

COURSE OVERVIEW DE0382 Cased Hole Logging & Formation Evaluation

Course Title

Cased Hole Logging & Formation Evaluation

Course Date/Venue

Please see page 3

Course Reference

DE0382

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.

This course is designed to provide participants with a detailed and up-to-date overview of Cased Hole Logging & Formation Evaluation. It covers the different tools used for cased hole logging; the basic concepts and applications in cased holes; the principles of gamma ray logging; the cased hole formation evaluation, data acquisition and quality control in cased hole logging; the safety aspects in cased hole operations, pulse neutron logging and carbon/oxygen logging for saturation monitoring; and the spectral gamma ray logging, cement bond logging (CBL) and evaluation as well as radial bond logging (RBL) techniques.

During this interactive course, participants will learn the production logging tools, temperature and pressure logging; the techniques for measuring and interpreting flow rate; the spinner flowmeter data in production logging; the different types of production fluids; the reservoir pressure monitoring, waterflood and EOR monitoring and pulse neutron capture analysis (PNCA); integrating cased hole data with openhole logs to enhance formation evaluation; the time-lapse logging for reservoir management; the latest development in cased hole logging tools; the quantitative interpretation of cased hole logs and addressing the challenges in high-angle and horizontal wells; and the unconventional reservoir evaluation and integrating cased hole data with geological and reservoir models.

Course Objectives

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

- Apply and gain an in-depth knowledge on cased hole logging and formation evaluation
- Discuss the importance and applications of cased hole logging including the different tools used for cased hole logging
- Recognize the basic concepts and applications in cased holes as well as the principles of gamma ray logging
- Carryout cased hole formation evaluation, data acquisition and quality control in cased hole logging
- Discuss the safety aspects in cased hole operations, pulse neutron logging and carbon/oxygen logging for saturation monitoring
- Illustrate spectral gamma ray logging, cement bond logging (CBL) and evaluation as well as radial bond logging (RBL) techniques
- Identify the production logging tools, temperature and pressure logging and the techniques for measuring and interpreting flow rates
- Explain the spinner flowmeter data in production logging and distinguish different types of production fluids
- Employ reservoir pressure monitoring, waterflood and EOR monitoring and pulse neutron capture analysis (PNCA)
- Integrate cased hole data with openhole logs to enhance formation evaluation
- Recognize time-lapse logging for reservoir management and the latest development in cased hole logging tools
- Carryout quantitative interpretation of cased hole logs and address the challenges in high-angle and horizontal wells
- Apply unconventional reservoir evaluation and integrate cased hole data with geological and reservoir models

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 cased hole logging and formation evaluation for petroleum engineers, geoscientists, logging engineers, reservoir engineers, petrophysicists, drilling and completion engineers, field technicians, managers and decision-makers and other technical staff.

Course Date/Venue

Session(s)	Date	Venue
1	April 12-16, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
2	May 18-22, 2026	Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom
3	June 28-July 02, 2026	Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey
4	August 30-September 03, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
5	October 12-16, 2026	Salon Expo, NH Hotel Plaza de Armas, Seville, Spain
6	December 27-31, 2026	Meeting Room 4, Four Seasons Hotel Cairo at Nile Plaza, Corniche El Nil, Garden City, Cairo, Egypt
7	January 03-07, 2027	Salon Expo, NH Hotel Plaza de Armas, Seville, Spain
8	March 14-18, 2027	Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey

Course Fee

Doha	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.
Istanbul	US\$ 8,500 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	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.
London	US\$ 8,800 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Seville	US\$ 8,800 per Delegate + VAT . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	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.

