



Wellbore History

GENERAL

Well 2/2-4 was drilled on the northern segment of the Alpha structure in the southeastern corner of block 2/2 on the northeastern flank of the Central Graben in the Ula-Gyda Fault zone. The structure is a salt induced dome in an area exposed to extensional tectonism where rollover mechanism may have influenced the final structure. The southern segment well 2/2-1, separated from the northern by a normal fault, proved gas in Oligocene and oil in Late Jurassic sandstones.

The main objective of the well was to test the reservoir potential of Late Jurassic Ula Sandstone and to test a possible communication with the Alpha South structure. If hydrocarbon bearing, the objective was to prove an oil column thick enough for commercial exploitation of the Alpha structure.

OPERATIONS AND RESULTS

Wildcat well 2/2-4 was spudded with Wilh. Wilhelmsen semi-submersible rig Treasure Saga on 16 April 1988 and drilled to TD at 4020 m in the Triassic Smith Bank Formation. The well was drilled with spud mud down to 915 m, with KCl mud from 915 m to 3310 m, and with gel mud from 3310 m to TD. It was drilled down to top Jurassic and 9 5/8" casing was set.

Oligocene came in at 2084 m with sand with small amounts of gas. Eight pressure points in the interval gave a water gradient of 1.0 g/cc and a gas gradient of 0.21 g/cc. The gas/water contact was defined at 2110.5 m, the same as in 2/2-1. Estimated porosity from logs was max. 27%. The main target Ula reservoir was encountered at 3324 m, but was found water wet. Only residual oil was found in the uppermost part of the Ula sandstone and in siltstone of the Bryne Formation. No cores were cut. One FMT segregated sample recovered gas from 2109 m in Oligocene. The gas was very dry with 97% methane. The well was abandoned on 7 June 1988 as a gas appraisal well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/2-4