

DRILLING PROGNOSIS

WELL: **McELMO DOME #YA-5**

W.O. No.

LOCATION: SHL: 690' FNL & 425' FEL, Section13, T37N, R18W
 BHL: See below, drilled as a horizontal well
 MONTEZUMA CO, COLORADO

FIELD: McELMO DOME

OBJECTIVE: LEADVILLE

ELEVATION: GL = 6709' EST.

A FOCUSED EFFORT WILL BE EXPECTED BY ALL PARTIES TO ELIMINATE ANY / ALL ACCIDENTS DURING THE EXECUTION OF THIS DRILLING PROJECT. H2S IS ANTICIPATED WHILE DRILLING THE KILLER SHALES.

GEOLOGY / FORMATION TOPS

WELL PROGRAM

FORMATION	TVD	SS	
ENTRADA	1213'	+5496'	DRILLING PROCEDURE: Drill a 12-1/4" hole to 2850' MD, ~100' below the top of the Cutler, set 9-5/8" casing and conventionally cement to surface in 1-stage. Drill an 8-3/4" hole to 7900' MD, ~25' below the top of the Leadville, set 7" chrome casing and foam cement to surface in 1-stage. Drill a 4-3/4" horizontal hole from 7900' to 9900', ~100' - 125' below the top of the Leadville, an openhole horizontal completion will be performed over this interval
CHINLE	1935'	+4774'	
SHINARUMP	2590'	+4119'	
CUTLER	2750'	+3959'	
9-5/8" SFC CSG	2850'		
U. HERMOSA	4572'	+2137'	CASING / CEMENTING DETAILS: Designed TOC for both casing strings will be @ surface 9-5/8" 36# K-55 STC => 0' - 2,850' Cement: Conventional => Lead 800 sx 50/50 Poz + Tail 300 sx Class G 7" 29# CR13 FOX => 0' - 5,850' 7" 32# CR13 FOX => 5,850' - 7,550' 7" 29# CR13 FOX => 7,550' - 7,900' Cement: Foam => Lead 1380 sx Base Slurry w/ Foam Additions + Tail 290 sx Class G + 100 sx Cap @ Surface
PARADOX	5570'	+1139'	
DESERT CREEK	5854'	+855'	
PARADOX SALT	5972'	+737'	
KILLER SHALES	6437'	+272'	
BASE SALT	7317'	-608'	DRILLING FLUIDS: 12-1/4" Sfc Hole: Fresh water native, maintain fluid as clean as possible, pump viscous sweeps for hole cleaning and prior to running the 9-5/8" casing, possible seepage problems while drlg interval 8-3/4" Int Hole to 100' above Desert Creek: Drill out of 9-5/8" w/ clean, fresh water, circulate the reserve pit to keep solids at a minimum. 8-3/4" Int Hole to 7" csg pt: Displace the fresh water system w/ clean, salt saturated brine prior to drlg the Desert Creek, circ salt section of reserve pit, pretreat for H2S prior to drilling the P4 Shale 4-3/4" Prod Hole: Drill out of 7" w/ clean fresh water, maintain fluid loss control to minimize seepage. Lateral will
L.HERMOSA	7620'	-911'	
LEADVILLE	7875'	-1166'	
7" PROD CSG	7900'		
BASE OF LEADVILLE	8075'		
			SURVEY INFORMATION: 12-1/4" Sfc Hole: Drop inclination surveys at 500' intervals. 8-3/4" Int Hole: Drop inclination surveys at 1000' intervals (No surveys through "KillerShale") 4-3/4" Prod Hole: Drop inclination survey at TD only.
			EVALUATION PROGRAM: 12-1/4" Sfc Hole: NONE 8-3/4" Int Hole: 2-Man Mudlog GR/CAL 4-3/4" Prod Hole: CAL/LDT/CNL/GR/CBL 5500' - Total Depth 7" csg pt - 9-5/8" csg shoe TD - 7" csg shoe

- OBJECTIVES:**
- 1) Focused effort by all parties to eliminate all accidents during the drilling operation
 - 2) Drill, evaluate, and case the #YA-5 in less than 26 days at a cost of \$2,400,000 or less.
 - 3) Successfully run the 7" chrome production casing / tubing to 20' inside the Leadville.
 - 4) Isolate the 7" 13-Chrome to surface with a high quality cement.