

**EXPRO**

WELL FLOW MANAGEMENT™

/ Expro Excellence Subsea

Expro's subsea expertise delivers industry-leading deepwater electro-hydraulic subsea safety system in West Africa



Objectives

- In late 2012, General Electric (GE) challenged Expro's subsea product line with delivering a complex deepwater (up to 1,700 meters) electro-hydraulic subsea safety system to be used in their West African operations, Block 15/06 – part of a contract with Eni

Expro Excellence

- Production of a system satisfying design requirements and delivery in time for subsea operations commencing in 2014, delivered by a multinational team split over two locations – Aberdeen and Luanda
- Building a highly skilled operational team with an in depth knowledge of electro-hydraulic systems
- Reacting to an exceptional scenario when a complete landing string was lost overboard during severe Atlantic storms - Expro replaced the lost system in record time preventing any delay in the well completion program
- Final equipment testing coincided with the final commissioning of our new facility in Luanda, which required detailed planning to

ensure the delivery of equipment and facilities were not compromised

- In June 2014 the subsea safety system was delivered on schedule and successfully completed a comprehensive set of acceptance tests before going operational
- Operations were conducted in an efficient manner optimising rig up time and efficiency

Value to client

- Delivery of a complex, deepwater, electro-hydraulic subsea safety system with water depths of up to 1,700 meters, overcoming unique challenges
- Expro delivered the equipment on time, equipment running time exceeded targeted efficiency, and avoidance of non-productive time (NPT) during the execution of the work
- ENI has now started production of first oil from Block 15, with the field currently producing 45,000 barrels of oil per day, with an expected daily production of up to 100,000 forecast
- Block 15 discoveries were developed in an industry-leading timescale of only 44 months from the Declaration of Commercial Discovery

Expro overcame numerous challenges and mitigated risk with rapid deployment of original solutions including:

- Sourcing and securing fleet assets to deliver a replacement back-up landing string when the original was lost as the result of an extreme storm during shipment to Angola - Expro managed through rapid reallocation and procurement of resources without impacting other operational requirements
- An Expro first; the vertical testing of the back-up landing string as part of a system integration test alongside third-party equipment had never been done before at Expro's Luanda facility, resulting in the implementation of new health and safety processes and procedures to ensure incident-free equipment verification
- Liaising with Eni and Saipem to implement/incorporate 40 critical actions required on the Scarabeo 9 rig prior to the Expro system being utilised offshore
- The expansion of our facilities and capability in Luanda to ensure first class service support during the full field development

Exceeding our customers' expectations was fundamental in our approach from concept to completion, reinforcing Expro's high performance reputation. Even with a track record of over 30 successful completions prior to this project, the team overcame new challenges by implementing unique solutions, unparalleled engineering design, efficient testing schedules, and the expansion and redevelopment of Expro's Angola facility.

Colin Mackenzie

Product Line Director
Subsea

Contact

For further information, please contact:

Colin Mackenzie

Product Line Director, Subsea
colin.mackenzie@exprogroup.com
www.exprogroup.com/subsea

**Expro Excellence**exprogroup.com**Subsea**