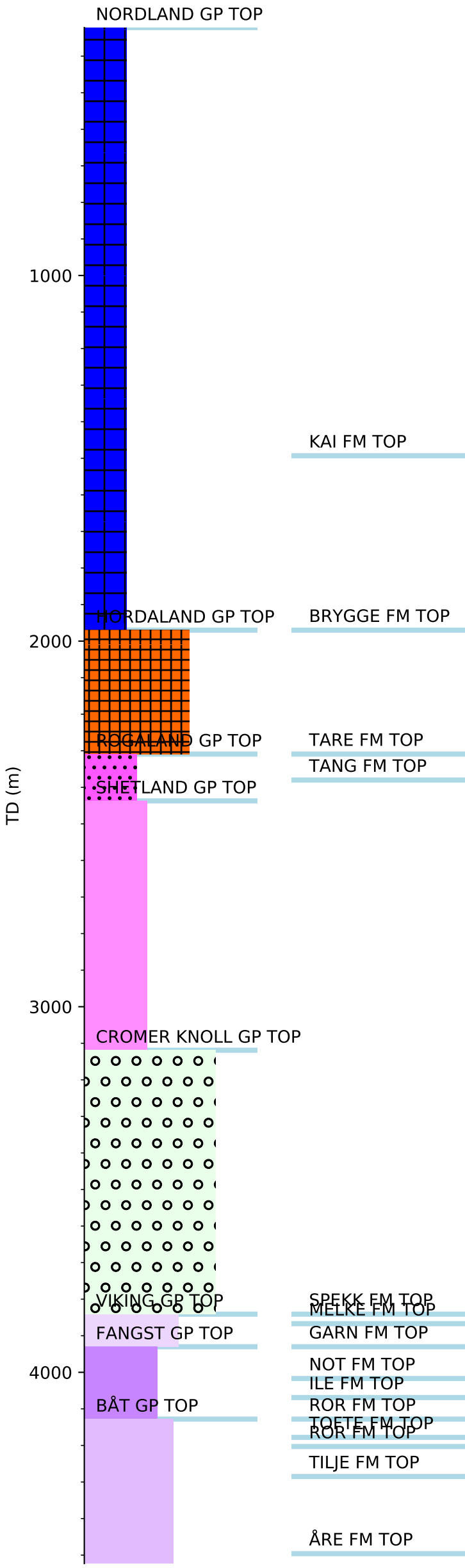

Wellbore History

GENERAL

Well 6406/3-2 is located in the middle of the block, west of the Tyrihans North field off shore Mid Norway. The primary objective of the well was to find hydrocarbon accumulations of significant size in the Middle Jurassic. Secondary objectives were hydrocarbon accumulations in the Early Jurassic sandstone. The well should also verify the geophysical and structural interpretation and improve the geological, paleontological and geochemical understanding of the area. Total depth was to be in rocks of Triassic age or 4000 m in order to satisfy the licence commitment.

OPERATIONS AND RESULTS

Well 6406/3-2 was spudded with the semi-submersible installation West Vanguard on 28 June 1986 and drilled to TD at 4523 m in the Early Jurassic Åre Formation. The well was drilled practically vertical down to the deepest survey point at 4261 m (4260 m TVD). In the testing phase 543.5 hrs were spent on fishing to get the cement stinger loose. The well was drilled with spud mud down to 965 m, with gypsum/polymer mud from 965 m to 2301 m, with gypsum lignosulphonate mud from 2301 m to 3930 m, and with lignosulphonate mud from 3930 m to TD.

The Middle Jurassic sandstones (Garn Formation) were penetrated at 3930 m and were found to be HC-bearing. The oil contact, probably and oil-down-to contact, was found from geochemical methods at approximately 4030 m. The logs indicated that the oil/water contact was at 4335 m. Oil shows were recorded in several intervals below this depth throughout down to TD. RFT data indicated that both Ile and Ti1je Formations were impermeable.

A total of 285 m core was recovered in 17 cores from the Garn, Not, Ile, Ror, and Tilje formations. No fluid samples were taken on wire line.

The well was permanently abandoned on 22 November 1986 as an oil discovery.

TESTING

Two drill stem tests were performed in the well. DST 1 tested the interval 4302 - 4336 m in the Tilje Formation. It produced only 4.5 m3 water into the test string. Maximum temperature recorded was 145.8 deg C.

DST 2 tested the interval 3937 - 3995 m in the Garn Formation. The test produced at maximum rate on open choke manifold 645 sm3 oil and 130000 sm3 gas /day. The GOR was 202 Sm3/Sm3, the oil density was 0.828 g/cm3, and the gas gravity was 0.855 (air = 1). Maximum temperature recorded in the corresponding flow period was 145 deg C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6406/3-2