



Wellbore History

GENERAL

Well 25/11-19 S was drilled on Licence 001, awarded in the first licence round in 1965. It was the last appraisal well on the Balder Field before it was decided to go ahead with Plan for Development in 1995. The well was located to penetrate the top reservoir of " Balder Mound 6" in a well-defined structurally high position. The primary target was a massive sand in the Hermod Formation; the secondary target was the Eocene Balder Formation Sand. The general objective of well 25/11-19 S was to reduce the range of uncertainty associated with the reserve basis for Balder Mound 6. The well was drilled as a directional well for potential re-entry as a future horizontal producer.

OPERATIONS AND RESULTS

Appraisal well 25/11-19 S was spudded with the semi-submersible installation "Vildkat Explorer" on 24 April 1995 and drilled to TD at 2250 m (2019 m TVD SS) in Triassic (Late Rhaetian) sediments of the Statfjord Formation. The well was drilled with seawater spud mud down to 1015 m and with oil based "Safemul" mud from 1015 m to TD. Shallow gas was neither prognosed nor observed. The well was drilled vertically down to 1032 m before starting to build angle and at top of the primary target, the Hermod sand, the deviation was 38.2deg. at an azimuth of 170.4deg. An 8 1/2" inch hole was drilled to an intermediate depth of 2096 m where an extensive wire line logging program was performed. Then an 8 1/2" hole was drilled to TD of 2250 m and final logging was performed. The 25/11-19 S confirmed oil in the Hermod sand. A good oil water contact was defined by wire line logs, extensive MDT sampling and pressures at 1922.5 m (1760.5 m TVD SS) in the Hermod reservoir sand. Furthermore, gas reserves were proved in the secondary target, the Balder Formation sand, and pressure data indicated a potential GOC at 1839.2 m (1694.8 m TVD SS). Three cores were cut in the Sele and Hermod Formations from 1871 to 1937 m. Wire line fluid samples were taken at 9 different depths using the MDT tool: gas was sampled at 1815.5 m, 1815.6 m, 1816.1 m, and 1834.1 m in the Balder Formation; oil was sampled at 1898 m, 1901.9 m, and 1920 m in the Hermod Formation; and water was sampled at 1182.7 m& in the Skade Formation and at 1961.6 m in the Hermod Formation. The well was plugged below the 13 3/8" casing and temporarily abandoned for possible re-entry as a horizontal oil producer. The well (25/11-19 S R) was re-entered and plugged using the semi-submersible installation "West Alpha" on 1 May 1997. It was permanently abandoned as an oil and gas appraisal well on 6 May 1997.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/11-19 SR