



DRILLING FLUID SUMMARY

FOR : CENTRAL PETROLEUM

WELL : CBM 93-004

PEDIRKA BASIN

NORTHERN TERRITORY

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Date : December 2009

Operator : Central Petroleum
Well : CBM 93-004
Rig : Wallis Delta 39
Spud : 4th December 2009



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1. SUMMARY OF OPERATIONS

This well is located some 300k east of Alice Springs in the south eastern corner of Northern Territory. The project was to gain further information on the extent and suitability of the coal seams of the basin by coring and testing the coals using injection and fall of equipment.

A 5 well program starting December 09 commenced using Wallis drilling rig Delta 39, a slimhole truck mounted continuous coring rig.

The Initial drilling fluid program was carried over from the successful drilling program carried out the year before using a conventional drilling rig and used as a guide for initial fluid properties.

Some points need to be mentioned about the rig and its circulating system as they are unconventional from standard drilling set ups and equipment.

This rig uses a 'batch' type of non circulating system where a 40bbl tank of fluid is prepared to spec and pumped down the hole, to be caught at surface in 1 of 3 earth pits. Once sufficient volume in the pits has been mixed, used fluid from these pits are transferred back to the truck mounted tank via a desilter pump, the properties adjusted and the tank then used on the hole. Topping up the tank continues throughout drilling with occasional 'new' volumes mixed to maintain sufficient settling depth in the earth pits. Three earth pits are dug prior to spud to receive fluid from the hole. Spud and the first hole section uses 1 pit. The second section then has sufficient volume to use two pits. The third coring section uses all three pits (2 for settling) if volume allows and further settling of solids is required.

There are no shale shakers, with the flowline lined up directly into pit 1. A 4 cone desilter is used to transfer fluid back up to the truck mounted tank. There are no functioning mixing hoppers with the mud chemicals mixed by hand addition into the well agitated tank. A hand held mixing device (hootenanny) was used for mixing polymers.

HOLE SIZE : 12-1/4"
MUD TYPE : Aus Gel / KCl spud mud
INTERVAL : Surface – 15 metres
CASING : 10" set at 15meters

On the 4th December 09 mixed 24 sx Aus Gel into 50 bbl of turkey nest water and KCl added for weight to 8.8ppg to make up the initial spud mud. This system was hydrated for approximately 1 hour prior to use to yield the bentonite. The KCl added to 8.8ppg gave a KCl% of 5 – 6% by weight, above the programmed 3-4%.

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The well was spudded on the 4th December 09. Drilled the 8 ½ " pilot hole to 15m with the Gel spud mud. The hole was then reamed open to 12 ¼ ". A 10" PVC conductor was then run and cemented.

While waiting on cement further volumes of spud mud were mixed and dropped into the #1 earth pit to increase setting depth.

HOLE SIZE : 8½"
MUD TYPE : Gel / KCl / Polymer
INTERVAL : 15 metres –249.5 metres
CASING : 245m

An 8 ½ " bit and BHA was run into the hole and drilling resumed using the same fluid, with each 'batch' of fluid built to 8.8ppg and a viscosity of 45 sec/qt with Pac-R and CR-650, with KCl for weight. As mixing of the Pac proved difficult and time consuming viscosity became reliant on the rapid easy-mixing CR-650.

As the hole deepened the mud weight was allowed to rise to keep a stable hole in the Maccunda and Bulldog shale formations for running casing at the end of the interval. Yield point remained low for an 8 ½" hole due to the inability to properly mix Pac polymers. Pac was required for Filtration loss control as well as viscosity building.

The hole was drilled to 249.5m without any hole instability or cleaning problems usually associated with these formations, perhaps due to the high (5%) KCl and the mud weight up to 9.4ppg. The hole was circulated clean and a wiper trip to surface pulled finding 2m fill on bottom. After pumping a high vis pill (CR-650) and spotting a further 25bbl Hi-Vis on bottom the pipe was pulled to run casing.

7" casing was run and cemented with good cement returns to surface. The cement preflush and excess cement was diverted down the flare line to the flare pit.

While waiting on cement new volumes were made (with less KCl) to build working volume to 2 earth pits and dilute the mud weight back to 8.8ppg. 50bbls of Gel was prehydrated in fresh water and left for 12 hrs to yield before adding to the system, very little Pac-R could be mixed so some good quality filter cake building material was required.

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HOLE SIZE : 6¼"
MUD TYPE : KCl - Polymer
INTERVAL : 249.5 metres – 502 metres.
CASING : 501m

A 6 ¼ " bit and BHA was run into the hole, and with no bypass option available, the water from displacing the cement was incorporated into the fluid system. Soda Ash was added to combat high cement contamination as the cement and shoe track were drilled. The pipe was pulled for blocked jets before drilling to 253m. An FIT was performed to 12ppg before drilling ahead.

Drilling 6 ¼" hole continued with a concerted effort to mix some PAC-R into the system for yield point building if nothing else however this proved a long, slow and laborious task, when required, the vis was then quickly beefed up with CR-650 additions when the next batch was required to be pumped downhole.

While drilling, a Yield Point of 6 to 8 was measured at the flowline which proved sufficient for hole cleaning in the 6 ¼" hole at these flowrates. This Yield Point, the weight at 8.8ppg, and the water loss between 11 and 15cc/30min was maintained to casing point. No adverse hole conditions were reported throughout the section.

Drilling continued to casing point at 501.9m where a hi-vis sweep was pumped, a wiper trip to surface found the hole in good condition and after spotting a 20bbl high-vis pill on bottom, pulled out to run casing.

4½" casing was run to 502m and cemented with preflush and excess cement bypassed via the flare line to the flare pit.

HOLE SIZE : 3-7/8"
MUD TYPE : KCl-Polymer
INTERVAL : 503 metres TD

The fluid from the previous section was carried over. After pressure testing BOPS and rigging up for coring operations a 3-7/8" HQ core bit and assembly was run into the hole, the cement and shoe track was drilled with cement contaminated fluid retained in the system (no bypass option). Soda Ash was added to combat cement contamination. Yield Point and water loss parameters were relaxed slightly due to the very slim annulus, high annular velocity and ECD.

After performing an FIT to 12ppg HQ coring commenced and cored to 540m where a drill rod twisted off directly above the bit. Loose unconsolidated sands had been cored with continual caving and poor core recovery.

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After fishing without success, a bit was run into the hole and drilled the fish and new formation to 552m. A new core bit and assembly was run into the hole and mud losses noted after the trips, associated with trip speed surging into the loose sand formations. One 3m drill rod was drilled down and on connection the well was flowing. The well was shut in (176psi) and monitored while a tank of mud weighed up to 8.8+ppg was mixed. The hole was displaced to 8.8+ ppg fluid and the well still flowed. As the well flowed pressure bled off to zero after 30 mins indicating a ballooning effect from swabbed volume into the sands and / or high ECD while circulating. The core was recovered and drilling resumed with no further indication of flow or ballooning.

HQ coring continued with good core recovery on nearly all occasions. With the Yield Point at 5-7 further work on getting the water loss down was done with PAC-Low vis additions. Once again these additions were slow and laborious to achieve due to the lack of adequate mixing equipment. CR-650 did mix readily without too many fish-eye's by ladling it in by hand from a vis cup while the Pac was slowly mixed via the Hootenanny device.

HQ coring continued to 621m where after intersecting the first target coal, the hole was circulated clean and the pipe pulled for the first coal injection and flowback test.

The tools were run into the hole and packers set for Test #1, mud was injected into the formation over 8 hrs and flowback recorded over 16hrs. Fluid in the pits remained static for this period with occasional use of the desilter to circulate the two earth pits.

Minor mud loss was recorded during the test, attributed to the loose sand formation. After discussion with town re the injection of drilling fluid for the permeability test and the effects of filtrate control (Pac), no further Pac additions were deemed required and only CR-650 for vis and lubricity with KCl for weight control was now required.

The core bit was run into the hole and coring resumed from 621m to 675m where the hole was circulated before Pulling out of the hole for test #2.

At this point the mud engineer was released.

Coal test #2 was run without problems. Further tests were completed during drilling without problems before TD. A partial lost circulation was experienced near TD with 4x 20kg sx Sureseal LCM mixed and added.

A problem noted while logging the well at TD was the logging tool becoming all gummed up with polymer and concern for the data collected. As the mud engineer was not present one can assume that a CR-650 hi-vis pill may have been spotted on bottom before pulling out to log. Lessons learned here were passed on and all subsequent wells will take extra care mixing polymer towards TD to avoid fisheyes and no HiVis pill will be spotted however a sweep can still be pumped.

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2. OBSERVATIONS, RECOMMENDATIONS AND WELL ANALYSIS

CBM003 was drilled to TD and completed for a total mud cost of \$46,975.57.

Adjustments to the drilling fluid program for subsequent wells from lessons learned on this well include :

- Enabling a more efficient way to mix chemicals.
- The pressure gradient roughly equal to water so an 8.7 – 8.8ppg mud weight should be adequate.
- Top hole Maccunda and bulldog shale formations behaved very stably due to the KCl concentration and PHPA presence.
- The Yield point seems quite adequate for hole cleaning in this geometry.
- Pac-R and other fluid loss agents allowed to deplete once HQ coring commences and inhibition and lubricity provided by the carried over fluid from the previous section with CR650 and KCl additions made if required.



