



Wellbore History

GENERAL

Wildcat well 6506/11-7 was drilled on a rotated and truncated fault block on the northern extension of the Kristin trend, west of the Åsgard Field (Smørbukk Discovery). The purpose of the well was to test the hydrocarbon potential of the M-prospect, with targets in the Middle and Early Jurassic sandstones of the Fangst and Båt Groups. It should acquire information about the reservoir quality and the fluid properties. It should also provide velocity information and establish a good seismic tie.

OPERATIONS AND RESULTS

Well 6506/11-7 was spudded with the semi-submersible installation Scarabeo 5 on 25 January 2001 and drilled to TD at 4978 m in Early Jurassic sediments of the Åre Formation. The well was drilled with seawater and bentonite down to 1398 m, with KCl/polymer/glycol mud from 1398 m to 2710 m, and with Versapro mineral oil based mud from 2710 m to TD

Two sections with sandy sediments were penetrated in the Early Cretaceous (the Lysing Formation from 3336 m to 3465 m and a sandstone member of the Lange Formation from 4152 m to 4343 m). Both these sections were water wet without shows. The Fangst Group was encountered at 4578 m. The Garn and the Ile Formations proved to be hydrocarbon bearing. Indications of hydrocarbons were also seen in the Tofte Formation, but log and test results proved that the formation was tight. The Tilje and the Åre Formations proved to be water bearing in the well position. Seven cores were cut. Core 1 was taken in Early Cretaceous, core 2 in the Garn Formation, cores 3 and 4 in the Ile and Upper Ror Formations, cores 5 and 6 in the Tofte Formation, and core 7 in the Tilje Formation. MDT sampling was performed in the Tofte (4772,5 m), Ile (4678,5 m) and Garn (4601,5 m) Formations. The sampling in Tofte was unsuccessful due to tight formation, and the chambers were found to be filled with mud filtrate. The sampling in Garn and Ile was successful although the samples were contaminated with oil-based mud, and therefore less representative. The samples from Garn were highly contaminated, 37-42 weight % OBM filtrate contaminated, while the Ile samples were less contaminated, 5-7 weight %.

The well was permanently abandoned on 27 July 2001 as an oil and gas discovery.

TESTING

Three drill stem tests were performed. Test # 1 in the interval 4751 - 4818 m in the Tofte Formation confirmed tight formation and the test was aborted. Samples taken during reverse circulation indicated influx of formation water, probably from the best zone in the lowermost part of the perforated interval. Test # 2 in the interval 4668 - 4700 m in the Ile Formation produced 540 Sm3 light oil and 211000 Sm3 gas pr day on a 28/64" choke. GOR was 390 Sm3/Sm3. Test # 3 in the interval: 4590 - 4631 m in the Garn Formation produced 240 Sm3 light oil and 127000 Sm3 gas pr day on a 10/64" choke. GOR was 529 Sm3/Sm3. Geochemical fingerprinting of major and biomarker compounds showed very similar oils in Ile and Garn.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6506/11-7