

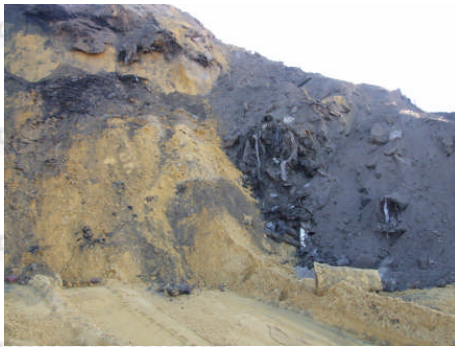


PROJECTS

ENVIRONMENTAL AUDIT

Audit25

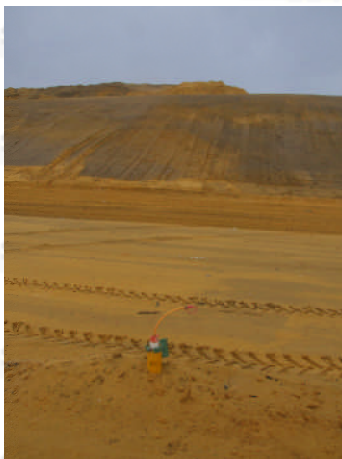
COMMERCIAL DEVELOPMENT ADJACENT TO A PUTRESCIBLE LANDFILL SITE, Wangara, Private Developer



A former quarry within a commercial/ industrial subdivision has received mixed putrescible, industrial and inert wastes. The landfill was completed and capped. Landfill gases (LFG) including methane (up to 57%), carbon dioxide and other trace gases were produced by the microbial decomposition of the wastes. An LFG extraction system was constructed to remove the gases and was operated over a number of years up to 2007.



Adjacent land within the subdivision is to be developed for commercial/ industrial use. The WA-Planning Commission required an investigation of the site to assess the potential for 'soil-gas' to be present at potentially hazardous concentrations, consistent with UK CIRIA 655, which is a trigger for a Mandatory Audit Report (MAR).



A combined PSI and DSI was undertaken. The site history was researched together with historical monitoring data. An SAP was developed incorporating LFG monitoring bores constructed adjacent to the common boundary at various depths within the unsaturated zone. Monitoring took place over a period of several months and under differing climatic conditions

No LFG constituents were detected above applicable human health, explosive risk and ecological guidelines.

On the basis of the Audit review completed, the recommended site classification was:

"Not contaminated-unrestricted use". However, it was recommended that subsurface development such as basements may not be appropriate adjacent to a former gassing landfill.



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