

Inouye 15-31A – Remedial Fox Hills Cement and Packer

- 1 Well needs Fox Hills remedial cement coverage due to Form 17 results ahead of the Fort Lupton Campaign.
- 2 Gyro survey ran 6/6/2014, no need to run gyro survey.
- 3 Call Foreman or Lead Operator at least 24 hrs 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.
- 4 MIRU slickline. Fish plunger from lubricator. RIH and pull the bumper spring and standing valve if necessary. RIH with sinker bars and tag bottom (last cleaned out to 8076' 1/23/2012). Report findings. RDMO slickline.
- 5 Prepare location for base beam rig.
- 6 Spot a minimum of 20 jts of 2-3/8", 4.7#, J-55, EUE tbg for replacement and 60 jts 1.66", 2.33#/ft, J-55, 10rd IJ for annular cement job.
- 7 MIRU WO rig and auxiliary equipment. Kill well with fresh water and biocide. ND tree and adapter flange, NU BOP's.
- 8 Unland 2-3/8" tbg and lay down landing joint.
- 9 TOOH 2-3/8" tbg and tally while standing back, do not exceed safety tensile load of 53,000 lbs.
- 10 MIRU wireline. RIH on wireline with CCL and 4-1/2" 10,000 psi rated from above and below RBP. Set RBP @ +/- 7126', (collars at 7106' and 7148') and POOH. Dump bail 2 sx of sand on top of RBP. Pressure test RBP to 1000 psi for 15 minutes. If pressure test fails, contact Evans engineering. RDMO wireline services.
- 11 Bleed off pressure. ND BOP's, ND wellhead, Un-land 4 1/2", 11.6# casing, NU dual entry flange (2003 vintage casing), NU BOP.
- 12 PU 1.66" 2.3#/ft J-55 10rd IJ tubing, and TIH outside 4-1/2" casing in open hole to ~1700', if unable to make depth, contact engineering to discuss plan moving forward. Circulate with the rig pump while TIH to clean up the annulus. Use two sweeps of Alcomer 74L while TIH and a final sweep at 1700'. Make sure no pressure is present on bradenhead before moving on to the next step. If gas is detected, contact engineering to discuss plan moving forward.
- 13 Contact Imperial mud (min of 24hrs. in advance) to bring out 20bbbls of 10.0ppg mud. Pump 20bbbls of mud at 1700'. Leave 1.66" tbg full of mud to avoid wet trip and PUH to 1500' to place cement in annulus.
- 14 MIRU cement services. 10 bbls fresh water followed by 220 sx of Type III with 1/4 lb/sk cello-flake mixed at 14.8 ppg and 1.33 cuft/sk blended for a 3 hr pump time. Design is for coverage from 1,500' to 725' in ~8.5" Borehole (offset caliper log over SX interval with 40% excess).
- 15 TOOH ~36 joints to ~400' and circulate 1.5 times the hole volume of water containing biocide or until no cement returns are seen. TOOH with 1.66" tubing.
- 16 RDMO cementing company.

Remediate Bradenhead pressure

NIO top: 7564' (from offset); TOC: 6430'; FHM: 1278' (from offset);

State Aquifer Depth: 703'; Deepest Water Well: 660'; Surface Casing Shoe: 825'

Future HZ Activity: Baja Berg 2 - 6/2016 (Fort Lupton Campaign)

Full Circle

Gyro ran 6/6/14

Spud 12/2002; DV Tool @ 5520' covering SX

- 17 ND BOP. ND dual entry flange and crossover. Pick up and land 4-1/2" casing in slips.
- 18 Install new GE 5000 psi 4-1/2" bottom threaded tbg head with 7-1/16" flanged top, 7-1/16" flanged 5000 psi tbg head adaptor with 2-1/16" studded top, 2-1/16" flanged 5000 psi master valve, flanged 5000 psi 2-3/8" plunger lubricator (side outlets threaded). All valves, fittings, plugs on well head need to be rated for 5000 psi. NU BOP.
- 19 Leave well shut in for ~24hrs.
- 20 MIRU wireline and run CCL-GR-CBL-VDL from **2000' to surface**. If new top of cement is below 725' notify Engineering. In addition to normal handling of logs/job summaries, email copies of all cement job logs/job summaries and invoices to rscDJVendors@anadarko.com within 24 hours of the completion of the job.
- 21 RDMO wireline.
- 22 PU and TIH with 2-3/8" tbg and retrieving head. Circulate sand off RBP at @ +/-7126'. TOO H with RBP and SB tbg.
- 23 If fill tagged above 8,400', then reverse circulate to cleanout, with N2 as necessary, or bail, to +/- 8,412' (PBMD). Otherwise proceed to next step.
- 24 PU 2-3/8" NC, 2-3/8" XN nipple (be sure nipple is correctly input into OpenWells), and 2-3/8" 4.7# J-55 tbg to surface. Land EOT at +/- 8,130' (1 joint above the top JS perfs).
- 25 RU rig lubricator. Broach tubing to seating nipple. RD rig lubricator. ND BOP.
- 26 Install 7-1/16" x 5,000 psi tubing head adaptor with 5,000 psi flanged master valve. Make sure all wellhead valves are rated to 5,000 psi and all nipples are double-x heavy.
- 27 Install 2-3/8" pup joint above the master valve. Pressure test the tubing head from below the tubing head through the master valve to 5,000 psi using hydrotester.
- 28 RDMO WO rig. Return well to production team.

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