INTERVAL COSTS

Product			12-1/4" Surface Hole			8-1/2" Production Hole			6-1/8" Production Hole			HQ			Total Well Consumption		
	Interval :		0 - 15 m			15 - 249.5 m			249.5 - 502 m			502 m - TD			0 - TD		
	Cost	Unit Size	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost
AMC Pac L	\$ 127.10	25 kg				6	\$760.20	11.1%	10	\$1,267.00	22.8%	6	\$762.60	2.4%	6	\$762.60	1.6%
AMC Pac R	\$ 126.70	25 kg							8	\$132.00	2.4%				16	\$2,027.20	4.3%
Aus-Gel (Aust)	\$ 16.50	25 kg	24	\$396.00	12.3%	52	\$858.00	12.5%	8	\$132.00	2.4%				84	\$1,386.00	3.0%
Cement	\$ 7.39	20 kg	42	\$310.38	9.6%				45	\$332.55	6.0%				87	\$642.93	1.4%
CR-650	\$ 105.12	15 kg	2	\$210.24	6.5%	21	\$2,207.52	32.2%	7	\$735.84	13.3%	11	\$1,156.32	3.7%	41	\$4,309.92	9.2%
Potassium Chloride	\$ 33.00	25 kg	70	\$2,310.00	71.6%	89	\$2,937.00	42.9%	81	\$2,673.00	48.1%	881	\$29,073.00	92.8%	1121	\$36,993.00	78.7%
Shur Seal	\$ 25.30	10 kg										4	\$101.20	0.3%	4	\$101.20	0.2%
Soda Ash	\$ 22.72	25 kg				4	\$90.88	1.3%	6	\$136.32	2.5%	11	\$249.92	0.8%	21	\$477.12	1.0%
Wildcat 420	\$ 275.60	25 kg							1	\$275.60	5.0%				1	\$275.60	0.6%
Totals :				\$3,226.62	100.0%		\$6,853.60	100.0%		\$5,552.31	100.0%		\$31,343.04	100.0%		\$46,975.57	100.0%



FLUID PROPERTIES SUMMARY

Date	Mud Type	Depth	Weight	Vis	PV	YP	Gels		Filtrate		Solids				pH	Pf	Mf	Cl-	Ca++	K+	KCl
							10 sec	10 min	API	Cake	Solids	Water	Sand	MBT							
4-Dec-09	Gel Spud Mud	0	8.80	45	10	18	5	12			1.7	98.3		20.0	9.0			25,000	80	27,020.0	5.0
		15	8.80	42	10	14	5	12			1.7	98.3		15.0	9.0			25,000	80	27,020.0	5.0
5-Dec-09	Gel Polymer	71	8.80	44	11	8	2	4			1.7	98.3						25,000	80		
		142	9.00	45	10	8	2	3	15.0	2	3.1	96.9	0.3	5.0	9.8	0.20	0.30	26,000	80		
6-Dec-09	Gel Polymer	191	9.20	46	12	9	3	4	14.0	1	4.4	95.6	0.3	5.0	9.0	0.10	0.35	28,000	80	29,722.0	5.5
		232	9.40	44	10	9	3	3	15.0	1	5.8	94.2	0.3	5.0	9.0	0.10	0.30	28,000	80	30,262.4	5.6
7-Dec-09	Gel Polymer	250	9.40	43	10	8	2	3	14.0	1	5.8	94.2	0.3	5.0	9.0	0.10	0.30	28,000	80	30,262.4	5.6
		250	9.40	44	10	9	3	3	14.0	1	5.8	94.2	0.3	5.0	9.0	0.10	0.30	28,000	80	30,262.4	5.6
8-Dec-09	Gel Polymer	250	9.35	42	10	8	2	3	14.0	1	5.4	94.6	tr	5.0	9.0	0.10	0.30	28,000	80	30,262.4	5.6
9-Dec-09	Gel Polymer	250	8.80	44	10	9	3	3	12.0	1	1.5	98.5	tr	5.0	9.5	0.20	0.40	28,000	80	30,262.4	5.6
10-Dec-09	Gel Polymer	250	8.70	40	7	6	2	2			1.0	99.0	tr	5.0	11.5	0.40	0.60	26,000	600	27,020.0	5.0
		253	8.75	39	7	7	2	2	15.0	1	1.3	98.7	tr	5.0	10.5	0.40	0.60	25,000	420	27,020.0	5.0
11-Dec-09	Gel Polymer	337	8.70	39	7	7	2	2	14.0	1	0.9	99.1	tr	5.0	10.5	0.40	0.70	25,000	360	27,020.0	5.0
		394	8.70	42	8	6	2	2	12.0	1	0.9	99.1	tr	5.0	10.5	0.40	0.60	25,000	280	27,020.0	5.0
12-Dec-09	Gel Polymer	501	8.80	44	8	7	2	2	11.5	1	1.7	98.3	tr	5.0	10.0	0.35	0.60	25,000	220	27,020.0	5.0
		502	8.80	42	8	6	2	2	12.0	1	1.7	98.3	tr	5.0	10.0	0.35	0.60	26,000	180	27,020.0	5.0
13-Dec-09	Gel Polymer	502	8.70	40	7	7	2	2	13.0	1	1.0	99.0	tr	5.0	10.0	0.30	0.60	26,000	180	27,020.0	5.0
14-Dec-09	Gel Polymer	503	8.70	40	8	6	2	2	12.5	1	1.0	99.0	tr	2.5	11.5	0.40	0.90	24,000	880	25,939.2	4.8
15-Dec-09	Gel Polymer	540	8.80	42	8	7	2	2	12.0	1	1.7	98.3	tr	2.5	11.0	0.35	0.90	24,000	480	25,939.2	4.8
		540	8.80	42	8	7	2	2	12.0	1	1.7	98.3	tr	2.5	11.0	0.35	0.90	24,000	480	25,939.2	4.8
16-Dec-09	Gel Polymer	542	8.70	40	8	6	2	2	12.0	1	1.0	99.0	tr	2.5	10.5	0.30	0.90	24,000	420	25,939.2	4.8
		552	8.80	42	8	7	2	2	12.0	1	1.7	98.3	tr	2.5	10.5	0.30	0.90	24,000	380	25,939.2	4.8
17-Dec-09	Gel Polymer	569	8.80	43	9	6	2	2	11.0	1	1.7	98.3	tr	2.5	10.5	0.30	0.80	26,000	280	27,020.0	5.0
		599	8.80	42	8	7	2	2	10.5	1	1.7	98.3	tr	2.5	10.0	0.25	0.80	26,000	280	27,020.0	5.0
18-Dec-09	Gel Polymer	617	8.75	42	8	6			11.5	1	1.4	98.6	tr	2.5	9.5	0.20	0.80	26,000	220	27,020.0	5.0
		621	8.80	44	8	6	2	2	12.0	1	1.7	98.3	tr	2.5	9.5	0.20	0.80	26,000	220	27,020.0	5.0
19-Dec-09	Gel Polymer	621	8.75	42	8	5	2	2	12.0	1	1.4	98.6	tr	2.5	9.5	0.20	0.80	26,000	220	27,020.0	5.0
20-Dec-09	Gel Polymer	675	8.80	42	9	6	2	2	12.0	1	1.7	98.3	tr	2.5	9.5	0.20	0.70	26,000	180	27,020.0	5.0
21-Dec-09	Gel Polymer	675	8.80	41	8	7	2	2	12.5	1	1.7	98.3	tr	2.5	9.5	0.20	0.70	26,000	180	27,020.0	5.0

DRILLING FLUID REPORT

Report #	1	Date :	4-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	to	15	Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY				JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE					SURFACE SET @	ft M	HOLE 2	PITS 96	PUMP SIZE 4 X 4.5 Inches			CIRCULATION PRESS (PSI) psi				
12.25																	
DRILL PIPE SIZE 4.5	TYPE #	Length	Mtrs			INTERMEDIATE SET @	ft M	TOTAL CIRCULATING VOL. 98		PUMP MODEL 515		ASSUMED EFF 97 %		BOTTOMS UP (min) 0 min			
DRILL PIPE SIZE 4.69	TYPE HW	Length	Mtrs			PRODUCTION. o LINER Set @	ft M	IN STORAGE		BBL/STK 0.0291		STK / MIN 80		TOTAL CIRC. TIME (min) 44 min			
DRILL COLLAR SIZE (")		Length				MUD TYPE				BBL/MIN		GAL / MIN		ANN VEL. DP 18			
7.50		15	Mtrs			Gel Spud Mud				2.26		95		(ft/min) DCs 25 Lam Lam			

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
SAMPLE FROM		Pit	Pit	Mud Weight 8.8	API Filtrate	HPHT Filtrate
TIME SAMPLE TAKEN		14:00	16:00	Plastic Vis ALAP	Yield Point 10 - 20	pH 8.5 - 9
DEPTH (ft) - (m) Metres		15		KCl 4 - 5 %	PHPA	Sulphites
FLOWLINE TEMPERATURE °C °F				OBSERVATIONS		
WEIGHT ppg / SG		8.80	1.056	8.80	1.056	Mix up 50 bbls Gel / KCL spud mud.
FUNNEL VISCOSITY (sec/qt) API @ °C		45	42			
PLASTIC VISCOSITY cP @ °C		10	10			
YIELD POINT (lb/100ft²)		18	14			
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		5	12	5	12	
RHEOLOGY Ø 600 / Ø 300		38	28	34	24	
RHEOLOGY Ø 200 / Ø 100		18	12	14	11	
RHEOLOGY Ø 6 / Ø 3		8	5	6	5	
FILTRATE API (cc's/30 min)						
HPHT FILTRATE (cc's/30 min) @ °F						
CAKE THICKNESS API : HPHT (32nd in)						
SOLIDS CONTENT (% by Volume)		1.7	1.7			
LIQUID CONTENT (% by Volume) OIL/WATER		98.3	98.3	OPERATIONS SUMMARY		
SAND CONTENT (% by Vol.)				Rig up, Drill 12 1/4" hole to 15 metres,		
METHYLENE BLUE CAPACITY (ppb equiv.)		20.0	15.0	Run and cement conductor at 15 metres, on 4th dec 09.		
pH		9.0	9.0	Make up 8 1/2" Bit & BHA		
ALKALINITY MUD (Pm)				Run in hole and drill 8 1/2" hole to.		
ALKALINITY FILTRATE (Pf / Mf)						
CHLORIDE (mg/L)		25,000	25,000			
TOTAL HARDNESS AS CALCIUM (mg/L)		80	80			
SULPHITE (mg/L)						
K+ (mg/L)		26,250	26,250			
KCl (% by Wt.)		5.0	5.0			
PHPA (ppb)						
ECD (ppg)						

[illegible]

DRILLING FLUID REPORT

Report #	2	Date :	5-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	15	to	142 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No	CBM 93-004	FIELD	LOCATION	STATE	
		EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	16	16	16	SURFACE SET @	ft M	HOLE 29	PITS 130	PUMP SIZE 4 X 4.5 Inches		CIRCULATION PRESS (PSI) 1000 psi		
DRILL PIPE SIZE 4.5	TYPE #	Length 120	Mtrs		INTERMEDIATE SET @	ft M	TOTAL CIRCULATING VOL. 159		PUMP MODEL 515	ASSUMED EFF 97 %	BOTTOMS UP (min) 3 min		
DRILL PIPE SIZE 4.69	TYPE HW	Length	Mtrs		PRODUCTION. α LINER Set @	ft M	IN STORAGE		BBL/STK 0.0291	STK / MIN 250	TOTAL CIRC. TIME (min) 22 min		
DRILL COLLAR SIZE (") 7.50		Length 22	Mtrs		MUD TYPE Gel Polymer				BBL/MIN 7.07	GAL / MIN 297	ANN VEL. (ft/min) 455	DP DCs	140 Tur

