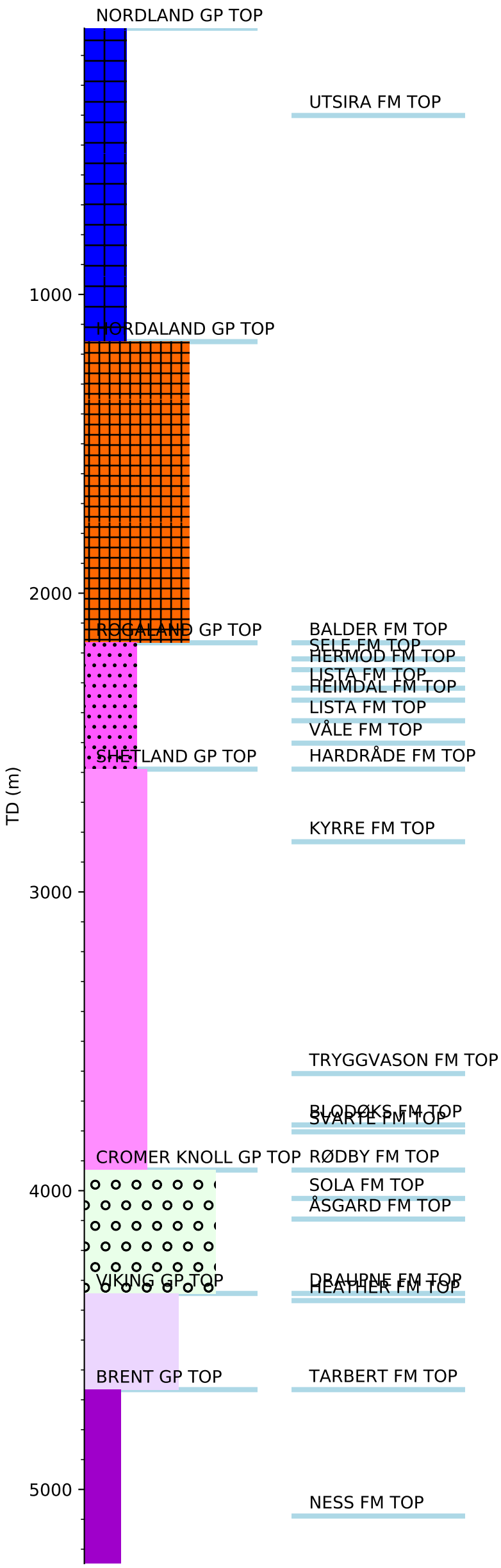

Wellbore History

GENERAL

The exploration well 30/10-6 is situated in the central part of block 30/10, approximately 10km north of the Odin Field. The structure is part of the Jurassic fault block system forming at NE-SW trending complex from the Frigg area to the Southeastern part of block 30/7. The objective of well 30/10-6 was to explore the hydrocarbon potential of the Middle Jurassic Brent Group. Top Brent was prognosed at 5120 m.

OPERATIONS AND RESULTS

The well 30/10-6 was spudded 13 January 1992 by the semi submersible rig West Alpha and was completed the 11 November 1992 at a TD of 5250 in the Middle Jurassic Ness Formation of the Brent Group. Due to too much inclination of the well, it had to be spudded three times. The verticality was critical due to possible severe casing wear in a deep well. After the third spud the drill string got stuck at 620 m in the 26" section. Fishing was unsuccessful and as verticality was important the well was respudded again. If plugging is not considered, the total duration of the well was 206 days for the drilling part. This includes 22 days on the three first spuds and 184 days on the final well. Compared to the planned 114 days (114 = 125 -11 for P&A) this yields a total delay of 92 days. The well was drilled with Bentonite mud down to 1420 m, with gypsum mud from 1420 m to 4368 m, and with polymer mud from 4368 m to TD.

A seismic reflector depth converted to 4850 m (+ /- 200m), was interpreted as a "Callovian Unconformity", possibly with sand stringers. This seismic reflector proved to be top Tarbert Formation at 4666 m. The Tarbert Formation could be divided into two an Upper Sand (4666 m to 4815 m) and a Lower Sand (4884.5 m to 5207 m) separated by a 70 m thick shale unit. The top part of the Upper Sand contained gas. It was not possible to establish a free water level or a gas/water contact. The reservoir characteristics were poor and commercial production was not found to be possible.

The well was permanently plugged and abandoned as a gas discovery.

TESTING

Four tests were performed in the Tarbert Formation, two in the Lower Sand and two in the Upper Sand.

DST 1C in the lower part of the Lower Sand Unit (5008 m to 5045 m) produced no hydrocarbons at surface. The formation was found to be tight and water bearing.

DST 2B in two zones in the upper part of the Lower Sand Unit (4899 m to 4912 m + 4930 m to 4965.2 m) produced dry gas in slugs. Gas gravity was 0.58. The zones were found to be tight with trapped gas and water, with an uncertain gas/water contact. The produced dry gas could come from DST 4 permeable zone by channelling through liner annulus.

DST 3 in the lower part of the Upper Sand Unit (4768 m to 4803 m) produced dry gas in slugs. Gas gravity was 0.62. The formation was found to be tight with trapped gas and water, with an uncertain gas/water contact. Produced dry gas could come from DST 4 permeable zone by channelling through liner annulus.

DST 4 in the upper part of the Upper Sand Unit (4666 m to 4714 m) produced dry gas at a rate of 90000 Sm3/day and no water using an 8/64" choke. The gas was completely dry with no liquid at surface. Gas gravity was 0.62 and had chemical and isotopic composition similar to the gas recovered in DST 2B and DST 3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/10-6