

HOLE CONDITION

The general hole condition over the interval 3352m - 3746m was good with carbide and other lag data indicating that the average hole diameter was 12.9". However due to possible channelling effects in the annulus, allowing gas and cuttings to bypass larger hole washouts, it is possible that the actual average hole size will be larger than this. Surveys indicated deviations of 0.75 deg at 3456m and 1.25 deg at 3694m.

Tight hole recorded on the wiper trip at 3552m was probably due to either fractured volcanics collapsing or to clays in the tuffaceous sediments swelling slightly. High torque was recorded intermittently between 3352m and 3746m and was often sufficiently high to necessitate pulling off bottom and working the string. Tight hole was also noted on connections at 3618m, 3694m and at 3718m with a high vis. pill being circulated at 3694m. This did not significantly increase the amount of cutting on bottoms up.

PORE PRESSURE

Pore pressure was normal at 8.7 ppg EMW to 3530m where it appeared to increase to an estimated maximum of 9.3 - 9.4 ppg EMW. This was indicated by the following:

- 1) Connection gases were seen at 3542m (16u), 3551m (18u), 3561m (44u) and 3570m (30u).
- 2) Background gas increased from 2 - 4u to over 25u and significant gas peaks of up to 160u were seen from coals.
- 3) Gas values were very slow to decrease after peaks.
- 4) A slight increase in the amount of splintery cavings and a moderate increase in the amount of coal cavings was noted.

The abnormal pressuring appeared to be local and restricted to carbonaceous rich sediments between 3530m and 3570m, and was probably caused by the rapid burial of organic rich sediments by impermeable basalts and tuffs.

It is unlikely that this abnormal pressuring will cause any serious hole problems and pore pressure appears to have returned to normal (8.7 ppg) below 3570m.

Lithology Summary

Depth (m) Interval	Lithology	ROP (ft/hr)		GAS (units)	
		max	avg	max	avg
3340 - 3552	Volcanics with minor siltstone, sandstone and coal	50	12	128	12
3552 - 3582	Siltstone and sandstone with common coal.	45	15	160	50
3582 - 3652	Volcanics with minor siltstone and coal	35	12	60	10
3652 - 3683	Dolerite	25	15	17	5
3683 - 3738	Volcanics with minor siltstone.	20	10	7	4
3738 - 3747	Sandstone	31	25	9	7

The volcanics seen in this section appear to be dominantly extrusive tuffs with common flows (basalt) and occasional intrusives (dolerite).