## COURSE OVERVIEW DE0866(PS2)

# Foundation (PL) Production Logging

**Course Title**
Foundation (PL) Production Logging




**Course Date/Venue**
Session 1: July 04-08, 2027/Meeting Plus 9, City Centre Rotana, Doha, Qatar
Session 2: November 28-December 02, 2027/Meeting Plus 9, City Centre Rotana, Doha, Qatar

**Course Reference**
DE0866(PS2)

**Course Duration/Credits**
Five days/3.0 CEUs/30 PDHs

**Course Description**







***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***

Production logging refers to a suite of logs that are normally run on completed injection or production wells to evaluate the performance of the well itself or of the reservoir as a whole. Other production logs can evaluate the well completion or look behind pipe to evaluate the formation and its fluids in the near-well vicinity. Production logs are playing an increasing role in modern reservoir management by providing the only means of identifying downhole fluid movements directly.

This course will cover fluid flow in pipes (both single and multiphase flow), the theoretical bases of production logging techniques, production log interpretation, and operational considerations. Numerous field examples are used to illustrate the principles of production log interpretation.

## Course Objectives/Outcomes & Benefits for the Participants

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

- Apply and gain comprehensive skills on production logging
- Select the most appropriate production logging services for well diagnosis and reservoir surveillance
- Define injection well profiles using temperature, radioactive tracer and spinner flowmeters
- Measure zonal inflows in production wells using temperature logs
- Locate behind-pipe channels with temperature, tracer or noise logs
- Apply combinations of flowmeters, fluid density and fluid capacitance logs to measure multiphase flow profiles, interpret cement bond logs and ultrasonic logs to determine cement quality
- Measure flow inside and outside casing with pulsed neutron tools
- Apply specialty tools for flow profiling in horizontal wells

## 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 covers systematic techniques and methodologies on production logging for petroleum and drilling engineers and managers, reservoir engineers, production engineers/technologists, petrophysicists, log analysts and anyone interested in understanding what production logs and cased-hole surveys can tell us.

## Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

## Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

## 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. Hesham Abdou**, PhD, MSc, BSc, is a **Senior Drilling & Petroleum Engineer** with over **30 years** of integrated industrial and academic experience as a **University Professor**. His specialization widely covers in the areas of **Drilling & Completion** Technology, **Directional Drilling**, **Horizontal & Sidetracking**, **Drilling Operation** Management, **Drilling & Production** Equipment, **ERD Drilling & Stuck Pipe** Prevention, **Natural & Artificial Flow Well Completion**, **Well Testing** Procedures & Evaluation, **Well** Performance, **Coiled Tubing** Technology, **Oil Recovery Methods** Enhancement**, Well Integrity** Management, **Well Casing & Cementing**, **Acid Gas** Removal, **Heavy Oil Production** & Treatment Techniques, **Crude Oil Testing & Water Analysis**, **Crude Oil & Water** Sampling Procedures, **Equipment Handling** Procedures, **Crude & Vacuum Process** Technology, **Gas Conditioning & Processing**, **Cooling Towers** Operation & Troubleshooting, **Sucker Rod Pumping**, **ESP & Gas Lift**, **PCP & Jet Pump**, **Pigging** Operations, Electric Submersible Pumps (**ESP**), Progressive Cavity Pumps (**PCP**), **Water Flooding**, **Water Lift Pumps** Troubleshooting, **Water System Design** & Installation, **Water Networks Design** Procedures, **Water Pumping** Process, **Pipelines**, **Pumps**, **Turbines**, **Heat Exchangers**, **Separators**, **Heaters**, **Compressors**, **Storage Tanks**, **Valves** Selection, **Compressors**, **Tank & Tank Farms** Operations & Performance, **Oil & Gas Transportation**, **Oil & Gas Production** Strategies, **Artificial Lift** Methods, **Piping & Pumping** Operations, Oil & Water Source Wells Restoration, **Pump** Performance Monitoring, **Rotor Bearing** Modelling, **Hydraulic** Repairs & Cylinders, **Root Cause Analysis**, **Vibration & Condition** Monitoring, **Piping Stress** Analysis, **Amine Gas Sweetening & Sulfur Recovery**, Heat & Mass Transfer and Fluid Mechanics.

During his career life, Dr. Hesham held significant positions and dedication as the **General Manager**, **Petroleum Engineering Assistant General Manager**, **Workover Assistant General Manager**, **Workover Department Manager**, **Artificial Section Head**, **Oil & Gas Production Engineer** and **Senior Instructor/Lecturer** from various companies and universities such as the Cairo University, Helwan University, British University in Egypt, Banha University and Agiba Petroleum Company.

Dr. Hesham has a **PhD** and **Master** degree in **Mechanical Power Engineering** and a **Bachelor** degree in **Petroleum Engineering**. Further, he is a **Certified Instructor/Trainer** and a **Peer Reviewer**. Dr. Hesham is a member of Egyptian Engineering Syndicate and the Society of Petroleum Engineering. Moreover, he has published technical papers and journals and has delivered numerous trainings, workshops, courses, seminars and conferences internationally.

**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.

## Accommodation

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

## 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 be always met:

***Day 1***

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|---|---|
| *0730 – 0800* | *Registration & Coffee* |
| *0800 – 0815* | *Welcome & introduction* |
| *0815 – 0830* | ***PRE-TEST*** |
| *0830 – 0930* | ***Problem Identification and Solution with Production Logs*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Temperature Logs*** |
| *1100 – 1215* | ***Radioactive Tracer Logs*** |
| *1215 – 1230* | *Break* |
| *1230 – 1420* | ***Radioactive Tracer Logs (cont'd)*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day One* |

***Day 2***

| | |
|---|---|
| *0730 – 0930* | ***Spinner Flowmeter Logs*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Log Combinations for Injection Well Profiling*** |
| *1100 – 1215* | ***Multiphase Flow Effects*** |
| *1215 – 1230* | *Break* |
| *1230 – 1420* | ***Deflector or Basket Flowmeters*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Two* |

***Day 3***

| | |
|---|---|
| *0730 – 0930* | ***Fluid Density Logs*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Fluid Capacitance Logs*** |
| *1100 – 1215* | ***Slip Velocity Correlations*** |
| *1215 – 1230* | *Break* |
| *1230 – 1430* | ***Slip Velocity Correlations (cont'd)*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Three* |

***Day 4***

| | |
|---|---|
| *0730 – 0930* | ***Multiphase Log Interpretation*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Noise Logs*** |
| *1100 – 1215* | ***Cement Bond Logs*** |
| *1215 – 1230* | *Break* |
| *1230 – 1420* | ***Cement Bond Logs (cont'd)*** |
| *1420 – 1430* | ***Recap*** |
| *1430* | *Lunch & End of Day Four* |

***Day 5***

| | |
|---|---|
| *0730 – 0930* | ***Ultrasonic Pulse-Echo Logs*** |
| *0930 – 0945* | *Break* |
| *0945 – 1100* | ***Pulsed Neutron Logs for Flow Identification*** |
| *1100 – 1215* | ***Horizontal Well Production Logs*** |
| *1215 – 1230* | *Break* |
| *1230 – 1400* | ***Horizontal Well Production Logs (cont'd)*** |
| *1400 – 1400* | ***POST-TEST*** |
| *1400 – 1415* | ***Course Conclusion*** |
| *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

Jaryl Castillo, Tel: +974 6652 9196, Email: jaryl@haward.org