

Cementing Report

Common Well Name: FEDERAL LAND BANK GAS UNIT G 4 / OH			Report No.: 1	Report Date: 5/23/2008
Project: COLORADO SOUTH NAD27	Site: FEDERAL LAND BANK GAS UNIT G 4		Spud Date/Time: 5/16/2008	
Event Type: COM- ONSHORE (CON)	Start Date: 5/22/2008	End Date: 11/2/2010	AFE No.:	
Contractor: RIGLESS	Rig Name/No.: H&P 291	Rig Release: 7/12/2010	X3-00CK6 (539,916.00 USD)	
UWI: 1963' FSL 1057' FWL SEC 24 T33N R9W NMPM	Active Datum: ROTARY KELLY BUSHING @6,748.0ft (above Mean Sea Level)			

General Information

Job Type: Primary	Cement Job Start Date/Time: 5/23/2008 12:00AM	Job End Date/Time: 5/23/2008 12:00AM
Cement Company: SCHLUMBERGER	Cementer: BRUCE REDD	
Cemented String: PRODUCTION CASING 1	String Size: 5.500 (in)	String Set TMD: 3,880.4 (ft) Hole Size: 7.875 (in)

Pipe Movement

Pipe Movement: NO MOVEMENT		
Rotating Time (Start-End):	RPM: 0 (rpm)	Rotating Torque (init/avg/max): 0.0/0.0/0.0 (ft-lbf)
Reciprocating Time (Start-End):	Recip Drag Up/Down: 0.0 - 0.0 (kip)	SPM: 0.00 (spm) Stroke Length: 0.00 (ft)

Fluid Name: FRESH WATER**Fluids (1 of 5)**

Slurry Type: PRE FLUSH						
Purpose: MUDPUSH II	Class: OTHER	Description: SPACER WEIGHTED	Density: 10.50 (ppg)			
Yield: 0.0000 (ft3/sk94)	Mix Water Ratio: 1.000 (gal/sk94)	Excess: 0.00 (%)	Mix Method: ON-THE-FLY			
Sacks Used: 0.00 (94lb sacks)	Water Volume: 30.0 (bbl)	Excess Slurry Volume:	Density Measured by: DENSOMETER			
Other Volume: 0.0 (bbl)	Total Vol in Well: 0.0 (bbl)	Slurry Volume: 30.0 (bbl)	Excess Measured From: EST. GAUGE HOLE			
Mud Type: SW/WBM	Density: 8.33 (ppg)	PV: 23.00 (cp)	YP: 22.000 (lb/100ft²)	Viscosity: 77.00 (s/qt)		
Gels 10 Sec: 12.000 (lb/100ft²)	Gels 10 Min: 25.000 (lb/100ft²)					

Additives

Name	Type	Amount	Units	Concentration	Concentration Unit
D020		0.00		176.000	LB/SX
D031		0.00		2,600.000	LB/SX
D182		0.00		60.000	LB/SX

Fluid Name: FRESH WATER**Fluids (2 of 5)**

Slurry Type: CEMENT						
Purpose: PRODUCTION SLURRY	Class: G-CLASS	Description: LEAD SLURRY	Density: 12.50 (ppg)			
Yield: 2.1100 (ft3/sk94)	Mix Water Ratio: 12.200 (gal/sk94)	Excess: 0.00 (%)	Mix Method: ON-THE-FLY			
Sacks Used: 88.00 (94lb sacks)	Water Volume: 25.6 (bbl)	Excess Slurry Volume:	Density Measured by: DENSOMETER			
Other Volume: 0.0 (bbl)	Total Vol in Well: 0.0 (bbl)	Slurry Volume: 33.1 (bbl)	Excess Measured From: EST. GAUGE HOLE			
Mud Type: SW/WBM	Density: 8.33 (ppg)	PV: 23.00 (cp)	YP: 22.000 (lb/100ft²)	Viscosity: 77.00 (s/qt)		
Gels 10 Sec: 12.000 (lb/100ft²)	Gels 10 Min: 25.000 (lb/100ft²)					

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Additives

Name	Type	Amount	Units	Concentration	Concentration Unit
D907	CEMENT CLASS G	0.00		94.000	LB/SX
D079	EXTENDER	0.00		2.500	% WT
D046	ANTIFOAM	0.00		0.200	% WT
D029	CELLOFLAKE	0.00		0.250	LB/SX

