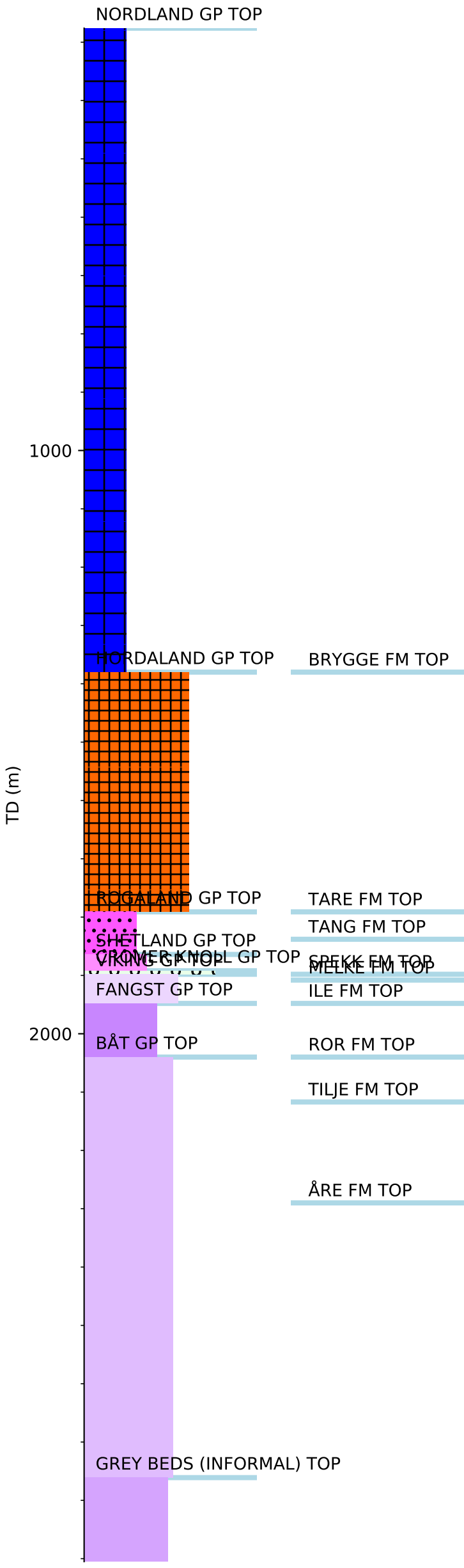
Groups

Formation Tops



Wellbore History

GENERAL

Wildcat well 6507/11-2 was drilled as the fourth well offshore Mid-Norway in the Møre/Trøndelag II area. The well was drilled on a symmetric, north-south trending horst called Y-1 in the northeastern part of the block, where seismic line SG 8158-401 indicated a possible minor rollover trending north-south at the Base Cretaceous level. The objective of well 6507/11-2 was to test the stratigraphic sequence below the Top Palaeocene reflector. The targets, represented by expected minor vertical closures, were sandstone reservoirs of Early - Middle Jurassic age. The entrapment of major petroleum accumulations was dependent upon a lateral sealing mechanism in the northern part of the Y-l horst.

OPERATIONS AND RESULTS

Well 6507/11-2 was spudded with the semi-submersible installation West Venture on 18 April 1982 and drilled to TD at 2905 m in the Late Triassic Grey Beds. No significant problems were encountered during operations. The well was drilled with seawater and slugs of spud mud down to 412 m, with gypsum mud from 412 m to 857 m, with "Pro-mud" gypsum polymer mud from 857 m to 1775 m, and with Lignosulphonate mud from 1775 m to TD. In the Jurassic and Triassic section from 1898 to TD, sandstones with a total net porous sand thickness of 395 m was found. They were all water bearing. The Net-Gross ratio of the Jurassic interval, 1898-2622 m is 0.45. The Middle/Early Jurassic Ile Formation (1948-2040 m) was fine to medium grained and well sorted sandstone. A net sand thickness of 65 m was defined in Ile, with porosity of 31% and permeabilities ranging from 100 mD to 28 D. The upper part was clean and showed extremely good reservoir rock properties. The lower part of the sand contained significant amounts of mica. Although this part was less permeable than the top, this too was a very good reservoir rock. The Early Jurassic sand (2117 - 2289 m) was less sorted than the Middle Jurassic sand. It was very fine grained and contained some shale. A net thickness of 120 m with an average porosity of 26% was estimated. The permeability was around 60 mD. The sandstones in the Coal Unit (2289-2761 m) and Triassic grey beds (2761-2905 m) had estimated average porosity of 29% and a total net thickness of 210 m.

The logs showed that the sands in the well were all water wet. No shows were reported from this well. The formation pressures of the Jurassic and Triassic sandstones gave a gradient of 0.44 psi/ft. All sandstones seemed to belong to the same pressure regime.

Six conventional cores were cut, four in the Middle/Early - and two in Early Jurassic Sandstone reservoirs. A full suit of logs including RFT pressure measurements were run in the Jurassic and Triassic. No fluid samples were collected. The bottom hole temperature at final TD can be estimated to 88 deg C based on Horner corrected wire line BHT's. The Triassic was only partly penetrated by this well.

The well was permanently abandoned on 30 May 1982 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/11-2