

**DRILLING MORNING REPORT # 45**  
**Trefoil-2**
**14 Nov 2009**
**From:** Bryan Houston / Paul Leathem  
**To:** Phil Stratford

<b>Trefoil-2</b>					
<b>Date:</b>	14 Nov 2009	<b>Well Site Representative:</b>	Bryan Houston	<b>Rig Manager:</b>	
<b>Report Number:</b>	45	<b>Night Representative:</b>	Paul Leathem	<b>Drilling Company:</b>	Maersk
<b>Latitude (South):</b>	39 ° 53 ' 07.89 "	<b>Longitude (East):</b>	145 ° 22 ' 14.87 "	<b>Geologist:</b>	Dennis Archer

Well Data							
Country	Australia	MDBRT	3139.0m	Cur. Hole Size	8.500in	AFE Cost	US\$33,167,745
Field	Trefoil	TVDBRT	3139.0m	Last Casing OD	9.625in	AFE No.	Trefoil-2
Drill Co.	Maersk	Progress	132.0m	Shoe TVDBRT	2520.0m	Daily Cost	US\$570,386
Rig	Kan Tan IV	Days from spud	39.67	Shoe MDBRT	2520.0m	Cumul. Cost	US\$31,310,334
Wtr Dpth(MSL)	69.0m	Days on well	44.13	FIT/LOT:	11.00ppg /	Last LTI Date	01 Nov 2009
RT-ASL(MSL)	26.0m	Planned TD MD	3221.0m			Days Since Last LTI	13
RT-ML	95.0m	Planned TD TVDRT	3221.0m	Current Op @ 0600	Cont/ to POOH.		
Datum	GDA 94	Last BOP Date	05 Nov 2009	Planned Op	Cont/ to POOH. P/Up & M/Up Core barrell assy & RIH.		

Summary of Period 0000 to 2400 Hrs
Continued to RIH 8 1/2" BHA on 5" DP to 2520m. Flow check at the shoe. Serviced top drive. Performed trip drill (38 sec). Continued to RIH - 2927m. Washed and light reamed to 2960m @ 700 gpm. Took SCRs. Relogged hole, F/ 2960m - 3013m @ controlled rate of 30mph. Drill 8-1/2" hole from 3013m to 3130m, Circulate bottoms up to clean well & allow geologist to collect sample. Drill ahead 8-1/2" hole from 3130m to 3139m,

HSE Summary				
Events	Num. Events	Days Since	Descr.	Remarks
Last BOP Test	05 Nov 2009			
Abandon Drill	1	0 Days	Held abandon Drill	
Emergency Drill	0	10 Days	Full Emergency drill performed	
Fire Drill	1	0 Days	Main deck - Fire in Control room	
Permit To Work	10	0 Days	Permits administered	
Pre-tour Meeting	2	0 Days	Shift change meetings	
Safety Meeting	10	0 Days	Prejob safety meetings	
STOP Card	33	0 Days	Number of STOP Cards submitted	
Trip / Kick Drill	1	0 Days	Trip Drill 35sec	Held while RIH

FORMATION	
Name	Top
TL40 Sand	2976.50m
TL50 Sand	2985.00m
TL60 Sand	2994.50m
Cretaceous	3068.00m
TF50 Sand	3130.50m

Operations For Period 0000 Hrs to 2400 Hrs on 14 Nov 2009							
Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G8	0000	0230	2.50	3013.0m	Continued to RIH 8 1/2" BHA on 5" DP from 1215m to 2520m. Filled pipe every 25 stands.
P17	P	P3	0230	0330	1.00	3013.0m	Performed flow check at the shoe. Serviced top drive. Installed MWD and Geoservices bracket for their wire line sheaves. Performed trip drill (38 sec).
P17	P	G8	0330	0500	1.50	3013.0m	Continued to RIH in open hole from 2520m to 2927m.
P17	P	F1	0500	0630	1.50	3013.0m	Washed and light reamed from 2927m to 2960m @ 700 gpm. Took SCRs at 30/40/50 strokes.
P17	P	F1	0630	0900	2.50	3013.0m	Relogged hole from 2960m - 3013m at controlled rate with 700gpm/ 2800psi/70rpm.
P17	P	D2	0900	2200	13.00	3130.0m	Drilled 8-1/2" hole from 3013m to 3130m (700gpm/2800psi/130 rpm/ 5-10klbs

