

Longtom- 3 ST1



Date:	06-08-2006	Last Casing:	406 mm (16") @ 995.32 mMDRT
Report Number:	7	Leak Off Test:	1.62 sg EMW @ 1008.0 mMDRT
Report Period:	24hrs to 24:00	Current hole size:	343 mm (13½ ")
Depth @ 2400 Hrs:	2507m	Mud Weight:	1.44 sg
Last Depth:	2098m	ECD:	1.48 sg
Progress:	409m	Mud Type:	SBM Petrofree
TD Lithology:	Silty Claystone	V: 6 / 3	13 / 12
Water Depth:	56.0 m	Mud Fluid Loss:	3.2 cc
RT Elevation:	21.5 m	Bit Type:	Smith PDC MRG75 TFA 1.74

OPERATIONS SUMMARY

24 HOUR SUMMARY
00:00 - 24:00:

Drilled 13 1/2" directional hole f/ 2098 to 2507mrt, holding a tangent angle of 52 deg.

06:00 Update

Drilling ahead 13 1/2" hole at 2558m in the Admiral Formation.

NEXT 24 HOURS:

Drill ahead 13 1/2" hole through the Admiral Formation 100 sands and into the Emperor Volcanics. Ream three stands for LWD data over sand unit. Pull out of the hole to run wireline logs.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT	Description
2098 – 2134 ROP 10 – 98 m/hr Av 38 m/hr	<p>Siltstone and Claystone</p> <p>SILTSTONE: (40-80%) brownish grey, dark brownish grey, very soft – rare firm, sub blocky, argillaceous to occasionally arenaceous, carbonaceous specks, occasional very fine sand</p> <p>CLAYSTONE: (20-60%) medium grey, very soft – soft, occasionally firm, sub blocky, uniform and massive, none calcareous, rarely silty.</p> <p>CLAYSTONE: (trace) greenish grey, very soft, sub blocky, homogenous.</p>
2134 – 2196 ROP 7.8 – 134 m/hr Av 25 m/hr	<p>400 Sand (2134 mMDRT, 2036.2 mTVDRT, 2014.7 mSS)</p> <p>Massive Sandstone with minor Claystone and trace Coal</p> <p>SANDSTONE; (30-80%) loose, clear to translucent, fine – medium, occasionally medium to very coarse, poorly to moderately sorted, sub angular to angular, trace argillaceous matrix, good inferred porosity, Also soft, very light grey, yellowish grey aggregates, very fine to fine, rare medium, sub rounded to rounded, argillaceous matrix to 60%, carbonaceous grains and lithics, fair to poor visual porosity, gas shows.</p> <p>CLAYSTONE: (30-70%) dark grey, greyish black, rare brownish grey, soft – firm, sub blocky, occasionally carbonaceous and containing coaly fragments, gradational to</p>

	<p>Silty Claystone.</p> <p>COAL: black, dull to sub vitreous, firm, blocky, brittle, gradational to Carbonaceous Siltstone.</p>
<p>2196 – 2300</p> <p>ROP 9.2 – 80.5 m/hr Av 33.9 m/hr</p>	<p>Massive Claystone interbedded with and grading to Silty Claystone with depth and minor Sandstone.</p> <p>CLAYSTONE (5-100%): dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous in parts, sub blocky to blocky.</p> <p>SILTY CLAYSTONE (Nil to 100%): light brownish grey – brownish grey, very soft to sub firm, sub blocky, carbonaceous specks in part, very silty in part and gradational to Argillaceous Siltstone.</p> <p>SANDSTONE (Nil to 20%): loose, clear to translucent, dominantly very fine to medium, sub rounded to angular, moderately sorted, trace argillaceous matrix, 80% light greenish grey soft aggregates, dominantly very fine to fine, 30% argillaceous matrix, poor inferred porosity, no show.</p>
<p>2300 – 2339</p> <p>ROP 6.9 – 113.3 m/hr Av 40 m/hr</p>	<p>300 Sand (2300 mMDRT, 2139.1 mTVDRT, 2117.6 mSS)</p> <p>Massive Sandstone interbedded with minor Silty Claystone</p> <p>SANDSTONE (30-65%): 40% loose clear to translucent grains, dominantly fine to rare coarse, poorly sorted, 60% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, argillaceous matrix to 70%, commonly matrix supported, trace carbonaceous grains, poor to fair visual porosity.</p> <p>SILTSTONE (35-70%): dark brownish grey, brownish black, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.</p>
<p>2339 – 2412</p> <p>ROP 22.3 – 75.9 m/hr Av 43.2 m/hr</p>	<p>Siltstone with interbedded Sandstone and minor Claystone and trace Coal.</p> <p>SILTSTONE (40-80%): dark brownish grey, brownish black, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.</p> <p>CLAYSTONE (Nil-40%): dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous specks and laminae, sub blocky to blocky.</p> <p>SANDSTONE: (20-30%) 70% loose clear to translucent grains, dominantly fine to rare coarse, moderately well sorted, 30% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, argillaceous matrix to 60%, commonly matrix supported, trace carbonaceous grains, poor to fair visual porosity.</p> <p>COAL (Nil to 2%): black, dull to sub vitreous, firm, blocky, silty in part gradational to Carbonaceous Siltstone.</p>
<p>2412 – 2468</p> <p>ROP 1.3 – 122.8 m/hr Av 18.5 m/hr</p>	<p>200 Sand (2412 mMDRT, 2207.6 mTVDRT, 2186.1 mSS)</p> <p>Massive Sandstone with minor Siltstone, Claystone and trace Coal</p> <p>SANDSTONE: (70-80%) 80% loose clear to translucent, trace pinkish grey to light greenish grey grains, dominantly fine to rare medium, moderately well sorted, 20%</p>