Fluid Name: FRESH WATER**Fluids (3 of 5)**

Slurry Type:	CEMENT						
Purpose:	PRODUCTION SLURRY	Class:	G-CLASS	Description:	LEAD SLURRY	Density:	12.50 (ppg)
Yield:	2.1100 (ft3/sk94)	Mix Water Ratio:	12.200 (gal/sk94)	Excess:	31.00 (%)	Mix Method:	ON-THE-FLY
Sacks Used:	54.00 (94lb sacks)	Water Volume:	15.7 (bbl)	Excess Slurry Volume:		Density Measured by:	DENSOMETER
Other Volume:	0.0 (bbl)	Total Vol in Well:	18.4 (bbl)	Slurry Volume:	20.3 (bbl)	Excess Measured From:	EST. GAUGE HOLE
Mud Type:	SW/WBM	Density:	8.33 (ppg)	PV: 23.00 (cp)	YP: 22.000 (lb/100ft²)	Viscosity:	77.00 (s/qt)
Gels 10 Sec:	12.000 (lb/100ft²)	Gels 10 Min:	25.000 (lb/100ft²)				

Additives

Name	Type	Amount	Units	Concentration	Concentration Unit
D500	GASBLOK LT	0.00		0.800	GAL/SX
D047	ANTIFOAM	0.00		0.050	GAL/SX
D145A	DISPERSANT	0.00		0.150	GAL/SX

Fluid Name: FRESH WATER**Fluids (4 of 5)**

Slurry Type:	CEMENT						
Purpose:	PRODUCTION SLURRY	Class:	G-CLASS	Description:	LEAD SLURRY	Density:	12.50 (ppg)
Yield:	2.1100 (ft3/sk94)	Mix Water Ratio:	12.200 (gal/sk94)	Excess:	30.00 (%)	Mix Method:	ON-THE-FLY
Sacks Used:	213.00 (94lb sacks)	Water Volume:	61.9 (bbl)	Excess Slurry Volume:		Density Measured by:	DENSOMETER
Other Volume:	0.0 (bbl)	Total Vol in Well:	80.0 (bbl)	Slurry Volume:	80.0 (bbl)	Excess Measured From:	EST. GAUGE HOLE
Mud Type:	SW/WBM	Density:	8.33 (ppg)	PV: 23.00 (cp)	YP: 22.000 (lb/100ft²)	Viscosity:	77.00 (s/qt)
Gels 10 Sec:	12.000 (lb/100ft²)	Gels 10 Min:	25.000 (lb/100ft²)				

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Additives

Name	Type	Amount	Units	Concentration	Concentration Unit
D907	CEMENT CLASS G	0.00		94.000	LB/SX
D079	EXTENDER	0.00		2.500	% WT
D046	ANTIFOAM	0.00		0.200	% WT
D029	CELLOFLAKE	0.00		2.500	LB/SX

Fluid Tests

Thick Time (hr)	Thick Temp (°F)	Free Water (%)	Free Water Temp (°F)	Fluid Loss (cc/30min)	Fluid Loss Temp (°F)	Fluid Loss Press (psi)	Comp Strength Time 1 (min)	Comp Strength Pressure 1 (psi)	Comp Strength Temperature 1 (°F)	Comp Strength Time 2 (min)	Comp Strength Pressure 2 (psi)	Comp Strength Temperature 2 (°F)
4.61	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0.0

Fluid Name: FRESH WATER**Fluids (5 of 5)**

Slurry Type:	CEMENT											
Purpose:	PRODUCTION SLURRY	Class:	C-CLASS	Description:	TAIL SLURRY	Density:	13.80 (ppg)					
Yield:	1.4700 (ft3/sk94)	Mix Water Ratio:	7.230 (gal/sk94)	Excess:	0.00 (%)	Mix Method:	ON-THE-FLY					
Sacks Used:	115.00 (94lb sacks)	Water Volume:	19.8 (bbl)	Excess Slurry Volume:		Density Measured by:	DENSOMETER					
Other Volume:	0.0 (bbl)	Total Vol in Well:	30.1 (bbl)	Slurry Volume:	30.1 (bbl)	Excess Measured From:	EST. GAUGE HOLE					
Mud Type:	SW/WBM	Density:	8.33 (ppg)	PV:	23.00 (cp)	YP:	22.000 (lb/100ft²)	Viscosity:	77.00 (s/qt)			
Gels 10 Sec:	12.000 (lb/100ft²)	Gels 10 Min:	25.000 (lb/100ft²)									

