



Wellbore History

GENERAL

The Gemini well 6504/5-1 S is a wildcat well located in 1190 m water depth, far west in the Møre/Vøring Basin in the Norwegian Sea. The main purpose of the well was to test the Late Cretaceous Lysing and Nise intervals for hydrocarbons. The primary target was the Lysing Sandstones, while the Nise Sandstones were a secondary target.

OPERATIONS AND RESULTS

The semi-submersible installation Transocean Leader was anchored using a pre-laid mooring system that was installed on location a few months prior the rig arrival in a proper weather window for the Anchor handling vessels. Thanks to this only 36 hours were necessary for anchoring prior to start drilling operations. Well 6504/5-1 S was spudded on 28 June 2007 and drilled to TD at 4170 m in Late Cretaceous sediments of the Lange Formation. The main operational problem during drilling was due two BOP failures. Both times the BOP was disconnected and pulled out for inspection and repair. Several components were changed, and the BOP was tested successfully both times prior to continue operations on surface and after landed and latched to wellhead. The BOP problems were the main cause of unproductive time in the well. During drilling the 8 1/2" section several losses were seen, and a kick was taken at 3521 m. A 7" liner was then installed in order to reach the well target in 5 7/8" hole. The well was drilled with Seawater and hi-vis sweeps with pre-hydrated bentonite mud down to 1592 m, with Ultradril mud from 1592 m to 1963 m, and with Formix mud from 1963 m to TD. No logs were run above 1600 m; however LWD logs were run in a pilot hole drilled by Fugro one year ahead of the 6504/5-1 S.

The primary target Lysing Sandstones were shaled out with only thin sand laminations and thin layers present. The secondary target Nise Sandstones were also shaled out. In the Lange Formation three connection / pump off gas peaks to 3.0% above background were recorded between 3486 - 3504 m and the well kicked at 3521 m. Oil shows were absent in the well.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 28 June 2007 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6504/5-1 S