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AquaAnswers:

Rethinking Shallow-Water Subsea Developments

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Subsea developments in shallow water have long been surrounded by assumptions — many of which are no longer true.

Advancements in jack-up deployed subsea systems, combined with proven operational track records worldwide, mean operators now have safer, more flexible and more cost-effective options than ever before.

AquaAnswers addresses the most common misconceptions we encounter, helping operators make confident, informed decisions when planning and executing offshore projects.

"Subsea jack-up systems only work for greenfield projects."

Reality:

They are equally effective for brownfield developments, offering a lower-load and lower-risk option for legacy wells with fatigue or BOP weight constraints. In many cases, jack-up deployed subsea systems provide a practical way to access existing wells that may not safely support the heavier equipment used by modern semi-submersible rigs.

"You can't install subsea infrastructure or trees from a jack-up"

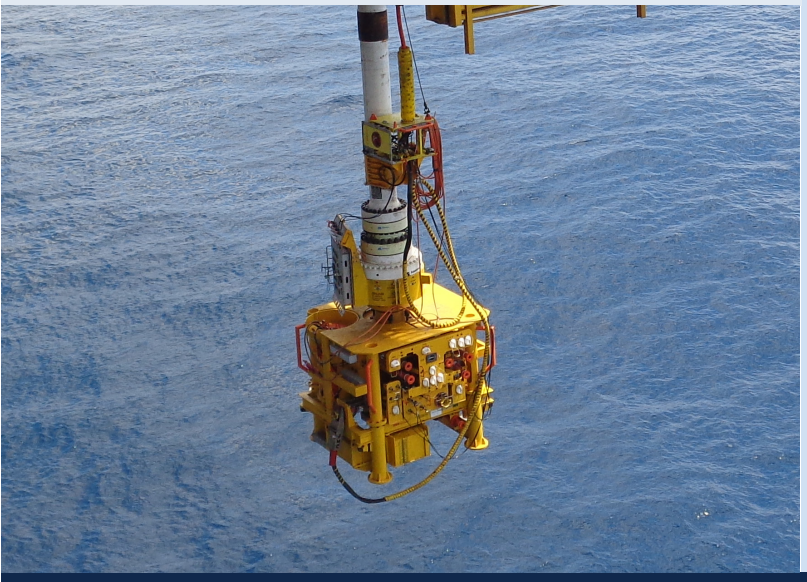
Reality:

You can. These systems are specifically designed for jack-up installation and have been deployed successfully on multiple global subsea projects. With the right equipment and procedures, jack-up rigs can install subsea trees and associated infrastructure safely and efficiently in suitable shallow-water environments.

Subsea solutions are always more expensive than dry tree developments.

Reality:

When considering full field development costs (jackets, topsides, heavy lifts), subsea can become the more economical option. Comparing only the cost of a subsea tree with a dry tree can be misleading. When the full infrastructure required for a dry-tree development is considered, subsea solutions can offer significant savings, particularly when a jack-up replaces a higher-cost semi-submersible rig.



We can't do subsea intervention as there are no intervention vessels in our region.

Reality:

A jack-up or lift boat equipped with our well access system can perform slickline, e-line and coiled tubing operations, removing the reliance on dedicated intervention vessels. This riser-based approach enables a full range of subsea intervention activities using surface-based pressure control equipment.

Subsea doesn't make sense for short-term production.

Reality:

Subsea is often ideal for short-term campaigns. Trees and umbilicals can be recovered once production ends and reused elsewhere, which is significantly more difficult with jackets, topsides and dry tree completions. Projects such as Shell's SWEEP development in the Netherlands have demonstrated how subsea infrastructure can support short-term production before being redeployed at another location.

"You need a semi-submersible MODU for subsea."

Reality:

Not in jack-up water depths. A jack-up with a subsea well access package can achieve the same outcomes at a fraction of the cost. Semi-submersible rigs typically represent one of the largest cost drivers in subsea developments, whereas a jack-up equipped with the appropriate well access system can deliver subsea capability with only a modest increase to the overall rig spread.

"Legacy wells drilled by a semi-sub need the same rig for P&A."

Reality:

Many older wells cannot safely support modern large semi-sub BOPs. Modern semi-submersibles deploy significantly heavier equipment than the rigs originally used to drill many legacy wells, which can create load limitations during abandonment operations. In these cases, a jack-up solution can provide a safer and more feasible option for well abandonment.

"Dry tree developments are always better for multi-well projects."

Reality:

We have supported four and eight-well subsea drill centres that delivered lower overall development costs compared with large jacketed platforms and topsides. Subsea solutions can also provide additional advantages, including reduced visual impact, improved security in certain regions, and the flexibility to reuse equipment on future projects.

"Unknown or legacy connectors make abandonment impossible."

Reality:

We routinely refurbish and engineer project-specific connectors, including cases where no wellhead exists, and abandonment is performed from a cut pipe stub. Legacy or unknown connectors can often be measured, redesigned or adapted, allowing operators to safely complete abandonment even in challenging scenarios.

"Jack-up subsea operations are too complicated."

Reality:

With an experienced provider, subsea well access becomes a business-as-usual jack-up operation. While some procedures differ slightly from semi-submersible operations, these differences are well understood and managed through established processes. Proven planning, engineering expertise and operational experience ensure safe, efficient and predictable execution.

Rethinking Shallow-Water Subsea

Shallow-water subsea is no longer the complex, expensive or restrictive option it was once perceived to be.

With the right partner, it becomes a flexible, economical and highly effective solution across the full well lifecycle: from drilling and field development through to intervention and abandonment.

Ready to explore what's possible? Discover our complete well access solutions today.

About Aquaterra Energy

We deliver intelligently engineered products and services across full lifecycles of oil, gas and energy transition projects. From seabed-to-surface well access services to complete offshore development solutions, we enable safe and efficient drilling, completion, intervention, and abandonment operations.

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