

# IntegraLine™ Liner-Hanger System Saves 3 Days of Rig Time Per Well For Major Operator

## Objectives

- In each of four wells, run and cement a 9 5/8-in. liner and isolate the annulus between the liner OD and the 13 5/8-in. host casing ID.

## Our Approach

- Weatherford supported the client's internal review process and applied all stages of the product and service realization process (PSRP). The collaborative approach allowed knowledge sharing from previous experiences around the world and set a standard procedure for executing the complete project.
- As a result of the processes, the client and Weatherford chose the IntegraLine liner-hanger system and the SwageSet liner-top packer for its high-integrity seal to isolate the annulus.
- In all four wells, the Weatherford team deployed the 9 5/8- x 13 5/8-in. premium hydraulic-rotating WPHR liner hanger with the SwageSet packer.
- The team smoothly ran liners to total depths that averaged 10,000 ft (3,048 m), activated the WPHR hanger, and released the lock sleeve of the R running tool with no issues.
- The team set the SwageSet liner-top packer and observed two shears at the surface of each well, which indicated packer activation.
- Testing to 5,000 psi (34.5 MPa) verified liner-top integrity.

## Value to Client

- In a one-trip operation in each well, the Weatherford liner-hanger system, including the SwageSet liner-top packer, provided a reliable barrier against gas migration. Running, setting, and testing the system in the four-well campaign saved approximately 3 days of rig time per well compared to the estimated time required to resolve a liner-top integrity failure with one trip for a polish mill run and another for a second-trip packer.



The IntegraLine liner system with swage technology provides maximum reliability in such applications as ultra-deepwater, extended-reach, and sour gas wells.

### LOCATION

Cabinda, Angola

### WELL TYPE

Offshore, deviated, gas

### HOLE SIZE

12-1/4 in.

### LINER SIZE

9-5/8 in., 53.5 lb/ft

### AVERAGE LINER LENGTH

2,700 ft (823 m)

### LINER-TOP DEPTH AND INCLINATION

7,000 to 7,600 ft (2,134 to 2,316 m) at 21° to 45°

### AVERAGE WELL DEPTH

10,000 ft (3,048 m)

### PRODUCTS/SERVICES

- Liner hanger systems
  - SwageSet liner-top packer
  - WPHR liner hanger
  - R running tool
- Cementing products
  - Float equipment
  - Subsurface release plugs and darts
- Tubular running services

