



Wellbore History

GENERAL

Well 6603/5-1 S was a frontier exploration well which tested a high relief structure called Dalsnuten in the southern part of the Gjallar Ridge in the Norwegian Sea. The primary objective was to prove hydrocarbons in reservoirs beneath the interpreted Jurassic J2 and J5 intervals in the Dalsnuten prospect and establish the hydrocarbon phase. Secondary objective was to evaluate the reservoir potential of potential Late Cretaceous sands.

OPERATIONS AND RESULTS

Wildcat well 6603/5-1 S was spudded with the semi-submersible installation Aker Barents on 6 September 2010 and drilled to TD at 5254 m (5068 m TVD) in the Early Cretaceous (Aptian) Lange Formation. A 9 7/8" pilot hole was drilled from 1587 m to 2320 m to check for shallow gas. No shallow gas was observed. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 2320 m, with Glydril mud from 2320 m to 3162 m, and with Paratherm oil based mud from 3162 m to TD.

The prospective Late Cretaceous Springar and Nise formations were penetrated from 2415 m to 3116 m, but consisted of claystone with only traces of siltstone and sandstone. The target J2 and J5 seismic horizons were penetrated and proved to be in Cenomanian and Aptian sediments, respectively. The Jurassic was not reached. The well was dry all through. There were no oil shows and the gas levels were not above background levels.

No conventional or sidewall cores were cut and no wire line fluid samples were taken. The maximum bottom hole temperature measured in the well was 184 deg C. This temperature was recorded on wire line at 5218 m, 68 hours after last circulation of mud. A second log run gave 182 deg C at 5184 m, 81 hours after circulation. From these two temperatures a true formation temperature of 190 +/- 5 deg C was estimated at TD. With - 1.8 deg C at sea floor this gives an average temperature gradient of 53 deg C/km through the well.

The well was permanently abandoned on 20 December 2010 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6603/5-1 S