



Wellbore History

GENERAL

Well 6507/5-4 appraised oil and gas in the Garn Formation on the Skarv Discovery, but no OWC was established. The primary objective for the 6507/5-4 A sidetrack was thus to explore for a deeper OWC in the Garn Formation of the C segment, as indicated by a structurally conforming amplitude anomaly. Secondary objectives were the Cretaceous Lysing Formation and sandstones in the Cretaceous Lange Formation.

OPERATIONS AND RESULTS

Appraisal sidetrack well 6507/5-4 A was kicked off from 1480 m in well 6507/4 on 17 April 2001. The well was drilled with the semi-submersible installation Stena Dee to TD at 3883 m (3778 m TVD) in the Early Jurassic Ror Formation. The well inclination was ca 17.5 deg from 1800 m to TD. The well was drilled with KCl/glycol mud from kick-off to 3709 m, and with KCl mud from 3709 m to TD. A geochemical report suspects a mineral oil contaminant in the mud that may have influenced shows characterization in the Lange sandstone, but according to the mud report no mineral oil was used in the mud.

Well 6507/5-4 A completed a shorter logging programme across the Jurassic targets in the 8 1/2" hole than planned. This was due to hole instability problems in the lower part of Melke Formation caused by stuck casing 21 m above planned setting depth for the 9 5/8" casing. An oil-down-to scenario was proven in the primary Garn reservoir, with an oil pressure gradient down to at least 3772 m. Good shows were recorded and confirmed by post-well organic geochemical analyses in Not, Ile, and part of the Ror Formations. In addition, hydrocarbon shows were detected in the 6 m thick Lysing Formation and in poor quality Cretaceous Lange sands in the 12 1/4" hole. No cores were cut. MDT fluid samples were taken at 3733.6 m and at 3748.7 m in the Garn Formation.

The well was classified as an oil appraisal. It was suspended on 3 June 2001 for later re-entry and testing.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/5-4 A