CASE HISTORY

Drilling and Completions  Casing Annulus Packer

PLACING CASING ANNULUS PACKER ABOVE GAS SOURCES

Shallow Gas Migration Creates Sustained Casing Pressure Problems on Conductor & Surface Casing Strings

Location: Gulf of Mexico

CHALLENGE: Wells in GOM exhibit problems associated with shallow gas migration and sustained casing pressure (SCP). Study suggests as many as 8,000 wells have SCP.

SOLUTION: A Casing Annulus Packer (CAP) was run on both the 20 in. and 13-3/8 in. casing strings and set above the methane gas sources after displacing cement. In the 13-3/8 in. case, annular flow of special gas-blockage cement and mud continued after bumping the wiper plug. The CAP was inflated and flow ceased. The wells were completed with NO SCP.

RESULTS AND BENEFIT: Prior wells required squeeze cementing to eliminate the SCP at a cost in excess of $150,000 each string. Packer and service cost for both packers was less than $35,000.