

## HSR-Conley 11-36: Remedial Cement – Annular Fill

- 1 ND BOP. Unland production casing (4-1/2", 11.6#, I-70), ND surface casing head and NU double entry flange. 1991 vintage casing, don't pull with more than 100,000lbs (50% of virgin joint strength).
- 2 Spot concentrated mud flush (Alcomer 74L – liquid mud thinner in 5 gallon bucket) from Imperial.
- 3 Spot 162 jnts of TBG (1-1/4", 2.33#, J-55, IJ). Run in annulus with pup jnt with CutRight, burn shoe or mule shoe on 1-1/4" tbg to 5000' or as deep as possible while circulating. Use mud flush sweeps intermittently or as necessary. If TBG hits tight spots work it for a bit while circulating to break the bridge as best possible. Call engineering if there is difficulty making depth or if a power swivel is necessary to break bridging.
- 4 Once EOT of 1-1/4" is at 5000' circulate for another 4 hours minimum using at least 1 mud flush sweep.
- 5 Order and pump 10 bbls of 10# mud from vendor (Imperial or Fluid Pro). Displace with 8.5 bbl of fresh fresh water to prevent unbalanced flow back. Note: Don't put mud in tanks contaminated with mud flush.
- 6 Pull 1-1/4" TBG up annulus so EOT at +/- 4,900'.
- 7 MIRU cementing services.
- 8 Mix & pump as follows: 5 bbls fresh water, 10 bbls Sodium Metasilcate (SMS), 10 bbl fresh water spacer, 57 bbls Sussex coverage cement blend (14.2ppg from baker, 14.6ppg from Sanjel), mixed with ¼#/sk Cello Flake, and retarding as determined by cementing service company for a 3-4 hour pumping time at 120° F. Displace with 7 bbls of fresh water. Design is for coverage from 4900' to 4200' in 9.5" Borehole (has caliper log) with a 20% excess. See Calculation.
- 9 POOH with 1-1/4" tbg to +/- 3,500 and circulate until clean. POOH to 1330', leave tubing in annulus. WOC 24 hours minimum.
- 10 MIRU Wireline services. PU and RIH w/ CCL-CBL-VDL tools and log from 5000' to 500' past TOC. NOTE: IF TOC IS BELOW 4250' OR POOR BOND, CONTACT EVANS ENGINEERING. Email logs to Jacob.Barker@Anadarko.com. Email copies of logs, summaries and invoices to rscDJVendors@Anadarko.com within 24hrs.
- 11 Circulate for 1 hour minimum with EOT or 1-1/4" TBG at 1330'.
- 12 MIRU cementing services.
- 13 Mix & pump as follows: 5 bbl fresh water spacer, 375 sks Type III cement, mixed with ¼#/sk Cello Flake, at 14.8ppg and 1.33 cuft/sk. Retarding as determined by cementing service company for a 3-4 hour pumping time at 80° F. Design is for coverage from 1330' to 433' in 10" Borehole and 103' in 8.1 ID surface casing with a 20% excess (has caliper log). See Calculation as necessary.
- 14 POOH with TBG to 250' and circulate clean.
- 15 POOH and SB tbg. ND double entry flange and Re-Land the 4-1/2" production casing immediately.
- 16 NU tubing head, be sure it is a 5,000 psi rated unit. NU BOP.
- 17 Shut in and WOC for 24 hrs minimum.
- 18 MIRU Wireline services. PU and RIH w/ CCL-CBL-VDL tools and log from 1500' to surface. NOTE: IF TOC IS BELOW 430' OR POOR BOND, CONTACT EVANS ENGINEERING. Email logs to Jacob.Barker@Anadarko.com. Email copies of logs, summaries and invoices to rscDJVendors@Anadarko.com within 24hrs.
- 19 POOH, RDMO Wireline service company.