

Wellbore History

GENERAL

Well 16/3-2 was drilled 40 m east of 16/3-1 on the Utsira High in the North Sea. The objectives were to investigate Paleocene sand pinch out, the weathered top of the Cretaceous chalk and Jurassic sandstone. The 16/3-2 well is a replacement for well 16/3-1, which was junked for technical reasons.

OPERATIONS AND RESULTS

Wildcat well 16/3-1 was spudded with the semi-submersible installation Polyglomar Driller on 11 February 1976 and drilled to TD at 2019 m in granite basement. No significant problems were reported from the operations. The well was drilled with spud mud (gel and lime) and pre-hydrated bentonite down to 440 m, and with lignosulphonate mud from 440 m to TD. Around the well there was a 3 m deep and 15 m wide crater. Gas was observed leaking from 2 main openings and 1 minor. The gas flow from one of the major openings was about 400 l/hour. The gas was practically pure methane (99.98%), probably coming from layers near the surface.

There were no sands in Paleocene and the Cretaceous chalk was tight. A 20 m thick immature Draupne shale was encountered at 1955 m. The well then encountered a 31 m thick late Jurassic sandstone from 1975 m to 2006 m. Below this sandstone was a 9 m thick layer of weathered basement overlying the solid granite. The well proved to be water wet all through, and no shows were recorded.

Three cores were cut. Core 1 gave no recovery, while core recovered 3.5 m core from the interval 1998 m to 2000.6 m in the Late Jurassic sand. Core no 3 was cut from 2017.5 m to 2019 m in basement rock. No fluid sample was taken in the well.

The well was permanently abandoned on 8 March 1976 as a dry well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/3-2