



Wellbore History

GENERAL

Well 16/5-5 was drilled to test the southeast extension of the 16/4-6 S Luno discovery on the Utsira High in the North Sea. The primary objective was to prove the presence of reservoir in this area, to improve the understanding of the sedimentary sequence, and to confirm the OWC at 1950 m TVD MSL found in 16/4-6 S.

OPERATIONS AND RESULTS

Appraisal well 16/5-5 was spudded with the semi-submersible installation Bredford Dolphin on 11 November 2013 and drilled to TD at 2085 m in the Triassic Hegre Group. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis pills down to 601 m and with Aquadril mud from 601 m to TD.

The well penetrated a thick sequence consisting of alluvial deposits of predominantly Middle-Early Triassic age with top at 1936 m. The alluvial deposits show in general poor reservoir quality although a 25 m interval with improved quality is seen close to TD. The cored section is strongly fractured and appears to have penetrated several fault zones. The sandstones are partly filled with heavy biodegraded oil; however, in the upper part the section was too tight to establish a pressure gradient. The reservoir pressure in the water zone is close to hydrostatic pressure, 4 bar above the Luno II discovery well 16/4-6 S, indicating a barrier between these two wells.

Six cores were cut in succession from 1937 to 1983.8 m, covering the Triassic to Early Cretaceous (Sola Fm) unconformity in the well and the upper 45 m of the Hegre Group. All six cores should be shifted -3.09 m to match with the logs in the well. RCX fluid sample were taken at 1938.8 m (water and trace heavy oil), 1939.9 m (water and trace heavy oil), 1940 m (water and trace heavy oil), 1977 m (water and trace heavy oil), and at 2034 m (water).

The well was permanently abandoned on 29 December 2013 as a well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/5-5