

OPATRIL 12-16L

Existing Features	
KB	13
Surface csg shoe at	510
Bottom of Foxhills (FHM)	888

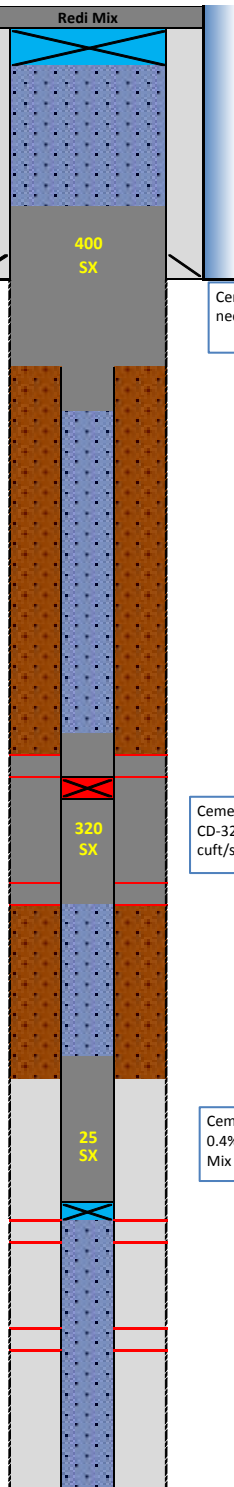
Sussex Top	4234
Sussex Top	4450
Shannon Base	4843
Not producing Shannon w/in 1 mile	

TOC (CBL)	6630
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Niobrara Top	7024
Perf Top	7025
Perf Bottom	7177

Codell	7300
Perf Top	7303
Perf Bottom	7316

PBMD	7360
4 1/2" 11.6# CSG	7405



Proposed Additions for P&A	
80	CIBP 8 5/8" 23#
310	TOC

Cement Blend: Type III w/cello flake and CaCl₂ as necessary, mixed at 14.8 ppg and 1.33 cuft/sk.

990	Casing Stub
1090	BOC

4030	TOC
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Cement Blend: "G" w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301, mixed at 15.8 ppg and 1.15 cuft/sk.

4500	Squeeze perf
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6590	TOC
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Cement Blend: "G" w/silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time. Mix at 15.8 ppg and 1.38 cuft/sk.

6970	CIBP 4 1/2" 11.6#
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API#	05-123-16249			
Wins:	(H5670)			
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft ³ /ft
Surface Casing	8 5/8" 23#	510	0.0637	0.3576
Production Casing	4 1/2" (11.6#)	7405	0.0155	0.0873
Tubing Size	2 3/8" (4.7)	7295	0.003870	0.02171
Hole Size (TOP)	11	N/A	0.1175	0.6600
Hole Size (SU/SH)	11	N/A	0.0979	0.5495
Hole Size (NB)	N/A	N/A	N/A	N/A

Cement Calculations				
Section	Volume cu-ft	Cement Sacks	Excess	
Open Hole	443.49	333.45	40%	Foxhills Plug 11 in. hole
Surface casing	71.52	53.77		
Production casing	8.73	6.56		
FX Total	515.01	393.79	400	
Open Hole	309.91	269.4893	20%	11 in. hole
Production casing	41.031	35.67913		
SU Total	350.94	305.1684	320	
Open Hole				
Production	33.17	24.04		25
NB/CD Total	33.17	24.04	25	

Cement Yield	1.33	1.15	1.38
	FX	SX/SH	NB

Legend	
	Existing cement with CBL
	New cement
	Assumed cement w/ no CBL
	Cast Iron Cement Retainer
	Cast Iron Bridge Plug
	Mud
	Water + Biocide