



**Wellbore History**

**GENERAL**

Well 15/5-7 was drilled on the Dagny Discovery in the southern Viking Graben area of the North Sea. The primary objective of the well was to prove an oil leg beneath the proven gas in the Dagny structure and establish hydrocarbon contacts. Further objectives were the hydrocarbon characteristics in the Hugin and Sleipner Formations and to test the permeability and productivity of the reservoir. The second objective was to collect a water sample in the Hugin Formation.

**OPERATIONS AND RESULTS**

Appraisal well 15/5-7 was spudded with the semi-submersible installation Transocean Winner on 5 July 2008 and drilled to TD at 4037m in the Triassic Skagerrak Formation. No shallow gas was observed by the ROV at the wellhead or by the MWD while drilling the 36" hole or the 17 1/2" hole. Operational problems included repairs of leakage in the BOP in the 17 1/2" section (close to 5 days NPT), directional deviation in the 8 1/2" section and loss of MDT tool in hole at final logging. The lost MDT was pushed to bottom before plugging back. The well was drilled with spud mud down to 1048 m and with KCl/polymer/Glycol (Glydril) mud from 1048 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous and Jurassic age. The well penetrated the Hugin Formation reservoir at 3821 m (3815.3 m TVD), 59.7 m TVD shallower than prognosed. The well proved oil down to base of the Hugin Formation and it was decided to sidetrack the well for data acquisition in the water zone, including formation water sampling. Based on pressure gradients recorded in 15/5-7 and in the later sidetrack 15/5-7 A, the OWC was estimated at 3923 m TVD RKB. The sandstones of the Hugin Formations had good oil shows, otherwise no oil shows were recorded in the well.

Three cores were cut. The first core was cut in Hugin Formation, the second core covered the transition zones between the Hugin and Sleipner Formations and the third core was cut in the Sleipner Formation. MDT pressures were recorded in the oil bearing Hugin Formation and into the Sleipner Formation. MDT oil samples were taken at 3828.8 m, 3830.5 m (sampled during mini DST from 3830 - 3831 m), and at 3883 m (sampled during mini DST from 3882.2 - 3883.2 m).

The open hole was plugged back to 3036 m and prepared for sidetracking (15/5-7 A). The bore hole was abandoned on 7 September 2008 as an oil appraisal.

**TESTING**

No drill stem test was performed.

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/5-7**