



GENERAL

Well 16/7-4 is located ca 10 km southeast of the Sleipner Øst Field and 6 km east of the 15/9-15 gas discovery in the North Sea. The objective of the well was to test the presence of a structural trap in Jurassic/Triassic sandstones on the A-North Prospect in the southwest corner of Block 16/7.

OPERATIONS AND RESULTS

Well 16/7-4 was spudded with the semi-submersible installation Glomar Biscay II on 15 October 1982 and drilled to TD at 2781 m in the Triassic Group. The well was drilled with seawater and gel all through.

Only 1.5 m Jurassic sediments (Draupne Formation) were present in well position. The Triassic Group sandstone was encountered at 2521.5 m and held a 117.8 m gas/condensate column from top and down to 2639.3 m (-2314.3 m subsea). The gas-bearing sandstones were found interbedded with a few thin shales. The reservoir quality was best near the top of the sand, becoming gradually poorer downwards. The net gas sand was 85.4 m with 23% porosity and 36% average water saturation. No shows were reported from above or below the hydrocarbon-bearing interval in the well.

Six conventional cores were cut from 2568 to 2681.5 m to in the Jurassic - Triassic interval. One Multi Formation Tester (MFT) fluid sample was taken at 2638.5 m. It recovered 1.2 litres of 57 deg API condensate, 1.3 Sm3 gas and 2 litres of water.

The well was permanently abandoned on 6 December 1982 as a gas/condensate discovery.

TESTING

Two drill stem tests were performed in the Triassic Group.

DST 1 at 2590.5 - 2597 m flowed 199 Sm3 condensate and 385110 Sm3 gas /day through a 42/64" choke. The gas/condensate ratio was 1938 Sm3/Sm3, the oil gravity was 58 deg API, and the gas gravity was 0.791 (air = 1).

DST 2 at 2525 - 2535 m flowed 253 Sm3 condensate and 472890 Sm3 gas /day through a 42/64" choke. The gas/condensate ratio was 1871 Sm3/Sm3, the oil gravity was 59 deg API, and the gas gravity was 0.797 (air = 1).

Water, other than condensation of water vapour, was not produced in the two tests. The CO2 content was between 0.3 and 0.4 %. H2S was not detected.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/7-4