



Escravos Gas Project (EGP) 3B

Chevron Nigeria Limited (CNL)

Ariosh was awarded the contract in 2012 to provide follow-on engineering and construction management services on EGP 3B, a gas gathering project that involved the modification of seven (7) offshore production platforms. The topside modification includes installation of 6 large diameter pig launchers & receivers and large access platforms & deck extensions on heavily congested offshore production platforms.

Challenges

The challenges of executing brown-field projects became apparent following the completion of detailed engineering and fabrication drawings by an international EPC. CNL experienced significant clashes during installation of the topside modifications on the first two of seven platforms. Concerned that history would repeat itself with the remaining five platforms, the project was put on hold. Hence Ariosh was contracted to help resolve the situation.

Heavy Cost Impact

The challenges needed to be resolved quickly to avoid the serious impact of increased costs, schedule delays and production loss, as well as safety and reliability concerns. The direct costs alone were heavy. Modification work during installation offshore could take at least twice as long as modifications in the fabrication yard.

Solution

Ariosh started by performing Laser Scanning on all seven (7) platforms and then providing 3D models of the new design. These 3D models were superimposed on the laser data and clash checked using Ariosh's SureFIT™ Work process. Design verification should obviously be performed prior to fabrication. However, on this project, fabrication of the spools and structures had progressed to over 70% before Ariosh's involvement. These spools and structures were then Laser scanned in the fabrication yard to allow Ariosh to conduct virtual installations of the as-fabricated spools and make recommendations to enable shop correction of installation issues and eliminate offshore rework.

This approach resulted in 98% first-time fit, a substantial reduction in overall installation time and provided CNL with significant cost savings.

Services

Reverse Engineering, As-Built Documentation & Construction Support

Facilities

Meren PP(Production Platform), Parabe PP, Ewan PP, Opolo PP, Tapa PP, Isan PP & Delta PP.

Location

Lagos, Nigeria

Total Man-hours

Over 8,000

Safety Record

Zero LTI, Zero MTI

Status

Completed Q4 2012