Additives

Name	Type	Amount	Units	Concentration	Concentration Unit
D903	CEMENT CLASS C	0.00		71.000	LB/SX
D048	LITEPOZ 6	0.00		15.000	LB/SX
D167	UNIFLAC-S	0.00		0.200	% WT
D044	SALT	0.00		8.000	% WT
D046	ANTIFOAM	0.00		0.200	% WT
D065	DISPERSANT	0.00		0.250	% WT
S001	CALCIUMCHLORIDE	0.00		2.000	% WT
D153	ANTISETTLING	0.00		0.800	% WT

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Fluid Tests

Thick Time (hr)	Thick Temp (°F)	Free Water (%)	Free Water Temp (°F)	Fluid Loss (cc/30min)	Fluid Loss Temp (°F)	Fluid Loss Press (psi)	Comp Strength Time 1 (min)	Comp Strength Pressure 1 (psi)	Comp Strength Temperature 1 (°F)	Comp Strength Time 2 (min)	Comp Strength Pressure 2 (psi)	Comp Strength Temperature 2 (°F)
3.90	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0	0.0

Stages

Stage No.	Stage Type	Est. Top (ft)	Est. Bottom (ft)	Mud Circ. Rate (gpm)	Mud Circ. Press. (psi)	Top Plug	Bottom Plug	Plug Bumped	Pressure Bumped (psi)	Float Held	Pressure Held (min)	Returns	Circulate Prior (hr)	Cmt Vol to Surface (bbl)	Total Mud Lost (bbl)	Annular Flow After
1	PRIMARY CEMENT	17.6	3,887.0	240.0	220.0	Y	Y	N	0.0	Y	0.00	35 BBLS LEAD	1.25	35.0	0.0	N

Pumping Schedule

Fluid Pumped	Volume Pumped (bbl)	Avg. Disp. Rate (bbl/min)	Max Disp. Rate (bbl/min)	Slurry Top TMD (ft)	Slurry Base TMD (ft)	Start Mix Cmt	Start Slurry Pmp	Pumping End Date/Time	Start Disp	Foam Job	Gas Type	Gas Vol Used (scf)	Bh Circ Temp	Bh Static Temp
FRESH WATER - Cement Slurry	30.0	8.38	9.57	0.00	0.00	3:55	4:06	5/23/2008 5:45	4:58	N		0	110.00	0.00
FRESH WATER - Cement Slurry	33.1	8.38	9.57	0.00	0.00	3:55	4:06	5/23/2008 5:45	4:58	N		0	110.00	0.00
FRESH WATER - Cement Slurry	20.3	8.38	9.57	17.60	597.00	3:55	4:06	5/23/2008 5:45	4:58	N		0	110.00	0.00
FRESH WATER - Cement Slurry	80.0	8.38	9.57	597.00	2,906.11	3:55	4:06	5/23/2008 5:45	4:58	N		0	110.00	0.00
FRESH WATER - Cement Slurry	30.1	8.38	9.57	2,906.11	3,887.01	3:55	4:06	5/23/2008 5:45	4:58	N		0	110.00	0.00

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Tests

Casing Test	Shoe Test	Liner Top Test
Test Pressure: 929.0 (psi)	FIT/LOT: 0.00 (ppg)	Liner Overlap: 0.0 (ft)
Time: 0 (min)	Tool: N	Positive Test: 0.00 (ppg) Positive Test Tool: N
Cement Found between Shoe and Collar: N	Open Hole Length: 0.0 (ft)	Negative Test: 0.00 (ppg) Negative Test Tool: N
	Hours Before Start: 0.00 (hr)	Time Before Test: 0.00 (hr)
		Cmt Found on Tool: N

Log/Survey Evaluation**Interpretation Summary**

CBL Run: N	Cement Top: 0.0 (ft)
Under Pressure: 0.0 (psi)	How Determined:
Bond Quality:	TOC Sufficient: N
CET Run: N	Job Rating:
Bond Quality:	If Unsuccessful, Detection Indicator:
Temp Survey: N	Remedial Cement Required: N
Hrs Prior to Log: 0.00 (hr)	How Determined: 0.0

Remarks

DISPLACED 92 BBLS
 35 BBLS LEAD CEMENT RETURNED TO SURFACE
 PLUG DID NOT BUMP
 CHECKED FLOATS - FLOATS HELD