

Fermat-1

DAILY GEOLOGICAL REPORT

DGR 11

Date: Report Period: Days From Spud: Current Hole Size:		24 December 2008 Licence / State: 06:00 – 06:00 hrs AEDT Rig: 10 RT - SEAFLOOR: 311mm (12.25") WATER DEPTH RT: RT:		VIC/P46 Seadrill: West Triton 76.7m 38.7 m MSL 38.0 m MSL
Depth @ 06:00 Hrs EST: 24 Hr Progress:		2138m MDRT PTD: 2136.23m TVDRT Spud Date: -2098.23m SS 269m		4000.0 m MDRT 14 December 2008
06:00 – 06:00 EST <u>Current Operation:</u> AFE Cost (Drill)\$		Drilling ahead 12 ¼" hole in the Upper Belfast Mudstone at 25m/hr. (C&S)\$ Cost To Date:		
		(P&A)\$		

Casing Data	Hole Size	Depth	Casing Size	Wt:	Туре	Shoe Depth	LOT
1	914 mm (36")	119m	762mm (30")		X52	116m	
2	444mm (17.5")	999m	340mm(13.375")	68lb/ft	NT80HE	987m	15.0ppg EMW
3	311mm(12.25")		244mm(9.675")				

Mud Data	Туре:	Wt:	Visc:	WL:	PH:	KCI:	CI -:	PV/YP:	Rmf
22:00	KCI Polymer	9.70	53	4.4	9.0	7.0%	50k	13/38	-

Bit Data	No.	Make	Туре		Size	Hours	Meters	Condition
Present	4	Reed	PDC	RSR616M -A10	311mm (12.25")	57.1	1111	
Last	3	Hughes	Rock	GT-1	311mm (12.25")	2	28	0 0 NO A E I NO BHA

Surveys	Туре	MD (m)	Inclination	Azimuth (T)	TVD (m)	Offset (m)	Direction (T)
52	MWD	1880.19	3.46	227.97	1878.87	47.20	227.19
55	MWD	2057.35	3.37	231.70	2055.71	61.37	227.51
57	MWD	2116.75	3.44	227.04	2115.01	64.86	227.56

Fluid Loss	Interval MDRT	Total or Rate (bbl)	Remarks
	1869-2138m	190 total	

OPERATIONS SUMMARY

Previous 24 hrs Operations Summary at 06:00 hrs AEDT

Drilled ahead 311mm (12.25") hole 1869-2138m. 02:00-03:00hrs replaced TDS washpipe assembly.

Anticipated operations:

Drill ahead 311mm (12.25") hole.



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FORMATION TOPS								
FORMATION	ACTUAL TOP		High / Low	High / Low	PROGN	PROGNOSED TOP		
	(MDmRT)	(mSS)	Prognosis	Normanby-1	(MDmRT)	(mSS)		
Heytesbury Group	76.7	-38.7	0m	10 High	76.7	-38.7		
Nirranda Group	492	-454	49m Low	145 High	443.0	-405.0		
Dilwyn Formation	576	-538	38m Low	152 High	538.0	-500.0		
Pember Mudstone	963	-925	15m Low	255 High	948.0	-910.0		
Pebble Point Formation	1075	-1037	47m Low	227 High	1028.0	-990.0		
Timboon Sandstone	1092	-1054	44m Low	236 High	1048.0	-1010.0		
Paarratte Formation	1245	-1207	22m Low	251 High	1223.0	-1185.0		
Skull Creek Mudstone	1705	-1666	1m Low	258 High	1703.0	-1665.0		
Nullawarre Greensand	1850	-1811	26m Low	232 High	1823.0	-1785.0		
Belfast C & B Mudstone	1905	-1867	27m Low	220 High	1878.0	-1840.0		
Belfast A Mudstone					2163.0	-2125.0		
Flaxman Formation					2938.0	-2900.0		
Waarre Formation Unit C					3228.0	-3190.0		
Waarre Formation Unit B					3533.0	-3495.0		
Waarre Formation Unit A					3588.0	-3550.0		
Eumeralla Formation					3988.0	-3950.0		
Total Depth					4000.0	-3962.0		

