

## Longtom-4



<b>Date:</b>	30-06-2008	<b>Last Casing:</b>	406.4 mm (16") @ 750 mMDRT
<b>Report Number:</b>	4	<b>Leak Off Test:</b>	1.64 ppg EMW
<b>Report Period:</b>	24hrs to 24:00	<b>Current hole size:</b>	343 mm (13 1/2")
<b>Depth @ 2400 Hrs:</b>	1447 mMDRT	<b>Mud Weight:</b>	1.45 SG
<b>Last Depth:</b>	758.0 mMDRT	<b>ECD:</b>	1.6 SG
<b>Progress:</b>	689 m	<b>Mud Type:</b>	SOBM
<b>TD Lithology:</b>	Sandstone, Siltstone	<b>Vis:</b>	78
<b>Water Depth:</b>	57.1 m	<b>Mud Fluid Loss:</b>	4.4
<b>RT Elevation:</b>	39.9 m	<b>Bit Type:</b>	REED RSX616M-A3

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**OPERATIONS SUMMARY**


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**24 HOUR SUMMARY**

Serviced top drive and rig. Displaced well to SOBM. Drilled 13 1/2" hole from 758 - 1447m.

**00:00 - 24:00:****06:00 Update**

Drilled 13 1/2" hole from 1477 - 1512m maintaining 30 deg Inc and 183.5 AZ.

**NEXT 24 HOURS:**

Drill 13 1/2" hole.

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**GEOLOGICAL SUMMARY**


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**LITHOLOGIC DESCRIPTION:**

Interval mMDRT (mTVDSS)	Description
758-1050 (718-1003.5) ROP: 2-148 m/hr Avg: 79 m/hr	<b>CALCILUTITE (100%)</b> : medium grey to brownish grey, soft to predominantly moderately firm, amorphous to sub blocky, dispersive, trace Forams, trace fossil fragments, trace crystalline calcite, common medium grey argillaceous matrix, grading to Argillaceous Calcilutite.
1050-1291 (1003.5-1215.7) ROP: 9-138 m/hr Avg: 100 m/hr	<b>CALCILUTITE (100%)</b> : very light grey to light grey, very soft to soft, amorphous, dispersive, sticky, trace crystalline calcite. very light grey to light grey, becoming light grey to medium brownish grey below 1240m, soft to moderately firm, amorphous, sticky, with trace dark green glauconite nodules below 1250m.
1291-1447 (1215.7-1351) ROP: 11-135 m/hr Avg: 66 m/hr	<b>SANDSTONE, SILTSTONE and COAL</b>  <b>SANDSTONE (10-90%)</b> : loose, white to very light grey, clear to translucent grains, trace milky, fine to coarse to granular (up to 3.5mm), dominantly medium to granular, poorly to moderately well sorted, subangular to subrounded quartz, with minor (5%) fine to medium subrounded to rounded clear quartz with minor feldspar and lithics, rare aggregates cemented with hard black to silvery mineral (hematite?), hard, minor (1%) very coarse to granule frosted quartz, subrounded to rounded. Trace microcrystalline pyrite nodules. <b>SILTSTONE (5-60%)</b> : light to medium grey to brownish grey, soft to firm, subblocky, argillaceous, carbonaceous in parts. Rare pyrite clusters. <b>COAL (0-80%)</b> : black, firm, flakey, bright, grading in parts to carbonaceous siltstone.

**HYDROCARBON FLUORESCENCE:**

INTERVAL (mMDRT)	FLUORESCENCE
758-1447	Nil

**GAS SUMMARY:**

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
758-1050	0.01-0.51	9-5437	1-9	1-5	-	-	-	-
1050-1291	0.07-0.39	654-3831	4-49	1-15	0-1	0-2	0-1	0-1
1291-1447	0.01-0.70	68-6456	3-157	2-83	0-6	0-10	0-1	0-1

**SURVEYS**

MD	ANGLE	Azi	TVD					
1,404.59	30.04	183.00	1,353.41					
1,433.94	31.67	182.29	1,378.60					
1,463.79	30.65	181.20	1,404.15					

**FORMATION TOPS**

WD = 57.1 m RTE = 39.9 m								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	H/LO	THICK	DIFF
Sea Floor/ Gippsland Limestone	78.5	-57	n/a	97.0	-57.1	0.1 Lo		
Lakes Entrance	-	-						
Latrobe	1299.2	-1223.8		1291	-1215.7	8.1 H		
K/T Boundary	-	-						
Un-named Volcanics	1690.5	-1561.7						
Chimaera	1724.1	-1590.7						
Kipper Shale	1757.4	-1619.5						
Admiral Formation	-	-						
500 Sands	2287.8	-2077.7						
400 Sands	2418.8	-2187.3						
300 Sands	2544.2	-2278.6						
200 Sands	2595.3	-2310.9						
100 Sands	2682.0	-2361.9						
50 Sands	2789.9	-2425.0						
Emperor Volcanics	2849.4	-2459.7						
TD								

**COMMENTS:**

Due to high mud level in possum belly, gas system regularly going to blowback mode from 1375m, resulting in intermittent gas data.

Top Latrobe Group picked at 1291m, incoming of sand fraction in cuttings, increase in gamma log values.

Hard layer intersected at 1447m at 22:45 hrs, cuttings are firm to hard non-calcareous siltstone and claystone with classic PDC cuttings morphology (chatter marks on one face, polished smooth on other face).

MWD Sensor offsets;

Resistivity: 10.47m

GR: 10.52m

Directional: 18.94m

Density: 26.67m

Neutron: 27.5m

**WELLSITE GEOLOGISTS: Cliff Menhennitt      Simon Ward**