



Luna Delivers Large Infrastructure Monitoring Projects Leveraging New Sensing Capabilities

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Integrated sensing system improves safety of mining operations

ROANOKE, Va.--(BUSINESS WIRE)--Dec. 22, 2021-- Luna Innovations (NASDAQ: LUNA), a global leader in advanced optical technology, today announced a new powerful structural health monitoring solution for the mining industry to monitor tailings dam structures. Combining Luna's industry-leading systems for both distributed sensing and discrete sensing, the new solution is more comprehensive and economical than alternative systems.

Tailings dams are large, earthen structures put in place to contain tailings ponds, which hold toxic by-products from the mining process. Tailings dams have unfortunately experienced a poor safety record in recent years, with several notable collapses that have caused severe disruption, massive costs, and even loss of life. Luna's newest fiber optic sensing solutions have recently successfully been installed on a major tailings dam project in North America to provide continuous monitoring to ensure the safety and stability of the structure for years to come.

Luna's innovative monitoring solutions, which have now been deployed in Canada, Brazil and Asia, help mining operators mitigate risks by providing an early warning of a potential issue. "Our deployments in tailings dams are a clear example of how Luna's breadth of fiber optic capabilities combine to deliver a more comprehensive and effective solution to help ensure the safety of infrastructure like tailings dams," said Luna's President and CEO, Scott Graeff. "With thousands of such dams around the world, Luna is pleased that our initial deployments throughout the globe are successfully operational and actively monitoring these critical structures."

In December of 2020, Luna acquired distributed acoustic sensing (DAS) capability with the acquisition of OptaSense. Throughout the course of 2021, the OptaSense products were improved and integrated with Luna's legacy fiber optic sensing solutions resulting in significant new capabilities for long-range monitoring of critical infrastructure. The tailings dam monitoring solution combines distributed acoustic and strain monitoring acquired from OptaSense with Luna's discrete point monitoring systems based on fiber Bragg grating (FBG) sensors. The result is a comprehensive system able to monitor major events throughout an entire site while also able to look inside structures at critical parameters which can be precursors of potential events, such as pore pressure and spot inclination. This integrated structural health monitoring solution is also applicable to many other infrastructure projects beyond tailing dams such as bridges, tunnels and other major structures.

About Luna

Luna Innovations Incorporated (www.lunainc.com) is a leader in optical technology, providing unique capabilities in high-performance, fiber optic-based, test products for the telecommunications industry and distributed fiber optic-based sensing for a multitude of industries. Luna's business model is designed to accelerate the process of bringing new and innovative technologies to market.

Forward-Looking Statement

The statements in this release that are not historical facts constitute "forward-looking statements" made pursuant to the safe harbor provision of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties. These statements include Luna's expectations regarding technological capabilities and performance improvements, market position and value and operational efficacy related to its technology and/or products. Management cautions the reader that these forward-looking statements are only predictions and are subject to a number of both known and unknown risks and uncertainties, and actual results, performance, and/or achievements of Luna may differ materially from the future results, performance, and/or achievements expressed or implied by these forward-looking statements as a result of a number of factors. These factors include, without limitation, changes in market needs and technological challenges and other risks and uncertainties set forth in Luna's periodic reports and other filings with the Securities and Exchange Commission ("SEC"). Such filings are available on the SEC's website at www.sec.gov and on Luna's website at www.lunainc.com. The statements made in this release are based on information available to Luna as of the date of this release and Luna undertakes no obligation to update any of the forward-looking statements after the date of this release.

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