



Wellbore History

GENERAL

Well 3/7-8 S was drilled on the Trym South prospect between the Norwegian Trym field and the Danish Lulita Field in the North Sea. The primary objectives were to prove hydrocarbons in the Sandnes and Bryne formations, to define the fluid contacts and to obtain representative fluid samples from the reservoirs. A secondary objective was to investigate the presence of hydrocarbons in the Palaeocene Maureen Formation.

OPERATIONS AND RESULTS

Wildcat well 3/7-8 S was spudded with the jack-up installation Mærsk Giant on 9 December 2012 and drilled to TD at 4188 m (3733 m TVD) in the Permian Zechstein Group. The well was drilled vertical down to 1123 m. From there, inclination was built up to a sail angle of 41° at ca 1700 m. From ca 2512 m, the inclination was dropped to vertical again from ca 3800 m. Apart from stuck conductor in the top hole, requiring a re-spud, there were no significant problems encountered in the operations. The well was drilled with seawater down to 202.5 m, with bentonite/polymer mud from 202.5 m to 1126 m, and with Versatec oil based mud from 1126 m to TD.

The Maureen Formation was encountered at 3302 m, but was water-wet. Top Sandnes Formation Sandstone was encountered at 3891.5 m (3435.8 m TVD). The Sandnes and underlying Bryne formations contained a 36 m TVD oil column with an 85 m TVD gas cap. The net/gross for the hydrocarbon bearing interval was 0.51. A GOC was established at 3977 m (3521.4 m TVD) and the OWC at 4012.9 m (3557.3 m TVD). Pressure data showed four clearly differently pressured zones through the hydrocarbon bearing reservoir, separated by coals and shaley barriers as seen on the well logs. Fair to good oil shows were recorded between 3891 m and 4000 m and trace to poor shows were recorded from 4000 to 4040 m. Otherwise no oil shows above the oil base in the mud were detected in the well.

Three cores were cut in the Sandnes and Bryne formations from 3890 to 4039 m with 100% recovery. The core to log depth shifts for cores 1, 2, and 3 are 3.0 m, 3.4 m, and 3.6 m, respectively. RCX fluid samples were taken at 3933.5 m (gas), 3952 m (gas), 3975.5 m (gas), 3979.5 m (oil), 4005.5 m (oil), 4005.7 m (oil), and 4042.5 m (water).

The well was permanently abandoned on 3 March 2013 as an oil and gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 3/7-8 S