



GSE

ENVIRONMENTAL™
Liner Integrity
Monitoring System

Regardless of your industry, you invest great amounts of time, manpower, and money to manage your resources, run a profitable operation, and balance the demands of regulatory requirements while providing quality service to your customers. Because you can't afford the cost of a shut down, heavy fines, legal fees, or product loss, you take every step necessary to ensure the integrity of your lining system. But once installation is complete, how will you demonstrate to regulators and others that the system is performing in order to minimize liability?

THE NEXT LEVEL OF ASSURANCE

GSE Leak Location Liner System has proven to be the most effective method for locating and quickly repairing leaks before a facility is put into operation. It is more difficult to detect leaks that develop during operation-related activities or as a result of changes in subsurface conditions. The GSE Liner Integrity Monitoring System is the newest advance in a long history of innovative products from GSE and was forged through a partnership with Texplor Group. It provides the next level of quality assurance and risk management: continuous, long-term monitoring of a geomembrane system for early detection of leaks.

[DURABILITY RUNS DEEP]

LONG-TERM RELIABILITY

The system works by measuring the electrical fields above and below GSE Leak Location Liner using Texplor CombiModules embedded in the geomembrane. The MSS® software reads these measurements from the site and stores the information in the database. When electrical current is introduced below the liner and the system does not

detect any change in the electrical field above the liner, the geomembrane is secure and there are no leaks. If the liner is damaged, the change in electric current will signal a leak. This process is repeated in cycles to continuously monitor the site and provide real-time information to the operator.

The GSE Liner Integrity Monitoring System Consists Of Three Main Components



GSE Leak Location Liner

A white, high performance geomembrane with an insulated conductive bottom layer that when installed with the GSE IsoWedge weld attachment, enables the most accurate Electrical Liner Integrity surveys on both covered and exposed geomembrane, across seams, on slopes, and over wrinkles.



Texplor CombiModules

Consisting of one sensor and one source within a high-quality HDPE casing, these are designed to be embedded directly into GSE Leak Location Liner through extrusion welding. The sensors are proven to have the same durability and long lifespan as the liner.



Central Monitoring Unit

CombiModules are connected by a durable cable to Data Acquisition Modules which are stored together in the Central Monitoring Unit, along with a central computer loaded with MSS® operating software. All data is stored in a database and can be accessed anytime via secure wireless networks or remotely via an internet connection.

WHEN YOU NEED TO BE SURE

GSE Liner Integrity Monitoring System will add another layer of protection to any application where you can't afford a leak. The system can help mitigate the risk of environmental pollution, which is a deep concern to owners of landfills, mines, and industrial sites. It can also help protect against expensive solution loss in mining applications or help preserve fresh water resources on fracking and other water storage sites. Whatever the application, if you have a critical need to ensure the integrity of the lining system, GSE Liner Integrity Monitoring System can do the job.



KEY BENEFITS

- [->] Texplor CombiModules are embedded directly into GSE Leak Location Liner from the top with the connection cable positioned above the liner. This allows for easy maintenance and repairs.
- [->] GSE Leak Location Liner requires only one sensor per every 3,000 m² of liner surface.
- [->] The MSS[®] Operating System can pinpoint damage within 2 meters, making it easy to find and repair leaks quickly.
- [->] The system can be installed in new or existing applications or expanded at any time.
- [->] GSE and Texplor send a team of experts to the site during installation to ensure the system is working properly and operators are trained.
- [->] All electrical and monitoring components are stored on site for easy access and maintenance.
- [->] The CombiModules and cables are certified to work for 100 years, even in salt, acid, and extreme weather conditions.



TWO MINDS ARE MORE INNOVATIVE THAN ONE

GSE is known for being an innovator in the field of geosynthetics, and we recognize those same qualities in others. Over the years, we've found that when we collaborate with like-minded people, great products are born. That is why we partnered with Texplor Group, leaders in the field of mobile and permanent leak detection systems. Once we got to know each other better, we realized we had a lot in common. We are both leaders in our respective fields, we both have developed some of our industry's most innovative products, and we both are dedicated to

finding and eliminating leaks. Our clients depend on us to deliver solutions that withstand virtually every threat imaginable while providing the best possible performance. And we take that responsibility seriously.

So, we put the greatest minds from two great companies together in one room and developed a complete turnkey system that provides the highest level of CQA and risk management from the time the first roll of geomembrane is installed through years of operation and beyond.

You can learn more about Texplor Group at www.texplor-group.



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For more information on this product and others, please visit us at GSEworld.com, call 800.435.2008 or contact your local sales office.