



# Weatherford®

## REAL RESULTS

### Two Extended-Reach Liner-Hanger Systems Set New Zealand Records, Maximize Onshore Gas Production

#### Objectives

- Provide design and ISO qualification testing for two new Weatherford Nodeco® liner-hanger systems for an extended-reach development (ERD) project. To optimize the well design, the project had evolved from standard to nonstandard casing sizes.

#### Results

- Weatherford designed and conducted ISO qualification testing for a 5-in., 20.3-lb/ft × 7 5/8-in., 26.4-lb/ft liner-hanger system and a 7 5/8-in., 26.4-lb/ft × 10 3/4-in., 51.0-lb/ft system. The work on both systems was performed within an extremely short period to enable the operator to meet its project deadline.
- The liner systems were installed in three onshore-to-offshore extended-reach wells, without incident. The project set records for the longest well drilled in New Zealand, at 24,308 ft (7,409 m), and for the longest liner ever used in that country: 10,764 ft (3,821 m).

#### Value to Client

- The development of the two liner systems allowed the operator to deliver its wells on time, using the optimal casing design while maximizing production and meeting all production commitments.
- “Optimisation of the well design for the ERD wells resulted in a requirement for nonstandard casing and liner sizes. Weatherford took on the challenge to design two liner systems with the ability to handle the high torque stresses and high hang-off capacity required for the specific well conditions. All six liners on the project were installed reliably and successfully.”

—Pokohura Well Delivery Team Leader



#### Client

Shell Exploration NZ Limited

#### Location

New Plymouth, New Zealand

#### Formation

Eocene Age sandstone

#### Well Type

Onshore-to-offshore ERD gas wells

#### Hole Size

6-3/4 and 9-1/2 in.

#### Hole Angles

88° to 90°

#### Casing

- 7-5/8 in., 26.4 lb/ft
- 10-3/4 in., 51.0 lb/ft

#### Liners

- 5 in., 20.3 lb/ft
- 7-5/8 in., 26.4 lb/ft

#### Running Tools

7-in. R running tool with HT50 connections and 5-in. R running tool with WT38 connections; both with floating junk bonnet

#### Setting Depths

- 5-in. liner: 24,307 ft (7,409 m)
- 7 5/8-in. liner: 21,466.5 ft (6,543 m)

#### Liner Lengths

- 5-in. liner: 3,330 ft (1,015 m)
- 7 5/8-in. liner: 10,764.4 ft (3,821 m)

#### Product/Services

- Nodeco liner-hanger systems
- WTSP5 liner-top packer
- WPHR liner hanger
- R running tool
- Floating junk bonnet



WTSP5



WPHR

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