



Wellbore History

GENERAL

The 25/2-1 well was drilled on the top of the eastern structure on the WSW-ENE trend of the Frigg Field. The objective of this well was the lower tertiary sands, especially Eocene, which are equivalent to the gas - bearing sand section in the western Frigg wells. Their thickness range around 100 m according to the seismic. Sandy interbeds in the upper part of the cretaceous chalk were considered secondary objective.

OPERATIONS AND RESULTS

Well 25/2-1 was spudded with the semi-submersible installation Neptune 7 on 4 August 1973 and drilled to TD at 2740 m in the Late Cretaceous Hardråde Formation.

Top Frigg sand was found at 1915 m, only 8 meters above the average seismic estimate. As expected, the Frigg sand body was found underlying the Eocene green and brown-red shales. The net sands are 88 m thick with excellent reservoir qualities (30 % to 24 % on the cores). The top of the reservoir stands 7 m deeper than in well 25/1-1. The net pay zone in the Frigg Formation includes 56 m of gas bearing and seven m of oil bearing sand. The gas/oil interface at 1971 m was found exactly at the same depth as in the Frigg Field. Two wire-line tests were performed in the gas-zone at 1973 m and 1974 m. The second of these was plugged by sand. A Third wire line test in the transition zone at 1985 m produced some oil with 70% salt water (35 g/l). Paleocene reservoirs below Frigg were of very good quality too, but all Sands below the Frigg Formation were found water wet.á Only very weak shows were recorded in the Paleocene (Hermod Formation), the Danian (Ty Formation) and Maastrichtian (HardrÕde Formation). Two cores were cut in the Frigg Formation, the first in the interval 1950 m to 1968 m, and the second in the interval 1973 m to 1991 m.

TESTING

An open hole test was carried out from 1926 to 1938 m Just after setting the 9" 5/8 casing at 1907 m in order to check a new type of sand screen to be used in further development wells. The test produced 638000 Sm3 gas and minor condensate/day through a 3/4" choke. Produced GOR was 157000 Sm3/Sm3 with a stock tank liquid density of 0.84 g/cm3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/2-1