

# Deal Gulch 4-16

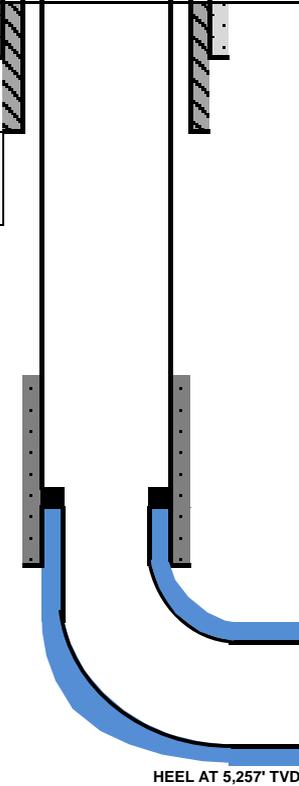
# Contingency Schematic

2-Oct-12

Field: WFU	AFE / Network #: 0	LAT: 40° 23' 17.630 N
County: Moffat	Shell Working Interest: 100%	LONG: 107° 29' 54.420 W
Township: Sec: 16, Twp: 5n, Rng: 90W	AFE Drilling Cost: \$0	Ground Elevation: 7210 ft (surveyed)
Rig: Savanna 650	Plan Days: 0	RKB to Ground: 12 ft
Permit API: 0		RKB Elevation: 7222 ft

**Objectives:** Drill Surface and Intermediate into top of Niobrara  
Drill Lateral to total MD without losses

30" Hole drilled to 20" pipe (0.25") set @ Cement to surface	90
13-1/2" Hole drilled to 10-3/4" 40.5# J-55 STC @ Cement to surface	1250
9-7/8" Hole drilled to 7-5/8" 29.7# P-110 LTC @ Top of cement 3750' MD	4550



NOTES	Casing
Notify COGCC according to NW Notifications Test BOPs to 2000 psi Test 10-3/4" csg to 1500 psi for 30 min Test 7-5/8" csg to 1500 psi for 30 min	<b>Surface:</b> 10 3/4" 40.5# J-55 R3 ST&C 0-1250 ft  <b>Intermediate:</b> 7 5/8" 29.7# P-110 R3 LT&C 0-4550 ft  <b>Production:</b> 5 1/2" 17# N-80 R3 H511 4350-7814 ft MD (200' liner overlap)
DRILLING FLUIDS	<b>Surface:</b> Clear Gyp Water Hi-Vis Sweeps as needed <b>Intermediate:</b> Clear Gyp Water + Air Begin with 350 SCFM + 350 GPM Watch Cuttings return to gauge cleaning <b>Production: Aerated OBM</b> Follow WFT Program use PWD to watch BHP. Consult Engineer as needed.

TOE AT 5,221' TVD / 7,814' MD

HEEL AT 5,257' TVD / 5,840' MD