

## UPRC 19-15L Remediation Procedure

- 1 Check pressures. Rig up 2" line from the casing head annulus to work tank. Kill well with fresh water. ND tree and adapter flange, NU BOP's.
- 2 PU 8-10' landing joint. TIW valve on top and screw into the tbg hanger. Back out the lock down pins and pull up on tbg string to break any possible sand bridges, unseat landing joint and lay down.
- 3 MIRU EMI equipment. TOOH with 2-1/16" tbg. EMI tbg while TOOH. Lay down joints with wall loss or penetrations >35%. Replace joints as necessary. Note joint number and depth of tubing leak(s) on production equipment failure report in Open Wells. Clearly mark all junk (red band) tubing sent to yard.
- 4 TIH with 2-1/16" tbg and 3.5" RBP. Set RBP @ +/-7124'. Spot 2sx of sand on top of RBP and TOOH.
- 5 Bleed off pressure. ND BOP's, ND wellhead, Un-land 3-1/2" casing, NU dual entry flange, NU BOP.
- 6 PU 1-1/4" 2.3#/ft J-55 10rd IJ tubing, and TIH outside 3-1/2" casing in open hole to ~1200'. Circulate with freshwater treated with biocide to clean up annulus while TIH, circulate with rig pump until clean returns are seen.
- 7 PUH to ~1000' to displace cement.
- 8 MIRU cement services. Circulate 100 bbls (~1 annular volume) of water at 2-3bpm, followed by a 30bbl (5bbls water, 20bbls SMS, 5bbls water) spacer. Prepare to cement.
- 9 Mix and pump **235sx (~64bbls)** of 14.0 ppg (1.53 cuft/sk) Type III w/cello-flake and gas block additive. The cement to be retarded for 80 °F and 3 hour pump time.
- 10 TOOH to ~200' and reverse circulate 2 times the tubing volume of water or until clean returns are seen. TOOH with 1-1/4" tubing.
- 11 RDMO cementing company.
- 12 ND BOP. ND dual entry flange and crossover. Pick up and land 3-1/2" casing in slips. NU 3-1/2" 5000 psi tubing head with 2-5000 psi valves (use new style flanged well head equipment if available). NU BOP to tubing head.
- 13 Leave well shut in for ~36hrs.
- 14 MIRU wireline and run CCL-GR-CBL-VDL from RBP (and 2sx sand) at +/- 7124' to surface.
- 15 RDMO wireline.
- 16 Pressure test csg at 1000 psi for 15 minutes. If pressure test fails, contact Evans Engineering.
- 17 PU and TIH with 2-1/16" tbg and retrieving head. Circulate sand off RBP at @ +/-7124'. TOOH with RBP and SB tbg.
- 18 TIH with 2-1/16" NC, 2-1/16" XN SN and 2-1/16" 3.25# J55 EUE tbg, circulate out fill if necessary to 7331'. Land tbg @ +/- 7202' (1 joint above bottom Codell perf).
- 19 Broach tubing to seating nipple. ND BOP's, NU master valve and tubing head adaptor. Hydrotest tubing head to 5000 psi for 15 minutes.
- 20 RDMO WO rig.
- 21 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.