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DRILLING FLUID SUMMARY

FOR : CENTRAL PETROLEUM

WELL : CBM 93-1

PEDIRKA BASIN

NORTHERN TERRITORY

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Date : September 2008

Operator : **Central Petroleum**
Well : **CM 93-1**
Rig : **Hunt Rig 2**
Spud : **28th August 2008**

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Operator : Central Petroleum
Well : CM 93-1
Rig : Hunt Rig 2
Spud : 28th August 2008

1. SUMMARY OF OPERATIONS

CBM 93-1 was spudded at 22:00 hrs on the 28th August, 2008, using Hunt Energy Rig # 2 and reached a total depth of 1265 m, at 06:30 hrs on the 18th September, 2007.

The 16" Conductor was set at 8 m. The Drill Water was relatively fresh and was sourced from a local bore with the following properties :

pH	8.0
Pf / Mf	0.01/0.14
Chlorides	4000 mg/l
Hardness	320 mg/l

HOLE SIZE : 12¼"
MUD TYPE : Gel Spud Mud/KCl
INTERVAL : 0 - 280 m
CASING : 9-5/8" @ 279 m

The premix/slug tank was filled with drill water and 40 bbls of bentonite spud mud was built. The main suction tank was filled with 3% KCl brine. The rest of the settling tanks were filled with water. The rat and mouse holes were drilled using this gel spud mud. 84/84/84 mesh screens were fitted to the two DFE shale shakers.

The well was spudded using the gel spud mud in the premix tank. A short system was employed initially, with mud returning from below the shakers via the trough to the premix tank. Volume was maintained with water and Gel additions. Drilling continued (slowly initially) with the thick gel spud mud. Once clay formations were encountered, KCl brine from the suction tank was bled into the active circulating system. Around 100 m, the full surface system was utilised by incorporating one tank at a time, so as not to cause a sudden drop in viscosity.

Premixes were added continuously to maintain volume, control the viscosity, and maintain the KCl concentration. Caustic Soda was used to maintain pH around 8.5 - 9.5. Sodium Sulphite was used as an oxygen scavenger for corrosion control. The Mud Weight had reached 9.2 ppg at casing point. The desander and desilter was used intermittently to reduce sand content and bring down the concentration of solids in the mud.

Drilling continued to surface casing point of 280 m. A wiper trip was conducted to surface, with 0.5 m fill reported when back on bottom. The hole was circulated

clean prior to pumping a slug and pulling the pipe out of the hole and the 8" drill collars laid down.

9-5/8" surface casing was then run in to bottom, the hole was circulated clean, and the casing was then cemented at 279 m, with good cement returns to surface. Cement was displaced using water, with cement contaminated mud returns dumped at surface.

HOLE SIZE : 8½"
MUD TYPE : KCl – Pac-R
INTERVAL : 280 m – 705 m
CASING : 7" @ 704.8 m

The settling tanks were dumped, cleaned, and filled with water. KCl was added to achieve a concentration of 2%. The active suction tanks were filled with the spud mud. The mud between the settling and active suctions tanks was circulated so as to even out uniformly. The premix tank was filled with water, to be used to drill out cement. The shakers were dressed with 140/140/110 mesh screens.

After the BOP's had been nippled up and pressure tested, an 8½" bit (Stealth S 36 with 3 x 16 nozzles) was made up and run in the hole. The cement, float and shoe were drilled out using water. The hole was displaced to the mud once new formation was drilled. Cement contaminated water from the hole and from the premix tank was dumped. A LOT was conducted with an EMW of 13.0 ppg.

Volume was maintained using premixes of KCl, PAC R & Soda Ash. KCl was maintained at 2 - 3%. Pac R was added for fluid loss control and Soda Ash for reducing the hardness. Sodium Sulphite continued to be added as an oxygen scavenger, Caustic Soda was used to maintain pH around 8.5 - 9.5. After addition of PAC R, the API fluid loss values were brought down to 6 - 7 cc's. The mud weight during this section was maintained between 8.8 ppg & 9.2 ppg. The desander was run intermittently and sand trap dumped to keep the weight in check.

At the casing point of 705 m, the hole was circulated clean, a slug was pumped and the pipe pulled out of hole to casing shoe. The hole was sticky/tight between 491 & 596 m. A second wiper trip was conducted, and the pipe was then pulled out of hole to surface. Barite was used for the 3 heavyweight pills before POOH.

7" casing was then run in to bottom, the hole was circulated clean, and the casing was cemented at 704.8 m, with the water spacer returning to surface. No cement returns were seen on surface. Cement was displaced using water, with mud returns dumped at surface after filling the tanks. Around 90 bbls of mud returns were dumped at surface.

Operator : **Central Petroleum**
Well : **CM 93-1**
Rig : **Hunt Rig 2**
Spud : **28th August 2008**

HOLE SIZE : **6"**
MUD TYPE : **KCl/Drilled Solids/Pac R**
INTERVAL : **705 m – 1265 m (TD)**

The possum belly and sand trap was cleaned out. The pill tank was filled with water to drill out cement.

After the BOPs had been nippled up and pressure tested, a 6" core bit was made up and run in hole. The float, cement & shoe were drilled out using water from the pill tank. Once new formation was drilled, the hole was displaced to the previously used KCl - Pac-R mud. The cement contaminated water was dumped on return to surface.

The mud weight for this section of the hole was maintained at 8.8 ppg. Dumping was not needed to maintain the mud weight at that level as few cuttings were being generated.

On request by the geologist and company man, the fluid loss parameters were relaxed due to concerns that the polymer usage might alter the permeability of the coals. Accordingly, less Pac-R was used in premixes until the fluid loss values were between 8 - 10 cc's. KCl continued to be maintained around 2 - 3%. Soda Ash was used initially to bring hardness values down and maintain pH. Caustic was also used to maintain pH. Sodium Sulphite continued to be added directly to the active suction. Biocide was added intermittently to the mud to prevent bacterial degradation of the polymers while mud was static in hole, due to the high number of trips required to manually retrieve the core barrel.

The Mud Engineer was released on September 16th, 2008.

2. OBSERVATIONS, RECOMMENDATIONS AND WELL ANALYSIS

CBM 93-1 was drilled to a total depth of 1007 m for a mud cost of $30,801.59 or $30.59 per metre. The well was drilled by Hunt rig #2, problem free from a mud viewpoint. Make up water, which was sourced from the local bore was relatively fresh.

The rigs solids control equipment worked well. The linear motion shaker worked well, and the de-sander had a discharge of 11.4 ppg to 12.3 ppg. The desilter had a discharge of around 10.8 ppg.

12¼" Surface Hole

This 280 m section was drilled for a mud cost of $4,302.95 or $15.37 per metre.

This interval was drilled problem free from a mud viewpoint, and the hole was stable. The hole conditions were good and the mud system was effective and worked well.

8½" Intermediate Hole

This 425 m section was drilled for a mud cost of $7,899.70 or $18.59 per metre.

After drilling out the cement and shoe with water and discarding the contaminants, the existing spud mud, that was diluted back after cleaning out the settling tanks, was used to drill this section.

KCl concentration was maintained between 2 & 3%. PAC R was added to provide filtration control and also improve Yield Point. The mud system was economical and worked well as very few tight spots were reported and hole conditions were generally good.

6" Production Hole

This section was drilled for a mud cost of $18,598.94 or $61.59 per metre. The relatively high cost per metre was simply due to the time taken to drill / core this section of hole.

After drilling out the cement and shoe with water and discarding the contaminants, the existing KCl - PAC R mud was used to drill this section while coring. The fluid loss parameters were relaxed somewhat in response to Operator concerns that excessive amounts of polymer may affect the coal's permeability. This obviously resulted in less use of polymer. The mud system achieved its aim of cleaning the hole and providing good hole conditions.

Mud weight control was simple in this section – it was required to be at 8.8 ppg and once there, there very few cuttings generated were no problem for solids control equipment.

Overall, a change to the basic mud system is not required, simply because it worked very well and achieved its aims of helping drill the hole cheaply, quickly, and efficiently.

3. INTERVAL COSTS

			12-1/4" Surface Hole			8-1/2" Intermediate Hole			6-1/8" Production Hole			Cementing & Completion			Total Well Consumption		
		Interval :	0 - 280 m			280 - 705 m			705 - 1007 m						0 - 1007 m (TD)		
Product	Cost	Unit Size	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost
AMC Biocide G	$ 185.35	25 kg							9	$1,668.15	9.0%				9	$1,668.15	5.1%
AMC Pac R	$ 162.50	25 kg				21	$3,412.50	43.2%	30	$4,875.00	26.2%				51	$8,287.50	25.3%
Aus-Gel	$ 14.25	25 kg	77	$1,097.25	25.5%	4	$57.00	0.7%							81	$1,154.25	3.5%
Baryte	$ 8.45	25 kg				72	$608.40	7.7%	235	$1,985.75	10.7%				307	$2,594.15	7.9%
Caustic Soda	$ 56.00	25 kg	1	$56.00	1.3%	1	$56.00	0.7%	2	$112.00	0.6%				4	$224.00	0.7%
Calcium Chloride	$ 19.55	25 kg										2	$39.10	2.0%	2	$39.10	0.1%
Cement	$ 6.75	20 kg										290	$1,957.50	98.0%	290	$1,957.50	6.0%
Kwikseal F	$ 56.60	40 lb							5	$283.00	1.5%				5	$283.00	0.9%
Potassium Chloride (Tech)	$ 26.75	25 kg	114	$3,049.50	70.9%	128	$3,424.00	43.3%	275	$7,356.25	39.6%				517	$13,829.75	42.2%
Soda Ash	$ 21.60	25 kg				5	$108.00	1.4%	4	$86.40	0.5%				9	$194.40	0.6%
Sodium Sulphite	$ 33.40	25 kg	3	$100.20	2.3%	7	$233.80	3.0%	8	$267.20	1.4%				18	$601.20	1.8%
Wildcat 410	$ 168.94	25 lt							1	$168.94	0.9%				1	$168.94	0.5%
Xan-Bore	$ 359.25	25 kg							5	$1,796.25	9.7%				5	$1,796.25	5.5%
		Totals :		**$4,302.95**	**100.0%**		**$7,899.70**	**100.0%**		**$18,598.94**	**100.0%**		**$1,996.60**	**100.0%**		**$32,798.19**	**100.0%**
		Cost per Metre :		**$15.37**			**$18.59**			**$61.59**						**$32.57**	

4. MATERIALS RECONCILIATION

Previous Well : **Blamore # 1**
Well : **CBM 93-1**
Transferred to : **Simpson # 1**

PRODUCT	UNIT	TOTAL RECEIVED	TOTAL USED	TRANSFER BALANCE
AMC Biocide G	25 kg	18	9	9
AMC Defoamer	25 lt	12		12
AMC Pac Reg	25 kg	94	51	43
Aus-Gel	25 kg	249	81	168
Baryte	25 kg	790	307	483
Calcium Chloride	25 kg	12	2	
Caustic Soda	25 kg	39	4	35
Cement	20 kg	290	290	
Kwikseal F	18.7 kg	64	5	59
Lime	20 kg	10		10
PHPA	25 kg	99		99
Potassium Chloride (Tech)	25 kg	966	517	449
QuikSeal C	18.7 kg	50		50
QuikSeal M	18.7 kg	50		50
Rod-Free	25 kg	4		4
SAPP	25 kg	19		19
Soda Ash	25 kg	48	9	39
Sodium Sulphite	25 kg	70	18	52
Wildcat 410	25 lt	5	1	4
Xanthan Gum	25 kg	60	5	55
Xtra-Sweep	25 kg	8		8

