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Assessment the Capacity of Retention of a Natural Material for the Protection of Ground Water

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Abstract : The major environmental risk of soil pollution is the contamination of groundwater by infiltration of organic and inorganic pollutants that can cause a serious pollution. To prevent the migration of this pollution through this structure, many studies propose the installation of layers, which play a role of a barrier that inhibiting the contamination of groundwater by limiting or slowing the flow of rainwater carrying pollution through the layers of soil. However, it is practically impossible to build a barrier layer that let through only water, but it is possible to design a structure with low permeability, which reduces the infiltration of dangerous pollutant. In an environmental context of groundwater protection, the main objective of this study was to investigate the environmental and appropriate suitability method to preserve groundwater, by establishment of a permeable reactive barrier (PRB) intermediate in soil. Followed the influence of several parameters allow us to find the most effective materials and the most appropriate way to incorporate this barrier in the soil.

Keywords : Ground water, protection, permeable reactive Barrier, soil pollution.
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