

Wellbore History

GENERAL

The pre-drill objective of the PL254 well 6404/11-1 was to test the Havsule Prospect. The prospect is a seismically defined north - south trending structural dome located in the north of the Møre Basin in the Norwegian Sea, thought to have developed during the Tertiary Period in response to compression during opening of the North Atlantic Ocean. Three primary reservoir targets were identified: T50, an Early Eocene Turbidite sandstone with 4-way dip closure; K90, a Maastrichtian turbidite sandstone with 4-way dip closure; and K80, a Nise sandstone. An optional secondary target was K72, a 4-way dip closure Coniacian Lysing turbidite.

OPERATIONS AND RESULTS

Wildcat well 6404/11-1 well was spudded with the dynamically positioned semi-submersible installation Scarabeo 5 on 1 December 2001. A 12 1/4" pilot hole was drilled from seabed to 2195 m in one bit run. No indications of shallow gas or abnormal pore pressures were observed from drilling data or on LWD. After drilling to section TD the bit was

pulled and the hole opened from 362 m to 1629 m. While repositioning one of the subsea marker buoys it was inadvertently dropped into the hole necessitating a re-spud of the well 28.6m to the north-northwest of the original hole location.

The well was re-spudded on 6 December 2001 using a 42" x 36" hole opener assembly. The 26" hole was drilled to 2175 m with seawater and hi-vis sweeps. After displacing to seawater, circulating the hole clean and pulling to 1870 m bubbles were seen flowing from the wellhead. Drillpipe was run to bottom and the hole was made static with 1.20 sg mud. Casing was run and cemented without problem, however weather delayed running the BOP?s and riser. The 17" hole section was drilled with KCl/Polymer mud. It was TD?d 15 m shallow to prognosis due to concerns over increasing pore pressure. After running and cementing the 13 3/8" casing it was necessary to run a piggy-back casing hanger to allow the seal assembly to seat in the correct position. A value of 1.38 sg was obtained for the leak-off after drilling out the 13 3/8" casing and drilling 12 1/4" hole commenced. From here to TD the well was drilled with Aquadrill Deepwater mud with a 13 ? 15 % glycol content. Drilling was halted at 2730 m when pore pressure was seen to have reached 1.25 sg and the bit was pulled into the casing shoe. In an attempt to carry on drilling an open-hole leak-off was performed that confirmed the 1.38 sg value obtained earlier. Having insufficient kick tolerance to drill ahead, the decision was made to run a 9 5/8" liner. A triple-combo wire line log was run to acquire data over the drilled section. Liner was set and a 1.47 sg leak-off was obtained. Drilling commenced in 8 1/2" hole. No reservoir horizons were identified and the well was TD?d at a depth of 3650 m.

The shallowest primary target (Early Eocene T50 sandstones) was absent at the well location. Late Cretaceous (K90 sandstones) was absent and K80 (Nise Formation) sandstones were poorly developed. The well was not extended to penetrate the deeper, K72 (Lysing Formation) secondary target. Three wire line logging runs were performed. Conventional cores were not cut. No fluid samples were taken

The 6404/11-1 well was plugged and abandoned as a dry hole on 10 March 2002.

TESTING

No drill stem test was performed