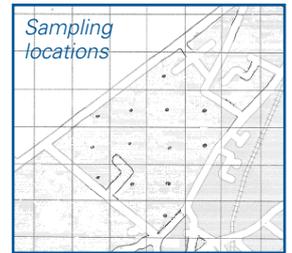


Sampling contaminated land with soil probes

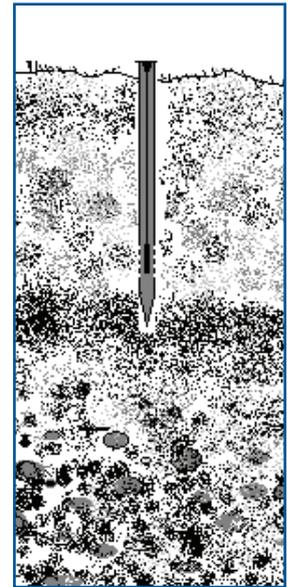
Soil probes are used to screen for volatile organic compounds (VOCs) in contaminated land. Soil probes facilitate effective surveys of commercial, waste and brownfield sites pinpointing underground leaks, surface spills and cost effectively tracking pollution flow.



Soil probes are generally arranged in a grid pattern over the site of interest and organic pollutants migrate into the hollow probe where they are collected on diffusive monitoring tubes. Subsequent analysis is by thermal desorption and GC - MS. A profile of pollution levels across the site can then be built up.



A standard Perkin Elmer 90 mm long sorbent sampler is coupled to the base of the soil probe insert.



The diffusive samplers are typically left for 24 hours in the soil. The VOCs are collected passively by diffusion onto the sorbent filled sampler tube at the end of the soil probe. No sampling pumps are required.

The automated analysis of the soil probe by thermal desorption and GC - MS can separate the different VOCs as seen in the figure below. Concentration of the VOCs can be measured from ppb to ppm.

