



GENERAL

Well 6406/5-1 was drilled on the Halten Terrace, on a structure south of the Kristin field. The objective of well 6406/5-1 was to test and sample the Middle-Lower Jurassic Garn, Ile and Tofte Formations.

OPERATIONS AND RESULTS

Wildcat well 6406/5-1 was spudded on 23 December 2001 in 286 m water depth with the semi-submersible installation Transocean Winner and drilled to TD at 4692 m in the Early Jurassic Tilje Formation. The well encountered a kick immediately below the base of the Tertiary at 2600 m where hydrocarbons flowed to the surface. An unexpected highly pressured sandy interval of the Springar Formation contained fluid hydrocarbons. Due to problems stabilizing the well bore, the well was technically sidetracked from the 16" casing at 1435 m. The well was drilled with spud mud down to 1434 m, with KCl/PAC/glycol mud from 1434 m to 2691 m, and with Versapro oil based mud from 2691 m to TD.

The well found a 41 m hydrocarbon column in the Garn Formation. From MDT sampling the fluid was interpreted to be a rich gas/condensate with a GOR of 373 Sm³/Sm³. However, the reservoir MDT sample was estimated to have a mud contamination of 49%. Estimation of the uncontaminated reservoir fluid composition and the reservoir fluid properties using equations of state (EOS) gave a GOR of 486 Sm³/Sm³. The Ile and Tofte reservoirs were water bearing, but the cores showed fluorescence. All three prognosed reservoirs were encountered with porosities in the range of 7% to 29%.

A total of 97 m core was recovered in five cores, one core from the Garn Formation, two cores from the Ile Formation, and two cores from the Tofte Formation. MDT pressures were taken from all reservoirs and fluid samples taken from the Ile and the Garn reservoirs. The pressure measurements at the top of the Garn Formation confirmed the predicted high pressure in the reservoir. The measured pressure was 777 bar.

The well was plugged and abandoned on 30 April 2002 as a gas/condensate discovery.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6406/5-1