



Wellbore History

GENERAL

Well 15/6-6 was drilled to appraise the north eastern flank of Alpha structure on the 15/6-3 Sleipner Vest Discovery in the North Sea. The primary target was a gas bearing Jurassic sandstone known as the Hugin Formation. It was drilled to provide needed structural control and to establish a gas/water contact.

OPERATIONS AND RESULTS

Appraisal well 15/6-6 was spudded with the semi-submersible installation Glomar Biscay II on 1 April 1982 and drilled to TD at 3760 m in Late Triassic sediments of the Skagerrak Formation. The 36" hole had to be reamed several times due to ledging. This also occurred in the top of the 26" section. Forty-six bbl's (7.3 m3) of fluid were lost to the formation during cementing of the 13 3/8" casing. The mud weight in this section was 1.68 which is lower than the previous Sleipner wells. This and the fluid loss can possibly be related to an unconsolidated sand (Skade Formation) interval from 1185 to 1199 m. Minor hole problems were encountered in the 12 1/4" section. The drill string was temporarily stuck at 1627 m after making a connection. The well was drilled with seawater and gel.

The well proved sands in the Utsira, Grid, Heimdal, and Sleipner Formations; all water bearing. The gas bearing Hugin Formation was encountered at 3563 m and had a gross thickness of 58 m. The gas/water contact was found at 3607 m, which gives a gross gas interval of 44 m. No oil shows were reported from the target reservoir or other sections in the well.

Three cores were taken in the Middle Jurassic interval in the 8 1/2" section. Core 1 recovered 18.5 m sandstone from 3591 m to 3609.5 m. Core 2 recovered 16.0 m sandstone from 3609.5 m to 3622 m. Core 3 recovered 18.9 m Sandstone, shale and coal from 3625.5 m to 3644.5 m. No wire line fluid sample was taken.

The well was permanently abandoned on 9 June 1982 as a gas appraisal well.

TESTING

The well was tested in the interval 3568 - 3578 m in the Hugin Formation where reservoir data indicated significant accumulations of gas and condensate. The test produced 835000 Sm3 gas and 278 Sm3 condensate /day through a 56/64" choke. The GOR (gas/condensate ratio) was 3003 Sm3/Sm3 and the condensate gravity was 47 dg API. The gas gravity was 0.762 (air = 1), the CO2 content was 5 % and the H2S content was 7.5 ppm.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/6-6