

Strear 6-15: Plug & Abandonment

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- 1 Provide 48 hour notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Call Automation Removal Group at least 24 hours prior to rig move. Request they catch and remove plunger, isolate production equipment, and remove any automation equipment prior to MIRU.
- 2 Prepare location for base beam equipped rig. Install perimeter fence as needed.
- 3 Check and report surface casing pressure. If surface casing is not accessible at ground level, re-plumb so valve is at ground level
- 4 MIRU WO rig. Spot in tubing trailer with +/- 5400' of 2-3/8" 4.7# tubing. Kill well as necessary with water and biocide. ***well should be dead since cement capped CIBP is set downhole*** ND wellhead. NU BOP.
- 5 MIRU hydrotester. Hyrotest 2-3/8" tubing to 3000psi while TIH open ended to 5340'.
- 6 MIRU cementing services on the 2-3/8" production tubing. Establish circulation with water down 2-3/8" tubing and pump 90 sx Class "G" cement with 0.4% CD-32 and 0.4% ASA-301 mixed at 15.8ppg and 1.15 cuft/sx (cement volumes based on 4-1/2" 11.6# casing capacity from 5340' to 4160'). Displace cement to estimated TOC at 4160' using approx. 16 bbls water. TOO H and stand back 2-3/8" tubing so EOT at +/- 3960'. Reverse circulate using approx. 31 bbls water (2 times tubing volume) or until returns are clean. RDMO cementing services. WOC to set up per cementing company recommendation.
- 7 PU and TIH with extra joints of 2-3/8" tubing to tag cement plug at +/- 4160'. If cement is not at or above 4160' contact engineer, otherwise proceed to next step.
- 8 TOO H and stand back 1340' of 2-3/8" tubing. LD extra 2-3/8" tubing.
- 9 MIRU wireline. RIH and jet cut 4-1/2" production casing at 1240'. RDMO wireline. Circulate bottoms up and continue circulating to remove any gas from wellbore.
- 10 ND BOP. Install BOP on surface casing head with 4-1/2" pipe rams. Install 3000 psi ball valves on both casing head outlets. Install a choke or choke manifold on one outlet.
- 11 TOO H and LD 1240' of 4-1/2" casing. Install 2-3/8" pipe rams.
- 12 TIH w/ 2-3/8" tubing open ended to 1340' (100' inside the 4-1/2" stub).
- 13 MIRU cementing services. Establish circulation with water and pump 10 bbls SAPP mud flush, 20 bbls fresh water spacer, then balanced stub plug using 260 sx Type III cement with cello flake and CaCl₂ as necessary, mixed at 14.8 ppg and 1.33 cuft/sx (cement volumes based on 100' inside 4-1/2" casing, 513' in 9" hole with 20% excess, and 200' in 8-5/8" surface casing). RDMO cementing services.
- 14 TOO H and LD 2-3/8" tubing until EOT at +/- 200'. Circulate down tubing and up surface casing/tubing annulus until returns are clean to ensure CIBP can be set in clean surface casing. Finish TOO H and LD 2-3/8" tubing. WOC to set up per cementing company recommendation.
- 15 PU and TIH with 2-3/8" tubing to tag cement plug at +/- 620'. If cement is not above 620' contact engineer, otherwise proceed to next step.
- 16 TOO H and LD all 2-3/8" tubing.
- 17 MIRU wireline. PU and RIH with CIBP (8-5/8", 24#/ft). Set CIBP at 80' and pressure test the CIBP to 1000psi for 15mins. If pressure test fails contact engineering, otherwise proceed to next step.
- 18 RDMO wireline. RDMO WO rig.

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- 19 Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hours of completion of job.
- 20 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.
- 21 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 22 Excavate hole around surface casing enough to allow welder to cut casing minimum of 5' below ground level.
- 23 Welder cut casing minimum of 5' below ground level.
- 24 Fill casing to surface using 4500psi compressive strength cement (NO GRAVEL).
- 25 Spot weld on steel marker plate. Marker should contain well name, well number, legal location (1/4 1/4 descriptor), and API number.
- 26 Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.com
- 27 Properly abandon flowline per Rule 1103. File electronic Form 42 once abandonment complete.
- 28 Back fill hole with fill. Clean and level location.
- 29 Submit Form 6 to COGCC ensuring to provide "As Performed" WBD identifying operations completed.