DRILLING FLUID REPORT

RMN drilling fluids

Report #	20	Date :	20-Jun-2007		
Rig No	11	Spud :	1-Jun-2007		
Depth	1556	to	1594	Metres	

OPERATOR	Petro Tech Pty Ltd	CONTRACTOR	Century Drilling Limited
REPORT FOR	Dave Hair	REPORT FOR	Cesar Miaco
WELL NAME AND No	Boola Boola#2	FIELD: PEP 166	LOCATION: Gippsland Basin / STATE: Victoria

DRILLING ASSEMBLY		JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	12	12	12	13 3/8 SURFACE	49	ft	HOLE	PITS	PUMP SIZE			CIRCULATION		
8.50	Reed-TD51AP				SET @	15	M	336	405	5.5 X 7	Inches		PRESS (PSI)	1500	psi
DRILL PIPE	TYPE	Length			9 5/8 INTERMEDIATE	1870	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	BOTTOMS		
SIZE 4.5	16.6 #	1391	Mtrs		SET @	570	M	865		GD-PZ-7		97 %	UP (min)	35	min
DRILL PIPE	TYPE	Length			?RODUCTION. o		ft	IN STORAGE		BBL/STK		STK / MIN	TOTAL CIRC.		
SIZE 4.50	HW	37	Mtrs		LINER Set @		M	124		0.0499		170	TIME (min)	105	min
DRILL COLLAR SIZE (")		Length			MUD TYPE					BBL/MIN		GAL / MIN	ANN VEL.	DP 163	Lam
6.25	8.00	166	Mtrs		Gel/KCl/Polymer					8.23		346	(ft/min)	DCs 255 1026	Tur

MUD PROPERTIES			MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Suction	Suction	Mud Weight	8.6 - 9.1	API Filtrate	8.0 - 15.0	HPHT Filtrate	
TIME SAMPLE TAKEN	1100	2000	Plastic Vis	ALAP	Yield Point	4.0 - 10.0	pH	9.0 - 9.5
DEPTH (ft) - (m) Metres	1,575	1,593	KCl	1.0 - 2.0%	PHPA		Sulphites	80 - 120
FLOWLINE TEMPERATURE ^{0}C ^{0}F	48	50						
WEIGHT ppg / SG	9.40 1.128	9.45 1.134						
FUNNEL VISCOSITY (sec/qt) API @ ^{0}C	38	38						
PLASTIC VISCOSITY cP @ 40 ^{0}C	12	12						
YIELD POINT (lb/100ft^2)	13	14						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min	4 9	6 11						
RHEOLOGY θ600 / θ300	37 25	38 26						
RHEOLOGY θ200 / θ100	20 13	20 14						
RHEOLOGY θ6 / θ3	3 3	5 5						
FILTRATE API (cc's/30 min)	9.6	10.0						
HPHT FILTRATE (cc's/30 min) @ ^{0}F								
CAKE THICKNESS API : HPHT (32nd in)	1	1						
SOLIDS CONTENT (% by Volume)	7.1	7.5						
LIQUID CONTENT (% by Volume) OIL/WATER	92.9	92.5						
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)	0.17 1.00	0.18 1.10						
CHLORIDE (mg/L)	8,000	8,200						
TOTAL HARDNESS AS CALCIUM (mg/L)	80	100						
SULPHITE (mg/L)								
K+ (mg/L)	6,825	5,250						
KCl (% by Wt.)	1.3	1.0						
PHPA (ppb)								

OBSERVATIONS

Maintain volume with sump water
Biocide used to prevent bacterial degradation
Running desilter and desander, crackingt sand trap to keep MW at 9.4ppg
Barite used for heavy weight pill

OPERATIONS SUMMARY

Drill ahead to depth of 1594m at 2000hrs.
Pump slug, POOH to change bit

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander	14	INITIAL VOLUME	788
Premix (recirc from sump)		Desilter	14		
Drill Water		Downhole	64	+ FLUID RECEIVED	220
Direct Recirc Sump	220	Dumped	30	- FLUID LOST	143
Other (eg Diesel)		Other	20	+ FLUID IN STORAGE	124
TOTAL RECEIVED	220	TOTAL LOST	143	FINAL VOLUME	989

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge			Desander	2	20	Shaker #1	3 x 210	20
Degasser	Poorbo		Desilter	12	20	Shaker #2	3 x 210	20

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	9.4	10.2	0.50
Desilter	9.4	10.3	0.50

Product	Price	Start	Received	Used	Close	Cost
AMC Biocide G	$ 134.40	10		1	9	$ 134.40
Baryte	$ 10.85	682		25	657	$ 271.25
Caustic Soda	$ 51.40	14		1	13	$ 51.40

Solids Analysis

	%	PPB
High Grav solids	0.1	1.14
Total LGS	7.5	70.7
Bentonite	0.0	0.0
Drilled Solids	7.5	67.9
Salt	0.5	4.7
n @ 2000 Hrs	0.55	
K @ 2000 Hrs	4.38	

Bit Hydraulics & Pressure Data

Jet Velocity	334
Impact force	565
HHP	191
HSI	3.4
Bit Press Loss	946
CSG Seat Frac Press	500 psi
Equiv. Mud Wt.	14.20 ppg
ECD	9.67 ppg
Max Pressure @ Shoe :	462 psi

DAILY COST	CUMULATIVE COST
$457.05	$25,726.40

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