

02 Jan 2006

From: Ron King/ Geoff Webster
To: J Ah-Cann

DRILLING MORNING REPORT # 22

Culverin 1

Well Data							
Country	Australia	MDBRT	3571.0m	Cur. Hole Size	12.250in	AFE Cost	\$ 22699889
Field	Gippsland Basin	TVDBRT	3567.1m	Last Casing OD	13.375in	AFE No.	3433-1001
Drill Co.	DOGC	Progress	0.0m	Shoe TVDBRT	1511.8m	Daily Cost	\$ 508563
Rig	OCEAN PATRIOT	Days from spud	17.44	Shoe MDBRT	1511.8m	Cum Cost	\$ 15585272
Wtr Dpth(MSL)	585.0m	Days on well	20.77	FIT/LOT:	/ 15.80ppg	Days Since Last LTI	958
RT-ASL(MSL)	21.5m	Planned TD MD					
RT-ML	606.5m	Planned TD TVDRT					
Current Op @ 0600 Tripping out of hole to change out MWD.							
Planned Op Change out MWD tools and adjust BHA and drill ahead 311 mm (12 1/4") hole to TD.							

Summary of Period 0000 to 2400 Hrs

POOH to surface. Changed out BHA to a rotary assembly (removed down-hole motor) and a Smith rock-bit. Completed making up new BHA with additional drill-collars and commenced RIH. BHA held up at 2100.0 mMDRT. Washed and reamed down to 2540.0 mMDRT. MWD failed at 2540.0 mMDRT. Commenced pulling out of hole to replace MWD tools and adjust BHA configuration. Pulling out at 2020.0 mMDRT at midnight.

FORMATION	
Name	Top
Base Funa Flounder Channel	2835.00m
Top 67.5 Ma Sand	2836.00m
Near 68.5 Ma Sand	3103.00m
Near 70.3 Ma Sand	3478.00m
TD	

Operations For Period 0000 Hrs to 2400 Hrs on 02 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TU (WO)	WSH	0000	0630	6.50	3571.0m	Continued POOH checking for washout. Visually inspect tool joint seal faces of each stand for wear. Flow checked at casing shoe and at HWD. Downloaded sources from LWD tools. POOH and inspected BHA for washout. Broke off bit and laid out motor
IH	TU (WO)	TI	0630	0830	2.00	3571.0m	Made up 12 1/4" rotary BHA with Smith GF30BOVCPS (c/w 3 X 18 nozzles), install new HOC
IH	TU (WO)	TI	0830	1030	2.00	3571.0m	Initailized MWD and install sources in tool
IH	TU (WO)	TI	1030	1700	6.50	3571.0m	Picked up additional 8" DC's & RIH with 12 1/4" BHA, changed out drilling jar, continued RIH. Shallow pulse tested MWD with 850 GPM @ 2000psi, OK. RIH with 5" DP from derrick to 2134m MDRT, filled drillstring each 20 stands
IH	TU (WO)	TIT	1700	2200	5.00	3571.0m	Washed and reamed from 2134m MDRT to 2593m MDRT with 700 - 850 GPM, 2500 -3900 psi, 120 -145 RPM. MWD tools stopped communicating to surface. 200 psi pressure loss noted during reaming (3900psi @ 850 gpm to 3700psi @ 900gpm).
IH	TU (WO)	TOT	2200	2400	2.00	3571.0m	Flow checked 15 minutes, good. POOH for LWD failure and potential washout from 2593m MDRT to 2020m MDRT. 60klbs overpull @ 2326m MDRT, worked drill string free

Operations For Period 0000 Hrs to 0600 Hrs on 03 Jan 2006

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
IH	TU (WO)	TO	0000	0130	1.50	3571.0m	Continued POOH wet looking for washout from 2020m MDRT to 1510m MDRT
IH	TU (WO)	TO	0130	0230	1.00	3571.0m	Installed top drive and pump through drill string at 1510m MDRT to verify pump pressure loss. 220 SPM, 940 GPM, 3700 psi, no pressure loss noted. Pressure test Pumps #1, #2 & #3 10 minutes each to 3800 psi against standpipe manifold to verify mud pump and mudline integrity.
IH	TU (WO)	TO	0230	0600	3.50	3571.0m	Continued POOH wet looking for washout from 1510m MDRT to 162m MDRT

Operations For Period Hrs to Hrs on

Phase Data to 2400hrs, 02 Jan 2006

Phase	Phase Hrs	Start On	Finish On	Cum Hrs	Cum Days	Max Depth
RIG MOVE/RIG-UP/PRESPUD(RM)	23.5	05 Nov 2005	14 Dec 2005	23.50	0.979	0.0m
ANCHORING(A)	33	14 Dec 2005	15 Dec 2005	56.50	2.354	0.0m
SURFACE HOLE(SH)	30	15 Dec 2005	17 Dec 2005	86.50	3.604	650.0m
SURFACE CASING(SC)	16.5	16 Dec 2005	17 Dec 2005	103.00	4.292	650.0m
INTERMEDIATE CASING(IC)	1	17 Dec 2005	17 Dec 2005	104.00	4.333	650.0m
RISER AND BOP STACK(BOP)	54	21 Dec 2005	23 Dec 2005	158.00	6.583	1525.0m
INTERMEDIATE HOLE(IH)	340.5	17 Dec 2005	02 Jan 2006	498.50	20.771	3571.0m

WBM Data

Cost Today \$ 21860

Mud Type:KCL-NaCl-Polymer	API FL: 4.0cc/30min	Cl: 82500mg/l	Solids(%vol): 10%	Viscosity 60sec/qt
Sample-From: Active Pit	Filter-Cake: 1/32nd"	K+C*1000: 7%	H2O: 90%	PV 16cp
Time: 2100	HTHP-FL: 11.8cc/30min	Hard/Ca: 260mg/l	Oil(%): 0%	YP 28lb/100ft²
Weight: 10.20ppg	HTHP-cake: 1/32nd"	MBT: 7	Sand: 1	Gels 10s 7
Temp: 32C°		PM: 0.04	pH: 7	Gels 10m 9
		PF: 0.04	PHPA: 1ppb	Fann 003 5
				Fann 006 7
				Fann 100 27
				Fann 200 37
				Fann 300 44
				Fann 600 60
Comment NaCl 8%.				