5. FLUID PROPERTIES SUMMARY

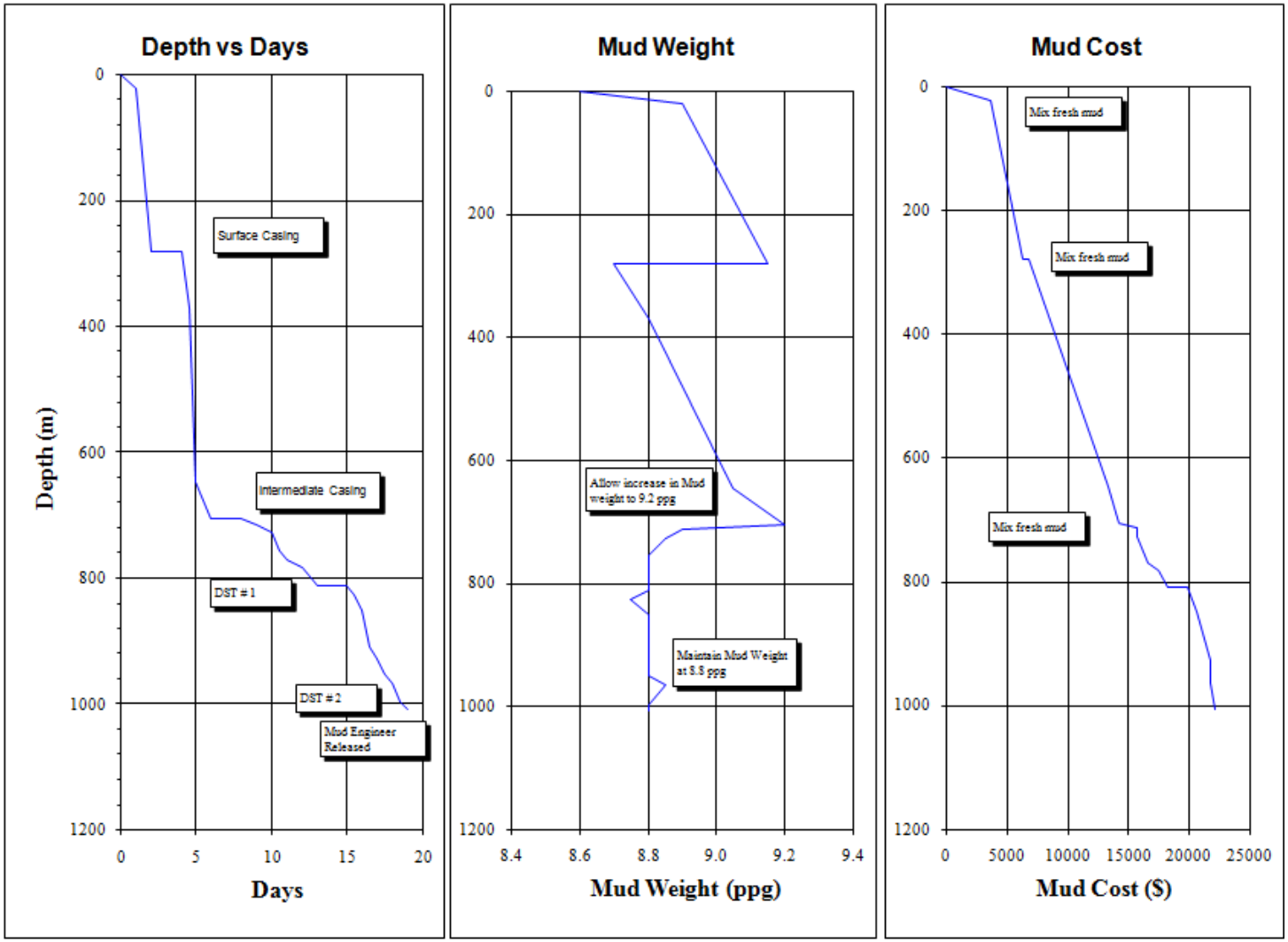
								Gels		Filtrate		Solids												
Date	Mud Type	Temp	Depth	Weight	Vis	PV	YP	10 sec	10 min	API	Cake	Solids	Water	Sand	MBT	pH	Pf	Mf	Cl-	Ca++	SO3=	K+	KCl
28-Aug-08	Gel Spud Mud	22	21	8.90	52	19	17	15	17		2	3.8	96.2			8.5	0.05	0.15	3,900	120			
29-Aug-08	Gel Spud/ KCl Mud	32	280	9.15	45	8	39	10	10		2	5.2	94.8	1.3	20.0	8.5	0.05	0.11	15,000	760	50	11,889	2.2
30-Aug-08	Gel Spud/ KCl Mud	26	280	9.00	40	5	29	7	8		2	4.2	95.8	1.0	20.0	8.5	0.02	0.07	14,000	800	20	10,808	2.0
31-Aug-08	KCl / Drill Solids	20	280	8.70	28	1	3	1	1		1	2.0	98.0		5.0	8.5	0.02	0.08	14,000	400		10,808	2.0
1-Sep-08	KCl/ Drilled solids/ PAC R	26	370	8.80	28	2	3	1	1		1	2.7	97.3	0.8	5.0	9.0	0.04	0.13	14,000	450	50	10,808	2.0
	KCl/ Drilled solids/ PAC R	34	646	9.05	42	16	20	1	2	7.0	1	4.4	95.6	1.0	12.5	9.0	0.05	0.14	16,000	500	100	12,429	2.3
2-Sep-08	KCl/ Drilled solids/ PAC R	22	705	9.20	47	18	22	1	2	6.8	1	4.9	95.1	0.3	12.5	9.0	0.05	0.16	17,000	360	100	12,429	2.3
3-Sep-08	KCl/ Drilled solids/ PAC R	32	705	9.20	45	16	19	1	2	6.5	1	5.2	94.8	0.3	10.0	9.0	0.04	0.15	17,000	400	100	12,429	2.3
4-Sep-08	KCl/ Drilled solids/ PAC R	22	705	9.20	47	18	21	1	2	6.5	1	5.2	94.8	0.3	10.0	9.0	0.05	0.14	17,000	400	100	12,429	2.3
5-Sep-08	KCl/ Drilled solids/ PAC R	24	713	8.90	37	10	7	1	1	8.5	1	3.3	96.7	0.3	7.5	9.5	0.08	0.32	14,300	240	100	10,808	2.0
6-Sep-08	KCl/ Drilled solids/ PAC R	29	727	8.85	37	9	6	1	1	8.8	1	2.9	97.1	0.3	7.5	9.5	0.09	0.38	13,500	120	100	10,808	2.0
7-Sep-08	KCl/ Drilled solids/ PAC R	28	755	8.80	36	8	6	1	1	9.5	1	2.5	97.5	Tr	7.5	9.5	0.08	0.32	13,000	120	200	10,808	2.0
	KCl/ Drilled solids/ PAC R	26	770	8.80	37	9	8	1	1	8.7	1	2.5	97.5	Tr	7.5	9.5	0.09	0.36	14,000	120	200	10,808	2.0
8-Sep-08	KCl/ Drilled solids/ PAC R	31	783	8.80	38	9	8	1	1	8.5	1	2.5	97.5	Tr	7.5	9.0	0.06	0.33	15,000	80	200	11,348	2.1
9-Sep-08	KCl/ Drilled solids/ PAC R	32	810	8.80	40	10	10	1	1	8.8	1	2.6	97.4	0.3	7.5	9.0	0.04	0.32	15,500	140	200	11,348	2.1
10-Sep-08	KCl/ Drilled solids/ PAC R	34	810	8.80	40	10	9	1	1	9.0	1	2.6	97.4	0.3	7.5	8.5	0.02	0.25	16,000	200	150	11,348	2.1
11-Sep-08	KCl/ Drilled solids/ PAC R	24	810	8.80	40	10	10	1	1	9.0	1	2.6	97.4	0.3	7.5	8.5	0.02	0.28	16,000	180	150	11,348	2.1
12-Sep-08	KCl/ Drilled solids/ PAC R	35	825	8.75	36	7	7	1	1	8.9	1	2.2	97.8	Tr	5.0	8.5	0.02	0.28	16,500	260	100	11,889	2.2
	KCl/ Drilled solids/ PAC R	36	850	8.80	36	8	6	1	1	8.4	1	2.6	97.4	Tr	5.0	9.0	0.05	0.31	17,000	60	200	11,889	2.2
13-Sep-08	KCl/ Drilled solids/ PAC R	40	908	8.80	36	8	5	1	1	8.5	1	2.6	97.4	Tr	5.0	9.0	0.03	0.28	17,000	100	200	11,348	2.1
	KCl/ Drilled solids/ PAC R	38	928	8.80	38	11	8	1	1	8.3	1	2.6	97.4	0.3	5.0	9.5	0.09	0.46	16,000	70	200	11,348	2.1
14-Sep-08	KCl/ Drilled solids/ PAC R	36	951	8.80	38	8	9	1	1	8.4	1	2.6	97.4	Tr	5.0	9.5	0.09	0.47	16,500	60	200	11,348	2.1
	KCl/ Drilled solids/ PAC R	38	966	8.85	38	9	7	1	1	7.9	1	3.0	97.0	Tr	5.0	9.5	0.09	0.48	16,000	60	200	11,348	2.1
15-Sep-08	KCl/ Drilled solids/ PAC R	37	996	8.80	38	11	5	1	1	8.0	1	2.7	97.3	Tr	5.0	9.0	0.05	0.36	15,500	40	200	10,808	2.0
	KCl/ Drilled solids/ PAC R	35	1007	8.80	39	10	7	1	1		1	2.7	97.3	Tr	5.0	9.0	0.06	0.34	15,000	80	150	10,808	2.0

6. Mud Volume Analysis

		Interval			Fluid Built & Received					Fluid Disposed						Summary			
Date	Hole Size	From	To	Mud Type	Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
28-Aug-08	12-1/4"	0 m	21 m	Spud Mud	250			120					46			0	370	46	324
29-Aug-08	12-1/4"	21 m	280 m	Spud Mud	120			30		4			83	20	50	324	150	158	317
30-Aug-08	12-1/4"	280 m	280 m	Spud Mud				120					56	130	10	317	120	196	241
Sub Total					**370**	**0**	**0**	**270**	**0**	**4**	**0**	**0**	**185**	**150**	**60**		**640**	**399**	
31-Aug-08	8-1/2"	280 m	280 m	Spud Mud	86								16			241	86	16	311
1-Sep-08	8-1/2"	280 m	666 m	Spud Mud	200					13	7		47	70	40	311	200	177	334
2-Sep-08	8-1/2"	666 m	705 m	Spud Mud	20			20					37			334	40	37	337
3-Sep-08	8-1/2"	705 m	705 m	Spud Mud				120					14	100		337	120	114	344
Sub Total					**306**	**0**	**0**	**140**	**0**	**13**	**7**	**0**	**113**	**170**	**40**		**446**	**343**	
4-Sep-08	6"	705 m	705 m	KCl Polymer									0			344	0	0	344
5-Sep-08	6"	705 m	726 m	KCl Polymer	110								5	70		344	110	75	378
6-Sep-08	6"	726 m	737 m	KCl Polymer									9			378	0	9	369
7-Sep-08	6"	737 m	770 m	KCl Polymer									12	30		369	0	42	327
8-Sep-08	6"	770 m	796 m	KCl Polymer	35								13			327	35	13	349
9-Sep-08	6"	796 m	810 m	KCl Polymer	35								28		30	349	35	58	326
10-Sep-08	6"	810 m	810 m	KCl Polymer	30								15		30	326	30	45	311
11-Sep-08	6"	810 m	810 m	KCl Polymer	40								10			311	40	10	341
12-Sep-08	6"	810 m	852 m	KCl Polymer	50								11		5	341	50	16	376
13-Sep-08	6"	852 m	929 m	KCl Polymer	25								15		12	376	25	27	373
14-Sep-08	6"	929 m	966 m	KCl Polymer									21		5	373	0	26	347
15-Sep-08	6"	966 m	1007 m	KCl Polymer	45								24		10	347	45	34	358
Sub Total					**896**	**0**	**0**	**280**	**0**	**26**	**14**	**0**	**374**	**440**	**172**		**1176**	**1026**	
Well Total					**1266**	**0**	**0**	**550**	**0**	**30**	**14**	**0**	**559**	**590**	**232**		**1816**	**1425**	

