Verification Summary

Technology	Vendor
Eko Bark	Globe Water

Process definition
The company Globe Water offers an only in situ-method included in this study. The method is designed for in situ treatment of contaminated groundwater. The principle is that a number of horizontal holes parallel to each other are bored in the land to be treated. Subsequently, holes are also bored in an opposite direction beneath the initial level, in order to completely cover the land being treated. A pipe with slits or perforations is then inserted in the bored holes. Appropriate sorbents, such as the bark that was tested, in containment booms joined by a wire, are drawn into the pipe, where they remain. The sorption takes place when soil- or ground water passes through the sorbent. When the strings of absorbents have been under ground for a period of time, sufficient to attain the desired sorption, the wire and the connected holders are removed from the bored hole and the used absorbents can be regenerated for use in the decontamination of other areas.

Function (vendor's claim)
1. Bark can be used to remediate diesel contaminated soils under existing buildings, without demolishing them.

Performance

Treatment endpoint	The study investigated whether diesel contaminants in soil- or groundwater sorb to the Eko Bark if they come in contact. The probability of contaminants to come in contact with the bark can not be verified, since this to a large extent is a result from implementation and not a result of the technology itself. The verification study wills neither consider the execution in real life. It will neither report environmental costs that arise from a remediation project using this technology. The verification study will show if the technology have a possibility to succeed if it is carried out in a proper way in real life. Figures show that removal rate is extremely good, in all cases. >99 % was removed from the spiked groundwater in all experiments. The differences between samples are so small that no conclusions can be drawn regarding temporal variability or material variability.
Interferences	The only possible interference that was investigated is the change of pH. It had no effect within the tested range for the sorption of hydrocarbons to bark. No real world samples were used during the study for use as external validation data.

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