Douglas Partners
Geotechnics / Environment / Groundwater

Integrated Practical Solutions

Report on
Preliminary Site Investigation for Contamination

Proposed Gosford Regional Library
123A-125B Donnison Street, Gosford

Prepared for
Central Coast Council

Project 83343.01
August 2018

Douglas Partners
Geotechnics / Environment / Groundwater

Document History

Document details

Project No.	83343.01	Document No.	R.001.Rev0
Document title	Report on Preliminary Site Investigation for Contamination Proposed Gosford Regional Library		
Site address	123A-125B Donnison Street, Gosford		
Report prepared for	Central Coast Council		
File name	83343.01.R.001.Rev0.PSI Report		

Document status and review

Status	Prepared by	Reviewed by	Date issued
Revision 0	Brent Kerry	Dean Woods	2 August 2018

Distribution of copies

Status	Electronic	Paper	Issued to
Revision 0	/		Matthew Gallagher, Central Coast Council

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author		2 August 2018
Reviewer		2 August 2018

bsi. ISO 9001 Quality Management
FS 604853

Douglas Partners Pty Ltd
ABN 75 053 980 117
www.douglaspartners.com.au
Unit 5, 3 Teamster Close
Tuggerah NSW 2259
Phone (02) 4351 1422
Fax (02) 4351 1410

Table of Contents

Page

Report on Preliminary Site Investigation for Contamination
Proposed Gosford Regional Library
123A-125B Donnison Street, Gosford

1. Introduction

This report details the methodology and results of a *Preliminary Site Investigation for Contamination* (PSI) undertaken at 123A-125B Donnison Street, Gosford. The investigation was commissioned by Matthew Gallagher of Central Coast Council (CCC) and was undertaken with reference to Douglas Partners Pty Ltd (DP) proposal CCT180066.P.002 dated 15 March 2018.

It is understood that the proposed development will comprise a multi-storey commercial building with two basement levels for car parking. Two main development options are currently being considered and these are further discussed in Section 1.3.

This PSI was undertaken to supplement DP's *Geotechnical Investigation* of the site (DP, 2018 – Ref 1), and provides an initial evaluation of the site contamination conditions and also comments on the provisional waste classification of soil/rock material that may need to be excavated and disposed of off-site as part of the proposed development.

The PSI was undertaken with reference to the staged investigation approach outlined in *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55 – Ref 2) and The *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM, 1999), amended 2013 (NEPC – Ref 3).

1.1 Purpose of Assessment

The objectives of the PSI were to:

- Identify potential sources of contamination due to past and present activities/practices;
- Identify the nature and possible extent of contamination at the site through visual inspection and soil screening, sampling and analysis;
- Assess the suitability of the site for the proposed use with respect to contamination issues;
- Provide advice on further investigation or remediation works (if required); and
- Provide preliminary *in situ* waste classification of subsurface materials that may need to be excavated and disposed of off-site as part of the proposed development.

1.2 Site Identification

A summary of the site identification details are presented in Table 1.

Table 1: Site Identification Details

Identification	Description
Current Land Title	Lot 11 in Deposited Plan 746819 (123B-125A Donnison Street) Lot 100 in Deposited Plan 711850 (123A Donnison Street)
Site Area	Approximately 3,670 m^2
Site Coordinates	North-east corner: 345964mE 6300122mS South-east corner: 345955mE 6300069mS North-west corner: 345901mE 6300132mS South-west corner: 345894mE 6300074mS
Zoning	Current zoning as B3 – Commercial Core
Parish / County / Local Council Area	Gosford / Northumberland / Central Coast Council

Figure 1, below, is a plan of the local area and shows the site in relation to various local features.

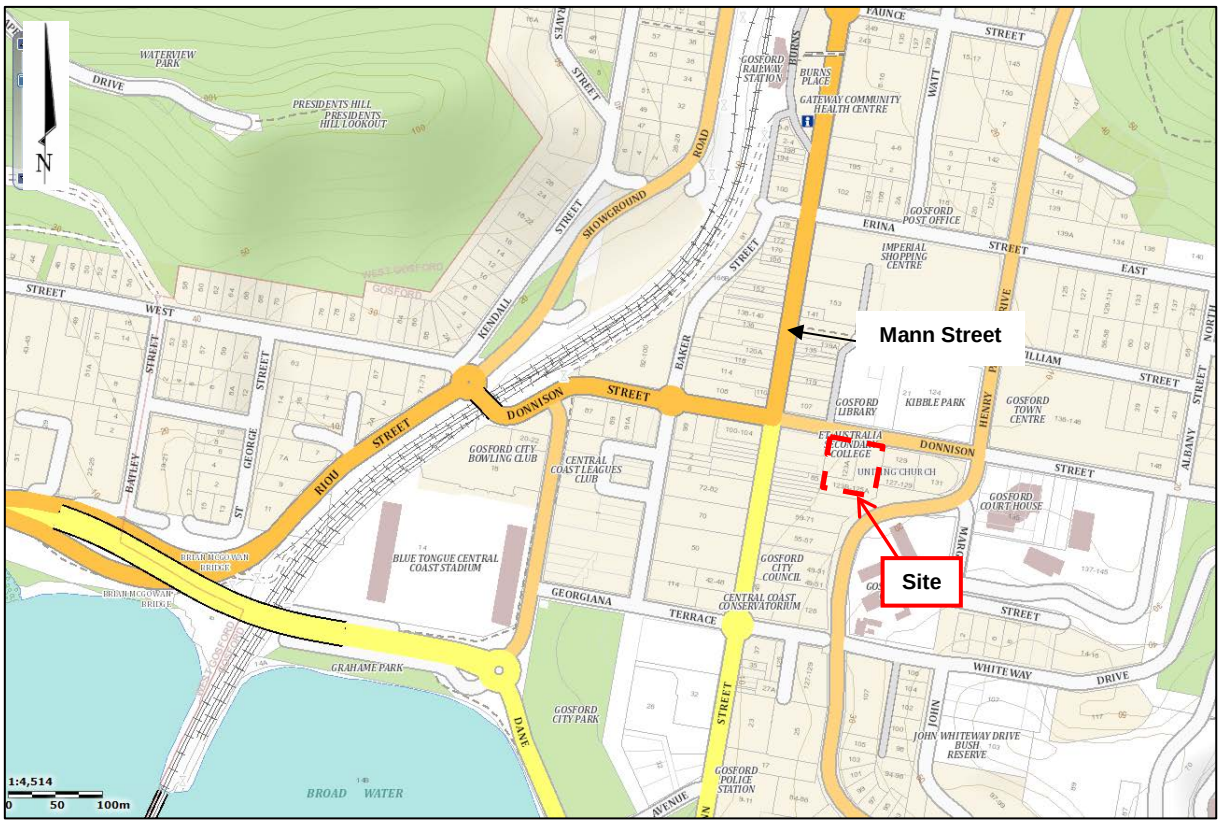


Figure 1: Location of the site within Wadalba (Source: SIX Maps)

Figure 2: Location of the site (Sourced: Nearmap, dated 12 April 2018)

1.3 Proposed Development

At the time of the field work investigation, it was understood that CCC were considering two concept designs for progression to detailed design:

- **Option 1:** Proposed library occupying part of the site (Lot 100 in DP 711850). The development would comprise a three-storey building (with ground floor mezzanine), podium roof, and two levels of basement car parking; and
- **Option 2:** Proposed library, commercial and office space occupying both Lot 100 in DP 711850 and Lot 11 in DP 746819. The development would comprise a three-storey building (with ground floor mezzanine), with a ten-storey central tower, and two levels of basement car parking.

This report assesses the whole assessment area (i.e. both Lots 11 and 100).

Concept drawings for the project indicate that the finished floor level of the lower basement level will be at approximately RL 3.2 AHD for Option 1 and RL 2.0 AHD for Option 2. The footprint of the proposed basement option will extend right up to the boundaries of the developed area for both options.

Based on the concept plans and survey plans provided to DP, excavation depths for Option 1 are expected to be approximately 6.5 m in the north-west corner of the site and up to 12.5 m in the south-east corner. Excavation depths for Option 2 are expected to be approximately 7.5 m in the north-west corner of the site and up to 15 m in the south-east corner.

Ground floor plans and cross sections of Option 1 and Option 2 are presented in Figure 3 and Figure 4, respectively.

Figure 3: Option 1 - Plan of the proposed development (left), cross section (north-south) of the proposed development (right) **(Adapted from drawings provided by Central Coast Council, ref. A100 & A107, dated 29/11/17)**

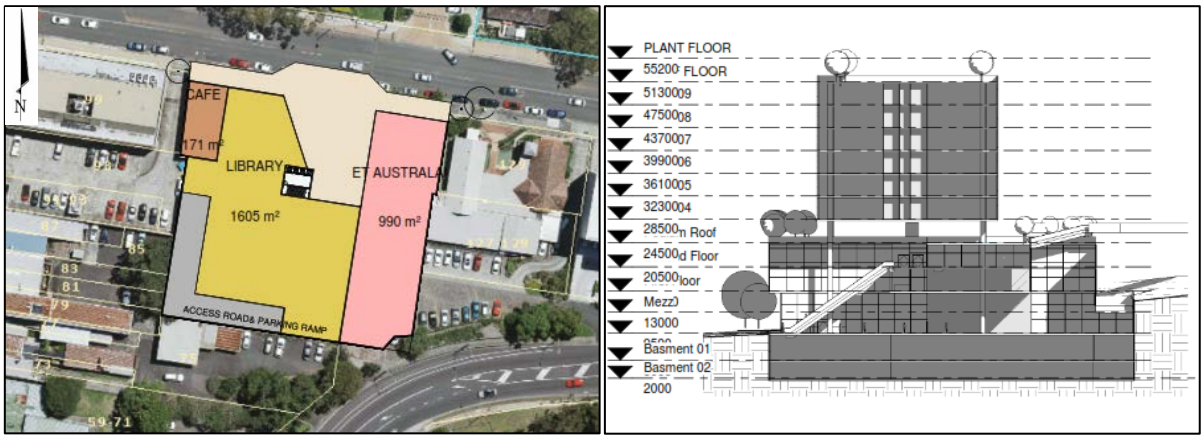


Figure 4: Option 2 - Plan of the proposed development (left), cross section (north-south) of the proposed development (right) **(Adapted from drawings provided by Central Coast Council, ref. A100 & A109, dated 29/11/17)**

2. Scope of Work

The scope of work comprised:

- Collation and interpretation of data from the following sources to assess the environmental setting and update the site historical information:
  - Published data, including topographical, geological and hydrogeological maps;
  - Registered groundwater bore licence search;
  - NSW EPA Contaminated Land and Protection of Environment Operations databases;
  - Central Coast Council (CCC) Property Enquiry Information;
  - SafeWork NSW Storage of Hazardous Chemicals database;

- Historical Title Deed search;
- Historical aerial photographs; and
- Anecdotal site historical information.

- Walkover to update the status of the site;
- Investigations comprising drilling of six test bores (Bores 1 to 6) primarily for geotechnical purposes. It should be noted that investigation locations were limited to accessible external areas, and Bore 3 was drilled within the Donnison Street road reserve (beyond the site boundary). The limited intrusive investigations comprised screening and selective testing of samples for the contaminants of concern identified by the site historical review and walkover; and
- Specifics of the work completed are further detailed in the Sections 7 and 10 of the report.

3. Physical Setting

DP conducted a desktop review of available information regarding the physical setting of the site. The results of that review are summarised in the following sections.

3.1 Topography and Hydrology

Review of the local topographic mapping and site observations indicated that surface levels range from approximately 16 m AHD in the south-east corner of the site to about 7 m AHD in the north-west corner of the site. Topographically the site slopes down towards the north-west, however due to existing developments on the site, the current ground surface levels have been altered by cut and fill processes.