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	F4	2200	2230	0.50	3130.0m	WOB/Mud weight 9.4ppg). Circulated bottoms up to clean well and allow geologist to collect sample at 700gpm/2800psi/ 70rpm.
P17	P	D2	2230	2400	1.50	3130.0m	Drilled 8-1/2" hole from 3030m to 3139m (700gpm/ 2800psi /130 rpm/ 5-10klbs WOB/Mud weight 9.4ppg) as per Geologist request.

**Operations For Period 0000 Hrs to 0600 Hrs on 15 Nov 2009**

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	D2	0000	0130	1.50	3145.0m	Continued to drill 8-1/2" hole from 3139m to 3145m (700gpm/ 2800psi /130 rpm/5-10klbs WOB/Mud weight 9.4ppg) as per geologist request. Adjusted parameters to reduce vibration and whirl on down hole tools when required.
P17	P	F4	0130	0200	0.50	3145.0m	Circulated bottoms up to allow geologist to collect sample at 700gpm/2800psi/70rpm. Continued to circulate until shakers are clean.
P17	P	P3	0200	0230	0.50	3145.0m	Flow checked - OK. Pumped slug.
P17	P	G8	0230	0500	2.50	3145.0m	POOH from 3145m to 2520m. No overpull or tight spots observed.
P17	P	G8	0500	0600	1.00	3145.0m	(IN PROGRESS) Performed trip drill (30 sec). Flow checked at the shoe and filled trip tank. Continued to POOH in casing from 2520m - 895m.

**Operations For Period Hrs to Hrs on**

Phase Data to 2400hrs, 14 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)	205	06 Nov 2009	14 Nov 2009	1,059.00	44.125	3130.0m

**General Comments**

00:00 TO 24:00 Hrs ON 14 Nov 2009

**WBM Data Cost Today US\$ 1796**

Mud Type:	KCl POLYMER	API FL:	5.0cc/30min	Cl:	40000mg/l	Solids(%vol):	3%	Viscosity	50sec/qt
Sample-From:	2	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	93%	PV	14cp
Time:	22:00 hrs	HTHP-FL:	11.0cc/30min	Hard/Ca:	400mg/l	Oil(%):		YP	30lb/100ft <sup>2</sup>
Weight:	9.50ppg	HTHP-cake:	1/32nd"	MBT:	11	Sand:	.25	Gels 10s	9
Temp:				PM:	0.3	pH:	9	Gels 10m	13
				PF:	0.15	PHPA:	2ppb	Fann 003	9
Comment	Note: Cost is in AUD							Fann 006	11
								Fann 100	28
								Fann 200	37
								Fann 300	44
								Fann 600	58

Bit # 5 RRx3				Wear	I	O1	D	L	B	G	O2	R
											WT	CP
Bitwear Comments:												
Size ("):	8.50in	IADC#	M223	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run				
Mfr:	SMITH	WOB(avg)	17.00klb	No.	Size	Progress	132.0m	Cumul. Progress		132.0m		
Type:	PDC	RPM(avg)	123	6	14/32nd"	On Bottom Hrs	10.5h	Cumul. On Btm Hrs		10.5h		
Serial No.:	TX2104	F.Rate	700gpm			IADC Drill Hrs	0.0h	Cumul. IADC Drill Hrs		0.0h		
Bit Model	MI616	SPP	3020psi			Total Revs	53	Cumul. Total Revs		53		
Depth In	3013.0m	HSI				ROP(avg)	12.57 m/hr	ROP(avg)		12.57 m/hr		
Depth Out	3145.0m	TFA	0.902									
Bit Comment	Re Run Bit # 5 / 3rd time rerun.											

