

Geophysics or Drilling - Which Should Come First in a Contaminated Land Investigation

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INTRODUCTION

- Contaminated Land Investigations require a desk-study at the initial stage to give a considered, pragmatic and efficient approach to the fieldwork.
- This paper highlights two case studies in which use of geophysical techniques can assist in the planning of the subsequent drilling and sampling programme.
- Geophysics is often disregarded at an early stage in favour of drilling work but this is sometimes not cost-effective for the client and can lead to drilling and sampling which is not representative of the aquifer, groundwater or contamination present.

CONCLUSIONS

- Geophysics can assist at the early stages in the planning of a drilling program.
- Correlation with the drilling will improve the geophysical interpretation to give areal knowledge of overburden and contamination distribution.
- The techniques shown utilise one-person and provide fast coverage making them cost effective tools.
- The choice of the most suitable technique is dependant on:
 1. Target
 2. Host media
 3. Cultural Interference
 4. Logistics
 5. Cost