

CASE STUDY: PLANT EXPANSION DESIGN

Expanded gas capacity



PROJECT OVERVIEW

The objective was to expand an existing compressor station to add 80 Mmscfd to the current 30 Mmscfd station to include (2) 2370 HP CAT 3608/LE Ariel JGC-4's and the surrounding support facilities for the plant expansion. Key to the expansion was interconnection and expansion of the facility inlet and discharge headers. All equipment specification, site layout, header design and building design will be completed by GCC, Inc. The project and its design will involve the participation of several companies, thus requiring a higher level of coordination while maintaining a cost effective and efficient approach.

ACTION

GCC simultaneously provided research on various compression options to meet the client's needs. The options included; Cat 3516's, Wauk 7044GSI's, Cat 3608's, Cat 3612's and Cat 3616's. The final cost analysis and volume commitment resulted in two (2) @ Cat 3608 mated to two stage Ariel JGC-4 Compressors. GCC provided all project development including s BOM's, RFQ's, and AFE's on all equipment, pipe, buildings and materials while coordinating all deliveries.

GCC also provided a management team to over-see equipment design and quality control for equipment suppliers and contractors. GCC was awarded the contract in February 2011, with ground broken on the first station on July 1, 2011. The first station start-up was Nov 15, 2011, the second March 15, 2012. GCC supplied the client with all P&IDs, ISOs, as-builds, job books, daily operator form documents, as well as completed plant operation procedures for facility and equipment.

RESULT

GCC was on-hand during the start-up of the first facility which allowed for minor design changes to be implemented on the second facilities. The changes included the expansion of the building design to include the production scrubber and the construction of an enclosed work area for operators. By utilizing GCC's partners, engineering, and design, the client saved over \$1M on the expansion.

Project at a Glance

Location	Wyoming
Type	Expand gas capacity
Initial Capacity	30 Mmscfd
Final Capacity	110 Mmscfd
Overall Savings:	\$1M +

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