

8-2

Rigged up Welex, ran correlation log; Perforated 4" liner with 24 holes as follows: 9721', 9723', 9725', 9735, 9739', 9784', 9788', 9788', 9790', 9839', 9840', 9842', 9844', 9846', 9865', 9867', 9884', 9886', 9888', 10015', 10017', 10019', 10021'; Rigged down Welex; Picked up & ran a 2-3/8" X 3-1/2" OD MWL seal assembly with 4" setting tool threads & a 2-3/8" on & off tool with 1.81 ID profile nipple, 259 jts. of 2-7/8" tubing & 18' of tubing sub; Screw in seal assembly with left hand threads set 10,000# weight on top of seal assembly; Install safety valve; Closed in for the night.

This a.m. prep to acidize with 3500 gals. 7-1/2% acid & 40 ball sealers, after acidizing swab back to let balls fall off of perforations & frac with 40,000 gals.

8-3

Rigged up Western; Put 20,000# pressure on the back side of tubing; Pump down tubing with 10 bbls. of 2% KCL water @ 4400# & 5 bbls. per min.; Acidize 4" OD casing liners; Perforations from 9,721' to 10,021' with 3500 gals. of 7-1/2% acid in 6 stages using 35 ball sealers; 6200# maximum pump pressure 3200#, after 5 min. 3000#, after 10 min. 2900#; Average injection rate 4.3 BPM; Flushed with 68 bbls. 2% KCL water; Shut well in for 45 minutes; Total load to recover 155 bbls.; Opened well up, flowed back 20 bbls.; Rigged up swab; Made 3 trips from 1,000' & recovered 15 more bbls. of 2% KCL for a total of 35 bbls.; Load minus 120 bbls.; Rigged up Western; Fraced casing perforations from 9,021' to 10,021' in 3 stages using 600 bbls. MS frac fluid with 50% CO₂ added & 10 ball sealers between the 1st & 2nd stages & 8 ball sealers between the 2nd & 3rd stages & 45,000# of 20-40 sand (80% is 20-40 sand & 20% is fiberglass beads) Flushed with 68 bbls. 2% KCL water; Maximum pump pressure 8000#, minimum pump pressure 5100#, final pump pressure 8000#; Instant SI pressure 4500#, after 5 min. 4200#, after 10 min. 4100#; Average injection rate 7.5 bpm on the frac fluid & 4.3 bpm on the CO₂; Total load total load to recover is 788 bbls.; Shut well in for 3-1/2 hrs.; Flowed back well to pit; TP 3250# on 24/64" choke; at midnight, TP 300# on 32/64" choke; at 7:00 a.m. TP 100# on 3/4" choke; Recovered an estimated 158 BLW; Load minus 620 bbls.; This a.m. still flowing well back,

8-4

Well flowing for 24 hrs. on 3/4" choke; TP 50-70#; Flowing back load water & gas; Recovered 110 BLW for a total of 258 BLW; Load minus 510 bbls.; Prep to pull & lay down 2-7/8" tubing.

8-5

Shut well in; Rigged up Kuykendall wireline & ran 1-1/4" sinker bar to 9,970'; POH; Ran 1.81 FWP blanking plug & set in profile nipple; POH; Rigged down; Unit picked up on 2-7/8" tubing & released MWL on & off tool; Re-leased on & off tool & reran tool on 270 jts. of 2-3/8" N-80 tubing to the top of the plug; Rigged up pump truck & reversed tubing with 75 bbls. 2% KCL water; Spaced out tubing; Set tubing with 10,000# wt. on seal assembly; Removed BOP; Installed well head; Rigged up; Pulled swab line 5 trips from 3,000'; Rigged back up wireline unit; Removed plug out of profile nipple; Opened well up to air on 3/4" choke; TP 500# to 0#; Started unloading water @ 11:30 p.m. At noon TP 100#, at 12:15 a.m. TP 1000#; Changed choke to 16/64" & flowed until 1:30 a.m. TP 1000#; Flowing with good flare of gas, no water; At 2:00 a.m., TP 800#, flowing water with gas; At 7:00 a.m., TP 500#, making water in heads with good flare of gas; Load recovered 80 bbls.; Total load recovered 348 bbls.; Load minus 440 bbls.

8-6

Well flowing from 450# to 550# TP on 16/64" choke, with good gas flare making approximately 1 b bl. per hour; At 11:00 a.m., changed choke to 24/64"; Flowed well for 2 hrs.; TO 200#; At 1:00 p.m., changed choke to 18/64" & left well flowing on 440# making approximately 1-1/2 bbls. water per hour @ 750 MCF.