BGM liner provides a rugged, long-lasting and wildlife-friendly water diversion solution that installs quickly.

**Challenge**

Rapid response with reliable solutions are the best way to reduce environmental impacts from spills. Getting to the site, in a race against spring thaw, was complicated by the remoteness and ruggedness of the spill location. The terrain also meant any chosen liner solution for the new streambed would have to be wildlife-friendly, able to withstand the steep-sloped uneven rocky ground beneath it, and could ideally be installed using compact equipment. It also had to resist damage from UV rays and temperature fluctuations that include deep chills.

**Solution**

Coletanche's Bituminous Geomembrane (BGM) liners combine puncture resistance and lay-flat properties that are ideal for rugged applications like newly-trenched steep-sloped streambeds. They are safe for fish and wildlife and rugged enough to last for decades of freeze/thaw cycles that feature aggressive ice and debris scouring and heavy peak flows.

BGM liners are easy to haul to site in standard roll sizes and can be unloaded with a small crew from a spreader bar. Once trenched and cut to size, overlapping panels of BGM are easily bonded and seamed using a torch, trowel and roller; the bitumen melts easily and lies flat.

**LOCATION:**
Alberta

**PRODUCT:**
Coletanche ES3 Bituminous Geomembrane (BGM) Liner

**PROJECT PARTNERS:**

*Owner*
A Major Canadian Energy Company

*Contractor*
Nilex

*Completion Date*
May 2017

**Summary**

Crews were in a race against spring thaw to redirect streamwater to a new channel after a pipeline leaked in Alberta.
Installation

The diversion channel was four meters wide, one meter deep and 500 meters long, requiring approximately 5,000 square meters of liner. A crew of eight was able to install it in just three days, including all trenching and welding. Installation speed was crucial, as spring thaw was rapidly approaching. Delivering the material to site was challenging due to the remote location and the narrow mountain roads. There were also many temperature changes over the three days, but the BGM is designed for exactly this sort of variability, so crews were able to keep a steady pace.

Results

The energy company’s rapid response to the spill was a successful and important move. Using BGM for the solution to this creek diversion tackles many key issues like wildlife safety, rugged in-stream debris, high flow, a challenging freeze/thaw cycle, UV exposure and a rough subgrade. It also facilitated a quick installation, to avoid spring thaw.

The Nilex Advantage

Nilex is committed to unearthing better results. Whether it’s for a civil, resource or environmental project, we offer the latest engineered and technically superior materials and techniques to save our customers time and money, minimize the need to move or remove earth, and reduce the need for granular materials.

With 40 years of experience, a long-standing commitment to the environment and highly qualified staff, Nilex delivers the products and technologies that give clients an economic advantage with environmental benefit.