

20th February 2018

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57829 Penrith Lot 3008 ESA Addendum_V2

Joseph Risitano
Design Manager
St Hilliers Property Pty Ltd
Ground Floor, 8 Windmill Street
Millers Point NSW 2000

Dear Joseph,

Addendum to the Environmental Site Assessment Report for the Environmental Site Assessment undertaken at Lot 3008, Lord Sheffield Circuit, Penrith NSW

1 Introduction

Prensa Pty Ltd (Prensa) was engaged by St Hilliers Property Pty Ltd (St Hilliers) to provide an addendum to an Environmental Site Assessment (ESA) at 3008 Lord Sheffield Circuit, Penrith, NSW (the site). The addendum to the ESA (ref: *54235 Penrith ESA*, January 2016) was requested to specifically characterise the risk of contamination at the northern portion of the site.

2 Background

It is understood that St Hilliers will be submitting a development application (DA) for the development of the northern portion of the site for mix use as shop top housing with above ground car parking. The northern portion of the site covers an area of approximately 1,260 m². The approximate boundary of the northern portion of the site is shown on Figure 1 and survey plans provided by St Hilliers is shown on Figure 2, provided in the 'Figures' section of this report.

As the proposed development is specific to the northern portion of Lot 3008, St Hillier's requires a revision of Prensa (2016) to reflect this in order to fulfil DA submission requirements.

3 Objectives

The objectives of the addendum to the ESA is to confirm whether contamination, if present would preclude the use of the northern portion of the site for mix use as shop top housing. The findings will form part of the proposed development application.

4 Scope of Works

To complete the objectives, Prensa undertook the following:

- Review of Prensa's 2016 ESA report;
- Site walkover; and
- Preparation of this addendum.

5 Technical Framework

Works were undertaken in general accordance with the following:

- NSW Work Health and Safety (WHS) Act 2011 (WHS Act 2011);
- NSW WHS Regulation 2011 (WHS Regulation 2011);
- The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999);
- Contaminated Land Management (CLM) Act, 1997 (CLM Act 1997);
- CLM Amendment Act 2008;
- Protection of the Environment Operations (POEO) Act 1997 (POEO Act 1997);
- POEO (Waste) Regulation 2014 (POEO Regulation 2014);
- National Environment Protection Council (NEPC) Act 1994 (NEPC Act 1994);
- National Environment Protection Council, National Environment Protection (Assessment of Site Contamination) Measure, 1999 (April 2013) (NEPM 2013);
- NSW Environment Protection Authority (EPA) State Environmental Planning Policy 55 – Remediation of Land (SEPP 55), 1998;
- NSW EPA Waste Classification Guidelines: Part 1 – Classifying Waste, 2014 (NSW EPA 2014);
- CRC Care Technical Report No. 10, Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater, 2011 (CRC Care 2011);
- NSW Office of Environment and Heritage (OEH), Guidelines for Consultants Reporting on Contaminated Sites, 2011 (OEH 2011);
- Australian Standard (AS) 4482.1, Guide to Investigation and Sampling of Sites with Potentially Contaminated Soil, Part 1: Non-volatile and Semi-volatile Compounds, 2005;
- AS 4482.2, Guide to the Sampling and Investigation of Potentially Contaminated Soil, Part 2: Volatile Substances, 1999; and
- AS 1726 Geotechnical Site Investigations, 1993.

6 Summary of Site History

As part of our review for this addendum, we have considered:

- A title search of Lot 2008 DP 1184498 completed by Advanced Legal Searchers Pty Ltd;
- Previous environmental report G-tek Australia Pty Ltd (2014) Post Activity Report Desktop Review Unexploded Ordnance Former Engineers Stores Depot North Penrith, NSW; and
- Prensa's previous general summary of historical aerial photographs and public records.

