Multi-Chem Delivers Superior Local Service with MultiSweet® H₂S Scavenging and NGL Conditioning.

Location: Southern Rocky Mountains

Overview

A major oil and gas producer was collecting 5000 gallons of NGL (natural gas liquids) per week for sale as a side revenue stream. When H₂S levels rose as high as 450 ppm, the operator was unable to sell the gas to the pipeline company, which has a stringent spec limit of up to 4 ppm of H₂S in the gas stream. The producer contacted Multi-Chem for a solution.

After examining system design, Multi-Chem recommended MultiSweet® scavenger MX 765-8 be injected at a number of injection points in order to pump less chemical and scavenge H₂S more efficiently.

The first injection point, at the gas outlet to the conditioning plant, was producing 350 ppm H₂S gas. Multi-Chem pumped an historic low of just 24 gallons per day (gpd) of MX 765-8, and added a retractable atomizer and pulsation dampener, scavenging 300 ppm of H₂S with the first treatment.

At the second injection point, NGL and water drop out was collected and sent to the slop tank. There, Multi-Chem pumped 2 gpd of MX 765-8 and again added a retractable atomizer, then injected the chemical at the three-stage compression inlet, after which average H₂S concentration was 10 ppm.

The third injection point was the “sulfur contactor” or bubble tower, which periodically dumps spent product to an additional FWKO (free water knock out). Three months after 2 gpd of MX 765-8 was injected, Multi-Chem found no H₂S present at the sales point.

The final tank to be treated injects into the FWKO where NGL is collected. Originally Multi-Chem recommended pumping HydraScav at 2 gpd, but when copper strip tests were nearly out of spec, treatment was optimized to a 10 to 100 ratio.

With this program in place, the producer sold 1 mmcfd in gas with no shut-in over three months, collecting an estimated $6MM in revenue. Because this Multi-Chem treatment requires less chemicals, the customer also enjoys cost savings of more than $4000 per month in H₂S scavenger.

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<tr>
<th>CHALLENGE</th>
<th>SOLUTION</th>
<th>RESULT</th>
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<tbody>
<tr>
<td>High H₂S levels keep gas out of spec, preventing sale and causing shut-ins.</td>
<td>H₂S scavenger program using Multi-Chem’s MultiSweet MX 765-8 at multiple injection points, with atomizers and pulsation dampeners where warranted to improve performance.</td>
<td>Customized treatment program reduced amount of chemical used and scavenged H₂S more efficiently, reducing costs and eliminating shut-ins while successfully restoring gas to spec for sale.</td>
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