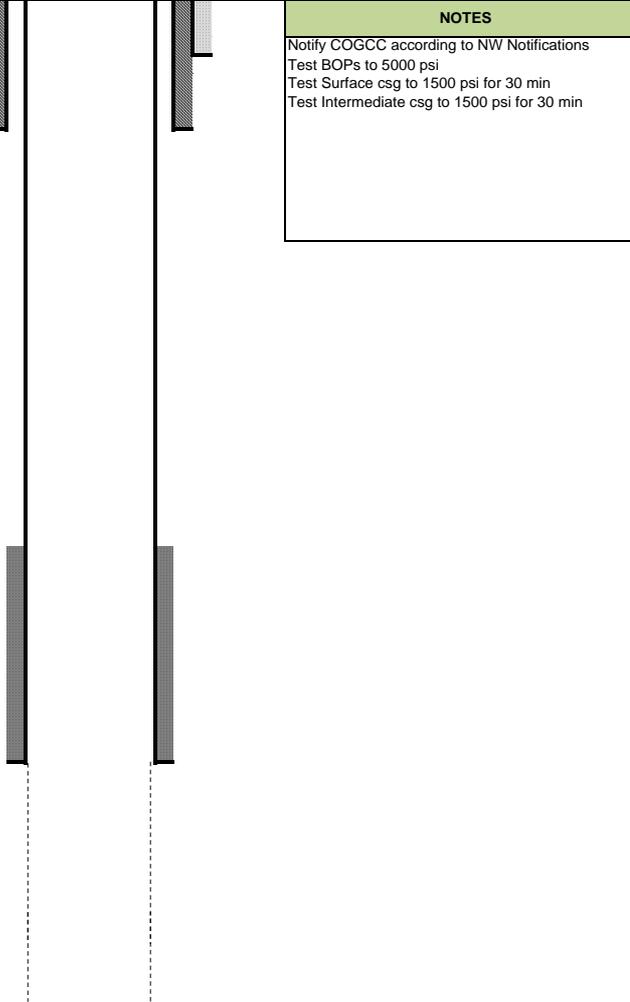


Williams 1-30 **Proposed Schematic** **17-Jun-13**

Field: WFU	AFE / Network #: 0	LAT: 40° 27' 13.31 N
County: Routt	Shell Working Interest: 100%	LONG: 107° 11' 26.41 W
Township: Sec: 30, Twp: 6N, Rng: 87W	AFE Drilling Cost: \$0	Ground Elevation: 6516 ft (surveyed)
Rig: Savanna 650	Plan Days: 0	RKB to Ground: 14.5 ft
Permit API: 0		RKB Elevation: 6530.5 ft

Objectives: Drill Surface and Intermediate into top of Niobrara
 Drill vertical production hole
 Drill to total MD without losses

30" Hole drilled to 20" pipe (0.25") set @ Cement to surface	90 90
Surface	
12-1/4" Hole drilled to 9-5/8" 36# J-55 STC @ Cement to surface	1500 1500
Intermediate	
8-1/2" Hole drilled to 7" 29# P-110 LTC @ Top of cement 1300' MD	7400 7400
Production	
6" Hole drilled to Barefoot- no liner	10090



NOTES	Casing
Notify COGCC according to NW Notifications Test BOPs to 5000 psi Test Surface csg to 1500 psi for 30 min Test Intermediate csg to 1500 psi for 30 min	Surface: 9-5/8" 36# J-55 R3 ST&C 0-1500 ft Intermediate: 7" 29# P-110 R3 LTC 0-7400 ft Production: No casing 7400-10090 ft MD
	DRILLING FLUIDS
	Surface: Clear Gyp Water Hi-Vis Sweeps as needed Intermediate: Clear Gyp Water + Air Begin with 350 SCFM + 350 GPM Watch Cuttings return to gauge cleaning Production: Aerated OBM or brine

TD AT 10090' TVD / 10090' MD