

**DRILLING MORNING REPORT # 42**  
**Trefoil-2**

11 Nov 2009

 From: Bryan Houston / Paul Leathem  
 To: Paul Barrett

Well Data							
Country	Australia	MDBRT	2983.0m	Cur. Hole Size	8.500in	AFE Cost	US\$33,167,745
Field	Trefoil	TVDBRT	2983.0m	Last Casing OD	9.625in	AFE No.	Trefoil-2
Drill Co.	Maersk	Progress	349.0m	Shoe TVDBRT	2520.0m	Daily Cost	US\$572,125
Rig	Kan Tan IV	Days from spud	36.67	Shoe MDBRT	2520.0m	Cumul. Cost	US\$29,278,919
Wtr Dpth(MSL)	69.0m	Days on well	41.13	FIT/LOT:	11.00ppg /		
RT-ASL(MSL)	26.0m	Planned TD MD	3221.0m	Current Op @ 0600	Continue to POOH BHA.		
RT-ML	95.0m	Planned TD TVDRT	3221.0m	Planned Op	Continue to POOH. Make up coring BHA and RIH.		

**Summary of Period 0000 to 2400 Hrs**

Continued to drill ahead 8 1/2" hole from 2774m to 2950m. Circulated hole clean @ 700gpm/2700psi. Continued to drill ahead 8 1/2" hole from to 2968m. Circulated for geological sample @ 700gpm/2700psi. Took SCRs and continued to drill ahead 8 1/2" hole to 2983m. Circulated for geological sample. Geologist confirmed core point depth @ 2983m. Flow checked and continued to circulate hole clean. Pumped out of the hole from 2983m to 2871m. POOH on elevators monitoring trip tank. Hole in excellent condition.

**HSE Summary**

Events	Num. Events	Days Since	Descr.	Remarks
Last BOP Test	05 Nov 2009			
Abandon Drill	0	4 Days	Held abandon drill	
Emergency Drill	0	7 Days	Full Emergency drill performed.	
Fire Drill	0	4 Days	Main deck - Fire in Control room	
Permit To Work	8	0 Days	Permits administered	
Pre-tour Meeting	2	0 Days	Shift change meetings	
Safety Meeting	10	0 Days	Prejob safety meetings	
STOP Card	45	0 Days	Number of STOP Cards submitted	
Trip / Kick Drill	0	1 Day	Trip Drill 36sec	Held while RIH

**FORMATION**

Name	Top
Demons Bluff	1850.00m
Eastern View Coal Measures	2105.00m
Eocene Unconformity	2701.50m
2973 Seismic Marker	2827.50m
TL40 Sand	2977.00m

**Operations For Period 0000 Hrs to 2400 Hrs on 11 Nov 2009**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	D2	0000	1230	12.50	2950.0m	Continued to drill ahead 8 1/2" hole from 2774m to 2950m with 700gpm/2700psi/10 - 15klbs WOB/140rpm/10-18k torque/ mud weight 9.4ppg. Took surveys on each connection. Monitored MWD stick slip, whirl and vibration. Adjusted parameters to suit.
P17	P	F4	1230	1400	1.50	2950.0m	Racked back stand #93 to enable Driller to work full stand of pipe and circulate hole clean @ 700gpm/2700psi.
P17	P	D2	1400	1730	3.50	2968.0m	Continued to drill ahead 8 1/2" hole from 2950m to 2968m with 700gpm/2700psi/10 - 15klbs WOB/140rpm/10-18k torque/ mud weight 9.4ppg. Monitored MWD stick slip, whirl and vibration. Adjusted parameters to suit.
P17	P	F4	1730	1900	1.50	2968.0m	Circulated for geological sample @ 700gpm/2700psi. Took SCRs @ 30/40/50 spm.
P17	P	D2	1900	2000	1.00	2983.0m	Continued to drill ahead 8 1/2" hole from 2968m to 2983m with 700gpm/2700psi/10 - 15klbs WOB/140rpm/10-18k torque/ mud weight 9.4ppg. Monitored MWD stick slip, whirl and vibration. Adjusted parameters to suit.
P17	P	F4	2000	2100	1.00	2983.0m	Circulated hole clean @ 700gpm/2700psi.
P17	P	F4	2100	2200	1.00	2983.0m	Geologist confirmed core point depth @ 2983m. Flow check continued to circulate hole clean @ 700gpm/2700psi.
P17	P	D7	2200	2300	1.00	2983.0m	Pumped out of the hole from 2983m - 2871m 350gpm/1400psi