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate				
TIME SAMPLE TAKEN		13:00	24:00	Plastic Vis	ALAP	Yield Point	10 - 20	pH	8.5 - 9		
DEPTH (ft) - (m)	Metres	71	142	KCl	4 - 5 %	PHPA		Sulphites			
FLOWLINE TEMPERATURE	⁰ C ⁰ F			<u>OBSERVATIONS</u> Continue building volume on remaining spud mud. Using KCL for weighting premix to 8.8ppg. Using CR 650 to build vis. Mud Mixing hopper not functioning, adding chemicals direct into top of mix tank.							
WEIGHT	ppg / SG	8.80	1.056							9.00	1.080
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	44	45								
PLASTIC VISCOSITY cP @	⁰ C	11	10								
YIELD POINT (lb/100ft ²)		8	8								
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2	4							2	3
RHEOLOGY θ 600 / θ 300		30	19							28	18
RHEOLOGY θ 200 / θ 100		13	7							12	6
RHEOLOGY θ 6 / θ 3		3	2							3	2
FILTRATE API (cc's/30 min)										15.0	
HPHT FILTRATE (cc's/30 min) @	⁰ F										
CAKE THICKNESS API : HPHT (32nd in)			2								
SOLIDS CONTENT (% by Volume)											
LIQUID CONTENT (% by Volume) OIL/WATER		100.0		100.0		<u>OPERATIONS SUMMARY</u> Make up 8 1/2" Bit & BHA Run in hole and drill 8 1/2" hole to 142m.					
SAND CONTENT (% by Vol.)				0.25							
METHYLENE BLUE CAPACITY (ppb equiv.)				5.0							
pH				9.8							
ALKALINITY MUD (Pm)											
ALKALINITY FILTRATE (Pf / Mf)			0.20	0.30							
CHLORIDE (mg/L)											
TOTAL HARDNESS AS CALCIUM (mg/L)											
SULPHITE (mg/L)											
K+ (mg/L)											
KCl (% by Wt.)											
PHPA (ppb)											
ECD (ppg)											

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)	100	Desander		INITIAL VOLUME	98	Centrifuge				Desander			Shaker #1	none	
Premix (recirc from sump)		Desilter				Degasser				Desilter	4		Shaker #2	none	
Drill Water		Downhole	40	+ FLUID RECEIVED	100										
Direct Recirc Sump		Dumped		- FLUID LOST	40										
Other (eg Diesel)		Other		+ FLUID IN STORAGE											
								Overflow (ppg)		Underflow (ppg)			Output (Gal/Min.)		
TOTAL RECEIVED	100	TOTAL LOST	40	FINAL VOLUME	159	Desander				0					
						Desilter				0					

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data	
AMC Pac R	\$ 126.70	32		1	31	\$ 126.70		%	PPB	Jet Velocity	161
Aus-Gel (Aust)	\$ 16.50	60		40	20	\$ 660.00	High Grav solids			Impact force	223
CR-650	\$ 105.12	30		12	18	\$ 1,261.44	Total LGS			HHP	36
Potassium Chloride	\$ 33.00	308		79	229	\$ 2,607.00	Bentonite	0.6	5.7	HSI	0.6
Soda Ash	\$ 22.72	48		1	47	\$ 22.72	Drilled Solids	-0.6	-5.7	Bit Press Loss	210
							Salt			CSG Seat Frac Press	
							n @ 24:00 Hrs	0.64		Equiv. Mud Wt.	
							K @ 24:00 Hrs	1.73		Max Pressure @ Shoe :	
							DAILY COST			CUMULATIVE COST	
							\$4,677.86			\$7,904.48	

RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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DRILLING FLUID REPORT

Report #	3	Date :	6-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	142	to	233 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY				JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	16	16	16	SURFACE	ft	HOLE	PITS	PUMP SIZE		CIRCULATION					
8.50	Reed 437				SET @	M	48	211	4	X 4.5	Inches	PRESS (PSI)				
												psi				
DRILL PIPE SIZE 4.5	TYPE #	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL. 259		PUMP MODEL 515	ASSUMED EFF 97 %	BOTTOMS UP (min) 9 min					
DRILL PIPE SIZE 4.69	TYPE HW	Length	211	Mtrs	PRODUCTION. @ LINER Set @	ft M	IN STORAGE		BBL/STK 0.0291	STK / MIN 155	TOTAL CIRC. TIME (min) 59 min					
DRILL COLLAR SIZE (")		Length			MUD TYPE				BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs	87 282	Lam Tm		
7.50		22		Mtrs	Gel Polymer				4.38	184						

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS				
SAMPLE FROM		Pit	Pit	Mud Weight 8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN		13:00	24:00	Plastic Vis ALAP	Yield Point 10 - 20	pH 8.5 - 9		
DEPTH (ft) - (m) Metres		191	232	KCl 4 - 5 %	PHPA	Sulphites		
FLOWLINE TEMPERATURE °C °F				<div>OBSERVATIONS</div> <div>Continue building volume as hole deepens building extra volume to expand pit system for next hole section. Allowing Mud weigh to rise to casing point for hole stability. using Cr 650 and Pac-R for rheology control.</div>				
WEIGHT ppg / SG		9.20	1.104				9.40	1.128
FUNNEL VISCOSITY (sec/qt) API @ °C		46	44					
PLASTIC VISCOSITY cP @ °C		12	10					
YIELD POINT (lb/100ft²)		9	9					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		3.4	3.3					
RHEOLOGY Ø 600 / Ø 300		33	21				29	19
RHEOLOGY Ø 200 / Ø 100		16	11				14	8
RHEOLOGY Ø 6 / Ø 3		5	3				4	2
FILTRATE API (cc's/30 min)		14.0	15.0					
HPHT FILTRATE (cc's/30 min) @ °F								
CAKE THICKNESS API : HPHT (32nd in)		1	1					
SOLIDS CONTENT (% by Volume)		4.4	5.8					
LIQUID CONTENT (% by Volume) OIL/WATER			95.6		94.2	<div>OPERATIONS SUMMARY</div> <div>Drill ahead from 142m to 233m</div>		
SAND CONTENT (% by Vol.)		0.25	0.25					
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	5.0					
pH		9.0	9.0					
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)		0.10	0.35	0.10	0.30			
CHLORIDE (mg/L)		28,000	28,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		80	80					
SULPHITE (mg/L)								
K+ (mg/L)		28,875	29,400					
KCl (% by Wt.)		5.5	5.6					
PHPA (ppb)								
ECD (ppg)								

[illegible]

DRILLING FLUID REPORT

Report #	4	Date :	7-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	233	to	249.5 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	16	16	16	SURFACE SET @	ft M	HOLE 51	PITS 258	PUMP SIZE 4 X 4.5		CIRCULATION PRESS (PSI)			
8.50	Reed 437									Inches		psi		
DRILL PIPE SIZE 4.5	TYPE #	Length 228	Mtrs		INTERMEDIATE SET @	ft M	TOTAL CIRCULATING VOL. 309		PUMP MODEL 515	ASSUMED EFF 97 %	BOTTOMS UP (min) 10		min	
DRILL PIPE SIZE 4.69	TYPE HW	Length			PRODUCTION LINER Set @	ft M	IN STORAGE		BBL/STK 0.0291	STK / MIN 155	TOTAL CIRC. TIME (min) 71		min	
DRILL COLLAR SIZE (")		Length 22	Mtrs		MUD TYPE Gel Polymer				BBL/MIN 4.38	GAL / MIN 184	ANN VEL. DP (ft/min) DCs	87 282	Lam Tu	

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS				
SAMPLE FROM		Pit	Pit	Mud Weight 8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN		13:00	23:00	Plastic Vis ALAP	Yield Point 10 - 20	pH 8.5 - 9		
DEPTH (ft) - (m)	Metres	250	250	KCl 4 - 5 %	PHPA	Sulphites		
FLOWLINE TEMPERATURE	⁰ C ⁰ F			<div>OBSERVATIONS</div> <div>Continue building volume as hole deepens building extra volume to expand pit system for next hole section. Allowing Mud weigh to rise to casing point for hole stability. using Cr 650 and Pac-R for rheology control.</div>				
WEIGHT	ppg / SG	9.40	1.128				9.40	1.128
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	43	44					
PLASTIC VISCOSITY cP @	⁰ C	10	10					
YIELD POINT (lb/100ft ²)		8	9					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2 3	3 3					
RHEOLOGY θ 600 / θ 300		28 18	29 19					
RHEOLOGY θ 200 / θ 100		14 8	14 8					
RHEOLOGY θ 6 / θ 3		4 2	4 2					
FILTRATE API (cc's/30 min)		14.0	14.0					
HPHT FILTRATE (cc's/30 min) @	⁰ F			<div>OPERATIONS SUMMARY</div> <div>Drill ahead from 233m to 249.5m Circulate bottoms up, POOH wiper trip to surface. RIH, finding 2 m fill, circulated bottoms up Pump 25bbl Hi Vis sweep and circulate hole clean. Spot 25 bbl HiVis pill on bottom. POOH to run casing. Rig up and run 7" casing.</div>				
CAKE THICKNESS API : HPHT (32nd in)		1	1					
SOLIDS CONTENT (% by Volume)		5.8	5.8					
LIQUID CONTENT (% by Volume) OIL/WATER		94.2	94.2					
SAND CONTENT (% by Vol.)		0.25	0.25					
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	5.0					
pH		9.0	9.0					
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)		0.10 0.30	0.10 0.30					
CHLORIDE (mg/L)		28,000	28,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		80	80					
SULPHITE (mg/L)								
K+ (mg/L)		29,400	29,400					
KCl (% by Wt.)		5.6	5.6					
PHPA (ppb)								
ECD (ppg)								

