

# **GAS CONDENSATE & NETWORK OPERATIONS FOUNDATION**

## **PRD056**

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### **COURSE DESCRIPTION**

The course is designed to provide a fundamental information's to all aspects of the production system, gas wells, gas condensate production operations and network considerations and fundamentals. The course will be conducted as lecturers and attendees will be actively encouraged to participate. The course content will be fully illustrated with actual data of well production and operations' cases to aid understanding and help to overcome any difficult problems. Comprehensive course notes will be provided, which will form a valuable source of reference afterwards.

### **COURSE OBJECTIVES**

By the end of this training course, participants will:

- Have good understanding of production system and components.
- Have full understanding of gas wells and production handling.
- Be familiar of gas condensate production considerations.
- Have good understanding of surface facility for gas condensate wells.
- Have a full understanding of the network component.

### **WHO SHOULD ATTEND**

- Production operators
- Production supervisors
- Production engineers
- Field maintenance supervisors and operators.
- Safety engineers
- Production technologist

### **COURSE DURATION**

5 Working Days

### **COURSE OUTLINES**

#### **1. Day One**

- Production system overview
- Reservoir drive mechanisms
- Produced fluids properties

- Well completion
- Oil and gas wells' performance
- System nodal analysis
- Well testing theory

## 2. Day Two

- Gas condensate wells
- Water production problems
- Water production control
- Gas wells' testing
- Condensate banking
- Hydrates problem
- Hydrates control

## 3. Day Three

- Pressures at all points between a high and low pressure separator
- Control valves
- Compressor head, horsepower and outlet temperature
- Gas separator selection
- Water handling
- Wet gas treatment
- Compressor types, capacity control methods
- Vessel types, sizing and rating, including level configuration

## 4. Day Four

- Network theory
- Network components
- Flow line components and design
- Critical velocity
- Flanges
- Temperature effects
- Bottle-neck problem
- Erosional velocity considerations

## 5. Day Five

- Gas condensate handling

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- Flash point
- Corrosion prevention
- H<sub>2</sub>S risk mitigation
- Network performance analysis
- Water loading problem

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