**Feedback on long-term integrity of Multi-linear drainage geocomposites installed on landfill final covers after 10 and 12 years of operation**

*C. Ciuperca1, P. Saunier2, and S. Fourmont3*

1 Director of Operations, Sperling Hansen Associates, 1225 E Keith Rd #8, North Vancouver, BC V7J 1J3, Canada. E-mail : cciuperca@sperlinghansen.com

2 Business Development Manager Pacific, AFITEX-Texel Geosynthetics, BP08596 Paita 98890 New-Caledonia. E-mail : [psaunier@afitextexel.com](mailto:psaunier@afitextexel.com)

3 AFITEX-Texel Geosynthetics, 1300, 2e Rue, Parc industriel Sainte-Marie QC G6E 1G8, Canada. E-mail : sfourmont@afitextexel.com

Keywords: Mine Waste final covers; Drainage Geocomposites; Long-Term Performance

# ABSTRACT

Drainage geocomposites are now widely used in the mining industry. Their use on final covers and orphan sites remediation makes it possible to drain surface water and guarantee the sustainability of the cover over time, as long as we can monitor their behavior. However, it is difficult to validate the actual durability of these materials other than through accelerated aging tests performed in the laboratory. The best way to assess the long-term integrity of drainage geocomposites is to exhume them after several years of operation and observe the evolution of their mechanical and hydraulic properties. This paper presents two case studies with the exhumation of two Multi-linear drainage geocomposites installed as a drainage layer in final covers after 10 years of operation in France and 12 years of operation in Canada. The samples were inspected and then analyzed in the laboratory and the residual properties were compared with those of the original product.