Prensa (2016) noted previous site occupants, including:

- A publican, Thomas Smith between 1879 and 1901;
- Penrith Speedway Ltd between 1901 and 1928;
- Department of Defence between 1928 and 1940;

- Sydney County Council between 1940 and 1948;
- Commonwealth of Australia between 1948 and 2011; and
- Landcom between 2011 and the current term of St Hilliers control of the site.

Of particular note in the list of previous site occupants is the Department of Defence (1928-1940). During the early part of WWII the site and surrounding area was reportedly used as an Advanced Engineers Stores Depot by the Department of Defence (G-tek, 2010). The G-tek (2010) report indicated no evidence of storage of explosives, potential for remnant explosive ordnance, and remnant unexploded ordnance at the site. Review of the Department of Defence UXO website indicated there was no listing of UXO for the site.

A review of the aerial photographs indicates that after the Department of Defence had vacated the site, the northern portion of the site was vacant land (opened paddock) and remained unchanged till present.

7 Site Description

The site description is based on visual observations made during the previous site walkover by a Prensa Environmental Consultant on 11th December 2015 and the more recent site walk over on the 22nd January 2018.

7.1 Site Walkover December 2015

During the site walkover on 11th December 2015, the northern portion of the site comprised cleared, undeveloped land, with the following features noted:

- Approximately 900 m³ of sandy clay was temporarily stockpiled (Stockpile SP01) in the southern end of the northern portion of the site and extended into the southern portion of the site. It is understood that Stockpile SP01 was excavated natural material sourced from Lot 3007 within DP 1184498 and will be re-used as backfill on adjacent Lots, prior to redevelopment of the site;
- A relatively small stockpile (approximately 1 m³) of bitumen was located to the north-western portion of the site;
- A relatively small temporary stockpile (approximately 3 m³) of paving stones was located adjacent to the bitumen; and
- Two (2) active air rental air conditioning units and associated portable electrical units were located in the north-western portion of the site.

7.2 Site Walkover January 2018

At the time of the January 2018 site inspection the northern portion of the site was being utilised by St Hilliers with the following features noted:

- Four demountable buildings used as a site office, induction room, lunch room and toilet block, were located to the north and west of the site;
- A shipping container utilised for storage was located in the north western corner of the site;
- Crushed concrete, brick and blue metal aggregate covered the ground surface of the northern portion of the site;
- A transformer kiosk was located in the south eastern corner of the site;
- Three acetylene cylinders were chained and stored within a cage adjacent to the shipping container;

- A skip bin of rubbish was located to the south eastern corner of the northern portion of the site;
- A leaking pipe suspected to be water was located in the north western corner of the site; and
- The stockpiles of sandy clay, bitumen and paving stones identified during the December 2015 inspection were not noted within the northern portion of the site.

7.3 Subsurface Profile

Prensa (2015) identified fill material across the northern portion of the site to depths ranging from 0.6 metres below ground level (m BGL) to a maximum depth of 0.9 m BGL. The fill was generally consistent across the northern portion of the site and comprised silty gravel at the ground surface, with silty clay at depth.

The fill was underlain by natural pale brown to yellow silty clay with red and grey mottling to a maximum depth of 2.5 m BGL. The natural soil did not contain sulfidic ores or visual evidence of anthropogenic inclusions such as ash, slag or building materials.

7.4 Potential Sources of Contamination

Based on a review of background information and the site inspections, Prensa (2015) considered the following potential sources of contamination to be present onsite:

- Uncontrolled historically imported fill for site levelling;
- Historical use of the site for agricultural purposes;
- Stockpiled soil noted during the initial site walkover (Stockpile SP01);
- Stockpiled bitumen noted during the initial site walkover;
- Crushed aggregate noted during the second site walkover; and
- General rubbish noted during the second site inspection.

8 Previous Investigation Findings

8.1 Summary of Fieldwork – Prensa 2015

Fieldwork was undertaken on the 11th December 2015 and comprised:

- Service locating and concrete coring;
- Progression of five test pits across the northern portion of the site (TP01-TP05) to a depth of between 2.2 and 2.5 m BGL, in natural soil;
- Collection of one surface soil sample from beneath the stockpiled bitumen; and
- Collection of soil samples from stockpile SP01.

