

Smart H₂S Analysis, Smarter Savings

Application Sheet #64

REAL TIME BENEFIT

Chemical savings of
\$65,000 annually.

Shutdowns eliminated.

SITUATION

- An Alberta based company was injecting H₂S scavenger at the wellhead to ensure their fluid sweetening process met strict pipeline requirements, before entering the satellite battery located 3 miles downstream.
- To meet the critical requirements, the company was injecting at a rate of 25 liters per day, based on a worst-case scenario. They would try and reduce the rate periodically, which regularly led to shut downs, from high H₂S.

SOLUTION

- Sirius provided two complete Nova™ Tank Systems with InSight™ smart sight glass which gives feedback control, ensuring accurate injection at all times. One of the systems was located at the wellhead and the other at the satellite.
- Real-time feedback from the H₂S Analyzer was sent to each Fusion²™ controller. Based on the H₂S content, the controller at the wellsite would adjust pump rate to ensure the downstream H₂S level entering the battery was maintained below 10 ppm.
- The chemical injection system at the satellite provides a way to treat any slugs of high H₂S oil that get past the wellsite injection system and could potentially enter the satellite, possibly shutting the process down.

RESULTS

- The system automatically adjusted the scavenger injection rates to keep the ppm levels under the required threshold, based on real-time data from the H₂S Analyzer.

- The chemical injection rate was reduced from 25 liters per day to 12.5 liters per day on average, a reduction of approximately 50%. This resulted in savings of \$65,000 annually.
- Process shutdowns were eliminated.



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