



09 November 2012

STOCKLAND CORRIMAL NSW 2518

Stage 1 Preliminary Site Investigation

Submitted to:
Davina Rooney
Stockland



REPORT

Report Number. 127613103-009-R-Rev0

Distribution:

Stockland - 1 Electronic Copy





Table of Contents

1.0 INTRODUCTION.....	2
2.0 PROJECT OBJECTIVES.....	2
3.0 SCOPE OF WORK	2
3.1 Desktop Information Review	2
3.2 Site Inspection & Interview	2
3.3 Preparation of Property Specific Report	2
4.0 METHODOLOGY.....	3
5.0 FINDINGS.....	3
5.1 Property Report	3
5.2 Photographs	10
5.2.1 General Site Features	10
6.0 LIMITATIONS	13

TABLES

Table 1 – Property Report

FIGURES

Figure 1 – Site Layout

APPENDICES

APPENDIX A

Limitations



1.0 INTRODUCTION

Golder Associates Pty Ltd (Golder) was appointed by Stockland to undertake a Stage 1 Preliminary Site Investigation (PSI) at Stockland Corrimal shopping centre which occupies a large plot of land including 3-313 Short Street, 270 Princes Highway and 312-316 Princes Highway, Corrimal, NSW (the site).

The Stage 1 PSI was undertaken in general accordance with our proposal dated 3 August 2012 (Reference: P27613222-001-P-Rev0).

The following sections describe the objectives, scope of work and the findings of the investigation, along with conclusions and recommendations, where appropriate.

2.0 PROJECT OBJECTIVES

Stockland has historically undertaken various phases of environmental site assessment across their retail properties, and wish to complete these works to provide a consistent summary for each site. Overall, Stockland wish to gain a better understanding of the environmental risk at the identified sites, with a particular focus on the potential for contamination.

The overall project objective is to provide a site specific summary of the key environmental issues, in addition to an overarching portfolio report to Stockland management providing a summary risk matrix and appropriate conclusions and recommendations for the retail properties. The portfolio report and risk matrix is provided under separate cover.

3.0 SCOPE OF WORK

The scope of work of the Phase 1 PSI comprises the following:

3.1 Desktop Information Review

- Review of existing environmental reports provided by Stockland, where available.
- Review of readily available historical title information.
- Review of readily available aerial photographs.
- Review of readily available historical street maps.
- Review of selected regulatory notices and databases.
- Review of readily available desktop geological, hydrogeological and surface water information.
- Review of readily available planning and zoning information.

3.2 Site Inspection & Interview

- Site inspection including a site walkover, collection of photographic records and field notes (including main site features and structures, details of fuel or chemical storage or use, evidence of surface staining or areas of imported fill, surrounding land uses and nearby sensitive receptors such as waterways).
- Brief interview with a current site management representative.
- Electronic collation of site inspection and interview data into a project specific database.

3.3 Preparation of Property Specific Report

- Assessment and compilation of the field and desktop data.
- Preparation of a property specific summary report (this report).



- Preparation of a summary risk matrix of the potential presence and consequence of contamination (the risk matrix is provided under separate cover).

4.0 METHODOLOGY

The Stage 1 PSI was undertaken in general accordance with the scope of work described above, with the following amendments / exclusions:

- A review of historical street maps was not completed. This information was captured in the review of historical aerial photographs..

No previous reports relating to the site were made available for review as part of the desktop study.

5.0 FINDINGS

5.1 Property Report

Table 1 below summarises the findings of the desktop review, site inspection and interview and provides conclusions and recommendations. **Figure 1** illustrates the site layout, features of interest and the boundary of the investigation. Selected information reviewed as part of this investigation (such as aerial photographs and certificates of title) and the summary risk matrix are provided under separate cover within the portfolio report.

