Completion Procedure

H. COURTMAN 4 STATE #1
1780' FNL, 1650' FEL
Section 4, T-19-S, R-28-E
Travis / Empire Field
Eddy County, NM

Tubing:	Size/Wt.	I.D.	Drift I.D.	Burst	Collapse
	2-7/8", 6.5#, L-80	2.441"	2.347"	10,570 psig	11,160 psig

Pressure Information: Morrow (10,900'): Est. SIBHP - 4800 psig
Canyon (9700'): Est. SIBHP - 2400 psig

Safety Considerations: Run killstring when necessary. Install H2S monitoring, alarm and rescue equipment.

Procedure:

1 MIRU pulling unit. Unseat pump, POOH with rods and pump. ND wellhead.

2. Install 7-1/16", 5M psig hydraulic BOP w/ 2-7/8" pipe rams on top and blind rams on bottom. Install (2) 2-1/16", 5M psig gate valves on BOP outlets below blind rams. Pressure test BOPE against test plug.

3. Release tubing anchor, POOH with 2-7/8" tubing. If necessary, kill well with 2% KCl.

4. RIH with TCP equipment on 2-7/8" tubing (see attachment for configuration) for underbalanced perforating. Perforate Lower Morrow interval from 10,898'-10,918'

5. Set PLS packer. Load tubing/casing annulus with 2% KCl water. Drop vent tube to open differential vent and relieve hydrostatic pressure below the packer. Monitor casing for signs that the packer is not holding.

6. ND BOP, NU wellhead. Rig up to swab fluid level down in the tubing. Fluid top should be a minimum of 2500' above the packer to act as a tamp. Fluid top should be at a maximum of 8200' from surface.

7. Install 15K tree saver. Keep tubing/casing annulus loaded with 2% KCl water. If necessary, rig up to pump water down annulus to keep hydrostatic pressure on the packer. Drop firing bar to activate perforating gun.

8. Rig up to flow back well. Open well on a 10/64ths choke. Flow back Morrow slowly. If necessary, swab test perforations. Continue testing to determine productivity of this zone. Prior to continuing with the completion of other zones, it may be necessary to perform a pressure build up and/or a fracture stimulation.

Note: Determination of next step of procedure will be based on production test of the Morrow interval.