

From: Kaluza, Robert  
Sent: Mon Apr 19 13:04:48 2010  
To: Morel, Brian P  
Subject: Emailing: 7 x 9 .875 in cement job.doc  
Importance: Normal  
Attachments: 7 x 9 .875 in cement job.doc

<<...>>

The message is ready to be sent with the following file or link attachments:  
7 x 9 .875 in cement job.doc

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3553

Exhibit No. \_\_\_\_\_  
Worldwide Court  
Reporters, Inc.

## **7" x 9 7/8" Cement Plan**

- Notify boat of the cement job
- Will pick-up Cement Stand off skate
- Will use (2) stroke counters on the rig floor
- RU on rig floor to easily pump down cement stand using rig pumps and cement unit

### **Break Circulation**

1. MU cement stand, land-out, RU to pump down cement stand
2. Close diverter sub, Covert float
3. Break Circ with rig pumps. Initially circulate slowly, recommend break circ at 1 bpm, ramp-up slowly to 3 - 4 BPM as hole conditions warrant. Pump 150 - 190 bbls after pumps are up to speed.
4. Test N<sub>2</sub> Lines
5. Close top TIW, put 500 - 1,000 psi on Top Drive. Ensure bottom TIW is open.
6. Pump 7 bbls 6.7 ppg base oil using cementing unit.
7. Pump 10 bbls 14.3 ppg tuned spacer
8. Pressure test cement lines to 5,000 psi

### **Primary Cement Job**

1. Pump 62 bbls of 14.3 tuned spacer at 4 bpm  
Note: stop for 15 - 20 minutes to clean-up and mix cement
2. Pump 4 bbls, 16.74 ppg 'H' cement, pump rate 2 bpm
3. Drop Dart #1 on the run --- may need to increase pump rate to 4 bpm to push dart.
4. Pump 4 bbls of cement at < 2 bpm  
Note: must slow to 2 bpm when starting N<sub>2</sub>
5. Start pumping N<sub>2</sub> --- ensure there is good communication between the cementer and the N<sub>2</sub> hands
6. Pump 39 bbls cement : this cement will be foamed. Foamed volume 48 bbls.
7. Pump 4 bbls cement: this cement will be unfoamed
8. Pump 3 bbls, 14.3 ppg spacer
9. Drop Dart #2 on the run --- may need to increase pump rate to 4 bpm to push dart.
10. Pump 17 bbls spacer at 4 bpm.
11. Pump 133 bbls, 14.0 ppg Spacer with cement unit, 3 - 4 bpm --- switch to rig pumps

**Displacement (switched to rig pumps)**

1. Re-zero stroke counters. Displace 727 bbls 14.0 ppg SOBMs at 3 – 4 bpm.  
Note: to bump plug consider: 11 bbls of squat, 3 bbls compressibility + 3 bbls as ½ shoe joints volume --- for a total of 754 bbls.
2. Bump plug with 500 psi – 1,000 psi over circulating pressure
3. Bleed back. Record bleed back volume. --- max bleed back is 6 bbls  
Note: if floats don't hold, pump back 6 bbls, hold pressure.

**Pull out of Hole**

1. Set seal assy as per program
2. Release running tool from hanger
3. POOH 2 stands
4. Drop Nerf ball: Circ 1 1/2 times DP volume
5. Pump slug, POOH.



From: Morel, Brian P  
 Sent: Mon Apr 19 13:58:19 2010  
 To: Kaluza, Robert; Lambert, Lee; Vidrine, Don J  
 Subject: 7 x 9 875 in cement job.doc  
 Importance: Normal  
 Attachments: 7 x 9 875 in cement job.ZIP

Attached is the cement plan Bob put together with the chart below included.

