COOK 6-9 Single Stage Annular Fill (Bradenhead), Gyro and 5K Wellhead

1 Well needs single stage annular fill from 1450’ to 740’ due to Bradenhead pressure and fluid flow.
2 Well does not have a gyro.
3 Call Automation Removal Group 24 hours before rig up to isolate any production equipment (remove plunger, wellhead automation, etc.). Prepare to move base beam rig onto location. Install fence if needed.
4 Check and report surface casing pressure. If valve is not accessible at ground level, re-plumb so valve is at ground level.
5 MIRU slickline. RIH to retrieve production equipment and tag for fill. Note tagged depth in OpenWells.
6 **Run a gyro** directional survey from EOT at 7189' to surface with 100' stations. Forward results of both surveys to Sabrina Frantz in Evans Engineering. RDMO slickline services.
7 MIRU WO rig. Spot 1850’ of 1.66” 2.33 J-55 10RD IJ tbg. Kill well as necessary with water and biocide. Attach a hardline from the bradenhead/surface casing valve to a flowback tank and blow down any Bradenhead pressure. (Form 17 was performed 3/27/15. Bradenhead instantaneous pressure was 241 psi and surfacing casing produced 100 gal of water during test. Pressure built back up to 277 psi in 15 min). If pressure does not blow down within 1 hour contact engineer, otherwise proceed.
8 ND wellhead. NU BOP.
9 PU 8-10’ pup joint with TIW valve on top and screw into the tbg hanger. Back out the lock down pins and pull up on the tubing string to break any possible sand bridges. (Do not exceed 80% of tubing tensile strength, or 57,384 lbs.) Unseat and LD the landing joint.
10 MIRU EMI services. EMI 2-3/8” tbg (230 joints landed at 7189’) while TOOH and tally while standing back. Lay down joints that have greater than 35% penetration or wall loss. Replace all joints that fail EMI testing. Document joint numbers and depth of bad tubing and create a Production Equipment Failure report in OpenWells. RDMO EMI services.
11 PU 10,000 psi rated from above and below RBP (4.5”, 11.6#), retrieving head, and 2-3/8” tubing. Set RBP at +/- 6850’ (collars located at 6832’ and 6876’).
12 Release tbg from RBP and circulate all gas out of the hole. Pumping water with biocide, pressure test RBP and production casing to 2000 psi for 15 minutes. If pressure test passes, proceed; otherwise contact engineering.
13 Circulate 2 sx of sand on top of RBP and TOOH with 2-3/8” tubing.
14 ND BOP. ND wellhead. Screw 4-1/2” pup joint into production casing and un-land 4-1/2” production casing. NU double entry flange and BOP. Install 1.66” pipe rams.
15 PU 1850’ of 1.66” 2.33# J-55 10RD IJ tubing and TIH between the 4-1/2” production casing and 8-5/8” surface casing/open hole to +/- 165’. Circulate with the rig pump while TIH to clean up the annulus. Use two sweeps of Alcomer 74L while TIH and a final sweep at 1850’, and circulate until well is dead. Make sure no pressure is present on bradenhead. If gas is detected contact engineering.
16 Contact Ed Asuchak at 970-515-1170 for mud (min of 24hrs in advance). Pump **40 bbl** of 10.0 ppg mud at 1850’. Leave 1.66” tbg full of mud to avoid wet trip and PUH to 1450**’** to place cement in annulus and LD extra tbg. *(due to high pressure we will use more mud than usual and place it deeper*).
17 MIRU cementing services. Establish circulation and pump 30 bbl (5 bbls of water, 20 bbls of sodium metasilicate, and 5 bbls water) spacer, **170 sx Type III cement with 0.3% CFL-3 + 0.3% CFR-2 + 0.25 lb/sk Polyflake and CaCl2 as deemed necessary mixed at 14.8ppg 1.33 cuft/sx yield with 3 hour pump time**. (based on 8.0” hole size + 20% excess from 1450’-842’ and 202’ between 8-5/8” 24# surface casing and 4-1/2” 11.6# production casing). Attempt to cement from1450’-640’.
18 TOOH with 1.66” 2.3# J-55 10RD IJ tubing until EOT is at 440’ and LD extra tbg. Circulate with freshwater 1.5 times the hole volume or until returns are clean. RDMO cementing services.
19 TOOH and LD all 1.66” 2.3# J-55 10RD IJ tubing. ND BOP and double entry flange. Use 4-1/2” pup joint to re-land 4-1/2” casing. NU BOP. Install 2-3/8” pipe rams. Shut well in and WOC.
20 MIRU wireline and run **CCL-GR-CBL-VDL from +/- 4200’ to surface**. If the cement is not at or above 740’ contact engineer. RDMO wireline services. In addition to normal handling, of logs/job summaries, email copies of all cement job logs/job summaries and invoices to rscDJVendors@anadarko.com within 24 hrs of the completion of the job.

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21 PU and TIH with retrieving head and 2-3/8" tubing. Circulate sand off of RBP. Latch onto and release RBP at +/- 6850'. TOOH standing back all 2-3/8" tubing and LD RBP.

22 ND existing tubing head off of 4.5" casing **and install new WHI 5,000 psi** flanged tubing head complete with 5,000 psi rated casing valves.

23 NU BOP.

24 PU 2-3/8" NC, 2-3/8" XN nipple (be sure nipple is correctly input into OpenWells), and 2-3/8" 4.7# J-55 tbg to surface. Circulate out fill if necessary and land EOT at +/- 7,190' (1 joint above top Codell perfs).

25 RU rig lubricator. Broach tubing to XN seating nipple. RD rig lubricator. ND BOP.

26 Install 7-1/16" flanged 5000 psi tubing 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). Make sure all wellhead valves are rated to 5,000 psi and all nipples are XXH. Document wellhead components in an OpenWells wellhead report.

27 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 using hydrotester. If wellhead does not pressure test, replace wellhead/ wellhead valves as necessary with 5,000 psi rated equipment.

28 NU WH. RDMO WO rig. Return well to production team.