ABANDONMENT PROCEDURES

CARLSBAD 12-1 WELL CARLSBAD, SOUTH EDDY CO., NEW MEXICO

NOTIFICATION:

٠.

- 1. NOTIFY DISTRICT OFFICE OF CONSERVATION COMMISSION 24 HOURS PRIOR TO SETTING PLUGS.
- 2. NOTIFY LANDOWNER 24 HOURS PRIOR TO MOVING RIG ONTO LOCATION.
- 3. NOTIFY UTP AND COMMISSION PRIOR TO ANY DEVIATION FROM APPROVED WORK ORDERS.
- 1. Move in RU workover unit. Attempt to bleed pressure off well (flowing down flowline is recommended due to 2 ppm H_2S .
- Load tubing and casing with field salt water as required to kill well. Unbolt tree, PU tbg and rotate to right to release pkr. Reverse circ well clean. N.D. tree. NU BOP's.
- 3. POOH w/tbg and pkr.
- 4. Set CIBP at 11,190' (top of Morrow sandstone). Dump 35' (4 sx cement on top of bridge plug.
- 5. TIH w/work string to PBTD and reverse circulate well with 10 ppg gelled salt brine as required by state. Set following cement plugs:
 - 25 sx at top of Penn at 9800'
 - 25 sx at top of Wolfcamp at 8690'
- 6. RU casing jacks on 5 1/2" casing, run freepoint and cut casing. Anticipated recovery is 6000' to 7000'. POOH LD casing. (If less than 6000' is recoverable, set 25 sx plug at top of 2nd Bone Spring at 6440' and if less than 5000' of casing is recoverable, set 25 sx plug at top of Bone Spring at 5175' before cutting casing).
- 7. Set 55 sx cement plug 100' below cut to 100' above cut.
- 8. Set at least 100' or a minimum of 25 sx plugs at:
 - Top of 2nd Bone Spring at 6440' (45 sx at 1.3 cu.ft./sx + 15%)
 - Top of Bone Spring at 5174' (45 sx at 1.3 cu.ft./sx + 15%)
 - From 2605' to 2705' (45 sx at 1.3 cu.ft./sx + 15%) to cover 10 3/4" shoe.
 - From 1900' to 2050' to cover DV tool at 2000' and to cover the top of the Delaware (62 sx at 1.3 cu.ft./sx).
 - From 345' to 445' to cover surface casing shoe (42 sx at 1.3 cu.ft./sx).
 - From 30' (1jt) to surface with 16 sx.