	Dilution Factors		
	Interval Length	Dilution Vol	Dilution Factor
12¼" Surface Hole	280 m	390 bbls	1.4 bbls/m
8½" Hole	425 m	446 bbls	1.0 bbls/m
6" Hole	302 m	1176 bbls	3.9 bbls/m

7. Graphs


Depth vs Days
Depth (m)
0
200
400
600
800
1000
1200
Surface Casing
Intermediate Casing
DST # 1
DST # 2
Mud Engineer Released
0
5
10
15
20
Days
Mud Weight
Allow increase in Mud weight to 9.2 ppg
Maintain Mud Weight at 8.8 ppg
8.4
8.6
8.8
9.0
9.2
9.4
Mud Weight (ppg)
Mud Cost
Mix fresh mud
Mix fresh mud
Mix fresh mud
0
5000
10000
15000
20000
25000
Mud Cost ($)

8. DAILY DRILLING FLUIDS REPORTS

DRILLING FLUID REPORT

Report #	1	Date :	28-Aug-2008
Rig No	2	Spud :	28-Aug-2008
Depth		to 21	Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy		
REPORT FOR	Norm RABIG	REPORT FOR	B YATES		
WELL NAME AND No	CBM 93-1	FIELD	NT EP 93	LOCATION	Pedirka Basin
				STATE	Northern Territory

DRILLING ASSEMBLY			JET SIZE		
BIT SIZE	TYPE	16	16	16	
12.25	JST 11 XC	14			
DRILL PIPE	TYPE	Length			
SIZE 4.5	#	0	Mtrs		
DRILL PIPE	TYPE	Length			
SIZE 4.50	HW		Mtrs		
DRILL COLLAR SIZE (")		Length			
6.25	8.00	2	19	Mtrs	

CASING			
16 SURFACE	26	ft	
SET @	8	M	
INTERMEDIATE		ft	
SET @		M	
PRODUCTION. OI		ft	
LINER Set @		M	
MUD TYPE			

MUD VOLUME (BBL)	
HOLE	PITS
9	45
TOTAL CIRCULATING VOL.	
324	
IN STORAGE	
270	

CIRCULATION DATA			
PUMP SIZE		CIRCULATION	
5.5 X 16 Inches		PRESS (PSI)	psi
PUMP MODEL	ASSUMED EFF	BOTTOMS	
EMSCO	97 %	UP (min)	#DIV/0! min
BBL/STK	STK / MIN	TOTAL CIRC.	
0.1310		TIME (min)	#DIV/0! min
BBL/MIN	GAL / MIN	ANN VEL. DP	Lam
		(ft/min) DCs	Lam

		MUD PROPERTIES	
SAMPLE FROM		Pit	
TIME SAMPLE TAKEN		2330	
DEPTH (ft) - (m)	Metres	21	
FLOWLINE TEMPERATURE	^{0}C ^{0}F	22	
WEIGHT	ppg / SG	8.90	1.068
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	52	
PLASTIC VISCOSITY cP @	20 ^{0}C	19	
YIELD POINT (lb/100ft^2)		17	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		15	17
RHEOLOGY θ600 / θ300		55	36
RHEOLOGY θ200 / θ100		30	27
RHEOLOGY θ6 / θ3		16	14
FILTRATE API (cc's/30 min)			
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)		2	
SOLIDS CONTENT (% by Volume)		#DIV/0!	3.8
LIQUID CONTENT (% by Volume) OIL/WATER			96.2
SAND CONTENT (% by Vol.)			
METHYLENE BLUE CAPACITY (ppb equiv.)			
pH		8.5	
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)		0.05	0.15
CHLORIDE (mg/L)		3,900	
TOTAL HARDNESS AS CALCIUM (mg/L)		120	
SULPHITE (mg/L)			
K+ (mg/L)			
KCl (% by Wt.)			
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS			
Mud Weight	8.6-9.2	API Filtrate	HPHT Filtrate
Plastic Vis	ALAP	Yield Point	pH 9-10
KCl		PHPA	Sulphites

OBSERVATIONS

Prepared 75 bbls of Gel based Spud mud in the premix/pill tank
Prepared 150 bbls of 2-3%KCl brine in suction tank, settling tanks filled with water
Shakers fitted with 84/84/84 screens
Used spud mud to drill out mouse and rat holes and spud the well
Ran a short system initially, with mud returns down the trough to the pill tank
Cement sx used to cement conductor in place

Make up water had the following properties:
pH-8, Pf/Mf-0.01/0.14, Hardness-320mg/l, Chlorides-4000mg/l

OPERATIONS SUMMARY

Continue rigging up, wait on parts to repair winch
Drill out mouse and rat holes using spud mud
CBM 93-1 spudded at 2200hrs
Drill ahead to 21m at midnight

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	250	Desander		INITIAL VOLUME	0
Premix (recirc from sump)		Desilter			
Drill Water	120	Downhole	46	+ FLUID RECEIVED	370
Direct Recirc Sump		Dumped		- FLUID LOST	46
Other (eg Diesel)		Other		+ FLUID IN STORAGE	270
TOTAL RECEIVED	370	TOTAL LOST	46	FINAL VOLUME	594

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	3 x 84	2
Degasser			Desilter	12		Shaker #2	3 x 84	2

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Aus-Gel (Aust)	$ 14.25	249		63	186	$ 897.75
Cement	$ 6.75	290		290		$ 1,957.50
Potassium Chloride (Tec	$ 26.75	462		30	432	$ 802.50

Solids Analysis	%	PPB
High Grav solids		
Total LGS	3.8	35.6
Bentonite	-0.5	-4.3
Drilled Solids	4.2	38.4
Salt	0.2	2.3
n @ 2330 Hrs	0.61	
K @ 2330 Hrs	4.07	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$3,657.75	$3,657.75

RMN ENGINEER	S ALPHONSO	CITY	Adelaide Office	TELEPHONE	08 8338 7266

DRILLING FLUID REPORT

Report #	2	Date :	29-Aug-2008
Rig No	2	Spud :	28-Aug-2008
Depth	21 to 280		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE		
BIT SIZE	TYPE	16	16	16	
12.25	JST 11 XC	14			
DRILL PIPE SIZE 4.5	TYPE #	Length 127 Mtrs			
DRILL PIPE SIZE 4.50	TYPE HW	Length 55 Mtrs			
DRILL COLLAR SIZE (") 6.25	8.00	Length 2 96 Mtrs			

CASING			
16	SURFACE SET @	26 ft / 8 M	
	INTERMEDIATE SET @	ft / M	
	PRODUCTION. OI LINER Set @	ft / M	
MUD TYPE	Gel Spud/ KCl Mud		

MUD VOLUME (BBL)	
HOLE	PITS
137	180
TOTAL CIRCULATING VOL.	317
IN STORAGE	

CIRCULATION DATA			
PUMP SIZE 5.5 X 16 Inches		CIRCULATION PRESS (PSI)	psi
PUMP MODEL EMSCO	ASSUMED EFF 97 %	BOTTOMS UP (min)	min
BBL/STK 0.1560	STK / MIN	TOTAL CIRC. TIME (min)	min
BBL/MIN	GAL / MIN	ANN VEL. (ft/min) DP / DCs	Lam / Lam

		MUD PROPERTIES	
		Pit	Pit
SAMPLE FROM			
TIME SAMPLE TAKEN			1230
DEPTH (ft) - (m)	Metres		280
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		32
WEIGHT	ppg / SG		9.15 1.098
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		45
PLASTIC VISCOSITY cP @	28 ^{0}C		8
YIELD POINT (lb/100ft^2)			39
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			10 10
RHEOLOGY θ600 / θ300			55 47
RHEOLOGY θ200 / θ100			40 33
RHEOLOGY θ6 / θ3			14 10
FILTRATE API (cc's/30 min)			
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			2
SOLIDS CONTENT (% by Volume)			5.2
LIQUID CONTENT (% by Volume) OIL/WATER			94.8
SAND CONTENT (% by Vol.)			1.25
METHYLENE BLUE CAPACITY (ppb equiv.)			20.0
pH			8.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.05 0.11
CHLORIDE (mg/L)			15,000
TOTAL HARDNESS AS CALCIUM (mg/L)			760
SULPHITE (mg/L)			50
K+ (mg/L)			11,550
KCl (% by Wt.)			2.2
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	HPHT Filtrate
Plastic Vis	ALAP	Yield Point	pH 9-10
KCl	2-3	PHPA	Sulphites 100-200

OBSERVATIONS

Volume maintained initially using water and fresh gel additions to maintain vis
Started bleeding in KCl premixes once clays were encountered
Around 100m, started using the long system, one tank at a time
Started running desander to keep sand under control
Volume maintained thereafter using KCl brine premixes
Caustic Soda used to maintain pH
Sodium Sulfite used for corrosion control

OPERATIONS SUMMARY

Drill Ahead with surveys to casing point of 280m
Circulate hole clean, POOH to surface for wiper trip
RIH to bottom, 0.5m fill reported on bottom
Circulate hole clean, POOH to surface
Lay out 8"DCs, stabiliser & bit
Rig up to run 9 5/8" casing

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	120	Desander	4	INITIAL VOLUME	324
Premix (recirc from sump)		Desilter			
Drill Water	30	Downhole	83	+ FLUID RECEIVED	150
Direct Recirc Sump		Dumped	20	- FLUID LOST	158
Other (eg Diesel)		Other	50	+ FLUID IN STORAGE	
TOTAL RECEIVED	150	TOTAL LOST	158	FINAL VOLUME	317

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2	3	Shaker #1	3 x 84	14
Degasser			Desilter	12		Shaker #2	3 x 84	14

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.1	12.3	1.00
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Aus-Gel (Aust)	$ 14.25	186		14	172	$ 199.50
Caustic Soda	$ 56.00	39		1	38	$ 56.00
Potassium Chloride (Tec	$ 26.75	432		84	348	$ 2,247.00
Sodium Sulphite	$ 33.40	30		3	27	$ 100.20

Solids Analysis

	%	PPB
High Grav solids		
Total LGS	5.2	49.0
Bentonite	1.9	16.9
Drilled Solids	3.3	30.2
Salt	0.9	8.7
n @ 1230 Hrs	0.23	
K @ 1230 Hrs	58.44	

Bit Hydraulics & Pressure Data

Jet Velocity
Impact force
HHP
HSI
Bit Press Loss
CSG Seat Frac Press
Equiv. Mud Wt.
Max Pressure @ Shoe :

