

# Scale Remediation: Scale/solids remediation on a GoM production vessel

## BACKGROUND

A GOM operator's production separator had flow restrictions resulting in reduced processing rates of produced fluids. The flow rate was much lower than the standard target of 30,000 BPD. The flow reduction was suspected to have been due to solids deposition. To analyze the accumulated sample, solid samples were taken from the strainer and dump valves. The results indicated that the majority of these were acid-soluble solids.

## SITUATION

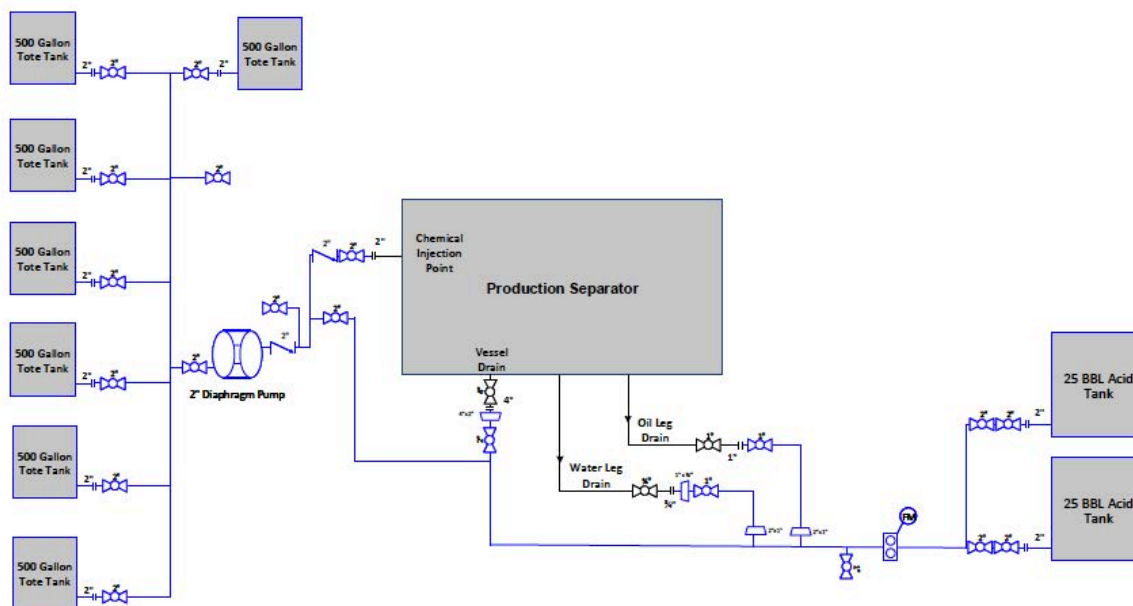
Field samples were tested at a Nalco Champion laboratory with various solvents and acids. Based on the fluid analysis, products were qualified and a procedure from the Baleen Process Solutions team was provided to pump chemicals into the vessel to remediate the scale. This turnkey solution helped return the production separator back to its design flowrate with no HSE incidents.

## SOLUTION

The Baleen Process Solutions team provided an engineered equipment spread, P&ID drawings and SAFE Chart for efficient regulatory submittal by the operator. Specialized equipment for pumping and handling xylene and to be utilized for the acid treatment was incorporated into the design. The appropriate tankage for recovering waste to subsequent disposal was also included.

## RESULTS

When returned to service, the separator showed significant increases in performance. The oil leg outlet operated at rates exceeding 30,000 BOPD and the water leg at more than 10,000 BWPD. It was evident that a large amount of restrictions in the vessel had been remediated. This operation was performed without any downtime and was performed incident free.



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