



# PULBOROUGH WAY, HOUNSLOW

## DNAPL Dual Phase Vapour Extraction

### PROJECT SCOPE

VertaseFLI was employed to design and build an appropriate remediation scheme to address TPH contamination within the unsaturated and saturated zone including LNAPL, and a trichloroethene (tce) plume present as DNAPL on a different part of the site.

### VERTASE FLI ROLE

The site was previously a tool manufacturing facility, VertaseFLI undertook removal and processing of all hardstandings and obstructions beneath. The resultant recycled aggregate was placed across the site as a piling mat. These works also included the identification and removal of comprehensive buried infrastructure and services including two underground fuel storage tanks.

TPH impacted soils in the unsaturated zone were excavated and subjected to ex-situ bioremediation. These excavation works allowed access to the shallow groundwater where free product removal was undertaken by skimming and dissolved phase TPH was addressed via pumping and treatment via our groundwater treatment plant. All voids were re-instated with recycled aggregate produced by the slab processing and treated soils. Because TPH contamination extended beyond the site boundary, a clay stank was installed along one boundary keying into the underlying London Clay to prevent re-contamination of the subject site. Excavation of the TPH impacted soils was complicated by the known presence of localised cement bonded asbestos. Due the relatively small quantities, this was subjected to handpicking for subsequent export from site.

The main driver for remediation was a significant TCE plume which was present on a different part of the site. TCE was present as both dissolved phase and DNAPL resting on the underlying London Clay approximately 8m deep. VertaseFLI designed appropriate treatment well construction and spacing to facilitate effective vapour, dissolved and DNAPL recovery including ensuring an appropriate zone of influence extended beyond the site boundary. This design and build work was undertaken in-house within our own workshops.



## PROJECT OVERVIEW

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### CLIENT

SEGRO

### LOCATION

HOUNSLOW, LONDON

### PROJECT VALUE

£460,000

### DURATION

9 MONTHS

### SERVICES PROVIDED

- Dual Phase Vapour Extraction
- Bioremediation
- LNAPL & DNAPL removal



TREATMENT AREAS WITH BIOREMEDIATION WINDROWS



PUMP AND TREAT OF TPH FREE PRODUCT IMPACTED WATER



INSTALLATION OF PERIMETER CLAY STANK TO PREVENT EX-BOUNDARY RE-CONTAMINATION



DUAL PHASE VACUUM EXTRACTION (DPVE) CONTROLS



DPVE WELL HEADS AND CONNECTION PIPEWORK



DRILLING DPVE WELLS