

AMOCO AUSTRALIA PETROLEUM COMPANY  
PELICAN NO. 5

DISCUSSION BY INTERVAL

12<sup>1</sup>/<sub>4</sub>" HOLE INTERVAL

Conclusions

The mud system proved effective and the only recommendation for future wells would be to increase the Lime concentration to 4 - 6 ppb and to begin additions immediately upon drilling out the 13<sup>3</sup>/<sub>8</sub>" shoe even before any CO<sub>2</sub> contamination is noticed.

8<sup>1</sup>/<sub>2</sub>" HOLE INTERVAL                      (9850 -11,966 ft)                      (3,002 - 3647 m)

General

After having drilled out the cement and float collar inside the 9<sup>5</sup>/<sub>8</sub>" casing, the hole was displaced at 9825 ft (2995 m) with a mud composed of new pre-mix and salvaged mud weighted to 10.2 ppg. The rat hole and 10 feet of new formation were drilled to 9860 ft (3005 m). A leak off test was performed to an equivalent mud weight of 18.0 ppg.

While drilling below 10,000 ft (3048 m), the mud viscosity and gels were rising. Carbonate contamination from CO<sub>2</sub> gas was suspected. Lime and Caustic Soda additions were begun to neutralise the effects of the CO<sub>2</sub>.

At 10,375 ft (3162 m), the background gas readings rose to a maximum of 2500 Units. The mud weight was raised to 10.9 ppg. Gas readings were still high. The weight was further raised to 11.2 ppg. Heavy Lime additions were begun to break the mud over to a full low Lime mud. Since the breakover point of the system was not reached after 22 hours and viscosities were excessive, Q-BROXIN was added successfully to reduce the viscosity to acceptable levels. With a mud weight of 11.2 - 11.3 ppg, background gas readings were 120 units. Gilsonite additions were then begun.