



Wellbore History

GENERAL

Well 9/3-1 was drilled on a salt induced domal trap developed at the edge of the Stavanger Platform. The main objective of the well was to evaluate the sandstones of the Middle Jurassic Vestland Group at a prognosed depth of 1805 m. The well was designed to achieve a valid test of the prospect with one well, and to ensure a satisfactory tie of well results to existing seismic data. The prognosed TD was 2125 m. The well was planned to fully penetrate the reservoir sequence and proceed 50 m deeper than the crest, into the underlying rocks of Triassic age.

OPERATIONS AND RESULTS

Wildcat well 9/3-1 was spudded with the semi-submersible installation Borgny Dolphin on 29 July 1986 and drilled to TD at 1972 m in the Triassic Skagerrak Formation. Drilling proceeded without significant problems.

Top Sandnes Formation came in at 1788 m, 18 m above prognosed depth. The reservoir was water bearing with no trace of hydrocarbons. The Vestland Group was found to be 167 m thick with porosities up to 29.5%. Permeability measurements from the core in the Sandnes Formation gave an average value of about 1000 mD, but as high as 4700 mD in one instance. No increase in background gas and no fluorescence or other hydrocarbon indications were observed on cuttings or on any of the 70 sidewall cores recovered. The Tau Formation shales had excellent source rock properties with TOC in the range 1.5 % to 4.5 % and hydrogen indexes in the range 100 to 500 mg HC/g TOC. Coals of the Lower Sandnes Formation and in the Bryne Formation also showed excellent properties with hydrogen indexes up to 465 mg HC/g TOC. No migrant hydrocarbons were however indicated by the organic geochemical analyses, and all formations penetrated by the well were immature for generation of petroleum and. One core was cut in the interval 1799 -1814 m in the Sandnes Formation. The RFT tool was run in the bottom hole section over the reservoir and 8 good pressure points confirmed a water gradient. No fluid sample was taken.

The well was permanently abandoned on 4 September 1986 as a dry hole.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 9/3-1