Table 1: Property Report

Item	Details
Property Identification & Location	
Property Name	Stockland Corrimal Shopping Centre
Property Addresses	270 Princes Highway, Corrimal NSW 2518 (main site) 3-13 Short Street & 312-316 Princes Highway Corrimal NSW (car parking areas)
Current Owner	The Trust Company Limited
Current Certificate of Title Details	Main site: Lot 1 in DP 578083 (Edition 94). Transferred on 27/2/2006 (270 Princes Highway) Short Street car park: occupies Lot 50 in DP 837043, Lots 4, 5, 6, 11 in DP 2486, Lot A in DP 346336, Lots 20 & 21 in DP 558591 and Lot 1 in DP 506169
Property Area (ha)	2.31 (main site) and 0.61 (Short Street car parking)
Desktop Review	
Historic Certificates of Title Details	<p>Volume / Folio - 12927 / 162:</p> <ul style="list-style-type: none">- Issued on 10/11/1975- Owner – Woolworth Properties Ltd.- Transferred – to Burns Philip Trustee Company Limited on 21/02/1978- Cancelled upon creation of Lot 1 in DP 578083 (current title) <p>A review of current and available historical land titles indicated that land use has typically included several retailer facilities such as restaurants, cafes, bakeries, delicatessen shops, supermarkets, hairdressers, photo processing, clothing shops and other shops / services. It was noted that a dry cleaners has leased premises in 1982-1987 and 1988-1992. The dry cleaners is listed as "Keira Dry Cleaners" which is the same company that is currently located at the shopping centre. During the site inspection it was observed that the dry cleaners offer a drop and pick-up service, however, no dry cleaning operations were observed to be undertaken on premises.</p>
Aerial Photograph Review	Aerial photographs from 1961, 1976, and 1988 were reviewed as part of the



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
	<p>desktop study.</p> <p>The aerial photograph from 1961 shows a number of small buildings (probably residential) and four larger buildings (potentially warehouses) located across the footprint of the site. Surrounding land use appears to be largely residential.</p> <p>The aerial photograph from 1976 indicates that the buildings occupying the site in 1961 have been demolished and the main shopping centre (with the exception of an extension that must have occurred at a later date at the north of the building) is present. The Short Street car park is occupied by buildings that appear to be residential.</p> <p>No significant changes have occurred at the site in the 1988 photograph compared to 1976. The Corrimal Memorial Heated Pool is now shown to be present at the south east of Short Street car park.</p>
Previous Investigations and/or Remediation	No existing investigation reports were made available during the desktop review.
Planning Setting	
Planning Scheme Zoning	A review of the Wollongong Local Environmental Management Plan (2009), Land Use Zoning Map indicates that the site is designated as Business land use class B2 'Local Centre' where the main shopping centre lies. The Short Street car park is designated as a Special Purpose Zone SP1 'Special Activities'.
Adjacent Areas Planning Scheme Zoning	<p>A review of the Wollongong Local Environmental Management Plan (2009), Land Use Zoning Map shows the land use zoning of the adjacent property to the north is B1 'Local Centre' with RE1 'Private Recreation' listed for a sports recreational field.</p> <p>Adjacent areas to the east are classified as R2 'Low Density Residential'.</p> <p>Adjacent areas to the south of the site are classified as R2 'Low Density Residential' and RE1 'Public Recreation'.</p> <p>Mixed land use zoning is shown for adjacent areas to the west of the site which includes R2 'Low Density Residential', RE1 'Private Recreation' and B2 'Local Centre'.</p>
Known Contaminated Sites within 500 m	A search of the record of notices under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated that a 7 Eleven service station located 360m to the north of the site (138-146 Princes Highway) is currently being assessed by the NSW Environment Protection Authority (EPA). This site could be a potential source of contamination but is likely to be across hydraulic gradient.
Statutory Environmental Audit Completed on Site	A search of the NSW EPA records of Statutory Environmental Audits completed under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated that no Statutory Environmental Audits have been completed for the site. Site Audits issued prior to commencement of the Government Information (Public Access) Act 2009 may not be included on the NSW EPA data base.
Statutory Environmental Audits within 500 m of Site	A search of the NSW EPA records of Statutory Environmental Audits completed under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated that no Statutory Environmental Audits have been completed for properties within 500 m of the site. Site Audits issued prior to commencement of the Government Information (Public Access) Act 2009 may not be included on the NSW EPA data base.



