



ControlSEAL Resin Sealant

Resin Annular Plug Placed with Coiled Tubing

Background

A major operator in the Gulf of Mexico contacted CSI for assistance with a re-complete of one of their wells. The operator needed to create a resin plug for the thru tubing gravel pack operation while simultaneously creating a seal from damaged casing. The location of the PHL and VTA packers limited the plug length to less than 230 ft. ControlSEAL™ Resin Sealant was pumped due to its exceptional mechanical, chemical and rheological properties and its ability to create a good seal in casing with minimal volume.

ControlSEAL Resin Sealant Job

The operator temporarily abandoned the bottom production zone by placing a magna range bridge plug in the tubing at 6870 ft MD and dump bailing 8 ft of cement on top. They then punched tubing at 6829 ft & 6615 ft MD and set a retainer at 6824 ft MD. At that point, 1 ¼" coil tubing was run in hole and stung into the retainer. CSI proceeded to pump 7 bbls of ControlSEAL Resin Sealant at a rate of ¼ to ½ bpm thru the coil tubing placing 214 ft of resin in the 7" X 2-7/8" casing annulus. The coiled tubing was then un-stung from the retainer, circulated and pulled out of hole. At that time, the well was locked in with 500 psi of pressure and monitored for leakoff. After 48 hrs of waiting, the ControlSEAL Resin Sealant had hardened and was confirmed to have created an effective seal via a successful pressure test to 3500 psi. The operator

proceeded to perforate through the tubing, set resin and 7" casing using a 12 spf perforation gun. The 20 ft perforation interval was located at 6,630 ft – 6,650 ft. Then, a gravel screen and assembly was set between 6655 ft – 6585 ft in preparation for thru tubing gravel packing operations. The well was then released for production.

WELL INFORMATION

Casing Size: 7 in., 29 lb, N-80
Production Tubing: 2 ⁷ / ₈ in., 6.5 lb, N-80
Baker "PHL" Packer: 6,611 ft MD/5,917 ft TVD
Bad Casing: 6,632 – 6,654 ft MD
Circulation Perfs (5 ft): 6,615 ft MD
Proposed Prod Perfs: 6,630 – 6,650 ft MD/5,933 – 5,951 ft TVD
Coiled Tubing: 1 ¼ in. OD
CT Retainer: 6,824 ft MD
"X" Nipple (2.313 in. ID): 6,791 ft MD
Injection Perfs (2 ft): 6,829 ft MD
VTA Packer: 6,842 ft MD/6,117 ft TVD
Well Fluid: 8.6 ppg KCl
BHT: 150°F

