London TDM

Oil and Gas Industry Training Courses

Course Venue: United Kingdom - London

Course Date: From 28 June 2026 To 02 July 2026

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

This intensive 5-day professional course delves into the fundamentals and cutting-edge techniques of well logging and formation evaluation. Participants will gain a comprehensive understanding of data acquisition, data interpretation, and the application of various well logging methods in petroleum geoscience. Upon completion, attendees will be well-equipped to analyze and optimize subsurface reservoir characteristics to enhance oil and gas recovery.

Objectives

- Understand the fundamental principles of well logging and formation evaluation.
- Identify and utilize different types of well logs and their applications.
- Interpret logging data to ascertain reservoir characteristics effectively.
- Apply formation evaluation techniques to optimize hydrocarbon recovery.
- Integrate well logging data with geological and engineering data for enhanced decision-making.

Course Outlines

Day 1: Introduction to Well Logging

- Overview of well logging and its significance in the oil and gas industry.
- Types of well logs and their purposes.
- Basic principles and physics underlying well logging techniques.
- Log data acquisition and quality control.
- Introduction to key logging tools and equipment.

Day 2: Electrical Logging Methods

- Principles of electrical resistivity and conductivity in formations.
- Induction and laterolog tools and their applications.
- Spontaneous potential logs and their interpretation.
- Applications and limitations of electrical logging.
- Case studies on electrical log analysis.

Day 3: Nuclear and Acoustic Logging

- Introduction to nuclear logging: density and neutron logs.
- Application of gamma-ray logs in lithology identification.
- Principles and applications of acoustic and sonic logging.
- Porosity and permeability estimation using nuclear and acoustic logs.
- Hands-on session: Interpreting nuclear and acoustic logs.

Day 4: Petrophysical Evaluation and Interpretation

- Integrating well logs for comprehensive petrophysical analysis.
- Water saturation models and their applications.
- Identification of hydrocarbon zones through log interpretation.
- Cross-plot analysis and determination of reservoir properties.
- Workshop: Practical exercises in petrophysical evaluation.

Day 5: Advanced Techniques and Applications

- Advanced logging technologies: NMR and formation testers.
- Integration of well logs with seismic and reservoir data.
- Formation evaluation in unconventional reservoirs.
- Real-time data application in formation evaluation.
- Final assessment and course review.