



Wellbore History

GENERAL

Well 34/4-9 S was drilled on the northern part of the Western Central Fault Block (WCFB) on the Snorre Field in the northern North Sea. This is an appraisal well and the main objectives were to contribute to the technical basis for Snorre North PDO and to reduce the uncertainties in reservoir quality. The reservoir level in this part of Snorre is the Late Triassic Lunde Formation.

OPERATIONS AND RESULTS

Appraisal well 34/4-9 S was spudded with the semi-submersible installation Scarabeo 5 on 8 January 1997 and drilled to TD at 3440 m (3388 m TVD) in the Late Triassic Lunde Formation. The well was drilled vertical down to 2700 m, from where it built angle up to 24.9 deg at TD with maximum 29.6 deg at 3370 m. The well was drilled with spud mud down to 1235 m, with KCl mud from 1235 m to 1866 m, and with Ancovert oil based mud from 1866 m to TD.

Top of the reservoir (L01) was encountered at 2512.5 m, 12.5 m deeper than prognosed. The conventional core indicated oil down to 2621.5 m (2596 m TVD MSL) (oil stained sandstones), and the interpretation of pressure gradients (MDT data) indicate an OWC at 2619 m (2594 m TVD MSL). However, the wire line logs indicate high water saturation in the sandstone from 2616.5 - 2622 m (2590.5 - 2597 m TVD MSL) with deepest oil down to 2608 m (2583m TVD MSL). The oil-water contact is therefore set to 2616 m (2590 m TVD MSL).

Three cores were cut consecutively over a 209 m long section from 2515 m to 2724 m in the upper part of the Lunde formation with a total recovery of 99.7 %. The core-to-log shifts were -0.61 m for core 1, -1.11 m for core 2, and -0.36 m for core 3. A 2 3/4 gal fluid sample was obtained at 2583 m. Laboratory measurements indicated that the fluid sample was contaminated by 18-22% base oil.

The well was permanently abandoned on 15 February 1997 as an oil appraisal well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/4-9 S