

# Casing-Recovery Solution

## Drives Efficiency, Saves 27 Hours and 47 Tonnes of CO<sub>2</sub> with Reduced Personnel on Board (POB)

### Objectives

- The operation required the cutting and recovery of 9-5/8 in. casing to surface to allow for a 13-3/8 in. whipstock to be set and window milled to create the casing exit. With suspected gas in the B annulus, an innovative solution was required before the casing could be jacked free and recovered to surface.

### Our Approach

- Weatherford collaborated with the operator to create a casing recovery solution by utilizing its industry leading casing recovery toolbox to recover the casing prior to setting the Shallow Angle QuickCut™ whipstock.
- Weatherford utilized the Downhole Power Tool (DHPT) combined with the FRM Spear and packoff assembly, which permitted the circulation of the trapped gas and allowed for the casing to be jacked free and recovered in one run. This would be the first time this assembly would have been utilized.
- After circulating the annulus without observing gas at the surface, personnel jacked free three sections of casing totaling 1,640 ft (500 m).

**Section 1:** Required 35 activations of the DHPT with a maximum force of 763k lbs. (346 tonne).

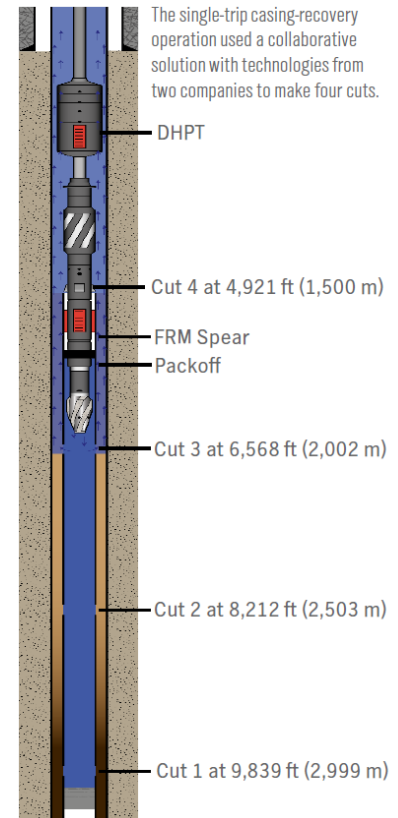
**Section 2:** Required 32 activation of the DHPT with a maximum force of 1,001k lbs. (458 tonne).

**Section 3:** Required 32 activation of the DHPT with a maximum force of 1,310k lbs. (594 tonne).

- Upon completion of the casing, the 13-3/8 in. whipstock was set and the exit performed. This operation was supported remotely with the AccuView® real-time monitoring system.

### Value to Customer

- Minimizing the number of runs associated with the operation realized a reduction of rigtime by 27 hours and saved 47 tonnes of CO<sub>2</sub>.
- The ability to circulate potential gas de-risked the operation from an HSE perspective.
- The ability to jack the casing free using the extreme pulling capacity of the DHPT eliminated the need to attempt jarring operations or pilot mill casing, de-risking operational expenditure.
- Using multi-skilled personnel as a single-source provider reduced the need for specialized staff on location for each part of the operation and lowered onboard personnel.
- Real-time operation monitoring by SMEs helped support the operation and ensure flawless execution.



#### LOCATION

Deepwater North Sea, Norway

#### WELL TYPE

Offshore, Oil

#### CASING SIZE

9-5/8 in.

#### DEPTH OF WHIPSTOCK

9,524 ft (2,903 m)

#### PRODUCTS/SERVICES

- Casing-Recovery Solutions
- Downhole Power Tool (DHPT)
- FRM Spear
- QuickCut™ Casing Exit System
- AccuView® Real-Time Support System

