

Longtom-4



Date:	01-07-2008	Last Casing:	406.4 mm (16") @ 750 mMDRT
Report Number:	5	Leak Off Test:	1.64 ppg EMW
Report Period:	24hrs to 24:00	Current hole size:	343 mm (13 1/2")
Depth @ 2400 Hrs:	1720 mMDRT	Mud Weight:	1.45 SG
Last Depth:	1447.0 mMDRT	ECD:	1.5 SG
Progress:	373 m	Mud Type:	SOBM
TD Lithology:	Sandstone	Vis:	78
Water Depth:	57.1 m	Mud Fluid Loss:	4.4
RT Elevation:	39.9 m	Bit Type:	REED RSX616M-A3

OPERATIONS SUMMARY

24 HOUR SUMMARY	Drilled 13 1/2" hole from 1447m to 1720m.
00:00 - 24:00:	
06:00 Update	Drilled 13 1/2" hole from 1720m to 1835m.
NEXT 24 HOURS:	Continue drilling 13 1/2" hole.

GEOLOGICAL SUMMARY

LITHOLOGIC DESCRIPTION:

Interval mMDRT (mTVDS)	Description
1447-1500 (1351-1395.5) ROP: 1-68 m/hr Avg: 36 m/hr	Interbedded SANDSTONE / SILTSTONE / CLAYSTONE: SANDSTONE (10-60%): loose, white to very light grey, clear to translucent grains, trace milky, fine to medium, minor coarse to very coarse, moderately well sorted, subangular to subrounded quartz, with minor feldspar and lithics. SILTSTONE (20-70%): medium grey to brown grey, soft to firm, subblocky, argillaceous, carbonaceous in parts. CLAYSTONE (10-70%): light grey to yellowish grey, soft, amorphous, sticky. COAL (tr): black, firm.
1500-1570 (1395.5-1456) ROP: 0.1-80 m/hr Avg: 32 m/hr	SANDSTONE with SILTSTONE / CLAYSTONE / COAL SANDSTONE (70-85%): quartzose, white to very light grey, clear to translucent grains, trace milky, returned loose, very fine to granule, predominantly fine to medium, common coarse to very coarse, trace granule, predominantly sub angular to rounded, minor angular to sub angular, moderate to high sphericity, low sphericity to elongate in very coarse to granule fraction, very poorly sorted, trace siliceous cement, trace pyrite frosting on coarser grains, fair to good inferred porosity. No shows. SILTSTONE (0-40%): medium grey to brownish grey, friable to moderately firm, amorphous to sub blocky, common argillaceous matrix, trace microcrystalline pyrite, minor carbonaceous fragments and laminae. CLAYSTONE (10-55%): medium grey to medium dark grey, moderately firm, amorphous to sub blocky, minor quartz silt, trace carbonaceous fragments. COAL: black, firm.

