

Cementing equipment

LOGIX™ AUTOMATION AND REMOTE OPERATIONS

LOGIX™ Unit Vitality

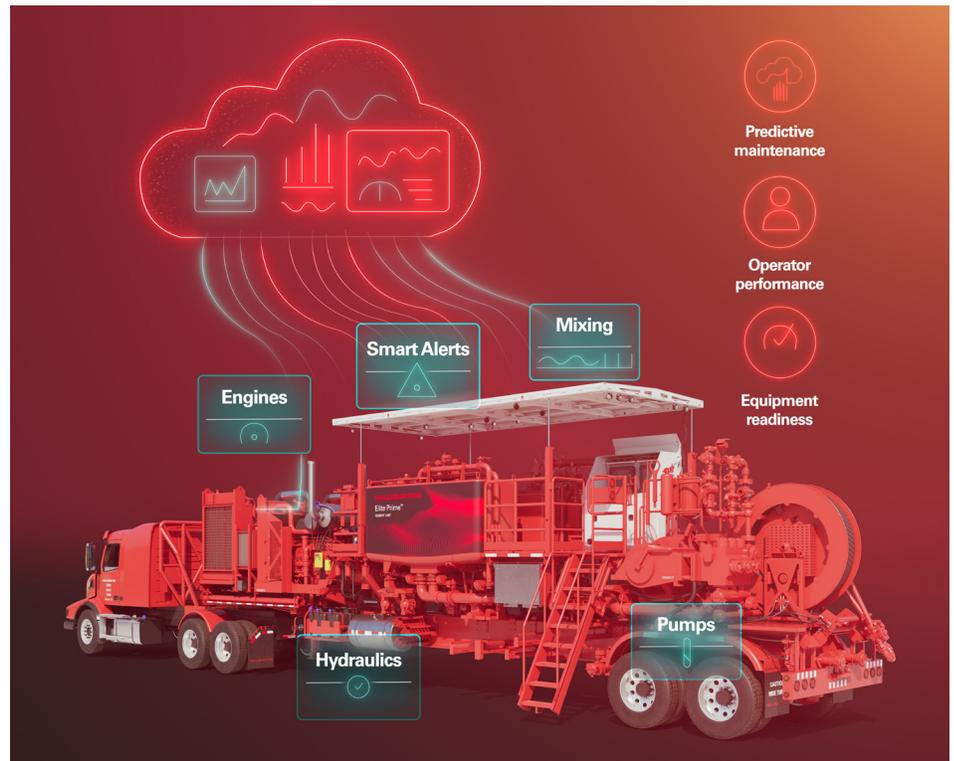
Real-time cement unit health monitoring and reliability platform

FEATURES

- Provides secure, centralized visibility into the equipment health of the entire fleet with cloud-based architecture
- Delivers real-time health reports and alerts to operators and maintenance teams for smarter decision-making
- Syncs with Halliburton VIDA™ software and auto-populates approved job designs for accurate slurry mixing and seamless execution
- Detects early signs of wear using machine learning to help prevent unplanned downtime and extend asset life

BENEFITS

- Improve operational efficiency by continuously monitoring equipment and job parameters, allowing for immediate corrective actions to help ensure optimal performance throughout the operation
- Reduce requirement for redundant units on location by providing data-driven confidence in equipment readiness
- Track critical performance metrics to promote consistency, accountability, and higher service quality



Overview

In the high-demand environment of oilfield cementing, equipment reliability is crucial to success. Traditional equipment maintenance relies on manual inspections and scheduled function tests. This approach can miss failures between inspections, result in unplanned maintenance, and fail to provide real-time insights into equipment health. This can lead to non-productive time, redundant assets on location, and service quality issues.

LOGIX™ Unit Vitality is a real-time health monitoring and reliability platform that revolutionizes how Halliburton maintains cementing equipment, prepares for upcoming operations, and provides visibility into equipment operation. The platform uses real-time data and AI-driven models to provide actionable insights into equipment readiness that help increase reliability, efficiency, and barrier execution consistency.

Automated cement equipment health assessment improves reliability

LOGIX Unit Vitality connects critical cement unit components—such as pumps, mixing systems, and hydraulics—to intelligent controllers that monitor more than 400 real-time parameters. This data streams into a secure, modern cloud platform where machine-learning models instantly process and analyze it to deliver continuous insight into equipment health and readiness.

Instead of a reliance on manual tests, this proactive, data-driven system uses automated health checks and readiness reports to ensure each unit is fully prepared. This gives teams greater confidence before every job. The result is improved asset utilization, reduced downtime, and more efficient field operations. In today's data-driven landscape, LOGIX Unit Vitality combines the power of AI with human expertise to help teams operate smarter, respond faster, and execute with confidence.

Real-time monitoring facilitates consistent cement barrier execution

The LOGIX™ Unit Vitality platform is integrated with Halliburton's advanced cementing technologies, which include the VIDAT™ unified software system and iCem® cementing service. Because the platform allows approved job plans to auto-populate onsite controllers, it closes the loop between job design and field execution. This feature promotes accurate slurry mixing and minimizes human error.

During job execution, LOGIX Unit Vitality continuously monitors critical equipment and job parameters. The data is benchmarked against established best practices to identify deviations in real time. With this approach, operators can establish actionable key performance indicators (KPIs) that promote adherence to job design to improve barrier execution and service quality.

Predictive analytics and machine learning help ensure operational efficiency

Through the application of predictive analytics and machine learning, LOGIX Unit Vitality detects early indicators of equipment wear and failure. This approach supports condition-based maintenance strategies that reduce unplanned downtime, extend equipment life, and optimize long-term asset performance. Continuous learning from real-time and historical data promotes faster diagnostics and smarter decision-making.

Instantaneous cementing insight

Halliburton's LOGIX™ Cementing Visualizer uses this same data connectivity to deliver a real-time cementing evaluation solution. Through the combination of live surface data, hydraulic digital twin simulations, and advanced visualization tools, it enables instantaneous top of cement (TOC) confirmation and annular barrier validation. Operators can monitor cement jobs in real time, optimize fluid placement, and make faster, safer decisions to ensure well integrity.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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