Improving Performance of Saltwater Disposal Wells

Application Sheet #51

SITUATION

- A Permian operating company treats produced water before pumping into saltwater disposal (SWD) wells. A high pH chemical was being injected into the process using legacy pumps outfitted with extreme packing to protect the pump.
- This packing pump required repair or replacement 2-3 times per month, resulting in high maintenance costs and excessive downtime.
- The operator wanted to reduce the following: wellbore cleanouts, downtime, tank cleaning, pump maintenance, and time spent making physical adjustments to change the injection rate of the pump.

SOLUTION

- A Sirius Fusion2 plastic pump injection system designed for highly corrosive applications was installed.
- The Fusion2 controller was configured to scale the injection rate based on the flow rate of the produced water. This ensured that the proper amount of chemical was being injected without having a person on location to make physical adjustments to the pump.

RESULTS

- At the time of publication, the Sirius system had been operating for 6 months without a repair. This is an immense improvement to the downtime, manpower, and parts cost that came with repair every two weeks.
- Process up time and well injectivity were greatly improved, permitting a higher flow rate for a longer period.

REAL TIME BENEFIT

Improved well performance with reduced downtime and maintenance cost.

- Time spent cleaning tanks was significantly reduced.
- The more consistent and controlled injection is expected to prolong the life of both the surface equipment and subsurface infrastructure.



