

## **Wellbore History**

## **GENERAL**

Well 25/8-17 was drilled on the Jetta prospect on Heimdal Terrace, south of the Jotun Field in the North Sea. The objective was to test the hydrocarbon and reservoir potential of the Paleocene Heimdal Formation. It was planned as a vertical well. A side track was planned in case of a discovery.

## **OPERATIONS AND RESULTS**

Wildcat well 25/8-17 was spudded with the semi-submersible installation Bredford Dolphin on 9 October 2009 and drilled to TD at 2233 m in the Late Paleocene Ty Formation. Pilot holes were drilled from surface and after setting the 30" conductor to check for shallow gas. At 244 meters small amounts of bubbles were detected with the ROV, but when taking a flow check no more bubbles were seen. No significant technical problem occurred in the operations. The well was drilled with bentonite and seawater with hi-vis sweeps down to 222 m, with seawater and BARAZAN sweeps from 222 m to 1086 m, and with Performadril mud with 4.5 - 5 % glycol from 1086 m to TD.

The target Heimdal Formation was penetrated at 2077 m and the upper sands were found hydrocarbon bearing. Analysis of logs, formation pressures and fluid samples gave a most likely oil water contact (OWC) at 2111 m (2086 m TVD MSL). However, pressure gradients indicated OWC at 2116 m, while shows on sandstones were recorded down to 2115 m. The oil bearing sands were between 3 and 1 m thick, but with excellent reservoir properties with average porosity of 24%. The average oil saturation in the upper two oil sands is 77 % and 50 % respectively. A massive, water bearing sandstone is present roughly in the middle part of Heimdal, with the same reservoir properties as the thinner oil bearing sands above.

No cores were cut. MDT wire line samples were taken at 2094 m (oil), 2110.5 m (oil with some water), and at 2120.8 m (water).

It was decided to drill a geological side track (25/8-17 A) towards the north-east, in an attempt to find thicker Heimdal sands. The well was plugged back and sidetracked on 29 October 2009. It is classified as an oil discovery

## **TESTING**

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/8-17