

STARCK #2 Safety Prep w/Remedial Cement

- 1 Well needs remedial cement over the top of Nio, packer and new wellhead. Currently has a 3k wellhead. Well is 1832' offset to PDC's RIEDER pad. Gyro was run on 01/28/2015 to 7550'.
- 2 Call Foreman or Field Coordinator before rig up to isolate production equipment. Catch and remove plunger. Enter plunger into PLUNGER DATABASE. Call 24 hours prior to the rig moving onto location so that any automation equipment can be removed prior to the rig showing up. Install fence if needed. NOTE: Report surface casing pressure to engineer. If surface casing is not accessible at ground level, re-pipe so valve is at ground level.
- 3 Level location for base beam rig.
- 4 MIRU slickline. RIH to retrieve production equipment. RIH and tag for fill. Last tag was to 7550' on 1/28/2015. RDMO slickline.
- 5 MIRU WO Rig. Control well with biocide treated water. ND WH and NU BOPE.
- 6 Unland 2-3/8" tbg and LD landing joint.
- 7 MIRU EMI services. EMI **2-3/8"** TBG while TOO (Do not exceed 39,560 lb when pulling) and tally while standing back. Lay down joints with wall loss or penetrations > 35%. Replace bad joints as necessary. Note joint number and depth of bad tubing and create Production Equipment Failure Report in OpenWells. RDMO EMI services.
- 8 Clean out well by bailing sand if slickline indicates fill over the perforations.
- 9 PU scraper for 4-1/2" 11.6# casing and RIH to 6750' Reciprocate across interval at 6720', then PUH and reciprocate across interval at 6370'. POOH and LD scraper.
- 10 PU CIBP (**4.5", 11.6#, K-55**) and **2-3/8"** tubing and set CIBP at +/- 6720'. Nearest collars at 6704' and 6746'.
- 11 Release tbg from CIBP and circulate all gas out of the hole. Pumping water with biocide, pressure test CIBP and production casing to 1,000 psi for 15 minutes to verify CIBP set. If pressure test passes, proceed; otherwise contact engineering.
- 12 Dump 2 sx of sand on CIBP. TOO and SB tubing.
- 13 RU WL. PU 1-1-ft, 3 spf, 0.59" EHD, 4.725" PEN. squeeze hole guns. RIH and shoot 1-ft at 6570'. POOH. RDMO WL.
- 14 PU CIBP for 4-1/2" 11.6# casing on 2-3/8" tbg and hydrotest to 6000 psi while RIH to +/- 6370' pending CCL run
- 15 Using rig pump, establish circulation down tbg up the surface casing. Well may not circulate but instead go into the Sussex, which is OK. Monitor Bradenhead pressure while pumping.
- 16 RU Cementers. Pumping down tbg up Bradenhead, pump 80 sx (~133 cuft) 1:1:3 'Poz:G:Gel' w/ 20% silica, 0.4% CFL-3, 0.4% CFR-2, 0.1% SMS mixed at 13.5 ppg and 1.66 cuft/sk yield. Volume based on 9-1/4" x 4-1/2" annulus with 20% excess from 6570' to 6370'.
- 17 Underdisplace cement by 1 bbl and unsting from CIBP and spot final 1 bbl of cement on top of the CIBP. POOH and SB. WOC per cement company recommendations.
- 18 PU 3-7/8" bit and RIH to tag cement at ~6300'. Drill out cement, CIBP, cement under the CIBP. Continue to RIH to the sand capped CIBP. POOH and LD bit.
- 19 RU WL. Run CBL from 6700' to 6000' to verify cement coverage. Tie into the Schlumberger CBL dated 12/5/1985 in the log file room. RD WL.
- 20 ND BOP. Replace casing valves and nipples with components rated to 5000 psi.
- 21 ND existing tubing head off the 4.5" casing and install new WHI 5,000 psi flanged tubing head complete with 5000 psi rated casing valves, and XXH nipples.
- 22 NU BOP.
- 23 PU 3-7/8" bit and RIH to the sand capped CIBP at 6720'. Drill out CIBP and push to bottom. POOH and LD bit.
- 24 Clean out well by bailing sand if slickline indicates fill over the perforations.
- 25 PU **2-3/8"** NC, **2-3/8"** XN profile nipple and **2-3/8"** tbg (make sure nipple is properly input into OpenWells), land tubing with EOT at +/- **7628'**.
- 26 RU rig lubricator. Broach tbg to seating nipple. RD rig lubricator.
- 27 ND BOP. NU wellhead.

Well needs a remedial cement, CBL, and a 5,000 psi rated wellhead.

Well is to be worked on in preparation for the upcoming PDC RIEDER HZ pad.

Gyro was run on 1/28/2015.

TOC: **6584'**; NB top: **6837'**

Soonest Frac: **8/10/15**

Prep and Produce

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- 28 Install **2-3/8"** pup joint above master valve. Pressure test tbh head from below tbh head through master valve with hydrotester to 5,000psi.
- 29 RDMO WO rig
- 30 Return well to production team

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