



## DAILY GEOLOGICAL REPORT

**WELL:** Shenandoah #1    **REPORT No.:** 35    **DAYS FROM SPUD:** 35    **DATE:** 04/09/07  
**PEL:** EP 98    **00:00 DEPTH:** 1187mKB    **LAST 24hr DEPTH:** 1068mKB    **24 hr Progress:** 119m  
**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:** 1216mKB / Drill ahead in 12 1/4" Kyalla Shale.  
**Operations 00:00 to 06:00:** Drill ahead 12 1/4" hole in Kyalla Shale.  
**Previous 24 Hours Operations:** Drill ahead 12 1/4" hole in Kyalla Shale, change out rotating head rubber.

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	3.3H	32.7
Tindall Limestone	84.2	84.2	+148.6	83.8	83.8	+149	0.4L	178.8
Antrim Volcanics	263.0	263.0	-30.5	265.3	265.3	-32.5	2.0H	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	375.9
Hayfield Sand	782.5	782.3	-549.7	782.2	782.2	-549.4	0.3L	(10.5)
Jamison Sandstone	855.0	854.8	-622.2	856.3	856.3	-623.5	1.3H	85.0
Kyalla Formation	940.0	939.8	-707.2	940.8	940.8	-708.0	0.8H	
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
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**Formation: Kyalla Shale**

1068-1100mKB	<b>Mudstone (100%):</b> Pale green – grey green (50-70%), moderately soft – moderately hard, massive – trace weakly laminar, common micromicaceous, minor micaceous laminae, trace grading to siltstone. Grey brown – brown (30-50%), hard, sub blocky – sub platy, massive – moderately laminar, minor – common carbonaceous laminae, common micromicaceous, minor grading to siltstone. <b>Siltstone (Trace):</b> Dark brown – black, carbonaceous, common – abundant carbonaceous laminae, trace very fine quartz, hard, moderately – strongly laminar, sub blocky – sub platy, trace arenaceous.	<u>1071mKB</u> Tg max 6.2 unit Bkg gas <1 unit 93/2/2/2/1
<b>Fluorescence</b>	Nil	
<b>Gas Flaring</b>	Nil	
1100-1160mKB	<b>Mudstone (100%):</b> Pale green, medium – dark grey, dark grey brown, minor red brown, firm – hard, sub blocky, minor sub fissile, weakly – moderately laminar, minor – common strong laminar carbonaceous mudstone grading to siltstone.	<u>1114mKB</u> Tg max 3.5 unit Bkg gas <1 unit 70/14/8/4/4
<b>Fluorescence</b>	Nil	
<b>Gas Flaring</b>	Nil	



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1160-1180mKB	<p><b>Mudstone (95-100%):</b> Pale green, medium – dark grey, dark grey brown, minor red brown, firm – hard, sub blocky, minor sub fissile, weakly – moderately laminar, minor – common strong laminar carbonaceous mudstone grading to siltstone.</p> <p><b>Siltstone (0-5%):</b> Dark grey – black, carbonaceous, strongly laminar, abundant carbonaceous laminae, minor carbonaceous fragments, common micromicaceous, sub blocky – sub tabular, trace very fine quartz grains.</p> <p><b>Sandstone (Trace):</b> Light grey, very fine, abundant siliceous cement, moderately well consolidated, massive, quartzose, trace black, dead oil?, specks.</p>	<p><u>1164.5mKB</u> Tg max 4 unit Bkg gas &lt;1 unit 82/9/6/2/1</p>
<b>Fluorescence</b>	Trace very dull yellow fluorescence, no cut.	
<b>Gas Flaring</b>	Nil	

### 06:00 AM Summary

#### Formation: KYALLA SHALE

1180-1210mKB	<p><b>Mudstone (80-90%):</b> Pale – medium green, medium grey – medium brown grey, micromicaceous, trace carbonaceous laminations, firm – moderately hard, sub fissile – sub blocky, trace nodular pyrite, grading to siltstone in part.</p> <p><b>Siltstone (10-20%):</b> Pale grey, minor dark grey – dark brown, argillaceous – arenaceous, trace – common carbonaceous laminae, moderately hard – hard, sub blocky – sub fissile, weakly – moderately laminar, trace biotite leaves.</p> <p><b>Sandstone (Trace):</b> Light grey, abundant siliceous cement, very fine, moderately hard, well consolidated, trace carbonaceous specks, massive, trace mica.</p>	<p><u>1193.5mKB</u> Tg max 10 unit Bkg gas 1 unit 94/1/1/2/2</p>
<b>Fluorescence</b>	Nil	
<b>Gas Flaring</b>	Nil	