Surface water would generally be expected to drain into the local stormwater system then then flow west and then south to eventually discharge into Brisbane Water (Broad Water) located approximately 600 m to the south of the site.

3.2 Adjacent Site Uses

Surrounding land uses include the following:

- North (down slope) – Gosford Library and Kibble Park;
- East (across and up slope) – Uniting Church, administration building and car parking;
- South (up slope) – Commercial property (car parking) and Henry Parry Drive; and
- West (down slope) – Commercial property (car parking).

The potential for contamination from existing off-site land uses or activities to have impacted the site is considered to be relatively low.

A walkover of the adjacent sites was not undertaken as part of this PSI.

3.3 Regional Geology and Soil Landscape

The local geological mapping indicates that the site is underlain by the Terrigal Formation belonging to the Gosford Subgroup of the Triassic Aged Narrabeen Group. The Terrigal Formation typically comprises interbedded laminite, shale, fine to coarse grained sandstone, and claystone with residual soils derived from the weathering of these rocks. Quaternary Alluvium is mapped approximately 20 m north-west of the site and typically comprises silts, sands, gravels and clays.

Reference to the local soil landscape mapping indicates that the site is generally underlain by Erina erosional soil landscape (identified as er in Figure 5). Notwithstanding, the northern portion of the site is mapped as being underlain by disturbed terrain (identified as xx in Figure 5).

Local knowledge and the site walkover observations indicated that subsurface conditions would more likely be consistent with Erina soil landscape with residual clayey soils underlain by Terrigal Formation sandstone or siltstone.

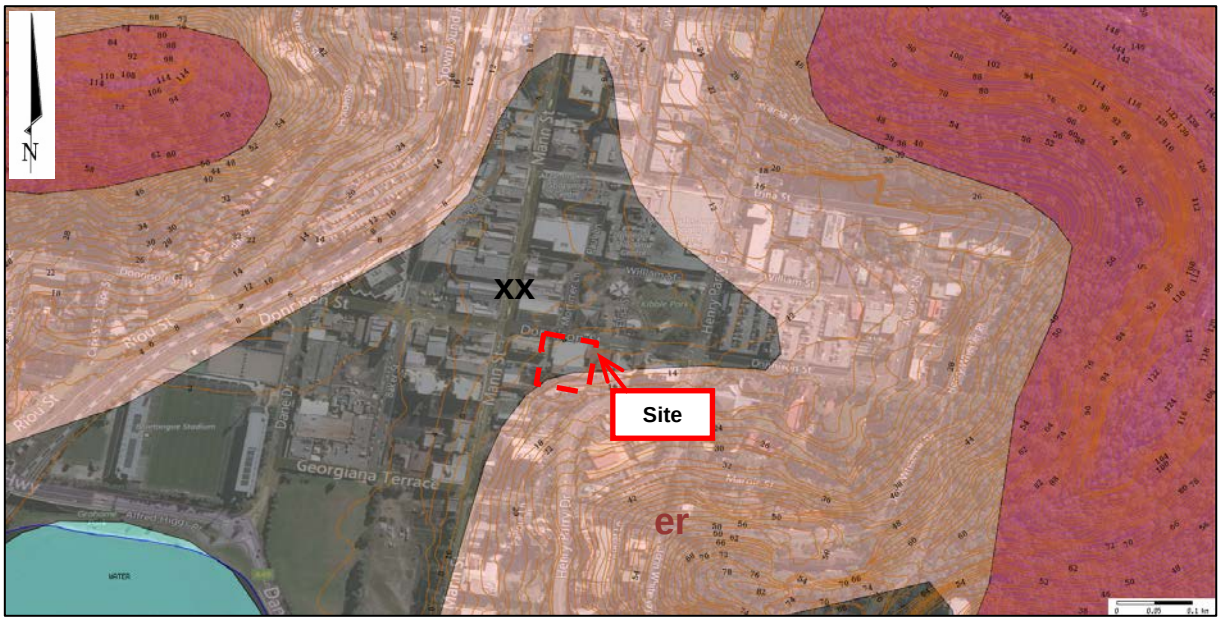


Figure 5: Site Soil Landscape Mapping

(Source: Microsoft Virtual Earth with Gosford-Lake Macquarie 1:100,000 Soil Landscapes Sheet overlay)

3.4 Acid Sulfate Soils

The local acid sulfate risk mapping indicates that the site is located in an area mapped as having no known occurrence of acid sulfate soils. It was noted, however, that the soil landscape mapping identified that disturbed terrain in the northern portion of the site. Disturbed terrain in the local area is known to have a risk of being affected by acid sulfate soils.

An acid sulfate soil assessment was completed as part of the geotechnical investigation (Ref 1); with the assessment concluding that acid sulfate soils are not present within the depth of investigation. Therefore, excavations for the proposed development could be undertaken without reference to an acid sulfate soil management plan.

3.5 Groundwater

Given the site's topography and geology, it is considered unlikely that a permanent groundwater table is present at relatively shallow depth (i.e. less than 2 m depth). Intermittent seepage may however be encountered at localised permeability boundaries such as at the interface of filling and natural soils, sand and clay soils or at the weathered rock interface following periods of wet-weather. It should be noted that groundwater levels are potentially transient and can be affected by factors such as soil permeability and recent weather conditions.

Figure 6 is a street map of the local area and shows the site in relation to the local registered groundwater bores.

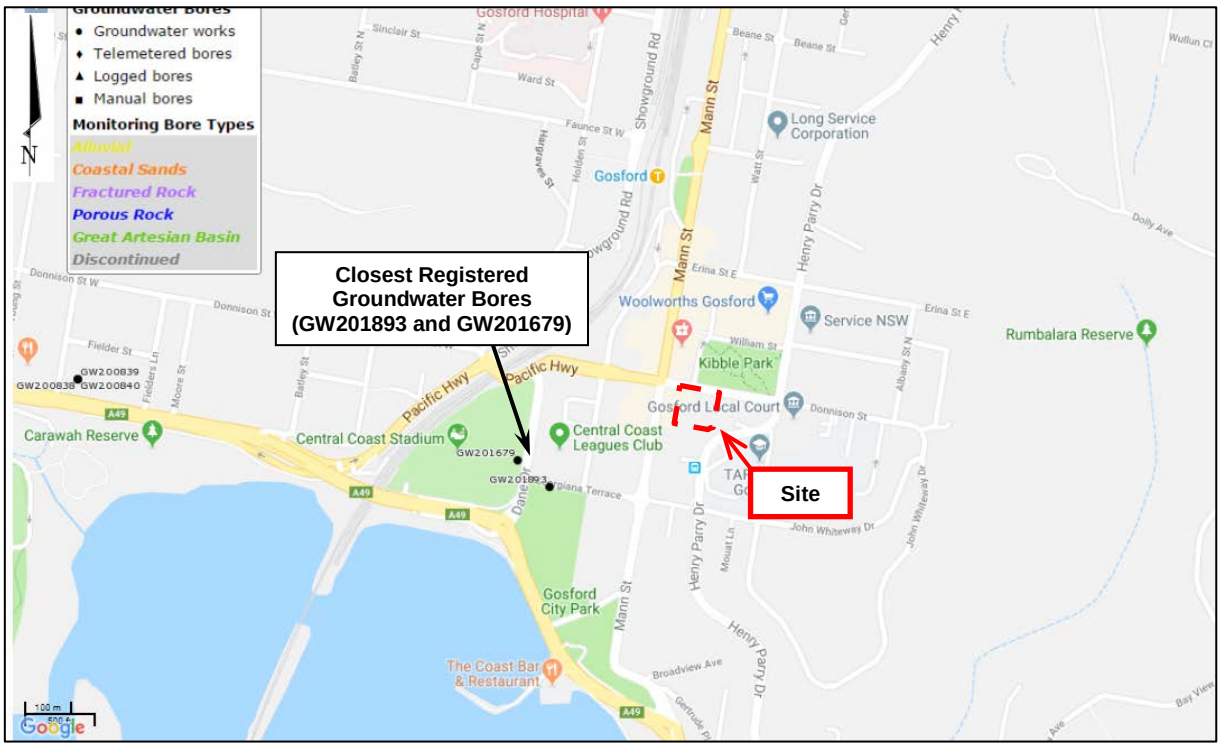


Figure 6: Registered Groundwater Bores

(Source: Microsoft Virtual Earth with NSW Office of Water Registered Groundwater Bore location overlay)

A search for registered groundwater bores in the WaterNSW website, dated July 2018, indicated that there are two registered groundwater bores within a 500 m radius of the site. The information available from the reports suggests that the bores were installed for irrigation purposes; however, only one of the bore licenses was active. A copy of the search results is provided in Appendix C. Given the site topography and subsurface conditions, it is considered unlikely that any potential groundwater contamination from the site would impact the any registered groundwater bores.

4. Site History

4.1 Regulatory Notices Search

The NSW EPA Register of Contaminated Land was searched for any Regulatory Notices that may be current on the site issued under the *Contaminated Land Management (CLM) Act* 1997 and Section 308 of the *Protection of the Environment Operations (POEO) Act* 1997. The information obtained at the time of preparing this report indicated that no current or previous Licences, Notices or Orders were applicable for the site.

4.2 Information from Council Enquiries

As part of this investigation an enquiry was made through Central Coast Council's (CCC) web site. The information obtained relates to applications/approvals dating back to 1981 for Lot 100 and 1984 for Lot 11. The results of the enquiry indicate that several applications have been submitted for the lots, generally indicating several stages of commercial development (initially possibly shops then offices); however, Lot 100 had a past use listed as furniture and building material shop in 1981.

The information obtained from Council's Geocortex database (dated 21 May 2018) indicated that neither of the lots is identified as contaminated land.

A copy of the information obtained is provided in Appendix B.

4.3 WorkCover Dangerous Goods Licences

As part of the PSI, DP completed a search of the Stored Chemical Information Database (SCID) held by SafeWork NSW (formerly WorkCover NSW). SafeWork NSW reported that they did not locate any records pertaining to the site.

A copy of the application search result is provided in Appendix B.

4.4 Historical Title Deed Information

A historical title deeds search was carried out by InfoTrack Pty Ltd, the results of which are provided in Appendix B. Numerous ownership records were received; however, the significant ownership records (from a site contamination standpoint) are summarised below:

Lot 100

- Part of the lot was owned by Thomas Robert Hill (Orchardist) from 1920 to 1943;
- Part of the lot was owned by Robert William Boddenberg (Tyre Retreader and Garage Proprietor) from 1946 to 1965;
- Part of the lot was owned by Advanx (Gosford) Motor Service Pty Ltd (Motor Vehicle Servicing) from 1956 to 1965;
- The whole lot was owned by Westfield Development Corporation and then other companies and collective group of individual (no details of usage available) from circa 1965 to 2000; and
- The whole lot was then acquired by Council in 2000 (current owners).

Lot 11

- Part of the lot was owned by William White (timber dealer) from 1894 to 1966;
- Part of the lot was owned by Thomas Robert Hill (Orchardist) from 1920 to 1956;
- Part of the lot was owned by Robert William Boddenberg (Garage Proprietor) from 1953 to 1965;
- Part of the lot was owned by Advanx (Gosford) Motor Service Pty Ltd (Motor Vehicle Servicing) from 1956 to 1965;
- The majority of the lot was owned by Westfield Development Corporation and then other companies and individuals (no details of usage available) from circa 1965 to 2017 (suspected commercial usage); and
- The whole lot was then acquired by Employment and Training Australia Incorporated (current owners).

Several leases or easements were identified by the search; however, none were considered to be significant to the contamination status of the site.

Overall, the search indicated that the site may have originally had an orchard use, prior to being at least in-part developed for a mechanics workshop (circa 1946), then possibly redeveloped for commercial uses (circa 1965). Both lots currently have commercial (office) uses.

