



While remediation of the Cleaning Sheds area, aside from the filling proposed during redevelopment, is not considered necessary, management will be required to ameliorate potential risks during redevelopment, and on an ongoing basis. GHD recommend that an Environmental Management Plan (EMP) is prepared and implemented for the proposed redevelopment works. The EMP should identify potential environmental impacts associated with the works and document measures to be taken to manage these.

In addition, a long-term Site Management Plan (SMP) for the Cleaning Sheds area, post-development, should be prepared in due course. The SMP should address issues associated with the retention of potentially contaminated fill material under the proposed imported soils, and include controls to prevent future exposure to the fill.

If soil material needs to be excavated and removed from the site during construction, materials should be classified, in accordance with the NSW EPA (1999) Guidelines for the *Assessment, Classification and Management of Liquid and Non-liquid Wastes*". It should be noted that the waste classification contained in this report was specifically for the ashy fill material at the site (delineation area) that was understood to potentially require remediation during redevelopment. Topsoil and general clay fill material that is located at the site, and materials in the wider Macdonaldtown Triangle have not been classified.



1. Introduction and Objectives

1.1 Introduction

The Rail Corporation of New South Wales (RailCorp), Environmental Projects Unit commissioned GHD Pty Ltd (GHD), to undertake delineation and waste classification sampling of part of a RailCorp property known as the 'Macdonaldtown Triangle', located on Burren Street, Macdonaldtown, New South Wales.

The Macdonaldtown Triangle is identified as Lot 50 in DP 1001467 and is divided into two areas, namely the former Cleaning Sheds area, and the former Gasworks area (see **Figure 2**). RailCorp wish to redevelop the Cleaning Sheds area and the works described in this report were designed to delineate an area of contamination previously identified in the Cleaning Sheds area.

The investigation was commissioned in response to RailCorp's tender brief (ERE-098/0058) and GHD's subsequent proposal dated July 2005 (GHD's reference: 21/0904181/69).

This report details investigations undertaken by GHD in August 2005.

1.2 Background

Previous environmental investigations (conducted by CH2M Hill in 2000) identified elevated concentrations of hydrocarbons in soils throughout the Gasworks area and some hotspots of hydrocarbon impact in the Cleaning Sheds area. A subsequent risk assessment performed on the Cleaning Sheds area by Sinclair Knight Merz (SKM) in 2005 found that risks to potential receptors from soil contamination were acceptable and there was no specific requirement for remediation. However, it was recommended that precautionary remediation excavations be undertaken in the vicinity of a hotspot previously identified at TP44 (with elevated concentrations of benzene, toluene and PAHs), where the footprint of the former Gasworks retort house was believed to extend onto the Cleaning Sheds area.

GHD understands that the Site Auditor requested the clean up of the benzene and toluene contamination identified at TP44, due to the potential for vapour release or leaching to groundwater. It is further understood that clean up of PAH contamination was not required, as the majority of the Cleaning Sheds area is proposed to be capped by 1m to 2m of clean fill during redevelopment, which will provide a barrier against exposure. In accordance with the recommendations of the risk assessment and the Auditor's requirements, RailCorp planned to delineate the impact around TP44, and perform remediation prior to the redevelopment of the Cleaning Sheds area.

However, upon commencement of the delineation works, GHD found that TP44 was actually located in the Gasworks area, south of a fence dividing the Cleaning Sheds area and the Gasworks area. Nevertheless, delineation sampling was performed to determine whether the hotspot extended onto the Cleaning Sheds area.



The term "site" in this report therefore refers to the delineation area surrounding TP44, on both the Gasworks area and the Cleaning Sheds area (see **Figure 2 and 3**).



2. Project Objectives and Scope of Works

The objectives of the project are to:

- ▶ Delineate the area (vertically and laterally) of soil contamination around sample location TP44;
- ▶ Confirm the nature of soil contamination in the area around TP44; and
- ▶ Classify the soils to be excavated around TP44 for offsite disposal in accordance with applicable NSW EPA guidelines.

To establish the nature and extent of contamination requiring remediation in the vicinity of TP44, GHD undertook the following scope of works:

- ▶ A review of available reports, including those already provided with the tender brief, detailing previous investigations undertaken at the site;
- ▶ Preparation of an appropriate Site Specific Safety and Environmental Plan (SSSEP), including a pro forma checklist provided by RailCorp;
- ▶ Appropriate underground services searches for rail and non-rail infrastructure;
- ▶ A site inspection;
- ▶ Field investigations including:
 - Location of former test pit TP44 using a registered surveyor;
 - Excavation of delineation test pits in the vicinity of TP44 using a backhoe;
 - Survey of test pit locations by a registered surveyor.
- ▶ Analysis of selected soil samples for contaminants of concern; and
- ▶ Production of a stand alone report presenting a summary of previous investigations, the results of the current investigations, and waste classifications for soils to be excavated as part of planned remediation works.