Groups Formation Tops

Wellbore History

The objective for well 31/5-6 was to test the hydrocarbon potential of the Jurassic U-structure in PL 191 west of the Troll Field. The primary targets were to test the hydrocarbon potential of the Sognefjord and Fensfjord Formations of the Viking Group. Secondary targets were to test the hydrocarbon potential of the Brent Group and to test the possibility of hydrocarbons being present in the Våle Formation of the Rogaland Group.

OPERATIONS AND RESULTS

GENERAL

Wildcat well 31/5-6 was spudded with the semi-submersible installation "Scarabeo 6" on 5 July 2000 and drilled to TD at 2370 m in the Early Jurassic Drake Formation. The well was drilled with spud mud down to 1201 m and with water based "Glydril" mud from 1201 m to TD. More than 400 m of upper Jurassic Viking Group sediments were penetrated in well 31/5-6 U-structure. About half of the Viking Group is composed of the sand-rich, shallow marine Sognefjord, Fensfjord and Krossfjord Formations; the remaining is assigned the Heather Formation and a very thin Draupne Formation. The potential Sognefjord and Fensfjord reservoirs were found water bearing, although weak shows were reported in the uppermost part of the Sognefjord Formation. The Brent Group was 126 m thick and consisted of the Tarbert, Ness, Etive, Rannoch and Oseberg formation equivalents. Also the Brent Group was found water bearing although weak shows were reported in the uppermost part of the Tarbert formation equivalent. No conventional cores were cut and no fluid samples were taken. The well was permanently abandoned as a dry well with shows on 25 July 2000.

TESTING

No drill stem test was performed

NORDLAND GP TOP 400 RDALAND GP TOP 500 600 700 800 900 1000 1100 1200 1300 TD (m) 1400 1500 **GP TOP BALDER FM TOP SELE FM TOP** 1600 LISTA FM TOP 1700 VÅLE FM TOP ADD FORD GIVENING BOGNENFORM FORTOR 1800 **HEATHER FM TOP** 1900 FENSFJORD FM TOP 2000 KROSSFJORD FM TOP **HEATHER FM TOP** 2100 2200 BRENT GP TOP 2300 **DUNLIN GP TOP** DRAKE FM TOP

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/5-6