

COURSE OVERVIEW DE0867
Cased Hole and Production Log Evaluation

Course Title

Cased Hole and Production Log Evaluation

Course Date/Venue

November 03-07, 2024/Boardroom, Warwick Hotel
 Doha, Doha, Qatar

Course Reference

DE0867

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.



Water identification and fluid and fluid movement in both injection and producing wells are evaluated using spinners, tracers, pulsed neutron oxygen activation, temperature and noise survey. A variety of fluid identification devices are used to evaluate multiphase flow. These tools together are used to quantify the sources water, oil, gas production and are critical to the control of excessive water or other phases. Videos of and in vertical, deviated and horizontal flows are used to aid in visualization of the logging environment.



This course is designed to provide delegates with detailed and up-to-date overview of applied production logging and cased hole & production log evaluation. It covers oil and gas entries from flowmeter/fluid ID and temperature surveys, fluid movement in both injection and producing wells using spinners, tracers, pulsed neutron oxygen activation, temperature and noise survey as well as detecting movement inside/outside of pipe using oxygen activation.

The course will discuss heavy phase “fallback” in flows and select tools to minimize its effect including the various tools used to quantify the sources of water, oil gas production that are critical to the control of excessive water or other phases and the various problems of highly deviated/horizontal well.

Computation of fluid saturations from pulsed neutron (Sigma and C/O) measurements and evaluation of water, oil and gas entry profiles from flowmeter/fluid ID and temperature will also be discussed during the course.

Course Objectives

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

- Apply and gain a comprehensive knowledge on applied production logging and cased hole and production log evaluation
- Identify water as well as locate water, oil and gas entries from flowmeter/fluid ID and temperature surveys
- Evaluate fluid and fluid movement in both injection and producing wells using spinners, tracers, pulsed neutron oxygen activation, temperature and noise survey
- Detect water movement inside/outside of pipe using oxygen activation
- Identify fluid devices used to evaluate multiphase flow
- Describe heavy phase “fallback” in flows and select tools to minimize its effect
- Recognize various tools used to quantify the sources of water, oil gas production that are critical to the control of excessive water or other phases
- Enumerate the various problems of highly deviated/horizontal well, how to log them and what tools to use
- List the various formation environments suitable for Sigma or C/O logs
- Compute fluid saturations from pulsed neutron (Sigma and C/O) measurements
- Determine whether zonal isolation is likely from all types of bond logs
- Evaluate water, oil and gas entry profiles from flowmeter/fluid ID and temperature

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 an overview of all significant aspects and considerations of applied production logging, cased hole and production log evaluation for reservoir and production engineers, geologist, petrophysicists, log analysts and others involved in well surveillance.

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:-


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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.

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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 Fee

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.



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. Moammar Khallouf, is a **Senior Petroleum & Process Safety Engineer** with over **25 years** of integrated experience within the **Oil & Gas, Petroleum** and **Refinery** industries. His specialization widely covers in the areas of **Completion Design & Perforation, Completion & Production Engineering, Oil Wells Drilling Engineering, Oil Production Equipment Maintenance, Well Services, Wellhead Valves, Well Test Analysis & Rod Pumping Operation, Well Integrity Investigations, Well Perforation, Well Control, Advanced Well Completion, Artificial Lift System, Production Technology, Production Logging Interpretation, Production Operation, Oil Production Optimization, Drilling Supervision, Well Drilling Operations, Drilling Technology, Drilling & Initial Completion, Well Completion & Workover Operation, Completion & Safety, Completion Design, Well Test Data Gathering, Wireline & Coiled Tubing Operation, Advanced Coiled Tubing & Stimulation, Electrical Submersible Pump (ESP), Beam Pump Operation & Troubleshooting, Mud Logging Interpretation Technique, Bits, Casing, Tubing & Drilling Milling Tools, Fishing & Milling Tools, Directional Drilling Technology & Tools, Water Shut Off, Water Injection, Acid Stimulation, Sand & Cement Plug Calculation and Ultra-Low Sulphur Diesel Production & VGO Deep Hydro Treatment. Further, he is also well-versed in **Vessel Traffic Management System, Oil & Gas Marine Terminals, Tank Farm & Storage Tank Design, Inspection Procedure, Operation, Repair & Maintenance, Liquid & Gas Flow Metering & Meter Proving, HSE Risk Assessment, HSE Induction, Accident & Incident Investigation, Job Hazards Analysis (JHA), Maintenance Planning, Firefighting, Permit to Work, Safety Skills, H2S, Unsafe Acts/Conditions, Emergency Response** and **Work Environment**.**

During his career life, Mr. Moammar held significant positions and dedication as the **Artificial Lift Section Head, Drilling & Completion Materials Supervisor, Drilling Safety Supervisor, Well Services/Intervention Supervisor, Production Technology Engineer, Safety Engineer, Petroleum Engineering Consultant & Instructor** and **Senior Instructor/Trainer** for various international companies like the **Alfurat Petroleum Company (Shell JV), TUV Nord, ASASA, CMC, GTFG, ARAMCO, UNICO**, etc, just to name a few.

Mr. Moammar a **Bachelor's** degree in **Petroleum Engineering**. Further, he is a **Certified Instructor/Trainer** and has delivered numerous trainings, workshops, courses, seminars and conferences internationally.