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)	50	Desander		INITIAL VOLUME	259	Centrifuge				Desander			Shaker #1	none	
Premix (recirc from sump)		Desilter				Degasser				Desilter	4		Shaker #2	none	
Drill Water		Downhole	0	+ FLUID RECEIVED	50										
Direct Recirc Sump		Dumped		- FLUID LOST	0										
Other (eg Diesel)		Other		+ FLUID IN STORAGE											
									Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
						Desander					0				
TOTAL RECEIVED	50	TOTAL LOST	0	FINAL VOLUME	309	Desilter					0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data	
AMC Pac R	\$ 126.70	27		1	26	\$ 126.70		%	PPB	Jet Velocity	100
Aus-Gel (Aust)	\$ 16.50	12		4	8	\$ 66.00	High Grav solids			Impact force	90
CR-650	\$ 105.12	11		2	9	\$ 210.24	Total LGS	5.8	54.7	HHP	9
Potassium Chloride	\$ 33.00	224		5	219	\$ 165.00	Bentonite	-0.1	-0.9	HSI	0.2
Soda Ash	\$ 22.72	45		1	44	\$ 22.72	Drilled Solids	5.9	53.5	Bit Press Loss	84
							Salt	1.7	16.2	CSG Seat Frac Press	
							n @ 23:00 Hrs	0.61		Equiv. Mud Wt.	
							K @ 23:00 Hrs	2.17		Max Pressure @ Shoe :	
							DAILY COST			CUMULATIVE COST	
							\$590.66			\$10,080.22	

RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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DRILLING FLUID REPORT

Report #	5	Date :	8-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	249.5	to	249.5 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE				7	SURFACE SET @	805 245	ft M	HOLE 26	PITS 260	PUMP SIZE		CIRCULATION		
8.50											4	X 4.5	Inches	PRESS (PSI)	
DRILL PIPE SIZE 4.5	TYPE #	Length				INTERMEDIATE SET @		ft M	TOTAL CIRCULATING VOL. 286		PUMP MODEL 515	ASSUMED EFF 97 %	BOTTOMS UP (min)		min
DRILL PIPE SIZE 4.69	TYPE HW	Length				PRODUCTION, or LINER Set @		ft M	IN STORAGE		BBL/STK 0.0291	STK / MIN	TOTAL CIRC. TIME (min)		min
DRILL COLLAR SIZE (")		Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs	Lam Lam
7.50		22			Gel Polymer										

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate
TIME SAMPLE TAKEN			23:00	Plastic Vis	ALAP	Yield Point	pH
DEPTH (ft) - (m)	Metres		250	KCl	4 - 5 %	PHPA	Sulphites
FLOWLINE TEMPERATURE	⁰ C ⁰ F			<u>OBSERVATIONS</u>			
WEIGHT	ppg / SG		9.35 1.122				
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		42	diverted preflush and cement to flare pit. prepare to mix new volume to extend surface pits to 2 pits. and dilute existing mud weight back to 8.8ppg			
PLASTIC VISCOSITY cP @	⁰ C		10				
YIELD POINT (lb/100ft ²)			8				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 3				
RHEOLOGY Ø 600 / Ø 300			28 18				
RHEOLOGY Ø 200 / Ø 100			13 8				
RHEOLOGY Ø 6 / Ø 3			4 2	<u>OPERATIONS SUMMARY</u> Continue running 7" casing Circulate and cement casing as per program with good cement returns to surface.			
FILTRATE API (cc's/30 min)			14.0				
HPHT FILTRATE (cc's/30 min) @	⁰ F						
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			5.4				
LIQUID CONTENT (% by Volume) OIL/WATER			94.6				
SAND CONTENT (% by Vol.)			tr				
METHYLENE BLUE CAPACITY (ppb equiv.)			5.0				
pH			9.0				
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)			0.10 0.30				
CHLORIDE (mg/L)			28,000				
TOTAL HARDNESS AS CALCIUM (mg/L)			80				
SULPHITE (mg/L)							
K+ (mg/L)			29,400				
KCl (% by Wt.)			5.6				
PHPA (ppb)							
ECD (ppg)							

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	309	Centrifuge				Desander			Shaker #1	none	
Premix (recirc from sump)		Desilter				Degasser				Desilter	4		Shaker #2	none	
Drill Water		Downhole	0	+ FLUID RECEIVED											
Direct Recirc Sump		Dumped	24	- FLUID LOST	24										
Other (eg Diesel)		Other		+ FLUID IN STORAGE											
									Overflow (ppg)		Underflow (ppg)			Output (Gal/Min.)	
TOTAL RECEIVED		TOTAL LOST	24	FINAL VOLUME	286	Desander					0				
						Desilter					0				

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RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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DRILLING FLUID REPORT

Report #	6	Date :	9-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	249.5	to	249.5 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE					HOLE	PITS	PUMP SIZE		CIRCULATION				
6.25						25	360	4	X 4.5	Inches	PRESS (PSI)	psi		
DRILL PIPE SIZE 4.5	TYPE #	Length			7 SURFACE SET @	805 245	ft M	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
		228	Mtrs					385		515	97 %	UP (min)	min	
DRILL PIPE SIZE 4.69	TYPE HW	Length			PRODUCTION, or LINER Set @	ft M		IN STORAGE		BBL/STK 0.0291	STK / MIN	TOTAL CIRC.	min	
			Mtrs									TIME (min)		
DRILL COLLAR SIZE (")		Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP	Lam
7.50		22	Mtrs		Gel Polymer					(ft/min)		(ft/min)	DCs	#####

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN			24:00	Plastic Vis	ALAP	Yield Point	10 - 20	pH	8.5 - 9
DEPTH (ft) - (m)	Metres		250	KCl	4 - 5 %	PHPA		Sulphites	
FLOWLINE TEMPERATURE	⁰ C ⁰ F			OBSERVATIONS					
WEIGHT	ppg / SG		8.80 1.056	Built new volume to prehydrate gel Drawing settled mud from sump 2 to adjust properties with CR650, Kcl and Pac-R No Pac-R added due to inadequate mixing facilities.					
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		44						
PLASTIC VISCOSITY cP @	⁰ C		10						
YIELD POINT (lb/100ft ²)			9						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			3 3						
RHEOLOGY Ø 600 / Ø 300			29 19						
RHEOLOGY Ø 200 / Ø 100			14 8						
RHEOLOGY Ø 6 / Ø 3			4 2						
FILTRATE API (cc's/30 min)			12.0						
HPHT FILTRATE (cc's/30 min) @	⁰ F								
CAKE THICKNESS API : HPHT (32nd in)			1	OPERATIONS SUMMARY					
SOLIDS CONTENT (% by Volume)			1.5						
LIQUID CONTENT (% by Volume) OIL/WATER			98.5						
SAND CONTENT (% by Vol.)			tr						
METHYLENE BLUE CAPACITY (ppb equiv.)			5.0						
pH			9.5						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)			0.20 0.40						
CHLORIDE (mg/L)			28,000						
TOTAL HARDNESS AS CALCIUM (mg/L)			80						
SULPHITE (mg/L)				Nipple up BOP's Pressure testing.					
K+ (mg/L)			29,400						
KCl (% by Wt.)			5.6						
PHPA (ppb)									
ECD (ppg)									

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)	100	Desander		INITIAL VOLUME	286	Centrifuge				Desander			Shaker #1	none	
Premix (recirc from sump)		Desilter				Degasser				Desilter	4		Shaker #2	none	
Drill Water		Downhole	0	+ FLUID RECEIVED	100										
Direct Recirc Sump		Dumped		- FLUID LOST	0										
Other (eg Diesel)		Other		+ FLUID IN STORAGE											
							Overflow (ppg)			Underflow (ppg)			Output (Gal/Min.)		
TOTAL RECEIVED	100	TOTAL LOST	0	FINAL VOLUME	385	Desander				0					
						Desilter				0					

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RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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DRILLING FLUID REPORT

Report #	7	Date :	10-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	249.5	to	253 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY					JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA											
BIT SIZE		TYPE			12	12	14	7	SURFACE		805	ft	HOLE		PITS		PUMP SIZE		CIRCULATION					
6.25		JZ 437							SET @		245	M	27		408		4 X 4.5		PRESS (PSI)					
DRILL PIPE		TYPE			Length				INTERMEDIATE			ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS					
SIZE 3.5		#			194			Mtrs		SET @			M	435		515		97 %		5 min				
DRILL PIPE		TYPE			Length				PRODUCTION. o			ft	IN STORAGE		BBL/STK		STK / MIN		TOTAL CIRC.					
SIZE 4.69		HW						Mtrs		LINER Set @			M			0.0291		150		103 min				
DRILL COLLAR SIZE (")					Length				MUD TYPE						BBL/MIN		GAL / MIN		ANN VEL.		DP	163		Tur
4.69					60			Mtrs	Gel Polymer						4.24		178		(ft/min)		DCs	256		Tur

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate
TIME SAMPLE TAKEN	13:00	24:00	Plastic Vis	ALAP	Yield Point	10 - 20 pH
DEPTH (ft) - (m)	250	253	KCl	4 - 5 %	PHPA	Sulphites

FLOWLINE TEMPERATURE		⁰ C	⁰ F						OBSERVATIONS
WEIGHT		ppg / SG	8.70	1.044	8.75	1.050			
FUNNEL VISCOSITY	(sec/qt) API @	⁰ C	40		39				Added Soda Ash to pre treat for cement contamination.
PLASTIC VISCOSITY	cP @	⁰ C	7		7				Attempted mixing Pac-R for increased water loss control and Viscosity
YIELD POINT	(lb/100ft ²)		6		7				Mixing CR 650 for rapid viscosity building when required
GEL STRENGTHS	(lb/100ft ²) 10 sec/10 min		2	2	2	2			Prehydrated 50bbbls of Gel in fresh water before adding to system.
RHEOLOGY	θ 600 / θ 300		20	13	21	14			Continuing to mix Pac-R and Soda Ash to build properties and
RHEOLOGY	θ 200 / θ 100		8	6	8	6			reduce cement contamination.
RHEOLOGY	θ 6 / θ 3		3	2	3	2			
FILTRATE API	(cc's/30 min)				15.0				
HPHT FILTRATE	(cc's/30 min) @	⁰ F							
CAKE THICKNESS	API : HPHT (32nd in)				1				
SOLIDS CONTENT	(% by Volume)		1.0		1.3				