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
Environmental Setting	
Geology	The Wollongong – Port Hacking 1:100 000 Geological Map (9029-9129) indicates that the site is situated on the boundary of both Cainozoic and Palaeozoic formations. The Cainozoic material is comprised of Quartz and lithic “fluvial” sand, silt and clay. The Palaeozoic material is identified as an Erins Vale Formation which forms part of the Cumberland Subgroup. This material is comprised of fine to medium grained quartz-lithic sandstone.
Groundwater	<p>According to the NSW Natural Resource Atlas there are no registered boreholes close to the site.</p> <p>The regional groundwater flow direction is inferred to be towards the east and the Pacific Ocean, however, there is a small creek located to the south of the Short Street Parking area which could potentially have a localised influence upon groundwater flow direction.</p>
Surface Water	There are surface water receptors within proximity of the site. The direction of surface run off is inferred to be towards the south-east and the ocean catchment.
Potential Acid Sulfate Soils	Based on the Australian Soil Resource Information System maps, the Site is rated as category C4 indicating extremely low probability and very low confidence as to the presence of acid sulphate soils.
Potential Nearby Sources of Contamination within 500 m of Site	<p>A search of the record of notices under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated that there have not been any notices recorded for the suburb of Corrimal.</p> <p>A search of Environmental Protection Licences (EPLs) under the Protection of the Environment Operations Act 1997 (NSW) indicated that an EPL was issued to Illawarra Coke Company Limited for the production of coke on a site located about 320m east of the site (Licence No. 125). Several non-compliances were recorded. Most were related to the licence holder failing to perform regulatory monitoring of dust deposition.</p> <p>A penalty notice was issued on 10 August 2012 (for an offence committed on 29 June 2012). It was related to the emission of odours contravening section 129(3) of the <i>Protection of the Environment Operations Act 1997 (NSW)</i>.</p> <p>No other EPLs have been issued within 500m of the site.</p> <p>As detailed above, a search of the record of notices under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated that a 7 Eleven service station located 360m to the north of the site (138-146 Princes Highway) is currently being assessed by the NSW Environment Protection Authority (EPA).</p>
Date and Time of Inspection	15:30 on 25/09/12
Weather Conditions	Sunny, partly cloudy, 25 degrees celcius
Site Interviewee	Tim Feenstra (Operations Manager) and Dave Nelson (Former Facilities Manager)
Current Site Use	The site is currently occupied by Stockland Corrimal shopping centre which consists of approximately 40 specialty stores and services and customer parking areas. Major tenants include Woolworths and Dan Murphy. Parking areas include an undercover area in the south eastern corner of the shopping centre building, an



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
	<p>outdoor car park along the western and northern boundaries and the Short Street outdoor car park.</p>
Site Coverage	<p>The site is primarily covered by interconnected buildings that form the shopping centre, which are constructed in brick, reinforced concrete and steel. Retail units are located on a single level with undercover parking occupying the south eastern corner of the site.</p> <p>As detailed above, there are a number of parking areas occupying large areas of the site. The topography of the site shows a step change in level from north to south.</p>
Current Adjacent Land Uses	<p>To the immediate north of the site is Railway Street. High street shops line the northern side of Railway Street with recreational open space beyond. To the east of the site is a mixture of commercial and residential buildings.</p> <p>A large coke works is located approximately 350m to the west of the site. Stockpiles of material (assumed to be processed coke) are shown to be present in all of the historical aerial photos reviewed as part of the desktop study. The site covers a large area and includes a number of warehouse / workshop buildings.</p> <p>The Stockland Short Street car parking is located to the south of the shopping centre beyond which includes a small area of unoccupied open scrub land, Corrimal District Library and Corrimal Memorial Heated Pool (south east of the site). As detailed in the groundwater setting there is a small creek that runs through the centre of an area of scrub land. The Princes Highway forms a boundary to the west of the site. A number of retail units line the western side of the Princes Highway.</p> <p>Located adjacent to the site, at the south western corner, is a Shell / Coles Express service station. An area of land to the west of the Short Street parking area is occupied by a Kennard's Hire storage yard, a Caltex / Woolworths service station and a large industrial facility occupied by a milk distribution depot, Pura Milk.</p> <p>A dry cleaning facility (Moderne Dry Cleaners) was noted to be present at 330 Princess Highway (located approximately 50m south of the Short Street parking area). Based on visual appearance this facility looked to be a small scale operation but to have been operational for a number of years.</p>
Details of Structures on Site	<p>The main shopping centre was reported to have been constructed in 1975. The building consists of a brick, reinforced concrete and steel construction. Woolworths and Dan Murphy, located in the north eastern corner of the shopping centre, occupy the largest footprint of the building.</p> <p>The shopping centre is on a single level with the undercover parking creating a second level in the south eastern half of the site.</p>
Process Details	<p>No manufacturing activity was observed at the site. Retail goods and food produce is delivered to the site by truck. Cardboard, plastic packaging, pallets and general refuse collection is conducted by waste management service providers. Used cooking oil / grease is collected from a number of food retail outlets in below ground grease traps.</p> <p>There is a dry cleaner present at the shopping centre but the unit is currently a</p>



