Incoll Management Pty Ltd

MACDONALDTOWN GASWORKS REMEDIATION PROJECT
GEOTECHNICAL INVESTIGATION

PSM1444.R1 **October 2010**

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1. INTRODUCTION

This report presents the results of the geotechnical investigation undertaken by Pells Sullivan Meynink Pty Ltd (PSM) for MacDonaldtown Gasworks Remediation Project at Burren Street, Erskineville.

The work was undertaken in general accordance with our proposal letters A1101.L1 dated 12 August 2009 and A1101.L2 Rev1 dated 8 December 2009. These proposals were prepared in response to email requests from Ben Hopkins of Incoll dated 3 August 2009 and Helen Dawtrey of Incoll dated 4 December 2009 respectively.

A confirmation to proceed was provided to PSM on 3 May 2010 in a service agreement contract prepared by Marque Lawyers Pty Ltd on behalf of Incoll Management Pty Ltd.

The aim of the geotechnical investigation was to assess the sub-surface conditions at the site, and provide geotechnical advice for the remediation work for the site.

2. DOCUMENTS SUPPLIED TO PSM

Prior to undertaking the investigation Incoll supplied a CD-Rom with containing Appendices E1 to E31. A full list of these documents is provided in Appendix A of this report. PSM has reviewed the supplied documents.

Two CH2MHILL Reports have been considered in more detail, namely:

1. "Delineation & Characterisation Sampling and Review of Remedial Options" dated March 2007 (Ref. 347496).
2. "Remedial Action Plan" dated December 2007 (Ref. 359092).

The first provides results of previous test pit and borehole investigations undertaken on site and discussion of soil types encountered in these investigations. The second report provides details of the proposed extent of excavation to be undertaken as part of the site remediation works.

3. PREVIOUS INVESTIGATIONS

The CH2MHILL reports referenced above present the results of a number of environmental investigations which have been completed on the site mainly as part of the environmental and contamination assessment.

The investigations comprised test pits, boreholes and monitoring wells, many of which were excavated through the fill and into the underlying natural materials.

We have identified twelve (12) test pits and eight (8) boreholes which we consider provide useful geotechnical information regarding the subsurface conditions on site.

The locations of the 12 test pits and 8 boreholes are shown in Figure 1.

PSM used this information to assist in designing our geotechnical investigation and in providing the advice and recommendations in this report.

4. GEOTECHNICAL INVESTIGATION

4.1. Fieldwork

4.1.1. General

The fieldwork was undertaken on 16 to 17 June 2010 and comprised:

- Four (4) vertical boreholes.
- Sixteen (16) cone penetration tests (CPTs)
- Six (6) test pits

PSM had provided the proposed borehole and CPT locations in an email dated 14 May 2010. Prior to commencing the ground breaking works, the proposed tests were located using a surveying wheel and measuring from known site features (i.e. monitoring well). The test locations were subsequently scanned by an electronic service locator for the presence of underground services (i.e. cables and pipes).

Several boreholes and CPTs had to be relocated from the previously proposed locations for the following reasons.

- Safety considerations resulted in the test locations being moved away from the concrete caps for the northern gas holder and the tar wells.
- Access from the fence next to 43 Burren St residential property was not available.
- Stockpiled building rubble (which we were advised had potential asbestos content) was located between the gas holders.
- The archaeologist's trenches excavated on 12 June 2010 exposed the remains of heritage slabs and foundations buried below ground level. The heritage trench locations are shown on Figure1. The CPTs and boreholes located in areas where these slabs and foundations were identified, were relocated.

Upon completion of the fieldwork, the location of the boreholes, CPTs and test pits were surveyed by Lynton Surveys Pty Ltd. Lynton Surveys also surveyed the site boundaries and the gas holder locations.

The final locations of the boreholes, CPT and testpits of PSM investigations are presented in Figure 1. This figure has been prepared based on the Lynton Surveys survey.