

IN-SITU THERMAL DESORPTION
A clean-up technology with large additional benefits for large sites

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Abstract

Mineral oil contamination is widely present in our industrial and urban environment. Its impact is not only environmental but also largely economical as property values and redevelopment possibilities are seriously affected.

When it comes to evaluate remediation technologies for large sites, especially in suburban and/or urban environment, one tends to favour either dig and dump solutions or soft treatments implying risk management of residual contamination in the future.

ISTD, despite its excellent efficiency record, has often been disregarded for large sites because of its perceived combination of high costs and quite long treatment times, making it too expensive when time is not an issue and too slow when quick results are required.

New approaches to ISTD, such as a reuse of its features (stainless steel pipes in the soil) as geothermal devices as well as geotechnical structural devices for the future constructions on site can dramatically change the equation, as total remediation costs can be offset against substantial savings in geotechnical/stability devices for the future building as well as energy savings thanks to a ready-to-go geothermal installation.

This paper presents the technical and economical calculations for a suburban site, with 50,000 tonnes of mineral oil impacted soil and shows the economical, environmental and geotechnical benefits of ISTD applications.