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G8	2300	2400	1.00	2983.0m	POOH on elevators monitoring trip tank from 2871m - 2669m. Hole in good shape. No tight spots observed

**Operations For Period 0000 Hrs to 0600 Hrs on 12 Nov 2009**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G8	0000	0100	1.00	2983.0m	Continued to POOH on elevators monitoring well on trip tank from 2669m - 2520m (9 5/8" casing shoe). Hole in good condition. No Tight spots observed.
P17	P	G14	0100	0130	0.50	2983.0m	Perform 15 min flow check. Serviced top drive. Removed MWD and Geoservices geolograph lines.
P17	P	G8	0130	0530	4.00	2983.0m	Pumped slug and POOH in casing from 2520m - 380m.
P17	P	G8	0530	0600	0.50	2983.0m	Performed 15 min flow check and continued to POOH from 380m - 288m.

**Operations For Period Hrs to Hrs on**
**Phase Data to 2400hrs, 11 Nov 2009**

Phase	Phase Hrs	Start On	Finish On	Cumul. Hrs	Cumul. Days	Max Depth
Mob/Demob(P1)	69.5	21 Sep 2009	04 Oct 2009	69.50	2.896	0.0m
Conductor Hole(P2)	53.5	04 Oct 2009	06 Oct 2009	123.00	5.125	155.0m
Conductor Casing(P3)	30	07 Oct 2009	08 Oct 2009	153.00	6.375	155.0m
Surface Hole(P4)	68	08 Oct 2009	11 Oct 2009	221.00	9.208	935.0m
Surface Casing(P5)	36	11 Oct 2009	12 Oct 2009	257.00	10.708	935.0m
BOPs/Risers(P6)	61.5	12 Oct 2009	15 Oct 2009	318.50	13.271	935.0m
Production Hole (1)(P11)	176.5	15 Oct 2009	22 Oct 2009	495.00	20.625	2520.0m
Production Casing(1)(P13)	359	22 Oct 2009	06 Nov 2009	854.00	35.583	2520.0m
Liner Hole (1)(P17)	133	06 Nov 2009	11 Nov 2009	987.00	41.125	2983.0m

**General Comments**

00:00 TO 24:00 Hrs ON 11 Nov 2009

**WBM Data**
**Cost Today US\$ 10739**

Mud Type:	KCI POLYMER	API FL:	5.0cc/30min	Cl:	40000mg/l	Solids(%vol):	3%	Viscosity	46sec/qt
Sample-From:	2	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	93%	PV	14cp
Time:	21:30 hrs	HTHP-FL:	10.5cc/30min	Hard/Ca:	350mg/l	Oil(%):		YP	29lb/100ft²
Weight:	9.45ppg	HTHP-cake:	1/32nd"	MBT:	12	Sand:	.3	Gels 10s	9
Temp:				PM:	0.3	pH:	9	Gels 10m	12
				PF:	0.25	PHPA:	2ppb	Fann 003	9
								Fann 006	11
								Fann 100	28
								Fann 200	37
								Fann 300	43
								Fann 600	57
Comment	Note: Cost is in AUD								

**Bit # 5 RR**

	Wear	I	O1	D	L	B	G	O2	R
Bitwear Comments:									
Size ("):	8.50in	IADC#	M223	<b>Nozzles</b>		<b>Drilled over last 24 hrs</b>		<b>Calculated over Bit Run</b>	
Mfr:	SMITH	WOB(avg)	12.30klb	No.	Size	Progress	349.0m	Cumul. Progress	490.0m
Type:	PDC	RPM(avg)	123	6	14/32nd"	On Bottom Hrs	22.1h	Cumul. On Btm Hrs	30.9h
Serial No.:	TX2104	F.Rate	714gpm			IADC Drill Hrs	0.0h	Cumul. IADC Drill Hrs	12.5h
Bit Model	MI616	SPP	2520psi			Total Revs		Cumul. Total Revs	0
Depth In	2633.0m	HSI				ROP(avg)	15.79 m/hr	ROP(avg)	15.86 m/hr
Depth Out	2982.0m	TFA	0.902						
Bit Comment	Re Run Bit # 5								

