**Challenge**
Find a cost-effective hydrogen sulfide (H₂S) treatment for sour wells in the Eagle Ford Shale.

**Solution**
Apply HR-2635* hydrogen sulfide scavenger to improve H₂S treatment efficiency while lowering treating costs.

**Results**
- Reduced H₂S levels to the gas pipeline specification.
- Maintained a process H₂S scavenging efficiency performance.
- Reduced chemical expenditure by 56%.

**Manage hydrogen sulfide in sour wells**
Hydrogen sulfide is naturally produced from the Eagle Ford Shale. The levels can range from a few ppm up to 20,000-ppm hydrogen sulfide and must be reduced to below pipeline gas specifications, which are typically less than 4 ppm. In addition to reducing product value, hydrogen sulfide exposes producers to environmental and safety risk and increases the chance of corrosion.

In one field, production flows through a three-phase allocation separator where gas discharge is comingled with other gas production streams and sent through a custody transfer to a third-party midstream company. When the midstream company altered the incoming gas stream KPIs, the cost of the producer’s H₂S scavenging program significantly increased.

**Apply HR-2635 hydrogen sulfide scavenger to treat gas, reduce costs**
The operator tasked Schlumberger with lowering overall treating cost and improving the treating efficiency of hydrogen sulfide. Schlumberger recommended HR-2635 hydrogen sulfide scavenger, a concentrated triazine formulated to convert H₂S into a water-soluble, noncorrosive, and nontoxic product.

HR-2635 scavenger is formulated to reduce the potential for calcium carbonate scale precipitation common with most triazine products by incorporating a thermally stable phosphonate scale inhibitor into the finished formulation.

The team provided targeted, direct injection of HR-2635 hydrogen sulfide scavenger and implemented a robust monitoring and optimization program.

**Reduced H₂S levels to gas pipeline specifications**
Schlumberger injected HR-2635 scavenger into two individual gas streams and a comingled gas header system upstream of the custody transfer with production flow rates ranging between 36 and 43 MMcf/d and H₂S levels ranging from 80 to 95 ppm. HR-2635 scavenger effectively reduced H₂S levels to the required gas pipeline specification while maintaining process H₂S scavenging efficiency. The application also reduced the producer’s chemical expenditure by 56%.