on completions and workovers for WS engineers and foremen. Drilling, reservoir, well, production, completion and petroleum engineers, supervisors and geologists who need a practical understanding and appreciation of completion design will definitely benefit from this course.

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 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: -

- 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.

- 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.

Course Fees

US$ 8,500 per Delegate. 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 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:

Mr. Konstantin Zorbalas, MSc, BSc, is a **Senior Petroleum Engineer & Well Completions Specialist** with over **25 years** of **offshore** and **onshore** experience in the **Well Completion Design**, **Well testing**, **Well Testing Analysis**, **Well Cementing**, **Oil** & **Gas**, **Refinery** & **Petrochemical** industries. His wide expertise includes **Workovers & Completions**, **Petroleum Risk & Decision Analysis**, **Acidizing Application** in **Sandstone** & **Carbonate**, **Stimulation Operations**, **Reserves Evaluation**, **Reservoir Fluid Properties**, **Reservoir Engineering & Simulation Studies**, **Reservoir Monitoring**, **Artificial Lift Design**, **Gas Operations**, **Workover/Remedial Operations** & **Heavy Oil Technology**, **Applied Water Technology**, **Oil & Gas Production**, **X-mas Tree** & **Wellhead Operations** & **Testing**, **Artificial Lift Systems** (**Gas Lift**, **ESP**, and **Rod Pumping**), **Production Optimization**, **Sand Control**, **PLT Correlation**, **Slickline Operations**, **Acid Stimulation**, **Production Logging**, **Project Evaluation** & **Economic Analysis**. Further, he is actively involved in **Project Management** with special emphasis in production technology and field optimization, performing conceptual studies, economic analysis with risk assessment and field development planning. He is currently the **Senior Petroleum Engineer & Consultant** of **National Oil Company** wherein he is involved in the mega-mature fields in the Arabian Gulf, predominantly carbonate reservoirs; designing the acid stimulation treatments with post-drilling rigless operations; utilizing CT with tractors and DTS systems; and he is responsible for gas production and preparing for reservoir engineering and simulation studies, well testing activities, field and reservoir monitoring, production logging and optimization and well completion design.

During his career life, Mr. Zorbalas worked as a **Senior Production Engineer**, **Well Completion Specialist**, **Production Manager**, **Project Manager**, **Technical Manager**, **Technical Supervisor** & **Contracts Manager**, **Production Engineer**, **Production Supervisor**, **Production Technologist**, **Technical Specialist**, **Business Development Analyst**, **Field Production Engineer** and **Field Engineer**. He worked for many **world-class oil/gas companies** such as **ZADCO**, **ADMA-OPCO**, **Oilfield International Ltd**, **Burlington Resources** (later acquired by **Conoco Phillips**), **MOBIL E&P**, **Saudi Aramco**, **Pluspetrol E&P SA**, **Wintershall**, **Taylor Energy**, **Schlumberger**, **Rowan Drilling** and **Yukos EP** where he was in-charge of the **design and technical analysis** of a gas plant with capacity **1.8 billion m3/yr gas**. His achievements include **boosting oil production 17.2% per year** since 1999 using **ESP** and **Gas Lift systems**.

Mr. Zorbalas has **Master** and **Bachelor** degrees in **Petroleum Engineering** from the **Mississippi State University**, **USA**. Further, he is an **SPE Certified Petroleum Engineer**, **Certified Instructor/Trainer**, a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management** (**ILM**), an active member of the Society of Petroleum Engineers (**SPE**) and has numerous scientific and technical publications and delivered innumerable training courses, seminars and workshops worldwide.

Course Program

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

Day 1: ***Monday, 30th of September 2024***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0900	***Types & Objective of Completion Operations According to Reservoir & Production Data***
0900 – 0930	***Natural Flow & Artificial Lift Including Single, Dual Gas Lift, ESP Well Completion***
0930 – 0945	*Break*
0945 – 1030	***Main Factors Influencing Completion Design***
1030 – 1100	***Well Head Valves Types & Applications***
1100 – 1145	***Overall Approach to a Well's Flow Capacity***
1145 – 1230	***Major Types of Completion Configurations***
1230 – 1245	*Break*
1245 – 1330	***Main Phases in Completion & Considerations***
1330 – 1420	***Completion Equipment & Completion Fluid, Pressure Test Function***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: ***Tuesday, 01st of October 2024***

0730 – 0830	***Drilling & Casing the Pay Zone***
0830 – 0930	***Evaluating & Restoring the Cement Job***
0930 – 0945	*Break*
0945 – 1030	***Perforating***
1030 – 1100	***Treating the Pay Zone***
1100 – 1145	***The Special Case of Horizontal Wells***
1145 – 1230	***The Production Wellhead***
1230 – 1245	*Break*
1245 – 1330	***The Production String or Tubing***
1330 – 1420	***Tubing Specification as Thread, Grade, Weight & Material***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3: ***Wednesday, 02nd of October 2024***

0730 – 0830	***Packers***
0830 – 0930	***Downhole Equipment***
0930 – 0945	*Break*
0945 – 1030	***Subsurface Safety Valves***
1030 – 1100	***Running Procedure***
1100 – 1145	***Artificial Lift: Pumping***
1145 – 1230	***Gas Lift***
1230 – 1245	*Break*
1245 – 1330	***Choosing an Artificial Lift Process***
1330 – 1420	***Completion Management Artificial Lift Operations in Open & Cased Holes***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4:	Thursday, 03rd of October 2024
0730 – 0830	***Use API in Designing & Material Selection for Sweet & Sour Gas***
0830 – 0930	***Order the Equipment & Evaluate Tender Document***
0930 – 0945	*Break*
0945 – 1030	***Design, Plan, Execute Open Hole & Cased Hole Completion***
1030 – 1100	***Prepare Well Program***
1100 – 1145	***Coordinate with Logistic & Service Companies***
1145 – 1230	***Run Completion String on Site According to Sequence of Well Procedure & HSE***
1230 – 1245	*Break*
1245 – 1330	***Optimize Operational Steps in the Completion Program***
1330 – 1420	***Main Types of Well Servicing & Workover***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5:	Friday, 04th of October 2024
0730 – 0830	***Light Well Servicing & Workover Operations on Live Wells***
0830 – 0930	***Heavy Servicing & Workover Operations on Live Wells***
0930 – 0945	*Break*
0945 – 1030	***Servicing & Workover Operations on Killed Wells***
1030 – 1100	***Servicing & Workover Special Cases***
1100 – 1145	***Deviated, Multiple Zone, Subsea, Horizontal, Multilateral & HPHT Completion***
1145 – 1215	***Well Stimulation***
1215 – 1230	*Break*
1230 – 1300	***Hydraulic Fracturing***
1300 - 1345	***Acid Stimulation***
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

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org