4.5 Historical Aerial Photographs

Historical aerial photographs were reviewed dating back to the earliest available record (1954) and approximately every 10 to 20 years thereafter to assess any major changes to the site and surrounding areas during this period. The following historical aerial photographs were reviewed:

- Photograph – Gosford Run 11G, dated 17.05.54;

- Photograph – Gosford – Lake Macquarie NSW Run 10, dated 08.03.66;
- Photograph – Gosford NSW Run 7, dated 28.05.75;
- Photograph – Gosford NSW Run 12, dated 12.09.94;
- Photograph – Gosford NSW Run 12, dated 16.03.02;
- Photograph – Google Earth Image, dated 02.12.2010; and
- Photograph – Google Earth Image, dated 11.08.2016.

Extracts of the 1954, 1966, 1975 and 1994 historical aerial photographs are included as Drawing 2 in Appendix B. Table 2 summarises the observations made during the aerial photograph review.

Table 2: Aerial Photograph Review

Year	Site	Surrounding Land Use
1954	Lot 11 appears to be occupied by a number of small buildings generally in the north and east portions, whilst the south-west portion appears to be possibly grass surfaced with a large tree. Lot 100 appears to be occupied by two or three larger buildings.	The local area appears to comprise possibly a mix of commercial properties (east and north), residential properties (west) and warehouses (south). No intensive agricultural uses were identified on adjacent properties.
1966	Lot 100 appears to be occupied by one large building. Lot 11 appears to be occupied by possibly smaller buildings (or a construction site) and a vehicle access track/road. The photograph quality is poor.	This photograph is of poor quality which limits the comments that can be made. Surrounding areas appear to be in-part developed for primarily commercial uses (based on building sizes).
1975	Lot 100 appears to be occupied by one large building. Lot 11 appears to be occupied by possibly smaller buildings (or a construction site or car parking).	No significant changes were observed, other than an overall increase in development in the local area.
1994	Lot 100 appears to be occupied by one large building, although the dimensions may have slightly changed in association with the construction of a new building in the north-east portion of Lot 11. The southern portion of Lot 11 appears to be a car parking area. The general building layout now appears to be consistent with that observed during the site walkover.	Surrounding areas appear to have mixed commercial and community uses consistent with that observed during the walkover.
2002	No significant changes were observed.	No significant changes were observed.
2010	No significant changes were observed.	No significant changes were observed.
2016	No significant changes were observed.	No significant changes were observed.

4.6 Other Historical Information

As part of the site history review a search of the National Library of Australia (www.trove.nla.gov.au) was completed. A single photograph of the site was retrieved dated 1967. The photograph identifies a Coles New World Supermarket on Lot 100 and a construction site (possibly a commercial (retail) building) on Lot 11. Figure 7 is a copy of the photograph.

Figure 7: Photograph of the site (dated 3 September 1967), taken from the northern side of Donnison Street facing south-east. The existing Uniting Church is visible in the background (left). (Source: www.trove.nla.gov.au)

5. Site Walkover

The following is a summary of site features observed during the site walkover undertaken by a Senior Environmental Engineer as part of the PSI. The walkover was undertaken on 21 March 2018, immediately following the completion of the preliminary intrusive investigations primarily for geotechnical purposes.

At the time of the PSI, the site comprised existing two-level commercial buildings occupying the entirety of Lot 100 and the northern section of Lot 11. The southern portion of Lot 11 contained private car parking spaces.

Photographs of the site are shown in Figures 8 to 11.

Figure 8: Photograph of the northern side of the site, taken from the northern side of Donnison Street, looking south-west

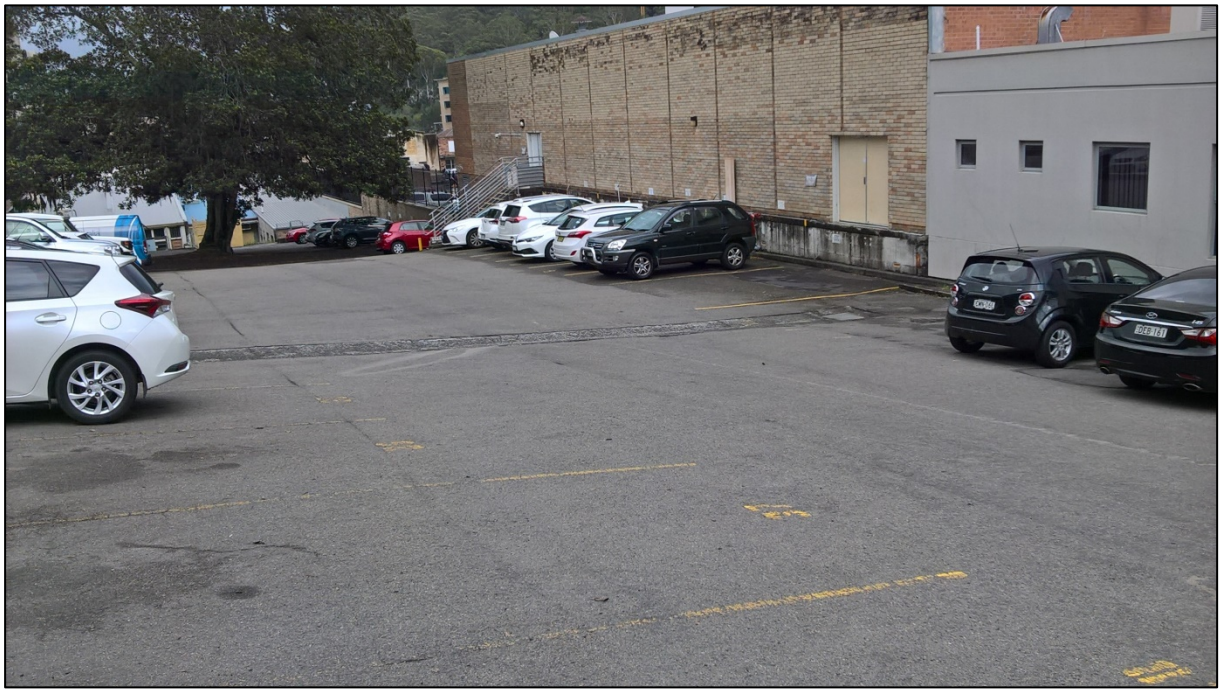


Figure 9: Photograph of the southern side of the site, taken from the south-eastern corner of the site, looking west

Figure 10: Photograph of the southern side of the site, taken from the south-western corner of the site, looking east

The following tenants were identified to be occupying the commercial (office) buildings at the time of the walkover:

- ET Australia Training College (Lots 11 and 100);
- Community Corrections Gosford Office (Lot 11);
- Indivia Australia (accountants) (Lot 11);
- Apprenticeship Centre (Lot 100);
- Regional Youth Support Services (Lot 100);
- Step Towards Employment Program (Lot 100);
- After Care Resource Centre (Lot 100);
- Options Disability Support (Lot 100); and
- Coastal Accommodation Service Supporting Youth (Lot 100).

In summary, the existing tenants appeared to utilise the site for commercial (office, educational and community services) purposes, and these existing uses are considered not to have any direct significant impact on the site's contamination status. The private internal areas of the buildings were not accessed at the time of the walkover.

The walkover identified that the site was almost entirely covered with either the building footprints or sealed pavements (asphalt, pavers or concrete). Furthermore, based on ground levels in surrounding areas and existing developments on the site; the existing ground surface levels are suspected to have been altered by cut and fill processes.

6. Preliminary Conceptual Site Model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying how the site became contaminated and how potential receptors may be exposed to contamination either in the present or the future i.e. it enables an assessment of the potential source – pathway – receptor linkages (complete pathways).

6.1 Potential Contamination Sources and Contaminants of Concern

Table 3 summarises the potential sources of contamination and associated contaminants of concern that have been identified at the site.

Table 3: Potential Contamination Sources and Contaminants of Concern

Potential Contamination Source/Activity	Description of Potential Contaminating Activity	Primary Potential Contaminants of Concern
Importation and/or placement of contaminated filling	Importation of filling is possible based on site observations and past site development.	Various - Common contaminants associated with imported filling are metals (As, Cd, Cr, Cu, Pb, Hg, Ni and Zn), TRH, BTEX, PAH, PCB, OCP and asbestos
Construction and demolition of buildings and structures	Historical review has identified the presence of buildings and structures at the site. The review has also identified possible past reconstruction/renovation/demolition of structures.	Metals, OCP and asbestos
Use/storage of oils/chemicals	Historical review has identified the possible past uses/activities including orchards, timber dealer, tyre retreader, garage proprietor and motor vehicle servicing.	Metals, TRH, BTEX, PAH, phenols, VOC and OCP

Notes:
As = arsenic, Cd = cadmium, Cr = chromium, Cu = copper, Pb = lead, Hg = mercury, Ni = nickel and Zn = Zinc
TRH = total recoverable hydrocarbons, BTEX = benzene, toluene, ethylbenzene and xylene, PAH = polycyclic aromatic hydrocarbons, PCB = polychlorinated biphenyls, VOC = volatile organic compounds, OCP = organochlorine pesticides

The potential contamination sources (S) on and adjacent to the site are therefore as follows:

- S1 – Contaminated filling;
- S2 – Construction and demolition of buildings and structures; and
- S3 – Use and storage of oil/chemicals.

6.2 Potential Receptors of Concern

The potential receptors of contamination sourced from the site are considered to be:

- R1 – Site users (current and future commercial use);
- R2 – Land users in adjacent areas (generally commercial and recreational uses);
- R3 – Terrestrial ecology;
- R4 – Surface water (Brisbane Water);
- R5 – Groundwater; and
- R6 – Property.

6.3 Potential Pathways

The pathways by which the potential sources of contamination could reach potential receptors are described below:

- P1 – Ingestion and dermal contact;
- P2 – Inhalation of dust and/or vapours;
- P3 – Leaching of contaminants into groundwater and lateral migration of groundwater;
- P4 – Surface water runoff; and
- P5 – Direct contact with terrestrial ecology / property.

6.4 Conceptual Site Model

A ‘source–pathway–receptor’ approach has been used to assess the potential risks of harm being caused to human, water or environmental receptors from contamination sources on or in the vicinity of the site, via exposure pathways. The possible pathways between the above sources and receptors are described in Table 4.

Table 4: Conceptual Site Model

Source	Pathway	Receptor
S1 - Contaminated filling. S2 - Construction and demolition of buildings and structures. S3 - Use and storage of oil/chemicals.	P1 - Ingestion and dermal contact	R1 - Site users (future)
	P2 - Inhalation of dust and/or vapours	R1 - Site users R2 - Adjacent site users
	P3 - Leaching of contaminants into groundwater and lateral migration of groundwater	R4 - Surface water (Brisbane Water) R5 - Groundwater
	P4 - Surface water runoff	R4 - Surface water (Brisbane Water)
	P5 – Contact with terrestrial ecology / property	R3 - Terrestrial ecology R6 - Property

An intrusive investigation is required to assess for possible contamination. Given the preliminary stage development planning and limited site access, the client elected to limit investigations to screening and testing of site soils from the geotechnical investigation locations. This scope provides an initial evaluation of the site contamination conditions and would inform a detailed site investigation (if undertaken).

7. Sampling and Analysis Plan and Methodology

7.1 Data Quality Objectives

This PSI has been devised in general accordance with the seven step data quality objective (DQO) process which is provided in Appendix B, Schedule B2 of NEPC (2013). The DQO process is outlined as follows:

- State the problem;
- Identify the decision;
- Identify inputs into the decision;
- Define the boundary of the assessment;
- Develop a decision rule;
- Specify acceptable limits on decision errors; and
- Optimise the design for obtaining data.

Referenced sections for the respective DQOs listed above are provided in Appendix G.

