

Hicks Ruth Elizabeth 2 Remedial Cement.docx

- 1 NOTE: NO GYRO RAN ON WELL AS OF 1/23/14.
- 2 Level location for base beam rig.
- 3 Call Foreman or Field Coordinator before rig up to catch plunger, isolate production equipment, and ask if replacement parts/equipment are requested. Operations need to hook up the Bradenhead pressure and bleed off the pressure before the rig gets on location.
- 4 Check and report surface casing pressure. If surface casing is not accessible at ground level, re-plumb so valve is at ground level.
- 5 Spot a minimum of 5 jts 2-3/8", 4.7#, J-55 EUE TBG for replacement.
- 6 MIRU slickline. Fish production equipment as necessary and tag fill. Note tagged depth in OpenWells. RDMO Slickline.
- 7 MIRU WO rig, flat tanks and rig pumps. Kill well, as necessary, with biocide treated fresh water. ND WH. NU BOP.
- 8 Unseat landing joint and lay down.
- 9 MIRU EMI services. TOO H with 2-3/8" TBG. EMI on TOO H. LD joints with wall loss or penetrations > 35%. Replace joints as necessary. **Keep yellow & blue band tubing. Note joint number and depth of tubing leak(s) on PRODUCTION EQUIPMENT FAILURE REPORT IN OPEN WELLS.
- 10 PU casing scraper for 4-1/2", 10.5/11.6# casing and TIH to 7100' KB. Circulate all debris from wellbore with clean water. POOH and stand back tubing and LD scraper.
- 11 MIRU WL. RIH with CCL and CIBP. Correlate depth to ASAP CBL/GR dated 10/16/2001. Set CIBP at 7010'. POOH.
- 12 Pressure test casing/CIBP to 1000 psi for 15 mins. If pressure test passes, proceed.
- 13 ND BOPs, ND existing tubing head. NU new 5000 psi rated wellhead but do not install adapter flange. NU BOPs.
- 14 RIH with CCL and perf guns. Correlate depth to CBL. PUH and shoot squeeze holes as per the following: 6880'-6881', 3 spf, 0.38" EHD, 23 gm charge.
- 15 PU and TIH retrievable packer for 4-1/2", 10.5/11.6# casing. Set packer at 6780'. Establish circulation before setting CICR. Note rate, pressure, volume pumped. Release packer and TOO H while standing back tubing and laying down packer.
- 16 Set CICR at 6780'. RDMO WL.
- 17 PU stinger and RIH on 2-3/8" tbg. Sting into retainer at 6780'.
- 18 RU cementer. Prepare & pump 110 sks 50/50 Poz 'G' + 20% silica flour + 3% gel + 0.1% SMS + 0.4% fluid-loss additive, mixed at 13.5 ppg and 1.71 cu ft/sk, into squeeze holes at 6880'. Displace cement 1/2 bbl short of CICR. Sting out of CICR, place remaining cement on top of CICR. Reverse out. Design is for coverage from 6880 to 6430 in 9" hole (caliper log), including 20% excess.
- 19 TOO H and stand back tbg. LD stinger. WOC overnight at minimum.
- 20 MIRU WL. PU and RIH with CCL/CBL/GR. Correlate to depth to CBL. Run CBL from 6700' to SURFACE. Deliver logs to Evans for review. Once cleared by Engineering, proceed with next step.
- 21 TIH with 3-7/8" bit on 2-3/8" TBG. Drill through cement and CICR down to CIBP at 7010'. Pressure test squeeze perforations to 1000 psi for 15 mins. If pressure test passes, proceed.
- 22 Continue to drill out to PBDT of 7741'.
- 23 TOO H while standing back tubing and LD bit.
- 24 MIRU hydrotester.
- 25 PU & RIH with 2-3/8" NC, 2-3/8" XN profile nipple, 21 joints 2-3/8" TBG, Arrowset AS-1X packer (10k psi rated), and 2-3/8" TBG. Hydrotest tubing to 6000 psi while RIH. Set packer at 6500'.
- 26 Load backside with biocide treated water and pressure test packer to 1000 psi for 15 min.

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- 27 ND BOP. NU WH. Ensure all valves on TBG head are rated to 5000 psi and ensure TBG head has a new R-46 ring gasket installed.
- 28 Hydrotest TBG head and master valve to 5000 psi. If pressure test fails, call Evans office for alternate procedures.
- 29 RDMO hydrotester. RDMO WO rig.
- 30 Return well to production team.
- 31 END OF SAFETY PREP STEPS. BELOW ARE STEPS FOR UN-PREPPING THE WELL.
- 32 When notification is sent to un-prep well, MIRU WO rig.
- 33 Control well with biocide treated water.
- 34 ND WH. NU BOP.
- 35 Release Arrowset AS-1X packer and POOH with 2-3/8" TBG, Arrowset packer, XN profile nipple, and NC while standing back TBG and laying down packer.
- 36 Return packer to shop were purchased and have redressed.
- 37 PU & RIH with 2-3/8" NC, 2-3/8" XN profile nipple (ensure nipple is input into OpenWells), and 2-3/8" TBG.
- 38 Clean out to PBTD at 7741' using biocide treated water. Use a bailer if necessary.
- 39 PUH and land TBG at 7605', which is approximately 1 joint above the top JS perf.
- 40 RU rig lubricator. Broach TBG to SN. RD rig lubricator.
- 41 ND BOP, NU WH.
- 42 Hydrotest TBG head and master valve to 5000 psi. If pressure test fails, call Evans office for alternate procedures. RDMO hydrotesters.
- 43 RDMO WO rig. Swab well back if needed. Return well to production team.