



Wellbore History

GENERAL

Well 25/11-6 was drilled ca 1 km west of the 25/11-1 Balder discovery well on the Utsira High in the North Sea. The primary objective was to delineate the Paleocene E-70 oil sand and older sands which are developed as topographic mounds (stratigraphic traps) in the Balder Field area. A secondary objective was Danian sand which had oil shows in an offset well.

OPERATIONS AND RESULTS

Appraisal well 25/11-6 was spudded with the semi-submersible installation Norskald on 20 August 1978 and drilled to TD at 1948 m in the Early Cretaceous Cromer Knoll Group. The well was drilled with seawater/gel/lignosulphonate.

The well penetrated the Utsira Formation, a Skade Formation sand and a Grid Formation sand and then penetrated a ca 175 m thick section of shales belonging to the lower Hordaland Group before top Balder formation was encountered at 1646 m. An 8 m thick shaly Intra Balder Formation sand at 1664 m had some shows and appeared to be oil bearing on the logs. Two Paleocene Heimdal Formation sand units with tops at 1717.5 m and 1763.0 m were found oil bearing down to a clear oil-water contact at 1785.3 m in the lower sand unit. This defines the OWC of the Balder field at 1760 m MSL. The Danian sand (Ty Formation) was encountered at 1877 m, but was water wet.

Five cores were cut in the Lista and Heimdal Formation, recovering a total of 25.5 m core from the interval 1713 to 1797 m. Wire line fluid samples were attempted, but with no success.

The well was permanently abandoned on 1 October 1978 as an oil appraisal.

TESTING

One production test was performed in the interval 1725 to 1740 m in the upper Heimdal Formation sand unit. It produced 485 Sm³ oil and 18123 Sm³ gas with 3-4% sand/day through a 35/64" choke. The GOR was 37 Sm³/Sm³, the oil gravity was 24.3 deg API, and the gas gravity was 0.61 (air = 1). No H₂S or Inert gas was detected.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/11-6