DAILY COST	CUMULATIVE COST
$2,602.70	$6,260.45

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DRILLING FLUID REPORT

Report #	3	Date :	30-Aug-2008
Rig No	2	Spud :	28-Aug-2008
Depth	280 to 280		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	psi
									71	170	5.5 X 16 Inches				
DRILL PIPE SIZE 4.5	TYPE #	Length Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	min
									241		EMSCO	97 %			
DRILL PIPE SIZE 4.50	TYPE HW	Length Mtrs				PRODUCTION. OI LINER Set @	ft / M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	min
											0.1560				
DRILL COLLAR SIZE (")		Length Mtrs				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP	#####
6.25	8.00					Gel Spud/ KCl Mud								(ft/min) DCs	#####

		MUD PROPERTIES	
		Pit	Pit
SAMPLE FROM			
TIME SAMPLE TAKEN			0930
DEPTH (ft) - (m)	Metres		280
FLOWLINE TEMPERATURE	^{0}C ^{0}F		26
WEIGHT	ppg / SG		9.00 1.080
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		40
PLASTIC VISCOSITY cP @	22 ^{0}C		5
YIELD POINT (lb/100ft^2)			29
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			7 8
RHEOLOGY θ600 / θ300			39 34
RHEOLOGY θ200 / θ100			30 25
RHEOLOGY θ6 / θ3			11 8
FILTRATE API (cc's/30 min)			
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			2
SOLIDS CONTENT (% by Volume)			4.2
LIQUID CONTENT (% by Volume) OIL/WATER			95.8
SAND CONTENT (% by Vol.)			1.00
METHYLENE BLUE CAPACITY (ppb equiv.)			20.0
pH			8.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.02 0.07
CHLORIDE (mg/L)			14,000
TOTAL HARDNESS AS CALCIUM (mg/L)			800
SULPHITE (mg/L)			20
K+ (mg/L)			10,500
KCl (% by Wt.)			2.0
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS			
Mud Weight	8.6-9.2	API Filtrate	HPHT Filtrate
Plastic Vis	ALAP	Yield Point	pH 9-10
KCl	2-3	PHPA	Sulphites 100-200

OBSERVATIONS

Water used to maintain volume lost while running casing
Cement displaced with 70bbls of water
Cement return with mud dumped at surface
Dump and clean settling tanks

OPERATIONS SUMMARY

Run 9 5/8" casing to bottom, circulate hole clean through casing
Rig up Halliburton, conduct cementing operations
9 5/8" casing cemented with shoe at 279m
WOC, dump and clean settling tanks
Nipple up BOPs

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	317
Premix (recirc from sump)		Desilter			
Drill Water	120	Downhole	56	+ FLUID RECEIVED	120
Direct Recirc Sump		Dumped	130	- FLUID LOST	196
Other (eg Diesel)		Other	10	+ FLUID IN STORAGE	
TOTAL RECEIVED	120	TOTAL LOST	196	FINAL VOLUME	241

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	3 x 84	3
Degasser			Desilter	12		Shaker #2	3 x 84	3

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis	%	PPB
High Grav solids		
Total LGS	4.2	39.4
Bentonite	2.0	18.0
Drilled Solids	2.2	19.8
Salt	0.8	8.1
n @ 0930 Hrs	0.20	
K @ 0930 Hrs	50.60	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	#DIV/0!
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
	$6,260.45

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DRILLING FLUID REPORT

Report #	4	Date :	31-Aug-2008
Rig No	2	Spud :	28-Aug-2008
Depth	280 to 280		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	16	16	16	16	SURFACE	26	ft	HOLE	PITS	PUMP SIZE			CIRCULATION	
8.50	S 36					SET @	8	M	51	260	5.5 X 16	Inches		PRESS (PSI)	psi
DRILL PIPE	TYPE	Length				9 5/8 INTERMEDIATE	886	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS	
SIZE 3.5	#	48	Mtrs			SET @	270	M	311		EMSCO	97 %		UP (min)	min
DRILL PIPE	TYPE	Length				PRODUCTION. OI		ft	IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC.	
SIZE 4.50	HW	55	Mtrs			LINER Set @		M			0.1560			TIME (min)	min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP	Lam
6.25	8.00	178	Mtrs			KCl / Drill Solids								(ft/min) DCs	Lam

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			2330
DEPTH (ft) - (m)	Metres		280
FLOWLINE TEMPERATURE	^{0}C ^{0}F		20
WEIGHT	ppg / SG		8.70 1.044
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		28
PLASTIC VISCOSITY cP @	20 ^{0}C		1
YIELD POINT (lb/100ft^2)			3
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			5 4
RHEOLOGY θ200 / θ100			3 2
RHEOLOGY θ6 / θ3			1 1
FILTRATE API (cc's/30 min)			
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)			2.0
LIQUID CONTENT (% by Volume) OIL/WATER			98.0
SAND CONTENT (% by Vol.)			
METHYLENE BLUE CAPACITY (ppb equiv.)			5.0
pH			8.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.02 0.08
CHLORIDE (mg/L)			14,000
TOTAL HARDNESS AS CALCIUM (mg/L)			400
SULPHITE (mg/L)			
K+ (mg/L)			10,500
KCl (% by Wt.)			2.0
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS			
Mud Weight	8.6-9.2	API Filtrate	HPHT Filtrate
Plastic Vis	ALAP	Yield Point	pH 9-10
KCl	2-3	PHPA	Sulphites 100-200

OBSERVATIONS

Settling tanks filled with 2% KCl brine
Mud circulated between settling and suction tanks to even out
Premix tank filled with water, trough lined up from below the shakers to the premix tank to drill out cement

OPERATIONS SUMMARY

Nipple up BOPs, pressure test
RIH with 8.5" Stealth bit, BHA & 3.5" DP

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	86	Desander		INITIAL VOLUME	241
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	16	+ FLUID RECEIVED	86
Direct Recirc Sump		Dumped		- FLUID LOST	16
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED	86	TOTAL LOST	16	FINAL VOLUME	311

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	
Degasser			Desilter	12		Shaker #2	140/140/110	

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
Potassium Chloride (Tec	$ 26.75	348		21	327	$ 561.75

Solids Analysis	%	PPB
High Grav solids		
Total LGS	2.0	19.2
Bentonite	0.4	3.4
Drilled Solids	1.7	15.1
Salt	0.8	8.1
n @ 2330 Hrs	0.32	
K @ 2330 Hrs	2.75	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$561.75	$6,822.20

RMN ENGINEER S ALPHONSO CITY Adelaide Office TELEPHONE 08 8338 7266

DRILLING FLUID REPORT

Report #	5	Date :	1-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	280 to 666		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	16	16	16	16	SURFACE	26	ft	HOLE	PITS	PUMP SIZE		CIRCULATION			
8.50	S 36					SET @	8	M	134	200	5.5 X 16	Inches	PRESS (PSI)	850	psi	
DRILL PIPE	TYPE		Length			9 5/8 INTERMEDIATE	886	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
SIZE 3.5	#		434	Mtrs		SET @	270	M	334		EMSCO	97 %	UP (min)	12	min	
DRILL PIPE	TYPE		Length			PRODUCTION. OI		ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.			
SIZE 4.50	HW		55	Mtrs		LINER Set @		M			0.1560	60	TIME (min)	37	min	
DRILL COLLAR SIZE (")			Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP	156	Lam
6.25	8.00		178	Mtrs		KCl/ Drilled solids/ PAC R					9.08	381	(ft/min)	DCs	282 1132	Lam

MUD PROPERTIES				
SAMPLE FROM		Pit	Pit	
TIME SAMPLE TAKEN		1200	2200	
DEPTH (ft) - (m)	Metres	370	646	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	26	34	
WEIGHT	ppg / SG	8.80 1.056	9.05 1.086	
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	28	42	
PLASTIC VISCOSITY cP @	26 ^{0}C	2	16	
YIELD POINT (lb/100ft^2)		3	20	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 1	1 2	
RHEOLOGY θ600 / θ300		7 5	52 36	
RHEOLOGY θ200 / θ100		4 3	28 18	
RHEOLOGY θ6 / θ3		1 1	3 2	
FILTRATE API (cc's/30 min)			7.0	
HPHT FILTRATE (cc's/30 min) @	^{0}F			
CAKE THICKNESS API : HPHT (32nd in)		1	1	
SOLIDS CONTENT (% by Volume)		2.7	4.4	
LIQUID CONTENT (% by Volume) OIL/WATER		97.3	95.6	
SAND CONTENT (% by Vol.)		0.75	1.00	
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	12.5	
pH		9.0	9.0	
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)		0.04 0.13	0.05 0.14	
CHLORIDE (mg/L)		14,000	16,000	
TOTAL HARDNESS AS CALCIUM (mg/L)		450	500	
SULPHITE (mg/L)		50	100	
K+ (mg/L)		10,500	12,075	
KCl (% by Wt.)		2.0	2.3	
PHPA (ppb)				
ECD (ppg)				

MUD PROPERTY SPECIFICATIONS					
Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Cement drilled out using water from the premix tank
Hole displaced to KCl/spud mud once new formation was drilled
Cement contaminated water returns dumped at surface
Volume maintained using premixes of PAC R, KCl, Soda Ash & Aus Gel
Sodium Sulfite added for corrosion control
Caustic Soda used to maintain pH

OPERATIONS SUMMARY

Tag Cement @ 265m, drill out cement, float & shoe track
Drill 3m of new formation to 283m, circulate hole clean
Conduct LOT
Drill 3m of new formation to 283m
Drill Ahead with surveys to 666m at midnight

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	200	Desander	13	INITIAL VOLUME	311
Premix (recirc from sump)		Desilter	7		
Drill Water		Downhole	47	+ FLUID RECEIVED	200
Direct Recirc Sump		Dumped	70	- FLUID LOST	177
Other (eg Diesel)		Other	40	+ FLUID IN STORAGE	
TOTAL RECEIVED	200	TOTAL LOST	177	FINAL VOLUME	334

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2	6	Shaker #1	140/140/110	14
Degasser			Desilter	12	2	Shaker #2	140/140/110	14

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	8.9	11.4	1.50
Desilter	8.9	10.8	2.50

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	54		20	34	$ 3,250.00
Aus-Gel (Aust)	$ 14.25	172		4	168	$ 57.00
Caustic Soda	$ 56.00	38		1	37	$ 56.00
Potassium Chloride (Tec	$ 26.75	327		107	220	$ 2,862.25
Soda Ash	$ 21.60	48		4	44	$ 86.40
Sodium Sulphite	$ 33.40	27		6	21	$ 200.40

Solids Analysis	%	PPB
High Grav solids		
Total LGS	4.4	42.0
Bentonite	1.0	9.2
Drilled Solids	3.4	31.2
Salt	1.0	9.3
n @ 2200 Hrs	0.53	
K @ 2200 Hrs	6.74	

Bit Hydraulics & Pressure Data	
Jet Velocity	207
Impact force	370
HHP	78
HSI	1.4
Bit Press Loss	349
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$6,512.05	$13,334.25

RMN ENGINEER S ALPHONSO CITY Adelaide Office TELEPHONE 08 8338 7266

DRILLING FLUID REPORT

Report #	6	Date :	2-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	666 to 705		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 8.50	TYPE S 36	16	16	16	16 SURFACE SET @	26 ft / 8 M		HOLE 151	PITS 186	PUMP SIZE 5.5 X 16 Inches		CIRCULATION PRESS (PSI)	psi
DRILL PIPE SIZE 7.0	TYPE #	Length 580 Mtrs			9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL. 337		PUMP MODEL EMSCO	ASSUMED EFF 97 %	BOTTOMS UP (min)	min
DRILL PIPE SIZE	TYPE HW	Length Mtrs			PRODUCTION. OI LINER Set @	ft / M		IN STORAGE		BBL/STK 0.1560	STK / MIN	TOTAL CIRC. TIME (min)	min
DRILL COLLAR SIZE (")		Length Mtrs			MUD TYPE KCl/ Drilled solids/ PAC R					BBL/MIN	GAL / MIN	ANN VEL. (ft/min) DP DCs	Lam Lam

