

loss. Hooked up flowline to pit. Pressured up on tubing to break down with 250 gallons 15% retarded acid in hole. Pressured from 2000 psig to 4500 psig in 500 psig increments over 2 1/2 hour period with 3 barrels fluid displaced into formation by barrel counter measurement. Maximum bleed off; 4500-4000 psig in 25 minutes. Pressured tubing to 4700 psig.

- 2/2/91: 7:15 AM 14 1/2 hour SITP 2750 psig. Continued to pump 5000 psig with 250-300 psig drop in 5 minutes for 40 minutes, 2 barrels pumped formation began taking fluid and at 0.3 BPM at 4900 psig pumped 6 barrels final rate 0.4 BPM at 4925 psig. 15 minute SIP 4600 psig. Opened to pit and bled down in 30 seconds. Began swabbing at 9:15 AM. Swabbed 5 3/4 hours, made 12 runs, swabbed dry. Recovered estimated 46 barrels load water and acid water with small gas flare on last five runs, TITM. Recovered 180' fluid on 11th run. Waited 1/2 hour and ran swab. Recovered 50' fluid on last run.
- 2/4/91: 7:00 AM 40 hour SITP 260 psig. Rig up swab and made 1 swab run to 10,100', recovered 500' water with a trace of condensate. Rigged up Halliburton and treated with 2000 gallons MOD 202 and additives. Maximum treating pressure 6460 psig, average treating pressure 5885 psig, average rate 2.3 BPM. ISIP 5200 psig in 15 minutes 4100 psig. 91 barrels load to recover. Job complete at 9:30 AM. Blew well down and started swabbing at 10:15 AM. Made 10 swab runs in 3 1/2 hours, recovered 45 barrels load water. At 1:45 PM the well kicked off and started flowing to pit, 5:00 PM FTP 45 psig, continuous mist of condensate with occasional heads of condensate.
- 2/5/91: 14 hour SITP 1675 psig. Open at 7:10 AM, condensate to the surface in 12 minutes. Flowing on a 20/64" choke. At 7:45 AM FTP 650 psig, gas with heavy condensate mist, no water.
- 12:00 PM FTP 325 psig, 20/64" choke, 800 MCF/day with cond mist and condensate heads every 2-3 minutes.
- 2/6/91: 19 hour SITP 1620 psig. Rigged up Halliburton and acidized with 220 gallons Para-Check "L", 4000 gallons gelled MOD 202 with additives, 11 ball sealers and 25 tons CO₂. Maximum treating pressure 8000 psig, average treating pressure 7755 psig, average 5.2 BPM. ISIP 5500 psig, in 15 minutes 3600 psig. Load to recover 119 barrels. Job complete at 9:45 AM. 60 minute SITP 1950 psig. Open to flow at 10:45 AM on a 20/64" choke. At 8:00 PM on a 24/64" choke, FTP 500 psig, steady flare of gas, 80% oil.
- 2/7/91: 11 hour SITP 1300 psig. Opened well on a 20/64" choke at 7:10 AM 10:00 AM FTP 750 psig, 20/64" choke flow test. At this time well flowing an estimated 1.5 MMCF/day with a considerable amount of condensate and roughly 1 barrel water per day. 1:00 PM FTP 550 psig, 20/64" choke At this time estimated flow 1,300 MCF/day with heavy spray of condensate with occasional slugs of condensate and load water.
- 2/8/91 through 2/10/91: Well Shut in.
- 2/11/91: SITP 1500 psig. Rig up Jarrel Services, Inc. Slick Line. Run BHP instrument - record static pressures/gradients as follows:
- | Depth | Pressure | Gradient |
|---------|------------|----------|
| Surface | 1426 psig | |
| 10,000' | 3467 psig | 0.264 |
| 10,625' | 3738 psig | 0.432 |
| 10,738* | 3787 psig* | |
- *Midperf - extrapolated pressure
Fluid levels Condensate at 3556'
Water at 10,000'
- 2/12/91: SICP slight vacuum. Trip in hole with Halliburton RBP and 326 joints 2 3/8" tubing. Set RBP on Joint #327 at 10,698' K.B. Lay down 2 joints tubing. Bottom of tubing at 10,668' K.B. Rig up Halliburton. Pump via tubing to load hole with 33 barrels 2% KCL fresh water. Pressure test RBP to 2500 psig, held O.K. Resume to circulate hole clean with 2% KCL fresh water. Spot 2 sacks sand on top of RBP. Calculated fill up 15', calculated PBID 10,683' K.B., let sand fall. Resume to spot 250 gallons 10% MSA (Acetic Acid) from 10,418' to 10,668'. Trip out of the hole with 325 joints 2 3/8" tubing. Rig up HLS Wireline unit. Nipple up full lubricator with grease pack-off. Test lubricator to 1500 psig. Go in hole with 4.0" OD Premium Casing gun. Found PBID at 10,664' K.B. WLM, 21' shallow to calculated fill up on SLH. Perforate Strain