



FACTS AT A GLANCE

Company: Gas Liquids Engineering

Website: www.gasliquids.com

Description: Gas Liquids Engineering (GLE), a full service engineering, procurement, and construction (EPC) management firm located in Calgary, Alberta, 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 and gas projects and in natural gas plant and distribution design, sour gas processing, acid gas injection, liquids recovery, and compression.

Industry: Oil & Gas

Country: Canada

PRODUCTS USED

- CADWorx® Plant Professional
- OrthoGen® for CADWorx Plant Professional

KEY BENEFITS

- Completed overall design in 10 months instead of the usual 18 months.
- Cut 35 percent of 3D design hours.
- Reduced arrangement drawing time by 75 percent.
- Eliminated design errors and wasted time.

GAS LIQUIDS ENGINEERING CUTS DESIGN TIME BY ALMOST HALF FOR GAS PROCESSING FACILITY

IDENTIFYING GOALS

GLE was awarded full EPC for a sweet 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 Intergraph CADWorx software, GLE was able to model more effectively and efficiently than before. The company cut 35 percent of 3D design hours thanks to the significantly improved and easy to use newer version.

"The user experience was much more positive and easier to implement compared to the previous version," explained Vince Wehnes, CAD manager for the project at GLE.

The added value of OrthoGen for CADWorx Plant Professional decreased the time needed to produce arrangement drawings by about 75 percent. 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.

GLE found Intergraph products to be quite user-friendly. The increased efficiency enables the design staff to spend more of their time designing.

“The software allows a seamless flow among disciplines such as P&ID, piping, structural, and stress analyses,” Wehnes added, “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 2015 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 INTERGRAPH

Soon to be known as Hexagon Process, Power & Marine, Intergraph Process, Power & Marine is the leading global provider of engineering software for the design, construction and operation of plants, ships, and offshore facilities.

Hexagon Process, Power & Marine is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.