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Pit	Pit	Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
TIME SAMPLE TAKEN		2200	Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
DEPTH (ft) - (m) Metres		705	KCl	2-3	PHPA		Sulphites	100-200
FLOWLINE TEMPERATURE ^{0}C ^{0}F		22						
WEIGHT ppg / SG		9.20 1.104						
FUNNEL VISCOSITY (sec/qt) API @ ^{0}C		47						
PLASTIC VISCOSITY cP @ 22 ^{0}C		18						
YIELD POINT (lb/100ft^2)		22						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 2						
RHEOLOGY θ600 / θ300		58 40						
RHEOLOGY θ200 / θ100		31 19						
RHEOLOGY θ6 / θ3		2 1						
FILTRATE API (cc's/30 min)		6.8						
HPHT FILTRATE (cc's/30 min) @ ^{0}F								
CAKE THICKNESS API : HPHT (32nd in)		1						
SOLIDS CONTENT (% by Volume)	0.8	4.9						
LIQUID CONTENT (% by Volume) OIL/WATER		95.1						
SAND CONTENT (% by Vol.)		0.25						
METHYLENE BLUE CAPACITY (ppb equiv.)		12.5						
pH		9.0						
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)		0.05 0.16						
CHLORIDE (mg/L)		17,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		360						
SULPHITE (mg/L)		100						
K+ (mg/L)		12,075						
KCl (% by Wt.)		2.3						
PHPA (ppb)								
ECD (ppg)								

OBSERVATIONS

Volume maintained using a premix of PAC R & Soda Ash
Sodium Sulphite used for corrosion control
Barite used for heavyweight pills before POOH for wiper trips

OPERATIONS SUMMARY

Drill Ahead to casing point of 705m
Circulate hole clean, pump slug & POOH to 252m, tight from 596m-491m
RIH to bottom, circulate hole clean, pump slug & POOH to BHA
RIH for 2nd wiper trip to bottom, Circulate hole clean
Pump slug & POOH to surface, lay out jars, NBS, Bit Sub & Bit
Rig up and run 7" casing to bottom

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	20	Desander		INITIAL VOLUME	334
Premix (recirc from sump)		Desilter			
Drill Water	20	Downhole	37	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped		- FLUID LOST	37
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED	40	TOTAL LOST	37	FINAL VOLUME	337

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	6
Degasser			Desilter	12		Shaker #2	140/140/110	6

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	34		1	33	$ 162.50
Baryte	$ 8.45	790		72	718	$ 608.40
Soda Ash	$ 21.60	44		1	43	$ 21.60
Sodium Sulphite	$ 33.40	21		1	20	$ 33.40

Solids Analysis

	%	PPB
High Grav solids	0.7	10.40
Total LGS	4.2	39.7
Bentonite	1.0	9.4
Drilled Solids	3.2	28.7
Salt	1.0	9.8
n @ 2200 Hrs	0.54	
K @ 2200 Hrs	7.24	

Bit Hydraulics & Pressure Data

Jet Velocity
Impact force
HHP
HSI
Bit Press Loss
CSG Seat Frac Press
Equiv. Mud Wt.
Max Pressure @ Shoe :

DAILY COST	CUMULATIVE COST
$825.90	$14,160.15

RMN ENGINEER S ALPHONSO CITY Adelaide Office TELEPHONE 08 8338 7266

DRILLING FLUID REPORT

Report #	7	Date :	3-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	705 to 705		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	psi
									89	255	5.5 X 16 Inches				
DRILL PIPE SIZE	TYPE #	Length Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	min
									344		EMSCO	97 %			
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	min
											0.1560				
DRILL COLLAR SIZE (")		Length Mtrs				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min) DP / DCs	#DIV/0! ##### / #####
						KCl/ Drilled solids/ PAC R									

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Pit	Pit	Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
TIME SAMPLE TAKEN		0900	Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
DEPTH (ft) - (m) Metres		705	KCl	2-3	PHPA		Sulphites	100-200
FLOWLINE TEMPERATURE ^{0}C ^{0}F		32						
WEIGHT ppg / SG		9.20 1.104						
FUNNEL VISCOSITY (sec/qt) API @ ^{0}C		45						
PLASTIC VISCOSITY cP @ 20 ^{0}C		16						
YIELD POINT (lb/100ft^2)		19						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 2						
RHEOLOGY θ600 / θ300		51 35						
RHEOLOGY θ200 / θ100		27 16						
RHEOLOGY θ6 / θ3		2 1						
FILTRATE API (cc's/30 min)		6.5						
HPHT FILTRATE (cc's/30 min) @ ^{0}F								
CAKE THICKNESS API : HPHT (32nd in)		1						
SOLIDS CONTENT (% by Volume)	0.6	5.2						
LIQUID CONTENT (% by Volume) OIL/WATER		94.8						
SAND CONTENT (% by Vol.)		0.25						
METHYLENE BLUE CAPACITY (ppb equiv.)		10.0						
pH		9.0						
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)		0.04 0.15						
CHLORIDE (mg/L)		17,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		400						
SULPHITE (mg/L)		100						
K+ (mg/L)		12,075						
KCl (% by Wt.)		2.3						
PHPA (ppb)								
ECD (ppg)								

OBSERVATIONS

Dumped around 90bbls mud returns after filling tanks
20bbl Water spacer to surface, no cement returns
Dump and clean possum belly & sand trap, replace worn out shaker screens
Pill tank filled with water, short system lined up to drill out cement

OPERATIONS SUMMARY

Continue running casing to bottom
Circulate hole clean through casing
Rig up Halliburton, cementing operations
7" casing cemented with shoe @ 704.8m
Wait on Cement

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	337
Premix (recirc from sump)		Desilter			
Drill Water	120	Downhole	14	+ FLUID RECEIVED	120
Direct Recirc Sump		Dumped	100	- FLUID LOST	114
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED	120	TOTAL LOST	114	FINAL VOLUME	344

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	6
Degasser			Desilter	12		Shaker #2	140/140/110	6

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis	%	PPB
High Grav solids	0.4	5.57
Total LGS	4.8	45.4
Bentonite	0.7	5.9
Drilled Solids	4.1	37.7
Salt	1.0	9.8
n @ 0900 Hrs	0.54	
K @ 0900 Hrs	6.06	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	#DIV/0!
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
	$14,160.15

RMN ENGINEER S ALPHONSO CITY Adelaide Office TELEPHONE 08 8338 7266

DRILLING FLUID REPORT

Report #	8	Date :	4-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	705 to 705		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	psi
									89	255	5.5 X 16 Inches				
DRILL PIPE SIZE	TYPE #	Length Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	min
									344		EMSCO	97 %			
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	min
											0.1560				
DRILL COLLAR SIZE (")		Length Mtrs				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min) DP DCs	#DIV/0! ##### #####
						KCl/ Drilled solids/ PAC R									

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			2200
DEPTH (ft) - (m)	Metres		705
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		22
WEIGHT	ppg / SG		9.20 1.104
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		47
PLASTIC VISCOSITY cP @	20 ^{0}C		18
YIELD POINT (lb/100ft^2)			21
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 2
RHEOLOGY θ600 / θ300			57 39
RHEOLOGY θ200 / θ100			30 18
RHEOLOGY θ6 / θ3			2 1
FILTRATE API (cc's/30 min)			6.5
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.4	5.2
LIQUID CONTENT (% by Volume) OIL/WATER			94.8
SAND CONTENT (% by Vol.)			0.25
METHYLENE BLUE CAPACITY (ppb equiv.)			10.0
pH			9.0
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.05 0.14
CHLORIDE (mg/L)			17,000
TOTAL HARDNESS AS CALCIUM (mg/L)			400
SULPHITE (mg/L)			100
K+ (mg/L)			12,075
KCl (% by Wt.)			2.3
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

No Activity on Mud today
No Chemicals used

OPERATIONS SUMMARY

Nipple Down BOPs
Nipple Up BOPs on 7" casing, pressure test same
Start RIH with 6" bit, core assembly and BHA

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	344
Premix (recirc from sump)		Desilter			
Drill Water		Downhole		+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME	344

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	
Degasser			Desilter	12		Shaker #2	140/140/110	

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis

	%	PPB
High Grav solids	0.4	5.57
Total LGS	4.8	45.4
Bentonite	0.7	5.9
Drilled Solids	4.1	37.7
Salt	1.0	9.8
n @ 2200 Hrs	0.55	
K @ 2200 Hrs	6.57	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HSI	#DIV/0!
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
	$14,160.15

RMN ENGINEER	S ALPHONSO	CITY	Adelaide Office	TELEPHONE	08 8338 7266

DRILLING FLUID REPORT

Report #	9	Date :	5-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	705 to 726		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	
6.00									73	275	5.5 X 16 Inches				psi
DRILL PIPE SIZE 3.5	TYPE #	Length 548 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	
									378		EMSCO	97 %			min
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	
									30		0.1560				min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min) DP DCs	Lam Lam
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R									

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			1400
DEPTH (ft) - (m)	Metres		713
FLOWLINE TEMPERATURE	^{0}C ^{0}F		24
WEIGHT	ppg / SG		8.90 1.068
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		37
PLASTIC VISCOSITY cP @	22 ^{0}C		10
YIELD POINT (lb/100ft^2)			7
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			27 17
RHEOLOGY θ200 / θ100			14 9
RHEOLOGY θ6 / θ3			2 1
FILTRATE API (cc's/30 min)			8.5
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.3	3.3
LIQUID CONTENT (% by Volume) OIL/WATER			96.7
SAND CONTENT (% by Vol.)			0.25
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5
pH			9.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.08 0.32
CHLORIDE (mg/L)			14,300
TOTAL HARDNESS AS CALCIUM (mg/L)			240
SULPHITE (mg/L)			100
K+ (mg/L)			10,500
KCl (% by Wt.)			2.0
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Mud Treated with Biocide to prevent bacterial degradation of polymers
Cement drilled out using water from the pill tank
Cement contaminated water dumped at surface when the hole was displaced to the KCl/Polymer mud
Volume maintained using premixes off PAC R, KCl & Soda Ash
Sodium Sulphite used for corrosion control
API fluid loss values being relaxed a bit by using less polymer to address concerns that it may plug off the coals(in consultation with co man)

OPERATIONS SUMMARY

Continue RIH to bottom, tag cement @692m
Drill out Float,cement, shoe track & new formation of 706m
Circulate hole clean, conduct LOT
Drill Ahead to 726m, rig up wireline to retrieve drill bit plug
Stuck @ 279m, rig down wireline
POOH to retrieve plug to surface
Start RIH to bottom with core asssembly

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	110	Desander		INITIAL VOLUME	344
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	5	+ FLUID RECEIVED	110
Direct Recirc Sump		Dumped	70	- FLUID LOST	75
Other (eg Diesel)		Other		+ FLUID IN STORAGE	30
TOTAL RECEIVED	110	TOTAL LOST	75	FINAL VOLUME	408

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	4
Degasser			Desilter	12		Shaker #2	140/140/110	4

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 185.35	18		1	17	$ 185.35
AMC Pac R	$ 162.50	33		5	28	$ 812.50
Potassium Chloride (Tec	$ 26.75	220		10	210	$ 267.50
Soda Ash	$ 21.60	43		3	40	$ 64.80
Sodium Sulphite	$ 33.40	20		4	16	$ 133.60

