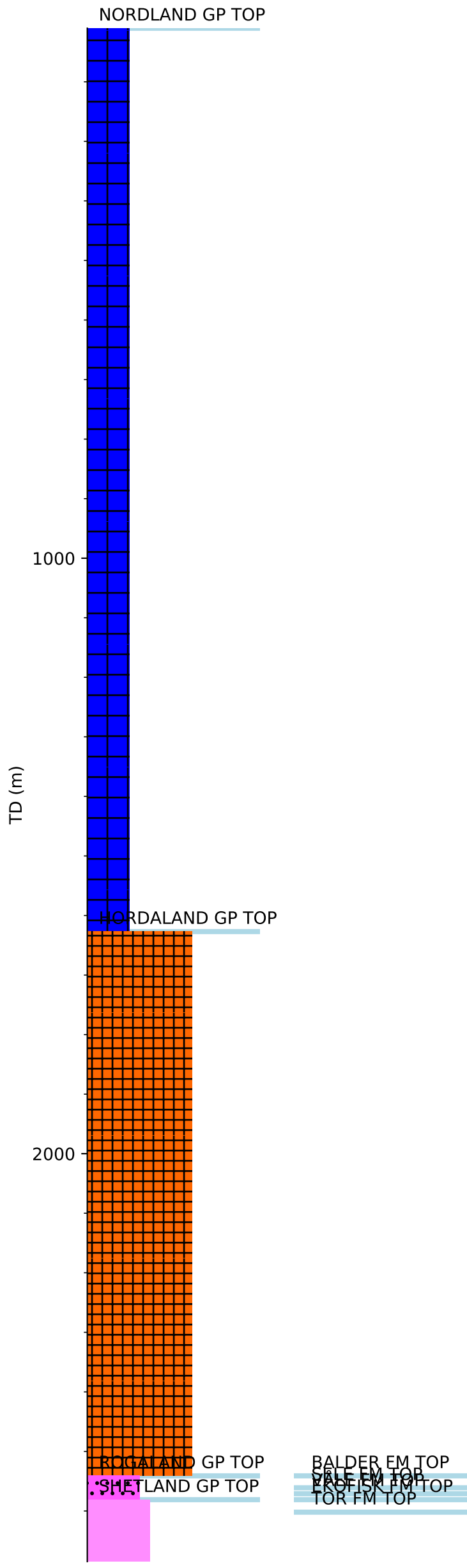
Groups

Formation Tops



Wellbore History

GENERAL

The purpose of the 2/8-17 S well was to evaluate the Trud prospect, a salt induced anticline on the western edge of the Piggvar Terrace 20 km Northeast of the Valhall Field. The primary objectives of the well were the Late Cretaceous Ekofisk and Tor chalk Formations, which form the main reservoirs in the nearby Ekofisk and Valhall Fields. The well was planned to TD in Permian evaporites immediately underlying the chalk.

OPERATIONS

Exploration well 2/8-17 S was spudded with the jack-up installation "Transocean Nordic" on 4 December 1997 and drilled to 2685 m. At this point total loss of circulation occurred and the well bore collapsed below 9 5/8" casing at 2000 m. All attempts to change the mud weight only made hole conditions worse and the decision was eventually made to plug back and sidetrack. The well was drilled with seawater and gel sweeps down to 1100 m and with "ANCOVERT" oil based mud from 1100 m to TD.

The 2/8-17 S well penetrated the Ekofisk and Tor Formations. The last cuttings before the hole was lost contained significant amounts of anhydrite, strongly suggesting that the Permian Zechstein salt had been penetrated at TD. The loss of the hole prevented wire line logging and fluid sampling and a full evaluation of the Ekofisk and Tor Formations, however 4 cores were successfully cut and recovered over most of the interval. In addition, good quality GR and resistivity LWD logs was obtained from the chalk section. The chalk was tighter than anticipated.

Minor oil shows were recorded from dolomite and dolomitic limestone stringers between 2060 m and 2290 m, and between 2375 m and 2510 m; these produced a milky white streaming cut and bluish white crush cut, with a faint residue. Dark brown - black dead oil staining was observed on some dolomite cuttings.

Oil shows were recorded in the uppermost Ekofisk Formation during drilling before core l; producing a milky or bluish white cut fluorescence in up to 20 % of the cuttings. No shows were observed in core 1, however subsequent cores were found to contain bituminous dead oil residues in tight, partially calcite-infilled fractures. Typical patchy dull pale yellow to bluish white fluorescence was observed from some exposed fracture surfaces, cut was slow, bluish or milky white, streaming or blooming. Although live oil was not recorded at the well site, a slow bleed of very pale yellow brown oil was observed from fractures in the slabbed core. There was no evidence that hydrocarbons had penetrated the matrix, which was of low permeability and porosity.

Well 2/8-17 S was plugged back to 1701 m and permanently abandoned on 17 January 1998 as a well with oil shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/8-17 S