

## Smith 10-34 – Bradenhead

- 1 Well already has gyro.
- 2 Call Wattenberg IOC (970-506-5980) 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.
- 3 MIRU SL. Fish plunger if necessary and tag PBMD (Should be 7936'). Inform engineer of tag depth.
- 4 Prepare location for base beam rig.
- 5 Spot 25 jts of 2-3/8" 4.7# J-55 8RD EUE tbg.
- 6 Spot 4300' of 1-1/4" 2.33# J-55 10rd IJ tbg.
- 7 Tbg head needs to be rated to 5000 psi. Ensure all valves, fittings, and plugs on tbg head are rated to 5000 psi. If new tbg head is needed, follow change out specifications in Step 28.
- 8 MIRU WO rig. Kill well with fresh water and biocide. ND WH, NU BOP.
- 9 PU tbg to break any possible sand bridges. Do not exceed 80% of tubing tensile strength, or 57,384 lb. LD landing jt.
- 10 Unseat tbg hanger. Install rubber wiper in stripping head.
- 11 MIRU EMI equipment. TOOH with 2-3/8" production tbg. EMI tbg while TOOH. Lay down jts with wall loss or penetrations >35%. Replace jts as necessary. Keep yellow and blue band tbg. Note jt number and depth of tubing leak(s) on production equipment failure report in OpenWells. Clearly mark all junk (red band) tbg sent to yard.
- 12 PU and TIH with 223 jts of 2-3/8" tbg with 4.5" RBP (4.5" 11.6# I-80). Set RBP at +/- 7010' (Collars at 6990' and 7032'). Spot 2 sx sand on top of RBP. TOOH. Stand back tbg.
- 13 Pressure test RBP to 1000 psi for 15 minutes. If pressure test passes, proceed.
- 14 Current cement bond logs are unclear. MIRU WL and run CCL-GR-CBL-VDL from 6600' to surface with 1000 psi pressure. Contact engineer with top of cement indicated on CBL to discuss proceeding steps. Email logs to engineering and [DJVendors@anadarko.com](mailto:DJVendors@anadarko.com). RDMO WL.
- 15 ND BOP, ND tbg head. Unland 4-1/2" 11.6# I-80 csg (Do not exceed 130,000-lb pull weight). NU double entry flange, NU BOP.
- 16 PU and TIH with 4200' of 1-1/4" tbg outside 4-1/2" csg to tag existing cement (should be +/- 135 jts).
- 17 Circulate and condition hole with ~350 bbls of drilling mud with rig pump (1.5x annular volume from 4200'), or until well is completely dead.
- 18 MIRU Baker. Commence pumping cement job consisting 5 bbl fresh water, 20 bbl sodium metasilicate and 5 bbl fresh water, followed with 65 sx of Class G cement with ¼ lb/sk cello-flake mixed at 14.2 ppg and 1.26 cf/sk blended for a 6 hr pump time (cement from 4200' to 4000').
- 19 TOOH with 13 jts of 1-1/4" tbg to +/- 3800' and circulate ~300 bbls of drilling mud to clean up (1.5x annular volume from 3800').
- 20 PUH with 1-1/4" tbg to +/- 1500'.
- 21 Commence pumping cement job consisting 10 bbl fresh water, 200 sx of Type III cement with ¼ lb/sk cello-flake mixed at 14.8 ppg and 1.33 cf/sk blended for a 3 hr pump time (cement from 1500' to 792').
- 22 PUH with 1-1/4" tbg to 600' and circulate 40 bbls drilling mud to clean hole.

- 23 TOOH with remaining 1-1/4" tbg and LD.
- 24 RMDO cement company.
- 25 ND BOP, ND double entry flange, re-land 4-1/2" csg. NU BOP.
- 26 Leave well SI for minimum of 24 hours.
- 27 MIRU WL and run CCL-GR-CBL-VDL from 4300' to surface. If SHSX plug is not above 4000' or Fox Hills plug is not above 792', contact engineering for further instructions. Email logs to engineering and [DJVendors@anadarko.com](mailto:DJVendors@anadarko.com). RDMO WL.
- 28 If tbg head is not as described, ND BOP. Install new GE 5000 psi 4-1/2" bottom threaded tbg head with 7-1/16" flanged top, 7-1/16" flanged 5000 psi tbg head adaptor with 2-1/16" studded top, 2-1/16" flanged 5000 psi master valve, flanged 5000 psi 2-3/8" plunger lubricator (side outlets threaded). All valves, fittings, plugs on well head need to be rated for 5000 psi. NU BOP.
- 29 Pressure test csg to 5000 psi and hold for 15 mins. If pressure test does not hold, contact engineering.
- 30 TIH with 2-3/8" tbg and retrieving head to tag sand above RBP at +/- 7010'. Circulate sand off RBP, latch onto RBP and TOOH. SB tbg, LD RBP.
- 31 PU and TIH with 2-3/8" NC, 2-3/8" XN, and 238 jts 2-3/8" tbg. If necessary, drop down with extra jts and circulate/bail as needed to cleanout sand across J Sand perfs. Land end of tbg at +/- 7760' (1 jt above top J Sand perf).
- 32 ND BOP, NU WH.
- 33 GE should pressure test tbg head through test port on side of tbg head adaptor flange to 5000 psi and hold for 15 mins.
- 34 RMDO WO rig. Return well to production team.
- 35 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.