



Wellbore History

GENERAL

Well 30/6-17 A is a sidetrack to well 30/6-17 R on the western side of the Oseberg Field. Well 30/6-17 R did not penetrate the Statfjord Formation in a high structural position as planned. The sidetrack was drilled to fulfil the objective. Secondary objectives were to appraise the Cook Formation discovery and the gas sands around BCU found in 30/6-17 R. Finally, a minifracture test would be conducted to obtain minimum-horizontal-stress data that could improve drilling efficiency in Eocene clays in the Oseberg area. Prognosed depth of the well was 3532 m (2690 m TVD), 50 m into the Statfjord Formation.

OPERATIONS AND RESULTS

Well 30/6-17 was re-entered with the semi-submersible installation Treasure Hunter on 4 February 1986. Sidetrack 30/6-17 A was kicked off due west from below the 13 3/8" casing, with kick off point at 1633 and drilled to TD at 2686 m (2528 m TVD) in the Early Jurassic Statfjord Formation. Drilling proceeded without significant problems. It was drilled with KCl/polymer mud from kick off to 2335 m and with NaCl/polymer mud from 2335 m to TD.

The well encountered a gas bearing Cook Formation while the Statfjord Formation was found water bearing. Hydrocarbon shows seen in Tertiary and Cretaceous limestones similar to in 30/6-17 R, and also in a ca 5 meter thick sandstone bed associated with the Base Cretaceous Unconformity. The Cook Formation (2460 - 2488 m, 2357.5-2379 m TVD) is developed as an overall coarsening upward sequence. The grain size is fine to medium at the upper part, becoming very fine to fine with increasing silt content downwards. The whole of the Cook Formation was found gas bearing with a net pay of 27.9 m. No oil/gas contact was thus seen. The average porosity is 24.1% and the average water saturation is 28%. Cut off criteria for petrophysical evaluation was: PHI < 12%, Sw > 60%, Vsh >40%. The Statfjord Formation (2632 to TD), 2487-2528 m TVD) was entirely water bearing. The net sand calculated from logs is 22.1 m with an average porosity of 23.8%.

Seven conventional cores were taken in the well. Core 1 was cut in sandstones and shales at the boundary between the Cretaceous and the Jurassic from 2420 - 2430 m (driller's depth). Cores 2 - 4 were taken in the Cook Formation and the upper part of the Amundsen Formation from 2466 to 2511 m. Cores 5 - 7 were taken in the Statfjord Formation from 2636 m to 2676 m. Due to unfavourable hole conditions no SFT pressure tests or fluid sampling were performed in the well.

The well was permanently abandoned on 18 March 1986 as a gas well.

TESTING

No drill stem test was performed. A minifracture test was performed at 1851 - 1852 m in Eocene clays.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/6-17 A