Case History

Gensol 5000

In many producing oil wells the bottom hole temperature is 400° F or higher. This is especially true in deeper wells.

At these temperatures it is difficult, if not impossible to deliver a treating chemical to the bottom of the hole. The solvent carrying the chemical will evaporate before it reaches the bottom of the hole. This results in the active ingredients of the chemical plating off on the pipe walls. In this manner the chemical itself not only fails to treat the intended problem, but it becomes a new problem itself.

Gensol 5000 was used to carry a paraffin treating chemical to the bottom of a 400° F well in South West Texas. The problem to be treated was a rapid and heavy deposition of paraffin in the production tubing.

To stop the deposition, chemical had to be added to the produced crude prior to the crystallization of the wax crystals. Thus, the chemical would only be effective if it was added into the very bottom of the well.

This was done by injecting chemical into the stream of gas that is pumped downhole to operate the gas lift system – which produces the well fluids.

If the chemical was not stable at 400° F, the solvent would evaporate, and the resulting, thick remaining raw material would plug up the gas lift valves. This would result in higher pressures being required to force the gas downhole.

Gensol 5000 provided the means to accomplish this. The treatment chemical was blended into the Gensol 5000 and then injected into the gas lift.

This chemical blend was used for three weeks.

- The gas lift pressure did not increase
- The well produced for a longer period of time without “scraping” the deposited paraffin from the tubing

This indicates that the Gensol 5000 successfully delivered the paraffin treating chemical downhole, through the gas lift valves, and into the produced fluids at the bottom of the well.

The Gensol 5000 may also help prevent the paraffin by adding some solvency to the crude.

The test was discontinued due to totally unrelated field conditions that shut the entire field down. When the field is returned to normal production the application should be continued.