

EMSU #375
Eunice Monument Grayburg / San Andres Field
Lea County, New Mexico
July 11, 1996

Workover Procedure - Acidize Stimulate

1. MIRU PU. POH w/ rods & pump. Install BOP. GIH, tag for fill & POH w/ prod. tbg.
2. If significant fill is indicated on TD check (i.e., above 4028 +/-), RU Rev Unit. GIH w/ bit, DC's, etc. on tbg. C/O to +/-4043'. (Catch samples and analyze for composition) RD Rev Unit. POH w/ tbg, DC's & bit.
3. GIH w/ seating nipple, trtg pkr & tubing unloader on tbg. Set pkr @ 3800' +/- . Drop standing valve and seat in SN. RU BJ Services. Pick up on tubing to set tbg unloader in circ. position. Pickle tubing with 300 gals 15% NEA acid*. Flush to bottom of tbg w/ water. Pump pickle acid at approximately 1/2 BPM. Load backside and circulate pickle acid out of tbg (at 1/2 BPM when catch pressure on backside). Repickle tubing if iron counts are above +/- 2000 ppm on "last in" acid. Slack off on tbg to set tbg unloader in closed position. Fish standing valve. Unset pkr. GIH and reset pkr at 3896'. Acidize perms (3908' - 4028') w/ 6000 gal Resisol II+ [viscosified aromatic solvent (20% by vol.) and acid (80% by vol.)] in 5 stages at rate of 3-4 BPM and max. trtg press of 1250 psig STP, while monitoring backside, as follows:
 - A. Pump 1200 gal Resisol II+**.
 - B. Drop 500# Trimix salt in 10 bbls. gelled Brine water***
 - C. Repeat step A & B three times. Vary block size depending on response encountered in previous salt block.
 - D. Pump 1200 gal Resisol II+**.
 - E. Flush to top perf / open hole with water.***
4. RD Trtg Co. Shut well in a minimum of 3 hours after treatment.
5. Flow/swab back acid residue until well cleans up. POH w/ pkr & tbg.
6. GIH w/ prod tbg. ND BOP. GIH w/ pump & rods. Hang well on. RD PU.
7. Test well & report results to Midland office.

* Pickle acid to contain: 1 gal / 1000 gallons CI-23 Corrosion Inhibitor & 300 gallons 15% HCL

** BJ's Resisol II+ -- Iron control system to follow tapered concentration as follows:

LEAD 2000 = 3 gal/1000 FE270 & 1 gal/1000 FE271

MID 2000 = 1.5 gal / 1000 FE270 & 1 gal/1000 FE271

TAIL 2000 = 0.5 gal/1000 FE270 & 1 gal/1000 FE271

***Also, All flush water and diverter GBW stages to contain appropriate de-emulsifiers (NE agents)

Prepared by: Jimmy Dolan Petroleum Engineer