

THE ENVIRONMENTAL IMPACT OF INERT LANDFILL SITES ON GROUNDWATER QUALITY

Thanasis KONSTANTOPOULOS

Department of Geology, Royal Holloway College, University of London
Highfield Court, Englefield Green, Egham TW20 0TB, U.K.

ABSTRACT

A methodology framework for the determination of the impact of “inert” waste disposal on the surrounding environment and in particular on groundwater quality, is developed and applied for five classified “inert” landfill sites. The landfill sites, situated in South England, the majority of them completed in late 90's, except one, which is still operating. A number of solid, gas and groundwater samples were taken and analysed to assess the primary leaching potential of the materials deposited to landfill sites, and investigate the impact on the groundwater quality. Additionally, the chemical behaviour and mobility of the main pollutants is examined.