

State 32-16 – Bradenhead Procedure

- 1 A directional survey of this well has already been completed.
- 2 Last casing pressure test was to 6,000 psi on 1/22/2009.
- 3 Call field foreman (Phil Wagner @ 970-301-1551) or field coordinator (Luke Epple @ 970-397-7409) at least 24 hrs prior to rig move. If not already completed, request that they catch and remove plunger, isolate production equipment and remove any automation equipment prior to the rig showing up. Install perimeter fence as needed.
- 4 MIRU Slick line. Fish plunger if necessary and tag PBMD (Should be 8297').
- 5 Prepare location for base beam rig.
- 6 Spot 25 jts of 2-3/8" 4.7# J-55 8RD EUE tbg.
- 7 Spot 55 jts of 1-1/4" 2.33# J-55 IJ tbg.
- 8 Spot Alcomer 74 for pre-cement mud flush sweeps.
- 9 Notify mud company to have 10.0 ppg mud on standby.
- 10 MIRU WO rig. Kill well with fresh water with biocide. ND wellhead, NU BOP.
- 11 Run two 2" lines from starting head to return tanks.
- 12 PU 8-10' landing joint with TIW safety valve on top and screw into the tbg hanger. Back out the lock down pins and pull up on the tbg string to break any possible sand bridges. Do not exceed 80% of tubing tensile strength, or 57,384-lb.
- 13 Unseat tbg hanger and LD tbg hanger and landing joint. Install rubber wiper in stripping head.
- 14 MIRU EMI equipment. TOOH with 2-3/8" tbg. EMI tbg while TOOH. Lay down joints with wall loss or penetrations >35%. Replace joints as necessary. Keep yellow and blue band tubing. Note joint number and depth of tubing leak(s) on production equipment failure report in OpenWells. Clearly mark all junk (red band) tubing sent to yard.
- 15 TIH 2-3/8" tbg with 4.5" RBP (4.5" 11.6# I-80). Set RBP at +/- 7730' (Collars at 7752' and 7710'). Spot 2 sx sand on top of RBP. TOOH with 2-3/8", SB tbg.
- 16 Pressure test RBP to 2,000 psi for 15 minutes. (Pressure test to make sure plug is set correctly)
- 17 ND BOP, un-land 4-1/2" csg, RU dual-entry flange, NU BOP. Stretch calcs show that with a 51,000-lb pull weight there should be 24" of stretch. If casing cannot be safely un-landed, contact engineering for further support.
- 18 PU and TIH with 1-1/4" 2.33# IJ tbg to 1600'. While tripping in, pump Alcomer 74 sweeps at +/- 1200', 1400', and 1600'.
- 19 Circulate 152 bbls with rig pump (Circulate at least 1.5x annular volume from 1600') with 10 ppg mud spotted at the end. This well showed 8 psi final pressure on last FM17 test.
- 20 TOOH 1-1/4" tbg to 1394'.
- 21 ND BOP, MIRU cement company.
- 22 Commence pumping cement job consisting of 5 bbls fresh water, 20 bbls sodium metasilicate, 5 bbls fresh water and 38 bbl (160 sx) of Type III with ¼ lb/sk cello-flake mixed at 14.8 ppg and 1.33 cuft/sk blended for a 3 hr pump time (Cement from 1394' to 897').
- 23 Break lines, clean up with fresh water, RMDO cement company.
- 24 ND BOP, ND dual entry flange, re-land 4-1/2" csg and NU BOP. Leave well shut in minimum of 24 hours.

- 25 MIRU wire line and run CCL-GR-CBL-VDL from 1500' to 0'. If Fox Hill plug is not above 897', contact engineering for further instructions. Email logs to engineering and DJVendors@anadarko.com. RDMO wire line.
- 26 TIH with 2 3/8" tbg and retrieving head and tag sand above RBP at +/- 7730'. Circulate sand off RBP. Latch onto RBP and release RBP. TOOH standing back all 2 3/8" tbg and LD RBP.
- 27 PU and TIH with 2-3/8" notched collar, 2-3/8" XN, 2-3/8" 4.7# J-55 tbg. Clean out as necessary. Land 2-3/8" tbg @ +/- 8148' (1 jt above top Codell perf).
- 28 ND BOP, NU master valve.
- 29 Install 7 1/16" x 5,000 psi tubing head adaptor with new 5,000 psi master valve threaded 2 3/8" connection. Make sure all wellhead valves are rated to 5,000 psi.
- 30 Install 2 3/8" pup joint above the master valve. Pressure test the tubing head from below the tubing head through the master valve to 5,000 psi with hydro tester. NU 5k wellhead.
- 31 RMDO WO rig. Return well to production team.
- 32 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.