BARCLAY "11K" FEDERAL #11 Drilling Program Page 2

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4. <u>Casing Program</u>

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Hole Size	Interval	Casing OD	Weight	Grade	Туре
30"	0-40'	20"		Conductor	0.30" wall
17 1/2"	0-850'	13 3/8"	48#	H-40	ST&C, new R-3
11"	0-4400'	8 5/8"	32#	J-55	ST&C, new R-3
7 7/8"	0'-TD (8750'±)	5 1/2"	15.5# & 17#	J-55	L&TC, new R-3
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Cementing Program

20" Conductor Casing	Cement with Ready-mix to surface.
13 3/8" Surface Casing	Cement to surface using 500 sx Poz (35% Poz, 65% Class C, 6% gel) with 2% CaCl ₂ and 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% CaCl ₂ and 1/4 lb/sx Cellophane flakes.
8 5/8" Intermediate Casing	Cement to surface using 1600 sx Poz (35% Poz, 65% Class C, 6% gel, 15% salt) with 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% CaCl ₂ , 1/4 lb/sx Cellophane flakes
5 1/2" Production Casing	Cement 1st stage with 625 sx Class H with 3% salt, 0.4% FL additive, 1/4 lb/sx Cellophane flakes
with DV tool at ±5500'	Cement 2nd stage with 400 sx Class C with 4% gel, 6.5% salt, 1/4 lb/sx Cellophane flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach $450'\pm$ above the 8 5/8" casing seat at 4400'.

5. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000 psi WP) preventer. Both rams will be hydraulically operated with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOP will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. The BOP and associated equipment will be tested to 1200 psi before drilling