LIQUID CONTENT (% by Volume) OIL/WATER	99.0	98.7	<u>OPERATIONS SUMMARY</u> Continue pressure testing RIH with 6 1/4" bit and BHA on 3.5" drillpipe Tag cement and drill cement to 248. POOH for blocked jets RIH and drill new formation to 253m Perform FIT to 12 ppg equivalent Drill ahead.
SAND CONTENT (% by Vol.)	tr	tr	
METHYLENE BLUE CAPACITY (ppb equiv.)	5.0	5.0	
pH	11.5	10.5	
ALKALINITY MUD (Pm)			
ALKALINITY FILTRATE (Pf / Mf)	0.40 0.60	0.40 0.60	
CHLORIDE (mg/L)	26,000	25,000	
TOTAL HARDNESS AS CALCIUM (mg/L)	600	420	
SULPHITE (mg/L)			
K+ (mg/L)	26,250	26,250	
KCl (% by Wt.)	5.0	5.0	
PHPA (ppb)			
ECD (ppg)			

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)	50	Desander		INITIAL VOLUME	385	Centrifuge				Desander			Shaker #1	none	
Premix (recirc from sump)		Desilter				Degasser				Desilter	4		Shaker #2	none	
Drill Water		Downhole	0	+ FLUID RECEIVED	50										
Direct Recirc Sump		Dumped		- FLUID LOST	0										
Other (eg Diesel)		Other		+ FLUID IN STORAGE				Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
TOTAL RECEIVED	50	TOTAL LOST	0	FINAL VOLUME	435	Desander			0						
						Desilter			0						

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data	
AMC Pac R	\$ 126.70	26		4	22	\$ 506.80		%	PPB	Jet Velocity	154
CR-650	\$ 105.12	8		4	4	\$ 420.48	High Grav solids			Impact force	124
Potassium Chloride	\$ 33.00	197		42	155	\$ 1,386.00	Total LGS	1.3	12.4	HHP	19
Soda Ash	\$ 22.72	43		3	40	\$ 68.16	Bentonite	0.5	4.2	HSI	0.6
							Drilled Solids	0.8	7.7	Bit Press Loss	185
							Salt	1.5	14.5	CSG Seat Frac Press	
							n @ 24:00 Hrs	0.58		Equiv. Mud Wt.	12 psi
							K @ 24:00 Hrs	1.87		Max Pressure @ Shoe :	136 psi
							DAILY COST	CUMULATIVE COST			
							\$2,381.44	\$13,447.50			

RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	8	Date :	11-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	253	to	394 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR	
WELL NAME AND No	CBM 93-004	FIELD	EP 93
		LOCATION	Pedirka Basin
		STATE	Northern Territory

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE		12	12	14	7	SURFACE	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION					
6.25	JZ 437						SET @	245	M	43	392	4	X 4.5	Inches	PRESS (PSI)	270	psi		
DRILL PIPE	TYPE	Length				INTERMEDIATE			ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS			
SIZE 3.5	#		335			SET @			M	435		515		97		UP (min)			
DRILL PIPE	TYPE	Length				PRODUCTION, α			ft	IN STORAGE		BBL/STK		STK / MIN		TOTAL CIRC.			
SIZE 4.69	HW		Mtrs			LINER Set @			M			0.0291		170		TIME (min)			
DRILL COLLAR SIZE (")		Length				MUD TYPE						BBL/MIN		GAL / MIN		ANN VEL.	DP		
4.69		60	Mtrs			Gel Polymer						4.81		202		(ft/min)	DCs	184	Tur
																		290	Tur

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM				Pit	Pit	Mud Weight	8.8
TIME SAMPLE TAKEN				13:00	24:00	API Filtrate	
DEPTH (ft) - (m)				337	394	Yield Point	10 - 20
FLOWLINE TEMPERATURE						KCl	4 - 5 %
WEIGHT						PHPA	
FUNNEL VISCOSITY (sec/qt) API @						OBSERVATIONS	
PLASTIC VISCOSITY cP @							
YIELD POINT (lb/100ft ²)							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min							
RHEOLOGY Ө 600 / Ө 300							
RHEOLOGY Ө 200 / Ө 100							
RHEOLOGY Ө 6 / Ө 3							
FILTRATE API (cc's/30 min)							
HPHT FILTRATE (cc's/30 min) @							
CAKE THICKNESS API : HPHT (32nd in)							
SOLIDS CONTENT (% by Volume)						OPERATIONS SUMMARY	
LIQUID CONTENT (% by Volume) OIL/WATER							
SAND CONTENT (% by Vol.)							
METHYLENE BLUE CAPACITY (ppb equiv.)							
pH							
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)							
CHLORIDE (mg/L)							
TOTAL HARDNESS AS CALCIUM (mg/L)							
SULPHITE (mg/L)							
K+ (mg/L)							
KCl (% by Wt.)							
PHPA (ppb)							
ECD (ppg)							

Mud Accounting (bbls)							Solids Control Equipment									
FLUID BUILT & RECEIVED			FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)				Desander		INITIAL VOLUME	435	Centrifuge			Desander			Shaker #1	none	
Premix (recirc from sump)				Desilter		+ FLUID RECEIVED	0	Degasser			Desilter	4		Shaker #2	none	
Drill Water				Downhole	0											
Direct Recirc Sump				Dumped				- FLUID LOST								
Other (eg Diesel)				Other		+ FLUID IN STORAGE				Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
TOTAL RECEIVED				TOTAL LOST	0	FINAL VOLUME	435	Desander				0				
								Desilter				0				
Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data						
AMC Pac R	\$ 126.70	22		5	17	\$ 633.50			%	PPB	Jet Velocity		174			
CR-650	\$ 105.12	4		1	3	\$ 105.12	High Grav solids				Impact force		158			
							Total LGS		0.9	9.0	HHP		28			
							Bentonite		0.5	4.6	HSI		0.9			
							Drilled Solids		0.4	4.0	Bit Press Loss		237			
							Salt		1.5	14.5	CSG Seat Frac Press					
							n @ 24:00 Hrs		0.65		Equiv. Mud Wt.		12 psi			
							K @ 24:00 Hrs		1.23		Max Pressure @ Shoe :		138 psi			

DRILLING FLUID REPORT

Report #	9	Date :	12-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	394	to	501.9 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No	CBM 93-004	FIELD	LOCATION	STATE	
		EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	12	12	14	7	SURFACE	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION					
6.25	JZ 437					SET @	245	M	55	380	4	X 4.5	Inches	PRESS (PSI)	590	psi		
DRILL PIPE	TYPE	Length				INTERMEDIATE		ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS					
SIZE 3.5	#		442	Mtrs		SET @		M	435		515	97	%	UP (min)			8	min
DRILL PIPE	TYPE	Length				PRODUCTION. α		ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.					
SIZE 4.69	HW			Mtrs		LINER Set @		M			0.0291	198	TIME (min)			78	min	
DRILL COLLAR SIZE (")		Length				MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP		215	Tur	
4.69		60		Mtrs		Gel Polymer					5.60	235	(ft/min)	DCs	337		Tur	

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN		13:00	24:00	Plastic Vis	ALAP	Yield Point	pH		
DEPTH (ft) - (m)		501	502	KCl	4 - 5 %	PHPA	Sulphites		
FLOWLINE TEMPERATURE				<div>OBSERVATIONS</div> <div>Maintained Viscosity at 42-44 with minor Pac-R additions mixed 50bbls HiVis for sweeps with Pac-R and CR 650</div>					
WEIGHT		8.80	1.056					8.80	1.056
FUNNEL VISCOSITY (sec/qt) API @		44	42						
PLASTIC VISCOSITY cP @		8	8						
YIELD POINT (lb/100ft ²)		7	6						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2	2						
RHEOLOGY θ 600 / θ 300		23	15					22	14
RHEOLOGY θ 200 / θ 100		9	7					9	7
RHEOLOGY θ 6 / θ 3		4	2					4	2
FILTRATE API (cc's/30 min)		11.5	12.0						
HPHT FILTRATE (cc's/30 min) @									
CAKE THICKNESS API : HPHT (32nd in)		1	1						
SOLIDS CONTENT (% by Volume)		1.7	1.7						
LIQUID CONTENT (% by Volume) OIL/WATER		98.3	98.3	<div>OPERATIONS SUMMARY</div> <div>Drill ahead from 394m to 501.9m Circulate Hi- Vis sweep. POOH to shoe, RIH, hole good, circ hole clean and pump HiVis sweep. Spot 20bbl Hi- Vis pill on bottom.</div>					
SAND CONTENT (% by Vol.)		tr	tr						
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	5.0						
pH		10.0	10.0						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)		0.35	0.60					0.35	0.60
CHLORIDE (mg/L)		25,000	26,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		220	180						
SULPHITE (mg/L)									
K+ (mg/L)		26,250	26,250						
KCl (% by Wt.)		5.0	5.0						
PHPA (ppb)									
ECD (ppg)									

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DRILLING FLUID REPORT

Report #	10	Date :	13-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	501.9	to	502 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis	
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR		
WELL NAME AND No		FIELD	LOCATION	STATE
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory

DRILLING ASSEMBLY		JET SIZE			CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE				7 SURFACE SET @	805 245 ft M	HOLE 18	PITS 400	PUMP SIZE			CIRCULATION				
6.25									4 X 4.5	Inches	PRESS (PSI)	psi				
DRILL PIPE SIZE 3.5	TYPE #	Length 443	Mtrs		4 1/2 INTERMEDIATE SET @	1647 502 ft M	TOTAL CIRCULATING VOL. 418		PUMP MODEL 515		ASSUMED EFF 97 %		BOTTOMS UP (min)		min	
DRILL PIPE SIZE 4.69	TYPE HW	Length		Mtrs	PRODUCTION, or LINER Set @	ft M	IN STORAGE		BBL/STK 0.0291		STK / MIN		TOTAL CIRC. TIME (min)		min	
DRILL COLLAR SIZE (")		Length			MUD TYPE					BBL/MIN		GAL / MIN		ANN VEL.	DP	
4.69		60		Mtrs	Gel Polymer									(ft/min)	DCs	Lam

