

PLUG and ABANDONMENT PROCEDURE

HOUSTON P 17-17

Step	Description of Work
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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.). Notify Automation Removal Group at least 24 hours prior to rig move. Request they catch and remove plunger, isolate production equipment, and remove any automation prior to rig MIRU.
2. MIRU slickline services. Pull bumper spring and tag bottom. Record tag depth in Open Wells. Gyro ran 1/15/2014. RD slickline.
3. Prepare location for base beam equipped rig. Install perimeter fence as needed.
4. Check and record Bradenhead pressure. If Bradenhead valve is not accessible, re-plumb so that valve is above GL. Blow down bradenhead and re-check pressure the next day. Contact Engineering if pressure does not blow down to 0 and stay at 0.
5. MIRU WO rig. Spot a min of 25 jts of 2-3/8" 4.7# J-55, EUE tbg. Kill well as necessary using clean fresh water with biocide. ND WH. NU BOP. Unland tbg using unlanding joint and LD.
6. TOOH and SB 7010' 2-3/8" tbg.
7. MIRU Wireline. PU and RIH with gauge ring (4-1/2, 11.6# M-80) to 7020'. POOH.
8. PU and RIH with CIBP (4-1/2", 11.6# M-80) and set at +/- 7010' to abandon the Codell Perfs. POOH. PT CIBP to 1000 psi for 15 minutes. RD WL.
9. TIH with 2-3/8" tbg to 7010' while hydrotesting to 3000 psi. Establish circulation with biocide treated fresh water.
10. RU cementers. Pump Niobrara Balance Plug: Pump 35 sx (54 cf) 15.8 ppg & 1.55 cf/sk. Volume based on 560' inside 4-1/2" production casing. Cement will be from 7010' – 6450'. RD cementers.
11. Slowly pull out of the cement and PUH to 6100'. Reverse circulate tubing clean to ensure no cement is left in the tubing.
12. TOOH and SB 3760' of 2-3/8" tbg.
13. MIRU WL. PU and RIH with two 3-1/8" perf guns with 3 spf, min 0.5" EHD, 120° phasing. Shoot 2' of squeeze holes at 4130' and 4' of squeeze holes at 3730'. TOOH. RD WL.
14. PU CICR (4-1/2" 11.6#, M-80) on 2-3/8" tbg and RIH. Set CICR at 3760'.
15. Establish circulation to surface with biocide treated fresh water. Pump 150 bbls fresh water, RU Cementers. Pump Sussex Squeeze: Pump 10 bbls Sodium Silicate and 5 bbls fresh water, followed by 185 sxs (218 cf) Sussex squeeze blend with 0.25 lb/sk Polyflake, assuming 15.8 ppg & 1.18 cf/sk. Underdisplace by 3 bbls. Volume is based on 370' inside 4-1/2" casing below the CICR, 400' in the 9" OH from a log with 20% excess, and 3 bbls on top of the CICR. RD Cementers.
16. Slowly pull out of the cement and PUH to 3370'. Reverse circulate to ensure no cement is left in the tbg. TOOH and SB 870' of 2-3/8" tbg.
17. RU WL. RIH and cut 4-1/2" casing at 770'. TOOH. RD WL.
18. Establish circulation with biocide treated fresh water and pump one hole volume (75 bbls). If gas is still present, contact Engineering and continue to pump until gas is completely gone.
19. Un-land casing using a casing spear, not a lifting sub. Max pull shall be 100,000#. If unable to unland, contact Engineering.
20. ND BOP. ND TH. Install BOP on casing head with 4-1/2" pipe rams.

Engineer: Ryan Hollinshead
Cell Number - (970) 412-3130

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21. TOOH and LD all of 4-1/2" casing. Remove 4-1/2" pipe rams and install 2-3/8" pipe rams.
22. RIH with 2-3/8" tubing to 870'.
23. Establish circulation with biocide treated fresh water and pump one hole volume (58 bbls). Pump 10 bbls (min) SAPP, followed by 5 bbls fresh water spacer.
24. RU Cementers. Pump Stub Plug: 175 sxs (203 cf) with 0.25 lb/sk Polyflake, 15.8 ppg & 1.16 cf/sk (100' in 4-1/2" production casing with no excess, 225' in 7-7/8" OH with 60% excess, and 200' in 8-5/8" surface casing with no excess). The plug will cover 870' - 345' RD cementers.
25. Slowly pull out of the cement and PUH to 150'. Reverse Circulate using biocide treated fresh water, to ensure the tubing is clean.
26. WOC per cement company recommendation. TIH and tag cement. Cement top needs to be at or above 495' (50' above the surface casing shoe at 545'). Call Engineering if tag is lower than 495'. TOOH and LD tbg.
27. RU WL. PU and RIH 8-5/8" 24# CIBP to 80'. RDMO WL and WO rig.
28. 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 the job.
29. Supervisor submit paper copies of all invoices, logs, and reports to Engineering Specialist.
30. Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
31. Capping crew will set and secure night cap on 8 5/8" casing head, restrain the casing head, pressure test CIBP to 500 psi with hydrotest pump, then remove night cap and casing head restraints.
32. Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
33. Welder cut casing minimum 5' below ground level.
34. Fill casing to surface using 4500 psi compressive strength cement (NO gravel).
35. Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
36. Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.com.
37. Properly abandon flow lines per Rule 1103. File electronic Form 42 once abandonment is complete.
38. Back fill hole with fill. Clean location, and level.
39. Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.