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

Haward's 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**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). 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:



Dr. Steve Ehrenberg, PhD, MSc, BSc, is a **Senior Geologist & Reservoir Engineer** with **30 years** of extensive experience within the **Oil & Gas, Petrochemical and Refinery** industries. His wide experience covers in the areas of **Core & Log Integration, Water Saturation, Coring & Core Analysis, Special Core Analysis, Log Interpretation, Cased-Hole Logging, Core Calibration, Core Analysis, Core-to-Log Data Integration (SCAL), Wireline Logging, Mud Logging, Cased Hole Logging, Production Logging, Well Logging, Reservoir Management, Reservoir Appraisal & Development, Carbonate**

Reservoir Management, Fractured Reservoirs Evaluation & Management, Naturally Fractured Reservoir, Integrated Carbonate Reservoir Characterization, Geological Modelling, Reservoir Characterization, Geomodelling, Development Geology, Petroleum Geology, Exploration Production, Structural Geology, Wellsite Geology, Analytic Modelling Methods, Sedimentary Geology, Geophysics, Geophysical Exploration, Reservoir Engineering, Reservoir Engineering Applications, Reservoir Engineering & Stimulation, Reservoir Characterization, Clastic Reservoir, Carbonate Reservoir Petrology, Subsurface Facies Analysis, Borehole Images, Geophysical Methods, Oil & Gas Exploration, Marine & Petroleum Geology, Reservoir Performance Using Classical Methods, Fractured Reservoir Evaluation & Management, Reservoir Surveillance & Management, Reservoir Monitoring, , Reservoir Volumetrics, Water Drive Reservoir, Reservoir Evaluation, Well Surveillance, Well Testing, Well Testing & Oil Well Performance, Well Log Interpretation (WLI), Rock Physics & Seismic Data, Formation Evaluation, Well Testing & Data Interpretation, Pore Pressure Prediction and Oil & Gas Reserves Estimations, Well Workover Supervision, Description and Prediction of Reservoir Quality, Sequence Stratigraphy of Carbonate Systems and Introductory Geology.

During his career life, Dr. Ehrenberg held significant positions and dedication as **Consultant, Professor, Senior Reservoir Geologist, Senior Geologist, Research Geologist, Associate Professor, Assistant Professor and Senior Instructor/Trainer** from various international companies and universities such as the Badley Ashton & Associates Ltd., Khalifa University of Science and Technology, Sultan Qaboos University, PanTerra Geoconsultants B.V, UAE University, Statoil, Stavanger, Shell Development Company and Northern Illinois University.

Dr. Ehrenberg has a **PhD, Master's and Bachelor's** degree in **Geology** from the **University of California, USA and Occidental College, USA**, respectively. Further, he is a **Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)**, 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 workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	<i>Introduction to Cased Hole Logging: Overview of its Importance & Applications</i>
0930 – 0945	<i>Break</i>
0945 – 1030	<i>Cased Hole Logging Tools & Technologies: Different Tools Used for Cased Hole Logging</i>
1030 – 1130	<i>Principles of Gamma Ray Logging: Basic Concepts & Applications in Cased Holes</i>
1130 – 1215	<i>Cased Hole Formation Evaluation: Techniques & Challenges in Evaluating Formations through Casing</i>
1215 – 1230	<i>Break</i>
1230 – 1330	<i>Data Acquisition & Quality Control in Cased Hole Logging: Ensuring Accurate & Reliable Data Collection</i>
1330 – 1420	<i>Safety Aspects in Cased Hole Operations: Key Safety Practices During Cased Hole Logging</i>
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	<i>Pulse Neutron Logging: Principles & Applications in Reservoir Surveillance</i>
0830 – 0930	<i>Carbon/Oxygen Logging for Saturation Monitoring: Techniques for Monitoring Hydrocarbon Saturation</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<i>Spectral Gamma Ray Logging: Advanced Applications & Interpretation</i>
1100 – 1215	<i>Cement Bond Logging (CBL) & Evaluation: Assessing Cement Integrity & Zonal Isolation</i>

1215 – 1230	Break
1230 – 1330	Radial Bond Logging (RBL) Techniques: Further Insights into Cement Bond Evaluation
1330 – 1420	Case Studies: Analysis of Cased Hole Log Data from Various Wells
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3