Solids Analysis	%	PPB
High Grav solids	0.2	3.35
Total LGS	3.0	28.7
Bentonite	0.6	5.1
Drilled Solids	2.5	22.5
Salt	0.9	8.3
n @ 1400 Hrs	0.67	
K @ 1400 Hrs	1.36	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$1,463.75	$15,623.90

RMN ENGINEER	S ALPHONSO	CITY	Adelaide Office	TELEPHONE	08 8338 7266

DRILLING FLUID REPORT

Report #	10	Date :	6-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	726 to 737		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE	26	ft	HOLE	PITS	PUMP SIZE			CIRCULATION	
6.00	FC 3463					SET @	8	M	74	265	5.5 X 16	Inches		PRESS (PSI)	psi
DRILL PIPE	TYPE	Length				9 5/8 INTERMEDIATE	886	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS	
SIZE 3.5	#	559	Mtrs			SET @	270	M	369		EMSCO	97 %		UP (min)	min
DRILL PIPE	TYPE	Length				7 PRODUCTION. OI	2310	ft	IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC.	
SIZE	HW		Mtrs			LINER Set @	704	M	30		0.1560			TIME (min)	min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP	Lam
4.75		178	Mtrs			KCl/ Drilled solids/ PAC R								(ft/min) DCs	Lam

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			1400
DEPTH (ft) - (m)	Metres		727
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		29
WEIGHT	ppg / SG		8.85 1.062
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		37
PLASTIC VISCOSITY cP @	22 ^{0}C		9
YIELD POINT (lb/100ft^2)			6
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			24 15
RHEOLOGY θ200 / θ100			11 6
RHEOLOGY θ6 / θ3			2 1
FILTRATE API (cc's/30 min)			8.8
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.2	2.9
LIQUID CONTENT (% by Volume) OIL/WATER			97.1
SAND CONTENT (% by Vol.)			0.25
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5
pH			9.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.09 0.38
CHLORIDE (mg/L)			13,500
TOTAL HARDNESS AS CALCIUM (mg/L)			120
SULPHITE (mg/L)			100
K+ (mg/L)			10,500
KCl (% by Wt.)			2.0
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

No mud chemicals used today

OPERATIONS SUMMARY

Try to RIH core barrell, stuck @206m
POOH to retrieve assembly, layout unpassable DCs & DPs
RIH with core bit & barrell to bottom, core 3m
Circulate hole clean & POOH to surface to retrieve core barrell
RIH with core barrel to bottom, core to 737m
POOH to retrieve core barrell
RIH with core assembly

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	378
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	9	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	9
Other (eg Diesel)		Other		+ FLUID IN STORAGE	30
TOTAL RECEIVED		TOTAL LOST	9	FINAL VOLUME	399

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	
Degasser			Desilter	12		Shaker #2	140/140/110	4

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis

	%	PPB
High Grav solids	0.2	3.35
Total LGS	2.7	25.3
Bentonite	0.6	5.5
Drilled Solids	2.1	18.8
Salt	0.8	7.8
n @ 1400 Hrs	0.68	
K @ 1400 Hrs	1.12	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
	$15,623.90

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DRILLING FLUID REPORT

Report #	11	Date :	7-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	737 to 770		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	psi
6.00	FC 3463								77	250	5.5 X 16 Inches				
DRILL PIPE SIZE 3.5	TYPE #	Length 592 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	min
									327		EMSCO	97 %			
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	min
											0.1560				
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP (ft/min) DCs	Lam Lam
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R									

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN		1200	2300
DEPTH (ft) - (m)	Metres	755	770
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	28	26
WEIGHT	ppg / SG	8.80 1.056	8.80 1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	36	37
PLASTIC VISCOSITY cP @	24 ^{0}C	8	9
YIELD POINT (lb/100ft^2)		6	8
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 1	1 1
RHEOLOGY θ600 / θ300		22 14	26 17
RHEOLOGY θ200 / θ100		9 5	14 9
RHEOLOGY θ6 / θ3		1 1	1 1
FILTRATE API (cc's/30 min)		9.5	8.7
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)		1	1
SOLIDS CONTENT (% by Volume)		2.5	2.5
LIQUID CONTENT (% by Volume) OIL/WATER		97.5	97.5
SAND CONTENT (% by Vol.)		Tr	Tr
METHYLENE BLUE CAPACITY (ppb equiv.)		7.5	7.5
pH		9.5	9.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)		0.08 0.32	0.09 0.36
CHLORIDE (mg/L)		13,000	14,000
TOTAL HARDNESS AS CALCIUM (mg/L)		120	120
SULPHITE (mg/L)		200	200
K+ (mg/L)		10,500	10,500
KCl (% by Wt.)		2.0	2.0
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

PAC R used to maintain fluid loss values between 8 & 10 mls/30 mins
Sodium Sulphite used for corrosion control
Biocide used to prevent bacterial degradation while the mud is static

OPERATIONS SUMMARY

Continue coring to 765m
POOH to retrieve stuck drill plug
RIH with core barrell, core to 770m
Circulate hole clean. POOH to retrieve core barrell

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	369
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	12	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped	30	- FLUID LOST	42
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED		TOTAL LOST	42	FINAL VOLUME	327

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	
Degasser			Desilter	12		Shaker #2	140/140/110	

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 185.35	17		1	16	$ 185.35
AMC Pac R	$ 162.50	28		1	27	$ 162.50
Potassium Chloride (Tec	$ 26.75	210		22	188	$ 588.50
Sodium Sulphite	$ 33.40	16		1	15	$ 33.40

Solids Analysis	%	PPB
High Grav solids	0.2	3.35
Total LGS	2.3	21.9
Bentonite	0.6	5.9
Drilled Solids	1.7	15.2
Salt	0.8	8.1
n @ 2300 Hrs	0.61	
K @ 2300 Hrs	1.90	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$969.75	$16,593.65

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DRILLING FLUID REPORT

Report #	12	Date :	8-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	770 to 796		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE	26	ft	HOLE	PITS	PUMP SIZE			CIRCULATION	
6.00	FC 3463					SET @	8	M	99	220	5.5 X 16	Inches		PRESS (PSI)	psi
DRILL PIPE	TYPE	Length				9 5/8 INTERMEDIATE	886	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS	
SIZE 3.5	#	618	Mtrs			SET @	270	M	349		EMSCO	97 %		UP (min)	min
DRILL PIPE	TYPE	Length				7 PRODUCTION. OI	2310	ft	IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC.	
SIZE	HW		Mtrs			LINER Set @	704	M	30		0.1560			TIME (min)	min
DRILL COLLAR SIZE (")		Length				MUD TYPE			BBL/MIN		GAL / MIN			ANN VEL. DP	Lam
4.75		178	Mtrs			KCl/ Drilled solids/ PAC R								(ft/min) DCs	Lam

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			1400
DEPTH (ft) - (m)	Metres		783
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		31
WEIGHT	ppg / SG		8.80 1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		38
PLASTIC VISCOSITY cP @	26 ^{0}C		9
YIELD POINT (lb/100ft^2)			8
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			26 17
RHEOLOGY θ200 / θ100			12 7
RHEOLOGY θ6 / θ3			1 1
FILTRATE API (cc's/30 min)			8.5
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.2	2.5
LIQUID CONTENT (% by Volume) OIL/WATER			97.5
SAND CONTENT (% by Vol.)			Tr
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5
pH			9.0
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.06 0.33
CHLORIDE (mg/L)			15,000
TOTAL HARDNESS AS CALCIUM (mg/L)			80
SULPHITE (mg/L)			200
K+ (mg/L)			11,025
KCl (% by Wt.)			2.1
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using premix of PAC R & KCl

OPERATIONS SUMMARY

Drill Ahead while coring to 796m

Trip out of hole to retrieve core barrell when complete

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	35	Desander		INITIAL VOLUME	327
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	13	+ FLUID RECEIVED	35
Direct Recirc Sump		Dumped		- FLUID LOST	13
Other (eg Diesel)		Other		+ FLUID IN STORAGE	30
TOTAL RECEIVED	35	TOTAL LOST	13	FINAL VOLUME	379

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	4
Degasser			Desilter	12		Shaker #2	140/140/110	4

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	27		2	25	$ 325.00
Potassium Chloride (Tec	$ 26.75	188		20	168	$ 535.00

Solids Analysis

	%	PPB
High Grav solids	0.2	2.86
Total LGS	2.3	22.2
Bentonite	0.6	5.9
Drilled Solids	1.7	15.5
Salt	0.9	8.7
n @ 1400 Hrs	0.61	
K @ 1400 Hrs	1.90	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$860.00	$17,453.65

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DRILLING FLUID REPORT

Report #	13	Date :	9-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	796 to 810		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE					16 SURFACE	26	ft	HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	1400	psi
6.00	FC 3463					SET @	8	M	81	225	5.5 X 16	Inches				
DRILL PIPE SIZE 3.5	TYPE #	Length 632	Mtrs			9 5/8 INTERMEDIATE SET @	886 270	ft M	TOTAL CIRCULATING VOL. 326		PUMP MODEL EMSCO	ASSUMED EFF 97 %		BOTTOMS UP (min)	9	min
DRILL PIPE SIZE	TYPE HW	Length	Mtrs			7 PRODUCTION. OI LINER Set @	2310 704	ft M	IN STORAGE 20		BBL/STK 0.1560	STK / MIN 44		TOTAL CIRC. TIME (min)	49	min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP	288	Tur
4.75		178	Mtrs			KCl/ Drilled solids/ PAC R					6.66	280		(ft/min) DCs	510	Tur

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			2330
DEPTH (ft) - (m)	Metres		810
FLOWLINE TEMPERATURE	^{0}C ^{0}F		32
WEIGHT	ppg / SG		8.80 1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		40
PLASTIC VISCOSITY cP @	26 ^{0}C		10
YIELD POINT (lb/100ft^2)			10
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			30 20
RHEOLOGY θ200 / θ100			14 8
RHEOLOGY θ6 / θ3			1 1
FILTRATE API (cc's/30 min)			8.8
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.2	2.6
LIQUID CONTENT (% by Volume) OIL/WATER			97.4
SAND CONTENT (% by Vol.)			0.25
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5
pH			9.0
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.04 0.32
CHLORIDE (mg/L)			15,500
TOTAL HARDNESS AS CALCIUM (mg/L)			140
SULPHITE (mg/L)			200
K+ (mg/L)			11,025
KCl (% by Wt.)			2.1
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS					
Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using premix of PAC R & KCl

Biocide used to prevent bacterial degradation of polymers

OPERATIONS SUMMARY

Drill Ahead while coring to 810m

Trip out of hole to retrieve core barrell when complete

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	35	Desander		INITIAL VOLUME	349
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	28	+ FLUID RECEIVED	35
Direct Recirc Sump		Dumped		- FLUID LOST	58
Other (eg Diesel)		Other	30	+ FLUID IN STORAGE	20
TOTAL RECEIVED	35	TOTAL LOST	58	FINAL VOLUME	346

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	6
Degasser			Desilter	12		Shaker #2	140/140/110	6

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 185.35	16		1	15	$ 185.35
AMC Pac R	$ 162.50	25		2	23	$ 325.00
Potassium Chloride (Tec	$ 26.75	168		10	158	$ 267.50

Solids Analysis	%	PPB
High Grav solids	0.2	2.42
Total LGS	2.4	22.7
Bentonite	0.6	5.8
Drilled Solids	1.8	16.1
Salt	0.9	9.0
n @ 2330 Hrs	0.58	
K @ 2330 Hrs	2.67	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$777.85	$18,231.50

