

Operator boosts volumes of produced water recycled, while dramatically reducing chemical costs

OVERVIEW

A large E&P operates 800,000 acreages in the Permian Basin, primarily located in New Mexico. Historically, the plant operators had been incurring high costs to treat water to KPIs. For years, they had been reusing produced water via continuous investment in resources, technology, and chemistry. In some locations it was more cost-effective to dispose of water than to recycle.

INDUSTRY:
OIL & GAS

PRODUCT:
NANONET FEP™

CHALLENGE

Increasingly, New Mexico has been stepping up regulations in its push to increase the amount of water that operators recycle and to decrease disposal. In order to meet the amount of recycled water required, management needed to reduce its per barrel treatment cost. However, delivering the required quality of water for an aggressive frac schedule was resulting in continued increases in the cost of their chemical package, which included an oxidizer, a coagulant, and a flocculant/polymer.

The objective of meeting and exceeding required KPIs to produce Iron (Fe) at sub-1, ORP 300+, pH 6-6.5 and Turbidity 5, was set with the aim of achieving significant reductions in chemical costs.

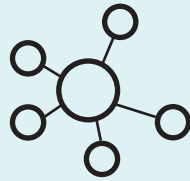
SOLUTION

Enter the CarboNet Nanonet suite of next generation chemistry—researched & developed in the toughest field conditions in the Permian Basin. For a 1-month period using a highly efficient, low-cost Seepex MD 025-6L pump, CarboNet FeP was injected into the 115,000 bbls/day treatment process as a direct replacement for a commodity high cost flocculant and coagulant.

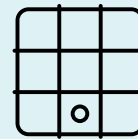
RESULTS



45% Reduction in average chemical costs



Eliminated the use of Polyaluminum Chloride (PAC)



No makedown required, for ease of use & consistent results

The use of polyaluminum chloride coagulant was virtually eliminated (reduced from 300ppm to 25ppm), thereby reducing the Oxidizer from 300 ppm to 150 ppm, and significantly reducing dosing of the highly expensive flocculant/polymer. This extensive 1-month 24/7 trial reduced chemical costs on average by 45% with no change to the process.

The simplicity of dosing neat has delivered more consistent results and improved ease of use in their water treatment systems.

Additionally, the operator has seen significant economics and efficiencies, and is planning to deploy Nanonet FeP to additional locations. This one change will save the company and its shareholders millions of dollars annually.

MORE ABOUT CARBONET

CarboNet is a specialty chemicals company with a radically different approach for targeting and controlling molecules in water. Our suite of products are the next generation of chemicals that are a quantum leap in efficacy over commodity chemicals. We help customers across industries that include oil and gas, mining, pulp & paper, industrial water, and agriculture to achieve unprecedented results. The outcomes are more water treated, more applications possible, and greater value from existing systems--all with a smaller chemical footprint, less freshwater consumed, and less complexity. CarboNet helps you to achieve more with less.

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