## **Discussion Corner**

## Bernard Breul responds to the following article which appeared in the last issue of GNA:

## 'Clay Remains a Top Choice for Final Landfill Cover'

http://waste360.com/closure/clay-remains-top-choice-final-landfill-cover The writer forgot :

- 1-Difficult to put in place clay (humidity, by layer of 20 cm....) on a site and to follow well a managed quality plan on site.
- 2-Difficult to find good clay in sufficient quantity near by a site, this increases significantly the cost because of transport.
- 3-They don't speak enough about root penetration which transform a capping in a *colander* after some years (roots like a lot humidity kept by clay. This was proven by French administration on the East of France)
- 4-Very high permeability to gas!!!!, need protection of Environment for neighbourhood and atmosphere in general,
- 5-He is right to use the word "for ever" specially for low and medium radioactive waste. For sure, natural clay is a good product for answering this constraint but bitumen too. For Coletanche it was proven by French and US authorities,

6-It would be good to use together Coletanche and asphalt concrete. Coletanche is more flexible and can tolerate more easily settlements. We did a work like this in Pau, south of France. On a municipal landfill, we have capped landfill by Coletanche.

We put directly above a layer of asphalt concrete to do a compost area. See photo:



Best regards Bernard Breul Coletanche