



## Wellbore History

### GENERAL

Well 34/8-11 was drilled to appraise the 34/8-1 Visund discovery on Tampen Spur in the Northern North Sea. The main objective was to verify the extension of the Brent reservoir and fluid type encountered in Well 34/8-8.

### OPERATIONS AND RESULTS

Appraisal well 34/8-11 was spudded with the semi-submersible installation Polar Pioneer on 10 December 1993 and drilled to TD at 3140 m in the Early Jurassic Cook Formation. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis pills down to 1295 m, and with the ANCO 2000 glycol mud system from 1295 m to TD.

A 1.5 m thick section of the Draupne Formation was encountered at 2852.5 m on top of a 15 m thick Heather Formation at 2854 m. The Brent Group was encountered at 2869 m. The Brent Group contained oil-bearing sandstones in the Tarbert, Ness, Etive and Rannoch Formations. A gross Brent reservoir thickness of 142 m was defined, giving a net pay of 69.4 m. From MDT pressures and logs an OWC was indicated between 2960 and 2965 m in the Rannoch Formation, however, moveable oil appears to be present all through the Rannoch. Reservoir geochemistry of core extracts indicate a shift from unaltered oil to slightly biodegraded residual oil somewhere between 2969 m and 2986 m. Good oil shows were recorded on the cores down to 3005 m otherwise no other oil shows were described in the well.

Eight cores were cut in succession from 2859 to 3008 m, covering the lower half of the heather Formation and all of the Brent Formation. The core depth shifts relative to the logs were in the range -1.5 m to - 2.0 m; except for core no 4, which had a core-log shift of + 0.125 m. MDT fluid samples were taken at 2876.5 m. 2923 m, 2933 m, 2948 m, and at 2964 m.

The well was permanently abandoned on 8 February 1994 as an oil appraisal well.

### TESTING

Two drill stem tests were conducted in the Brent Group.

DST 1A tested the interval 2942.2 - 2956.2 m. It produced 1142 Sm<sup>3</sup> oil and 285300 Sm<sup>3</sup> gas /day through a 40/64" choke. The GOR was 250 Sm<sup>3</sup>/Sm<sup>3</sup>, the oil density was 0.841 g/cm<sup>3</sup>, and the gas gravity was 0.755 (air = 1) with only a trace CO<sub>2</sub>. The bottom hole temperature measured at 2848.86 m was 111.6 deg C.

DST 2B tested the intervals 2913.2 - 2939.0 m plus 2942.2 - 2956.2 m. It produced 1135 Sm<sup>3</sup> oil and 291800 Sm<sup>3</sup> gas /day through a 40/64" choke. The GOR was 257 Sm<sup>3</sup>/Sm<sup>3</sup>, the oil density was 0.839 g/cm<sup>3</sup>, and the gas gravity was 0.735 (air = 1) with 1.2 % CO<sub>2</sub>. The bottom hole temperature measured at 2848.86 m was 112.3 deg C.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/8-11