

- 1 Call foreman or lead operator at least 24 hr prior to rig move. Request that they catch and remove the plunger, isolate production equipment and remove any automation prior to rig showing up. Install perimeter fence as needed.
- 2 GYRO run 20DEC11
- 3 Provide notice of MIRU to COGCC field inspector as specified in approved form 6.
- 4 Notify CDC when rig mobilizes to location to generate workorder for flowline removal and one call for line locates.
- 5 Prepare location for base beam equipped rig
- 6 MIRU, kill as necessary using clean fresh water with biocide. ND WH. NU BOP. Unseat landing jt, LD.
- 7 Notify cementers to be on call. Provide volumes (35 sx G w/ 20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 for 2:30 pump time 1.38 yield, 180 sx class G w 0.25pps Cello flake, 0.4% CD-32, 0.4% ASA-301 1.15 yield, 150 sx Type III CaCl₂ cement 1.53 yield)
- 8 TOOH 2 3/8" production tubing. Stand back.
- 9 MIRU WL. RIH gauge ring for 4.5" 11.6#/ft csg to 7100'.
- 10 RIH CIBP, set at 7020'. Do not dump bail on this plug, cement will be placed later. RD WL.
- 11 TIH to 7020'+/-. While TIH, hydrotest tubing to 3000 psi. Circulate gas from wellbore.
- 12 RU cementers. Spot 35 sx G w/ 20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 for 2:30 pump time with 1.38 yield to ensure coverage over Niobrara.
- 13 PUH 10 stands. Circulate with 150 BBL 9.0 ppg biocide mud.
- 14 WOC 4 hrs. PT plug to 1000 psi. If fail, tag plug, call engineer, else TOOH LD all but 4300' tubing.
- 15 RU WL. PU perf gun with 2' 3spf, 0.5" dia. 120* phasing. Shoot 1' of squeeze holes at 4250' and 4650'.
- 16 PU CICR. RIH to 4300'. Set. RD WL.
- 17 Initiate circulation through CICR. Preflush using 5 BBL H₂O, 20BBL Sodium Metasilicate, 5 BBL H₂O.
- 18 Pump 180 sx class G w 0.25pps cello flake, 0.4% CD-32, 0.4% ASA-301 1.15 yield cement; underdisplace by 2 BBLs. Unsting from CICR, dump remaining 2 bbls cement on top of CICR.
- 19 PUH 6 stands. Circulate 150 BBL 9.0 ppg biocide mud to clear tbg.
- 20 RU WL. Confirm pipe is free, and shoot off or break coupling on casing at 1040'. RDMO WL. Circulate with 100 BBL 9.0 ppg biocide mud. TOOH.
- 21 NDBOP, NDTH.
- 22 NU BOP on casing head, install pipe rams.
- 23 TOOH with casing, LD.
- 24 TIH into csg stub using production tubing to 1140'+/-'.
- 25 Spot 150 SX Type III CaCl₂ cement with 1.53cuft/sk yield. TOOH.
- 26 WOC 4hrs.
- 27 TIH and tag. If cement is below 600', top as necessary to 600' +/-.
- 28 RU Wireline services. RIH 8-5/8" CIBP to 100'. Set, and PT to 1000psi for 15 min. If plug tests, RDMO WL, WO rig.
- 29 Supervisor submit paper copies of all invoices, logs, and reports to Frantz, Sabrina.
- 30 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 31 Place Redi Mix cement on will call if cement top in 8 5/8" is more than 25' below surface.
- 32 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 33 Welder cut 8 5/8" casing 5' below ground level.
- 34 MIRU redimix. Use 4500 psi compressive strength cement, (NO gravel) fill stubout.
- 35
Weld on steel marker plate. Marker should contain Well name, number, legal location (1/4 ¼ descriptor) and API number
- 36 Properly abandon flowlines per Rule 1103.
- 37 Back fill hole with fill. Clean location, level.
- 38 Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.

NOTE: Check and report surface casing pressure. If surface casing is not accessible at ground level, re-pipe so valve is at ground level.

2 3/8" 4.7# Tbg = 0.39 BBL/100' ID=1.995" Drift=1.901" Collapse=8100 psi; Burst=7700 psi; Yield (80%)=57,000lb
Annulus = 1.01 BBL/100'
4 1/2" 11.6# Csg = 1.55 BBL/100' ID=4.000" Drift=3.875" Collapse=4960 psi; Burst=5350 psi