**BHA # 26**

Weight(Wet)	50000.00klb	Length	288.4m	Torque(max)	24ft-lbs	D.C. (1) Ann Velocity	656fpm
Wt Below Jar(Wet)	25000.00klb	String	380.00klb	Torque(Off.Btm)	14ft-lbs	D.C. (2) Ann Velocity	0fpm
		Pick-Up	395.00klb	Torque(On.Btm)	14ft-lbs	H.W.D.P. Ann Velocity	370fpm

Slack-Off	370.00klb	D.P. Ann Velocity	370fpm
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BHA Run Description 8 1/2 Drilling BHA

BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Bit	0.28m	8.50in	2.25in	TX2104	
NB Stab	1.50m	6.88in	3.25in	700172	
Gamma-Ray	7.07m	8.25in	3.00in	90222505	
DM sub	2.81m	6.63in	2.88in	1025744	
MWD	9.20m	8.25in	3.25in	922683	
Sonic 6	6.76m	7.38in	3.00in	922755-06	
Pulser	3.03m	6.81in	2.88in	302842	
MWD	1.81m	7.13in	1.88in	92223063B6	
8-1/2" String Stab	1.70m	8.38in	2.81in	700802	
6 3/4" DC	9.32m	6.75in	2.88in	1185	
6 3/4" DC	9.45m	6.75in	2.88in	1764	
6 3/4" DC	9.44m	6.75in	2.88in	1180	
6 3/4" DC	9.26m	6.75in	2.88in	1191	
6 3/4" DC	9.47m	6.75in	2.88in	1761	
6 3/4" DC	9.20m	6.75in	2.88in	1188	
6 3/4" DC	9.45m	6.75in	2.88in	1759	
6 3/4" DC	9.38m	6.75in	2.88in	1760	
Jar	9.91m	6.50in	2.88in	17602018	
6 3/4" DC	9.47m	6.75in	2.88in	1190	
6 3/4" DC	9.29m	6.75in	2.88in	1766	
6 3/4" DC	9.45m	6.75in	2.88in	1183	
HWDP	141.13m	5.00in	3.00in		

### Survey

MD (m)	Incl (deg)	Azim (deg)	TVD (m)	Vsec (deg)	N/-S (m)	E/-W (m)	DLS (deg/30m)	Tool Type
2791.49	1.8	85.3	2791.12	-23.5	-23.5	8.1	0.6	MWD
2819.89	1.9	85.2	2819.50	-23.4	-23.4	9.0	0.4	MWD
2847.72	2.1	83.7	2847.32	-23.3	-23.3	10.0	0.7	MWD
2876.19	2.2	81.9	2875.77	-23.2	-23.2	11.1	0.4	MWD
2905.64	2.5	85.8	2905.19	-23.0	-23.0	12.3	1.2	MWD
2935.67	2.6	82.7	2935.19	-22.9	-22.9	13.6	0.6	MWD
2963.22	2.9	85.2	2962.71	-22.8	-22.8	14.9	1.2	MWD

### Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Rig Fuel	m3	0	8	0	487.0
Drill Water	m3	0	4	0	734.0
Pot Water	m3	58	14	0	245.0
Brine	m3	0	0	0	161.0
Barite	MT	0	0	0	100.0
Baradefoam-W300	can	0	0	0	9.0
Barolift	boxes	0	0	0	17.0
Bentonite	MT	0	0	0	33.0
Caustic Soda	pail	0	8	0	0.0
Lime	sx	0	0	0	0.0
Soda Ash	sx	0	0	0	33.0
Sodium Bicarbonate	25kg sx	0	0	0	38.0
Shaker Screen 50	Screens	0	0	0	8.0
Citric Acid	Sacks	0	0	0	80.0

### Pumps

Pump Data - Last 24 Hrs								Slow Pump Data						
No.	Type	Liner	MW	Eff (%)	SPM	SPP	Flow	Depth	SPM1	SPP1Flow1(gpm)	SPM2	SPP2 Flow2	SPM3	SPP3 Flow3

