

Optimising Well Operations through Real-Time Data: WIMS Implementation for International Operators on the Norwegian Continental Shelf

This case study examines the adoption of the 4Subsea's Well Information Management System (WIMS), a centralised network system with data cloud storage option, by three international oil & gas operators. Designed to deliver real-time data collection, trending, reporting, and storage, WIMS enabled seamless access to operational data both locally on rigs and remotely via a secure online login. Installed during a completion campaign on the operators' drilling rigs, WIMS provided an independent platform for data extraction and communication with specified third-party vendor interfaces, empowering multiple users to make data-driven decisions throughout their operations.

THE QUICK OVERVIEW

WHO: Three international oil & gas operators

WHAT: Implemented WIMS, a network and cloud-based decision-support software for real-time data collection, trending, reporting, and storage.

WHERE: Installed on multiple operator drilling rigs during a completion campaign.

HOW: WIMS operated as an independent system with interfaces to third-party vendor sensors, collecting data from various sources for easy access and analysis.

WHY: To provide a user-friendly platform for enabling data-driven decision-making and real time diagnostics, as well as building a historical data set for future planning.

CLIENT OVERVIEW

The clients, three international oil & gas operators on the Norwegian Continental Shelf, committed to leveraging technology to improve operational efficiency and informed decision-making in complex drilling environments.

CHALLENGES

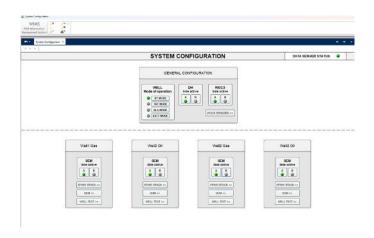
The operators required a robust, centralised software solution that could gather diverse data sets from rig sensors and third-party vendors into a user-friendly system accessible to all key stakeholders. They needed a reliable real-time data collection and storage platform that would also facilitate data analysis, trend reporting, and the creation of historical data sets for future operational planning.

OBJECTIVE

The primary goal was to provide a decision-support system that allowed both onshore and offshore teams, including drillers, subsurface experts, and service companies, easy access to critical operational data. The WIMS solution needed to enable secure access to real-time and diagnostic data, as well as build a comprehensive historical record for future lessons and planning.

SOLUTION

4Subsea collaborated with the clients to develop a tailored WIMS software solution, supporting industry-standard protocols and customisable interfaces. Subsurface teams utilised the system's reporting features for detailed operational insights, while well engineers incorporated WIMS data into their handover and planning processes. Notably, WIMS proved invaluable when the customer encountered a high-pressure well issue, enabling rapid diagnostics and swift resolution, ultimately minimising operational delays and ensuring the continuity of safe and efficient well operations.



CONCLUSION

The successful deployment of WIMS underscores the essential role of real-time data accessibility and seamless communication in today's complex drilling operations. By providing a single, user-friendly platform for monitoring and analysing diverse data sources, WIMS allowed three leading international oil & gas operators to improve decision-making processes and response time to unforeseen issues. This case illustrates how effective information management systems can drive safety, efficiency, and operational resilience, marking a significant advancement in well operations for these leading oil & gas operators.

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.

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