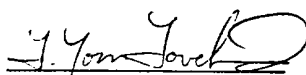


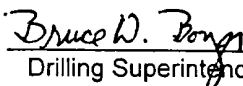
San Juan 27-5 Unit #90M
Blanco Mesaverde/Basin Dakota
Unit P, Sec. 16, T-27-N, R-5-W
Latitude / Longitude: 36° 34.10982' / 107° 21.54144'
Recommended Tubing Repair Procedure 12/9/99

Project Justification: The SJ 27-5 Unit #90M was originally completed in 1998 as a Dakota/Mesaverde commingled producer. The lease operator reports problems with sand production, and that the casing pressure will not fall even when the well is unloaded. Although slickline found sand 4' below the end of the tubing in February 1999, it is suspected that a sand bridge exists in the tubing/casing annulus. Current production (3-month average) is 144 MCF/D from the Mesaverde and 54 MCF/D from the Dakota. Risked gross uplift is anticipated to be 75 MCF/D from the Mesaverde and 27 MCF/D from the Dakota.

NOTE: ALL DEPTHS ARE MEASURED FROM KB. KB to GL was 12'.

1. Comply with all NMOCD, BLM and Burlington safety and environmental regulations. Prior to moving in rig, make one-call and then verify rig anchors and dig pit.
2. MIRU workover rig. NU relief line and blow well down (kill with 2% KCL water only if necessary). ND WH and NU BOP. Test and record operation of BOP rams. Replace any WH valves that do not operate properly. Test secondary seal and install or replace if necessary.
3. **NOTE: This well produces with a plunger-lift system.** The 2-3/8", 4.7#, J-55 tubing is set at **7808'** (249 jts). Broach tubing and set tubing plug in tubing as deep as possible to prevent the plunger from surfacing. Release donut, pick up additional joints of tubing and tag bottom, recording the depth. PBDT should be at +/- **7846'**. TOOH and stand back 2-3/8" tubing. Visually inspect tubing for corrosion, and replace any bad joints. Check tubing for scale and notify Operations Engineer and Drilling Superintendent if it is present.
4. PU 3-7/8" bit and bit sub on 2-3/8" tubing and round trip to PBDT, cleaning out with air/mist. **NOTE: When using air/mist, mist rate must not be less than 12 bph.** Speak with Operations Engineer and Drilling Superintendent, and if necessary, determine the best way to remove scale from the casing and perforations. LD bit and bit sub.
5. TIH with one 4' pup joint of 2-3/8" tubing with expendable check, seating nipple (above pup joint), and then 1/2 of the 2-3/8" production tubing. Run a broach on sandline to ensure that the tubing is clear. TIH with remaining 2-3/8" tubing. Replace any bad joints. CO to PBDT with air/mist.
6. PU above the top Mesaverde perforation at **4972'** and flow the well naturally, making short trips for clean-up when necessary. Discuss sand production with Operations Engineer and Drilling Superintendent to determine when clean-up is sufficient.
7. Land tubing at **7788'**. Obtain pitot gauge from casing and report this gauge. Broach the upper 1/2 of the production tubing. ND BOP and NU WH. Pump off expendable check. Connect to casing and circulate air to ensure that expendable check has pumped off. If well will not flow on its own, make swab run to SN. RD and MOL. Return well to production.

Recommended: 
Operations Engineer 12/12/99

Approved:  12-13-99
Drilling Superintendent

Operations Engineer: L. Tom Loveland

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