

# WIRELINE WELL LOGGING

**EXP007** 

# **COURSE DESCRIPTION**

Well-logging plays a very important role in the petroleum industry. It is an eye of oil industry as it provides detailed geological information of drilled holes which is very cost effective. It enables quantitative estimation of hydrocarbon reserves through its open hole services. This course covers the fundamentals of logging tools & techniques and discusses using log data to evaluate prospective formations.

#### **COURSE GOAL**

To enhance participants' knowledge, skills, and abilities necessary to use well log fundamentals, tools and techniques in evaluation of prospective formations.

#### **COURSE OBJECTIVES**

By the end of this course, participant will be able to:

- Learn to select and apply the appropriate well logging tools for a particular set of well conditions and reservoir study parameters.
- Analyze log data to obtain critical reservoir properties.
- Use petrophysics to optimize the effort of integrated, multi-disciplining team.

#### WHO SHOULD ATTEND

All geologists, Geo-scientists and petroleum engineers.

### **COURSE DURATION**

5 Working Days

## **COURSE OUTLINES**

- 1. Introduction
  - Petrophysical aspects of well logging.
- 2. Interaction of Rocks and Fluids
  - Understanding the interaction of rocks and fluids in both static and dynamic situations.
- 3. Wireline Logging Principles
  - Exploring the scientific principles that underlie wireline logging.



# 4. Comparison to Conventional Downhole Evaluation

• Contrasting wireline logging with other conventional methods of downhole evaluation.

# 5. Well Site Logging Equipment and Procedures

• Examining the equipment used for well site logging and the associated procedures.

# 6. Running and Pulling Procedures

• Understanding the running and pulling procedures for Baker, Otis, and other systems.

## 7. Porosity Determination

• Learning methods for determining porosity from well logs.

## 8. Resistivity Determination

• Understanding techniques for determining resistivity using well logs.

# 9. Saturation Determination

• Analyzing well logs to determine fluid saturation in reservoir formations.

# 10. Formation Strength Analysis

• Assessing the strength properties of formations through well log analysis.

# 11. Discrepancies between Log and Seismic Data

• Investigating the reasons why log data and seismic data often show discrepancies.