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
	drop off and pick up facility. Clothes are sent to an external site to be cleaned.
Details of Chemical Use	<p>Small scale storage of cleaning chemicals was observed. Cleaning products included commercially branded window cleaner, bleach, disinfectant and stainless steel polish. These products were stored in a dedicated storage cupboard in containers no greater than 20 litres (L). There was not observed to be any bulk chemical storage at the site.</p> <p>Storage of Caltex Meropa Synthetic oil was observed in the main shopping centre loading bay area. The oil was contained in a 20 litre drum on an elevated hardstand (loading platform) area. Surface staining was observed around the drum. The storage area was not bunded. Further information is provided below.</p> <p>A diesel powered backup generator is located within the loading / storage area of Woolworths. At the base of the generator there is 100 L steel encased diesel storage tank that is part of the unit. The generator stands on a concrete hardstand area. No staining was observed around the tank and the generator unit appeared to be well maintained.</p>
Presence of Above Ground Storage Tanks	<p>Two large above ground pressure vessel tanks were observed in the fire control room. The tanks were historically used to store water for the shopping centre sprinkler system. Signage on the tanks indicates that they were decommissioned in June 2001.</p> <p>As mentioned above the diesel powered generator located in the Woolworths loading and storage area contains a 100 L inbuilt diesel tank.</p>
Presence of Underground Storage Tanks	There are four underground grease traps in the shopping centre. These were reported to be routinely serviced and emptied by Sita Environmental. The location and size of the tanks was not determined during the site visit.
Details of Waste Handling	Solid waste – cardboard, plastics and general refuse are collected by SITA Environmental. Grease traps emptied by SITA Environmental.
Evidence of Burying or Burning of Waste	It is understood that there has not previously been any burning or burying of wastes at the site. No evidence of burying or burning of waste was noted during the site inspection.
Spill Incidents	No spills were observed on-site and no historical spills were reported.
Evidence of Fill Materials	There is a distinct change in topography between the northern and southern portions of the site; however, this appears to be natural and not associated with importation of fill materials. The interviewees could not recall whether there had historically been large volumes of imported fill used during the development of the site.
Evidence of On Site or Adjacent Cut and Fill Activities or Quarrying	The site surface is 'stepped' due to changes in topography from north to south. It is likely that some excavation works may have occurred to create the undercover parking area. Based on the review of historical photographs it is considered likely that grading of materials would have occurred following the demolition of the buildings that were shown to be present in 1961. No evidence of quarrying was observed at the site.
Evidence of Contamination	<p>Oil staining was observed on concrete hard standing associated with the main shopping centre loading dock. The source of the staining was observed to be a 20 L oil storage drum not stored within a bunded area. The stained concrete surface was the elevated part of the loading dock situated approximately 2m above ground level. It was not confirmed, but likely that the oil is used for the hydraulics in a cardboard compactor.</p> <p>Two 205 L drums were observed to be staged next to the 20 L oil drum. It is</p>



