COURSE OVERVIEW DE0710

Logging Methods, Interpretation and Implementation - Advanced

Course Title

Logging Methods, Interpretation and Implementation - Advanced

Course Date/Venue

Session 1: January 05-09, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE

Session 2: July 07-11, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference

DE0710

Course Duration/Credits

Five days/3.0 CEUs/30.0 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.

This course introduces to engineers and geoscientists the important role open hole logs play in all aspects of petroleum engineering specially hydrocarbon detection and reservoir management. It emphasizes log analysis and interpretation and the limitation of the method used in the analysis.

This course is designed to provide participants with a detailed and up-to-date overview of Logging Methods, Interpretation and Implementation - Advanced. It covers the petrophysical models that includes resistivity/porosity and resistivity/water saturation relationship; the well logging measurement environment, wellbore shape, size, formation temperature and mud filyrate invasion profile; the conventional interpretation techniques as well as open hole logging tools; the evaluation of shaly sands and gas-bearing formation; the reconnaissance, computerized and log evaluation interpretation techniques including R_o log and R_{wa} log; and the pattern recognition interpretation techniques that includes hingle and picket plot.

Course Objectives

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

- Apply and gain an advanced knowledge on log/logging interpretation technology
- Identify petrophysical models that includes resistivity/porosity and resistivity/water saturation relationship
- Discuss well logging measurement environment including wellbore shape, size, formation temperature and mud filyrate invasion profile
- Determine the conventional interpretation techniques as well as the open hole logging tools
- Employ evaluation of shaly sands and gas-bearing formation
- Explain reconnaissance and computerized
- Identify log evaluation interpretation techniques including R_o Log and R_{wa} Log as well as pattern recognition interpretation techniques that includes hingle and picket plot

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 during the course conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of log/logging interpretation technology for geoscientists and other technical staff having an experience in qualitative log interpretation and willing to perform quantitative reservoir evaluation.

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.

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: -

- 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.

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:

Dr. Chris Kapetan, PhD, MSc, BSc, is a **Senior Drilling & Petroleum Engineer** with over **30 years** of **Offshore** & **Onshore** international experience in **Drilling/Reservoir/Petroleum Engineering** and **Well Service Operations**. He is a **recognized authority** in "**Hands On**" **Service** and **Drilling Operations**, **Directional Drilling**, **Gas Lift Operations**, **Production Operations**, **Gas Lift Valve Changing** & **Installation**, **Well Completion Design** & **Operation**, **Well Stimulation** & **Control** and **Workover Planning**, **Completions** & **Workover**, **Rig Sizing**, **Hole Cleaning** & **Logging**, **Well Completion**, **Servicing** and **Work-Over Operations**, Practical **Reservoir Engineering**, **X-mas Tree & Wellhead Operations**, **Maintenance** & **Testing**, **Advanced Petrophysics/Interpretation** of **Cased Hole Logs**, **Well Composite**, **Construction Integrity** & **Completion**, **Coiled Tubing Technology**, **Corrosion Control**, **Wireline & Coil Tubing**, **Pipeline Pigging**, **Corrosion Monitoring**, **Cathodic Protection** as well as **Production Safety** and **Delusion of Asphalt**. Currently, he is the **Operations Manager** at **GEOTECH** and an independent **Drilling Operations Consultant** of a large specialized engineering services provider to the international clients. Moreover, he offer his expertise in many areas of the **drilling discipline** and is well **recognized & respected** for his process and procedural expertise as well as ongoing participation, interest and experience in continuing to promote technology to producers around the world.

Throughout his long career life, Dr. Chris has worked for many international companies and has spent several years **managing** technically **complex wellbore interventions** in both **drilling** & **servicing**. He is a **well regarded** for his **process** and **procedural expertise**. Further, he was the **Operations Manager** at **ETP Crude Oil Pipeline Services** where he was fully responsible for optimum operations of crude oil pipeline, **workover** and **directional drilling**, **drilling rigs** and equipment, drilling of various geothermal deep wells and **exploration wells**. Dr. Chris was the **Drilling** & **Workover Manager** & **Superintendent** for **Kavala Oil** wherein he was responsible for supervision of **drilling operations** and **offshore exploration**, quality control of performance of **rigs**, **coiled tubing**, crude oil transportation via pipeline and abandonment of **well** as per the API requirements. He had occupied various key positions as the **Drilling Operations Consultant**, **Site Manager**, **Branch Manager**, **Senior Drilling** & **Workover Manager** & **Engineer** and **Drilling** & **Workover Engineer** in several petroleum companies responsible mainly on an **offshore** sour oil field (under water flood and gas lift) and a gas field. Further, Dr. Chris was a **Technical Consultant** of **Geotech** and a **Professor** of **Oil Technology College**.

