GAS LIQUIDS ENGINEERING GREATLY REDUCES ITS DESIGN TIME WITH CADWORX®

Gas Liquids Engineering (GLE), a full-service engineering, procurement and construction (EPC) management firm located in Calgary, Alberta, Canada. It has 200 employees with 75 being part of the firm’s industry-leading piping design and drafting team. Over its 26 years in business, GLE has completed more than 5,000 projects in both conventional oil & gas projects and in natural gas plant and distribution design, sour gas processing, acid gas injection, liquids recovery and compression.

IDENTIFYING GOALS

GLE was awarded full EPC for a gas processing plant to produce 200 million cf (MMcf) of sweet gas and more than 7,700 barrels of NGL daily. The greenfield project included more than 27,000 feet of butt-welded pipe ranging from 2” to 30” in outside diameters plus 50 major pieces of equipment.

Challenges included an extremely aggressive design schedule of 10 months for a project normally considered to require 18 months. The location in the side of the foothills in central Alberta also presented significant layout and design challenges.

OVERCOMING CHALLENGES

Using the latest version of CADWorx software, GLE was able to model more effectively and efficiently than before. The company cut 35% of 3D design hours thanks to the significantly improved and easy to use newer version.

The added value of OrthoGen for CADWorx Plant Professional decreased the time needed to produce arrangement drawings by about 75%. GLE could customize styles and templates to suit the client’s deliverables for a standardized presentation package of the drawings. More significantly, it enabled GLE to slide the modeling schedule much closer to the final date to meet the client’s tight deadline.
GLE was able to prevent missed deadlines, incorrect bills of material and budget overruns on design hours. This reduced the hours that would have been required to check the accuracy of the drawing deliverables. Using conventional methods would have resulted in missed deadlines, less accurate information, and a much higher labor cost charged back to the client. Prior to CADWorx, there would have been design inefficiencies and they would have wasted time on rework due to design errors.

The user-friendly interface and tools offered by CADWorx meant new hires didn’t have to spend hours being trained. Most other programs would have required extensive training and delays.

REALIZING RESULTS
Thanks to CADWorx, GLE was able to stay under budget for the gas processing plant project. The company also found Hexagon products to be quite user-friendly. The increased efficiency enables the design staff to spend more of their time designing.

“The software allowed a seamless flow among disciplines such as P&ID, piping, structural and stress analyses,” Vince Wehnes, CAD manager for the project at GLE, said, “New hires learn the software easily and feedback is universally positive.”

The client was very satisfied with the end deliverable and is working with GLE on future projects.

AWARD-WINNING PROJECT
GLE received the CADWorx Drivers of Success Runner-Up Award for its use of the software. The annual Drivers of Success competition recognizes innovative applications of Intergraph products, impressive project results, and significant benefits from collaboration among disciplines and the integration of the products.

ABOUT HEXAGON
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Hexagon’s PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

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