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate
TIME SAMPLE TAKEN			24:00	Plastic Vis	ALAP	Yield Point	pH
DEPTH (ft) - (m)		Metres	502	KCl	4 - 5 %	PHPA	Sulphites
FLOWLINE TEMPERATURE		⁰ C ⁰ F		<u>OBSERVATIONS</u>			
WEIGHT		ppg / SG	8.70 1.044				
FUNNEL VISCOSITY (sec/qt) API @		⁰ C	40	Fluid settling in earth pits, no adgitation.			
PLASTIC VISCOSITY cP @		⁰ C	7				
YIELD POINT (lb/100ft ²)			7	Chemicals used today include inventory correction - used previously.			
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 2				
RHEOLOGY Ø 600 / Ø 300			21 14				
RHEOLOGY Ø 200 / Ø 100			9 6				
RHEOLOGY Ø 6 / Ø 3			3 2				
FILTRATE API (cc's/30 min)			13.0				
HPHT FILTRATE (cc's/30 min) @		⁰ F					
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			1.0				
LIQUID CONTENT (% by Volume) OIL/WATER			99.0				
SAND CONTENT (% by Vol.)			tr				
METHYLENE BLUE CAPACITY (ppb equiv.)			5.0	POOH with bit Rig up and run 4.5" casing to 502m Circulate casing and cement with cement returned to surface.			
pH			10.0				
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)			0.30 0.60				
CHLORIDE (mg/L)			26,000				
TOTAL HARDNESS AS CALCIUM (mg/L)			180				
SULPHITE (mg/L)							
K+ (mg/L)			26,250				
KCl (% by Wt.)			5.0				
PHPA (ppb)							
ECD (ppg)							

[illegible]

DRILLING FLUID REPORT

Report #	11	Date :	14-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	502	to	503 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE				7	SURFACE SET @	805	ft	HOLE	PITS	PUMP SIZE			CIRCULATION			
3.78	Sandvig426								22		4	X	4.5	Inches	PRESS (PSI)	362	psi
DRILL PIPE SIZE	TYPE	Length			4 1/2	INTERMEDIATE SET @	1647	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	BOTTOMS UP (min)			
3.5	HQ #		503	Mtrs			502	M	22		515		97	%	25 min		
DRILL PIPE SIZE	TYPE	Length			PRODUCTION. or LINER Set @			ft	IN STORAGE		BBL/STK		STK / MIN	TOTAL CIRC.			
	HW			Mtrs				M			0.0291		24	TIME (min) 32 min			
DRILL COLLAR SIZE (")		Length			MUD TYPE						BBL/MIN		GAL / MIN	ANN VEL.	DP	342	Lam
				Mtrs	Gel Polymer						0.68		28	(ft/min)	DCs		Lam

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
TIME SAMPLE TAKEN		Pit	Pit	Mud Weight 8.8	API Filtrate	HPHT Filtrate
DEPTH (ft) - (m)	Metres		503	Plastic Vis ALAP	Yield Point 10 - 20	pH 8.5 - 9
DEPTH (ft) - (m)	Metres		503	KCl 4 - 5 %	PHPA	Sulphites
FLOWLINE TEMPERATURE	⁰ C ⁰ F			<u>OBSERVATIONS</u>		
WEIGHT	ppg / SG		8.70 1.044	Carry over mud system from previous section.		
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		40	Monitoring fluid properties and treating cement contamination		
PLASTIC VISCOSITY cP @	⁰ C		8	Allowing Vis to fall to 38 while maintaining YP for slimhole coring.		
YIELD POINT (lb/100ft ²)			6	No chemicals used.		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 2			
RHEOLOGY Ø 600 / Ø 300			22 14			
RHEOLOGY Ø 200 / Ø 100			10 6			
RHEOLOGY Ø 6 / Ø 3			2 2			
FILTRATE API (cc's/30 min)			12.5			
HPHT FILTRATE (cc's/30 min) @	⁰ F					
CAKE THICKNESS API : HPHT (32nd in)			1			
SOLIDS CONTENT (% by Volume)			1.0			
LIQUID CONTENT (% by Volume) OIL/WATER			99.0			
SAND CONTENT (% by Vol.)			tr	WOC , Nipple up BOP's pressure test BOP's RIH with core bit & BHA . tag cement at 475m drill cement, shoe track and new formation to 503m Perform FIT to 12 ppg EMW Drill Ahead HQ coring.		
METHYLENE BLUE CAPACITY (ppb equiv.)			2.5			
pH			11.5			
ALKALINITY MUD (Pm)						
ALKALINITY FILTRATE (Pf / Mf)			0.40 0.90			
CHLORIDE (mg/L)			24,000			
TOTAL HARDNESS AS CALCIUM (mg/L)			880			
SULPHITE (mg/L)						
K+ (mg/L)			25,200			
KCl (% by Wt.)			4.8			
PHPA (ppb)						
ECD (ppg)						

[illegible]

DRILLING FLUID REPORT

Report #	12	Date :	15-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	503	to	540 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA									
BIT SIZE	TYPE				7	SURFACE SET @	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION						
3.78	Sandvig426								23	395	4	X 4.5	Inches	PRESS (PSI)	460		psi		
DRILL PIPE SIZE	TYPE	Length			4 1/2	INTERMEDIATE SET @	1644	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	BOTTOMS UP (min)					
SIZE 3.5	HQ #		540	Mtrs			501	M	418		515		97	%	28			min	
DRILL PIPE SIZE	TYPE	Length			PRODUCTION. or LINER Set @				ft	IN STORAGE		BBL/STK		STK / MIN	TOTAL CIRC.				
SIZE	HW			Mtrs					M			0.0291		23	TIME (min)			643	min
DRILL COLLAR SIZE (")		Length			MUD TYPE							BBL/MIN		GAL / MIN	ANN VEL.	DP	328	Lam	
				Mtrs	Gel Polymer							0.65		27	(ft/min)	DCs		Lam	

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Pit		Mud Weight 8.8		API Filtrate	
TIME SAMPLE TAKEN		13:00 24:00		Plastic Vis ALAP		HPHT Filtrate	
DEPTH (ft) - (m) Metres		540 540		KCl 4 - 5 %		Yield Point 6 - 8	
FLOWLINE TEMPERATURE °C °F				PHPA		Sulphites	
WEIGHT ppg / SG		8.80 1.056 8.80 1.056		<u>OBSERVATIONS</u> Maintaining vis at 40 - 42 and YP at 6 - 8 Mud weight at 8.8ppg			
FUNNEL VISCOSITY (sec/qt) API @ °C		42 42					
PLASTIC VISCOSITY cP @ °C		8 8					
YIELD POINT (lb/100ft²)		7 7					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		2 2 2 2					
RHEOLOGY Ø 600 / Ø 300		23 15 23 15					
RHEOLOGY Ø 200 / Ø 100		11 7 11 7					
RHEOLOGY Ø 6 / Ø 3		2 2 2 2					
FILTRATE API (cc's/30 min)		12.0 12.0					
HPHT FILTRATE (cc's/30 min) @ °F							
CAKE THICKNESS API : HPHT (32nd in)		1 1		<u>OPERATIONS SUMMARY</u> Drill ahead HQ coring from 503m to 540m twisted off, POOH Twist of at bottom reamer. Make up Fishing tool and RIH Fish at 540m POOH - no fish, RIH			
SOLIDS CONTENT (% by Volume)		1.7 1.7					
LIQUID CONTENT (% by Volume) OIL/WATER		98.3 98.3					
SAND CONTENT (% by Vol.)		tr tr					
METHYLENE BLUE CAPACITY (ppb equiv.)		2.5 2.5					
pH		11.0 11.0					
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.35 0.90 0.35 0.90					
CHLORIDE (mg/L)		24,000 24,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		480 480					
SULPHITE (mg/L)							
K+ (mg/L)		25,200 25,200					
KCl (% by Wt.)		4.8 4.8					
PHPA (ppb)							
ECD (ppg)							

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DRILLING FLUID REPORT

Report #	13	Date :	16-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	540	to	552 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Tim Brower / Guy Holmes	REPORT FOR			
WELL NAME AND No	CBM 93-004	FIELD	LOCATION	STATE	
		EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY					JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA						
BIT SIZE	TYPE				7	SURFACE SET @	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION							
3.78	Alphabit										23	340	4	X	4.5	Inches	PRESS (PSI)	510	psi	
DRILL PIPE SIZE	TYPE	Length			4 1/2	INTERMEDIATE SET @	1644	ft	TOTAL CIRCULATING VOL.			PUMP MODEL	ASSUMED EFF	BOTTOMS						
3.5	HQ #		552	Mtrs			501	M		363	515	97	%	UP (min)						
DRILL PIPE SIZE	TYPE	Length				PRODUCTION. α		ft	IN STORAGE			BBL/STK	STK / MIN	TOTAL CIRC.						
	HW			Mtrs		LINER Set @		M			0.0291	23		TIME (min)						
DRILL COLLAR SIZE (")		Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP	328	Lam				
				Mtrs	Gel Polymer						0.65	27	(ft/min)	DCs		Lam				

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN		13:00	23:00	Plastic Vis	ALAP	Yield Point	6 - 8	pH	8.5 - 9
DEPTH (ft) - (m)	Metres	542	552	KCl	4 - 5 %	PHPA		Sulphites	
FLOWLINE TEMPERATURE	⁰ C ⁰ F			OBSERVATIONS					
WEIGHT	ppg / SG	8.70	1.044	8.80	1.056	Maintaining vis at 40 - 42 and YP at 6 - 8 Mud weight at 8.8ppg Lost volume with tripping, associated with loose sand formation.			
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	40	42						
PLASTIC VISCOSITY cP @	⁰ C	8	8						
YIELD POINT (lb/100ft ²)		6	7						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2 2	2 2						
RHEOLOGY Ø 600 / Ø 300		22 14	23 15						
RHEOLOGY Ø 200 / Ø 100		10 6	10 7						
RHEOLOGY Ø 6 / Ø 3		2 2	2 2						
FILTRATE API (cc's/30 min)		12.0	12.0						
HPHT FILTRATE (cc's/30 min) @	⁰ F								
CAKE THICKNESS API : HPHT (32nd in)		1	1						
SOLIDS CONTENT (% by Volume)		1.0	1.7						
LIQUID CONTENT (% by Volume) OIL/WATER		99.0	98.3	OPERATIONS SUMMARY					
SAND CONTENT (% by Vol.)		tr	tr	RIH with Fishing tool. Fish at 540m, POOH no fish, RIH with new Bit. Drill on fish and drill formation to 552m POOH for new bit. RIH with new bit.					
METHYLENE BLUE CAPACITY (ppb equiv.)		2.5	2.5						
pH		10.5	10.5						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)		0.30 0.90	0.30 0.90						
CHLORIDE (mg/L)		24,000	24,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		420	380						
SULPHITE (mg/L)									
K+ (mg/L)		25,200	25,200						
KCl (% by Wt.)		4.8	4.8						
PHPA (ppb)									
ECD (ppg)									

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DRILLING FLUID REPORT

Report #	14	Date :	17-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	552	to	599 Metres

