

UPRR 41 PAN AM B #1

- 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 MIRU slickline services and VES. Pull bumper spring (if installed), tag bottom and run gyro survey stopping every 100' from 7310' to surface. Forward gyro survey data to Sabrina Frantz and invoices to John Tonello. RDMO slickline services and VES.
- 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 (160 sx 50/50 Poz G 1.71 yield 20% Silica flour, 3% gel, 0.1% Sodium metasilicate, 0.4% FL-52 (9.8"+20%), 1020 sx class G w 0.25pps cello flake, 0.4% CD-32, 0.4% ASA-301 1.15 yield (12"+20%), 360 sx Type III CaCl₂ cement 1.53 yield (9"+20%)).
- 8 TOOH 2 3/8" production tubing. Stand back.
- 9 MIRU WL. RIH gauge ring for 4.5" 10.5#/ft csg to 7800'.
- 10 RIH CIBP, set at 7700'. PU dump bailer, dump bail 2 sx class G cement on CIBP.
- 11 RIH CIBP, set at 7250'. PT CIBP to 1000 psi. PU dump bailer, dump bail 2 sx class G cement on CIBP.
- 12 TIH to 7200' +/- Circulate gas from wellbore. P&SB ~6700' tbg.
- 13 PU perf gun with 1' 3spf, 0.5" dia. 120* phasing. Shoot 1' of squeeze holes at 7000'.
- 14 PU CICR. RIH to 6700', set. RD WL.
- 15 PU stinger on 2-3/8" tbg. RIH while hydrotesting to 3000 psi.
- 16 RU cement services. Initiate injection through CICR. Note rate and pressure.
- 17 Pump 160 sx 50/50 Poz G 1.71 yield 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 to ensure coverage of 400' above Niobrara/Codell. Under-displace by 2 bbls cement, release from CICR, dump remaining 2 bbls on top of CICR.
- 18 PUH 6 stands. Circulate 150 BBL 9 ppg biocide mud to clear tbg. TOOH
- 19 RU WL. PU perf gun with 2' 3spf, 0.5" 120* phasing. Shoot 1' of squeeze holes at 3950' and 5000'.
- 20 RIH with CICR to 3980', set. RD WL
- 21 Sting into CICR @ 3980' using production tbg.
- 22 Initiate circulation through CICR. Preflush using 5 BBL H₂O, 20 BBL Sodium metasilicate, 5 BBL H₂O.
- 23 Pump 1020 sx class G w/ 0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 with 1.15 cuft/sk yield. Under-displace by 2 bbls cement, release from CICR, dump remaining 2 bbls on top of CICR.
- 24 PUH 6 stands. Circulate 100 BBL 9ppg biocide drilling mud to clear tubing. P&SB 1040+/-' tbg. LD remainder.
- 25 RU WL. Crack coupling or shoot off casing at 1040'. RDMO WL.

- 26 NDBOP, NDTH.
- 27 NU BOP on casing head, install pipe rams
- 28 TOOH with casing, LD.
- 29 TIH into csg stub using production tubing to 1140'.
- 30 Spot 360 SX Type III CaCl₂ cement with 1.53cuft/sk yield. TOOH.
- 31 WOC 4 hrs.
- 32 TIH and tag. If cement is below 150', top as necessary to 150'.
- 33 RU Wireline services. RIH 8-5/8" CIBP to 100'. Set, PT to 1000psi for 15 min. If tests, RDMO WL and WO rig.
- 34 Supervisor submit paper copies of all invoices, logs, and reports to Frantz, Sabrina.
- 35 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 36 Place Redi Mix cement on will call if cement top in 8 5/8" is more than 25' below surface.
- 37 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 38 Welder cut 8 5/8" casing minimum 5' below ground level.
- 39 MIRU redimix. Use 4500psi compressive strength cement, (NO gravel) fill stubout.
- 40 Weld on steel marker plate. Marker should contain Well name, number, legal location (1/4 ¼ descriptor) and API number
- 41 Properly abandon flowlines per Rule 1103.
- 42 Back fill hole with fill. Clean location, level.
- 43 Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.