HYDROCARBON SHOW SUMMARY

INTERVAL	LITHOLOGY & HYDROCARBON FLUORESCENCE	GAS
1860-2120m	Nil	

GAS	MD (m)	Peak	Background	Chromatograph
Trip Gas				
Connection Gas				

GEOLOGICAL SUMMARY

INTERVAL ROP (m/hr)	LITHOLOGY	GAS (Peak / BG) Composition %
1860-1905m	Nullawarre Greensand	0.28 u BG
	Sandstone with interbedded Claystone	92/7/1/0/0
9-39m/hr 24m/hr Avg	SANDSTONE: (20-90%) Quartzose, clear to translucent, frosted, light grey, very fine to predominantly fine, subangular to subround, well sorted, locally weak to moderately strong siliceous cement, common medium clear quartz float, trace muscovite, trace carbonaceous specks, trace fine to medium nodular pyrite, locally kaolinitic inclusions, moderately hard to disaggregated, poor to fair porosity, no fluorescence. CLAYSTONE: (10-80%) Medium dark grey to olive grey, locally very silty grades to argillaceous siltstone in part, trace carbonaceous specks, micromicaceous, soft to plastic, slightly dispersive, massive.	



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PETROLEUM	DAILY GEOLOGICAL REPORT DO				
1905-2060m	Belfast Unit C and B Mudstone	10.2 u PK			
	Sandstone with interbedded Claystone and minor Siltstone	88/7/3/2/0			
4-41m/hr	SANDSTONE: (15-95%) Quartzose, clear to translucent, frosted, light	at 2053m			
23m/hr avg	grey, very fine to coarse, subangular to subrounded, moderately to well				
	sorted, predominantly clean, moderate to strong siliceous, calcareous	2.5 u BG			
	and dolomitic cement, argillaceous matrix dispersing in mud, trace	86/8/4/1/1			
	nodular pyrite, trace to common carbonaceous fragments, trace hard				
	siltstone, disaggregated with common hard cemented fine to medium				
	sand aggregates, fair to good porosity, no fluorescence.				
	SILTSTONE: (0-15%) Dark grey to olive grey, locally very argillaceous				
	grades to silty claystone in part, slightly arenaceous, micromicaceous,				
	moderately abundant carbonaceous specks, trace lithic fragments, firm,				
	blocky to subfissile.				
	CLAYSTONE: (5-85%) Light grey to olive grey, silty in part, common				
	carbonaceous fragments, micromicaceous, slightly arenaceous in part,				
	soft to slightly dispersive, massive to amorphous.				
2060-2120m	Sandstone with minor interlaminated Claystone and Siltstone	3.8 u BG			
	SANDSTONE: (50-90%) Quartzose, clear to translucent, frosted, light	88/7/3/1/1			
2-41m/hr	grey, very fine to coarse, subangular to subrounded, moderately to well				
25m/hr avg	sorted, predominantly clean, moderate to strong siliceous, calcareous				
	and dolomitic cement, argillaceous matrix dispersing in mud, trace				
	nodular pyrite, trace muscovite, trace to common carbonaceous				
	fragments, trace hard siltstone, disaggregated with common hard				
	cemented tine to medium sand aggregates, tair to good porosity, no				
	SILISTONE: (0-15%) Dark grey to onve grey, locally very arginaceous				
	grades to sity claystone in part, slightly arenaceous, micromicaceous,				
	houerately abundant carbonaceous specks, trace ittnic tragments, tirm,				
	DIUCKY IO SUDIISSIIE.				
	CLATSTONE. (5-50%) Light grey to onve grey, siny in part, common				
	carbonaceous iragments, micromicaceous, slightly arenaceous in part,				
	soft to slightly dispersive, massive to amorphous.				

REMARKS:

Carbide lag check at 1982m. In gauge, 30u total gas.

DGR 11 links to DDR 14

LWD Offsets from Bit:

Run 2:

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GR: 4.9m Res: 4.85m ECD: 4.14m Survey: 12.96m Sonic: 22.37m

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