Slip Stream Increases MTBF

Application Sheet #62

REAL TIME BENEFIT

To date a 25% increase in MTBF of the artificial lift pumps. Customer savings of 2.4m dollars.

SITUATION

- A customer in North Dakota was having scale and corrosion problems. As a result, the MTBF (mean time before failure) of the artificial lift rod pumps were 4 months on average.
- The ensuing cost for the repairs and loss production was over $100,000 per well per failure.
- There were two pads with four wells on each.
- Attempts were first made to inject continuously down the annulus with poor results. Next, attempts were made to slip production fluid along with the chemical which also failed to provide the desired results.
- The customer saw value in remote monitoring.

SOLUTION

- Sirius provided a single remote actuated slip stream system per pad that could batch inject and slip production fluid into the wellbores on four wells.
- The system would operate every 4 hours for 20 minutes. During this 20-minute window, an actuated valve would open while the chemical pump injected 5 minutes for each point. Each point had its own slip valve that would open in sync with the Stack™ multipoint injection valve.

RESULTS

- The system was connected via Modbus and Sirius' remote IIoT InSight Connect. This allowed the operating company to visualize and control both production and chemical over their SCADA while simultaneously allowing the chemical company to see "only" the chemical data.
- At the time of this Application Sheet, all eight wells were operating 25% longer than the MTBF.
- At a cost of $2.4 million dollars annually, the systems had already saved the customer $600,000 and there were no signs of failing soon.
- In addition, the production went up because they were not slipping as much production fluid with the chemical.