

NORGREN DONALD E 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 *****GYRO ORDERED 08AUG13*****
- 3 Provide notice of MIRU to COGCC field inspector as specified in approved form 6.
- 4 Notify IOC 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 (150 sx 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed to 13.5 ppg and 1.71 cf/sk (10"+20%), 425 sx class G w 0.25pps cello flake, 0.4% CD-32, 0.4% ASA-301 15.8ppg 1.15 yield (9"+20%), 130 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 4-1/2" 11.6#/ft csg to 7800'.
- 10 RIH CIBP, set at 7700'. PT to 1,000 psi. Dump bail 2 sx G on top of CIBP. RD WL
- 11 TIH to 7500'+/-. Hydrotest tubing in to 3,000 psi.
- 12 Circulate gas from wellbore using water containing biocide. TOOH
- 13 RU WL. RIH CCL/GR/CBL/VDL. Run from 7500' to surface to verify cement coverage. Verify cement above stage tool @ 413'. Send CBL to production engineer.
- 14 PU 2-1', 3-1/8" perf guns with 3spf, 0.5" dia. 120* phasing. Shoot 1' of squeeze holes at 6936' and at 6536'. RD WL.
- 15 PU CICR and set at 6596' using production tubing. Initiate circulation through CICR using water containing biocide. Note rate and pressure.
- 16 RU cement services. Pump 150 sx 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed to 13.5 ppg and 1.71 cf/sk (10"+20%). Underdisplace by 3 bbls. Unsting from CICR, dump remaining 3 bbls on top of CICR.
- 17 PUH 6 stands. Circulate 100 BBL 9.0 ppg mud containing biocide if forward circulating, 10 BBL 9.0 ppg mud containing biocide if reverse circulating to clear tubing. WOC 4 hrs.

- 18 TIH and tag previous plug. Note depth. If below 6406', discuss with production engineer.
- 19 Circulate to place 9.0 ppg mud containing biocide from tagged plug to 5010'. P&SB 4094' of tubing, LD remainder.
- 20 RU WL. PU 2-1' 3-1/8" perf guns with 3spf, 0.5" dia. 120* phasing. Shoot 1' of squeeze holes at 5010' and at 4034'. RD WL.
- 21 PU CICR and set at 4094' using production tubing. Initiate circulation through CICR using water containing biocide. Note rate and pressure.
- 22 Preflush using 5 BBL H2O, 20 BBL sodium metasilicate, 5 BBL H2O.
- 23 Pump 425 sx class G w/ 0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 with 1.15 cuft/sk yield. Underdisplace by 3 bbls. Unsting from CICR, dump remaining 3 bbls on top of CICR.
- 24 PUH 6 stands. Circulate 60 BBL 9.0 ppg mud containing biocide if forward circulating, 5 BBL if reverse circulating using 9.0 ppg mud containing biocide. Place mud to 800'.
- 25 P&SB 530' of tubing, LD remainder.
- 26 RU WL. PU 2-1' 3-1/8" perf guns with 3spf, 0.5" dia. 120* phasing. Shoot 1' of squeeze holes at 800' and at 470'. RD WL.
- 27 PU CICR and set at 530' using production tubing. Initiate circulation through CICR using water containing biocide. Note rate and pressure.
- 28 Pump 100 sx Type III CaCl₂ cement with 1.53cuft/sk yield. Unsting from CICR.
- 29 PUH 6 stands, circulate 10 BBL 9.0 ppg mud containing biocide. TOO H
- 30 RU WL. Crack coupling or shoot off casing at 150'. (If casing is free from previously run CBL). RD WL. Circulate hole using 20 BBL water containing biocide to remove any gas.
- 31 NDBOP, NDTH.
- 32 NU BOP on casing head, install 4-1/2" pipe rams
- 33 TOO H with 4-1/2" casing, LD.
- 34 TIH into csg stub using production tubing, tag previous plug/CICR. Note depth.
- 35 Spot 30 SX Type III CaCl₂ cement with 1.53cuft/sk yield from tag to 130'.
- 36 PUH to 100', circulate 10 BBL 9.0 ppg mud containing biocide.
- 37 TOO H. WOC 4 hrs.
- 38 TIH and tag. If cement is below 130', discuss with production engineer.

- 39 Fill casing with 9.0 ppg drilling mud containing biocide from TOC to 100'.
- 40 RU Wireline services. RIH 8-5/8" CIBP to 100'. Set, PT to 1000psi for 15 min. If tests, RDMO WL and WO rig.
- 41 Supervisor submit paper copies of all invoices, logs, and reports to Frantz, Sabrina.
- 42 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 43 Place Redi Mix cement on will call if cement top in 8 5/8" is more than 25' below surface.
- 44 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 45 Welder cut 8 5/8" casing minimum 5' below ground level.
- 46 MIRU redimix. Use 4500psi compressive strength cement, (NO gravel) fill stubout.
- 47 Spot weld on steel marker plate. Marker should contain well name, well number, legal location (1/4 ¼ descriptor) and API number
- 48 Properly abandon flowlines per Rule 1103.
- 49 Back fill hole with fill. Clean location, level.
- 50 Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.