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DRILLING FLUID REPORT

Report #	14	Date :	10-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	810 to 810		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	B YATES
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)		
6.00	FC 3463								81	230	5.5 X 16 Inches			650 psi		
DRILL PIPE SIZE 3.5	TYPE #	Length 632 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)		
									311		EMSCO	97 %		14 min		
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)		
											0.1560	29		71 min		
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min)	DP 190	Tur
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R					4.39	184			DCs 336	Tur

		MUD PROPERTIES	
SAMPLE FROM		Pit	Pit
TIME SAMPLE TAKEN			1600
DEPTH (ft) - (m)	Metres		810
FLOWLINE TEMPERATURE	^{0}C ^{0}F		34
WEIGHT	ppg / SG		8.80 1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		40
PLASTIC VISCOSITY cP @	30 ^{0}C		10
YIELD POINT (lb/100ft^2)			9
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1 1
RHEOLOGY θ600 / θ300			29 19
RHEOLOGY θ200 / θ100			14 10
RHEOLOGY θ6 / θ3			1 1
FILTRATE API (cc's/30 min)			9.0
HPHT FILTRATE (cc's/30 min) @	^{0}F		
CAKE THICKNESS API : HPHT (32nd in)			1
SOLIDS CONTENT (% by Volume)		0.2	2.6
LIQUID CONTENT (% by Volume) OIL/WATER			97.4
SAND CONTENT (% by Vol.)			0.25
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5
pH			8.5
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)			0.02 0.25
CHLORIDE (mg/L)			16,000
TOTAL HARDNESS AS CALCIUM (mg/L)			200
SULPHITE (mg/L)			150
K+ (mg/L)			11,025
KCl (% by Wt.)			2.1
PHPA (ppb)			
ECD (ppg)			

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using premix of PAC R & KCl
Biocide used to prevent bacterial degradation of polymers
Lost 20bbls over the shakers when the cellar was pumped out
Stock chk on Calcium Chloride & PAC R

OPERATIONS SUMMARY

POOH (to run DST) to 419m, RIH to 688m
Circulate hole @ shoe, wait on DST tools

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	30	Desander		INITIAL VOLUME	326
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	15	+ FLUID RECEIVED	30
Direct Recirc Sump		Dumped		- FLUID LOST	45
Other (eg Diesel)		Other	30	+ FLUID IN STORAGE	
TOTAL RECEIVED	30	TOTAL LOST	45	FINAL VOLUME	311

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	16
Degasser			Desilter	12		Shaker #2	140/140/110	16

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 185.35	15		1	14	$ 185.35
AMC Pac R	$ 162.50	23	40	4	59	$ 650.00
Calcium Chloride	$ 19.55	2	10	2	10	$ 39.10
Potassium Chloride (Tec	$ 26.75	158	210	11	357	$ 294.25

Solids Analysis	%	PPB
High Grav solids	0.1	2.08
Total LGS	2.4	23.1
Bentonite	0.6	5.8
Drilled Solids	1.8	16.4
Salt	1.0	9.3
n @ 1600 Hrs	0.61	
K @ 1600 Hrs	2.17	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$1,168.70	$19,400.20

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DRILLING FLUID REPORT

Report #	15	Date :	11-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	810 to 810		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Norm RABIG	REPORT FOR	D BALDWIN
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	
6.00	FC 3463								81	260	5.5 X 16 Inches				psi
DRILL PIPE SIZE 3.5	TYPE #	Length 632 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	
									341		EMSCO	97 %			min
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	
											0.1560				min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min) DP / DCs	Lam / Lam
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R									

MUD PROPERTIES				
SAMPLE FROM		Pit	Pit	
TIME SAMPLE TAKEN			1100	
DEPTH (ft) - (m)	Metres		810	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F		24	
WEIGHT	ppg / SG		8.80	1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C		40	
PLASTIC VISCOSITY cP @	22 ^{0}C		10	
YIELD POINT (lb/100ft^2)			10	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min			1	1
RHEOLOGY θ600 / θ300			30	20
RHEOLOGY θ200 / θ100			15	9
RHEOLOGY θ6 / θ3			1	1
FILTRATE API (cc's/30 min)			9.0	
HPHT FILTRATE (cc's/30 min) @	^{0}F			
CAKE THICKNESS API : HPHT (32nd in)			1	
SOLIDS CONTENT (% by Volume)		0.1	2.6	
LIQUID CONTENT (% by Volume) OIL/WATER				97.4
SAND CONTENT (% by Vol.)			0.25	
METHYLENE BLUE CAPACITY (ppb equiv.)			7.5	
pH			8.5	
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)			0.02	0.28
CHLORIDE (mg/L)			16,000	
TOTAL HARDNESS AS CALCIUM (mg/L)			180	
SULPHITE (mg/L)			150	
K+ (mg/L)			11,025	
KCl (% by Wt.)			2.1	
PHPA (ppb)				
ECD (ppg)				

MUD PROPERTY SPECIFICATIONS					
Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using premix of PAC R & KCl

OPERATIONS SUMMARY

RIH to bottom, circulate hole clean
POOH to run DST, wait on DST tools
RIH with DST tools, conduct DST

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	40	Desander		INITIAL VOLUME	311
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	10	+ FLUID RECEIVED	40
Direct Recirc Sump		Dumped		- FLUID LOST	10
Other (eg Diesel)		Other		+ FLUID IN STORAGE	
TOTAL RECEIVED	40	TOTAL LOST	10	FINAL VOLUME	341

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	10
Degasser			Desilter	12		Shaker #2	140/140/110	10

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	59		1	58	$ 162.50
Potassium Chloride (Tec	$ 26.75	357	294	10	641	$ 267.50

Solids Analysis	%	PPB
High Grav solids	0.1	1.73
Total LGS	2.5	23.5
Bentonite	0.6	5.7
Drilled Solids	1.9	16.9
Salt	1.0	9.3
n @ 1100 Hrs	0.58	
K @ 1100 Hrs	2.67	

Bit Hydraulics & Pressure Data
Jet Velocity
Impact force
HHP
HSI
Bit Press Loss
CSG Seat Frac Press
Equiv. Mud Wt.
Max Pressure @ Shoe :

DAILY COST	CUMULATIVE COST
$430.00	$19,830.20

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DRILLING FLUID REPORT

Report #	16	Date :	12-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	810 to 852		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy	
REPORT FOR	Norm RABIG/Juris OZOLINS	REPORT FOR	D BALDWIN	
WELL NAME AND No	CBM 93-1	FIELD	NT EP 93	LOCATION: Pedirka Basin; STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE					16 SURFACE SET @	26	ft	HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	600	psi
6.00	FC 3463						8	M	86	260	5.5 X 16	Inches				
DRILL PIPE SIZE 3.5	TYPE #	Length 674	Mtrs			9 5/8 INTERMEDIATE SET @	886	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)	14	min
							270	M	376		EMSCO	97 %				
DRILL PIPE SIZE	TYPE HW	Length	Mtrs			7 PRODUCTION. OI LINER Set @	2310	ft	IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)	83	min
							704	M	30		0.1560	30				
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. DP	197	Tur
4.75		178	Mtrs			KCl/ Drilled solids/ PAC R					4.54	191		(ft/min) DCs	348	Tur

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS				
SAMPLE FROM		Pit	Pit	Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate
TIME SAMPLE TAKEN		1200	2130	Plastic Vis	ALAP	Yield Point	10-18	pH 8.5-9.5
DEPTH (ft) - (m)	Metres	825	850	KCl	2-3	PHPA		Sulphites 100-200
FLOWLINE TEMPERATURE	^{0}C ^{0}F	35	36					
WEIGHT	ppg / SG	8.75 1.050	8.80 1.056					
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	36	36					
PLASTIC VISCOSITY cP @	28 ^{0}C	7	8					
YIELD POINT (lb/100ft^2)		7	6					
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1 1	1 1					
RHEOLOGY θ600 / θ300		21 14	22 14					
RHEOLOGY θ200 / θ100		9 7	10 5					
RHEOLOGY θ6 / θ3		1 1	1 1					
FILTRATE API (cc's/30 min)		8.9	8.4					
HPHT FILTRATE (cc's/30 min) @	^{0}F							
CAKE THICKNESS API : HPHT (32nd in)		1	1					
SOLIDS CONTENT (% by Volume)		2.2	2.6					
LIQUID CONTENT (% by Volume) OIL/WATER		97.8	97.4					
SAND CONTENT (% by Vol.)		Tr	Tr					
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	5.0					
pH		8.5	9.0					
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)		0.02 0.28	0.05 0.31					
CHLORIDE (mg/L)		16,500	17,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		260	60					
SULPHITE (mg/L)		100	200					
K+ (mg/L)		11,550	11,550					
KCl (% by Wt.)		2.2	2.2					
PHPA (ppb)								
ECD (ppg)								

OBSERVATIONS

Volume maintained using premix of PAC R & KCl
Caustic Soda used to maintain pH
Sodium Sulphite used as an oxygen scavenger for corrosion control

OPERATIONS SUMMARY

Continue with DST test, POOH, lay out DST tools
RIH to bottom, Drill to 838m
Retrieve drill plug, RIH core barrell
Drill Ahead while coring to 852m at midnight

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	50	Desander		INITIAL VOLUME	341
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	11	+ FLUID RECEIVED	50
Direct Recirc Sump		Dumped		- FLUID LOST	16
Other (eg Diesel)		Other	5	+ FLUID IN STORAGE	30
TOTAL RECEIVED	50	TOTAL LOST	16	FINAL VOLUME	406

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	16
Degasser			Desilter	12		Shaker #2	140/140/110	16

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	58		2	56	$ 325.00
Caustic Soda	$ 56.00	37		1	36	$ 56.00
Potassium Chloride (Tec	$ 26.75	641		11	630	$ 294.25
Soda Ash	$ 21.60	40		1	39	$ 21.60
Sodium Sulphite	$ 33.40	55		2	53	$ 66.80

Solids Analysis	%	PPB
High Grav solids	0.1	1.50
Total LGS	2.5	23.5
Bentonite	0.3	2.9
Drilled Solids	2.2	19.7
Salt	1.0	9.8
n @ 2130 Hrs	0.65	
K @ 2130 Hrs	1.23	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$763.65	$20,593.85

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DRILLING FLUID REPORT

Report #	17	Date :	13-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	852 to 929		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Juris OZOLINS	REPORT FOR	D BALDWIN
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)		
6.00	FC 3463								93	280	5.5 X 16 Inches			1100	psi	
DRILL PIPE SIZE 3.5	TYPE #	Length 751 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)		
									373		EMSCO	97 %		12	min	
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)		
											0.1560	40		62	min	
DRILL COLLAR SIZE (")		Length				MUD TYPE			BBL/MIN		GAL / MIN			ANN VEL. (ft/min)	DP / DCs	262 / 464 Tur
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R			6.05		254					

