



**Wellbore History**

**GENERAL**

Well 6507/2-1 is located on the Dønna Terrace, offshore Mid Norway. The primary objective of the well was to test the hydrocarbon potential of Middle and Early Jurassic sandstone sequences. Secondary objective was to examine the possibilities of Cretaceous sand in the area.

It was expected that the primary target, the Middle Jurassic Tomma sandstone (Fangst Group in today's nomenclature) would be encountered at ca 3848 m whilst the Early Jurassic Aldra sandstone (Tilje Formation) was prognosed at ca 4158 m. Expected total depth for the well was 4823 m +/- 200 m or about 50 m into Triassic aged sediments.

**OPERATIONS AND RESULTS**

Well 6507/2-1 was spudded with the semi-submersible installation Polar Pioneer on 24 June 1986 and drilled to TD at 4477 m in Late Triassic claystones and siltstones of the Åre Formation. The well had 29% down time, due mostly to problems with the seal assemblies and technical sidetracking. The sidetrack was kicked off from 3285 m after the pipe had stuck twice, at 3432 m and 3430 m. The well was drilled with seawater and high viscosity pills down to 1064 m, with KCl/polymer mud from 1064 m to 3655 m (including sidetrack), and with gel/lignite/resinex mud from 3655 m to TD.

The well penetrated several sandy intervals in the Cretaceous, the most important being a thin Lysing Formation sand from 2874 to 2879 m, and an Intra-Lange Formation sandy sequence from 3425 m to 3490 m. The Jurassic sandstones of the Fangst Group were encountered at 3858 m. Oil shows; staining and fluorescence were observed sporadically throughout the well from 2800 m to 4375 m. The strongest oil shows were observed in the Lysing and Lange Formation sandstones, and from 3858 m down to 3956 m in the Fangst and Båt Groups. Well site geochemical analyses indicated two source rock intervals in the well. The sequence from 3610 to 3858 m (the Viking Group) was considered to be a fair source rock containing mature Type II marginal Type III kerogen, while the interval 3956 to TD had many good quality coal horizons considered to have excellent potential and to contain mature hydrogen rich source material. No conventional cores were taken in this well. One RFT run was made and a total of 18 pressure points recorded, but no fluid samples were taken.

The well was permanently abandoned on 29 September 1986 as a dry hole with residual hydrocarbon shows in both the Cretaceous and Jurassic sequences.

**TESTING**

No drill stem test was performed.

**LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/2-1**