7.2 Data Quality Indicators

The performance of the assessment in achieving the DQO was assessed through the application of data quality indicators (DQI) as defined by:

Precision: A quantitative measure of the variability (reproducibility) of data;

Accuracy: A quantitative measure of the closeness of reported data to the "true" value;

Representativeness: The confidence (expressed qualitatively) that data are representative of each media present on the site;

Completeness: A measure of the useable data from a data collection activity; and

Comparability: The confidence (expressed qualitatively) that data can be considered equivalent for each sampling and analytical event.

Further comments on the DQIs are presented in Appendix G.

7.3 Summary of Field Methodologies

Field investigations were carried out by DP's Mr Matthew Harrison (Engineering Geologist), on 19 and 20 March 2018. Investigations comprised the following activities:

- Drilling of boreholes (Bores 1 to 6) using a track mounted drilling rig equipped with continuous flight augers for drilling in soils and diamond rock coring equipment for coring in rock. The bores were drilled to depths of between approximately 2.0 m and 14.5 m;
- Collection of soil samples from each borehole at the surface or immediately underlying surface pavements and then approximately 0.5 – 1.0 m depth intervals or changes in soil strata / signs of potential contamination; and
- Collection of additional soil samples for quality control purposes.

7.4 Soil Sampling

7.4.1 Sampling Rationale

Primarily a broad-grid spaced sampling rationale was completed across the site with sampling locations limited to accessible external areas that were clear of in-ground services. Bore 3 was drilled within the Donnison Street road reserve (beyond the site boundary) and therefore samples from this location were not submitted for laboratory testing.

The number of sampling points undertaken for the PSI was less than the recommended number of sampling points required for site characterisation as required by *Contaminated Sites: Sampling Design Guidelines* (NSW EPA 1995 – Ref 4). This scope provides an initial evaluation of the site contamination conditions and would inform a more detailed site investigation (if undertaken).

Filling and/or near surface soils were typically targeted for sampling and laboratory testing. The approximate borehole locations are shown on Drawing 1, Appendix B.

7.4.2 Soil Methodology and Handling

All soil sampling was performed with reference to industry standard operating procedures. All sampling data was recorded on borehole log sheets. The general sampling procedure comprised the following:

- Collecting soil samples directly from the auger flight or split-spoon sampling tube using disposable gloves or stainless steel sampling equipment. Care was taken to remove any extraneous material deposited on the auger. Identification of the sampling method for each sample was recorded on the individual borehole logs, Appendix E;
- Changing of disposable gloves between each sampling event to prevent cross contamination;
- Decontaminating all sampling equipment using a 3% solution of phosphate free detergent (liquinox) and tap water. Sampling equipment was given a final rinse with deionised water prior to collecting each sample;
- Transferring samples into laboratory-prepared glass jars and capping immediately;
- Field screening of replicate soil samples collected in sealed plastic bags for Total Photoionisable Compounds (TOPIC) using a calibrated PID;
- Labelling sample containers with individual and unique identification, including project number, sample location and sample depth;
- Placing the glass jars into a cooled, insulated and sealed containers while on site;
- Using chain of custody (COC) documentation enabling sample tracking and custody to be cross-checked at any point in the transfer of samples from the field to the laboratory; and
- Dispatching samples to Envirolab Services Pty Ltd (Envirolab), accredited by NATA, was employed to conduct the sample analysis. The laboratory is required to carry out in-house QA/QC procedures.

7.5 Rationale for Selection of Laboratory Analyses

A total of 38 primary soil samples were collected during field investigations, nine samples were sent to Envirolab Services, 12 Ashley Street, Chatswood, NSW. In addition, a single blind replicate soil samples (QA1) and a rinsate blank (RB1) were analysed by Envirolab for QA purposes. Envirolab is accredited by NATA for the tests undertaken.

Selected soil samples were analysed for a range of contaminants of potential concern, as described in Section 6. The rationale for selection of samples for laboratory testing was informed by the CSM and was generally based on site observations (e.g. presence of anthropogenic inclusions, evidence of disturbance, etc.), PID readings and their location within the subsoil strata (i.e. filling or natural). For this site, filling and/or near surface soils were typically targeted for laboratory testing.

8. Quality Assurance and Quality Control

Quality assurance (QA) and quality control (QC) measures were implemented throughout the investigation. This was achieved by defining the data quality objectives (DQOs – Section 7.1) for the project based on the CSM prior to the commencement of field investigations. All QA/QC information was then evaluated against the DQOs and is summarised in Appendix G.

9. Site Assessment Criteria

9.1 Soil Contamination

The Site Assessment Criteria (SAC) applied in the current investigation are informed by the CSM that has provisionally identified human and environmental receptors to potential contamination on the site (refer to Section 6). It understood that development plans are at a preliminary conceptual stage and may change from what is currently proposed. Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1, *National Environment Protection (Assessment of Site Contamination) Measure* 1999, as amended 2013 (NEPC 2013 – Ref 2).

The investigation and screening levels adopted in the current assessment comprise levels which apply to a generic commercial / industrial use scenario. The adopted SAC are listed in Appendix D.

9.2 Waste Classification

The preliminary *in situ* waste classification was generally conducted in accordance with NSW EPA *Waste Classification Guidelines – Part 1: Classification of Waste*, November 2014 (EPA, 2014 – Ref 5).

Waste classification of the material was conducted with reference to the six step process as set out in NSW EPA (2014). Contaminant threshold values for the waste classification are presented in Table 6.

With respect to natural materials underlying the filling, EPA (2014) defines Virgin Excavated Natural Material (VENM) as:

Natural material (such as clay, gravel, sand, soil or rock fines):

- *that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or process residues, as a result of industrial, commercial, mining or agricultural activities; and*
- *that does not contain any sulfidic ores or soils or any other waste, and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette."*

General reference was also made to The *Excavated Natural Material Order 2014* (EPA, 2014a – Ref 6). The maximum concentration values (for comparative purposes only) are presented in Table 6.

10. Field Work Results and Observations

Results of the field work are summarised below and are included in the borehole logs, Appendix E. These logs should be read in conjunction with the attached notes which define the descriptive terms and classification methods used.

Pavement Surfacing and Road Base Filling	Asphalt, spray seal, pavers or concrete surface layer underlain by a generally grey sandy gravel road base was encountered to a maximum depth of 0.3 m.
Filling	Grey silty sand or dark brown clayey silty sand or yellow/brown sand with some gravel filling encountered in Bores 1, 2, 5 and 6 is suspected to be reworked site-sourced soils. The suspected reworked filling was encountered in four of the six bores to depths ranging between 0.5 m and 1.3 m; underlain by
Natural Soil	Natural soils typically comprised brown/yellow sand or clayey sand underlain by red/orange/brown/grey sandy clay then clay. The presence of the upper sandy profile is suspected to be dependent on whether the current ground surface is positioned within an area of cut as a result of past development activities.
SANDSTONE/SILTSTONE	Weathered sandstone/siltstone bedrock was typically encountered at depths ranging between 3.0 and 5.8 m.

Trace quantities of anthropogenic inclusions were encountered in the filling at Bore 6 (only) and comprised trace quantities of plastic and glass. No soil staining or odours were observed during the walkover or at the test bore locations.

Free groundwater was not observed in the boreholes whilst auger drilling in soils and the introduction of drilling fluids into the boreholes during rock coring prevented groundwater observations being made. It is noted that monitoring of groundwater levels was undertaken on 19 April 2018 as part of the geotechnical investigation following a period of relatively dry weather. At that time, standing groundwater was measured at 6.3 m depth in Bore 2 (RL 5 m AHD) and 2.25 m depth in Bore 3 (RL 6.25 m AHD). It should be noted that groundwater levels are variable and can be affected by factors such as soil permeability and recent climatic conditions, and can vary with time.

10.1 Photoionisation Detector Results

Replicates for all soil samples were collected in plastic bags and allowed to equilibrate under ambient temperatures before screening for Total Photoionisable Compounds (TOPIC) using a PID. The PID was calibrated each day prior to use using ambient air as the “zero” air (0.0 ppm) and isobutylene at a concentration of 100 ppm as the calibration “span” gas.

Field measurement of TOPIC indicated relatively low results of less than 1 ppm. The recorded readings were not considered to be indicative of potentially significant volatile organic compound contamination and are considered to fall within background levels. The results of sample screening

are shown on the borehole logs in Appendix E. It is noted that the PID results were consistent with general observations made during the field work.

11. Laboratory Testing

11.1 Soil Contamination Laboratory Results

The soil contamination laboratory test results are summarised below in Tables 5 and 6.

Table 5: Results of Soil Analysis (All results in mg/kg unless otherwise stated)

Sample ID	Depth (m)	PID (ppm)	Heavy Metals								PAH				TRH				Benzene	Toluene	Ethylbenzene	Total Xylene	PCB[2]	Total Phenols	OCP[2]	Asbestos
			As	Cd	Cr[1]	Cu	Pb	Hg	Ni	Zn	B(a)P	B(a)P TEQ	Naphthalene	total[2]	F1 (C_6-C_{10})	F2 (>C_{10}-C_{16})	F3 (>C_{16}-C_{34})	F4 (>C_{34}-C_{40})								
1/0.5	0.5	<1.0	ND	ND	3	ND	8	ND	ND	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/0.1	0.1	<1.0	ND	ND	14	71	5	ND	52	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/0.5	0.5	<1.0	ND	0.7	12	46	380	0.8	8	140	0.07	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/1.0	1.0	<1.0	ND	ND	4	ND	8	ND	ND	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/0.25	0.25	<1.0	ND	ND	25	20	7	ND	21	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/0.5	0.5	<1.0	ND	ND	19	5	10	ND	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/0.5	0.5	<1.0	ND	ND	8	6	5	ND	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/0.2	0.2	<1.0	6	5.5	10	79	290	5	14	**4600**	0.1	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**Chrysotile asbestos detected**
6/0.7	0.7	<1.0	ND	ND	5	2	7	ND	1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PQL			4	0.4	1	1	1	0.1	1	1	0.05	0.5	0.1	0.1	25	50	100	100	0.5	0.5	1	2	0.1		0.1 (individual)	0.1g/kg
Site Assessment Criteria (SAC)																										
HIL D[3]			3,000	900	3,600	240,000	1,500	730	6,000	400,000	NC	40	NC	4,000	NC	NC	NC	NC	NC	NC	NC	NC	7		45/530/3600/50 [7]	NC
HSL D[3]			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NL	NC	260	NL	NC	NC	3	NL	NL	230	NC		NC	0.001%
EIL / ESL [4]			160	NC	530	150	1,800	NC	60	440	1.4	NC	370	NC	215	170	1,700	3,300	75	135	165	180	NC		640 (DDT)	NC
Management Limits [3]			NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	700	1,000	3,500	10,000	NC	NC	NC	NC	NC		NC	NC

Notes:

1	All Chromium are assumed to exist in the Cr(III), how ever the HIL SAC adopted has been conservatively assumed to be that for Cr(IV)
2	Where analytical results below laboratory practical quantitation limit (PQL) for all compounds, results quoted as ND
3	Health based investigation/screening or management levels for commercial / industrial land use
4	Ecological based investigation/screening or management levels for commercial / industrial land use
5	OCP thresholds given in order Aldrin+Dieldrin/Chlordane/ DDD+DDE+DDT/Endosulfan/Endrin/Heptachlor/HCB/Methoxychlor
6	OCP threshold based on DDT concentration only
7	OPP threshold for Chlorpyrifos only
CEC	Cation Exchange Capcity
ND	Not detected at reporting limit
NL	Not limiting
-	not analysed / not applicable
PQL	Laboratory practical quantitation limit
Bold	Exceedes Guidelines
FC	Fibrous Cement Material Sample

Table 6: Results of Waste Classification Analysis Compared Against Waste Classification Guidelines (All results in mg/kg unless otherwise stated)

