DRILLING FLUID REPORT

RMN drilling fluids

Report #	45	Date :	22-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3572 to 3612		Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott - Ray Ell	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD / LOCATION / STATE	PEP 160 / OTWAY Basin / VICTORIA

DRILLING ASSEMBLY			JET SIZE			CASING			MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	18	18	18	13 3/8 SURFACE	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION			
6.00	Reed DSX111	18	18	18	SET @	304	M	372	466	5 X 8.5	Inches	PRESS (PSI)	2980	psi	
DRILL PIPE	TYPE	Length			9 5/8 INTERMEDIATE	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
SIZE 3.5	15.5 #	3365	Mtrs		SET @	1252	M	966		3 x NAT 8-P80	97 %	UP (min)	51	min	
DRILL PIPE	TYPE	Length			7 PRODUCTION. o	9839	ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.			
SIZE 3.50	HW	86	Mtrs		LINER Set @	2999	M	128		0.0516	118	TIME (min)	164	min	
DRILL COLLAR SIZE (")		Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL. DP	256	Tur	
	4.75	161	Mtrs		5% KCI-PHPA-POLYMER					5.91	248	(ft/min) DCs	452	Tur	

	MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM	Below Shkrs	Below Shkrs	Mud Weight	11.2 - 11.25	API Filtrate	6 - 8	HPHT Filtrate	NA
TIME SAMPLE TAKEN	10.30	22.45	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
DEPTH (ft) - (m) Metres	3,588	3,610	KCl	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
FLOWLINE TEMPERATURE ^{0}C ^{0}F	53	55						
WEIGHT ppg / SG	11.20 1.345	11.20 1.345						
FUNNEL VISCOSITY (sec/qt) API @ ^{0}C	36	37						
PLASTIC VISCOSITY cP @ 55 ^{0}C	11	12						
YIELD POINT (lb/100ft^2)	11	12						
GEL STRENGTHS (lb/100ft^2) 10 sec/10 min	1 3	2 5						
RHEOLOGY q 600 / q 300	33 22	36 24						
RHEOLOGY q 200 / q 100	17 12	19 13						
RHEOLOGY q 6 / q 3	3 1	3 2						
FILTRATE API (cc's/30 min)	6.2	7.0						
HPHT FILTRATE (cc's/30 min) @ ^{0}F								
CAKE THICKNESS API : HPHT (32nd in)	1	1						
SOLIDS CONTENT (% by Volume)	8.9	8.7						
LIQUID CONTENT (% by Volume) OIL/WATER	91.1	91.3						
SAND CONTENT (% by Vol.)	Tr	Tr						
METHYLENE BLUE CAPACITY (ppb equiv.)	7.5	7.0						
pH	9.5	9.0						
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)	0.14 0.92	0.12 0.88						
CHLORIDE (mg/L)	168,000	170,000						
TOTAL HARDNESS AS CALCIUM (mg/L)	80	100						
SULPHITE (mg/L)	120	120						
K+ (mg/L)	40,688	40,688						
KCl (% by Wt.)	7.8	7.8						
PHPA (ppb)	0.81	0.81						

OBSERVATIONS

Barite used to mix slug in anticipation of bit trip that didn't occur. Is still in Pill tank and will be used for next trip.
Maintaining good volume in active system wth addition of premix.
Fluid loss showing increasing trend so will be adding Pac-LV to premix.
Rheology also showing increasing trend, probably due to dehydration, as solids content and type of solids are fairly benign. Ncreased rheology has also increased ECD marginally.

Note that bit has 4x20 and 3x10 nozzles - due to mud report limitation of only only 6 nozzles, this configuration iis equivalent to 6 x 17.8 nozzles.

OPERATIONS SUMMARY

Drill ahead.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	992
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	24	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	26
Other (eg Diesel)		Other	2	+ FLUID IN STORAGE	128
TOTAL RECEIVED		TOTAL LOST	26	FINAL VOLUME	1,094

Solids Control Equipment

	Type	Hrs		Cones	Hrs		Size	Hrs
Centrifuge		4	Desander			Shaker #1	4 x 310	24
Degasser			Desilter			Shaker #2	4 x 310	24

	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)
Desander	10.4	21.0	0.47
Desilter		0	

Product	Price	Start	Received	Used	Close	Cost
AMC PAC-L	$ 159.98	39		2	37	$ 319.96
Baryte	$ 8.20	920		40	880	$ 328.00
Caustic Soda	$ 48.90	15		1	14	$ 48.90
Sodium Sulphite	$ 33.30	30		2	28	$ 66.60

Solids Analysis	%	PPB
High Grav solids	6.2	91.81
Total LGS	2.5	23.6
Bentonite	0.6	5.1
Drilled Solids	1.9	17.5
Salt	10.5	98.4
n @ 22.45 Hrs	0.58	
K @ 22.45 Hrs	3.20	

Bit Hydraulics & Pressure Data	
Jet Velocity	54
Impact force	78
HHP	4
HSI	0.2
Bit Press Loss	30
CSG Seat Frac Press	2200 psi
Equiv. Mud Wt.	13.80 ppg
ECD	11.80 ppg
Max Pressure @ Shoe :	1330 psi

DAILY COST	CUMULATIVE COST
$763.46	$158,198.01

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