



## DAILY GEOLOGICAL REPORT

DATE: 29 Dec 2011  
REPORT NO.: 41  
( associated DDR # 41 )

## WELL: Surprise 1

RIG	Hunt Rig #3	RIG TYPE	Land
COMPLETION TYPE		TARGET	Lower Stairway Sandstone
Depth at Midnight (MD)	2,764.0 m	SPUD DATE	
DAYS SINCE SPUD	0.00 ( Days on well: 40.29)	LAST CASING	7.000 in @ 2,426.00 m MD
PRESENT DEPTH MD	2,764.0 m	BACKGROUND GAS	37.00 Unit @ 2,763.0 m
24 Hr Progress	68.00 m	MAX GAS	134.00 Unit @ 2,734.0 m
AVERAGE ROP	4.00 m/h	ECD	
Operations Status @ 0600hrs	pick up BHA	ESTIMATED PORE PRESSURE	
PROGNOSSED TD	3,928.0m MD 2,551.0m TVD		

## Well Details

Latitude:	23.00° 42.00" 50.76' South	UTM(N/S):	7377073N m N	RT - MSL:	3.66 m RT GL
Longitude:	129.00° 59.00" 36.09' East	UTM(E/W):	601261E m E	GL Elevation:	545.0 m

## Operations Summary and General Remarks

OPERATION SUMMARY:	slid/rotated to 2764. Pulled out to change bit
LITHOLOGY SUMMARY:	sandstone and minor claystone
HYDROCARBON SHOWS:	constant breakout of oil droplets at shaker ditch to varying degrees. Strong petroliferous odour at shakers. Variable dull to moderately bright yellow fluorescence in sandstone, weak to moderate blu/wh cut and variable bright to dull pale blu/wh residual ring and film
NEXT OPERATION:	continue to drill target.

## Lithology Summary

Interval MDBRT (m) From To	Lithology	%	Description
2,697.00 - 2,762.00	Sandstone and minor claystone	90-100	<b>Sandstone</b> light brown, clear-translucent where med-cse gr, loose-friable, very fine-medium, predominantly very fine becoming medium with depth, subangular-subrounded, well sorted, silty, trace to common kaolin, common silica cement as quartz overgrowths, trace bituminous matter, poor to fair inferred porosity, poor to good shows 100% very dull yell fluor, (rightens in dry sample) no obs cut to immediate slow blooming blu/wh cut, mod bri blu/wh ring with pale bl/wh film residue.
	Claystone	0-10	dk gy-gnsh gy, red brown ip,hd, blkly-sbfiss, silty, micmic

## Gas Readings

Depth (m)	Total Gas (Units)	BGG (Units)	C1 (ppm)	%C1 (%)	C2 (ppm)	%C2 (%)	C3 (ppm)	%C3 (%)	iC4 (ppm)	%iC4 (%)	nC4 (ppm)	%nC4 (%)	iC5 (ppm)	%iC5 (%)	nC5 (ppm)	%nC5 (%)	He (ppm)	Hydro- carbons (ppm)
2,700.00	35.000		-		-		-		-		-		-		-			
<b>Gas Type</b>	Connection	<b>Comment-</b>																
2,719.00	35.000		-		-		-		-		-		-		-			
<b>Gas Type</b>	Connection	<b>Comment-</b>																
2,729.00	98.000		-		-		-		-		-		-		-			
<b>Gas Type</b>	Connection	<b>Comment-</b>																
2,734.00	134.000		- 877	11.00	- 703	9.00	- 1,611	21.00	- 715	11.00	- 1,939	23.00	- 834	9.00	- 1,087	16.00		
<b>Gas Type</b>	Peak	<b>Comment-</b>																
2,739.00	73.000		-		-		-		-		-		-		-			
<b>Gas Type</b>	Connection	<b>Comment-</b>																
2,748.00	36.000		-		-		-		-		-		-		-			
<b>Gas Type</b>	Connection	<b>Comment-</b>																
2,756.00	117.000		- 711	11.00	- 542	9.00		20.00	- 535	11.00		22.00	- 699	12.00	- 973	15.00		

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Depth (m)	Total Gas (Units)	BGG (Units)	C1 (ppm)	%C1 (%)	C2 (ppm)	%C2 (%)	C3 (ppm)	%C3 (%)	iC4 (ppm)	%iC4 (%)	nC4 (ppm)	%nC4 (%)	iC5 (ppm)	%iC5 (%)	nC5 (ppm)	%nC5 (%)	He (ppm)	Hydro- carbons (ppm)
							- 1,191				- 1,527							
<b>Gas Type</b> Peak		<b>Comment-</b>																
2,757.00	67.000		-		-		-		-		-		-		-			
<b>Gas Type</b> Connection		<b>Comment-</b>																
2,763.00		23.00	- 48	7.00	- 36	6.00	- 69	11.00	- 52	11.00	- 171	23.00	- 107	18.00	- 170	24.00		
<b>Gas Type</b> Background		<b>Comment-</b> 2693-2763m																

**Oil Shows**

Depth 2,693.00m - 2,763.00m

Rating:	Fair	White Light Stain:	It brown
Percentage:	100	White Light Cut:	colourless
Lithology:	sandstone	White Light Residue:	colourless
Speed:		UV Fluoresce:	dull yell
Intensity:		UV Cut Fluoresce:	nil to imm slow blooming blu/wh
Description:	light grey, light brownish in part, loose, very fine to fine, predominantly fine, well sorted, angular to rarely rounded, very common broken grains, rare siliceous aggregates and shards, trace carbonaceous material.	UV Residue:	weak to strong yel/wh ring and pale blu/wh film

**Prognosis and Preliminary Correlation**

Top	Actual Depth (3.66 m RT GL)			Prognosis	H/L	Pick Criteria	Remarks
	MD	TVD	TVD(GL)	MD			
Undiff Pertinjarra	778.46	778.46	774.80	758.46	20.0 L		
Parkes	1,294.46	1,294.46	1,290.80	1,302.46	8.0 H	Lith	Lithology change
Mereenie Fm	1,760.00	1,760.00	1,756.34	1,782.46	22.5 H	ROP	ROP and Lithology Change
Stokes	2,275.00	2,275.00	2,271.34	2,449.46	174.5 H	E-log	Lithology Change
Stairway FM	2,447.00	2,447.00	2,443.34	2,579.46	132.5 H	E-log	Lithology Change
Horn Valley Siltstone	2,561.00	2,561.00	2,557.34	2,654.46	93.5 H	E-log	Lithology Change
Pacoota Sst	2,613.00	2,613.00	2,609.34	2,692.46	79.5 H	Lith	Clean water wet P1

**Well Geologist**

Lindsay Cullen/Mike Harrison