<p>1570-1660 (1456-1533.7) ROP: 6-83 m/hr Avg: 29 m/hr</p>	<p>SILTSTONE with minor SANDSTONE and COAL:</p> <p>SILTSTONE (20-90%): medium grey to brownish grey, friable to moderately firm, sub blocky to flakey, common argillaceous matrix, trace microcrystalline pyrite, minor to common carbonaceous fragments and laminae, grading to argillaceous Siltstone and silty Claystone.</p> <p>SANDSTONE (10-30%, 50-80% in parts): quartzose, white to very light grey, dominantly loose, trace soft, medium to very coarse, predominantly coarse, moderately sorted, angular to sub angular, minor sub rounded, trace soft aggregates with white argillaceous matrix, trace intergranular pyrite cement, trace pyrite grain frosting, good inferred porosity. No shows.</p> <p>CLAYSTONE (nil – 20%): medium grey to medium dark grey, moderately firm, amorphous to sub blocky, minor quartz silt, trace carbonaceous fragments, non calcareous.</p> <p>COAL (Trace-5%), 50% at 1600m: black, soft to firm, flakey.</p>
<p>1660-1695 (1533.7-1563.9) ROP: 8-73 m/hr Avg: 31 m/hr</p>	<p>SANDSTONE with minor SILTSTONE:</p> <p>SANDSTONE (70-90%): inferred from light grey to light brownish grey soft amorphous non-calcareous slightly sandy slightly carbonaceous rock flour, interpreted to represent crushed sandstone. With common to abundant loose sand, fine to granule, dominantly fine to medium, in parts medium to very coarse, moderately sorted, subrounded quartz and trace feldspar. Poor inferred porosity, no shows.</p> <p>SILTSTONE (10-30%): as above.</p>
<p>1695-1710 (1563.9-1576.9) ROP: 10-81 m/hr Avg: 30 m/hr</p>	<p>VOLCANICS with minor SANDSTONE and SILTSTONE:</p> <p>VOLCANICS (50-80%): white, very light yellowish brown / light greenish white, weathered to claystone, trace weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, vague remnant crystalline structure in part.</p> <p>SANDSTONE (10-40%): white to very light grey, loose to soft, fine to granule, dominantly medium to coarse, poorly sorted, angular to sub angular, minor sub rounded, low to moderate sphericity, minor soft aggregates with white to brown argillaceous matrix, carbonaceous in parts, minor rock flour, moderate inferred porosity. No shows.</p> <p>SILTSTONE (10%): medium grey to brownish grey, friable to moderately firm, sub blocky to flakey, common argillaceous matrix, trace microcrystalline pyrite, minor carbonaceous fragments and laminae, grading to argillaceous Siltstone.</p>
<p>1710-1720 (1576.9-1585.6) ROP: 25-76 m/hr Avg: 52 m/hr</p>	<p>SANDSTONE:</p> <p>SANDSTONE (100%): white to very light grey, loose to soft, fine to granule, dominantly coarse to granule, moderately sorted, angular to sub angular, minor sub rounded, low to moderate sphericity, minor soft aggregates with white to brown argillaceous matrix, carbonaceous in parts, minor rock flour, moderate inferred porosity. No shows.</p> <p>VOLCANICS (trace): white to orange clay, soft to firm, irregular masses, coarse to very coarse grain size, trace relict hornblende crystal form.</p>

HYDROCARBON FLUORESCENCE:

INTERVAL (mMDRT)	FLUORESCENCE
1447 - 1720	Nil

GAS SUMMARY:

INTERVAL (mMDKB)	Total GAS (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	IC4 (ppm)	NC4 (ppm)	IC5 (ppm)	NC5 (ppm)
1447-1500	0.02-0.07	209-586	5-36	2-13	0-1	0	0	0
1500-1570	0.01-0.15	64-1241	5-88	2-33	0-4	0-7	0	0
1570-1660	0-0.16	121-1341	8-52	5-33	0-3	0-7	0-1	0-1
1660-1695	0.01-0.06	58-442	2-39	5-29	0-3	2-6	0-1	0-1
1695-1710	0.02-0.04	129-255	12-25	7-19	0-1	3-7	0	0
1710-1720	0.02-0.05	167-321	12-27	9-23	0-1	3-10	0	0-1

SURVEYS

MD	ANGLE	Azi	TVD					
1,730.84	30.49	182.20	1,634.82					
1,760.64	30.44	183.16	1,660.50					
1,790.34	29.76	183.49	1,686.20					

FORMATION TOPS

WD = 57.1 m RTE = 39.9 m								
FORMATION	PROGNOSED DEPTHS (m)			ACTUAL DEPTHS (m)				
	MDKB	TVDSS	THICK	MDKB	TVDSS	HI/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 Hi		
K/T Boundary	-	-						
Un-named Volcanics	1690.5	-1561.7		1695	1563.9	2.2 Lo		
Chimaera	1724.1	-1590.7		1710	1576.9	13.8 Hi		
Kipper Shale	1757.4	-1619.5		1755	1615.7	3.8 Hi		
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:

Several H₂S reading weres recorded;

4ppm at the shakers at returns depth 1452m, and 1 ppm in the pit room at returns depth 1506m
4ppm at the shakers at returns depth 1550m, 2ppm at the shakers at returns depth 1653m, and
3ppm at the shakers from returns depth 1809m to 1829m

5m sample interval from 1600m.

MWD Sensor offsets;

Resistivity: 10.47m
GR: 10.52m
Directional: 18.94m
Density: 26.67m
Neutron: 27.5m

WELLSITE GEOLOGISTS: Cliff Menhennitt Simon Ward