Daily Geological Report

Longtom-3

Date:	23-07-2006	Last Casing:	406 mm (16") @ 995.3 mMDRT			
Report Number:	6	Leak Off Test:	1.62 sg EMW @ 1008.0 mMDRT			
Report Period:	24hrs to 24:00	Current hole size:	241 mm (9 1/2")			
Depth @ 2400 Hrs:	2016 mMDRT	Mud Weight:	1.44 sg			
Last Depth:	1870.0 mMDRT	ECD:	1.46 sg (calculated)			
Progress:	146 m	Mud Type:	SBM Petrofree			
TD Lithology:	Claystone, Silty Claystone	V: 6 / 3	13 / 12			
Water Depth:	56.7 m	Mud Fluid Loss:	2.8 cc			
RT Elevation:	21.5 m	Bit Type:	SMITH M716PXC 5x18, 2x16 jets			

OPERATIONS SUMMARY

24 HOUR SUMMARY 00:00 - 24:00:	Drilled 9 1/2" pilot hole from 1870m MDRT to 1930m MDRT. Anadrill MWD failure, circulate hole clean and commenced pulling out of hole. 1930m MDRT to 1726m MDRT ok with no over-pull observed, from 1726m 50klbs excess drag observed. Circulated to establish if the obstruction was cuttings or mechanical obstruction. No improvement after circulation. Commenced back reaming from 1726m MDRT to 1154m MDRT, several attempts made to pull on elevators with 40-50klbs drag observed. From 1154m MDRT pulled out of hole to surface. Laid out MWD/ Ecoscope and Bit. Made up new PDC bit, PD Exceed RST and Telescope, ran in hole, no hole problems observed. Commenced drilling 9 1/2" Pilot hole from 1930m MDRT to 2016m MDRT. Note: Ecoscope removed from assembly
06:00 Update	Drilling ahead 9 $\frac{1}{2}$ " hole in the Kipper Shale at 2150m, average ROP 50 m/hr.
NEXT 24 HOURS:	Drilled ahead 9 ½" hole through Kipper Shale and Admiral Formation.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
1870 - 1930	Massive Claystone gradational from Claystone to Silty Claystone
ROP 24 -80 m/hr	
Av 32 m/hr	CLAYSTONE: dark grey, soft to firm, sub blocky to dominantly blocky, massive and uniform, trace very fine carbonaceous specks, trace micromica, trace very
Change bit @	fine pyrite, gradational to SILTY CLAYSTONE.
1930 mMDRT.	
1930 - 1960	
ROP 6 -101 m/hr	
Av 41 m/hr	
1960 – 2016	Massive Claystone with trace very thin Sandstones.
ROP 26 - 102	
m/hr	CLAYSTONE: (100%) dark grey, dark brownish grey, medium brownish grey,

Av 50m/hr	firm, blocky, rare carbonaceous specks, rare pyrite, silty in part and gradational to SILTY CLAYSTONE.
	SANDSTONE: (trace) light brownish grey, soft aggregates, very fine, rounded, well sorted, 10-40% argillaceous matrix, poor – fair visual porosity, no shows. Often occurring as very thin intercalation within the Claystone.

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
	No fluorescence observed

GAS SUMMARY:

INTERVAL (mMDKB) Trip gas @ 1930.0	Total GAS (%) 0.64	C1 (ppm) 6206	C2 (ppm) 66	C3 (ppm) 34	IC4 (ppm) 26	NC4 (ppm) 31	IC5 (ppm) 10	NC5 (ppm) 19
1930 - 1960	0.2	1343	22	3	3	2	5	1
1960 - 2016 1973	0.21	1562	15	3	3	5	1	0
Peak fast ROP	0.8	7479	85	9	3	2	3	5

Connection Gas: 0.18% @ 1976.0 mMDRT

SURVEYS

MD	ANGLE	Azi	TVD	MD	ANGLE	Azi	TVD
1877.52	57.88	182.40	1708.6				
1906.16	57.15	180.91	1724.0				
1933.52	55.97	183.80	1739.1				
1962.79	54.79	188.54	1755.7				
1991.12	54.07	193.55	1772.2				

FORMATION TOPS

WD = 56.7 m RTE = 21.5 m								
FORMATION	PROGN	OSED DE	EPTHS (m)		ACTUAL DEPTHS (m)			
	MDKB	TVDSS	тніск	MDKB	TVDSS	HI/LO	тніск	DIFF
Sea Floor/ Gippsland Limestone	56	78	n/a	78.2	56	No depth	1077.5	
Lakes Entrance	1172	1150	64	1156.0	1133.5	16.5 HI	64.3	-0.3
Latrobe	1237	1214	241	1221.0	1197.8	16.2 HI	262	+21.0
K/T Boundary	1505	1455	30	1500.5	1460.44	5.4 LO		
Un-named Volcanics	1544	1485	37	1569.0	1514.9	30.0 LO	21	n/a
Kipper Shale	1595	1522	508	1651	1566.4	44.4 LO		
Admiral Formation	2474	2030	124					
500 Sands	2692	2154	59					
400 Sands	2794	2213	134					
300 Sands	3028	2347	41					

200 Sands	3100	2388	59			
100 Sands	3203	2447	53			
Emperor Volcanics	3296	2500	18+			
TD	3327	2518				

COMMENTS:

Annadril LWD sensor to bit distances: Vibration = 11.47m Directional = 12.12m m

Ecoscope LWD tool not run.

WELLSITE GEOLOGISTS:

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