<b>Pumps</b>																	
Pump Data - Last 24 Hrs								Slow Pump Data									
		(in)	(sg)	(SPM)	(psi)	(gpm)		(m)	(SPM)	(psi)		(SPM)	(psi)	(gpm)	(SPM)	(psi)	(gpm)
1	Continental Emsco	6.50	1.12	97	71	2700	703	2520.0	30	400	252	40	500	336	50	650	420
2	Continental Emsco	6.50	1.12	97	73	2700	703	2520.0	30	340	252	40	440	336	50	560	420
3	Continental Emsco	6.50	1.12	97	85	2700	729	2850.0	30	400	252	40	500	336	50	600	420

<b>Casing</b>			
OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
30 "	/	153.00m / 153.00m	30" Cement Job: Pumped 50 bbls spacer ahead. Mixed 260 bbls of 15.8ppg (53 MT) class G cement with 155 bbls of seawater. Displaced with 72.4 bbls of seawater.
13.38	15.15ppg /	930.00m / 930.00m	13 3/8" Cement Job: Pumped 50 bbls of spacer ahead. Mixed 436 bbls (35 MT) of 11.5 ppg lead cement with 368 bbls of mix water. Mixed 67 bbls (14 MT) of 15.8 ppg tail cement with 40 bbls of mix water. Displaced with 412 bbls of seawater.
9.63	/ 11.00ppg	2520.00m / 2520.00m	No Cmt

<b>Personnel On Board</b>	
Company	Pax
ADA	4
Maersk	46
GRN	1
OMS	16
Reach	1
Geoservices	6
Halliburton Cementers	2
Halliburton (Baroid)	1
Dril-Quip	1
Fugro ROV	3
Swaco	1
Sperry Sun	3
CORPRO	2
Other Contractor	1
Origin Energy	2
<b>Total</b>	<b>90</b>

<b>Mud Volumes, Mud Losses and Shale Shaker Data</b>				Engineer : Mike Lawrance / Fergus Spencer			
Available	Losses	Equipment	Description	Mesh Size	Comments		
1911.8bbl	0.0bbl	Shaker 1	Brandt VSM 300	20 top/50 bottom			
640.0bbl	0.0bbl	Shaker 1	Brandt VSM 300	20 top/50 bottom			
0.0bbl	0.0bbl	Shaker 2	Brandt VSM 300	20 top/50 bottom			
608.2bbl		Shaker 2	Brandt VSM 300	20 top/50 bottom			
		Shaker 3	Brandt VSM 300	20 top/50 bottom			
663.6bbl		Shaker 3	Brandt VSM 300	20 top/50 bottom			
		Shaker 4	Brandt VSM 300	20 top/50 bottom			
		Shaker 4	Brandt VSM 300	20 top/50 bottom			

<b>Marine</b>
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Weather on 11 Nov 2009								Rig Support	
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.0nm	10kn	0.0deg	1019.0mbar	17C°	0.5m	25.0deg	3s	1	187.0
Heave	Pitch	Roll	Rig Dir.	Ris. Tension	VDL	Weather Comments			
0.2m	0.8deg	0.7deg	317.0deg	240000.00klb	116684.00klb				
Swell Height	Swell Dir.	Swell Period	Comments						
2.0m	235.0deg	5s							
								8	211.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks			
Far Scimitar	1920 hrs 7/10/09		Rig standby	Item	Unit	Used	Quantity
				Rig Fuel	M3		600
				Potable Water	M3		510
				Drill Water	M3		530
					t		0
				Barite	t		0
				Bentonite	t		0
				Brine	M3		165
#1 Main engine out of service due to fly wheel problem.							
Far Fosna		1135hrs 7 Nov 09	Lorrimer Dock, stand-by for material.	Item	Unit	Used	Quantity
				Rig Fuel	M3		440
				Pot Water	M3		508
				Drill Water	M3		600
				Bentonite	t		42
				Barite	t		0
					t		130
				Brine	M3		0

Helicopter Movement				
Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	Bristow Helicopters	09:02 / 09:15	9 / 12	Crew Change