

INDUSTRIAL VIEW: KEY ISSUES FOR SITE CHARACTERIZATION STRATEGIES

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ABSTRACT

Efficient site characterization requires time and cost effective procedures to delineate contaminated areas, to determine contaminant movement mechanisms, to quantify the intensity of the impacts on soil and groundwater and to assess related potential hazards for public health, ecosystems and natural resources. When it comes to manage characterization programs including a large number of sites, a certain degree of procedures standarization is desirable.

As reliable results are required the industry usually applies proven characterization techniques rather than emerging and indirect technologies. Simplicity and reduction of characterization stages are also preferred in order to guarantee a fluent course of action. Proper selection of a minumum set of relevant parameters/contaminants will also add to a more efficient site control and remediation management. A site characterization strategy based on those techniques that are readily available through the environmental services contractors makes easier to achieve optimized costs.

Two different characterization strategies can be frequently approached depending on whether the operations will continue on the site, or abandonment and a change in land use are expected. In the first case, "contamination-focused" investigations providing detailed characterization within the impacted areas are generally chosen in order to support a sound in-situ remediation design. When the site is to be abandoned a "blank-oriented" investigation can be approached in order to directly verify those areas that do not require remediation, and delineating the contaminated spots that will be intensively cleaned-up using ad-situ or ex-situ remediation techniques.