



Wellbore History

GENERAL

The 34/3-2 S Jordbær Øst well was drilled on the northern fringes of the Tampen Spur and adjacent to BG's recent Jordbær oil discovery. The Jordbær Øst prospect is a down-faulted hanging wall to the Jordbær oil discovery. The primary targets for the Jordbær Øst well was the Lower Jurassic shallow marine Cook Formation and the secondary target was the fluvial dominated Statfjord Formation. The two reservoir targets are separated by Jurassic Claystone and siltstones of the Dunlin Group. The well location and path was planned to avoid shallow gas.

OPERATIONS AND RESULTS

Wildcat well 34/3-2 S was spudded with the semi-submersible installation West Alpha on 25 October 2009 and drilled to TD in the Eriksson Member of the Statfjord Formation at 4331 m (4315.3 m TVD). The well started with a 9 7/8" pilot hole to 1028 m to check for shallow gas. No shallow gas was seen. The main well was drilled vertical down to the end of the 17 1/2" section, deviated to 10 degrees through the 12 1/4" section and back to vertical before the 8 1/2" section, to hit the Cook and Statfjord reservoir targets. The well was drilled with seawater and hi-vis sweeps down to 1030 m, with Glydril mud from 1030 m to 2403, with Versatec oil based mud from 2403 to 3882 m, and with Versatherm oil based mud from 3882 m to TD.

Sandstones belonging to the Cook Formation were encountered dry at 4011.7 m (3990.0 m TVD). The Cook Formation sandstones had an average porosity of 17.8% net when using a 10% cut off and an average permeability from logs of 9.17 mD. Some parts of the core contain sands with multi-Darcy permeability. The Nansen Member of the upper Statfjord Formation was penetrated at 4273 m (4256 m TVD).The Nansen Member consisted of relatively clean sandstones with minor thin limestone stringers, and it was dry. It had a net thickness of 28.3 m (at 10%) cut-off and an average porosity of 17% net, with an average permeability of 21.4 mD.

Gas readings while drilling were slightly elevated in the Cook Formation sandstones but no significant fluorescence was seen in the mud. A 27 m core was cut from 4053 to 4080 m. The core had fluorescence that was marginally above the OBM and post well analysis indicated the presence of oil in saturations of around 5 - 30% from Dean Stark measurements in some zones in the core. However, no moveable hydrocarbons were recovered during the extensive MDT programme. MDT water samples were taken at 4285.91 m, 4050.02 m, 4075.47 m, and at 4025 m (dual packer).

The well was permanently abandoned on 30 December 2009 as a dry well with non-moveable hydrocarbons.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/3-2 S