



Wellbore History

GENERAL

Well 34/10-9 was drilled on the central part of the Gullfaks Field. The primary objective was to test sandstones of the Early Jurassic Cook Formation. Originally the well was planned to be drilled to a total depth of 2000 m. Results from the well required further drilling into sandstones of the Statfjord Formation.

OPERATIONS AND RESULTS

Appraisal well 34/10-9 was spudded with the semi-submersible installation Ross Rig on 24 March 1980 and drilled to TD at 2200 m in the Early Jurassic Burton Formation. As in other wells drilled in the area the pore pressure was close to the formation integrity in the pressure transition zone. Lost circulation combined with high gas readings, was experienced on several occasions in this zone between ca 1730 and 1760 m. Apart from that, the drilling was carried out without any specific problems. The well was drilled with seawater and high viscosity slugs down to 845 m, and with a gel/lignosulphonate mud system from 845 m to TD. From the well site sample description diesel was added to the mud in the interval 1260 to 1350 m.

The Brent Group, Ness formation was encountered at 1833 m, directly underlying the Late Cretaceous Kyrre Formation. The Brent Group was hydrocarbon bearing down to base Rannoch Formation at 1945 m with ca 97 m net hydrocarbon bearing sands. The Cook Formation was hydrocarbon bearing with an oil/water contact at 2118 m. First trace of oil shows, fluorescence, was seen at 1220 m. Weak shows on claystone and limestone were recorded from this depth to 1500 m. Stronger oil shows with "oil streaks over shaker" and oil-smell were recorded from 1690 m to 1720 m in the Lista Formation.

Four cores were cut in the well. Core 1 was cut from 1850 to 1868 m in the Etive Formation, while cores 2 to 4 were cut from 2089 m to 2130 m in the Cook Formation. The Formation interval tester (FIT) was run in the well for fluid sampling. One sample was recovered from the Brent formation at 1840 m. The sample contained hydrocarbons. The other sample was taken in the Cook Formation at 2132 m. This sample contained water.

The well was suspended on 9 May 1980 for further drilling and testing in a later re-entry. It is classified as an oil appraisal well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/10-9