Accommodation

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





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 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, 03rd of November 2024

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| 0730 – 0800 | Registration & Coffee |
| 0800 – 0830 | Welcome & Introduction |
| 0830 – 0900 | PRE-TEST |
| 0900 – 0930 | Water Identification |
| 0930 – 0945 | Break |
| 0945 – 1100 | Locating Water, Oil & Gas Entries from Flowmeter/Fluid ID & Temperature Surveys |
| 1100 – 1230 | Evaluation of Fluid & Fluid Movement in Both Injection & Producing Wells |
| 1230 – 1245 | Break |
| 1245 - 1420 | Spinners |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day One |

Day 2: Monday, 04th of November 2024

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|-------------|--------------------------|
| 0730 – 0930 | Tracers |
| 0930 – 0945 | Break |
| 0945 – 1100 | Pulsed Neutron |
| 1100 - 1230 | Oxygen Activation |
| 1230 – 1245 | Break |
| 1245 - 1420 | Temperature |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Two |

Day 3: Tuesday, 05th of November 2024

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| 0730 – 0930 | Noise Survey |
| 0930 – 0945 | Break |
| 0945 – 1100 | Detecting Water Movement Inside/Outside of Pipe Using Oxygen Activation |
| 1100 - 1230 | Fluid Identification Devices Used to Evaluate Multiphase Flow |





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| 1230 – 1245 | Break |
| 1245 - 1420 | Heavy Phase Fallback in Flows & Selecting Tools to Minimize its Effect |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Three |

Day 4: Wednesday, 06th of November 2024

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| 0730 – 0930 | Tools Used to Quantify the Sources of Water, Oil & Gas Production that Are Critical to the Control of Excessive Water or Other Phases |
| 0930 – 0945 | Break |
| 0945 – 1100 | Identifying Problems of Highly Deviated /Horizontal Well, How to Log Them & What Tools to Use |
| 1100 - 1230 | Identifying Formation Environments that are Suitable for Sigma or C/O Logs? |
| 1230 – 1245 | Break |
| 1245 - 1420 | Computing Fluid Saturations from Pulsed Neutron (Sigma & C/O) Measurements |
| 1420 – 1430 | Recap |
| 1430 | Lunch & End of Day Four |

Day 5: Thursday, 07th of November 2024

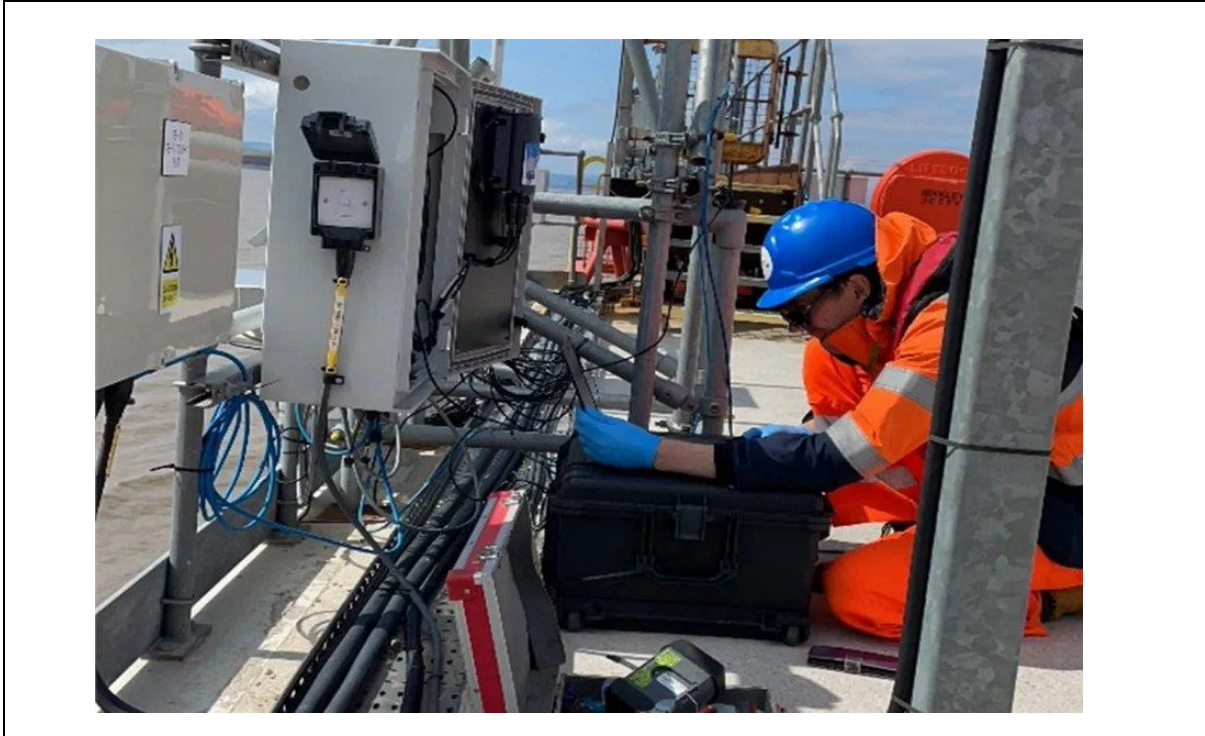
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| 0730 – 0830 | Determining Whether Zonal Isolation is Likely from All Types of Bond Logs |
| 0830– 0930 | Evaluating Water, Oil & Gas Entry Profiles from Flowmeter/Fluid ID & Temperature |
| 0930 – 0945 | Break |
| 0945– 1100 | Videos |
| 1100 - 1245 | Vertical, Deviated & Horizontal Flows are Used to Aid in Visualization of the Logging Environment |
| 1245– 1300 | Course Conclusion |
| 1300– 1415 | POST-TEST |
| 1415 – 1430 | Presentation of Course Certificates |
| 1430 | End of Course |





Practical Sessions

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



Course Coordinator

Jaryl Castillo, Tel: +974 4423 1327, Email: jaryl@haward.org