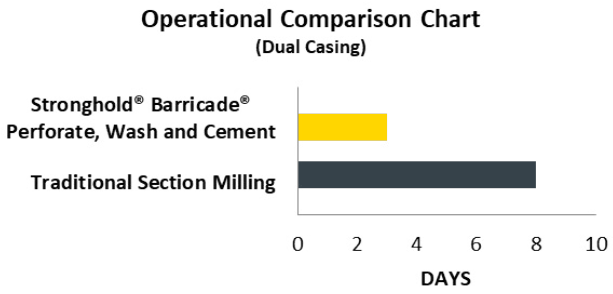
CASE STUDY- 2020- OMAN

Stronghold® Barricade® Remediating B Annulus Pressure in 7" x 9 ⅝" Dual Casing Application

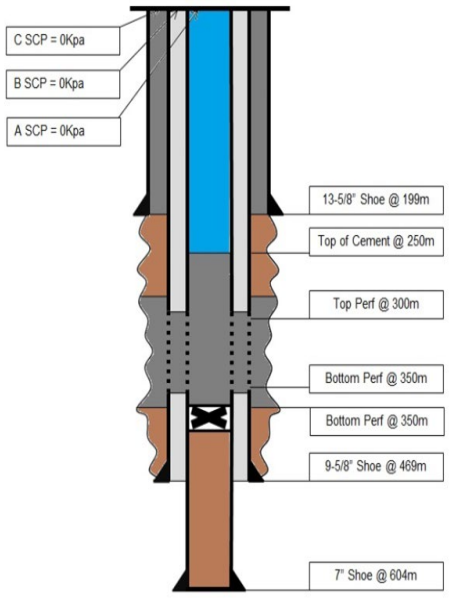
Challenge

A 2013 drilled and completed steam injection well deemed as high risk with integrity issues at surface.
Pressure had been observed on the B annulus between 7" 29# and 9 ⅝" 40# casing of up to 1100 kPa. Gas was clearly migrating through a poor foam cement job. The operator approached Archer with this challenge as they recognized it as a potential candidate for the Archer Stronghold® Barricade® System.



Solution

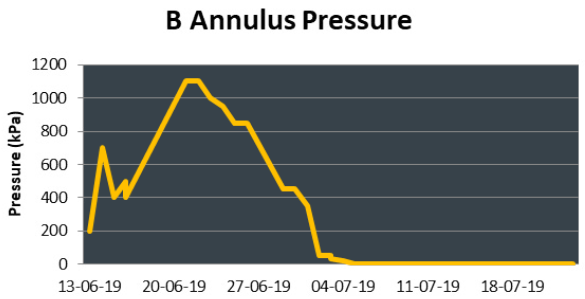
A thorough wash through 7"x 9 ⅝" into 12.5" bore hole with 12.2 kPa/m weighted mud followed by a systematic spacer/ cementing pump and pull process weighted 14.7 kPa/m Class E+ and 18.6 kPa/m Class G respectively. The Stronghold® Barricade®'s opposing swab cups allowed us confidently to displace the cement exactly into the target zone through the perforations.



Result

After completion of the Stronghold® Barricade® operation it was obvious we had created a solid rock to rock barrier replacing the original poor foam cement. Gas migration to surface has now ceased, allowing surface casing pressure to read 0 kPa after final bleed off inside of the B annulus. The well now no longer requiring constant manual bleed down by well integrity operators to keep below the MAASP rating of 1500 kPa.
Six months on from the operation being conducted and pressure at surface remains at 0 kPA.

B Annulus Pressure reduced from1100 kPa to 0 kPa



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