

At 3358 ft, highly dispersive formation clays were drilled. These clays were found to have an M.B.T. in excess of 25 ppb. Heavy mud dilution and treatment were needed to maintain desirable properties despite continuous use of the solids control equipment.

As mentioned previously, mud properties were optimized as a precaution against lengthy periods of waiting on weather.

Slight carbonate alkalinity contamination was encountered at around 5600 ft. as the hole temperatures become high enough to react to bicarbonates. This was corrected by the addition of small quantities of lime.

The mud system used and the properties maintained were good for the zones drilled in this well. Generally good hole conditions were experienced despite lengthy periods when the hole was left standing open while waiting on weather.

<u>Property</u>	<u>Programmed</u>	<u>Achieved</u>
Density	8.9 - 12.5 ppg	8.9 - 9.2
Funnel Viscosity	40 - 50 sec/qt	65 - 45
Yield Point	8 - 20 lbs/100 ft ²	35 - 20
10 Sec Gel	6 - 15 lbs/100 ft ²	25 - 7
API Fluid Loss	< 15 cc/30 min	38 - 7
MBT	20 - 30 ppb	23 - 27.5
pH	10.5 - 11.0	9.5 - 11.0 +

Hole Conditions

Generally this hole section was in good condition despite dispersive formations and long periods of waiting on weather. The dispersive clays of the "Torquay Group" drilled from approximately 2800 ft to 4200 ft, required heavy dilution and mud treatments but did not cause any major hole problems.

After having waited on weather for 4 days at 4764 ft, the hole was re-entered with only 30 ft of fill after working through tight spots at 1309 ft, 2346 ft, 3381 - 3463 ft, 4041 - 4122 ft and 4734 - 4764 ft.

The "Demons Bluff" formation was encountered at 5250 ft. This was a relatively unreactive claystone with a low MBT of 6 ppb. However after logging at 5772 ft, the hole needed to be washed at 5461 - 5494 ft and 5710 - 5769 ft. Cuttings from the "Demons Bluff" were blocky with no overt signs of sloughing.

Conclusions

The mud system as used performed well at reasonable cost and is recommended again for future wells in this area.

If a faster overall drilling time is achieved in the future, i.e., less time is spent waiting on weather, the mud properties could probably be relaxed as the formations drilled did not appear to be so reactive that continual hole problems were experienced.