

IX

PROPOSED STIMULATION PROGRAM
FOR CONVERSIONS FROM PROCEDURES TO INJECTION WELLS
LOVINGTON SAN ANDRES UNIT
LEA COUNTY, NEW MEXICO

1. MIRU PU w/reverse unit. Check and report pressure on casing strings. Inspect wellhead connections for condition and pressure rating. Insure all casing valves are at least 2000 psig W. P. Pull and lay down rods and pump.
2. Rig up and pressure test BOP to 3000 psig for 5 min. Pull tubing and TAC. Lay down TAC.
3. PU bit, casing scraper and collars and TIH to 200' above casing shoe. Scrape casing to 10 ft. above shoe. Do not go below casing shoe with scraper. POOH and lay down scraper. TIH to 10 ft. above casing shoe and circulate hole clean with clean water. Rotate and clean out bottom of open-hole interval below casing shoe.
4. Spot enough 20% NEFE HCl acid to cover the open-hole interval. Slowly pull bit above top of acid and POOH.
5. Rig up perforating contractor. String shoot water flood intervals w/400 grains per foot primacord. TIH with bit and tubing and circulate open hole interval clean to TD w/water. POOH laying down workstring.
6. PU new 2 3/8" IPC tubing string w/new water flood packer and TIH to 20' above casing shoe. Circulate inhibited fresh water into tubing-casing annulus and set packer. Pressure test annulus to 500 psig for 5 min. Release pressure. RD BOP and install waterflood and wellhead.
7. Pressure test annulus per NMOC requirements. Release rig.
8. Rig up acid contractor and treat below packer with 15 tons CO₂ and 3000 gal. 20% NEFE HCl acid using diverter in 3 stages. Flow well back to recover load and clean-up formation. SI well.
9. Install wellhead filter cartridge housing and filter. Hook up new water injection line.
10. Put well on injection. When rate and pressure stabilize, run water injection survey.

BEFORE EXAMINER CATANACH

OIL CONSERVATION DIVISION

GREENHILL EXHIBIT NO. 9

CASE NO. 10154