Formation Tops Groups NORDLAND GP TOP 1000 <mark>ĦO</mark>RDALAND GP TOP TD (m) 2000 3000 GP TOP

FORTIES FM TOP

Wellbore History

GENERAL

Well 1/3-10 A is located on the Hidra High, ca 20 km south-south west of the Ula Field in the North Sea. It was drilled to further appraise the Forties Formation Sandstone in the Oselvar structure, after the primary well 1/3-10 had confirmed oil and gas in the structure. The main goal of the sidetrack well was to penetrate the water leg for water sampling and establish the free water level in the structure.

OPERATIONS AND RESULTS

The Oselvar 1/3-10 A appraisal sidetrack kicked off in the claystones of the Hordaland Group at 2276 m on 7 January 2008. It was drilled with the jack-up installation Mærsk Guardian to final TD at 3632 m in the lower part of the Sele Formation below the target Forties Sandstone. The well was drilled without significant technical problems. It was drilled with Carbo SEA OBM from kick-off to TD.

The well track penetrated the remaining Hordaland claystone, and the claystones, tuffaceous claystones and sandstones of the Rogaland Group (Paleocene-Eocene), which included the Balder Formation, the Sele Formation, and the target Forties Sandstone Member. The top of the Balder Formation came in only 1 m TVD shallow compared to prognosis, the Sele Formation came in deep (10 m TVD) compared to prognosis. The Forties Sandstone came in at 3516 m (3257 m TVD RKB), 11 m TVD compared to prognosis. The log data confirmed that the well had penetrated the water leg of the reservoir as expected, and indicated 64 m MD (43 m TVD) gross reservoir and a net reservoir of 37 m MD (25 m TVD), giving a Net/Gross of 0.58. The net reservoir, all of which is considered to be non-pay, has an average porosity of 18 % and mobilities in the range 1-13 mD/cP. Pressure measurements indicated a free water level at 3245 m TVD RKB.

From petrophysical evaluation the water bearing reservoir was found to contain residual hydrocarbons. The only oil show in the well was a weak oil stain at 3525 m (3263 m TVD RKB) in the Forties Formation.

No cores were cut in 1/3-10 A. An RCI log was run for pressure and fluid sampling. Water samples were taken at 3556 m, 3572 m, and 3536.75 m.

The well was permanently abandoned on 13 January 2008 as an oil and gas appraisal well.

TESTING

No DST was carried out

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 1/3-10 A