8.2 Results

8.2.1 Test Pit Soil Samples

With the exception of heavy metals (arsenic, cadmium, chromium, copper, lead, nickel, and zinc), and PAH (benz(a)anthracene, benzo(a)pyrene, benzo(b)&(k)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Fluoranthene), CoPC in test pit soil samples were detected at concentrations less than the laboratory Practical Quantitation Limit (PQL). No asbestos was detected at the reporting limit of 0.1 g/kg in the samples analysed.

The detected concentrations of metals and PAHs were below the relevant adopted soil assessment criteria for a Commercial land use.

Furthermore, for each sample analysed, CoPC were less than the contaminant threshold value for General Solid Waste without Toxicity Characteristics Leachate Procedure (TCLP) and below the 'other limits' criteria for resource recovery within Brandown Resource Recovery POEO Licence 12618.

8.2.2 Surface Soil Samples

With the exception of selected PAH (benzo(a)pyrene, chrysene, fluoranthene, pyrene), CoPC in the surface soil sample were detected at concentrations less than the laboratory PQL.

The detected concentrations of PAH were less than the adopted soil assessment criteria for a Commercial land use.

Furthermore, for each sample analysed, CoPC were less than the contaminant threshold value for General Solid Waste without Toxicity Characteristics Leachate Procedure (TCLP) and below the 'other limits' criteria for resource recovery within Brandown Resource Recovery POEO Licence 12618.

8.2.3 Stockpile SP01 Soil Samples

With the exception of selected metals (arsenic, cadmium, chromium, copper, lead, nickel and zinc), CoPC were detected at concentrations less than the laboratory PQL.

The detected concentrations of metals were less than the adopted assessment criteria.

9 Discussion

In light of the proposed future mixed uses of site as shop top housing, Prensa (2015) identified:

- It is understood the Prensa 2016 report compared laboratory results against a commercial industrial site use criteria, however given that the northern portion of the site will be utilised as mixed use, shop top housing the more conservative site use criteria of Residential B (residential with limited access to soils) has been adopted. Comparison of laboratory results were less than the more conservative Residential B site use criteria;
- A low potential for significant contamination associated with the historical and current use of the site;
- The storage of the temporary stockpiles of sandy clay (Stockpile SP01) and bitumen at the site are not considered to preclude the use of the northern portion of the site for the proposed mixed use as shop top housing if removed;
- The fill across the site (beneath the surface of the site, as described in section 7) is classified as General Solid Waste and is suitable for disposal as resource recovery to an appropriately licensed facility; and
- The natural soil across the site (beneath the surface of the site, as described in section 7) is classified as Virgin Excavated Natural Material (VENM), which is pre-classified in NSW EPA Waste Classification Guidelines as general solid waste. Furthermore, VENM can be accepted at an appropriately licenced resource recovery facility.

The January 2018 site inspection indicated that the stockpiles identified in the 2015 inspection had been removed off-site. During the January 2018 site walk over a number of demountable buildings were noted on site and the ground surface was covered in aggregate (graded concrete and brick). While no intrusive investigation was undertaken, it is considered unlikely that St Hilliers activities would have caused contamination since the December 2015 fieldwork.

No suspected asbestos containing material was identified within the aggregate during the site walk over.

As part of demobilisation, all aggregate shall be removed from site, to the level of pre-existing soils.

10 Closure

Intrusive investigations to date indicate a low risk of contamination on site that would preclude the use of the site for mixed use as shop top housing.

If you have any queries or require any further information, please contact the undersigned or Darren Fernandez on (02) 8968 2500.

