

# Premium Liner System with SwageSet Packer Reaches TD With Zero NPT in ERD Well

## Objectives

- Run a 7-in. liner to a 23,225-ft (7,079-m) depth in an offshore, horizontal, extended-reach-drilling (ERD) well.
- Perform cementing operations while rotating the liner.
- Isolate the top of the liner.

## Our Approach

- Based on torque-and-drag software simulations performed before the job, Weatherford recommended the premium liner-hanger system, which comprised the SwageSet tieback polished-bore receptacle (PBR), the SwageSet packer, and the Weatherford premium hydraulic-rotating (WPHR) liner hanger.
- The liner hanger was run, and all system components reached total depth (TD).
- A mechanical ball seat in the running string provided a pressure-tight chamber to hydraulically set the hanger. The ball seat also eliminated the effect of surge pressures on the formation after shearing the seats and before cementing operations, which enhanced cementing quality in the horizontal interval.
- The remote-control top-drive cement head (RCTDH) was applied to release the subsurface-release (SSR) plugs when rotating the liner. The remote capability eliminated the need for working at heights and enhanced personnel safety.
- The liner hanger was rotated during cementing operations to enhance cement coverage around the liner.
- After cementing, the SwageSet packer was activated by slacking off and rotating 88,185 lb (40,000 kg) of the drillpipe weight to the top of the packer. The tool configuration accomplished the client's three objectives.
- The SwageSet packer was pressure tested to 3,800 psi (26 MPa) for 30 minutes, and the running tool was retrieved.
- The entire operation was completed without nonproductive time (NPT).

## Value to Client

- In a complex ERD well, the premium liner-hanger system enabled the operator to efficiently reach TD, cement the liner, and proceed with exploring the field and constructing further ERD wells.
- The SwageSet packer established proper isolation from the shoe to the liner top.



The liner-hanger system provided reliable liner-top isolation, reached a 23,225-ft (7,079-m) depth, and enabled rotation during cementing operations.

### LOCATION

Russia

### WELL TYPE

Offshore, oil and gas production, ERD

### CASING SIZE AND TYPE

9.625-in., 47-lb/ft L80 13Cr

### CASING SHOE DEPTH AND ANGLE

17,614 ft (5,369 m), 83°

### LINER TYPE AND SIZE

7-in., 26-lb/ft L80 13Cr

### LINER SHOE DEPTH AND ANGLE

23,225 ft (7,079 m), 79°

### MEASURED DEPTH

23,235 ft (7,082 m) MD

### TRUE VERTICAL DEPTH

6,463 ft (1,970 m) TVD

### PRODUCTS/SERVICES

- Premium liner-hanger system
  - SwageSet tieback PBR
  - SwageSet liner-top packer
  - WPHR liner hanger
- SSR wiper plug
- WLCD landing collar
- 402DS float collar
- 323 float shoe
- BA-type RCTDH

