



Wellbore History

GENERAL

Well 33/12-5 was drilled on the Tampen Spur in the northern North Sea. It was drilled on the southeast, downfaulted flank of the Statfjord structure, but on the upthrown block of the major, east-bounding Statfjord fault. The well was programmed to test in a higher structural position, a Triassic sand, found water bearing in the 33/12-2 well, and to evaluate older, untested section beneath the sand. The Triassic sand in 33/12-2, defined seismically by the "R2" horizon, had been tentatively identified as Early Triassic. Secondary objectives were possible Jurassic reservoirs preserved within this downfaulted area east of the Statfjord Field. The 33/12-4 well was a similar test on the east flank of the Statfjord feature. This well found a thin Jurassic/Upper Triassic? sand with good porosity, which tested saltwater with minor amounts of oil.

The well is type well for the Lomvi and Teist formations.

OPERATIONS AND RESULTS

Appraisal well 33/12-5 was spudded with the semi-submersible installation Norskald on 9 October 1975 and drilled to TD at 4574 m in the Triassic Lomvi Formation. The well was drilled water based with a lignosulphonate mud from 485 m to TD.

The Tertiary and Late Cretaceous sections were similar to other wells in the area, consisting predominantly of claystones and siltstones with minor sands. Along the southeast flank of the Statfjord feature, erosion appears to have removed Jurassic sediments and a portion of the Upper Triassic prior to draping of an indeterminate Jurassic sand, interpreted as reworked Statfjord Formation sand, on the eroded Triassic surface. Only minor shows were encountered in the reworked Jurassic sand, which tested saltwater on DST. These were the only shows reported from the well.

Top Triassic, Hegre Group, was penetrated at 2735 m. The main Triassic objective, previously interpreted as an Early Triassic Bunter Sand (Lomvi Formation) in 33/12-2 and projected to 33/12-5, was encountered at 3741 m. The sand was 115 m thick and 307.5 higher than in the 12-2 well. Reinterpretation of palynology indicates that this sand is of Late Triassic Carnian-Norian age in both wells. The sand was found water wet and exhibited marginal reservoir characteristics with an average log porosity of only 11 percent.

No cores were cut and no wire line fluid samples were taken in this well.

The well was permanently abandoned on 21 February 1976 as a dry well.

TESTING

One drill stem test was performed in the reworked sand on top of the Triassic in the interval 2718 m to 2724.1 m. The test produced 443 m³/day of water without any oil. The bottom hole temperature during the test was 97.8 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 33/12-5