

# Case Study



## AGL Mortdale Gasworks Rehabilitation, NSW

### Green File

This was the largest gasworks remediation ever undertaken in Australia, with a total value of \$47 Million.

Some 120,000 m<sup>3</sup> of demolition rubble and subsurface structures were recovered from the contaminated material excavations.

This material was crushed and beneficially reused onsite.



### Location

Mortlake, NSW

### Client

Australian Gas Light Company (AGL)

### Value

AUD \$ 47 Million

### Duration

Commenced January 1998  
Completed February 2002

### Contract type

Management Contractor

### Referee

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AGL's former gasworks site at Mortdale in the Sydney Municipality of Concord is fringed by residential and commercial/industrial development, and is bounded to the north and east by the Parramatta River. At the time, this was the largest gasworks remediation ever undertaken in Australia.

At 51.7ha, Mortdale is the largest gasworks ever remediated in the southern hemisphere. It was originally anticipated that the time required for carrying out the site works would be 18 months. However, as works progressed, it was discovered that the extent of contamination was significantly greater than at first believed.

As a result, the project schedule was expanded proportionally. The aim of the project was to rehabilitate the site to a standard suitable for a mixture of residential development and open parkland.

### Challenges/ Unusual Features

The project team's approach to achieving this goal involved.

- Providing a site clean-up programme that optimised site validation by integrating timing of remediation staging, cell construction, materials handling and treatment processing, and
- Offering cost-effective application of the approved technologies capable of achieving the specific clean-up criteria.

The key tasks involved in the project were:

- Demolition of non-heritage buildings, pavements, foundations and services across the site,
- Preservation of heritage structures,
- Removal of low-impacted soils by excavation and placement in a lined containment cell within the site boundaries,
- Treatment of soil impacted by high levels of tar and/or oxides,
- Clean up of contaminated groundwater and effective management of all other water onsite, and
- Reinstatement of the site with clean backfill.



### **Quantities**

The project involved the excavation and containment of over 1.2 million m<sup>3</sup> of tar-contaminated soils and bedrock, importation and placement of 600,000m<sup>3</sup> of clean soils, demolition of numerous gasworks structures, and recovery and off-site disposal of hazardous tar sludge.

### **Innovations**

The project team developed and utilised a number of particularly innovative techniques to address environmental issues which arose during the works. Many of these issues held the potential to impact on local residents and businesses, due to the location of the project within a dense urban area, the minimisation of these impacts was a key achievement on the project.

### **OHSE**

Environmental features and solutions developed and implemented on the project include:

- Landfarming of tar and hydrocarbon impacted materials,
- Extensive ripping of impacted and odiferous rock,
- Comprehensive odour control,
- Dust control,
- Noise control,
- Water management, and
- Management of local roads and traffic