Bit # 4

					3	5	WT	S	X	1	LT	PP
Bitwear Comments:												
Size ("):	12.250in	IADC#	M422	Nozzles		Drilled over last 24 hrs			Calculated over Bit Run			
Mfr:	REED HYCALOG	WOB(avg)		No.	Size	Progress			Cum. Progress		169.0m	
Type:	PDC	RPM(avg)		2	28/32nd"	On Bottom Hrs			Cum. On Btm Hrs		27.0h	
Serial No.:	211406	F.Rate		4	18/32nd"	IADC Drill Hrs			Cum IADC Drill Hrs		30.0h	
Bit Model	RSX 616	SPP				Total Revs			Cum Total Revs		0	
Depth In	3402.0m	HSI				ROP(avg)			N/A	ROP(avg)		6.26 m/hr
Depth Out	3571.0m	TFA	2.197									
Bit Comment												

Bit # 5

				Bitwear Comments:						
Size ("):	12.250in	IADC#	5-3-7	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run		
Mfr:	SMITH BITS	WOB(avg)	10.00klb	No.	Size	Progress		Cum. Progress		0.0m
Type:	Rock	RPM(avg)	140	3	18/32nd"	On Bottom Hrs		Cum. On Btm Hrs		0.0h
Serial No.:	MX1628	F.Rate	20.20bpm			IADC Drill Hrs		Cum IADC Drill Hrs		0.0h
Bit Model	GF30BOVCPS	SPP	3700psi			Total Revs		Cum Total Revs		0
Depth In	3571.0m	HSI				ROP(avg)		N/A	ROP(avg)	
Depth Out		TFA	0.7455							
Bit Comment										

BHA # 4

Weight(Wet)	57.00klb	Length	268.3m	Torque(max)	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	30.00klb	String		Torque(Off.Btm)	D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)	H.W.D.P. Ann Velocity	176fpm
		Slack-Off			D.P. Ann Velocity	176fpm
BHA Run Description		Annular velocity based on 900gpm				
BHA Run Comment						

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.24m	12.250in		211406	Reed Hycalog RSX 616M
Mud Motor	8.54m	9.625in	6.135in	963271	244mm(9 5/8") Sperrydrill Lobe 6/7 - 5.0 stg Motor
X/O	1.22m	9.438in	2.875in	S18819-11	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	9.06m	8.000in	2.875in	18600035	
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.31m	8.188in	3.063in	11150D	Drilling jars used in surface hole section.
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	192.98m	5.000in	2.875in		

BHA # 5

Weight(Wet)	65.00klb	Length	271.2m	Torque(max)	D.C. (1) Ann Velocity	256fpm
Wt Below Jar(Wet)	50.00klb	String		Torque(Off.Btm)	D.C. (2) Ann Velocity	384fpm
		Pick-Up		Torque(On.Btm)	H.W.D.P. Ann Velocity	176fpm
		Slack-Off			D.P. Ann Velocity	176fpm

BHA Run Description Annular velocity based on 900gpm

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.33m	12.250in		MX1628	Smith GF30BOVCPS
Near Bit Stab	2.13m	12.125in	2.812in	47604	
Drill Collar	2.96m	8.188in	2.812in	49058	
Stab	1.81m	12.125in	2.875in	694776	Non-mag integral blade string stab
MWD	24.39m	8.000in	1.920in		DIR/HCIM-EWR-DGR-CTN-SLD-ACAL-HOC.
8in DC	70.95m	8.000in	2.875in		
Stab	2.10m	12.125in	2.875in	47607	Integral blade string stabilizer
8in DC	8.68m	8.000in	2.875in	1860026	
Drilling Jars	9.66m	8.188in	3.063in	MHA00206	
8in DC	8.81m	8.000in	2.875in	18600031	
X/O	1.16m	8.500in	2.875in	MSO1930-2	
5in HWDP	138.22m	5.000in	2.875in		

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Barite Bulk	MT	0	0	0	113.8
Bentonite Bulk	MT		0	0	38.1
Diesel	m3	0	22.1	0	340.4
Fresh Water	m3	25	28.8	-0.1	156.9
Drill Water	m3	320	24.5	0.1	566.4
Cement G	MT		0	0	79.9
Cement HT (Silica)	MT		0	0	0.0

Pumps

Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (ppg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (bpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (bpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (bpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (bpm)
2	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00
3	12P160	6.000	10.20	97	101	4200	10.24	3275.0	30	320	3.00	40	360	4.00	50	450	5.00

Pacific Wrangler			Standby Ocean Patriot	Item	Unit	Used	Quantity
				Diesel	CuMtr		446.7
				Fresh Water	CuMtr		165
				Drill Water	CuMtr		0
				Cement G	Mt		132
				Cement HT (Silica)	Mt		0
				Barite Bulk	Mt		0
				Bentonite Bulk	Mt		42

Offloaded Electric wireline tools and 320m3 drillwater

Helicopter Movement				
Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	BRISTOW HELICOPTERS AUSTRALIA PTY LTD	/	/	No Flights today