Yours sincerely,



Ellie Jones

Environmental Scientist

Prensa Pty Ltd

Attachments

A – Statement of Limitations

B – Figure

Attachment A: Statement of Limitations

Statement of Limitations

This document has been prepared in response to specific instructions from St Hilliers to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards, practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by St Hilliers and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advise that the report should only be relied upon by St Hilliers and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

Sampling Risks

Prensa acknowledges that any scientifically designed sampling program cannot guarantee all sub-surface contamination will be detected. Sampling programs are designed based on known or suspected site conditions and the extent and nature of the sampling and analytical programs will be designed to achieve a level of confidence in the detection of known or suspected subsurface contamination. The sampling and analytical programs adopted will be those that maximises the probability of identifying contaminants. St Hilliers must therefore accept a level of risk associated with the possible failure to detect certain sub-surface contamination where the sampling and analytical program misses such contamination. Prensa will detail the nature and extent of the sampling and analytical program used in the investigation in the investigation report provided.

Environmental site assessments identify actual subsurface conditions only at those points where samples are taken and when they are taken. Soil contamination can be expected to be non-homogeneous across the stratified soils where present on site, and the concentrations of contaminants may vary significantly within areas where contamination has occurred. In addition, the migration of contaminants through groundwater and soils may follow preferential pathways, such as areas of higher permeability, which may not be intersected by sampling events. Subsurface conditions including contaminant concentrations can also change over time. For this reason, the results should be regarded as representative only.

St Hilliers recognises that sampling of subsurface conditions may result in some cross contamination. All care will be taken and the industry standards used to minimise the risk of such cross contamination occurring, however, St Hilliers recognises this risk and waives any claims against Prensa and agrees to defend, indemnify and hold Prensa harmless from any claims or liability for injury or loss which may arise as a result of alleged cross contamination caused by sampling.

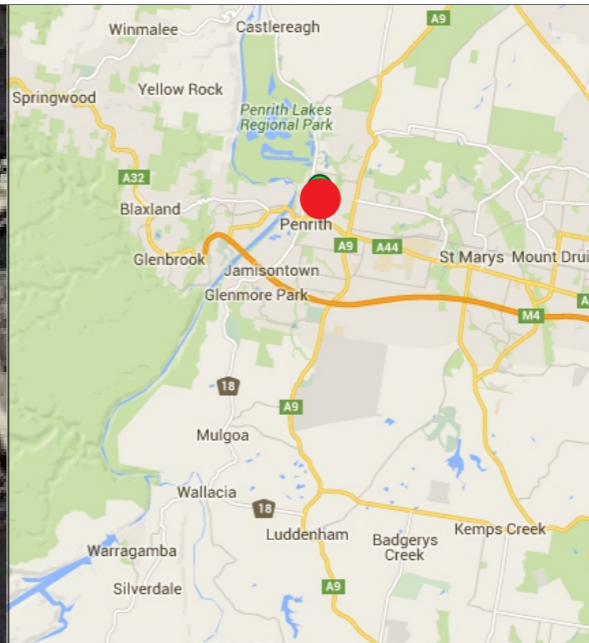
Reliance on Information Provided by Others

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information St Hilliers therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

Recommendations for Further Study

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of St Hilliers and Prensa recognises that that St Hilliers will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of St Hilliers not accepting the recommendations made within this report.

Attachment B: Figure



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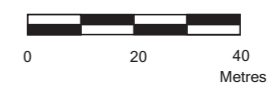
Client:
ST HILLIERS PROPERTY PTY LTD

Project:
PENRITH ENVIRONMENTAL SITE ASSESSMENT

Address:
LORD SHEFFIELD CIRCUIT, PENRITH, NSW

Drawing Title:
SITE LOCATION PLAN

Job No.: 57829 Client No.: S0079



- Legend:**
- Approximate Site Boundary
 - Approximate northern portion of Site Boundary
 - Site Location

Note: All locations are approximate
Image Source: Nearmap
Drawing: 02/12/2015

Drawn by: ERJ	Date: 14/02/2018	Checked by: DMF	Date: 14/02/2018
File name: 57829_Figure	Figure number: 1	Revision: A	

