

23. PROPOSED CASING AND CEMENTING PROGRAM

3. RIH W/ 2-7/8", 6.5#, N-80 TBG TO 8810'. RU BJ. SPOT 500 GAL 20% NEFE HCL 8810-8298'. POH.
4. RIH W/ 5-1/2" LOK-SET PKR W/ PUMP OUT PLUG IN PLACE (SET TO SHEAR @ 6000 PSI), & SN ON 2-7/8", 6.5#, N-80 TBG. SET PKR @ 8300' W/ 15 PTS COMP. ND BOP. NU WH. NU POPOFF VALVE ON ANNULUS SET @ 3000 PSIA. PREPARE SURFACE LINES FOR IMMEDIATE FLOWBACK. BJ ACDZ WOLFCAMP PERFS AS FOLLOWS:
 - A. LOAD TBG W/ 10 GAL 2% KCL WTR FOLLOWED BY 200 GAL HEATED 20% NEFE HCL. (NOTE: MIX ACID ON LOCATION JUST PRIOR TO PUMPING. HEAT WATER THAT ACID WILL BE MIXED WITH TO 160 DEGREES W/ A HOT OIL TRUCK. FLUSH THE HOT OIL TRUCK CLEAN W/ WTR PRIOR TO HEATING WTR FOR MIXING ACID).
 - B. PRES UP ANNULUS TO 2000 PSI & MAINTAIN THROUGHOUT TREATMENT.
 - C. PUMP CO2 DOWN TBG @ 8 BPM TO LOAD REMAINDER OF TBG. CONTINUE PUMPING CO2 @ 8 BPM TO SHEAR PUMP OUT PLUG. EXPECTED PRES WHEN PUMP OUT PLUG SHEARS = 6000 PSI. MAX PRES 7000 PSI. APPROXIMATE CO2 VOLUME FOR THIS STEP = 43 BBLS.
 - D. AFTER PUMP OUT PLUG SHEARS, CONTINUE PUMPING CO2 @ 8 BPM, AND THEN BEGIN PUMPING 500 GAL HEATED 20% NEFE HCL @ 1 BPM WHILE DECREASING THE CO2 RATE TO 7 BPM. APPROXIMATE CO2 VOLUME FOR THIS STEP = 90 BBLS.
 - E. FLUSH W/ 65 BBLS CO2 @ 8 BPM.
5. FLOW WELL TO TANK IMMEDIATELY AT MAX RATE. SWB TEST AS NECESSARY.
6. IF NECESSARY, POP AS DIRECTED BY ENGINEERING. RR.