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
	<p>understood that the drums are used to contain used cooking oil and the contents are removed routinely by SITA. The drums were not within a bunded area.</p> <p>There was no other apparent visual or olfactory evidence of potential soil and groundwater contamination noted during the site inspection or mentioned by the site representative.</p>
Topography and Surface Water Drainage	<p>As detailed above there is an apparent step change in topography from north to south.</p> <p>Stormwater is captured by a drainage system which connects into the local council stormwater network.</p>
Potential Asbestos Containing Materials	<p>The interviewee indicated that a building materials inspection has been undertaken. This report was not available for review. It was mentioned that the report indicated the presence of asbestos containing materials in the ceiling of the main shopping centre loading dock and a number of backing boards for switch gear. Information on the condition of these materials was not provided or discussed.</p>
Transformers	<p>Two transformers are reported to be present within a transformer room located along Railway Street. No access was provided to observe the condition of the transformers as they are owned, operated and managed by Endeavour Energy.</p>
Anecdotal Evidence	<p>No anecdotal evidence relating to site contamination was reported.</p>
Waste Discharge Licenses	<p>No licenses associated with waste discharge were reported for the site other than the trade waste agreements associated with the grease traps.</p>
Conclusions and Recommendations	
Desktop Conclusions	<p>The assessment of previous land use shows that the site had been developed prior to the construction of Stockland Corrimal shopping centre. Buildings were shown to be present at the site as early as 1961. There is potential for fill materials to have been distributed across the site during the demolition and regrading likely to have occurred prior to the construction of the shopping centre. Older building structures have the potential to have contained asbestos containing materials.</p> <p>A search of the record of notices under the <i>Contaminated Land Management Act 1997 (NSW)</i> indicated no notices have been recorded for the suburb of Corrimal.</p> <p>A 7 Eleven service station located 360m to the north of the site (138-146 Princes Highway) is currently being assessed by the NSW Environment Protection Authority (EPA). This site could potentially be a source of contamination, but is likely to be across hydraulic gradient.</p>
Site Inspection Conclusions	<p>There are two service stations (Shell – Coles Express and Caltex) and other industrial premises located within 200m of the site. The closest service station is directly adjacent to the car park along the western boundary of the site.</p> <p>There are transformers at the site, however, the condition could not be observed as they are owned and managed by the local energy supplier. It is suggested that the transformers are internally inspected to assess the condition.</p> <p>A diesel powered backup generator with a 100 L fuel storage reservoir is located within the loading / storage area of Woolworths. No staining was observed around the tank and the generator unit appeared to have been well maintained. There was no bunding observed around the tank. It is noted that the addition of suitable secondary containment measures (such as bunding) would prevent migration of fuel should some form of loss occur in the future.</p> <p>Storage of Caltex Meropa Synthetic oil was observed in the main shopping centre loading bay area. Oil was contained in a 20 litre drum on an elevated hardstand</p>



STAGE 1 PRELIMINARY SITE INVESTIGATION - STOCKLAND CORRIMAL

Item	Details
	<p>(loading platform) area. Surface staining was observed around the drum. The storage area was not bunded. In order to limit the potential for migration of oil should there be any future releases it is suggested that the oil is stored in an area that has some form of secondary containment.</p> <p>Used cooking oil is currently stored in a drum on site prior to removal. In order to prevent spillages a suggested improvement is the replacement of the drum with a purpose built above ground storage tank that has secondary containment.</p>
Sources (Potential Areas of Concern)	<p>Based on the findings of the desktop study and site inspection, the following Potential Areas of Concern were identified:</p> <ul style="list-style-type: none"> ■ Oil staining associated with low volume storage of Caltex Meropa Synthetic oil. ■ Diesel powered back-up generator at Woolworths. ■ Unknown condition of transformers located within site boundary.
Potential Receptors	<p>Potential sensitive receptors to contamination include:</p> <ul style="list-style-type: none"> ■ On-site and off-site human health and ecology. ■ On-site and off-site groundwater quality and off-site surface water quality.
Potential Pathways	<p>Potential pathways linking sources of contamination to receptors include:</p> <ul style="list-style-type: none"> ■ Direct contact (dermal contact and ingestion) between soil contamination and maintenance workers. ■ Inhalation of vapours from soil and/or groundwater on-site and off-site. ■ Infiltration of contamination into the underlying groundwater and down hydraulic gradient migration of groundwater contamination to neighbouring properties and/or surface water.
Overall Potential Risk and Consequence	<p>The overall potential risk of contamination at the site is considered to be moderate. The moderate risk ranking is driven by the potential for use of reworked fill materials as part of the grading for the site, proximity to service stations situated up gradient of the inferred groundwater flow direction and the presence of transformers within the site boundary (condition unknown). In addition, the presence of supply tanks for the diesel generators within an unbunded area could pose a potential risk should there be a future release.</p>
Recommendations for Phase 2 Investigation	<p>Based on the information reviewed in the desktop review and obtained during site walkover it is not considered that a Phase 2 Investigation is currently warranted.</p>