Sample ID	Depth (m)	Sample	PID (ppm)	Metals								PAH		TRH		BTEX				PCB[2]	Total Phenols	OCP[2]	Asbestos
				Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	B(a)P	total[2]	C6-C9	C10-C36	Benzene	Toluene	Ethylbenzene	Total Xylene				
1/0.5	0.5	F	<1.0	ND	ND	3	ND	8	ND	ND	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/0.1	0.1	F	<1.0	ND	ND	14	71	5	ND	***52***	31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/0.5	0.5	F	<1.0	ND	0.7	12	46	***380***	0.8	8	140	0.07	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2/1.0	1.0	N	<1.0	ND	ND	4	ND	8	ND	ND	6	-	-	-	-	-	-	-	-	-	-	ND	-
4/0.25	0.25	F	<1.0	ND	ND	25	20	7	ND	21	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4/0.5	0.5	N	<1.0	ND	ND	19	5	10	ND	5	5	-	-	-	-	-	-	-	-	-	-	ND	-
5/0.5	0.5	F	<1.0	ND	ND	8	6	5	ND	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6/0.2	0.2	F	<1.0	6	5.5	10	79	***290***	***5***	14	***4600***	0.1	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	***Chrysotile asbestos detected***
6/0.7	0.7	N	<1.0	ND	ND	5	2	7	ND	1	19	-	-	-	-	-	-	-	-	-	-	ND	-
QA1	6/0.7	N	<1.0	ND	ND	5	8	7	ND	2	25	-	-	-	-	-	-	-	-	-	-	-	-
PQL				4	0.5	1	1	1	0.1	1	1	0.05	0.1	25	250	0.5	0.5	1	3	0.6	<5	0.1 (individual)	0.01
Excavated Natural Material[3]				40 [20]	1 [0.5]	150 [75]	200 [100]	100 [50]	1.0 [0.5]	60 [30]	300 [150]	1 [0.5]	40 [20]	NC	40 [20]	0.5 (NC)	65 (NC)	25 (NC)	15 (NC)	NC	NC	NC	Free of Asbestos
General Solid Waste[4]				100	20	100	NC	100 (5)	4	40	NC	0.8	200	650	10,000	10	288	600	1,000	50	288	50	Free of Asbestos
Restricted Solid Waste[4]				400	80	400	NC	400 (20)	16	160	NC	3.2	800	2,600	40,000	40	1,152	2,400	4,000	50	1152	50	Free of Asbestos

Notes:

1 All Chromium are assumed to exist in the stable Cr(III) oxidation state, as Cr(VI) will be too reactive and unstable under the normal environment

2 Where analytical results below laboratory practical quantitation limit (PQL) for all compounds, results quoted as <PQL of most compounds

3 The excavated natural material order 2014 issued under the Protection of the Environment Operations (Waste) Regulation 2014 – General Exemption Under Part 9, Clause 93. Threshold values presented as Absolute Maximum Concentration & [Maximum Average Concentration for Characterisation]

4 Waste Classification Guidelines Part 1: Classifying Waste (Leachable concentration mg/L)

5 OCP thresholds given in order Aldrin+Dieldrin/Chlordane/ DDD+DDE+DDT/Heptachlor

PQL Practical Quantitation limits

- not analysed / not applicable

Bold Exceedes Guidelines

12. Discussion of Results

12.1 Soil Contamination Results

Soil samples tested generally reported contaminant concentrations below the adopted health-based SAC and ecological-based SAC (Appendix D) for a commercial land use, with the exception of the following sample.

- A sample of suspected reworked site-sourced filling collected from Bore 6 (i.e. Sample 6/0.2) reported a positive asbestos identification result (i.e. chrysotile asbestos in matted material in soil) and also a zinc concentration of 4,600 mg/kg which is above ecological-based SAC (Ref 3). The zinc concentration was below the human health-based investigation level of 7,400 mg/kg. The positive asbestos result and elevated metal concentrations are consistent with the observed anthropogenic inclusions (plastic and glass) in the filling at Bore 6.

12.2 Preliminary *In Situ* Waste Classification

Waste classification of the material was conducted with reference to the six step process as set out in EPA (2014) which is summarised in Table 7 below.

Table 7: Six Step Classification

Step	Classification	Rationale
1. Is it special waste?	Yes (In-part)*	Some filling is considered to be impacted by asbestos. Asbestos impacted filling appears to be limited to the locality of Bore 6.
2. Is it liquid waste?	No	Waste composed of soil matrix (*i.e.* no liquids)
3. Is the waste "pre-classified"?	No	Waste not observed to contain coal tar, batteries, lead paint or dangerous goods containers.
4. Does the waste have hazardous waste characteristics?	No	Waste not observed to/ or considered at risk to contain explosives, gases, flammable solids, oxidising agents, organic peroxides, toxic substances or corrosive substances.
5. Chemical Assessment	Undertaken	Refer to Table 6 in Section 10.
6. Is the waste putrescible?	No	All observed components of material were composed of materials pre-classified as non-putrescible (*i.e.* soils). Organic content is assessed to be minor.

In summary, the following provisional waste classifications are provided for soil encountered at the site:

- Filling in the locality of Bore 6 would provisionally be classified as both *Special (Asbestos) Waste* and *Restricted Solid Waste (non putrescible)* and must be managed as both of these classifications. Further investigations are recommented to further characterise and delinate the area affected by this classfication;
- Filling in the locality of Bore 2 would provisionally classified as *Restricted Solid Waste (non putrescible)* primarily due to the metal concentrations reported (e.g lead and nickel). Further investigations are recommented to further characterise and delinate the area affected by this classfication;
- Remaining filling at the site would be provisionally classified as *General Solid Waste (non putrescible)*, subject to the results of a detailed site investigation for contamination (DSI) and the successful further characterisation and delineation of soils in the locality of Bores 2 and 6. Some filling materials encountered at the site (i.e. Bores 1, 4 and 5) could however potentially be reassessed and classified as ENM, subject to the results of an *in situ* ENM assessment and successful segregation of the filling from other filling materials at the site; and
- Natural soils (excluding any buried topsoil materials) could be potentially be classified as *Virgin Excavated Natural Material (VENM),* subject to the successful stripping of overlying filling and confirmation testing of the exposed natural soil surface. Appropriate segregation of the overlying filling would be required for the VENM classification to be applicable to the natural soils at the site.

13. Conclusions and Recommendations

DP has undertaken a PSI for the proposed commercial development at 123A-125B Donnison Street, Gosford. This PSI provides information on the likely contamination constraints associated with the proposed commercial uses of the site.

At the time of investigation, two commercial buildings (office buildings) and sealed car parking/driveway access areas generally occupied the site. Based on the review of historical information and a site walkover, DP identified potential contamination sources (refer to Section 6) primarily comprising the placement of filling, construction/demolition of past structures and the use/storage of oil/chemicals associated with past site uses. The PSI included a broad-grid spaced soil investigation programme limited to geotechnical test bore locations to provide an initial assessment of the site's contamination status.

The soil investigation comprised the inspection and screening of soils at six locations and testing of the soils for potential contaminants of concern. It is noted that one of the geotechnical boreholes was positioned beyond the northern site boundary due to access and in-ground service constraints.

The results of soil testing reported contaminant concentrations generally below the adopted SAC, with the exception of filling at Bore 6, which reported asbestos (matted material in soil) and a zinc concentration (exceeding the EIL only) above the adopted SAC. The presence of asbestos in Bore 6 and the elevated metal concentrations in Bores 2 and 6 are likely to be associated with past site activities (e.g. historic garage/motor vehicle servicing and then demolition/redevelopment of the site) that have resulted in an impacted layer of suspect reworked site-sourced filling beneath car park pavement materials and overlying the natural site soils.

Based on the current site conditions (sealed car park) these soil impacts do not pose an unacceptable risk to human health or the environment; however, they would require further investigation, remediation and validation if this area is disturbed.

The results of the PSI indicated that some areas of site have been subject to activities that have caused contamination. It is recommended that a DSI be completed at the site prior to redevelopment to effectively characterise and delineate site contamination conditions and then to facilitate the effective remediation and management of any site contamination as part of the redevelopment process.

Provisional waste classification of soils encountered at the site indicated that filling and topsoils would be nominally classified as a combination of *Special (Asbestos) Waste, Restricted Solid Waste (non putrescible)* and *General Solid Waste (non putrescible)*. The underlying natural soils could be classified as *Virgin Excavated Natural Material (VENM),* subject to the successful stripping of overlying filling and confirmation testing of the exposed natural soil surface. Appropriate segregation of the overlying filling would be required for the VENM classification to be applicable to the natural soils at the site.

Notwithstanding the above comments regarding the suitability of the site for the proposed development, given that significant bulk excavation works are proposed for the development, it is recommended that a specific remediation action plan (RAP) is developed to manage the excavation, handling and classification of materials that require off-site disposal/reuse. In this regard, the presence of metals, asbestos and other potential contaminants in site soils will require careful management.

In summary, the PSI indicates that the site can be made compatible with the proposed commercial premises from a contamination standpoint, subject to completion of a DSI, the implementation of a suitable RAP, followed by remediation and then validation of the requisite works. Moreover, careful consideration and implementation during earthworks would minimise the volume of soils requiring disposal to landfill and maximise soils that could be beneficially reused at an off-site location.

14. References

1. DP Report on Geotechnical Investigation, Proposed Gosford Regional Library, 123A-125B Donnison Street, Gosford, Project 83343.00, dated April 2018.
2. Minister for Urban Affairs and Planning, Managing Land Contamination, Planning Guidelines SEPP 55 – Remediation of Land, 1998.
3. National Environment Protection Council (NEPC) *National Environment Protection (Assessment of Site Contamination) Measure* 1999 (amended 2013) (NEPC, 2013).
4. NSW EPA, *Contaminated Sites: Sampling Design Guidelines, September* 1995.
5. NSW EPA, *Waste Classification Guidelines, Part 1: Classifying Waste*, November 2014.
6. NSW EPA, *The Excavated Natural Material Order*, Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014.

15. Limitations

Douglas Partners (DP) has prepared this report for this project at 123A-125B Donnison Street, Gosford in accordance with DP's proposal CCT180066.P.002 dated 15 March 2018 and acceptance received from Central Coast Council dated 21 March 2018. The work was carried out under DP's Conditions of Engagement. This report is provided for the exclusive use of Central Coast Council for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. This is either due to undetected variations in ground conditions or to budget constraints (as discussed above), or to parts of the site being inaccessible and not available for inspection/sampling, or to vegetation preventing visual inspection and reasonable access. It is therefore considered possible that HBM, including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the environmental components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Douglas Partners Pty Ltd

Appendix A

About This Report

About this Report

Douglas Partners

Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Appendix B

Drawings 1 and 2

LEGEND:

- Approximate borehole location
- Approximate site boundary

NOTES:

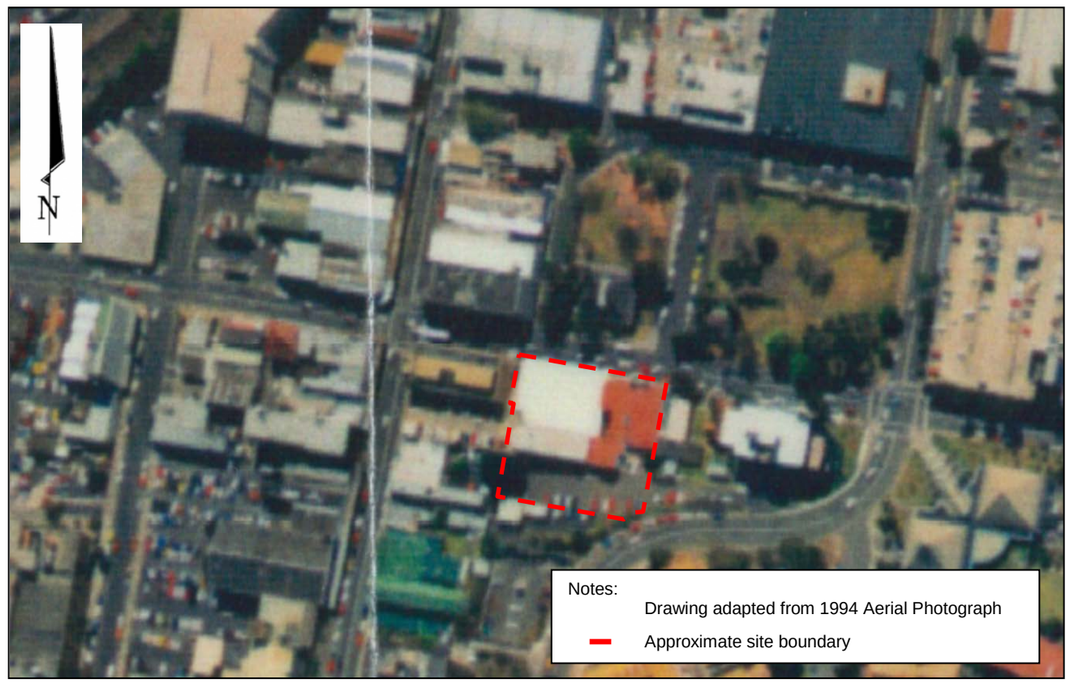
1. Background image sourced from Nearmap PhotoMaps dated 19 December 2017. Locality image sourced from SIX Maps.
2. Test location is approximate only and is shown with reference to existing site features.

Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	Central Coast Council		
OFFICE:	Central Coast	DRAWN BY:	BJK
SCALE:	As shown	DATE:	04/04/2018

TITLE: **Site Investigation Location Plan**
Proposed Gosford Regional Library
123A-125B Donnison Street, Gosford

PROJECT No:	83343.01
DRAWING No:	1
REVISION:	0



Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	Central Coast Council		TITLE:	**Historical Aerial Photographs**	PROJECT No: 83343.01
OFFICE:	Central Coast	DRAWN BY: BJK		**Proposed Gosford Regional Library**	DRAWING No: 2
SCALE:	NTS	DATE: 04/04/2018		**123A-125B Donnison Street, Gosford**	REVISION: A

Appendix C

Background Information

Search Options
- Find a Property
- Find an Application
- ePlanning Home

123 A Donnison ST GOSFORD NSW 2250

Details

123 A Donnison ST GOSFORD NSW 2250
Property Number: 46225

Titles

LOT: 100 DP: 711850
Lot / Deposited Plan
Land Area: 1450.00

Map

Location | Applications | Show All

Applications

003.1981.00000614.001
Development Application - SHOP (Lodged: 03/02/1981)
003.1981.00001159.001
Development Application - SHOP (Lodged: 29/05/1981)
003.1981.00001160.001
Development Application - FURNITURE AND BLD MATERIAL SHO (Lodged: 29/05/1981)
003.1981.00001290.001
Development Application - SIGNS (Lodged: 30/06/1981)
003.1981.00001369.001
Development Application - REFRESHMENT ROOMS (Lodged: 14/07/1981)
003.1981.00001503.001
Development Application - SIGNS (Lodged: 07/08/1981)
003.1981.00001504.001
Development Application - SIGNS (Lodged: 07/08/1981)
003.1981.00001523.001
Development Application - SIGNS (Lodged: 12/08/1981)
003.1981.00001587.001
Development Application - SHOP USE (Lodged: 21/08/1981)
003.1981.00001687.001
Development Application - SHOP USE (Lodged: 11/09/1981)
003.1981.00002117.001
Development Application - SHOP (Lodged: 09/12/1981)
003.1982.00003012.001
Development Application - SIGNS (Lodged: 21/09/1982)
003.1986.00007076.001
Development Application - CAR PARK STATION ADD (Lodged: 27/02/1986)
004.1986.00038501.001
Building Application - COMMERCIAL PREMISE (Lodged: 17/06/1986)
003.1987.00009064.001
Development Application - COMMERCIAL PREMISE (Lodged: 31/12/1987)
004.1987.00046295.001
Building Application - OFFICES (Lodged: 31/12/1987)
004.1995.00079589.001
Building Application - COMMERCIAL PREMISE (Lodged: 09/01/1995)
011.2000.00010538.001
Development Application - REF:PARKSIDE YOUTH SERVICES,SMALL EXTENSION FRONT OF BUILDING,INTERNAL REFUBISHMENT (Lodged: 22/12/2000)
012.2000.00010538.001
Construction Certificate - REF:PARKSIDE YOUTH SERVICE CTR,SMALL EXTENSION FRONT OF BLDG,INTERNAL REFURBISHMENT (Lodged: 22/12/2000)
012.2000.00010538.002
Construction Certificate - COMMUNITY BUILDING (Lodged: 27/08/2001)
011.2000.00010538.002
Development Application - Sec 96 Amendment to modify Condition 21, defer works on footpath. (Lodged: 11/01/2002)
011.2000.00010538.003
Development Application - Section 96 (Lodged: 06/05/2005)
012.2000.00010538.003
Construction Certificate - Section 96 - Interior alterations (Lodged: 20/06/2005)
011.2012.00042463.001
Development Application - Change of Use from Community Facility to Educational Establishment (Lodged: 06/07/2012)

Search Options
Find a Property
Find an Application
ePlanning Home

123 - 125 B Donnison ST GOSFORD NSW 2250

Details
123 - 125 B Donnison ST GOSFORD NSW 2250
Property Number: 48471

Titles
LOT: 11 DP: 746819
Lot / Deposited Plan
Land Area: 2317.00

Map

Location | Applications | Show All

Applications

004.1984.00028575.001
Building Application - COMMERCIAL PREMISE (Lodged: 30/05/1984)
004.1986.00037012.001
Building Application - SHOP FITOUT (Lodged: 14/02/1986)
003.1987.00008172.001
Development Application - COMMERCIAL PREMISE (Lodged: 27/03/1987)
004.1987.00042987.001
Building Application - COMMERCIAL PREMISE (Lodged: 15/06/1987)
004.1988.00047926.001
Building Application - COMMERCIAL PREMISE (Lodged: 06/04/1988)
004.1988.00048992.001
Building Application - OFFICES (Lodged: 03/06/1988)
003.1988.00010890.001
Development Application - COMMERCIAL PREMISE (Lodged: 06/12/1988)
004.1988.00052665.001
Building Application - SHOP FITOUT (Lodged: 14/12/1988)
003.1989.00011647.001
Development Application - SIGNS (Lodged: 20/04/1989)
003.1990.00013323.001
Development Application - PROFESSIONAL CONSULTING ROOM (Lodged: 28/05/1990)
004.1996.00002261.001
Building Application - Building Application: SHOP FITOUT (Lodged: 02/09/1996)
011.2002.00016159.001
Development Application - Signs (Lodged: 31/05/2002)

NSW GOVERNMENT | SafeWork NSW

Locked Bag 2906, Lisarow NSW 2252
Customer Experience 13 10 50
ABN 81 913 830 179 | www.safework.nsw.gov.au

Our Ref: D18/111521
Your Ref: Brent Kerry

30 April 2018

Attention: Brent Kerry
Douglas Partners Pty Ltd
Unit 5
3 Teamster Cl
Tuggerah NSW 2259

Dear Mr Kerry

RE SITE: 123A & 123B-125A Donnison St Gosford NSW

I refer to your site search request received by SafeWork NSW on 18 April 2018 requesting information on Storage of Hazardous Chemicals for the above site.

A search of the records held by SafeWork NSW has not located any records pertaining to the above mentioned premises.

For further information or if you have any questions, please call us on 13 10 50 or email licensing@safework.nsw.gov.au

Yours sincerely

Customer Service Officer
Customer Experience - Operations
SafeWork NSW

Brent Kerry

From: Matthew Gallagher <Matthew.Gallagher@centralcoast.nsw.gov.au>
Sent: Monday, 21 May 2018 9:55 AM
To: Brent Kerry
Subject: RE: Gosford Regional Library - Contamination Investigation

Hi Brent,

As discussed, see below which confirms neither parcel is classified as a Contaminated Land Parcel.

Let me know if you need anything else.

Best,
Matt

Matthew Gallagher
Property Development Manager
Economic Development and Project Delivery
Central Coast Council

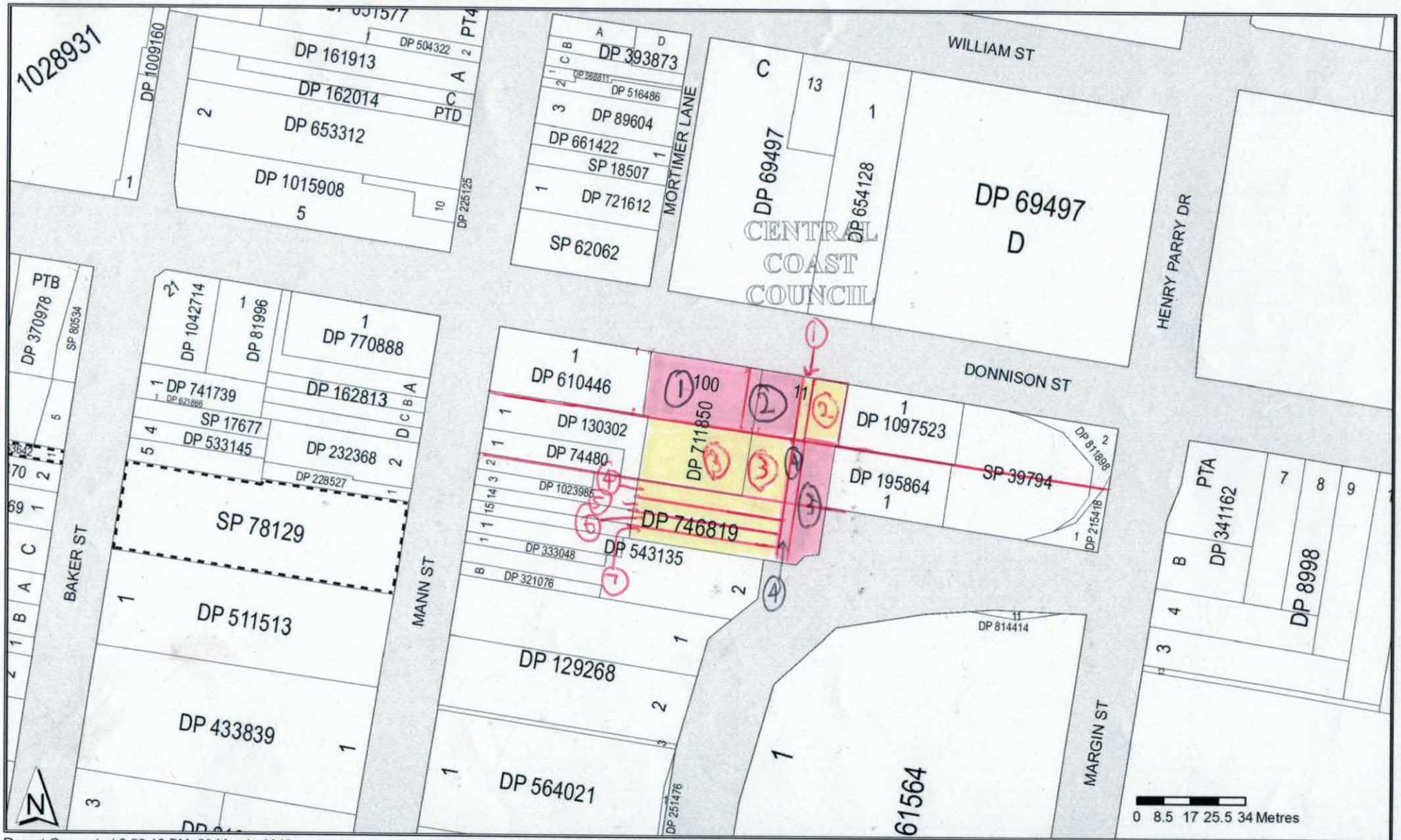
m: 0417 787 861
e: Matthew.Gallagher@centralcoast.nsw.gov.au

