FORSA PAO23 Paraffin Inhibitor Eliminated Paraffin Deposition and Increased Production

An independent operator in the Eagle Ford Shale region of Texas flowed back several new wells, producing 50º API gravity oil. Paraffin deposition was extremely severe in the sales tanks and production was rejected numerous times. Tanks had to be hot oiled to sell the oil. The paraffin characteristics varied from 60-20º API gravity oil, and cloud point ranges of 70°F to 115°F, which led to flowline plugging. Surface vessels malfunctioned, tank bottom deposits increased, and oil sales tanks were rejected.

After being contacted to solve these production challenges, Baker Hughes, a GE company (BHGE) recommended a FORSA™ paraffin management program to help the operator overcome the severe paraffin deposition within the sales tanks. Application of FORSA PAO23 paraffin inhibitor reduced tank bottom deposits, lowered cold crude viscosity, and controlled paraffin deposition. The operator was able to increase tank capacity, decrease pumping costs, and reduce line maintenance. The BHGE FORSA paraffin management program increased revenue and eliminated costly shutdowns for the operator.

This case history is presented for illustrative purposes only, as results may vary between applications.

Results
- No pads or tank bottoms have been noted since initial treatment began
- Eliminated sales tank rejections
- Allowed optimum production rates without hot oil treatment of tanks
- Improved post-treatment production to 2,200 BPD at USD 100 per barrel

Challenges
- Paraffin deposition was extremely severe in each flowline and all surface equipment, which led to downtime and costly cleanout jobs
- Cloud point ranges of 70°F to 115°F led to flowline plugging
- Unacceptable crude oil viscosity levels
- Tanks had to be hot oiled

BHGE solution
- Implemented FORSA PAO23 paraffin inhibitor, injected continuously at the flowline at 400 ppm