

Iles Mountain 1-36

Proposed Schematic

7-Aug-12

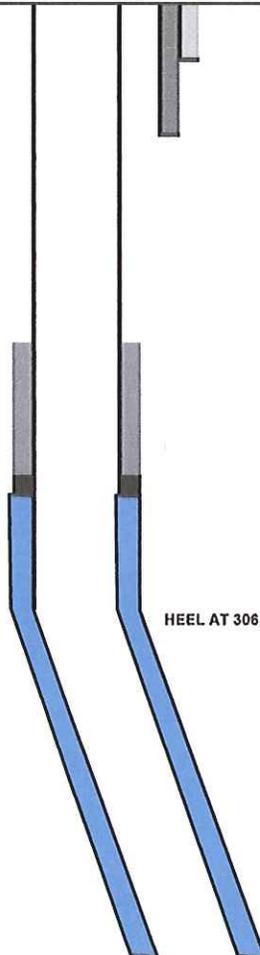
Field: WFU
 County: Moffat
 Township: Sec: 36, Twp: 5n, Rng: 92W
 Rig: Savanna 650
 Permit API: 0

AFE / Network #: 0
 Shell Working Interest: 100%
 AFE Drilling Cost: \$0
 Plan Days: 0

LAT: 0
 LONG: 0
 Ground Elevation: 6536 ft (surveyed)
 RKB to Ground: 16.5 ft
 RKB Elevation: 6552.5 ft

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

30" Hole drilled to	90
20" pipe (0.25") set @	90
Cement to surface	
13-1/2" Hole drilled to	800
10-3/4" 40.5# J-55 STC @	800
Cement to surface	
7-7/8" Hole drilled to	5248
5-1/2" 17# N-80 H-511 @	5248
#VALUE!	



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 5-1/2" csg to 1500 psi for 30 min	Surface: 10 3/4" 40.5# J-55 R3 ST&C 0-800ft TVD/MD Production: 5 1/2" 17# N-80 R3 H511 0-3600' TVD/5248' MD
Cement	DRILLING FLUIDS
Surface: Lead: 14.5 ppg Class G/Pozmix Blend-254 Sacks Tail: 15.8 ppg Class G-185 sacks TOC: Surface, Cement Btm: 800' TVD Production: 9.5 ppg LiteCrete, Hole Size: 7-7/8", Cement TOC: 2250' TVD, Cement Btm: 2750' TVD, Est Sacks: 47 Stage tool: 2750' TVD	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 Follow WFT Program use PWD to watch BHP. Consult Engineer as needed.

TOE AT 3,600' TVD / 5,248' MD

Iles Mountain 1-36

Contingency Schematic

7-Aug-12

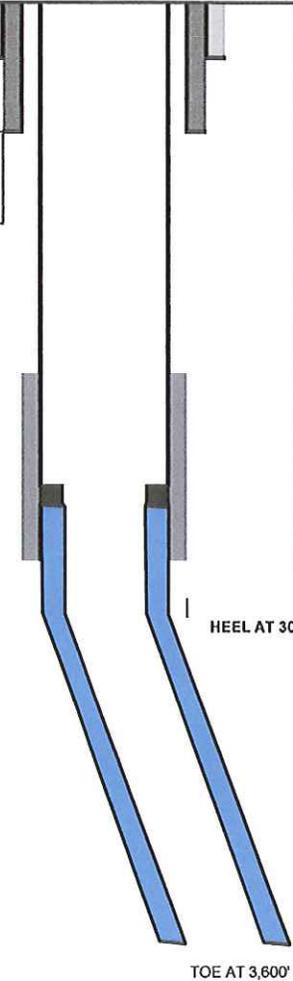
Field: WFU
 County: Moffat
 Township: Sec: 36, Twp: 5n, Rng: 92W
 Rig: Savanna 650
 Permit API: 0

AFE / Network #: 0
 Shell Working Interest: 100%
 AFE Drilling Cost: \$0
 Plan Days: 0

LAT: 0
 LONG: 0
 Ground Elevation: 6536 ft (surveyed)
 RKB to Ground: 16.5 ft
 RKB Elevation: 6552.5 ft

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

30" Hole drilled to	90
20" pipe (0.25") set @	90
Cement to surface	
13-1/2" Hole drilled to	800
10-3/4" 40.5# J-55 STC @	800
Cement to surface	
9-7/8" Hole drilled to	2781
7-5/8" 29.7# P-110 LTC @	2781
Cement to 2281'	



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	Surface: 10 3/4" 40.5# J-55 R3 ST&C 0-800ft TVD/MD Intermediate: 7 5/8" 29.7# P-110 R3 LT&C 0-2781 ft MD Production: 5 1/2" 17# N-80 R3 H511 2581-5248 ft MD (200' liner overlap)
Cement	DRILLING FLUIDS
Surface: Lead: 14.5 ppg Class G/Pozmix Blend-254 Sacks Tail: 15.8 ppg Class G-185 sacks TOC: Surface, Cement Btm: 600' TVD Intermediate: 9.5 ppg LiteCrete, Hole Size: 9-7/8", Cement TOC: 2750' TVD, Cement Btm: 2250' TVD, Est Sacks: 60 Production: Uncemented, slotted liner	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 Follow WFT Program use PWD to watch BHP. Consult Engineer as needed.

HEEL AT 3065' TVD / 3333' MD

TOE AT 3,600' TVD / 5,248' MD