
CASE STUDY

Jonell Systems Cyclone Solutions Effectively Solves CO₂ Challenges

DEBOTTLENECKING TECHNOLOGY
INCREASES OIL AND GAS PRODUCTION
WHILE MINIMIZING VARIATION IMPACT.



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INITIAL SITUATION

CO₂, present in many production wells, is corrosive and has difficult physical properties that complicate production flows. Historically, corrosive wells would be capped and

abandoned however, the price of gas plays a crucial role. The cost of treating the gas from corrosive wells does not render a good return on investment when prices are low. When prices are higher, wells with higher acid content are also produced. Despite its potential for damage, CO₂ re-injection is effective at increasing production from these existing wells.

CHALLENGE

An oil and gas facility regularly dealt with high solid and liquid contamination which lead to intensive operation intervention and expensive operational costs. Because of the problematic nature of the process and the design of the plant, sophisticated downstream equipment was negatively impacted and resulted in low plant productivity during upset conditions. These traditionally complex operations had few options to effectively combat upset conditions. Plant engineers sought to reduce the operational costs of the downstream filters, coalescers, and membranes while increasing the ability to reduce impact from upsets.

SOLUTION STATEMENT

Relying on decades of experience and teams of creative engineers, Jonell Systems collaborated with oil and gas industry customers to develop a new cyclonic technology specifically for this application. The new technology effectively debottlenecks operations by removing contaminants and results in a more balanced operation. Additionally, it reduces the downstream filter and coalescer usage which leads to cost savings in cartridges. Fewer required changeouts results in more process uptime.

For facilities that consider their Total Cost of Ownership (TCO), this cyclonic technology increases productivity, saves money, decreases changeout times, and reduces costly production downtimes.