

Case Study

Remediation of PCB & Heating Oil on Housing Development

Client

Bloor Homes

Consultant/Engineer

Yeandle Geotechnical

Location

Hemyock

Remediation Value

£315,000

Project

Demolition of former dairy buildings on a proposed housing development site had resulted in release of ground heating oil into the ground and groundwater and contamination of crushed concrete with PCB's resulting in a prosecution by the Environmental Agency. Site was bounded by a river and had a 'leat' or 'mill race' running through the middle of the site that required filling. All this resulted in very close scrutiny from the Environment Agency and Local EHO due to the very close proximity of potential targets.

Challenges

Site was restricted in size with different contaminants being treated in close proximity. Validation was critical in removing the Section 106 agreements on a site that had been held up for almost two years by legal issues.

Churngold Solution

Churngold proposed dry screening of the PCB, contaminated crushed concrete to remove the fine fraction that contained the PCB's and thus allow retention of the clean coarse fraction. The fine recovered fraction was taken to landfill. This was successfully undertaken under a Mobile Plant License (MPL). Hydrocarbon impacted soils underwent ex-situ bioremediation in bio-piles under the same MPL. The exposed groundwater underwent product skimming using peristaltic pumps to remove floating free product. Civil Engineering works completed the diversion of the stream and allowed the mill race to be infilled. All recovered and crushed concrete was used on site to raise site levels above the new flood levels.

Technologies/Methods Employed

- Mobile Plant Licence
- Dry Screening
- Dig & Dump
- Bioremediation
- Product Skimming
- Stream Diversion



Photograph 1: Floating free product in open excavation



Photograph 2: Preparation of biopile treatment area