Step	Total	Difference	Release	Pressure	
Bottom	60	60	2500		
Dart to	bbls	bbls	-		
Diverter			3000		
			psi		
Bottom	69	9	2500		
Dart to	bbls	bbls	-		
DTD			3000		
			psi		
Bottom	78	9	800 -		
Dart to	bbls	bbls	1200		
Plug			psi		
Top Dart to	120	43	2500		
Diverter	bbls	bbls	-		
			3000		
			psi		
Top Dart to	129	9	2500	Rig	
DTD	bbls	bbls	-	StrokeCount	
			3000	er	
			psi		
Top Dart to	138	9	2000		Cumm
Plug	bbls	bbls	-		
			2500		

psi

Switch to Rig Pumps	150 bbls	12 bbls	0 stks	-	Re-Zer o	0 bbls	0 stks		
Bottom Plug to 7"	611 bbls	461 bbls	3661 stks	-		461 bbls	3661 stks		
Top Plug to 7"	671 bbls	60 bbls	476 stks	-		521 bbls	4137 stks	Cumm	
Bottom Plug to Float Collar		146 bbls	1159 stks	900 - 1100	Re-Zer o	667 bbls	5296 stks	0 bbls	0 stks
				psi					
Top Plug to Float Collar	877 bbls	60 bbls	476 stks	500 - 1000		727 bbls ***	5772 stks ***	60 bbls	476 stks
				psi					
Max Displacem ent	894 bbls	17 bbls	135 stks			744 bbls ***	5907 stks ***	77 bbls	611 stks

\*\*\* If bottom  
plug is not  
seen

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10. Pump 17 bbls spacer at 4 bpm.
11. Pump 133 bbls, 14.0 ppg Spacer with cement unit, 3 - 4 bpm --- switch to rig pumps  
Note: 150 bbls total pumped behind cement = 133 bbl SOBMs + 17 Spacer

### Displacement (switched to rig pumps)

1. Re-zero stroke counters. Displace 727 bbls 14.0 ppg SOBMs at 3 - 4 bpm.  
Note: to bump plug consider: 11 bbls of squat, 3 bbls compressibility + 3 bbls as 1/2 shoe joints volume --- for a total of 744 bbls.
2. Bump plug with 500 psi - 1,000 psi over circulating pressure

3. Bleed back. Record bleed back volume. --- max bleed back is 6 bbls  
 Note: if floats don't hold, pump back 6 bbls, hold pressure.

Step	Total	Difference		Release Pressure	Rig StrokeCounter				
Bottom Dart to Diverter	60 bbls	60 bbls		2500 - 3000 psi					
Bottom Dart to DTD	69 bbls	9 bbls		2500 - 3000 psi					
Bottom Dart to Plug	78 bbls	9 bbls		800 - 1200 psi					
Top Dart to Diverter	120 bbls	43 bbls		2500 - 3000 psi					
Top Dart to DTD	129 bbls	9 bbls		2500 - 3000 psi					
Top Dart to Plug	138 bbls	9 bbls		2000 - 2500 psi					
Switch to Rig Pumps	150 bbls	12 bbls	0 stks	-	Re-Zero	0 bbls	0 stks		
Bottom Plug to 7"		461 bbls	3661 stks	-		461 bbls	3661 stks		
Top Plug to 7"		60 bbls	476 stks	-		521 bbls	4137 stks	Cumm	
Bottom Plug to Float Collar		146 bbls	1159 stks	900 - 1100 psi	Re-Zero	667 bbls	5296 stks	0 bbls	0 stks
Top Plug to Float Collar		60 bbls	476 stks			727 bbls ***	5772 stks ***	60 bbls	476 stks
Max Displacement		17 bbls	135 stks	500 - 1000 psi		744 bbls ***	5907 stks ***	77 bbls	671 stks

\*\*\* If bottom plug is not seen

**Pull out of Hole**

1. Set seal assy as per program
2. Release running tool from hanger
3. POOH 2 stands
4. Drop Nerf ball: Circ 1 1/2 times DP volume
5. Pump slug, POOH.