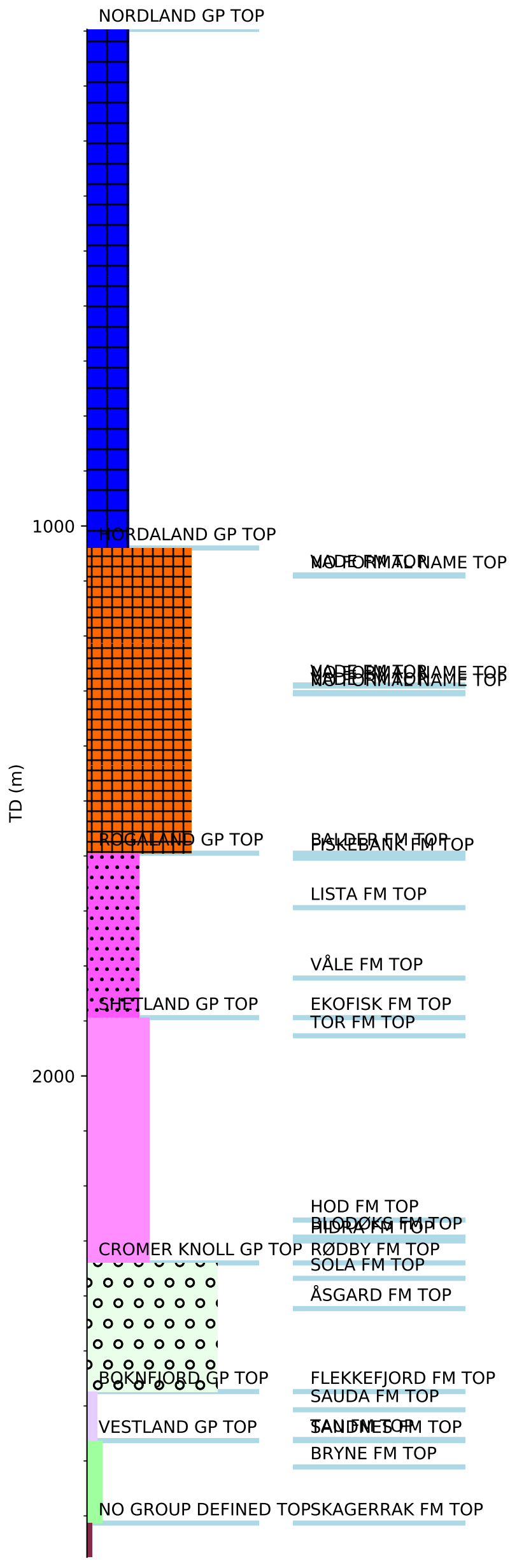

Wellbore History

GENERAL

Well 8/12-1 is located in the Åsta Graben. It was drilled on a salt dome with about 122 m of vertical closure over an area of about 23 km2. The well was programmed to test all porous formations from the Miocene to the Triassic. The main objectives were the Palaeocene Danian, Middle Jurassic, and Triassic sections. Secondary possibilities were seen in the Oligocene - Miocene, Late Cretaceous, and Early Cretaceous.

The well is Reference Well for the Bryne Formation.

OPERATIONS AND RESULTS

Wildcat well 8/12-1 was spudded with the jack-up installation Maersk Explorer on 31 May 1971 and drilled to TD at 2875m in the Skagerrak Formation. Some difficulties were encountered with over-pressured shales from 853 m to 1113 m before setting 13-3/8" casing, cementing the 13-3/8" casing, and with lost returns immediately below the 9-5/8" casing set at 1903 m. The well was drilled with a Seawater/gel/IMCO-RD-333 mud system with 3 % to 5 % oil.

Methane gas in quantities up to 12% was recorded on the mud-gas detector during drilling of the Miocene and Oligocene clays. No significant reservoir sections were encountered in this section, and the gas was most probably released directly from the richly organic clays. Two very weak oil shows were obtained in the Middle Jurassic sandstones. In porous sandstones from core No.3, where one of these shows was observed, up to 9.4% residual oil was measured. However, evaluation of the logs showed that all porous intervals penetrated were water bearing. The formation water in the Middle Jurassic sandstones was calculated to have a salinity of 140,000 ppm NaCl.

Three conventional cores were cut in the intervals 6181 feet - 6237 feet (1884.0 m - 1901.0 m), 8811 feet - 8817 feet (2685.6 m - 2687.4 m), and 8919 feet - 8969 feet (2718.5 m to 2733.8 m). One fluid sample was taken on wire line at 2666 m. The tool was opened for 10 min and recovered 100 cc of salt water (55,000 ppm NaCl).

The well was permanently abandoned on 23 July 1971 as a dry hole with weak shows.

TESTING

A DST was run over the interval 1902.6 m to 1950.7 m. Recovery in addition to the 457 m water cushion was 87 m of rat mud and 26 m of salt water cut mud. All pressure instruments indicated a low permeability zone that was depleted during the test period.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 8/12-1