



## Wellbore History

### GENERAL

Well 30/6-10 was drilled to appraise the hydrocarbon potential in the Alfa structure on the Oseberg Field in the North Sea. The main objective was to define the gas/oil contact and to obtain cores from this zone.

### OPERATIONS AND RESULTS

Appraisal well 30/6-10 was spudded with the semi-submersible installation Treasure Scout on 4 October 1982 and drilled to TD at 2656 m in the Early Jurassic Drake Formation. Some problems were encountered while running both 20" and 13 3/8" casing. The drill string got stuck at 1992 m and leakages in the BOP stack after installing the 13 3/8" casing also occurred. The well was drilled with seawater and hi-vis pills down to 970 m and with KCl/polymer mud from 970 m to TD. At 1992 m 15 m<sup>3</sup> diesel and 15.9 m<sup>3</sup> Imco spot was pumped to free the pipe.

First oil show in the well was recorded at 1980 m in limestone stringers at top Balder Formation level. Poor oil shows were recorded in the intervals 2030 to 2100 m and 2215 m to 2253 m. Good oil shows were recorded on cuttings from marls and limestones in the Shetland Group from 2253 m to 2380 m, then again poor shows were recorded down to top of the Brent Group at 2457 m. The well encountered oil and gas in Middle Jurassic Brent sandstones. The Brent Group was found hydrocarbon bearing over the entire 118 m interval. Net pay was 37.3 m with 23.3 % average porosity and 23.9% average water saturation. The gas/oil contact was found from RFT pressure gradients to be at 2520 m in the Ness Formation, but no oil/water contact was encountered.

A total of eleven conventional cores were cut from the top of the Ness Formation and down into the Dunlin Group shales. Driller depths through the cored section are 0.0 to 2.5m deeper than logger's depth. The estimated gas/oil contact is captured in core number 6. Segregated RFT samples were taken at 2546.1 m (gas, oil and filtrate), 2555.5 m (gas, oil and filtrate), and 2467.5 m (gas and filtrate).

The well was plugged back on 2 December 1982 for sidetracking to well 30/6-10 A.

### TESTING

No drill stem test was performed, instead testing was to be done in the 30/6-10 A sidetrack.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/6-10