Optimizing Pipeline Treatment

Application Sheet #34

SITUATION

- An operator in the Permian was treating a pipeline against bacteria, scale and corrosion using two traditional chemical pumps.
- The injection rates were set manually and adjusted daily based on measured readings from a pipeline flow meter. This manual adjustment required twenty man-hours of labor per week.
- These pumps were either over treating or under treating by up to 25%. Over injection resulted in excessive chemical usage and under injection led to shut downs and expensive clean ups.

SOLUTION

- Two Sirius Pumps were installed, and communications set up with the existing PLC.
- Feedback from the pipeline flow meter was used to scale the chemical injection rates as needed, optimizing the amount of chemical to the process.
- The Sirius Insight "Smart Sight Glass" system was installed to provide injection flow measurement and closed-loop feedback control.

RESULTS

- The accuracy of the injection improved from 75% to over 95%.
- Shut downs were mitigated along with the expensive clean ups that follow.
- A daily site visit, to adjust rates is no longer required. The system runs autonomously and is inspected once per week, saving approximately \$25,000 in annual labor costs.

REAL TIME **BENEFIT**

Large savings in preventing shut downs and ensuing clean ups.

\$25k annual manpower savings.



