



Wellbore History

GENERAL

Well 6507/7-11 S was drilled to test a 3-way dip closed structure (Heidrun SW) between the Smørbukk Field to the southwest and the Heidrun Field to the northeast. The Heidrun SW prospect consists of a downthrown fault closure, W-segment and an independent up-thrown three way dip-closure; the SW-segment. The trap is a structural hanging wall trap, and formed as a consequence of Late Jurassic to Middle Cretaceous extensional tectonics. The prospect has a 3-way dip closure to the north, west and south and an up-thrown fault closure to the east, requiring a fault seal in order to have hydrocarbons present. The primary objective was to prove up commercial reserves for the Heidrun SW structure, by testing the hydrocarbon potential of the Middle Jurassic Fangst Group, by means of wire line logging and coring. Secondary objectives were to test the Early Jurassic Tilje and Åre reservoirs and the Early Cretaceous sandstones for Hydrocarbon potential. The flowing potential and productivity of a discovery, if made, should be evaluated by MDT and DST-tools. If no indications of hydrocarbons in Late Tilje were found, the well would reach TD at 3706 m TVD RKB (3710 m MD RKB) or 50 m below top Tilje Formation. If hydrocarbons were present, the well would reach TD deeper, at 3926 m TVD RKB (3930 mMD RKB) or 270 m below top Tilje.

OPERATIONS AND RESULTS

Well 6507/7-11 S was spudded with the semi-submersible installation Mærsk Jutlander on 25 June 1997 and drilled to TD at 3749 m (3744 m TVD RKB) in the Early Jurassic Tilje Formation. The well was drilled with Seawater and hi-vis pills down to 754 m and with KCl glycol enhanced mud from 754 m to TD.

Nearly 40 m net thickness (of 100 m gross) of Fangst Group sandstones was encountered. Apart from elevated high background levels of mud gas in the interval 1500 m to 1540 m (7% to 11%) the well was practically devoid of hydrocarbon indications and the target reservoir zones in the Fangst and Båt Groups were found to be dry. A drill break in the Garn Formation confirmed only background levels of gas. One core was cut from the Garn Formation and into the Not Formation in the interval 3461 m to 3488 m, recovering sandstone with a siltstone bed. A PVT water sample was taken at the depth of 3458.9 m in the Garn Formation.

The well was permanently abandoned as a dry well on 14 August 1997.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/7-11 S