

## **Wellbore History**

## **GENERAL**

The purpose of drilling well 3/6-1 was to test the hydrocarbon potential of the Paleocene sandstones of the Intra Lista Formation in the Hilde prospect. The Hilde prospect was a structural four-way dip closure, induced by halokinesis of the Zechstein salt. The Paleocene reservoir pinches out towards the crest of the structure. A secondary target was the Oligocene Lower Skade Sands.

## **OPERATIONS AND RESULTS**

Wildcat well 3/6-1 was drilled with the jack-up installation "Transocean Nordic" to a total depth of 2167 m in the Cretaceous Limestones of the Tor Formation. The legs were pinned on location and the rig accepted to be in position on June 17, 2000. Due to authority requirements a soil boring had to be made before starting the drilling of the well. On 19 June soil sample coring was done down to 128 m. The well was spudded on June 20, 2000. Of 24 days total well time only 4.5% of the total time was unproductive time. From 1047 m to 2003 m gas levels remained between 1,00% and 0,20% except for peaks associated with limestone stringers, these being 3,20% at 1210 m; 3,50% at 1217 m and 1.78% at 1248 m. Gas levels did not exceed 0,50% from 2050 m for the remainder of the well. It is suspected that the high overbalance was responsible for the low gas levels throughout the 12" hole section (1047 m to TD).

The well was drilled with spud mud and sea water / bentonite down to 1047 m and KCI/PAC mud with glycol from 1047 m to TD. The main reservoir of Paleocene age was encountered at 2003 m. Paleocene sandstones of both the Intra Sele and the Intra Lista Formations were encountered in this well. RCI pressure measurements proved that the sandstones were in communication and they could be described as one reservoir unit. The Paleocene sandstones were found water bearing. This was confirmed both by the wireline logs, the formation pressures and sampling. One core was cut in the well (2008 m to 2011.5 m). Three wire line samples were taken at 1622 m (Oligocene), 2009 m (Paleocene), and 2075 m (Paleocene). All three contained water, but phenols analysis of the samples from 2009 and 2075 m gave elevated phenol contents in the range 200 to 300 ppb. Oil shows were recorded from 2008 m to 2010,6 m in sandstone in the core (weak brown fluorescence) and dull brown cut fluorescence in a sidewall core at 2003 m. The secondary target reservoir sand was encountered at 1530 m. It was water bearing with no indications of hydrocarbons. The well was plugged and abandoned as a dry well on July 10.

## **TESTING**

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 3/6-1