Brantford Soil Washing Project

Coarse-grained fraction on soil washing typically relies on gravity settling to separate accumulated fine soil and sediment from wash water—a process that often slows progress as solids accumulate in tanks and settling time is reduced.

But a recent soil screening, coarse-grained fraction on washing and bioremediation on project at a former industrial brownfield site in Brantford, Ontario proves that Geotube® containers can significantly improve and accelerate separation of solids, which translates into major savings in time and cost.

The project, conducted by The City of Brantford, involves a soil screening process to separate coarse-grained from fine-grained soil. The coarse-grained soil was then washed through a series of tanks, sand filters and bag filtration that progressively removed particles of decreasing size as the water flowed over weirs, slowed down and was filtered. However, as the tanks and filters accumulated solids, performance declined and the project fell behind schedule.

The Geotube Solution...

To improve performance, project managers from Milestone Environmental Contracting explored a new method using a Geotube® dewatering system to replace the failing settling tanks and filtration method.

The Geotube® containers were quickly set up in a lined lay-down area by Milestone Environmental Contracting. Solids are pumped directly from the soil washing equipment to the Geotube® containers. Along the way, a polymer is injected directly into the slurry to aid in separation and prevent the microscopic pores of the Geotube® containers from clogging.

Filtrate from the Geotube® was captured and reused for soil washing through a simple process that helped minimize water consumption for the project. As the filtrate drained onto the liner, it was directed to a pit from which it was pumped back to the washing process for reuse. Once implemented, efficiencies gained by the Geotube® dewatering system had a significant impact on timing and the project finished nine weeks ahead of schedule.