



Wellbore History

GENERAL

Wildcat well 15/8-1 was drilled west of the Sleipner field, ca 2 km from the UK border. The well was designed to test possible hydrocarbon accumulation in the sandstones of middle Jurassic age.

OPERATIONS AND RESULTS

Wildcat well 15/8-1 was spudded with the semi-submersible installation Glomar Biscay II on 18 July 1981 and drilled to TD at 4300 m in the Middle Jurassic Fladen Group. Drilling operations were performed without significant problems in the 36", 26" and 17 1/2" holes. Pipe stuck in the 12 1/4" hole at 2254 m and several times in the 8 1/2" hole. Miscellaneous technical problems occurred while drilling the 6" hole and a gas kick was at 4265 m while tripping. The well was drilled with seawater and gel down to 500 m and with gypsum mud from 500 m to 2890 m. Lignosulphonate was added from 1570 m, and from 2890 m to TD the gypsum mud was gradually depleted and replaced with a gel/lignosulphonate mud.

The well 15/8-1 proved gas and condensate in sandstone of Middle Jurassic age. The gas/water contact was indicated at 3698 m from the Formation Multi Tester. Oil shows were recorded from 3065 m to 3075 m in the Hod Formation. Five conventional cores were cut in the interval 3658 m to 3705.5 m in the Hugin Formation. Three samples were attempted taken during FMT runs. Due to technical malfunctions only 1 sample (from 3668 m) was obtained.

The well was permanently abandoned on 7 January 1982 as a gas/condensate discovery.

TESTING

One drill stem test was performed in the Sleipner formation and three in the Hugin Formation. The procedure of the tests was similar; after initial flow and build up the well was flowed for approximately 660 min. producing gas/condensate. Test no. 4 was only flowed for 480 minutes. CO2 was produced in all tests, in concentrations ranging from 4% to 15%, and up to 8 ppm H2S was recorded in DST2. Two sets of PVT samples were taken at the separator during all 4 tests.

DST1 from 4079 m to 4094 m in the Sleipner Formation produced 427000 Sm3 gas and 316 Sm3 condensate/day on a 19.1 mm choke. The gas/condensate ratio (CGR) was 1351 m3/m3. DST2 from 3911 m to 3926 m produced 486000 Sm3 gas and 399 Sm3 condensate/day on a 16.7 mm choke, the CGR was 1218 m3/m3. DST3 from 3688 m to 3697 m produced 657000 Sm3 gas and 408 Sm3 condensate/day on a 22.2 mm choke. The CGR was 1610 m3/m3. DST4 from 3643 m to 3653 m produced 550000 Sm3 gas and 290 Sm3 condensate/day on a 22.2 mm choke. The CGR was 1897 m3/m3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/8-1