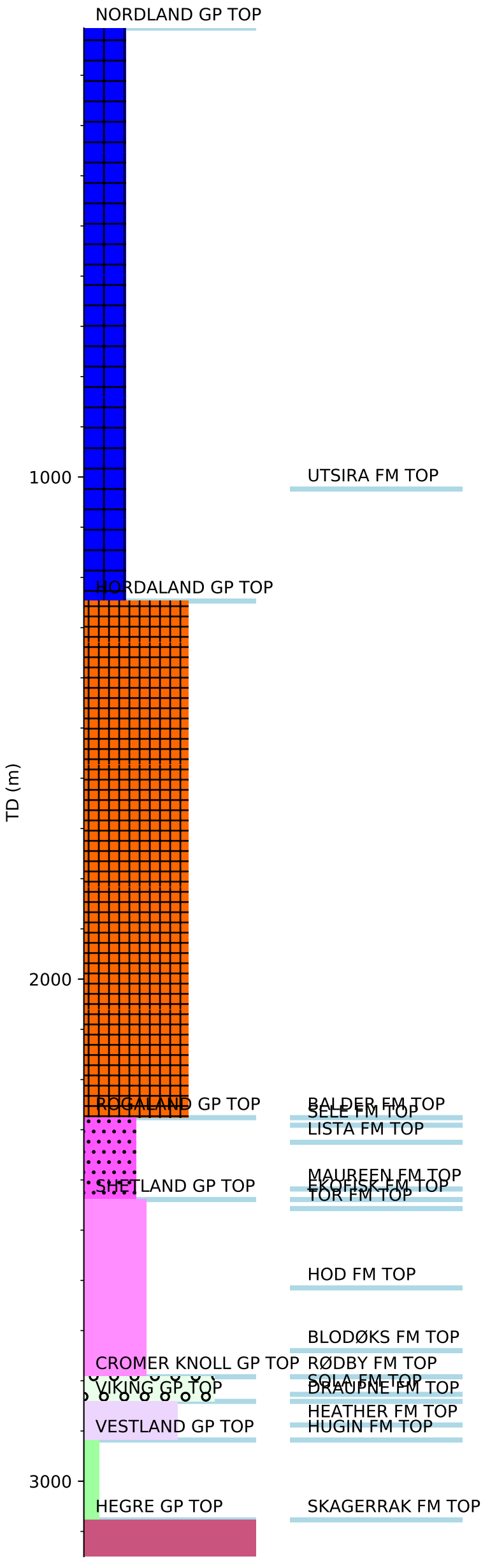

Wellbore History

GENERAL

Well 15/12-5 was drilled on the Beta Central structure ca 3.3 km north-east of the 15/12-4 Varg discovery well in the North Sea. Primary objective was the Jurassic sandstones. Secondary objective was the Frigg Formation sand and fractured limestone of Cretaceous age. Seismic anomalies indicated shallow gas. Prognosed TD was 3100 m RKB in sandstone of Triassic age.

OPERATIONS AND RESULTS

Well 15/12-5 was spudded with the semi-submersible installation Ross Isle on 12 March 1986 and drilled to TD at 3150 m in the Late Triassic Skagerrak Formation. No shallow gas was encountered. Drilling proceeded without significant problems. The well was drilled with Spud mud down to 217 m, with gel/seawater/XC-polymer from 217 m to 619 m, with gypsum/polymer mud from 619 m to 2889 m, and with gel/lignosulphonate/lignite from 2889 m to TD.

Top Cretaceous came in at 2457 m, and top Jurassic at 2841 m. Top of the reservoir, an Oxfordian sandstone, was encountered at 2918 m with good shows. The OWC was found at 2942 m, 28 m below that of well 15/12-4. This is probably due to a flow barrier caused by the fault system with a maximum throw of ca 100 m that separates the Beta West and Beta Central structures. Due to FMT pressure measurements and fluid samples, Statoil decided to go for "sole risk" testing, since Esso denied participating in the testing program.

Three cores were cut in the interval 2892 m to 2967 m with 100% recovery. The core-log depth shifts were small, in the range 0.0 to -0.5 m for all three cores. FMT fluid samples were taken at 2919.3 m (oil), 2923.5 m, 2937.0 m (oil), and at 2941.5 m (water mud filtrate and a little oil).

The well was permanently abandoned on 4 May 1986 as an oil appraisal of the Varg Field.

TESTING

One DST test was performed in the interval 2926 m to 2936 m. The test produced 520 Sm3 oil and 42000 Sm3 gas /day through a 40/64” choke. The GOR was 81 Sm3/Sm3, oil gravity was 0,909 g/cm3, and the gas gravity was 0.795 (air = 1). The test temperature was 127 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/12-5