



## DAILY GEOLOGICAL REPORT

**WELL:** Shenandoah #1      **REPORT No.:** 28      **DAYS FROM SPUD:** 28      **DATE:** 28/08/07  
**PEL:** EP 98      **00:00 DEPTH:** 517mKB      **LAST 24hr DEPTH:** 432mKB      **24 hr Progress:** 85m  
**LOCATION:** Beetaloo Basin      **RIG:** Century Rig 7      **KB: (Final Survey)** 232.55m      **13 3/8" Csg:** 312m  
**GEOLOGIST:** J Hulse      **GL: (Final Survey)** 226.75m      **PTD:** 2,900m

**NEARBY WELLS:** Balmain #1 (Twin)

**06:00 Depth/Operation:** 574mKB / Rotary water drilling in Hayfield Mudstone  
**Operations 00:00 to 06:00:** Rotary water drilling Hayfield Mudstone  
**Previous 24 Hours Operations:** Air Hammer drill 432-445mKB, POOH Hammer drill assembly plugged with cement, had parted and reconnected down-hole. RIH 12 1/4" Rotary Bit, Drill ahead with aerated water.

Formation Tops	Actual Depths (m)			Prognosed Depths (m)			Diff to Prog. H/L	Thickness (m)
	MDKB	TVD	TVDSS	MDKB	TVD	TVDSS		
Undifferentiated Tertiary	5.8	5.8	+227	5.8	5.8	+227	-	45.7
Jinduckin Formation	51.5	51.5	+181.3	54.8	54.8	+178	+3.3	32.7
Tindall Limestone	84.2	84.2	+148.6	83.8	83.8	+149	-0.4	178.8
Antrim Volcanics	263.0	263.0	-30.5	265.3	265.3	-32.5	-2.0	85.0
Bukalara Sandstone	348.0	348.0	-115.5	348.3	348.3	-115.5	0.0	58.0
Hayfield Mudstone	406.0	406.0	-173.5	406.3	406.3	-173.5	0.0	
Hayfield Sand				782.2	782.2	-549.4		
Jamison Sandstone				856.3	856.3	-623.5		
Kyalla Formation				940.8	940.8	-708		
Moroak Sandstone				1551.8	1551.8	-1319		
Velkerri Formation				1641.8	1641.8	-1409		
Bessie Creek Sandstone				2481.8	2481.8	-2249		
Total Depth				2900.0	2900.0	-2667.2		

**Remarks:**

Interval (m) ROP (min/m)	Lithology Description	Gas/B'ground Breakdown C1/C2/C3/C4/C5
<b>Formation: HAYFIELD MUDSTONE</b>		
432-440mKB (28min/m)	<b>Siltstone:</b> Predominantly reddish brown, minor pale green and light grey, banded. Pale green: Sub platy, soft – moderately firm, nil – minor disseminated carbonaceous detritus, trace white feldspar grains, trace – nil disseminated pyrite, siliceous, weakly laminar. Reddish Brown: Soft – firm, sub platy – minor sub blocky, massive – weakly laminar, trace carbonaceous fragments, trace pyrite, trace opaque metalliferous fragments.	Nil
440-530mKB (4min/m)	Siltstone (100%): Light – medium grey, green grey in lower part, hard, sub platy, common micromicaceous, weakly – moderately laminar, common arenaceous, trace – minor disseminated pyrite, trace – minor carbonaceous fragments, trace – common calcite, grading to thin very fine sandstone layers in part. Sandstone (Trace): Light – medium grey, very fine, grading to siltstone, common – abundant siliceous or calcareous cement, minor pyrite matrix, nil visible porosity.	Nil
<b>Fluorescence</b>	Trace dull – moderately bright yellow fluorescence, no natural solvent cut, nil - very dull diffuse yellow crush cut.	
<b>Gas Flaring</b>	Nil	



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### 06:00 SUMMARY

#### Formation: HAYFIELD MUDSTONE

530-574mKB (6min/m)	Siltstone (0-95%): Pale green – grey green, moderately hard, sub platy, weakly – moderately laminar, micromicaceous, common biotite mica, trace pyrite, grading to very fine sandstone in part, minor medium green glauconite, trace carbonaceous fragments. Mudstone (5-100%): Orange brown – pale green, moderately hard, sub blocky, common micromicaceous, trace biotite, trace medium green glauconite, minor grading to siltstone.	Nil
<b>Fluorescence</b>	Nil	
<b>Gas Flaring</b>	Nil	