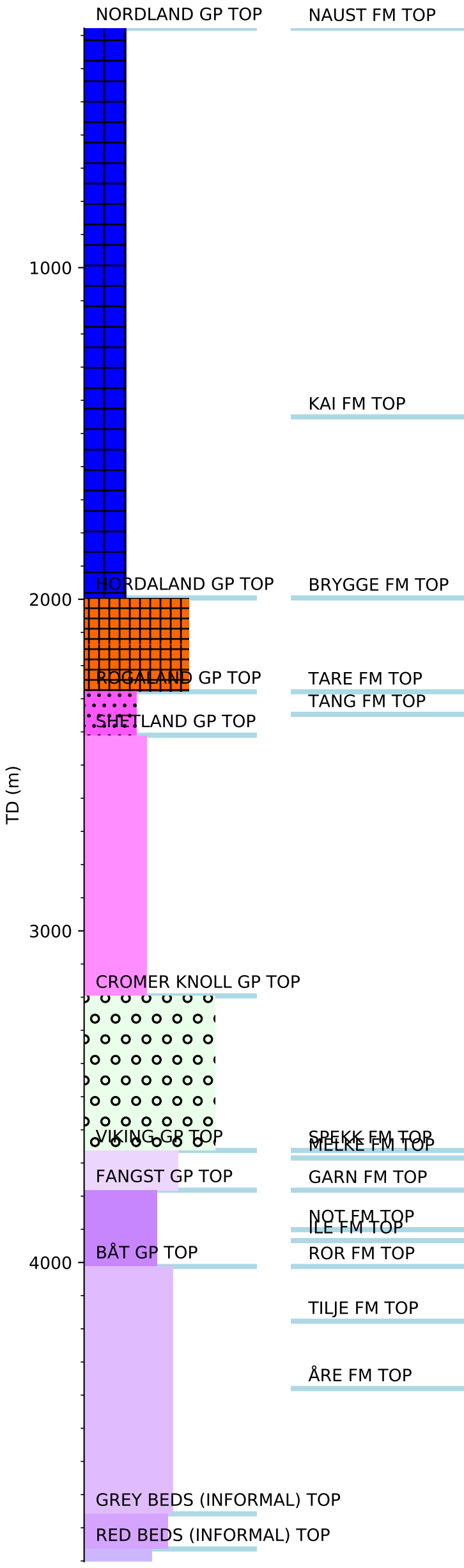

Wellbore History

GENERAL

Well 6406/3-1 is located in the southern end of the block, west of the Tyrihans S ør Field on the Mid Norway continental shelf. The primary objective was to test the reservoir potential of the Middle Jurassic sandstones. Secondary objectives were the Early Jurassic sandstones, penetration of the Triassic Grey Beds and Red Beds, and sampling of potential source rocks.

OPERATIONS AND RESULTS

Well 6406/3-1 was spudded with the semi-submersible installation Ross Isle on 27 April 1984 and drilled to TD at 4902 in the Late Triassic Red Beds. The well was drilled with seawater and gel (bentonite/soda) down to 962 m, with gypsum/lignosulphonate mud from 962 m to 3775 m, and with gel/lignosulphonate/lignite mud from 3775 m to TD. At 4498 m a pill of IMCO SPOT/ Pipe Lax was added to free the pipe, which was stuck.

A hydrocarbon bearing Middle Jurassic sandstone was encountered at 3782 m, but a drill stem test proved only low concentration of gas in a water phase. The pore pressures in the well were higher than expected and the Middle Jurassic sandstone, which was believed to have a pore pressure equivalent to 1.14 s.g., proved to have a pore pressure equivalent to 1.82 s.g. Post-well geochemical analyses detected migrated hydrocarbons frequently below 1650 metres. These shows were seen chiefly as wet gas/condensate between 2405 - 2585 m and as wet to extremely wet gas at 3665 - 3785 m. Good shows of wet or marginally wet gas were associated with the coals within the Early Jurassic and Trias (Åre Formation). These were suggested in the geochemical report to be in-situ generated and not migrated.

Four cores were cut in the well: three from 3783 m to 3847 m in Middle Jurassic Sandstones (Garn Formation) and one from 4539 m to 4549 m in the "Coal Unit" (Åre Formation). An RFT fluid sample was taken at 3784.5 m in the Garn Formation.

The well was permanently abandoned on 14 August 1984 as a well with strong gas shows.

TESTING

One drill stem test was performed from the interval 3782.5 - 3787.5 m. It produced 1469 m3 water and 8763 Sm3 gas/day. Bottom hole temperature in the test was 140 deg C. Gas samples were collected.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6406/3-1