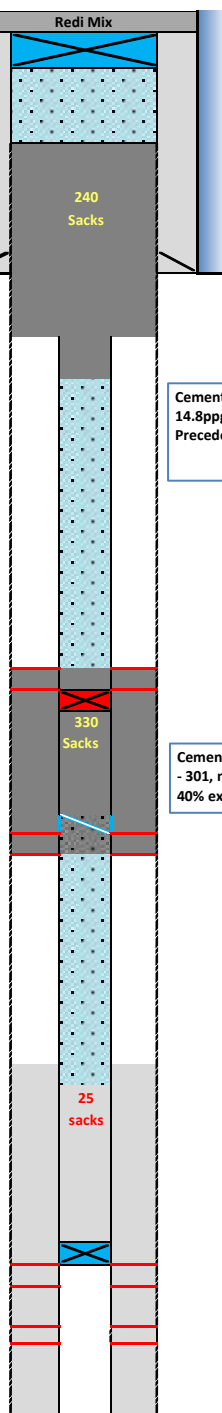


## KUGEL UPRR 32-33 (73940)

Existing Features	
KB	10
Surface csg shoe at	604
Bottom of Foxhills	656

Proposed Additions for P&A	
80	CIBP (8-5/8")
400	TOC

856	Casing Stub
956	Bottom of Cement
Cement Blend: Type III w/ cello flake and CaCl <sub>2</sub> , mixed at 14.8ppg and 1.33 cuft/sk. with 20% excess and 12" hole size. Precede cement with 10 bbl SAPP and 20 bbl fresh water spacer.	
4390	Top Squeeze Perf
4420	CICR
4900	Bottom of cement
4590	Top
Sussex	No Perfs
Stage Tool (uncemented)	4800
Shannon	Bottom
SX/SH non productive w/in 1 mile radius	
TOC existing	6420
TOC in pipe	6630
Existing CIBP	7066
Geologic Top	7109
Niobrara	Perf Top
	Perf Bottom
Geologic Top	7278
Codell	Perf Top
	Perf Bottom
PBMD	7520
4-1/2" CSG 15.1#	7425



API# 0512313300				
Well: KUGEL UPRR 32-33 (73940)				
Equipment	Specs.	Depth	Capacity (bbl/ft)	Capacity ft <sup>3</sup> /ft
Surface Casing	8 5/8" 23#	604	0.0637	0.3576
Production Casing	4.50 15.1#	7520	0.0142	0.0798
Tubing String	2 3/8" 4.7# J55	6533	N/A	N/A
Hole Size	9"		0.0787	0.4418
Hole Size	10"		0.0971	0.5454
Hole Size	12"		0.1399	0.7854

Cement Calculations				
Section	Volume	Cement Sacks	approximate	Top Plug
S/C hole	72.95	54.85		12" hole
Open Hole	237.50	178.58	20% excess	
P/C hole	7.98	6.00		
Total Top Plug	318.44	233.43	240	

In Hole	332.44	289.08		SX/ SH Plug
In pipe	40.70	35.39		10 " HOLE; 40% excess
Total	373.14	324.47	330	

Cement Yield	1.33	1.15	1.71	1.38
Top Plug	SX/SH	NB/CD Squeeze	NB/CD in pipe	

Legend	
	Existing cement with CBL
	assumed cement w/ no CBL
	cast iron cement retainer
	cast iron bridge plug
	Water + biocide