OPERATOR	Central Petroleum	CONTRACTOR	Wallis		
REPORT FOR	Steve Bailey / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA									
BIT SIZE	TYPE				7	SURFACE	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION						
3.78	Longyear					SET @	245	M	25	360	4	X 4.5	Inches	PRESS (PSI)	420	psi			
DRILL PIPE SIZE	TYPE	Length			4 1/2	INTERMEDIATE	1644	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	BOTTOMS UP (min)					
3.5	HQ #	599	Mtrs			SET @	501	M	385		515		97	%	32			min	
DRILL PIPE SIZE	TYPE	Length			PRODUCTION. or LINER Set @				ft	IN STORAGE		BBL/STK		STK / MIN	TOTAL CIRC.				
	HW		Mtrs						M			0.0291		22	TIME (min)			619	min
DRILL COLLAR SIZE (")		Length			MUD TYPE							BBL/MIN		GAL / MIN	ANN VEL.	DP	314	Lam	
			Mtrs		Gel Polymer							0.62		26	(ft/min)	DCs		Lam	

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Pit		Mud Weight	8.8	API Filtrate	HPHT Filtrate
TIME SAMPLE TAKEN		13:00		Plastic Vis	ALAP	Yield Point	pH
DEPTH (ft) - (m)		569		KCl	4 - 5 %	PHPA	Sulphites
FLOWLINE TEMPERATURE				OBSERVATIONS			
WEIGHT		8.80 1.056		Maintaining vis at 42 - 44 and YP at 6 - 8 Mud weight at 8.8ppg Maintaining Vis, Filtrate loss and YP with Pac-R / CR650 additions Further reducing Water Loss with Pac-Low vis. Building new volume to replace losses while drilling minor mud flowback during connections.			
FUNNEL VISCOSITY (sec/qt) API @		43					
PLASTIC VISCOSITY cP @		9					
YIELD POINT (lb/100ft ²)		6					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2 2					
RHEOLOGY θ 600 / θ 300		24 15					
RHEOLOGY θ 200 / θ 100		11 7					
RHEOLOGY θ 6 / θ 3		3 2					
FILTRATE API (cc's/30 min)		11.0 10.5					
HPHT FILTRATE (cc's/30 min) @							
CAKE THICKNESS API : HPHT (32nd in)		1 1					
SOLIDS CONTENT (% by Volume)		1.7 1.7					
LIQUID CONTENT (% by Volume) OIL/WATER		98.3 98.3		OPERATIONS SUMMARY			
SAND CONTENT (% by Vol.)		tr tr		Cont RIH. Drill 1 3m rod down. Well flowing. Shut in well 176psi. Weight up Mud in pits to 8.8+ Circulate through choke and displace well to 8.8+ mud. Monitor well. Well flowing. Allow well to bleed off pressure with flow diminishing to minimum after 30 mins indicating Ballooning sands from tripping and/or High ECD while drilling. Recover core and resume drilling. Drill Ahead HQ core to 599m			
METHYLENE BLUE CAPACITY (ppb equiv.)		2.5 2.5					
pH		10.5 10.0					
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.30 0.80 0.25 0.80					
CHLORIDE (mg/L)		26,000 26,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		280 280					
SULPHITE (mg/L)							
K+ (mg/L)		26,250 26,250					
KCl (% by Wt.)		5.0 5.0					
PHPA (ppb)							
ECD (ppg)							

Mud Accounting (bbls)							Solids Control Equipment								
FLUID BUILT & RECEIVED			FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs
Premix (drill water)	150		Desander		INITIAL VOLUME	363	Centrifuge				Desander			Shaker #1	none
Premix (recirc from sump)			Desilter				Degasser				Desilter			Shaker #2	none
Drill Water			Downhole	128	+ FLUID RECEIVED	150									
Direct Recirc Sump			Dumped		- FLUID LOST	128									
Other (eg Diesel)			Other		+ FLUID IN STORAGE										
								Overflow (ppg)			Underflow (ppg)			Output (Gal/Min.)	
							Desander				0				
TOTAL RECEIVED	150		TOTAL LOST	128	FINAL VOLUME	385	Desilter				0				
Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data					
AMD Pac L	\$ 127.10	32		3	29	\$ 381.30		%	PPB	Jet Velocity					
Potassium Chloride	\$ 33.00	726		153	573	\$ 5,049.00	High Grav solids			Impact force #VALUE!					
							Total LGS	1.7	16.3	HHP					
							Bentonite	0.1	0.9	HSI					
							Drilled Solids	1.6	14.7	Bit Press Loss					
							Salt	1.6	15.1	CSG Seat Frac Press					
							n @ 24:00 Hrs	0.62		Equiv. Mud Wt. 12 psi					
							K @ 24:00 Hrs	1.64		Max Pressure @ Shoe : 274 psi					

DRILLING FLUID REPORT

Report #	15	Date :	18-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	599	to	621 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Steve Bailey / Guy Holmes	REPORT FOR			
WELL NAME AND No	CBM 93-004	FIELD	LOCATION	STATE	
		EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY					JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA											
BIT SIZE		TYPE						7	SURFACE		805	ft	HOLE		PITS		PUMP SIZE			CIRCULATION					
3.78		Longyear							SET @		245	M	26		400		4 X 4.5			PRESS (PSI) 290 psi					
DRILL PIPE SIZE		TYPE		Length				4 1/2	INTERMEDIATE		1644	ft	TOTAL CIRCULATING VOL.			PUMP MODEL		ASSUMED EFF		BOTTOMS					
3.5		HQ #		621				Mtrs	SET @		501	M	426			515		97 %		UP (min) 31 min					
DRILL PIPE SIZE		TYPE		Length					PRODUCTION. α			ft	IN STORAGE			BBL/STK		STK / MIN		TOTAL CIRC.					
SIZE		HW						Mtrs	LINER Set @			M				0.0291		23		TIME (min) 655 min					
DRILL COLLAR SIZE (")				Length					MUD TYPE		Gel Polymer					BBL/MIN		GAL / MIN		ANN VEL.		DP	328		Lam
				Mtrs												0.65		27		(ft/min)		DCs			Lam

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate				
TIME SAMPLE TAKEN		13:00	24:00	Plastic Vis	ALAP	Yield Point	6 - 8	pH	8.5 - 9		
DEPTH (ft) - (m)		Metres	617	621	KCl	4 - 5 %	PHPA	Sulphites			
FLOWLINE TEMPERATURE		⁰ C ⁰ F			<div>OBSERVATIONS</div> <div>Maintaining vis at 42 - 44 and YP at 6 - 8 Mud weight at 8.8ppg</div> <div>Maintaining Vis, Filtrate loss and YP with Pac-R / CR650 additions</div> <div>Further reducing Water Loss with Pac-Low vis.</div> <div>Building new volume to replace losses while drilling</div> <div>minor mud flowback during connections.</div>						
WEIGHT		ppg / SG	8.75	1.050						8.80	1.056
FUNNEL VISCOSITY (sec/qt) API @		⁰ C	42	44							
PLASTIC VISCOSITY cP @		⁰ C	8	8							
YIELD POINT (lb/100ft ²)			6	6							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				2 2							
RHEOLOGY Ø 600 / Ø 300			22 14	22 14							
RHEOLOGY Ø 200 / Ø 100			10 6	10 7							
RHEOLOGY Ø 6 / Ø 3			2 2	4 2							
FILTRATE API (cc's/30 min)			11.5	12.0							
HPHT FILTRATE (cc's/30 min) @		⁰ F									
CAKE THICKNESS API : HPHT (32nd in)			1	1							
SOLIDS CONTENT (% by Volume)			1.4	1.7							
LIQUID CONTENT (% by Volume) OIL/WATER			98.6	98.3	<div>OPERATIONS SUMMARY</div> <div>Continue HQ coring from 599m to 621m.</div> <div>circulate hole clean, allow ballooning flow to deplete.</div> <div>Rig up and run Coal Injection Test # 1 tools into the hole</div> <div>Run coal injection test # 1.</div>						
SAND CONTENT (% by Vol.)			tr	tr							
METHYLENE BLUE CAPACITY (ppb equiv.)			2.5	2.5							
pH			9.5	9.5							
ALKALINITY MUD (Pm)											
ALKALINITY FILTRATE (Pf / Mf)			0.20 0.80	0.20 0.80							
CHLORIDE (mg/L)			26,000	26,000							
TOTAL HARDNESS AS CALCIUM (mg/L)			220	220							
SULPHITE (mg/L)											
K+ (mg/L)			26,250	26,250							
KCl (% by Wt.)			5.0	5.0							
PHPA (ppb)											
ECD (ppg)											

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DRILLING FLUID REPORT

Report #	16	Date :	19-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	621	to	621 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Steve Bailey / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY					JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA						
BIT SIZE		TYPE						7	SURFACE SET @		805	ft	HOLE		PITS		PUMP SIZE		CIRCULATION PRESS (PSI)	
3.78		Longyear									245 <td>M</td> <td></td> <td>26</td> <td colspan="2">380</td> <td>4</td> <td>X</td> <td>4.5</td> <td>Inches</td> <td>psi</td>	M		26	380		4	X	4.5	Inches
DRILL PIPE SIZE		TYPE		Length				4 1/2	INTERMEDIATE SET @		1644	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS UP (min)	
SIZE 3.5		HQ #		621		Mtrs				501	M		406		515		97 %		min	
DRILL PIPE SIZE		TYPE		Length					PRODUCTION. α			ft	IN STORAGE		BBL/STK		STK / MIN		TOTAL CIRC.	
SIZE		HW				Mtrs				LINER Set @		M			0.0291				TIME (min)	
DRILL COLLAR SIZE (")				Length				MUD TYPE							BBL/MIN		GAL / MIN		ANN VEL. DP	
						Mtrs		Gel Polymer											(ft/min) DCs	
																			Lam Lam	

