BLACKBIRD FOR TRAINING

Advanced Well Log Interpretation

5 – 9 September 2027
Cairo (Egypt)



Advanced Well Log Interpretation

Ref: 321628_296714 **Date:** 5 – 9 September 2027 **Location:** Cairo (Egypt) **Fees:** 4900 GBP

Introduction

This 1-week Advanced Well Log Interpretation training course by Blackbird is designed for oil and gas professionals seeking expertise in basic well log interpretation and advanced techniques for analyzing oil and gas well logs. The course focuses on equipping participants with in-depth knowledge of petrophysical interpretation and practical skills for dealing with wireline logging and LWD logs effectively.

Participants will learn to evaluate rock and fluid properties, use advanced tools for complex lithology analysis, and apply data analysis techniques to enhance reservoir understanding. Through real-world examples and exercises, the course offers comprehensive coverage of well logging methods, their applications, and limitations.

Course Objectives

- Gain a thorough understanding of basic well log interpretation principles and advanced petrophysical interpretation techniques.
- Apply quality control methods to ensure the reliability of well logging data.
- Explore the uses, limitations, and principles behind various wireline logging tools.
- Conduct quantitative formation evaluations for complex lithologies.
- Utilize advanced logging tools for analyzing rock and fluid properties in intricate geological settings.
- Develop analytical skills for reading and interpreting oil and gas well logs.

Course Outlines

Day 1: Review of Concepts and Resistivity Tools

- Overview of petrophysical concepts and their applications.
- Introduction to well logging: types, significance, and challenges.
- Classification of logs based on measured properties.
- Fundamentals of Gamma Ray and Spontaneous Potential measurements.
- Resistivity theory and tools: Laterologs, Array, and Azimuthal tools.
- Applications of Microresistivity devices.



Day 2: Conductivity and Nuclear Logging Tools

- Principles and applications of conductivity tools.
- Insights into LWD resistivity measurement tools.
- Advanced induction logging tools and 3D induction.
- Formation density tools and the photoelectric factor.
- Porosity analysis using density and neutron logs.
- Quality control parameters for lithology determination.

Day 3: Acoustic and Geological Logging Tools

- Basics of sonic tools and borehole compensation.
- Applications of dipole sonic tools in determining mechanical properties.
- Geological image logging tools for structural and stratigraphic interpretation.
- Analysis of fractures, faults, and facies for reservoir characterization.
- Ultrasonic logging tools and their practical applications.

Day 4: Advanced Tools and Formation Evaluation

- Nuclear Magnetic Resonance NMR: principles, porosity, and permeability determination.
- Dielectric tools and their role in saturation analysis.
- Geochemical logging tools for complex lithology evaluation.
- Utilizing crossplots such as Pickett and Hingle for interpretation.
- Formation evaluation principles, including Rw determination.

Day 5: Complex Lithology Analysis and Workshop

- Advanced techniques for saturation determination in complex lithologies.
- Tools for determining reservoir pressure and fluid sampling.
- Mini-workshop: selecting and designing well logging programs.
- Hands-on practice with well log interpretation exercises for real-world application.

Why Attend this Course: Wins & Losses!

- Master basic and advanced well log interpretation skills.
- Enhance your ability to evaluate rock and fluid properties accurately.
- Gain practical experience with tools and techniques for analyzing oil and gas well logs.
- Build confidence in applying petrophysical interpretation methods to complex geological scenarios.
- Develop expertise in well logging methods and their applications.



Conclusion

The Advanced Well Log Interpretation Course is your gateway to becoming proficient in analyzing and interpreting oil and gas well logs. By the end of this program, you will have the tools, knowledge, and confidence to perform detailed petrophysical interpretations, utilize advanced tools, and make informed decisions to enhance reservoir understanding and performance.

Don’t miss this opportunity to elevate your skills in well log interpretation and stay ahead in the competitive energy industry!

