

Hydroxyl Radical Ions increase output of “Stripper Wells”



Stripper Wells goes from 1 BBL to 15 BBL for less \$100/day

Feb 2020, a private independent oil service firm from Houston, Texas recently conducted a field study on four different low producing oil wells (Stripper Wells) in Pecos County, TX. These wells were generating 1-2 barrels of oil per day. Using several different methods of injecting JC 9450 into the well, the production increased up to 15 barrels per day for 5 days and then dropped to 10 barrels per day for two weeks. The service operator then injected 5 gallons per day of JC 9450 into the well casing. The well continued to generate 15 barrels every 12 hours of operations. Hydrogen sulfide was eliminated in the gas phase and liquid phase.

Paraffin and asphaltenes were known to be a problem in the system were minimized. JC 9450 changed the surface structure of paraffin and asphaltenes so that it would not form a deposit. The produced water from the operation was tested for iron, bacteria, and hydrogen sulfide. The results showed no detectable levels of iron, bacteria, and hydrogen sulfide. It was observed that the produced water looked cleaner.

Stripper Wells are defined as oil (or gas) well with an average production of 15 barrels or less per day of oil or gas equivalent. The average production from a stripper well as stated in a study conducted by The National Stripper Well Association (NWSA) is 1-2 barrels per day. In the US, NWSA estimates there are over 770,000 stripper wells operating that contributes 11.3% of the US oil production and 8.3% of US Gas production. Most of the stripper wells sit on top of untapped resources. It is estimated between 50-70% of the oil beneath the stripper well cannot be removed for three reasons: 1) pressure, 2) permeability and 3) paraffin. As these fields begin to produce oil or gas at the wellbore, the pressure begins to drop, resulting in lower production. With the amount of thermal energy (heat) entering the wellbore, you see a drop-in production related to permeability. The oil in the well begins to cross its cloud point threshold and paraffin crystals start to precipitate as the oil moves from the pore space to the wellbore opening. If a well's flowrate is high enough, the continuing thermal mass of the oil entering the wellbore can keep the paraffin in solution, so that the buildup on the wellbore is kept to a minimum. If the flow rate decreases, the paraffin will create a thick deposit in the wellbore which will further inhibit the flow oil. An additional factor is the biofilm in the wellbore and formation. The biofilm will provide additional sites for paraffin to deposit. A biofilm generates a sticky material called extracellular polymeric substance (EPS). The EPS attracts the paraffin crystals, asphaltenes and iron sulfide to form a deposit on any surface.

JC 9450 is a new technology that use reactive oxygen species (ROS) to form a strong oxidizing agent that quickly reacts with hydrogen sulfide, iron sulfide, biofilm, bacteria. It is also very effective as an emulsion breaker and micro-flocculent in the treatment of produced water. It can be used to destabilize paraffin and asphaltenes.

JC 9450 is a green technology and is environmental friendly. JC 9450 generates a high concentration of hydroxyl radical ions that react to form mineral oxides that are inert.

For more information please contact Jenfitch, Inc. at 925-289-3559 or www.jenfitch.com