BHA # 28							
Weight(Wet)	50000.00klb	Length	288.4m	Torque(max)	24ft-lbs	D.C. (1) Ann Velocity	0fpm
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	0fpm
		Slack-Off	370.00klb			D.P. Ann Velocity	0fpm

BHA Run Description	8 1/2 Drilling BHA
---------------------	--------------------

BHA Run Comment	3rd ReRun Bit #5
-----------------	------------------

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	Incl	Azim	TVD	Vsec	N/S	E/W	DLS	Tool Type	
(m)	(deg)	(deg)	(m)	(deg)	(m)	(m)	(deg/30m)		
2992.32	2.9	83.6	2991.77	27.4			0.1	MWD	
3021.53	3.0	83.2	3020.94	28.4			0.1	MWD	
3051.62	3.1	82.2	3050.99	29.5			0.1	MWD	
3080.66	3.2	81.3	3079.99	30.5			0.2	MWD	
3101.98	3.5	82.5	3101.27	31.3			0.4	MWD	
3130.21	3.8	81.6	3129.44	32.4			0.3	MWD	

Bulk Stocks						
Name	Unit	In	Used	Adjust	Balance	
Rig Fuel	m3	0	14	0	461.0	
Drill Water	m3	63	5	0	827.0	
Pot Water	m3	0	41	0	260.0	
Brine	m3	0	0	0	180.0	
Barite	MT	0	0	0	97.5	
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	0	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	

Bulk Stocks						
Name	Unit	In	Used	Adjust	Balance	
Citric Acid	Sacks	0	0	0	79.0	

Pumps																	
Pump Data - Last 24 Hrs								Slow Pump Data									
No.	Type	Liner (in)	MW (sg)	Eff (%)	SPM (SPM)	SPP (psi)	Flow (gpm)	Depth (m)	SPM1 (SPM)	SPP1 (psi)	Flow1 (gpm)	SPM2 (SPM)	SPP2 (psi)	Flow2 (gpm)	SPM3 (SPM)	SPP3 (psi)	Flow3 (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

Casing			
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

Personnel On Board	
Company	Pax
ADA	4
Maersk	49
GRN	2
OMS	13
Reach	1
Geoservices	6
Halliburton Cementers	2
Halliburton (Baroid)	2
Fugro ROV	3
Swaco	1
Sperry Sun	3
CORPRO	2
Other Contractor	1
Origin Energy	2
<b>Total</b>	<b>91</b>

Mud Volumes, Mud Losses and Shale Shaker Data				Engineer : Jay Wan / Fergus Spencer			
Available	Losses	Equipment	Description	Mesh Size	Comments		
1743.0bbl	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			
669.0bbl		Shaker 2	Brandt VSM 300	20 top/50 bottom			
		Shaker 3	Brandt VSM 300	20 top/50 bottom			
434.0bbl		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			
		Centrifuge					

Marine

Weather on 14 Nov 2009								Rig Support	
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period	Anchors	Tension (klb)
10.0nm	23kn	223.0deg	1010.0mbar	12C°	3.0m	200.0deg	3s	1	214.0
Heave	Pitch	Roll	Rig Dir.	Ris. Tension	VDL	Weather Comments			
1.0m	0.9deg	1.7deg	317.0deg	240000.00klb	116684.00klb	Fine			
Swell Height	Swell Dir.	Swell Period	Comments						
4.0m	200.0deg	5s							
								8	233.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks			
Far Scimitar		11:05 hours 13/11/09	Alongside Melbourne.	Item	Unit	Used	Quantity
				Rig Fuel	M3		573
				Potable Water	M3		115
				Drill Water	M3		817
					t		0
				Barite	t		0
				Bentonite	t		0
				Brine	M3		112
#1 Main engine out of service due to fly wheel problem.							
Far Fosna	06.20 13/		Stand-By at KT4	Item	Unit	Used	Quantity
				Rig Fuel	M3		699
				Pot Water	M3		460
				Drill Water	M3		600
				Bentonite	t		42
				Barite	t		0
					t		130
				Brine	M3		0
0100- 0230 hrs Cargo ops 0900- 1205 hrs Cargo ops							

Helicopter Movement				
Flight #	Company	Arr/Dep. Time	Pax In/Out	Comment
1	Bristow Helicopters	09:10 / 09:25	12 / 11	Crew Change