	<p>light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, abundant white to light greenish grey argillaceous matrix to 80%, commonly matrix supported, fair to good visual porosity.</p> <p>SILTSTONE: (20-30%) dark brownish grey, brownish black, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE</p> <p>COAL (Nil to 2%): brownish black to black, dull to sub vitreous, firm, blocky, silty in part gradational to Carbonaceous Siltstone.</p>
<p>2468– 2507</p> <p>ROP 1.5 – 48 m/hr</p> <p>Av 18 m/hr</p>	<p>Siltstone and Sandstone grading to Silty Claystone at the base of the section. Sandstone only occurs at the top of the section and rapidly decreases in abundance with depth</p> <p>SILTSTONE (35-90%) dark brownish grey, brownish black, occasionally medium dark grey, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.</p> <p>SANDSTONE: (0-65%) clear to translucent, dominantly medium to coarse, well sorted, sub rounded to rounded, trace pinkish grey to light greenish grey grains, clean, loose, good to very good visible porosity, no show. Also light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, abundant white to light greenish grey argillaceous matrix to 80%, commonly matrix supported.</p> <p>SILTY CLAYSTONE: (0-100%) medium dark grey – dark grey, rare medium light grey, very soft to soft, sub blocky – blocky, very rare carbonaceous specks, massive and homogenous.</p>

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
	No fluorescence observed

GAS SUMMARY:

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
2098 - 2134	2.1	15619	486	119	21	19	10	1
2134 - 2196	8.6	73780	1894	386	50	49	15	1
Peak 2150.5m Sandstone	60%	300753	8440	1474	155	175	20	10
2196 - 2300	1.7	14355	500	154	27	30	7	3
Peak 2196.0 m Sandstone	7.1	65076	1690	367	48	52	7	1
2300 – 2339	4.1	31518	811	208	33	36	10	4
Peak 2335 m Sandstone	34.3 %	266312	5815	965	143	135	12	7
2339 – 2412	3.0	25441	965	274	40	44	11	8
Peak 2339 m Sandstone	24.9%	175747	3655	725	86	87	12	6
2412 – 2468	4.8	37483	2169	695	103	113	16	9

Peak 2456 m Sandstone	61.4%	266794	10828	2588	300	320	41	26
2468 – 2507	1.15	9518	496	199	39	44	11	6

SURVEYS

Tie in point to Longtom -3 ST1 is 1005.00m

MD	ANGLE	Azi	TVD	MD	ANGLE	Azi	TVD
2105.26	45.26	188.86	2015.6	2504.69	52.29	193.36	2264.3
2133.69	47.33	189.28	2035.2				
2162.48	49.39	189.9	2054.4				
2189.19	51.58	190.07	2071.4				
2218.67	52.38	189.12	2089.5				
2247.41	52.45	188.32	2107.0				
2275.83	52.38	188.22	2124.4				
2304.40	52.46	187.78	2141.8				
2332.33	52.44	188.01	2158.8				
2361.33	52.15	188.99	2176.6				
2389.86	52.18	190.68	2194.1				
2418.54	52.33	191.35	2211.6				
2447.35	52.31	192.20	2229.2				
2476.17	52.16	193.12	2246.9				

FORMATION TOPS

<i>WD = 56.7 m</i> <i>RTE = 21.5 m</i>								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	77.5	56	1096	77.5	56		1104	+8
Lakes Entrance	1172.0	1150.0	64	1182	1160.0	10.0 LO	33.5	-30.5
Latrobe	1236	1214.0	234	1216	1193.5	20.5 HI	261.8	+27.8
K/T Boundary	1476	1448	37	1484	1455.3	7.3 LO	61.3	+24.3
Un-named Volcanics	1515	1485	37	1546	1513.8	28.8 LO	15.0	n/a
Kipper Shale	1555	1522	201	1603	1565.9	43.9 LO	200.8	-0.2
Admiral Formation (Nexus)	1777	1723	163	1830.0	1766.7	43.7 LO	89.0	-74.0
Admiral Formation (SRD)	1963	1889	N/A	1930.0	1855.7	33.3 HI		
500 sand	1963	1889	154	1930.0	1855.7	33.3 HI	159.0	-5.0
400 sand	2166	2043	117	2134.0	2014.7	28.3 HI	117.6	+0.6
300 sand	2366	2160	77	2300.0	2117.6	42.4 HI	68.5	-8.5
200 sand	2502	2237	47	2412.0	2186.1	50.9 HI		
100 sand	2584	2284	44					
Emperor Volcanics	2661	2328	N/A					
TD	2733	2370						

COMMENTS:

Anadrill Schlumberger LWD sensor to bit distances: Resistivity: 11.87m Gamma 11.92m,
Ultrasonic Caliper 26.6m, Density: 26.99, Neutron Porosity 28.04m.

WELLSITE GEOLOGISTS:

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