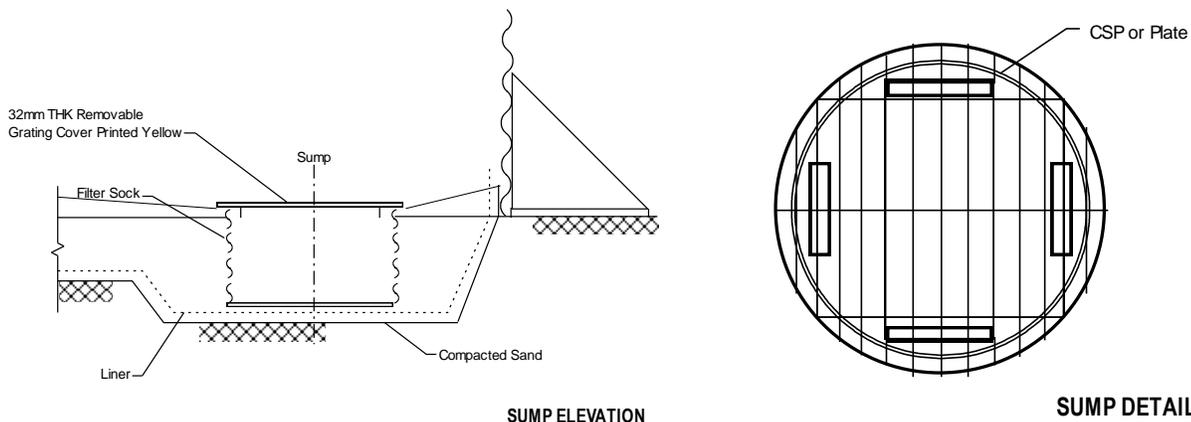


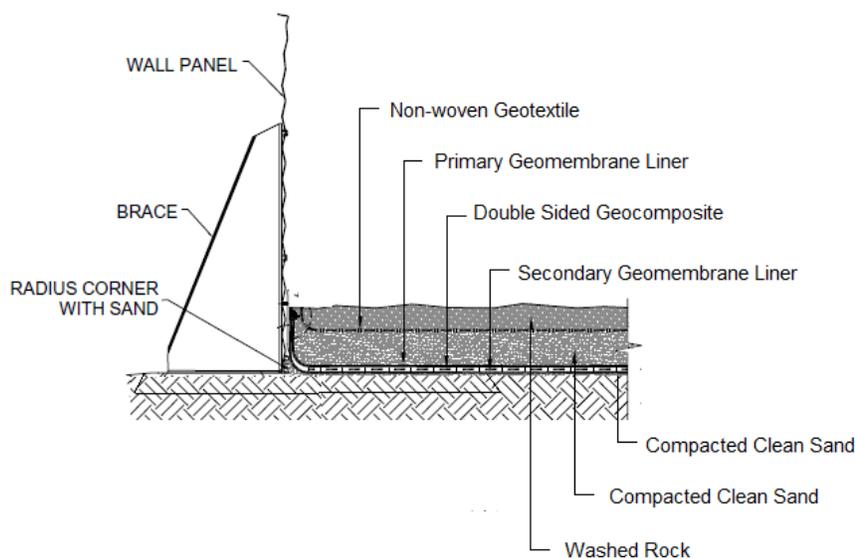
1,120H(44") CORRUGATED STEEL CONTAINMENT WALL BY CONTAIN ENVIRO SERVICES LTD. (CESL)

Our crews are fully trained in all facets of geomembrane installation and corrugated steel berm construction, but once our crews leave the site what is the best way to monitor the storage tanks or the lining system to insure they are providing containment?

An effective means of monitoring the storage tanks that are housed within the containment system is the use of a "Sump-Can". A Sump-Can is a prefabricated, perforated, open topped plastic or metal can situated at a low spot within the containment designed to catch any free-flowing liquids that enter the containment. The entire site should be designed with a slight grade towards the Sump-can, while larger containments should consider installing two or more Sump-Cans so as to eliminate the need for a substantial elevation drop over the length of the containment. The sump-can should be routinely inspected to determine whether or not liquids have been collected, and what type of liquids they are. After a rain event it's a good idea to inspect the liquids in the sump-can, if the liquid is simply rain water it can be easily pumped off, however if the sump-can has collected any liquid that should be in the tanks, there may be an issue with the primary storage tanks inside this containment.



While a Sump-can is an effective means of routinely monitoring the storage tanks, it does not offer much assurance in respect to the integrity of the geomembrane. To continuously monitor the geomembrane, a dual-lined containment should be considered. A dual-lined containment has a secondary geomembrane installed over the prepared sub-grade, a geocomposite drainage net, then the primary geomembrane installed on top. This way, if the primary geomembrane is compromised, liquid from a spill or rain event would enter the geocomposite drainage layer that is sloped to a leak detection sump containing a sump-can. If any liquids become detected within the sump-can, that would serve as a clear indication that the primary geomembrane has been punctured or compromised in some fashion. In this design the sump-can would be monitored externally by a sloped drainage pipe to a stand-pipe outside the containment. This stand-pipe could be routinely inspected for liquids or it could contain a more sophisticated electronic device that would notify maintenance crews if a liquid is detected.



Once a geomembrane has been installed either within a containment system or to line an earthen pit the geomembrane is relatively safe. However, if there is further construction activity on the site that requires the geomembrane to come into contact with crews or machinery. It is a relatively simple process for our crews to add or modify the liner to allow for expansion or modifications to the containment.

Contain Enviro Services Ltd. is the leader in the supply and installation of geomembranes for a wide variety of challenging containment applications. Contain Enviro Services Ltd. feels that there is no single geomembrane which is suitable for every containment application; therefore we have insured that we have access to the complete spectrum of geomembrane materials and can suggest the most appropriate and cost effective material for your containment project.