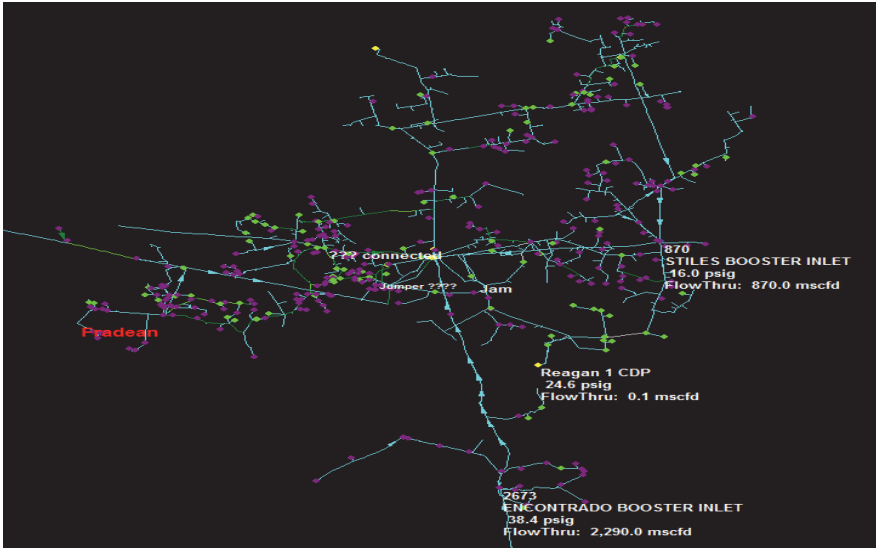


CASE STUDY: MIDSTREAM OPTIMIZATION PROJECT - Permian Basin



PROJECT OVERVIEW

One of GCC's midstream clients owned a Legacy dry gas system that included 2500 sq mi of pipe gathering, compression and processing. The client needed to meet increasing volumes of high BTU gas coming from new producers. The SOW we developed involved establishing empirical data and providing cost options to safely increase volume. In order to accomplish this, GCC was required to evaluate the L&U and operations, as well as model the various pipelines, compressor stations and processing facilities to provide a solution to improve throughput.

ACTION

GCC immediately sent a team to the site to begin gathering data. From the data collection, we modeled and vetted each pipeline, compressor station, and processing facility. We also evaluated their L&U data and developed minimum manning requirements to perform maintenance and operations based on described tasks and geographical requirements. The final white paper provided over 30 projects with ROI summaries to generate immediate AFE's.

RESULT

The optimization provided insight on how operations was venting field gas due to pipeline MAOP constraints. GCC provided a detailed cost associated with replacing identified sections of piping that would alleviate the high MAOP. As part of the L&U report, GCC also identified piping that was required to be replaced due to identified leaks and normalcy of repeated repairs. In addition, we provided a low cost method of eliminating rod loading conditions on all compressors to allow for higher throughput.

Of significant concern to the client was the processing operation. Our detailed analysis included options to improve the current plants uptime and throughput. As a final note, we also provided an analysis that showed the manning required to handle system operations and repairs. The analysis additionally identified inadequate line locates resulting in substantial downtime and poor environmental/safety conditions.

Project at a Glance

Location	Permian Basin—TX
Project Type	Plant Optimization
Initial Capacity	24 MMSCFD (Reliably)
Final Capacity	35 MMSCFD
Overall Value	\$9.0 MM annually (in increased midstream throughput & processing value)

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