		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN			24:00	Plastic Vis	ALAP	Yield Point	6 - 8	pH	8.5 - 9
DEPTH (ft) - (m)		Metres	621	KCl	4 - 5 %	PHPA		Sulphites	
FLOWLINE TEMPERATURE		⁰ C ⁰ F		OBSERVATIONS					
WEIGHT		ppg / SG	8.75 1.050	Monitor well with small but continual losses while testing.					
FUNNEL VISCOSITY (sec/qt) API @		⁰ C	42						
PLASTIC VISCOSITY cP @		⁰ C	8						
YIELD POINT (lb/100ft ²)			5						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 2						
RHEOLOGY Ø 600 / Ø 300			21 13						
RHEOLOGY Ø 200 / Ø 100			10 7						
RHEOLOGY Ø 6 / Ø 3			4 2						
FILTRATE API (cc's/30 min)			12.0						
HPHT FILTRATE (cc's/30 min) @		⁰ F							
CAKE THICKNESS API : HPHT (32nd in)			1						
SOLIDS CONTENT (% by Volume)			1.4						
LIQUID CONTENT (% by Volume) OIL/WATER			98.6	OPERATIONS SUMMARY					
SAND CONTENT (% by Vol.)			tr						
METHYLENE BLUE CAPACITY (ppb equiv.)			2.5						
pH			9.5						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)			0.20 0.80						
CHLORIDE (mg/L)			26,000						
TOTAL HARDNESS AS CALCIUM (mg/L)			220						
SULPHITE (mg/L)									
K+ (mg/L)			26,250						
KCl (% by Wt.)			5.0						
PHPA (ppb)									
ECD (ppg)									

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DRILLING FLUID REPORT

Report #	17	Date :	20-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	621	to	675 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Steve Bailey / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
	CBM 93-004	EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY					JET SIZE			CASING			MUD VOLUME (BBL)			CIRCULATION DATA									
BIT SIZE		TYPE				7	SURFACE	805	ft	HOLE		PITS	PUMP SIZE			CIRCULATION							
3.78		Longyear					SET @	245	M	28		360	4	X 4.5	Inches	PRESS (PSI)		450 psi					
DRILL PIPE SIZE		3.5	TYPE	HQ #	Length	675	Mtrs	4 1/2	INTERMEDIATE	1644	ft	TOTAL CIRCULATING VOL.			PUMP MODEL		ASSUMED EFF	BOTTOMS					
								SET @	501	M		388			515		97	%	UP (min)		39 min		
DRILL PIPE SIZE			TYPE	HW	Length		Mtrs	PRODUCTION. α		ft	IN STORAGE			BBL/STK		STK / MIN	TOTAL CIRC.						
								LINER Set @		M				0.0291		19.5	TIME (min)		704 min				
DRILL COLLAR SIZE (")				Length			Mtrs	MUD TYPE							BBL/MIN		GAL / MIN	ANN VEL.	DP	278	Lam		
								Gel Polymer							0.55		23	(ft/min)	DCs		Lam		

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Pit	Pit	Mud Weight	8.8	API Filtrate	HPHT Filtrate		
TIME SAMPLE TAKEN	13:00	24:00	Plastic Vis	ALAP	Yield Point	6 - 8	pH	8.5 - 9
DEPTH (ft) - (m)	Metres		675	KCl	4 - 5 %	PHPA	Sulphites	

FLOWLINE TEMPERATURE	⁰ C ⁰ F					<div>OBSERVATIONS</div> <div>Maintaining mud weight at 8.8ppg with KCL</div> <div>Maintaining CR650 additions for hole stability and lubricity.</div> <div>No other water loss control required. Cease PAC additions.</div>
WEIGHT	ppg / SG	8.80	1.056	8.80	1.056	
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	39		42		
PLASTIC VISCOSITY cP @	⁰ C	7		9		
YIELD POINT (lb/100ft ²)		6		6		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2	2	2	2	
RHEOLOGY Ø 600 / Ø 300		20	13	24	15	
RHEOLOGY Ø 200 / Ø 100		9	6	11	7	
RHEOLOGY Ø 6 / Ø 3		3	2	3	2	
FILTRATE API (cc's/30 min)		12.0		12.0		
HPHT FILTRATE (cc's/30 min) @	⁰ F					
CAKE THICKNESS API : HPHT (32nd in)		1		1		
SOLIDS CONTENT (% by Volume)		1.7		1.7		

LIQUID CONTENT (% by Volume) OIL/WATER	98.3		98.3		<div>OPERATIONS SUMMARY</div> <div>Drill ahead HQ core from 621m to 675m</div> <div>Circulate hole clean</div> <div>Rig up and run in hole with test tools for Coal Injection test # 2</div>
SAND CONTENT (% by Vol.)	tr		tr		
METHYLENE BLUE CAPACITY (ppb equiv.)	2.5		2.5		
pH	9.5		9.5		
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)	0.20	0.70	0.20	0.70	
CHLORIDE (mg/L)	26,000		26,000		
TOTAL HARDNESS AS CALCIUM (mg/L)	180		180		
SULPHITE (mg/L)					
K+ (mg/L)	26,250		26,250		
KCl (% by Wt.)	5.0		5.0		
PHPA (ppb)					
ECD (ppg)					

Mud Accounting (bbls)						Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs		Cones	Hrs		Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	406	Centrifuge			Desander			Shaker #1	none		
Premix (recirc from sump)		Desilter				Degasser			Desilter			Shaker #2	none		
Drill Water		Downhole	18	+ FLUID RECEIVED											
Direct Recirc Sump		Dumped		- FLUID LOST	18										
Other (eg Diesel)		Other		+ FLUID IN STORAGE											
									Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)			
TOTAL RECEIVED		TOTAL LOST	18	FINAL VOLUME	388	Desander			0						
				Desilter			0								

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data	
								%	PPB	Jet Velocity	
							High Grav solids			Impact force	#VALUE!
							Total LGS	1.7	16.3	HHP	
							Bentonite	0.1	0.9	HSI	
							Drilled Solids	1.6	14.7	Bit Press Loss	
							Salt	1.6	15.1	CSG Seat Frac Press	
							n @ 24:00 Hrs	0.68		Equiv. Mud Wt.	12 psi
							K @ 24:00 Hrs	1.12		Max Pressure @ Shoe :	274 psi
							DAILY COST			CUMULATIVE COST	
										\$23,327.29	

RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT

Report #	18	Date :	21-Dec-2009
Rig No	Delta 39	Spud :	4-Dec-2009
Depth	675	to	675 Metres

OPERATOR	Central Petroleum	CONTRACTOR			Wallis
REPORT FOR	Steve Bailey / Guy Holmes	REPORT FOR			
WELL NAME AND No		FIELD	LOCATION	STATE	
CBM 93-004		EP 93	Pedirka Basin	Northern Territory	

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE				7	SURFACE	805	ft	HOLE	PITS	PUMP SIZE		CIRCULATION					
3.78	Longyear					SET @	245	M	28	400	4	X	4.5	Inches	PRESS (PSI)	psi		
DRILL PIPE	TYPE	Length			4 1/2	INTERMEDIATE	1644	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS					
SIZE 3.5	HQ #	675	Mtrs		SET @	501	M		428		515	97	%	UP (min)	min			
DRILL PIPE	TYPE	Length			PRODUCTION. or		ft		IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.					
SIZE	HW		Mtrs		LINER Set @		M				0.0291			TIME (min)	min			
DRILL COLLAR SIZE (")		Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP				
			Mtrs		Gel Polymer								(ft/min)	DCs			Lam	Lam

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS		
TIME SAMPLE TAKEN		Pit	Pit	Mud Weight 8.8	API Filtrate	HPHT Filtrate
DEPTH (ft) - (m)	Metres		675	Plastic Vis ALAP	Yield Point 6 - 8	pH 8.5 - 9
FLOWLINE TEMPERATURE	⁰ C ⁰ F			KCl 4 - 5 %	PHPA	Sulphites
WEIGHT	ppg / SG		8.80 1.056	<u>OBSERVATIONS</u>		
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		41			
PLASTIC VISCOSITY cP @	⁰ C		8	Monitor well with small but continual losses while testing.		
YIELD POINT (lb/100ft ²)			7	rebuild lost volume with KCL and CR 650		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 2	Maintain Mud weight at 8.8ppg		
RHEOLOGY ̸ 600 / ̸ 300			23 15	Maintain a vis out of 40 sec/qt with CD650 additions		
RHEOLOGY ̸ 200 / ̸ 100			11 7			
RHEOLOGY ̸ 6 / ̸ 3			3 2			
FILTRATE API (cc's/30 min)			12.5			
HPHT FILTRATE (cc's/30 min) @	⁰ F					
CAKE THICKNESS API : HPHT (32nd in)			1			
SOLIDS CONTENT (% by Volume)			1.7			
LIQUID CONTENT (% by Volume) OIL/WATER			98.3	<u>OPERATIONS SUMMARY</u>		
SAND CONTENT (% by Vol.)			tr			
METHYLENE BLUE CAPACITY (ppb equiv.)			2.5	Continue Coal Injection test # 2		
pH			9.5			
ALKALINITY MUD (Pm)						
ALKALINITY FILTRATE (Pf / Mf)			0.20 0.70			
CHLORIDE (mg/L)			26,000			
TOTAL HARDNESS AS CALCIUM (mg/L)			180			
SULPHITE (mg/L)						
K+ (mg/L)			26,250			
KCl (% by Wt.)			5.0			
PHPA (ppb)						
ECD (ppg)						

Mud Accounting (bbls)						Solids Control Equipment							
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs		Cones	Hrs		Size	Hrs
Premix (drill water)	120	Desander		INITIAL VOLUME	388	Centrifuge			Desander			Shaker #1	none
Premix (recirc from sump)		Desilter				Degasser			Desilter			Shaker #2	none
Drill Water		Downhole	80	+ FLUID RECEIVED	120								
Direct Recirc Sump		Dumped		- FLUID LOST	80								
Other (eg Diesel)		Other		+ FLUID IN STORAGE									
								Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
TOTAL RECEIVED	120	TOTAL LOST	80	FINAL VOLUME	428	Desander				0			
						Desilter				0			

Product	Price	Start		Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data	
CR-650	\$ 105.12	34			2	32	\$ 210.24		%	PPB	Jet Velocity	
Potassium Chloride	\$ 33.00	566			90	476	\$ 2,970.00	High Grav solids			Impact force	
Soda Ash	\$ 22.72	35			1	34	\$ 22.72	Total LGS	1.7	16.3	HHP	
								Bentonite	0.1	0.9	HSI	
								Drilled Solids	1.6	14.7	Bit Press Loss	
								Salt	1.6	15.1	CSG Seat Frac Press	
								n @ 24:00 Hrs	0.62		Equiv. Mud Wt.	12 psi
								K @ 24:00 Hrs	1.64		Max Pressure @ Shoe :	274 psi
								DAILY COST			CUMULATIVE COST	
								\$3,202.96			\$26,530.25	

RMN ENGINEER	Neil Kyberd	CITY	Adelaide Office	TELEPHONE	08 8338 7266
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