

AMENDMENT NUMBER ONE TO DRILLING PROGRAMME

LOCATION 31/2-N

(Well 31/2-12)

OPERATIONS ENG.

Cenden Mtelland.

SENIOR OPERATIONS ENG.

CHIEF PETROLEUM ENG.

DETELING SUPT.

TECHNICAL MANAGER

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LOCATION 31/2-N (Well 31/2-12)

1. INTRODUCTION

Further evaluation of the shallow seismic data on the proposed well location has led to increased concern regarding the possible presence of shallow gas in unit Vb, ie from 510 - 545 m BDF (refer to page 10 of Drilling Programme).

2. CHANGE TO PROGRAMME

To minimise the potential problems associated with any gas flow the programme will be ammended to drill an $8\frac{1}{2}$ " pilot hole from the 30" shoe to 550 m BDF. This pilot hole will then be logged prior to drilling the normal 14-3/4'' pilot hole to the 20" setting depth.

3. DETAILED PROGRAMME

- 3.1 Drill out cement in 30" casing and 36" pocket with 26" hole opener and 14-3/4" pilot bit with a stabiliser at 20 m, and start a 14-3/4" pilot hole. P.O.H and lay down 14-3/4" bit, 26" hole opener and stabiliser.
- 3.2 Run 30" hydraulic latch and dump valve complete with ball joint on 21" riser and latch onto the 30" housing. Fill up riser with seawater and observe fluid level.
- 3.3 Make up $8\frac{1}{2}$ " pilot hole drilling assembly. Use a float sub, with the float installed, and R.I.H.
- 3.4 Close diverter around drill pipe, and circulate through both diverter lines to check the diverter equipment gradually building up to maximum circulating rate. Open diverter packing.
- 3.5 Drill 8½" pilot hole to 550 m BDF taking Totco surveys as required.
 - Note: This section is to be drilled using an unweighted gelled mud and the weight of the annular returns is to be continuously monitored. If the weight of annular returns causes losses or exceeds 1.15 SG (0.498 psi/ft) stop drilling and circulate the hole clean. R.O.P. must be controlled whilst drilling this section.
- 3.6 Perform a check trip to the 30" shoe and back to bottom. Clean out any fill and spot viscous mud of 1.35 SG (0.585 psi/ft) in the open hole section prior to pulling out for logging.

3.7 Rig up Schlumberger and log: -

ISF/SONIC/SP/GR LDT/CNT/GR/CAL

Inspect the logs for indications of shallow gas before continuing. If shallow gas is observed, inform Base and a revised programme will be issued.

- 3.8 Make up 14-3/4" pilot hole drilling assembly complete with float sub and float. R.I.H. and open the $8\frac{1}{2}$ " pilot hole to 14-3/4" and procede to drill 14-3/4" pilot hole to 20" casing setting depth as in the original Drilling Programme step 5 in section 4 (page 13).
- 3.9 Procede with original Drilling programme from step 5 in section 4, noting that the logging in the 14-3/4" hole should be up to 500 m BDF only.