

13 Nov 2009

 From: Bryan Houston / Paul Leathem
 To: Paul Barrett

DRILLING MORNING REPORT # 44
Trefoil-2

Trefoil-2					
Date:	13 Nov 2009	Well Site Representative:	Bryan Houston	Rig Manager:	
Report Number:	44	Night Representative:	Paul Leathem	Drilling Company:	Maersk
Latitude (South):	39 ° 53 ' 07.89 "	Longitude (East):	145 ° 22 ' 14.87 "	Geologist:	Dennis Archer

Well Data							
Country	Australia	MDBRT	3013.0m	Cur. Hole Size	8.500in	AFE Cost	US\$33,167,745
Field	Trefoil	TVDBRT	3013.0m	Last Casing OD	9.625in	AFE No.	Trefoil-2
Drill Co.	Maersk	Progress	31.2m	Shoe TVDBRT	2520.0m	Daily Cost	US\$521,536
Rig	Kan Tan IV	Days from spud	38.67	Shoe MDBRT	2520.0m	Cumul. Cost	US\$30,739,948
Wtr Dpth(MSL)	69.0m	Days on well	43.13	FIT/LOT:	11.00ppg /	Last LTI Date	01 Nov 2009
RT-ASL(MSL)	26.0m	Planned TD MD	3221.0m			Days Since Last LTI	12
RT-ML	95.0m	Planned TD TVDRT	3221.0m	Current Op @ 0600	Reaming and relogging with MWD from 2960m to 3013m.		
Datum	GDA 94	Last BOP Date	05 Nov 2009	Planned Op	Drilled ahead 8 1/2" hole to core point #2. POOH		

Summary of Period 0000 to 2400 Hrs
Continued to cut core #1 to 3013m. POOH two stands. Flow checked and pumped slug. Continued to POOH at controlled rate at 3min per stand to 600m. Flow checked @ shoe. Continued to POOH at controlled rate at 6min per stand from 600m to 150m then 150m - 32m @ 8 min per stand. Recovered cores as per Corpro instructions. 31.2m of core retrieved 104%. Racked core barrel in mast. Made up MWD tools from mast and installed radio active sources and load tools. Continued to make up BHA and RIH to 147m. Shallow tested MWD tools. Continued to RIH to 1215m. Performed trip drill 32 sec.

HSE Summary				
Events	Num. Events	Days Since	Descr.	Remarks
Last BOP Test	05 Nov 2009			
Abandon Drill	0	6 Days	Held abandon drill	
Emergency Drill	0	9 Days	Full Emergency drill performed.	
Fire Drill	0	6 Days	Main deck - Fire in Control room	
Permit To Work	9	0 Days	Permits administered	
Pre-tour Meeting	2	0 Days	Shift change meetings	
Safety Meeting	10	0 Days	Prejob safety meetings	
STOP Card	41	0 Days	Number of STOP Cards submitted	
Trip / Kick Drill	1	0 Days	Trip Drill 35sec	Held while RIH

FORMATION	
Name	Top
2973 Seismic Marker	2858.80m
Base Low A1 Zone	2937.80m
TL40 Sand	2976.50m
TL50 Sand	2985.00m
TL60 Sand	2994.50m

Operations For Period 0000 Hrs to 2400 Hrs on 13 Nov 2009							
Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	E7	0000	0230	2.50	3013.0m	Continued to cut core #1 from 2988m to 3013m (210gpm/560psi/70rpm/10klbs WOB/Torq 5-7).
P17	P	E7	0230	0300	0.50	3013.0m	Picked up off bottom. POOH 2 stands to 2850m. 20-30klbs overpull on 1st stand. Flow checked while laying down pup joint. Pumped 25bbl slug.
P17	P	G8	0300	0500	2.00	3013.0m	Continued to POOH at controlled rate at 3min per stand from 2850m to 2520m (shoe depth).
P17	P	G8	0500	1200	7.00	3013.0m	Flow checked at shoe. Continued to POOH at controlled rate at 3min per stand from

