



Wellbore History

GENERAL

Well 6406/1-2 was drilled on the Sklinna prospect in the Norwegian Sea ca 10 km west of the Kristin Field. The Sklinna prospect is a faulted structural closure within a huge structure at Base Cretaceous level on the Sklinna High. The area closure was about 60 km²; crestal depth at ca 4160 m msl, and structural relief of more than 600 m. Structural closure was observed on all levels from The Lysing Fm and deeper. Therefore all possible reservoir levels like the Lysing and Lange sandstones were possible targets, but the primary target was the hydrocarbon potential in the Early Jurassic sandstone reservoirs of the Båt Group.

OPERATIONS AND RESULTS

Wildcat well 6406/1-2 was spudded with the semi-submersible installation Deepsea Bergen on 26 June 2003 and drilled to TD at 4500 m in the Triassic Red Beds. The well was drilled with seawater/ high viscous sweeps with seawater/PAC spud mud down to 1205 m, with a water based silicate mud (Sildril) from 1205 m to 2415 m, and with Versapro oil based mud from 2415 m to TD. In addition to Versapro, Versatrol, VersaVert, and EDC99-ESCAID were used in intervals in the oil-based section. No shallow gas was observed.

No significant sand development was encountered above the Lange Formation. The well encountered Hydrocarbon bearing sandstone of Turonian age in the Lower Lange Formation from 4163 m - 4185 m (4157 - 4181 m TVD). The Early Jurassic Båt group was not present in the well as the Early Cretaceous rested unconformably on Triassic sediments. The reservoir hydrocarbon samples taken at 4178 m were all found to have more than 90 % mud contamination. A number of different petroleum-like products were used in the oil-based drilling mud, including Versatrol, which is a trade name for Gilsonite, a natural petroleum asphalt. Due to this strong contamination the PVT program was reduced and of all the geochemical analyses only the optical analyses (e.g. vitrinite reflectance), the gases and the light hydrocarbons were unaffected. The well was found to be immature down to about 3000 m. The lean Cretaceous and Triassic sediments below this depth had relatively poor source rock potential. The chemical and isotopic composition of the gas and light hydrocarbons in the reservoir indicated a high-mature situation. Comparison with other data from the area indicated that the gasses had an affinity to the Spekk Formation, while the light hydrocarbons had some characteristics pointing to the Åre Formation. The heavier hydrocarbons (the oil) were masked by the oil-based mud and could not be characterized. Neither the Åre nor the Spekk Formations are present in the well.

No conventional core was taken in the well. Fifteen sidewall cores were retrieved out of 25 attempts. Due to tight hole and cemented formation MDT pressure test and sampling was only successful at 4178 m. Seven samples were taken, 4 MPSR, 2 SPMC and one gallon sample. Gas, condensate and mud filtrate was sampled, no formation water was observed. All samples were strongly contaminated by oil-based mud.

The well was permanently abandoned on 4 September 2003 as a gas/condensate discovery.

TESTING

No drill stem test was performed in the well.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6406/1-2