

## State of Colorado AM 4 – Single Stage Annular Fill

- 1 Well requires a single stage annular fill.
- 2 Gyro completed on 11/25/2014
- 3 Call automation removal group 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 If unable to catch plunger, MIRU SL. Fish plunger and tag bottom. Record tag depth in Openwells. Otherwise, use rig to tag fill with tbg.
- 5 Prepare location for base beam rig.
- 6 Spot 25 jts of 2-3/8" 4.7# J-55 8RD EUE tbg.
- 7 Spot 1150' of 1.66" 2.33# J-55 10rd IJ tbg.
- 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 MIRU EMI equipment. TOO H with 2-3/8" tbg. EMI tbg while TOO H. 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.
- 11 PU 5-1/2" RBP (5-1/2" 17#) and RIH on 2-3/8" tbg Set RBP at +/- 7440' (Collars at 7419' and 7461'). Spot 2 sx sand on top of RBP. TOO H. Stand back tbg.
- 12 Pressure test RBP to 1000 psi for 15 minutes. If pressure test passes, proceed.
- 13 ND BOP, ND tbg head. Unland 5-1/2" 17# csg. NU double entry flange, NU BOP.
- 14 PU and TIH with 1.66" tbg to 1,150'. While running in hole, make 2 sweeps of Alcomer 74. Make one additional final sweep at 1,150'.
- 15 Circulate and condition hole with ~190 bbls of water with rig pump (1.5x annular volume from 1150'), or until well is completely dead. Displace with 20 bbls of 10.0 ppg mud.
- 16 PUH ~200' to 950'.
- 17 MIRU cement company. Commence pumping cement job consisting of 5 bbls fresh water, 20 bbls sodium metasilicate and 5 bbls fresh water followed with 250 sx of Type III with ¼ lb/sk cello-flake mixed at 14.8 ppg and 1.33 cf/sk (cement from 950' to 430' based on 12" hole avg from caliper, adding 20% excess). RDMO cement company.
- 18 PUH to +/- 300' and circulate with water to clean up. LD remainder.
- 19 TOO H with remaining 1.66" tbg and LD.
- 20 ND BOP, ND double entry flange, re-land 5-1/2" csg. NU BOP.
- 21 Leave well SI for minimum of 24 hours.
- 22 MIRU WL and run CCL-GR-CBL-VDL from 3900' to surface (cement should be from +/- 950' to 430'). If Fox Hills plug is not above 430', contact engineering for further instructions. Email logs to engineering and [DJVendors@anadarko.com](mailto:DJVendors@anadarko.com). RDMO WL.
- 23 If tbg head is not as described, ND BOP. Install new WHI 5,000 psi flanged tubing head complete with 5,000 psi rated casing valves, and XXH nipples. NU BOP.
- 24 TIH with 2-3/8" tbg and retrieving head to tag sand above RBP at +/- 7440'. Circulate sand off RBP, latch onto RBP and TOO H. SB tbg, LD RBP.

- 25 PU and TIH with 2-3/8" NC, 2-3/8" XN, and 237 jts 2-3/8" tbg. If necessary, drop down with extra jts and circulate to cleanout sand. Land end of tbg at +/- 7454'.
- 26 ND BOP, NU WH. Install 7-1/16" x 5,000 psi tubing head adaptor with new 5,000 psi master valve with flanged 2-3/8" connection. Make sure all wellhead valves are rated to 5,000 psi and nipples are XXH.
- 27 MIRU hydrotester. Pressure test WH to 5000 psi for 15 mins.
- 28 RDMO WO rig. Return well to production team.
- 29 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.