



PROJECTS

SITE REMEDIATION

SiteRem1

HONG KONG ENVIRONMENTAL PROTECTION DEPARTMENT/ SCOTT WILSON KIRKPATRICK Investigation & Rehabilitation of Tseung Kwan O Landfill, New Territories



An investigation of the hydrogeology of the existing TKO landfill was undertaken on behalf of the EPD. The landfill was formed within a seawater embayment created by the deposition of rock and clay, which was then dewatered. Landfill then created a new raised platform approximately twenty metres above sea level, which was capped with clay & inert wastes.

Monitoring piezometers were constructed through the wastes and perimeter embankments to determine the saturated thickness of leachate and flow directions. Small-scale pumping tests were undertaken to determine waste permeability. The flow of leachate and effect of tidal variations were assessed for possible leachate recovery.

The geotechnical properties of the wastes were determined through in-situ testing with regard to proposed further 'piggy-back' landfill development.



Samples of waste were analysed to determine their potential to generate landfill gases. An LFG pumping trial was conducted to determine the potential for extraction & utilisation. LFG extraction wells were constructed throughout the wastes.

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