Dr. Chris has **PhD**, **Master** and **Bachelor** degrees in **Reservoir Engineering**, **Drilling & Production Engineering** and **Petroleum Engineering**, respectively. Further, he has conducted **numerous short courses**, **seminars** and **workshops** and has published several technical books on **Production Logging**, **Safety Drilling Rigs** and **Oil Reservoir**.

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introductions*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Introduction*** *Formation Evaluation Techniques ● Use of Well Logs ● Different Aspects of Well Logging ● Advantages and Limitations of Well Logging*
0930 – 0945	*Break*
0945 – 1030	***Petrophysical Models*** *Resistivity/Porosity Relationship*
1030 – 1215	***Petrophysical Models (cont'd)*** *Resistivity/Water Saturation Relationship*
1215 – 1230	*Break*
1230 – 1420	***Well Logging Measurement Environment*** *Wellbore Shape and Size*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***Well logging Measurement Environment (cont'd)*** *Formation Temperature ● Mud Filtrate Invasion Profile*
0900 – 0915	*Break*
0915 – 1100	***Conventional Interpretation Techniques*** *Concepts of Conventional Interpretation Techniques*
1100 – 1230	***Conventional Interpretation Techniques (cont'd)*** *Limitations of Conventional Interpretation Techniques*
1230 – 1245	*Break*
1245 – 1420	***Open Hole Logging Tools*** *SP Log ● Gamma Ray Logs ● Resistivity Logs*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0900	***Open Hole Logging Tools (cont'd)*** *Sonic Logs ● Density Logs ● Neutron Logs*
0900 – 0915	*Break*
0915 – 1045	***Evaluation of Shaly Sands*** *Determination of Shale Content ● Porosity Estimation*
1045 – 1215	***Evaluation of Shaly Sands (cont'd)*** *Estimation of Water Saturation Using Vsh Models ● Estimation of Water Saturation Using CEC Models*
1215 – 1230	*Break*
1230 – 1420	***Evaluation of Gas-Bearing Formations*** *Gas Effect on Different Logs ● Neutron-Dendity Overlays*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

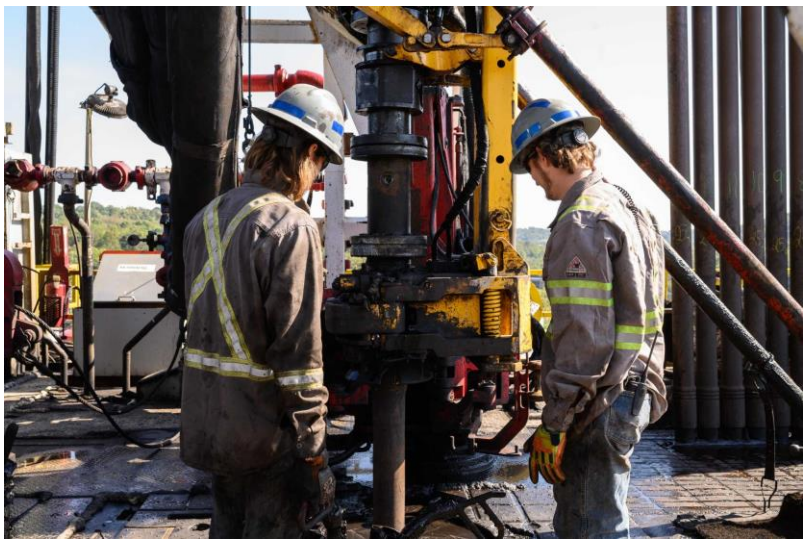
0730 – 0900	***Evaluation of Gas-Bearing Formations (cont'd)*** *Porosity Estimation ● Water Saturation Estimation*
0900 – 0915	*Break*
0915 – 1045	***Reconnaissance***
1045 – 1215	***Computerized***
1215 – 1230	*Break*
1230 – 1420	***Log Evaluation Interpretation Techniques*** *R_o Log*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 - 0900	***Log Evaluation Interpretation Techniques (cont'd)*** *R_{wa} Log*
0900 - 0915	*Break*
0915 - 1030	***Pattern Recognition Interpretation Techniques*** *Hingle Plot*
1030 - 1200	***Pattern Recognition Interpretation Techniques (cont'd)*** *Picket Plot*
1200 - 1215	*Break*
1215 - 1345	***Pattern Recognition Interpretation Techniques (cont'd)*** *Picket Plot (cont'd)*
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