

AMOCO AUSTRALIA PETROLEUM COMPANY
PELICAN NO. 5

DISCUSSION BY INTERVAL

17¹/₂" HOLE INTERVAL (Cont'd)

General (Cont'd)

After drilling out the 20" casing shoe with seawater, the hole was displaced with mud. A leak off test below the shoe was performed to a 12.5 ppg equivalent without leak-off.

As drilling progressed, prehydrated AQUAGEL additions were suspended as the mud viscosity was increasing from the incorporation of formation clays into the system. Premixed thinners and Caustic Soda were then added along with dilution by Seawater to help reduce viscosity and mud solids. Excess volume was dumped as necessary. Solids control equipment was run continuously.

At 5828 ft (1776.3 m), the mud weight was raised to 9.5 ppg to try to alleviate drag. A wiper trip was made with reaming of the last joint to bottom being necessary. On POH to run E Logs, 60,000 - 70,000 lbs drag was experienced. E-Logs could not be run past 3412 ft (1039.9 m).

After washing back to bottom again, the mud weight was raised to 10.0 ppg and the filtrate was reduced to 12 cc/30 min. E-Logs were run successfully.

On running back in the hole, to condition the hole prior to running casing, large chunks of claystone were circulated out. Some mud was lost to the hole while running in and also while circulating. The mud viscosity also increased due to clay dispersion and the probable presence of CO₂.

When running 13³/₈" casing, the casing became stuck at 2170 ft (661.4m) The casing was rotated free and laid down. A bit was picked up, and the hole was washed and reamed to bottom. The mud was circulated and conditioned i.e. the water loss was reduced frm 12.0 to 6.2. The pH was raised to greater than 11 and Lime was added to neutralise CO₂.