5.2 Photographs

5.2.1 General Site Features



Figure 1: Decommissioned fire water ASTs

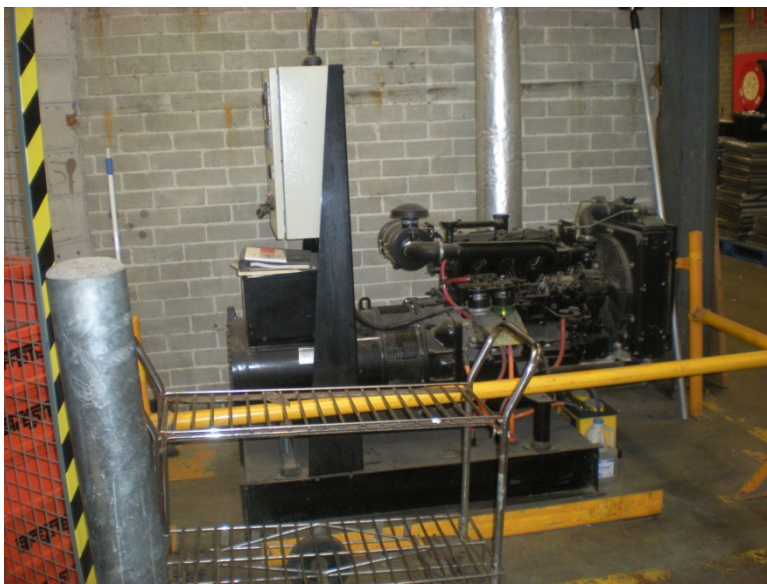


Figure 2: Diesel powered back-up generator in Woolworths loading dock



Figure 3: Storage of cleaning chemicals in cleaner's storage cupboard



Figure 4: View of main loading dock



Figure 5: View of Woolworths loading dock



Figure 5: Storage of used cooking oil and 20L drum of Caltex Meropa synthetic oil. Staining on concrete hardstand at main loading dock.



Figure 6: View looking towards driveway to underground (covered) parking.

6.0 LIMITATIONS

Your attention is drawn to the document "Limitations", which is attached to this report in Appendix A. The statements presented in this document are intended to advise you of what your realistic expectations of this report should be. The document is not intended to reduce the level of responsibility accepted by Golder, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.



Report Signature Page

GOLDER ASSOCIATES PTY LTD



Richard Hayes
Environmental Scientist



Gavan Butterfield
Principal Environmental Scientist

RDH/GB/rdh

A.B.N. 64 006 107 857

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.



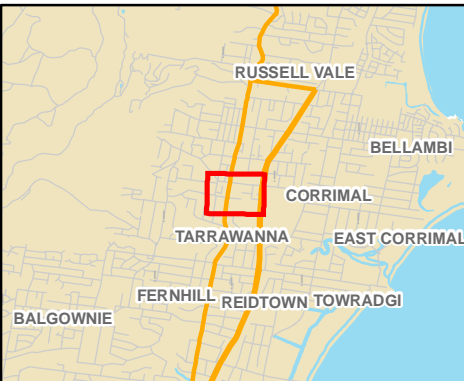
FIGURE



STOCKLAND STAGE 1
PRELIMINARY SITE INVESTIGATION
CORRIMAL

STOCKLANDS

SITE LOCALITY PLAN



LEGEND

- Cadastre
- Approximate Site Boundary

COPYRIGHT

- Imagery Copyright (c) 2010 Microsoft Corporation and its data suppliers
- Digital Cadastre Database, NSW Department of Lands, 2004
- Base map data copyright MapInfo Australia Pty Ltd

0 12.5 25 50 75 100 metres

SCALE (at A3) 1:2,000

Coordinate System: GDA 1994 MGA Zone 56

PROJECT: 127613103
DATE: 8/11/2012
DRAWN: FA
CHECKED: GB

FIGURE 1



© 2010 DigitalGlobe © 2010 GeoEye © 2012 Microsoft Corporation



APPENDIX A

Limitations



LIMITATIONS

This Document has been provided by Golder Associates Pty Ltd ("Golder") subject to the following limitations:

This Document has been prepared for the particular purpose outlined in Golder's proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

The scope and the period of Golder's Services are as described in Golder's proposal, and are subject to restrictions and limitations. Golder did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Golder in regards to it.

Conditions may exist which were undetectable given the limited nature of the enquiry Golder was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required.

In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Golder's opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Golder to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Document.

Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Golder for incomplete or inaccurate data supplied by others.

Golder may have retained subconsultants affiliated with Golder to provide Services for the benefit of Golder. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any direct legal recourse to, and waives any claim, demand, or cause of action against, Golder's affiliated companies, and their employees, officers and directors.

This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Golder accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document.

At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

Africa	+ 27 11 254 4800
Asia	+ 86 21 6258 5522
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates Pty Ltd
Building 7, Botanicca Corporate Park
570 – 588 Swan Street
Richmond, Victoria 3121
Australia
T: +61 3 8862 3500

