



GENERAL

Well 6407/7-2 R is a re-entry of well 6407/7-2 on the Njord Discovery. The purpose of the re-entry was to conduct a long term production test in order to determine the fault compartment volume, to determine the threshold pressures and degree of communication through faults, to establish the intervals contributing to the flow, to determine reservoir productivity and initial reservoir conditions, and to obtain representative fluid samples.

OPERATIONS AND RESULTS

Well 6407/7-2 was re-entered with the semi-submersible installation Vildkat Explorer on 7 March 1990.

Two test strings were run sequentially. The first string was a test string to enable a conventional well test to be conducted. Most of the upper part of this test string was later pulled and replaced by an abandonment string with gauges to allow long term monitoring of the main build up.

The gauges were programmed to record data over a period of 4 to 6 months. The well was subsequently abandoned for later re-entry and retrieval of the gauges and permanent abandonment.

TESTING

A conventional long-term production test was carried out from the combined intervals 2773.3 - 2778.3 m, 2781.3 - 2797.8 m, 2803.8 - 2839.3 m, and 2844.3 - 2879.3 m. In the main flow the test produced 853 Sm³ oil and 173650 Sm³ gas through a 20.64 mm choke. The GOR was 203 Sm³/Sm³, the oil density was 0.800 g /cm³, and the gas gravity was 0.714 (air = 1). The maximum down hole temperature in the test was 113.3 deg C, recorded at the PLT at 2754.4 m. This is estimated to be the initial reservoir temperature at mid-perforations, 2826.3 m.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6407/7-2 R