

Wellbore History

GENERAL

Well 6608/10-1 is located on the Nordland Ridge nearby the Revfallet Fault Complex. The primary objective of the well was to test a Turonian/Coniacian prospect in a position where Lysing sandstone was within defined closure. The well should also test the facies development of the Early Cretaceous Fan, reservoir properties and formation pressure in the Middle Jurassic, and the source rock potential of the Late Jurassic Spekk Formation and the Early Jurassic/Late Triassic Åre Formation. Planned TD was 3373 m, in the coal bearing Åre Formation. Prognosed sand layers in the interval 661 - 685 m could be gas charged.

OPERATIONS AND RESULTS

Wildcat well 6608/10-1 was spudded with the semi-submersible installation Ross Rig on 15 April 1989 and drilled to TD at 3437 m in the Early Jurassic Åre Formation. No shallow gas was encountered while drilling and the well was drilled to TD without significant drilling problems. The well was drilled with seawater and hi-vis pills down to 820 m, with gyp/polymer mud from 820 m to 2508 m, and with gel/lingo mud from 2508 m to TD.

The main target was penetrated at 2661 m, but proved to be only 1.5 m thick in the well position. There was no indication of hydrocarbons in the reservoir. The Lower Cretaceous Fan was penetrated in a very distal position, and consisted of mudstone with thin sandstone stringers. The Fangst group (Garn, Not and Ile Formations) was penetrated approximately 100 m deeper than prognosed. All reservoirs were water bearing, but shows were recorded in the Garn and Are Formations. Post-well organic geochemical analyses showed poor potential in the Cretaceous and Tertiary sections except for an interval around 1580 m to 1670 m in Oligocene / Brygge Formation, where TOC in the range 2-3 % and Hydrogen Indexes around 110 mg/g were measured. Good source potentials were proven in the Spekk and Are Formations. A total of three cores were cut in the well with 100 % recovery. The first core was cut in a Barremian black mudstone of the Lange Formation (2885 m to 2897 m), the second in sandstones of the Garn Formation (3063 m to 3090.15 m) and the third from the Ile/Ror/Tofte formations (3157 m to 3184.9 m). Out of 180 sidewall cores attempted 152 were recovered. Two segregated RFT samples were recovered from 2931 m and 3185 m. Both indicated a low-salinity formation water (fresh water). No hydrocarbons were reported in the samples. Well 6608/10-1 was permanently abandoned on 29 May 1989 as a dry well.

TESTING

No drill stem test was performed