		MUD PROPERTIES			
SAMPLE FROM		Pit		Pit	
TIME SAMPLE TAKEN		1030		2300	
DEPTH (ft) - (m)	Metres	908		928	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	40		38	
WEIGHT	ppg / SG	8.80	1.056	8.80	1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	36		38	
PLASTIC VISCOSITY cP @	30 ^{0}C	8		11	
YIELD POINT (lb/100ft^2)		5		8	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1	1	1	1
RHEOLOGY θ600 / θ300		21	13	30	19
RHEOLOGY θ200 / θ100		9	5	13	9
RHEOLOGY θ6 / θ3		1	1	1	1
FILTRATE API (cc's/30 min)		8.5		8.3	
HPHT FILTRATE (cc's/30 min) @	^{0}F				
CAKE THICKNESS API : HPHT (32nd in)		1		1	
SOLIDS CONTENT (% by Volume)		2.6		2.6	
LIQUID CONTENT (% by Volume) OIL/WATER			97.4		97.4
SAND CONTENT (% by Vol.)		Tr		0.25	
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0		5.0	
pH		9.0		9.5	
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)		0.03	0.28	0.09	0.46
CHLORIDE (mg/L)		17,000		16,000	
TOTAL HARDNESS AS CALCIUM (mg/L)		100		70	
SULPHITE (mg/L)		200		200	
K+ (mg/L)		11,025		11,025	
KCl (% by Wt.)		2.1		2.1	
PHPA (ppb)					
ECD (ppg)					

MUD PROPERTY SPECIFICATIONS					
Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using premix of PAC R
Caustic Soda used to maintain pH
Sodium Sulphite used as an oxygen scavenger for corrosion control
Biocide added to prevent bacterial degradation of polymers in the mud

Stock Chk on Barite & Biocide

OPERATIONS SUMMARY

Drill Ahead while coring to 855m, retrieve core barrell, drop drill plug
Drill ahead to 927m, Gain in pressure
POOH to surface to chk bit, clear blockage
RIH with same bit to bottom
Drill Ahead to 929m at midnight

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	25	Desander		INITIAL VOLUME	376
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	15	+ FLUID RECEIVED	25
Direct Recirc Sump		Dumped		- FLUID LOST	27
Other (eg Diesel)		Other	12	+ FLUID IN STORAGE	
TOTAL RECEIVED	25	TOTAL LOST	27	FINAL VOLUME	373

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	18
Degasser			Desilter	12		Shaker #2	140/140/110	18

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 185.35	14		3	11	$ 556.05
AMC Pac R	$ 162.50	56		2	54	$ 325.00
Baryte	$ 8.45	718		20	698	$ 169.00
Caustic Soda	$ 56.00	36		1	35	$ 56.00
Sodium Sulphite	$ 33.40	53		1	52	$ 33.40

Solids Analysis	%	PPB
High Grav solids	0.1	1.40
Total LGS	2.5	23.9
Bentonite	0.3	2.8
Drilled Solids	2.2	20.2
Salt	1.0	9.3
n @ 2300 Hrs	0.66	
K @ 2300 Hrs	1.60	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$1,139.45	$21,733.30

RMN ENGINEER	S ALPHONSO	CITY	Adelaide Office	TELEPHONE	08 8338 7266

DRILLING FLUID REPORT

Report #	18	Date :	14-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	929 to 966		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy	
REPORT FOR	Juris OZOLINS	REPORT FOR	D BALDWIN	
WELL NAME AND No		FIELD	LOCATION	STATE
	CBM 93-1	NT EP 93	Pedirka Basin	Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE					16 SURFACE SET @	26 ft		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)	700 psi
6.00	CD 93						8 M		97	250	5.5 X 16 Inches				
DRILL PIPE SIZE 3.5	TYPE #	Length 788 Mtrs				9 5/8 INTERMEDIATE SET @	886 ft 270 M		TOTAL CIRCULATING VOL. 347		PUMP MODEL EMSCO	ASSUMED EFF 97 %		BOTTOMS UP (min)	19 min
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft 704 M		IN STORAGE		BBL/STK 0.1400	STK / MIN 30		TOTAL CIRC. TIME (min)	85 min
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN 4.07	GAL / MIN 171		ANN VEL. (ft/min) DP	177 Tur
4.75		178 Mtrs				KCl/ Drilled solids/ PAC R								DCs	312 Tur

MUD PROPERTIES				
SAMPLE FROM	Pit		Pit	
TIME SAMPLE TAKEN	1030		2030	
DEPTH (ft) - (m) Metres	951		966	
FLOWLINE TEMPERATURE ^{0}C ^{0}F	36		38	
WEIGHT ppg / SG	8.80	1.056	8.85	1.062
FUNNEL VISCOSITY (sec/qt) API @ ^{0}C	38		38	
PLASTIC VISCOSITY cP @ 30 ^{0}C	8		9	
YIELD POINT (lb/100ft^2)	9		7	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min	1	1	1	1
RHEOLOGY θ600 / θ300	25	17	25	16
RHEOLOGY θ200 / θ100	11	6	10	6
RHEOLOGY θ6 / θ3	1	1	1	1
FILTRATE API (cc's/30 min)	8.4		7.9	
HPHT FILTRATE (cc's/30 min) @ ^{0}F				
CAKE THICKNESS API : HPHT (32nd in)	1		1	
SOLIDS CONTENT (% by Volume)	2.6		3.0	
LIQUID CONTENT (% by Volume) OIL/WATER		97.4		97.0
SAND CONTENT (% by Vol.)	Tr		Tr	
METHYLENE BLUE CAPACITY (ppb equiv.)	5.0		5.0	
pH	9.5		9.5	
ALKALINITY MUD (Pm)				
ALKALINITY FILTRATE (Pf / Mf)	0.09	0.47	0.09	0.48
CHLORIDE (mg/L)	16,500		16,000	
TOTAL HARDNESS AS CALCIUM (mg/L)	60		60	
SULPHITE (mg/L)	200		200	
K+ (mg/L)	11,025		11,025	
KCl (% by Wt.)	2.1		2.1	
PHPA (ppb)				
ECD (ppg)				

MUD PROPERTY SPECIFICATIONS					
Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

No Mud Chemicals used today

With reference to stock chk on Biocide & Barite on previous days report, those chemicals were used up on Blamore#1

OPERATIONS SUMMARY

Drill Ahead to 944m, retrieve drill plug, drop core barrel
Drill Ahead while coring to 966m
POOH for bit trip
RIH with 6" PDC bit

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	373
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	21	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	26
Other (eg Diesel)		Other	5	+ FLUID IN STORAGE	
TOTAL RECEIVED		TOTAL LOST	26	FINAL VOLUME	347

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	16
Degasser			Desilter	12		Shaker #2	140/140/110	16

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost

Solids Analysis	%	PPB
High Grav solids	0.1	1.40
Total LGS	2.9	27.3
Bentonite	0.3	2.4
Drilled Solids	2.6	23.8
Salt	1.0	9.3
n @ 2030 Hrs	0.64	
K @ 2030 Hrs	1.48	

Bit Hydraulics & Pressure Data	
Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
	$21,733.30

RMN ENGINEER	S ALPHONSO	CITY	Adelaide Office	TELEPHONE	08 8338 7266

DRILLING FLUID REPORT

Report #	19	Date :	15-Sep-2008
Rig No	2	Spud :	28-Aug-2008
Depth	966 to 1007		Metres

OPERATOR	Merlin Energy Pty Ltd	CONTRACTOR	Hunt Energy
REPORT FOR	Juris OZOLINS	REPORT FOR	D BALDWIN
WELL NAME AND No	CBM 93-1	FIELD: NT EP 93	LOCATION: Pedirka Basin / STATE: Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE					16 SURFACE SET @	26 ft / 8 M		HOLE	PITS	PUMP SIZE			CIRCULATION PRESS (PSI)		
6.00	CD 93								123	215	5.5 X 16 Inches			600	psi	
DRILL PIPE SIZE 3.5	TYPE #	Length Mtrs				9 5/8 INTERMEDIATE SET @	886 ft / 270 M		TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF		BOTTOMS UP (min)		
									358		EMSCO	97 %		22	min	
DRILL PIPE SIZE	TYPE HW	Length Mtrs				7 PRODUCTION. OI LINER Set @	2310 ft / 704 M		IN STORAGE		BBL/STK	STK / MIN		TOTAL CIRC. TIME (min)		
									20		0.1400	42		63	min	
DRILL COLLAR SIZE (")		Length Mtrs				MUD TYPE					BBL/MIN	GAL / MIN		ANN VEL. (ft/min)	DP / DCs	247 Tur
4.75						KCl/ Drilled solids/ PAC R					5.70	240				Tur

		MUD PROPERTIES			
SAMPLE FROM		Pit		Pit	
TIME SAMPLE TAKEN		1030		2030	
DEPTH (ft) - (m)	Metres	996		1,007	
FLOWLINE TEMPERATURE	^{0}C / ^{0}F	37		35	
WEIGHT	ppg / SG	8.80	1.056	8.80	1.056
FUNNEL VISCOSITY (sec/qt) API @	^{0}C	38		39	
PLASTIC VISCOSITY cP @	27 ^{0}C	11		10	
YIELD POINT (lb/100ft^2)		5		7	
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min		1	1	1	1
RHEOLOGY θ600 / θ300		27	16	27	17
RHEOLOGY θ200 / θ100		12	7	13	7
RHEOLOGY θ6 / θ3		1	1	1	1
FILTRATE API (cc's/30 min)		8.0			
HPHT FILTRATE (cc's/30 min) @	^{0}F				
CAKE THICKNESS API : HPHT (32nd in)		1		1	
SOLIDS CONTENT (% by Volume)		2.7		2.7	
LIQUID CONTENT (% by Volume) OIL/WATER			97.3		97.3
SAND CONTENT (% by Vol.)		Tr		Tr	
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0		5.0	
pH		9.0		9.0	
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)		0.05	0.36	0.06	0.34
CHLORIDE (mg/L)		15,500		15,000	
TOTAL HARDNESS AS CALCIUM (mg/L)		40		80	
SULPHITE (mg/L)		200		150	
K+ (mg/L)		10,500		10,500	
KCl (% by Wt.)		2.0		2.0	
PHPA (ppb)					
ECD (ppg)					

MUD PROPERTY SPECIFICATIONS

Mud Weight	8.6-9.2	API Filtrate	5 - 8	HPHT Filtrate	
Plastic Vis	ALAP	Yield Point	10-18	pH	8.5-9.5
KCl	2-3	PHPA		Sulphites	100-200

OBSERVATIONS

Volume maintained using a premix of PAC R

OPERATIONS SUMMARY

Continue RIH to bottom, no fill reported on bottom
Drill Ahead to 978m, retrieve drill plug, drop core barrell
Drill Ahead while coring to 1007m
Circulate hole clean, POOH for wiper trip to casing shoe
RIH to bottom, no fill reported on bottom, circulate hole clean
POOH to surface to conduct DST

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	45	Desander		INITIAL VOLUME	347
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	24	+ FLUID RECEIVED	45
Direct Recirc Sump		Dumped		- FLUID LOST	34
Other (eg Diesel)		Other	10	+ FLUID IN STORAGE	20
TOTAL RECEIVED	45	TOTAL LOST	34	FINAL VOLUME	378

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2		Shaker #1	140/140/110	12
Degasser			Desilter	12		Shaker #2	140/140/110	12

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander		0	
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC Pac R	$ 162.50	54		2	52	$ 325.00

Solids Analysis

	%	PPB
High Grav solids	0.1	1.23
Total LGS	2.6	24.4
Bentonite	0.3	2.8
Drilled Solids	2.3	20.7
Salt	0.9	8.7
n @ 2030 Hrs	0.67	
K @ 2030 Hrs	1.36	

Bit Hydraulics & Pressure Data

Jet Velocity	
Impact force	#VALUE!
HHP	
HSI	
Bit Press Loss	
CSG Seat Frac Press	
Equiv. Mud Wt.	
Max Pressure @ Shoe :	

DAILY COST	CUMULATIVE COST
$325.00	$22,058.30

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