

Conductor Analysis

Document well integrity to increase lifespan of your wells

4Subsea's conductor analysis documents that the conductor can maintain required integrity during the entire lifespan of the well.

By tailoring the analysis to the specific rig choice, well location, and design, we reduce cost by maximizing the operational window and avoid oversized equipment.

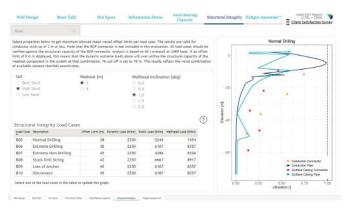
4Subsea offers drilling and well intervention services to extend the life of producing wells. We help operators perform offshore drilling, completion, and intervention operations safely and efficiently. The Well Intervention and Drilling range contains Subsea Wellhead Integrity Monitoring (SWIM™), Conductor Analysis, and advanced Engineering Services.

KEY BENEFITS

- → Ensures compliance with regulatory requirements* and NORSOK
- → Highlights potential issues early and limits costly late-minute design changes
- → Provides concrete advice on possible changes instantly in well design/operation procedures as mitigating actions
- → Gives easy access to results, presented as interactive plots in a web solution

*On the NCS: Innretningsforskriften (Facility Regulation)





THE IMPORTANCE OF THE CONDUCTOR FOR WELL CONTROL

The conductor is the main load-bearing component in a satellite well, typically drilled for exploration or appraisal purposes. In order to have control of the well, it is crucial that the conductor retains its integrity at all times. Primarily during the entire drilling campaign, but also in the case of an accident, such as loss of position or if a capping stack needs to be installed.

BOTH LOAD AND RESISTANCE

The conductor behavior is dependent on a range of parameters. Waves and vessel motions govern the loads applied to the well; the well resistance is dominated by soil support and the strength of the well components. Our conductor analysis efficiently takes care of both the load and the resistance side, and investigates uncertainties in input when relevant.

INSIGHTS ON A DIGITAL PLATFORM

By presenting the main results on our digital platform in addition to the traditional report, the consequence of well design choices or time of operation on the operation limits and service life are visualised in a clear and easy way. This also enables you to update the results based on actual well stick-up and inclination after installation.

KEY FEATURES

- Assesses the well's ability to withstand both extreme loads and fatigue loading
 - a. Axial bearing capacity assessment: optimisation of required number of conductor joints
 - b. Structural capacity evaluation: verifies ability to withstand static and dynamic riser loads
 - c. Soil capacity evaluation with respect to loads imposed by conductor
- Conclusive recommendations on meeting requirements, aligned with operating guidelines, including support for well design optimisation focused on operational efficiency and cost savings.
- Interpretation of geotechnical reports and site surveys through partnership with Norwegian Geotechnical Institute (NGI)
- We can provide site specific design verifications of the well structure with instant feedback on possible design alterations through in-house developed software.

More product information →

4Subsea is a leading provider of technology and services that help operators optimise energy production from subsea oil & gas fields and off-shore wind farms. We combine domain expertise with data analytics and digital services to maximise lifetime of assets, reduce operational cost and optimise future projects through data-driven design.

The company was established in 2007 and clients include the major energy operators as well as the large suppliers of subsea equipment. 4Subsea is headquartered in Asker, Norway with additional offices in Bergen, Kristiansand, Stavanger, Rio de Janeiro, Kraków and Aberdeen. 4Subsea is a company in the Subsea 7 Group.

4Subsea - Share ideas, move forward