Phse	Cls (RC)	Op	From	To	Hrs	Depth	Activity Description
P17	P	G8	1200	1500	3.00	3013.0m	2520m to 600m. Continued to POOH at controlled rate at 6min per stand from 600m to 150m then 150m to 32m @ 8 min per stand.
P17	P	E7	1500	1800	3.00	3013.0m	Held pre job safety meeting and recovered cores as per Corpro instructions. 31.2m of core retrieved 104%. Broke off bit and racked back core barrel in the mast.
P17	P	G15	1800	1930	1.50	3013.0m	Made up MWD tools from mast. Installed radio active sources and loaded tools.
P17	P	G6	1930	2100	1.50	3013.0m	Continued to make up BHA and RIH to 147m.
P17	P	G15	2100	2130	0.50	3013.0m	Shallow tested MWD tools at @ 120spm/ 600gpm/ 1050psi.
P17	P	G6	2130	2200	0.50	3013.0m	Continued to RIH on HWDP from 147m to 288m.
P17	P	G8	2200	2400	2.00	3013.0m	Continued to RIH 8 1/2" BHA on 5" DP from 288m to 1215m. Performed trip drill (32 sec). Filled pipe every 25 stands. Performed 10 min flow check due to closed end displacement on pipe. Well static.

Operations For Period 0000 Hrs to 0600 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	0600	1.00	3013.0m	(IN PROGRESS) Washed and light reamed from 2927m to 2960m @ 700 gpm. Took SCRs at 30/40/50 strokes.

Operations For Period Hrs to Hrs on
Phase Data to 2400hrs, 13 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)	181	06 Nov 2009	13 Nov 2009	1,035.00	43.125	3013.0m

General Comments

00:00 TO 24:00 Hrs ON 13 Nov 2009

WBM Data
Cost Today US\$ 10739

Mud Type:	KCI	API FL:	5.0cc/30min	Cl:	40000mg/l	Solids(%vol):	3%	Viscosity	50sec/qt
	POLYMER	Filter-Cake:	1/32nd"	K+C*1000:	8%	H2O:	93%	PV	12cp
Sample-From:	2	HTHP-FL:	11.0cc/30min	Hard/Ca:	250mg/l	Oil(%):		YP	29lb/100ft²
Time:	20:00 hrs	HTHP-cake:	1/32nd"	MBT:	11	Sand:	.25	Gels 10s	9
Weight:	9.50ppg			PM:	0.25	pH:	9	Gels 10m	12
Temp:				PF:	0.2	PHPA:	2ppb	Fann 003	9
Comment	Note: Cost is in AUD							Fann 006	11
								Fann 100	25
								Fann 200	35
								Fann 300	41
								Fann 600	53

Bit # 5 RR

Wear	I	O1	D	L	B	G	O2	R
	1	2	CT	S	X	I	NO	CP
Bitwear Comments:								
Size ("):	8.50in	IADC#	M223	Nozzles	Drilled over last 24 hrs	Calculated over Bit Run		

Mfr:	SMITH	WOB(avg)	12.30klb	No.	Size	Progress	0.0m	Cumul. Progress	141.0m
Type:	PDC	RPM(avg)	123	6	14/32nd"	On Bottom Hrs	0.0h	Cumul. On Btm Hrs	8.8h
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)	N/A	ROP(avg)	16.02 m/hr
Depth Out	2983.0m	TFA	0.902						

Bit Comment Re Runx3 Bit # 5

Bit # 6	Wear	I	O1	D	L	B	G	O2	R
		1	1	NO	FC	X	I	NO	CP
Bitwear Comments:									

Size ("):	8.50in	IADC#	M 233	Nozzles		Drilled over last 24 hrs		Calculated over Bit Run	
Mfr:	CORPRO	WOB(avg)	10.00klb	No.	Size	Progress	31.2m	Cumul. Progress	36.2m
Type:	ch	RPM(avg)	63			On Bottom Hrs	4.0h	Cumul. On Btm Hrs	6.0h
Serial No.:	083691	F.Rate	202gpm			IADC Drill Hrs		Cumul. IADC Drill Hrs	0.0h
Bit Model	MCP572	SPP	620psi			Total Revs		Cumul. Total Revs	0
Depth In	2983.0m	HSI				ROP(avg)	7.80 m/hr	ROP(avg)	6.03 m/hr
Depth Out	3013.0m	TFA	0.000						

Bit Comment Coring Run #1

BHA # 28									
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		

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		

BHA # 27									
Weight(Wet)	65.00klb	Length	286.4m	Torque(max)		D.C. (1) Ann Velocity	85fpm		

