



News release
19 September 2016

New jack-up deployable drilling technology launched

Aquaterra Energy and Plexus Holdings have developed a light weight, dual barrier HPHT riser system which can be deployed by a jack-up to enable a viable and cost-efficient alternative to semi-submersible installation for HPHT well operations.

The companies will be presenting the system to delegates attending the 11th World Oil HPHT Drilling and Completions Conference, taking place in Houston from 21 - 22 September, 2016.

The technology is suitable for shallow water depths up to 150 metres and harnesses the combined capabilities of the companies' respective subsea technologies. By uniting Aquaterra Energy's HPHT riser system and Plexus' POS-GRIP wellhead engineering technology, an inner riser string is installed inside a conventional high pressure riser (HPR) to span the gap between a dry surface BOP and a wet subsea tree. It provides full 20,000 psi capability and utilises all metal-to-metal gas tight seals on both the external and internal riser string. The system also eliminates the issues associated with surface wellhead developments that contain elastomeric seals, particularly those located between the mudline and surface.

In comparison to semi-submersible mobile units, new generation, heavy duty jack-up drilling units can now undertake drilling, completion, intervention and abandonment activities at significantly lower day rates and reduced risk. Moreover, they can potentially mitigate the heavy loading implications and weather constraints often associated with semi-submersibles and thus, extend the operating envelope.

Ben Cannell, Product Line Manager: Riser and Conductor Solutions with Aquaterra Energy, said the joint solution represents an incremental step forward in subsea capabilities. "The innovation carries with it the potential to change the industry's default position of selecting semi-submersible rigs for developments in water depths up to 150 metres, which today make up over 60% of all subsea developments worldwide. It renders the use of jack-up rigs in such scenarios both feasible and attractive in both a technical and commercial context.

"The dual barrier HPHT riser system facilitates safe and effective drilling operations in HPHT conditions and provides a structurally sound, pressure retaining conduit between the subsea wellhead/tree and the rig's surface BOP."

Craig Hendrie, Technical Director, with Plexus Holdings, added: “Handling HPHT operations safely, economically, and with environmental sensitivity, calls for highly specialised equipment and technology to exploit future reserves. This is a new, technology-led drilling proposition to the international market and is one that directly addresses the industry’s cost-reduction agenda. Amid the ever-increasing industry focus on HPHT operations, this methodology represents an innovative and cost-effective alternative while maintaining safety, integrity and operational performance.”

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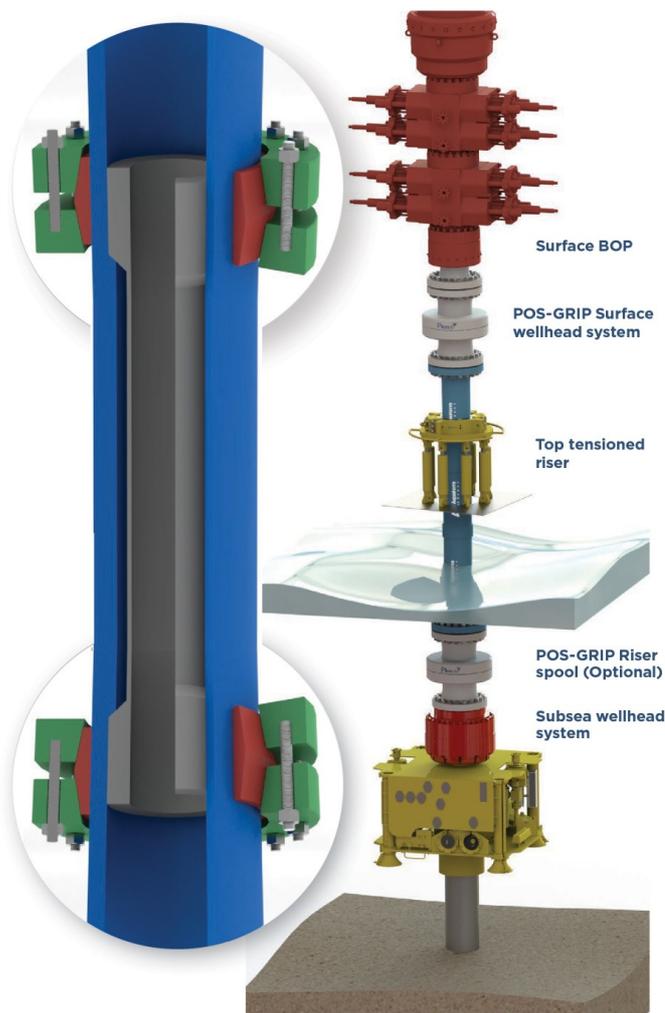


Image: The Dual Barrier HPHT Riser System provides a means of accessing HPHT wells with a subsea riser system deployed from a jack-up

Aquaterra Energy

Aquaterra Energy designs and delivers offshore engineering solutions for the global oil and gas industry.

The company has bases in Aberdeen, Cairo, Cambridge, Norwich and Stavanger, servicing customers in over 35 countries. Business streams include: riser systems; offshore structures; rental equipment and hydraulic systems.

From bespoke design and analysis to detailed engineering, procurement, fabrication and installation, Aquaterra Energy brings a fresh approach to industry challenges to support clients with quality, efficient solutions.

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