

# € TRAINING

Production logging & Reservoir Monitoring



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## Introduction:

The participant will become familiar with old and new technologies of production logging tools, procedures, and techniques to improve and increase oil, and production. The entire course structure applies proven methodologies and integrated methods approach that allows engineers to make precise decisions on optimizing well flow rates. The participant will be in a position to analyze and diagnose well problems, including crossflow, leak behind pipe, fluid entrance, others.

## Course Objectives:

At the end of this course the participants will be able to:

- Analyze processed production logging data
- Find the entry of fluid into the wellbore, rates, type of fluid, and problems associated with flow
- Understand flow patterns and behaviors.
- Learn how to measure the flow capacity of the well along with how to optimize the flow rate.
- Learn how to choose the right set of tools for a well, diagnose well problems, and find the best possible solutions.

## Targeted Audience:

- Engineers at different levels
- Contractors
- Petroleum engineers
- Technical/reservoir engineers
- Drilling engineers
- Processing engineers
- Commercial analysts
- Decision-makers/ investors in the oil and gas sector

## Course Outlines:

### Unit 1:

- Production tools in vertical wells; T, P, Density, Hold Up, flowmeters, GR, and other tools
- Full data evaluation of vertical good examples
- Horizontal wells: production tools of different companies, accuracy, quick look, validation and LQC

### Unit 2:

- Examples and discussion
- Data processing and evaluation
- Finding features from production data

### Unit 3:

- Reservoir monitoring tools
- The current tools and data acquired
- Validation of data
- Data fitting into reservoir simulation

#### Unit 4:

- DOI, resolution, parameters used
- Data processing and analysis
- Examples from different fields
- Effects of formation of water

#### Unit 5:

- Noise log tools, basics, frequencies
- used and full data evaluation
- Perforation: types of gun in the market
- Choosing the right gun for your
- formation
- Data simulation
- Zonal isolation
- Other perforations