



CASE STUDY CS699

PROJECT: Remediation of Groundwater Contaminated by Diesel

CLIENT: Confidential

DURATION: 13 Years

COST RANGE: £1,500,000 to £2,000,000 STATUS: Completed and decommissioned



WORKS

- Design of remediation equipment based upon pilot study trials.
- Installation of several boreholes to 40 metre depth, permanent buried pipework and permanent reinstatement.
- Installation and operation of an automated (with remote web access), programmable pumping regime (up to 125m³/hr) system with treatment to soak-away.
- Commissioning, optimisation, monitoring and operation of the remediation scheme.
- Operational up-time guarantee of the works to meet stringent client requirements.
- · Abstraction and Discharge boreholes left intact following completion for further use if required

SYNOPSIS

The site was situated in an area of high environmental sensitivity on the boundary of an outer source protection zone. Large seasonal groundwater fluctuations were encountered in boreholes, with the water table falling on average around 10cm daily during summer and autumn. The remedial objectives were the removal of recoverable NAPL mass from the aquifer to reduce risk of future migration, and monitoring of the aquifer groundwater to demonstrate that risks to receptors were stable or reducing.



NAPL was recovered from abstraction wells using a technique of groundwater pumping to lower the head in the aquifer together with total fluids pumping using top filling pneumatic pumps. A relatively low vacuum to the well head enhanced NAPL recovery during the pilot test and was incorporated in the full-scale design.

TRM

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