0730 – 0830	Overview of Production Logging Tools: Introduction to Tools Used in Production Logging
0830 – 0930	Temperature & Pressure Logging: Applications in Understanding Well Performance
0930 – 0945	Break
0945 – 1100	Flow Rate Measurement & Analysis: Techniques for Measuring & Interpreting Flow Rates.
1100 – 1215	Spinner Flowmeter Logging: Spinner Flowmeter Data in Production Logging
1215 – 1230	Break
1230 – 1330	Fluid Identification & Analysis in Production Logs: Distinguishing Different Types of Production Fluids
1330 – 1420	Practical Exercise: Interpreting Production Logs from Cased Hole Wells
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Reservoir Pressure Monitoring: Techniques for Pressure Measurement & Interpretation
0830 – 0930	Waterflood & EOR Monitoring: Using Cased Hole Logs for Enhanced Oil Recovery Projects
0930 – 0945	Break
0945 – 1100	Pulse Neutron Capture Analysis (PNCA): Advanced Applications in Reservoir Monitoring
1100 – 1215	Integrating Cased Hole Data with Openhole Logs: Enhancing Formation Evaluation
1215 – 1230	Break
1230 – 1330	Time-Lapse Logging for Reservoir Management: Changes in Reservoir Properties Over Time
1330 – 1420	Group Discussion: Challenges & Solutions in Cased Hole Reservoir Monitoring
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 5

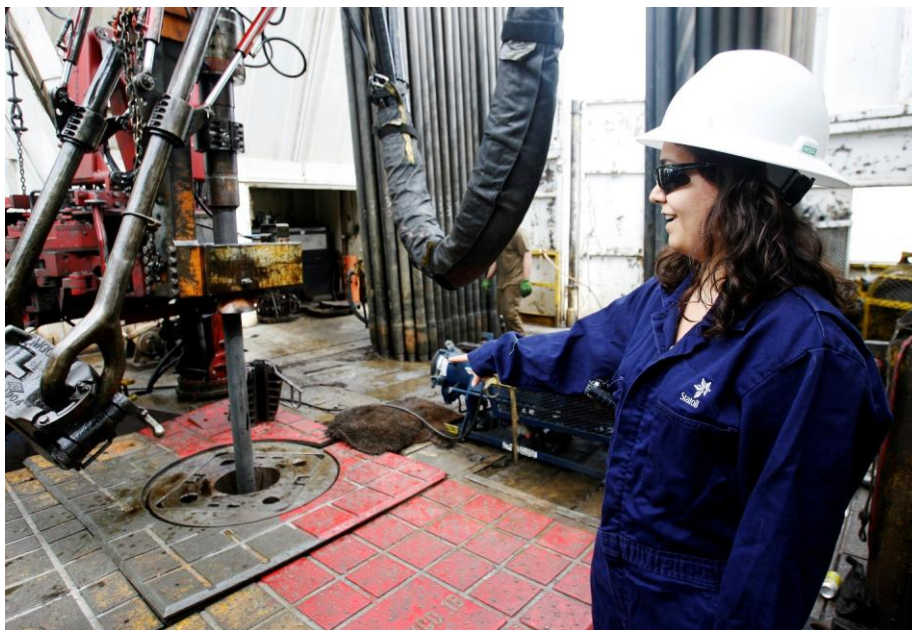
0730 – 0830	Latest Developments in Cased Hole Logging Tools: Reviewing New & Emerging Technologies
0830 – 0930	Quantitative Interpretation of Cased Hole Logs: Advanced Techniques for Quantitative Analysis
0930 – 0945	Break
0945 – 1100	Challenges in High-Angle & Horizontal Wells: Addressing Unique Aspects of Non-Vertical Wells
1100 – 1230	Unconventional Reservoir Evaluation: Specific Considerations for Shale, Tight Gas & Other Plays



1230 – 1245	Break
1245 – 1345	<i>Integrating Cased Hole Data with Geological & Reservoir Models: Building Comprehensive Subsurface Models</i>
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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