Formation Tops Groups NORDLAND GP TOP **UTSIRA FM TOP** <mark>HO</mark>RDALAND GP TOP 1000 SKADE FM TOP **GRID FM TOP** 2000 **BALDER FM TOP** GP TOP SELE FM TOP TD (m) HEIMDER FMPTOP **VÅLE FM TOP** SHETLAND GP TOP **EKOFISK FM TOP** TOR FM TOP 3000 **HOD FM TOP** BILDROPORUS FIND PTOP

CROMER KNOLL GP TOP RØDBY FM TOP

ASSAFM FOR TOP

HEATHER FM TOP

SLEIPNER FM TOP

HUGIN FM TOP

COOK FM TOP

OVIRCING COOP TOOP

VESTLAND GP TOP

BTANTH NO & B TOPPTOP

4000

Wellbore History

GENERAL

Well 15/6-11 A was drilled to appraise the 15/5-1 Dagny Discovery in the South-eastern end of the Viking Graben. The north-eastern extension of this structure, the Ermintrude Segment, was tested in 2007 by well 15/6-9 S and side tracks 15/6-9 A&B, which proved oil and gas in a down-to situation in the Hugin Formation, and in communication with the Dagny Discovery. Well 15/6-11-A was drilled on the western part of the Ermintrude structure, on the saddle point between the main Dagny segment and the Ermintrude Segment. The main objective was thus to delimit and test the extension of the hydrocarbon-bearings sands in Hugin Formation of the Dagny Discovery. If hydrocarbons were confirmed a drill stem test would be conducted.

OPERATIONS AND RESULTS

Appraisal well 15/6-11 A was sidetracked from the primary well 15/6-11 S on 26 December 2010. Kick-off point was 1981 m. The well was drilled with the semi-submersible installation Ocean Vanguard to TD at 4305 m (3853 m TVD) in the Early Jurassic Statfjord Formation. No significant problems were encountered in the operations. The sidetrack well was drilled with XP-07 14A oil based mud from kick-off to TD.

The target reservoir sandstones of the Hugin Formation were encountered at 4121 m (3708.5 m TVD), 12.5 m deeper than prognosis. The Hugin Formation was found to be heterolithic siltstone/sandstone at the top but grading to better sand quality with depth. Good sandstones with high gas values and hydrocarbon shows were encountered 4138 m. Both the core and the logs showed presence of hydrocarbons in the Hugin Formation with OWC at 4167 m (3745 m TVD). There were shows indications also in sands in the Sleipner Formation and in the Statfjord Formation towards TD of the well.

A core was cut from 4148 m to 4179 m. The core shift relative to the logs was found to be close to + 2.3 m for the whole core. MDT wire line fluid samples were taken at 4148 m (oil and gas), and at 2597.7 m (water).

The well was permanently abandoned on 13 March 2011 as a gas/condensate appraisal well.

TESTING

A drill stem test was conducted from perforations at 4137.8 m to 4158.5 m in the gas/condensate bearing zone of the Hugin Formation. The test produced 120 Sm3 oil and 220000 Sm3 gas /day through a 32/64" choke. The GOR was 1830 Sm3/Sm3. The bottom hole temperature at reference depth was 118 deg C.