

### Cannon H33-33 Bradenhead Annular Fill and PT

- 1 PU and TIH 10,000 psi rated RBP above and below (4.5", 11.6#, M-80) and set RBP at +/- 6875' (collars located at 6853' and 6896').
- 2 Pressure test RBP to 1,000 psi for 15 minutes.
- 3 Dump 2 sks sand on top of RBP. POOH.
- 4 NU TBG head & tubing head adapter.
- 5 Make up stacked out TBG string into tubing head adapter.
- 6 ND TBG head adapter and master valve. Stack out TBG on RBP. NU BOP. Function test and document.
- 7 Bleed off pressure. ND BOP's, ND wellhead, Un-land 4-1/2" casing but do not exceed 80% of the tubing tensile strength which is 213,600 lbs, NU dual entry flange, NU BOP. Function test and document.
- 8 PU and TIH with 1-1/4" 2.33# J-55 10rd IJ tbg outside 4.5" csg to +/- 1600'. Run two 2" or one 3" line(s) from starting head to return tanks. If unable to achieve at least 1 bbl/min return, call engineering for alternate procedure. Circulate with 2 sweeps of Alcomer 74L and freshwater treated with biocide to clean up annulus while TIH. Make one last sweep with Alcomer 74L at 1600'. Continue to circulate with rig pump until clean returns are seen and well is dead.
- 9 Contact Imperial mud (min of 24hrs. in advance) and pump 40 bbls of 10.0ppg mud. Not acceptable to use re-hydrated mud from annular space. If gas is detected, contact engineering to discuss plan moving forward.
- 10 PUH to 1400'.
- 11 MIRU cement company.
- 12 Commence pumping cement job at pump rate of consisting 30 bbl spacer (5 bbls water, 20 bbls SMS, 5 bbls water), 137 sx (43 bbl) of Control Set C mixed at 13.5 ppg and 1.73 cuft/sk. Cement coverage is designed to go 1400' to 778' in 8.5" OH annulus and 778' to 678' in scsg with 20% excess.
- 13 TOOH with 1-1/4" tbg until EOT is at +/- 500' and circulate 2x tubing volume or until cement cleans up. TOOH remaining 1-1/4" tbg and LD all 1-1/4" tbg.
- 14 Break lines and clean up with fresh water. RMDO cement company.
- 15 ND bop, ND dual entry flange. NU 2-3/8" tbg head and BOP. Function test and document.
- 16 Leave well shut overnight.
- 17 Circulate gas out of hole with fresh water with biocide.
- 18 MIRU wireline and run CCL-GR-CBL-VDL from 2500' to surface'. Verify with Evans Engineering that new TOC is at 678' or higher. 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.
- 19 RDMO wireline.
- 20 PU and TIH with 2-3/8" TBG to sand above RBP at 6875'. Reverse circulate clean and latch onto RBP, unseat RBP.
- 21 TOOH while standing back 2-3/8" TBG and laying down retrieving head and RBP.
- 22 PU & TIH with 2-3/8" NC, 2-3/8" SN, and 2-3/8" TBG. Circulate clean to 7338'. N2 may be necessary to maintain circulation.
- 23 PUH to land TBG at +/- 7181' which is approximately 1 joint above Codell.
- 24 ND BOP, NU WH. Ensure all valves on WH are rated to minimum 5000 psi and update WH as necessary to flanged style WH. Ensure a new R-46 gasket is installed on WH.
- 25 MIRU hydrotester. Pressure test TBG head to 5000 psi for 15 minutes. After successful pressure test, proceed. RDMO hydrotester.

FH cement design is from 1400' to 678'

Well was spud on 2/29/2008

No upcoming HZ frac in area.