

Wellbore History

Well 25/2-5 is located on the north-west rim of the Stord Basin and to the north of the main part of the Utsira High in the North Sea. The main target was Jurassic sandstones, which appeared promising after the discovery made in well 25/2-4 where Mid Jurassic (Dogger) sandstones were found to be hydrocarbon bearing, and also after the positive results of 25/4-1.

OPERATIONS AND RESULTS

Wildcat well 25/2-5 was spudded with the semi-submersible installation Polyglomar Driller on 8 March 1976 and drilled to TD at 4000 m in the Triassic Smith Bank Formation.

As anticipated, good reservoirs were encountered in the early Tertiary, but without any shows (no structural closure) Jurassic sandstones present two main reservoirs: The upper reservoir "Brent sands" (3336 -3489 m) was oil bearing in 3 zones (3339 m - 3388.5 m, 3448.5 - 3481 m, and 3487 - 3489 m), with a net oil pay of 40 m. Tests of the upper Brent showed a good productivity. The lower reservoir "Statfjord sands" (3652 - 3847 m) was oil bearing in two zones (3652 - 3692 m and 3706 - 3763 m), with a net oil pay of 44.5 m, but with lower porosities than in the "Brent sands". The pressure of the Jurassic reservoir was hydrostatic (equivalent density = 1.08).

Five cores were cut in the Vestland Group. Four were cut from 3339.5 to 3372 m in the Hugin Formation and one was cut from 3476 to 3485 m in the Sleipner Formation. Ten FIT tests were carried out in the Vestland Group sands. Five were carried out while drilling from 3354 to 3384 m. Of these, oil was recovered in two FITs at 3357.2 and 3382.5 m (density = 0.804 g/cm3 = 44 deg API). The others were unsuccessful. Another five FITS were carried out during DST3. Of these, oil was recovered in FIT no 15 at 3383.8 m and gas in the 4 others. Nine FITs were carried out in the Statfjord Formation. None of these recovered any oil or gas.

The well was permanently abandoned on 4 August as an oil and gas discovery.

TESTING

Three drill stem tests were made.

DST 1 from 3692 - 3695 m (Statfjord Formation) gave no flow.

DST 2 from 3652 - 3695 m (Statfjord Formation) flowed 47700 Sm3 gas and 229 Sm3 oil /day through a 0.5 inch choke. The GOR was 208 Sm3/Sm3.

DST 3 from 3337 - 3362 m (Vestland Group) flowed 95399 Sm3 gas and 470 sm3 oil /day through a 0.5 inch choke. The GOR was 203 Sm3/Sm3 and the oil density was 0.813 g/cm3.