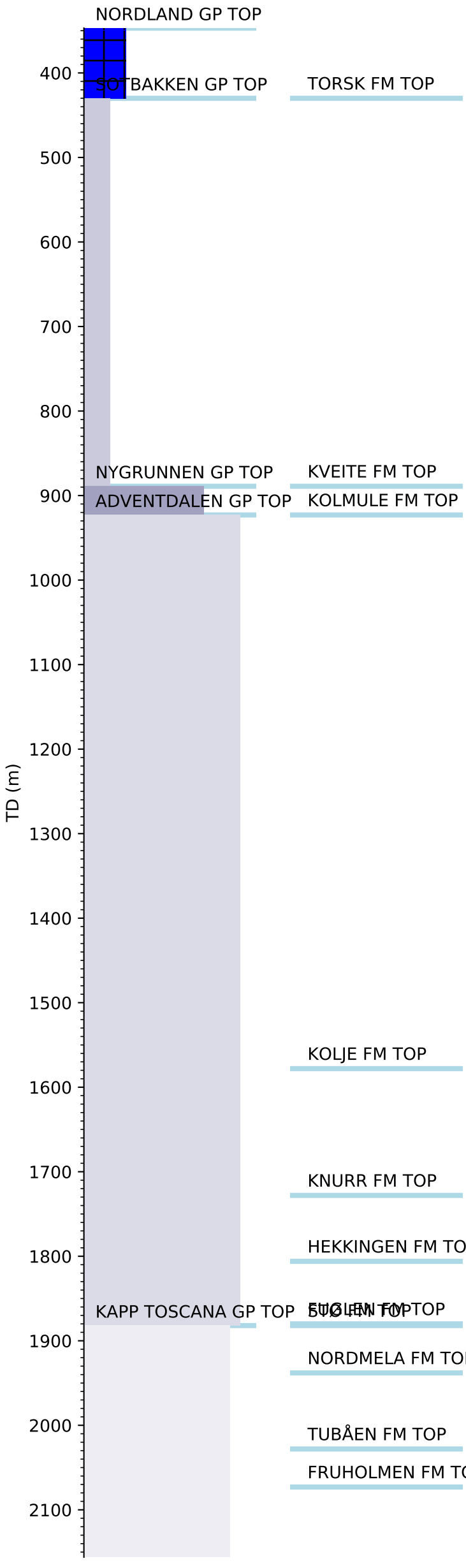
Groups

Formation Tops



Wellbore History

GENERAL

Well 7121/7-2 was drilled on the Beta structure on Tromsøflaket, 3.4 km south of well 7121/7-1. It was designed to test the hydrocarbon potential in Middle to Lower Jurassic sandstones. Planned total depth was in rocks of Triassic age.

OPERATIONS AND RESULTS

Wildcat well 7121/7-2 was spudded with the semi-submersible installation Ross Isle on 7 July 1986 and drilled to TD at 2156 m in the Late Triassic Fruholmen Formation. At 871 m in the 17 1/2" section the string parted and 9.5 hours was spent fishing to retrieve the lost equipment. At 1698 m, TD in the 17 1/2" section a H2S alarm occurred with 28 ppm H2S in the mud gas. The problem was cured by placing spud mud with a concentration of 15 kg/m3 of ZnCO3 behind 13-3/8" casing to prevent H2S growing in mud. The well was drilled with spud mud down to 667 m and with polymer/"Shale-Trol" mud from 667 m to TD. The well acted as a pilot well for testing this mud on Tromsøflaket. The main reason for using this mud system was that it was expected to stable the hole through sections that from previous experience had proven to cause tight-hole problems. The mud performed better than the ordinary gypsum/polymer mud previously used in the area, but total costs were higher and it was thus not considered a success.

Hydrocarbon bearing Middle Jurassic sandstones (Stø Formation) were encountered at 1881.5 m. The gas/water contact in this well was recognized at 1914.4 m, ca 12 m deeper than in the 7120/9-1 Albatross Discovery. The gas zone, 1881.5 m to 1914.4 m, consists of an interbedded silt, shale and very fine sandstone sequence with good reservoir properties. Two cores were cut in the Stø Formation over the interval 1903 m to 1939 m, (1889 m to 1935 m, loggers depth). Three FMT samples were collected, one at 1884.5 m and two at 1899 m.

The well was permanently abandoned as a gas discovery on 12 August 1986.

TESTING

The interval 1881.8 m to 1889.9 m was perforated and production tested. The test produced on average 527000 Sm3 gas and 28 Sm3 condensate pr day through a 15. 8 mm choke during the main flow. This gives a GOR of ca 18800 Sm3/Sm3. The CO2 content was 8 %. No H2S was detected.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7121/7-2