



Wellbore History

GENERAL

Well 25/8-1 was drilled on the Utsira High in the North Sea. The main purpose was to test an Eocene structural closure, up dip from oil-bearing Eocene sands in Well 25/11-1.

OPERATIONS AND RESULTS

Wildcat well 25/8-1 was spudded with the vessel Glomar Grand Isle on 28 April 1970. Drilling operations were normal down to 2606 m, which became TD in the well, 289 m into the Early Permian Undefined Group. While drilling at this depth the drilling pipe parted. After recovering the upper portion of the drill pipe the top of the portion left in the hole was found to be at 2559. Attempts to recover the fish failed and after logging and taking sidewall cores in the uncased hole the well was prepared for testing. Initial drilling from the sea floor to 378 m was with sea water and gell. Below 378 m to 1311 m, the mud system consisted of sea water, spersene XP-20 salinex. From 1311 m to TD fresh water, spersene XP-20 mud was used.

The well penetrated several Tertiary sands above the Paleocene (Utsira and Skade Formations). These sands were water wet, but some methane was recorded in the upper part of the Utsira Formation. Two Paleocene sands (Hermod Formation at 1754.4 - 1758.1 m and 1759.0 - 1763.0 m) were found. The sands were separated by a thin 1 m shale section. Upon testing, the sands were found to be capable of producing approximately 429 Sm³ of 21.7 deg API gravity, low sulphur (0.77 to 0.80%) oil per day. All other sands or reservoirs penetrated by the well, including the Heimdal Formation at 1777 to 1812 m, were water wet without shows.

Seven cores were cut in the well. Core no 1 was cut from 1676.4 to 1684.9 m in the Balder Formation, cores no 2 to 5 were cut in the interval 1724.3 to 1790.7 m in the Balder/Sele/Hermod/Sele/Lista/Heimdal Formations, core no 6 was cut at 1828.8 to 1847.1 m in the Lista/Våle Formations, and core no 7 was cut at 2359.2 to 2377.4 m in the Undefined Group. FIT wire line fluid samples were taken at 1756.6 m (5.5 gallons oil), 1760.5 m (5 gallons oil), and at 1783.1 m (5 gallons water). The oil gravity was 21.7 and 21.8 deg API with 0.77% and 0.80%, respectively.

The well was permanently abandoned on 4 July 1970 as an oil discovery.

TESTING

A production test performed in the interval 1755.0 to 1762.4 m in the Hermod Formation sand. The well was tested in four successive flow periods of increasing drawdown pressures. The final flow period lasted about 19 hours; during this period the average rate was about 429 Sm³/day through a 64/64" choke. The GOR was 23.2 Sm³/Sm³ (130 ft³/barrel), oil gravity was 21 deg API. Only trace quantities of basal sediments and water were produced during the test. No sand was detected in the produced fluid sampled at the surface; however, a small quantity of fine-grain sand was removed from the bottom-hole fluid samplers.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/8-1