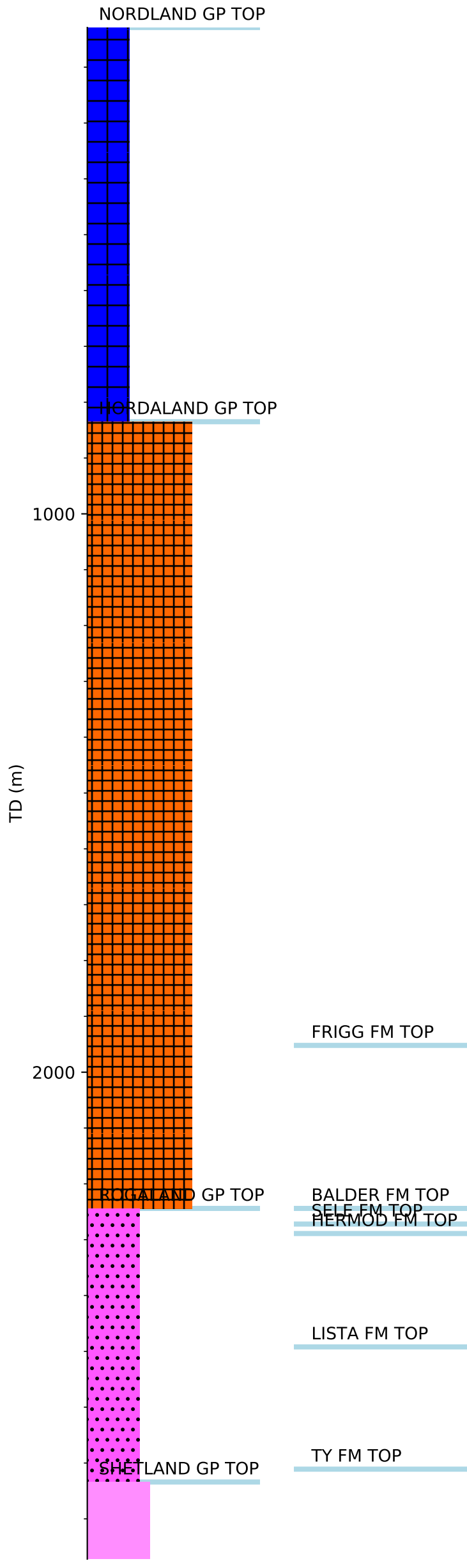
Groups

Formation Tops



Wellbore History

GENERAL

Well 25/1-3 was drilled to appraise the eastward extension of the 25/1-1 Frigg Discovery on the Frigg Ridge in the North Sea. The primary objective was to test the Eocene sandstones that were gas bearing in well 25/1-1.

OPERATIONS AND RESULTS

Appraisal well 25/1-3 was spudded with the semi-submersible installation Pentagone 81 on 14 November 1971 and drilled to TD at 2872 m in the Late Cretaceous Shetland Group. The well was drilled with seawater down to 405 m and with a seawater/LFC mud from 405 m to TD.

The target Eocene sandstones (Frigg Formation) was penetrated at 1952 m. The gross thickness was 217 m and the N/G was 0.82 with porosities ranging from 28 to 33%. It was gas bearing down to the GOC at 1973 m and oil bearing down to the OWC at 1982.5 m. Good oil shows on cores were recorded throughout the hydrocarbon-bearing reservoir. Weaker oil shows on cores were described ("fluo but salty taste") below the OWC.

Three cores were cut from 1951 to 2005 m in the Frigg reservoir. Total recovery for these three cores was 42.25 m (78.2% recovery). A fourth core was cut from 2563 to 2568 m with 50% recovery. FIT fluid samples were attempted at 2550.5 m and 2576.3 m but only mud and filtrate was recovered.

The well was permanently abandoned on 27 January 1972 as an oil and gas appraisal well

TESTING

Six drill stem tests were conducted.

DST 1, 2 and 3 tested the interval 1985 to 1987 m. All three tests produced water.

DST 4 and 5 tested the interval 1978 to 1980 m. DST 4 produced 21.5 Sm3 oil/day and DST 5 produced 70 Sm3 oil/day. The maximum temperature in these tests was reported to be 63 °C.

DST 6 tested the interval 1976 to 1980 m and produced in the final flow; through a 24/64" choke an average of 14400 Sm3 gas and 136 Sm3 oil /day. The corresponding GOR is 106 Sm3/Sm3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 25/1-3