

Webber Edith #1 05-123-07819– P&A Procedure

For questions and/or changes please call Michael Lucas at 970-339-1094

- 1 Call Foreman or Lead Operator at least 24 hr prior to rig move. If not already completed, request that they catch and remove plunger, isolate production equipment and remove any automation equipment prior to the rig showing up. Install perimeter fence as needed.
- 2 Provide notice of MIRU to COGCC field inspector as specified in approved Form 6.
- 3 A gyro survey for this well has already been completed.
- 4 Notify IOC when rig moves on location to generate workorder for flowline removal and one call for line locates.
- 5 Prepare location for base beam rig.
- 6 Notify cementers to be on call. Provide volumes (**190** sx of 50/50 POZ "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed at 13.5 ppg and 1.71 cuft/sx; **550** sx of "G" w/ 0.25 pps cello flake, 4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cuft/sx; **265** sx of Type III w/ CaCl₂ mixed at 14.0 ppg and 1.53 cuft/sk).
- 7 MIRU WO rig. Kill well using water and biocide. ND wellhead. NU BOP.
- 8 MIRU WL. RIH with Junk Basket/Gauge Ring on WL to \pm **7332'**. TOOH with Junk Basket/Gauge Ring.
- 9 **FISH located at 7332** (Milled remains of a CICR) Tag and verify depth of fish.
- 10 Dump bail a minimum of 2 sx of cement on top of the fish.
- 11 PU and RIH with CCL and two 1' 3-1/8" perf guns and perforate casing at **6750'** (30' above top of current TOC), and at **6350'** with 3 spf, minimum 0.50" EHD, minimum 16" penetration, 120 deg phasing, 1' net, 3 shot total. RDMO WL.
- 12 PU and RIH with 4.5" CICR on setting tool and 2-3/8" tubing to set CICR at **6380'** in 4.5" 10.5# K-55 casing. Hydrotest to a minimum of 3,000 psi while RIH.
- 13 MIRU Cementing services. Pump **190** sx of cement (Average 10" hole dia. w/ an annular capacity of 0.0874 bbl/ft, 348' of 4.5" 10.5# 0.0159bbl/ft csg + 52' of 4.5" 11.6# 0.0155bbl/ft csg + 40% excess) 50/50 POZ "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed at 13.5 ppg and 1.71 cuft/sx through squeeze holes @ **6750'**. Under displace 2 sx. Pull 2 stand tbgs and circulate hole using water and biocide. Circulate to get any cement out of the hole.
- 14 PU & SB tubing for next depth (**5120'**), LD remainder. RD cementer.
- 15 MIRU WL PU and RIH with CCL and two 1' 3-1/8" perf guns and perforate casing at **5120'** and **4460'** with 3 spf, 0.50" EHD, minimum 16" penetration, 120 deg phasing, 1' net, 3 shot total. RDMO WL.
- 16 PU and RIH with 4.5" CICR on setting tool and 2-3/8" tubing to set CICR at **4490'** (Set 30 ft below top squeeze holes) in 4-1/2" casing. Set CICR and establish injection through squeeze holes at **5120'**.
- 17 MIRU Cementing services. Once pumping rate has been established, pump 5 bbl water, followed by 20 bbl Sodium Metasilicate ahead of cement, followed by 5 bbl water. Total cement volume to be pumped is **550** sx. pumped as follows: Pump **530** sx of cement (Average 12" hole dia. w/ an annular capacity of 0.1202 bbl/ft, 590' of 4.5" 10.5# 0.0159bbl/ft csg + 20% excess). Sting out of CICR and pump **20** additional sx of cement (260' of 4.5" 10.5# 0.0159bbl/ft csg) on top of the

CICR. Cement type is G" w/ 0.25 pps cello flake, 4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cuft/sx.

- 18 PU & SB tubing for next depth 800', LD remainder. RD cementer.
- 19 MIRU WL. Crack Coupling or shoot off casing at the "closest joint" to 700' (287' below Surface CSG). RDMO WL.
- 20 ND BOP & tbg head.
- 21 NU BOP w/ 4-1/2" pipe rams on the 8-5/8" csg head.
- 22 PU csg. Circulate wellbore with fresh water and biocide. TOO H and LD 4-1/2" csg. If unable to pull production csg contact engineer/COGCC for plugging modification.
(michael.lucas@anadarko.com)
- 23 TIH with tbg open ended to land EOT 800' in production casing.
- 24 MIRU cementer. Spot 265 sx (100' of 4.5" 10.5# 0.0159 bbl/ft prod. csg capacity, 287' of 12" 0.1399 bbl/ft estimated hole capacity & 40% excess, 213' of 8.63" 24# 0.0636 bbl/ft surface csg capacity) of cement (Type III w/ CaCl₂ mixed at 14.0 ppg and 1.15 cuft/sk) from 800' inside the 4-1/2" stub to 200' inside surface casing (plug from 800'-200'). TOO H w/ tubing and stand back 100' tbg in derrick. LD remainder. RDMO Cementer.
- 25 WOC 4 hours or overnight.
- 26 TIH with tbg and tag cement plug. Record tagging plug in Openwells report. Lay down all tbg.
NOTE: if TOC is below 213' contact Evans Engineer for prog modification.
- 27 RU WL. Set 8-5/8" CIBP at approximately 100' (inside surface csg). Pressure test CIBP to 1000 psi for 15 min. (If CIBP does not hold contact Evans engineer and do not RDMO WO rig).
- 28 RDMO WO rig.
- 29 Wellsite supervisor turn all paper copies of cementing reports/invoices and logs in to Sabrina Frantz.
- 30 NOTE: During the job, wellsite supervisor should instruct the logging and cementing contractors to e-mail all logs, job reports/invoices to Sabrina Frantz.
- 31 Have excavation contractor notify One-Call to clear for digging around wellhead and flowline removal.
- 32 Excavate hole around surface casing of sufficient size and depth to allow welder to cut off 8-5/8" surface casing at least 5' below ground level.
- 33 Have welder cut off 8-5/8" surface casing at least 5' below ground level.
- 34 MIRU ready cement mixer. Fill the last 100' inside the 8-5/8" surface casing. Use 4,500 psi compressive strength redi-mix cement (sand and cement only, no gravel) to finish filling surface casing to top of cut off.
- 35 Spot weld on steel marker plate. (Note: marker shall be labeled with well name and number, legal location (¼ ¼ description) and API number.
- 36 Properly abandon flowlines as per Rule 1103.
- 37 Have excavation contractor back fill hole with native material. Clean up location and have leveled to plant any vegetation required.
- 38 Submit Form 6 to COGCC. Provide "As Plugged" wellbore diagram identifying the specific plugging completed.