Wt Below Jar(Wet)	22.00klb	String	375.00klb	Torque(Off.Btm)	D.C. (2) Ann Velocity	0fpm
		Pick-Up	385.00klb	Torque(On.Btm)	H.W.D.P. Ann Velocity	105fpm
		Slack-Off	360.00klb		D.P. Ann Velocity	105fpm

BHA Run Description	Coring BHA Run #1
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BHA Run Comment

Equipment	Length	OD	ID	Serial #	Comment
Core Bit	0.37m	8.50in	4.00in	83691	
stabilizer	0.76m	8.44in	5.63in	W0137319	
Core Barrel	5.33m	7.13in	5.63in	W0135110	
stabilizer	0.76m	8.44in	5.63in	W0137237	
Core Barrel	5.33m	7.13in	5.63in	W0135194	
stabilizer	0.76m	8.44in	5.63in	W0137312	
Core Barrel	5.33m	7.13in	5.63in	S8413	
stabilizer	0.76m	8.44in	5.63in	W0137258	
Core Barrel	5.33m	7.13in	5.63in	723189	
Stabiliser	0.76m	8.44in	5.63in	W0137219	
Core Barrel	5.33m	7.13in	5.63in	SBO6	
stabilizer	0.76m	8.44in	5.63in	W0137014	
Top Head	0.61m	7.13in	5.63in	W1856027	
6 3/4" DC	75.42m	6.75in	2.88in	MAERSK	
Jars	9.91m	6.50in	2.75in	17602018	
6 3/4" DC	28.21m	6.75in	2.88in	MAERSK	
HWDP	141.13m	5.00in	3.00in	MAERSK	

Bulk Stocks

Name	Unit	In	Used	Adjust	Balance
Rig Fuel	m3	0	6	0	475.0
Drill Water	m3	20	5	0	769.0
Pot Water	m3	51	14	0	301.0
Brine	m3	0	0	0	180.0
Barite	MT	0	1	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
Citric Acid	Sacks	0	1	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)	SPP1Flow1 (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

Casing			
OD	LOT / FIT	Csg Shoe (MD/TVD)	Cementing
9.63	/ 11.00ppg	2520.00m / 2520.00m	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. 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
Total	91

Mud Volumes, Mud Losses and Shale Shaker Data				Engineer : Mike Lawrance / Fergus Spencer			
Available	1948.0bbl	Losses	0.0bbl	Equipment	Description	Mesh Size	Comments
Active	661.0bbl	Downhole		Shaker 1	Brandt VSM 300	20 top/50 bottom	
Mixing	0.0bbl	Surf+ Equip	0.0bbl	Shaker 2	Brandt VSM 300	20 top/50 bottom	
Hole	732.0bbl	Dumped		Shaker 3	Brandt VSM 300	20 top/50 bottom	
Slug		De-Gasser		Shaker 4	Brandt VSM 300	20 top/50 bottom	
Reserve	555.0bbl	De-Sander					
Kill		De-Silter					
		Centrifuge					

Marine								Rig Support	
Weather on 13 Nov 2009								Anchors	Tension (klb)
Visibility	Wind Speed	Wind Dir.	Pressure	Air Temp.	Wave Height	Wave Dir.	Wave Period		
10.0nm	12kn	54.0deg	1015.0mbar	14C°	2.0m	60.0deg	3s	1	192.0
Heave	Pitch	Roll	Rig Dir.	Ris. Tension	VDL	Weather Comments		2	191.0
1.0m	1.1deg	0.9deg	317.0deg	240000.00klb	116684.00klb	Fine		3	156.0
Swell Height	Swell Dir.	Swell Period	Comments					4	194.0
3.0m	60.0deg	5s						5	214.0
								6	206.0
								7	194.0
								8	209.0

Vessel Name	Arrived (Date/Time)	Departed (Date/Time)	Status	Bulks			
Item	Unit	Used	Quantity				
Far Scimitar		11:05 hours 13/11/09	In Melbourne for repairs.	Rig Fuel	M3		574
				Potable Water	M3		120
				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.

Departed rig for Melbourne @ 1105 hrs Arrived 2332hrs.

Far Fosna	06.20 13/	Stand-By at KT4	Item	Unit	Used	Quantity
			Rig Fuel	M3		708
			Pot Water	M3		468
			Drill Water	M3		600
			Bentonite	t		42
			Barite	t		0
				t		130
Brine	M3		0			

7.30 - 9.50
13.00 - 14.20 Cargo operations @ KT4

Helicopter Movement

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