

Contract in brief

Location:

North Hykeham, Lincolnshire

Client:

Arjo Wiggins Ltd

Client Representative:

Hyder Environmental

Blackwell Role:

Main Contractor

Form of Contract:

NECOption C

Contract Value:

£1,811,000

Contract Start:

November 1999

Contract Period:

45 wks

Blackwell site management

Contracts Manager:

Roger Lyes

Project Manager:

A Jackson

Services Included:

Civil Engineering

Earthworks ✓

Geotechnical

Remediation ✓

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Contract Summary:

Blackwell had the remit to undertake the remediation of the former industrial site, which was formerly used in the manufacture of thermal papers, and had been contaminated with metalliferous mercury and zinc which required remediating due to the high groundwater vulnerability.

Key Processes:

The main elements of the works include the following:

Demolition, site clearance and excavation prior to the washing of approximately 50,000 tonnes of contaminated soil. The process will permit the re-incorporation of approximately 90% of the treated soil back into the site. Approximately 5000 tonnes of concentrated residue remain to be disposed to licensed repositories off site.

The Soil Washing process was recommended as the "best practical environmental option" and economically viable method for reducing the contamination to acceptable levels, at the same time permitting the re-use of the majority of the remediated material within the site.

This process is a physical treatment involving the mechanical and chemical separation of contaminated soil particles from uncontaminated soil. It is particularly appropriate for removing metalliferous contaminants and consequently was determined as the technique to be adopted for the remediation of the Lincoln Site.

Of the other treatment options considered, bio-remediation does not treat metalliferous contamination, whilst encapsulation or sub-surface barriers leave the contamination to be treated and vulnerable to be spread by groundwater fluctuations. Excavation and removal was also an option but had the environmental disbenefit of requiring the transportation of large quantities of hazardous wastes on public roads to distant landfill sites and the subsequent importation of replacement materials.

The Contract allowed for a "risk share" with the Client in the event of a cost over-run, coupled with a "reward share" for any cost savings in relation to the target.