LAND REGISTRY SERVICES

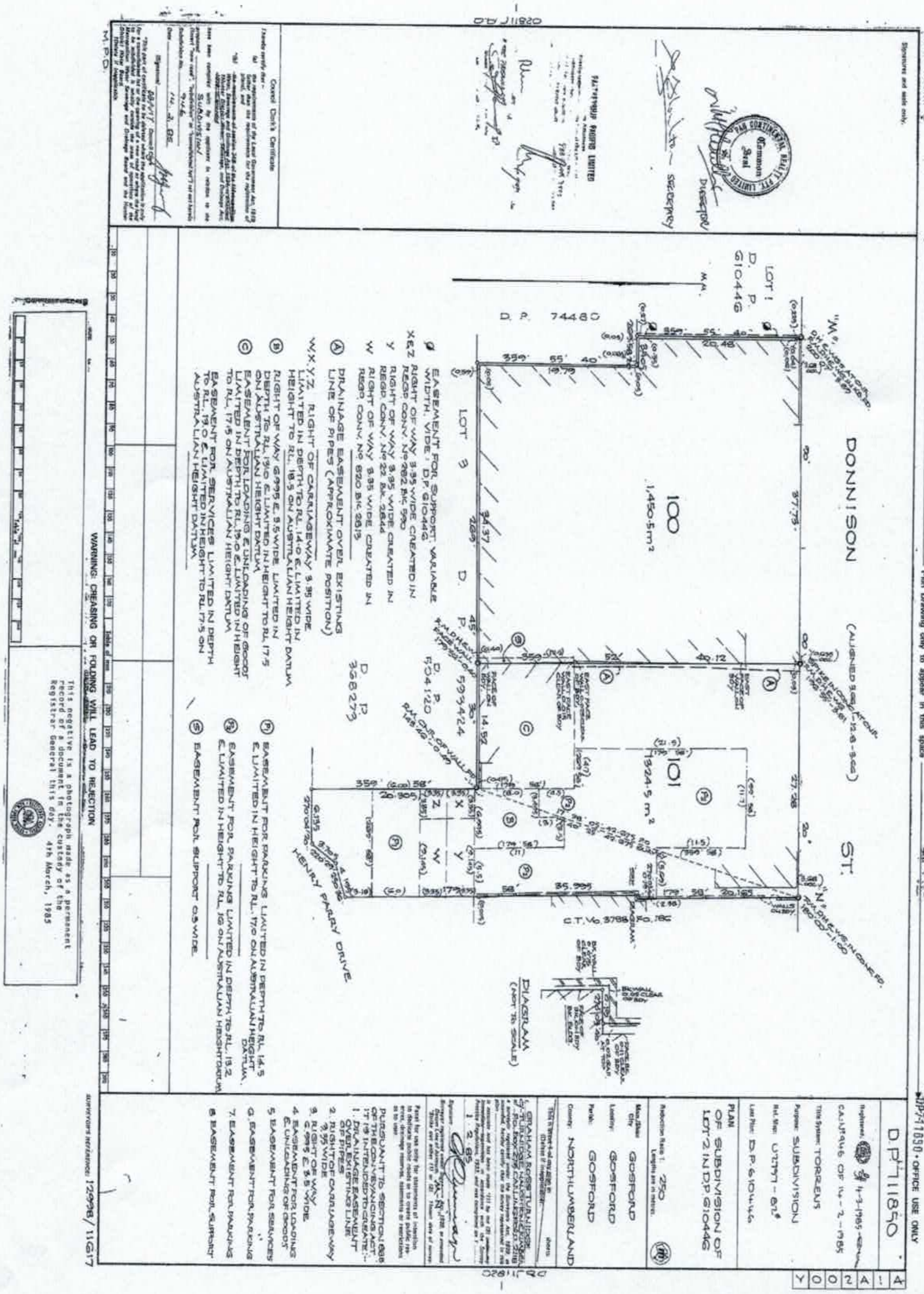
Cadastral Records Enquiry Report : Lot 100 DP 711850

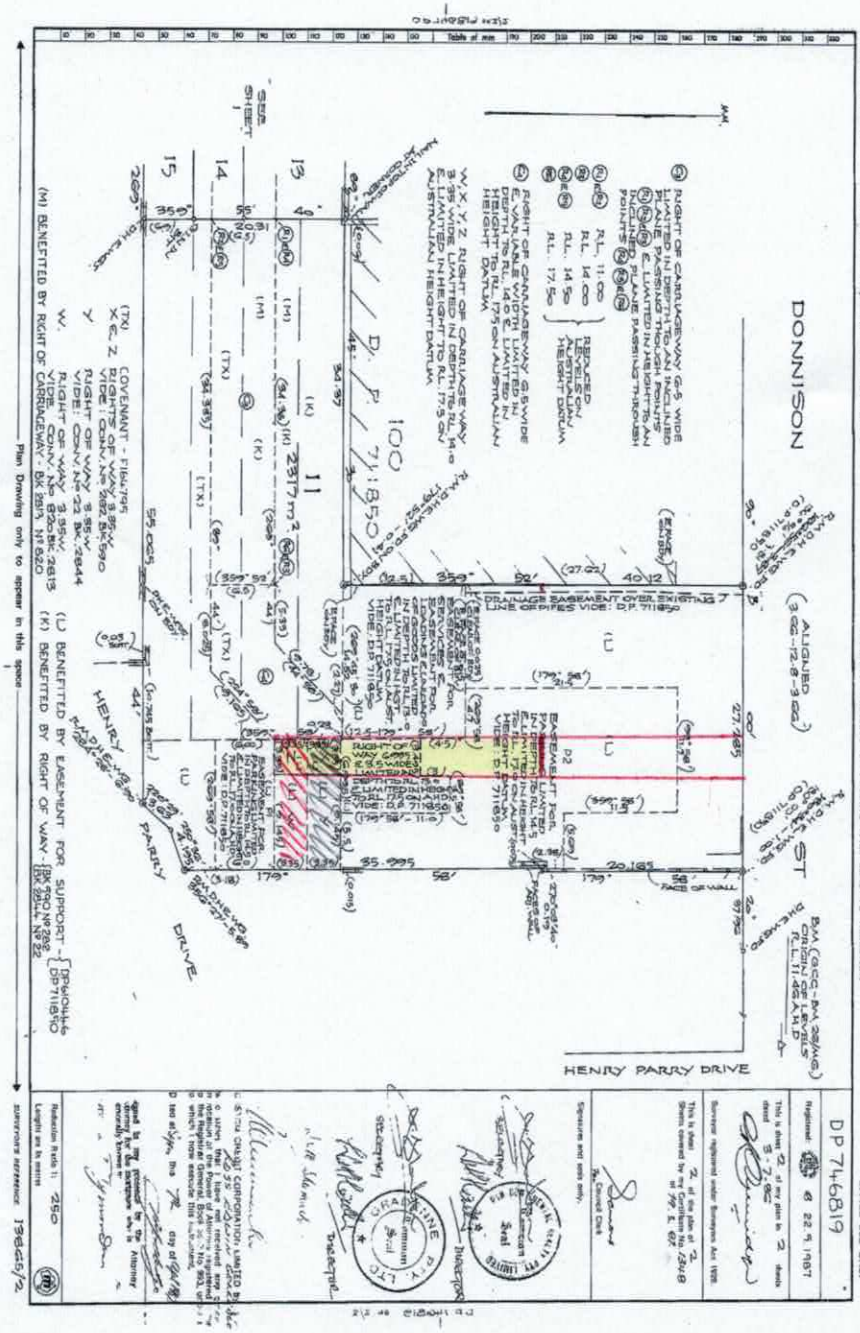
Locality : GOSFORD
LGA : CENTRAL COAST

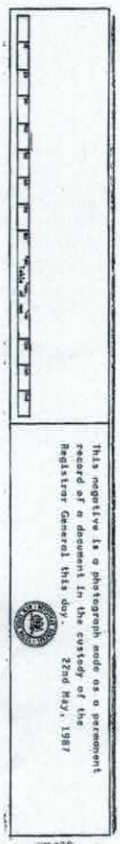
Parish : GOSFORD
County : NORTHUMBERLAND



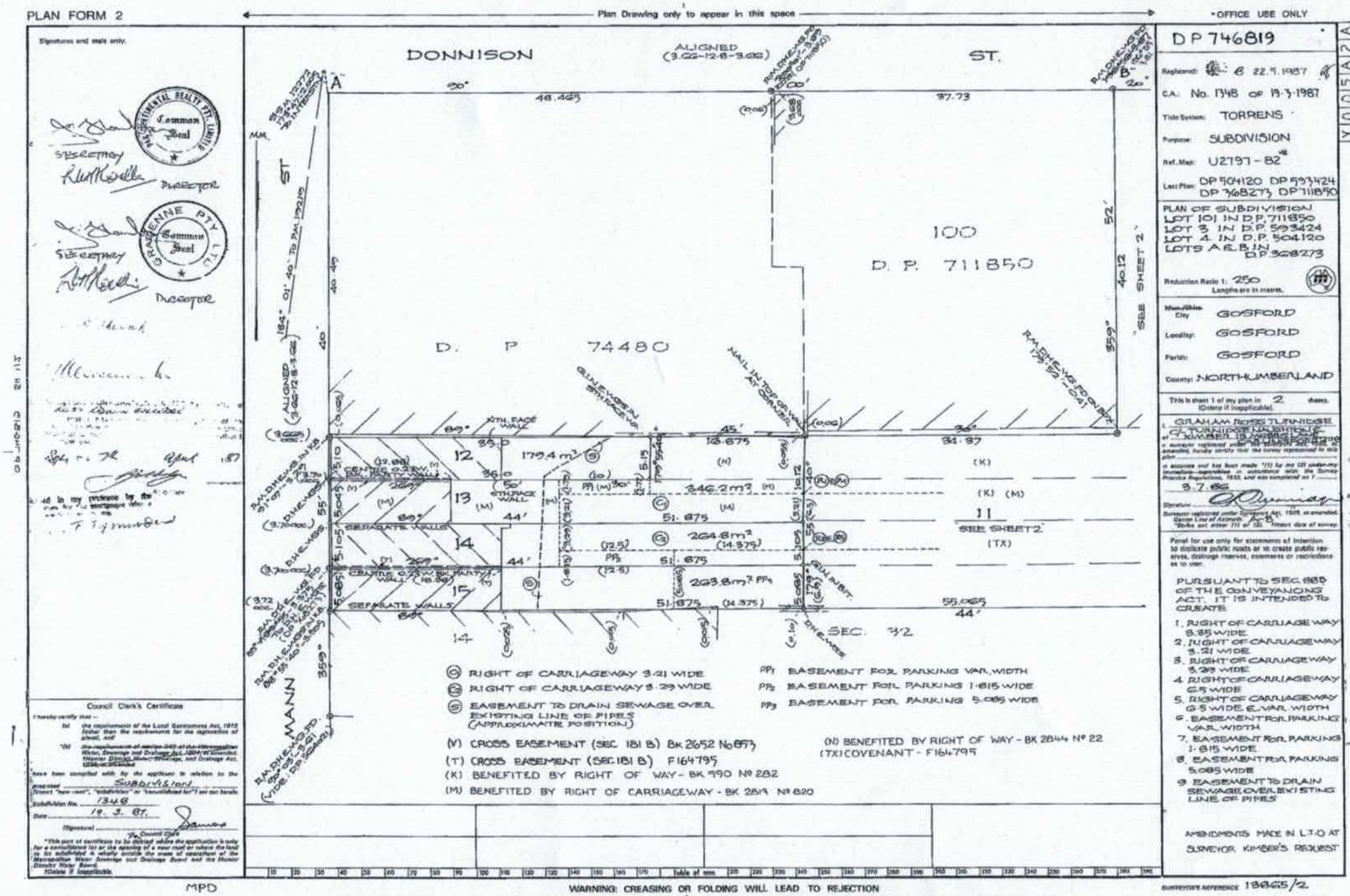
This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps




PLAN FORM 3
To be used in conjunction with Plan Form 2
WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION
OFFICE USE ONLY
DP 746819
DONNISON
HENRY PARRY DRIVE
Plan Drawing only to appear in this space
Surveyor's Reference 1965/92


This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day.
22nd May, 1987

Req:R359798 /Doc:DP 0746819 P /Rev:26-Jun-1992 /Sts:OK.OK /Pgs:ALL /Prt:28-Mar-2018 14:50 /Seq:1 of 2
Ref:gosford /Src:M



This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 22nd May, 1987

RP 138 STAMP DUTY

$10

X790647

TRANSFER GRANTING EASEMENT

REAL PROPERTY ACT, 1900
(See Instructions for Completion on back of form)

TG 3 5 of 10

$ 8

R 5/5

Servient Tenement (Land burdened)	Dominant Tenement (Land benefited)
Torrens Title Reference	Torrens Title Reference
FOLIO IDENTIFIER 11/746819	FOLIO IDENTIFIER 100/711850

DESCRIPTION OF LAND Note (a)

TRANSFEROR (registered proprietor of servient tenement) Note (b)

PAN CONTINENTAL REALTY PTY LIMITED

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 1.00 and TRANSFERS and GRANTS the easements set out in the annexure hereto marked "A"

Note (c)

OFFICE USE ONLY

OVER

out of the servient tenement and appurtenant to the dominant tenement to the TRANSFEREE

TRANSFEREE (registered proprietor of dominant tenement) Note (b)

JARVIS RIGDEN HAYMAN, BERNARD DOMINIC HORAN, TONY GORDON DONALD, JOHN EUGENE CURRAN, ROSS PHILLIP BARNETT, MICHAEL BESSER, RICHARD MARKHAM KENDALL, ANDREW SUTHERLAND BROOK, GAEL BROOK, PETER RONALD KLUGER AND LINDALL LEE KLUGER all C/- Davey and Associates (Real Estate) Pty Limited of 22 Sir John Young Crescent, Woolloomooloo

PRIOR ENCUMBRANCES Note (d)

subject to the following PRIOR ENCUMBRANCES: 1. .....
2. ..... 3. .....

PAN CONTINENTAL REALTY PTY LIMITED Common Seal

DATE OF TRANSFER 15th August 1988

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (e)

Signed in my presence by the transferor who is personally known to me

The Common Seal of Pan Continental Realty Pty Limited
Signature of Witness

was affixed by authority of its Board of Directors in the presence of the director and secretary whose signatures
Name of Witness (BLOCK LETTERS)

appear hereon

Address and occupation of Witness

Signature of Transferor

Secretary Director

Note (e)

Signed in my presence by the transferee who is personally known to me

SIGNED SEALED AND DELIVERED by the Transferees by their attorney DAVEY & ASSOCIATES (FINANCIAL SERVICES) PTY. LIMITED which company states and the persons affixing the Seal state that they have no notice of the revocation of Power of Attorney Book 3719 Nos. 152-160 inclusive under the authority of which they have executed the within Transfer.

Signature of Witness
Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

SECRETARY DIRECTOR

DAVEY & ASSOCIATES (FINANCIAL SERVICES) PTY LIMITED Common Seal ★ DIRECTORS

Signature of Transferee

TO BE COMPLETED BY LODGING PARTY Notes (f) and (g)

LODGED BY Pigott Stinson

Delivery Box Number 587G

LOCATION OF DOCUMENTS

CT	OTHER

Herewith.

In R.G.O. with .....

Produced by 46X

OFFICE USE ONLY

Extra Fee	Checked by	REGISTERED – –19
	EF17	14 SEP 1988

11/746819 CT
100/711850 CT

2U X790648
2U X790648

NSW $=*****10.00 STAMP DUTY 17/08/88 20497 C 010
Registrar General

RP 138

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment at the Registrar General's Office.

Typewriting and handwriting should be clear, legible and in permanent black non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

Registered mortgagees, chargees and lessees of the servient tenement should consent to the grant of easement; otherwise, the mortgage, charge or lease should be noted in the memorandum of prior encumbrances.

Rule up all blanks.

The following instructions relate to the side notes on the form.

(a) Description of land. TORRENS TITLE REFERENCE.—Insert the current Folio Identifiers or Volume and Folios of the Certificates of Title/Crown Grants for both the dominant and servient tenements, e.g., 135/SP12345 or Vol. 8514 Fol. 126.

(b) Show the full name, address and occupation or description.

(c) State the nature of the easement (see, e.g., section 181A of the Conveyancing Act, 1919), and accurately describe the site of the easement. The transfer and grant must comply with section 88 of the Conveyancing Act, 1919.

(d) In the memorandum of prior encumbrances state only the registered number of any mortgage, lease or charge (except where the consent of the mortgagee, lessee or chargee is furnished), and of any writ recorded in the Register.

(e) Execution.

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.

(ii) The certificate of correctness under the Real Property Act, 1900 must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he is personally known.
The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his firm) to be typewritten or printed adjacent to his signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the transfer is executed by an attorney for the transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No. , and I declare that I have no notice of the revocation of the said power of attorney".

AUTHORITY (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)), the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his position (e.g., director, secretary) in the corporation.

(f) Insert the name, postal address, Document Exchange reference, telephone number, and delivery box number of the lodging party.

(g) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A for letters of administration.

OFFICE USE ONLY

FIRST SCHEDULE DIRECTIONS

DIRECTION: PROP
No. OF NAMES:

(A) FOLIO IDENTIFIER	(B) No.	(C) SHARE	(D) I	(E) NAME AND DESCRIPTION

SECOND SCHEDULE & OTHER DIRECTIONS

(F) FOLIO IDENTIFIER (OR DEAD. DEALING & FOLIO IDENTIFIER)	(G) DIRECTION	(H) NOTFN TYPE	(I) DEALING NUMBER	(K) DETAILS
100/711850	ON	EA		Right of carriage way 3·55 wide appurtenant to the land above described affecting the Land designated "W", "X", "Y", "Z" on DP 746819.
100/711850	ON	EB		Right of carriage way 6·5 wide & variable width appurtenant to the land above described affecting the land designated "C4" on DP 746819.
100/711850	ON	EC		Right of carriage way 6·5 wide appurtenant to the land above described affecting the land designated "C3" on DP 746819
100/711850	ON	ED		Right of footway 1·2 wide appurtenant to the land above described affecting the land designated "F" on plan with x790647
100/711850	ON	EE		Easement for parking appurtenant to the land above described affecting the land designated "P4" on plan with x790647
100/711850	ON	EF		Right of carriage way 4·755 wide appurtenant to the land above described affecting the land designated "L1" on plan with x790647

NP 418 D. WEST, GOVERNMENT PRINTER

RP 88A

OFFICE USE ONLY

X790647

REGISTRATION DIRECTION ANNEXURE

(Y)

Use this side only for Second Schedule directions

DO NOT USE BOTH SIDES OF THE FORM

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS
11/746819	UNDR	RY		
	ON	UA		-RIGHT OF CARRIAGEWAY 13.5S WIDE OVER LAND S DESIGNATED W,X,Y,Z
11/746819	UNDR	RY		
	ON	UB		-RIGHT OF CARRIAGEWAY 6.5S WIDE & VARIABLE WIDTH OVER LANDS DESIGNATED C4
11/746819	UNDR	RY		
	ON	UC		-RIGHT OF CARRIAGEWAY 61.5 WIDE OVER LANDS DESIGNATED C3
11/746819	ON	EA		RIGHT OF FOOTWAY 1.2 WIDE AFFECTING THE PART OF THE LANDS ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN WITH X790647
11/746819	ON	EB		EASEMENT FOR PARKING AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN WITH X790647.
11/746819	ON	EC		RIGHT OF CARRIAGEWAY 4.75S WIDE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN WITH X790647.

1. A Right of Carriage Way 3.35 wide over land designated W,X,Y,Z on Deposited Plan 746819 limited in depth to RL 14.0 and limited in height to RL 17.5 on Australian Height Datum.

2. A Right of Carriage Way 6.5 wide and variable width limited in depth to RL 14.0 & limited in height to RL 17.5 on Australian Height Datum over land designated C4 on Deposited Plan 746819.

3. A Right of Carriage Way 6.5 wide limited in depth to an inclined plane passing through points R1,R2 and R3 and limited in height to an inclined plane passing through points R4, R5,R6 over land designated C3 on Deposited Plan 746819.

4. A Right of Footway 1.2 wide limited in depth to RL 8.75 and limited in height to RL 16.0 over land designated (F) on plan annexed hereto

5. Full and free right for the proprietor of the lot benefited and every person authorised by him to park motor vehicles on the relevant part of the lot burdened designated (P4) in the annexed Plan, (hereinafter called "the burdened land") but upon and subject to the following conditions which conditions shall also constitute and be covenants and agreements by and between the proprietor of the lot benefited and the proprietor of the lot burdened for themselves and their respective successors, assigns and transferees with the intention and agreement that the benefit and burden of such covenants and agreements shall pass with the benefit and burden of this easement, and the proprietor of the lot benefited hereby covenants and agrees with the proprietor of the lot burdened that:-

   (a) no structural or other damage shall be done to the lot burdened or any part thereof in exercising the rights hereby granted;

   (b) the proprietor of the lot benefited and any person authorised by him will use the burdened land at their own risks and the proprietor of the lot benefited hereby releases the proprietor of the lot burdened and its contractors and employees from all claims and demands of whatever kind and all liability which may arise in respect of any accident or damage to property or death of or injury to any person of whatsoever nature or kind in or near the burdened land and the proprietor of the lot benefited agrees that the proprietor of the lot burdened shall have no responsibility for any loss of or damage to personal property of the proprietor of the lot benefited or any person authorised by him or any other person other than as may be caused by the negligence or the proprietor of the lot burdened its contractors or employees;

X790647

(c) the proprietor of the lot benefited shall indemnify and keep indemnified the proprietor of the lot burdened and its contractors and employees from and against all actions, claims, demands, losses, damages, costs and expenses incurred by the proprietor of the lot burdened or its contractors or employees or for which the proprietor of the lot burdened or its contractors or employees may become liable in respect of or arising from any damage to property or death of or injury to any person which may be authorised in upon or near the relevant part of the lot burdened; and

(d) the proprietor of the lot benefited and any persons authorised by him shall comply with the rules (if any) from time to time promulgated by the proprietor of the lot burdened for the orderly management of the burdened land PROVIDED that any such rule does not derogate from the rights hereby granted.

6. A Right of Carriageway 4.755 wide limited in depth to R.L. 14.0 and limited in height to R.L. 17.5 over land designated (L1) on plan annexed hereto (hereinafter called "the burdened land') but upon and subject to the following conditions which conditions shall also constitute and be covenants and agreements by and between the proprietor of the lot benefited and the proprietor of the lot burdened for themselves and their respective successors, assigns and transferees with the intention and agreement that the benefit and burden of such covenants and agreements shall pass with the benefit and burden of this easement:-

(a) vehicles may stand or park on the burdened land for any period of time as may reasonably necessary to deliver or pick-up any goods, materials, foodstuffs, waste or refuse to or from the lot benefited PROVIDED that such vehicles shall, so far as it is possible to do so, be positioned so as to prevent use of the burdened land by any other persons lawfully using same;

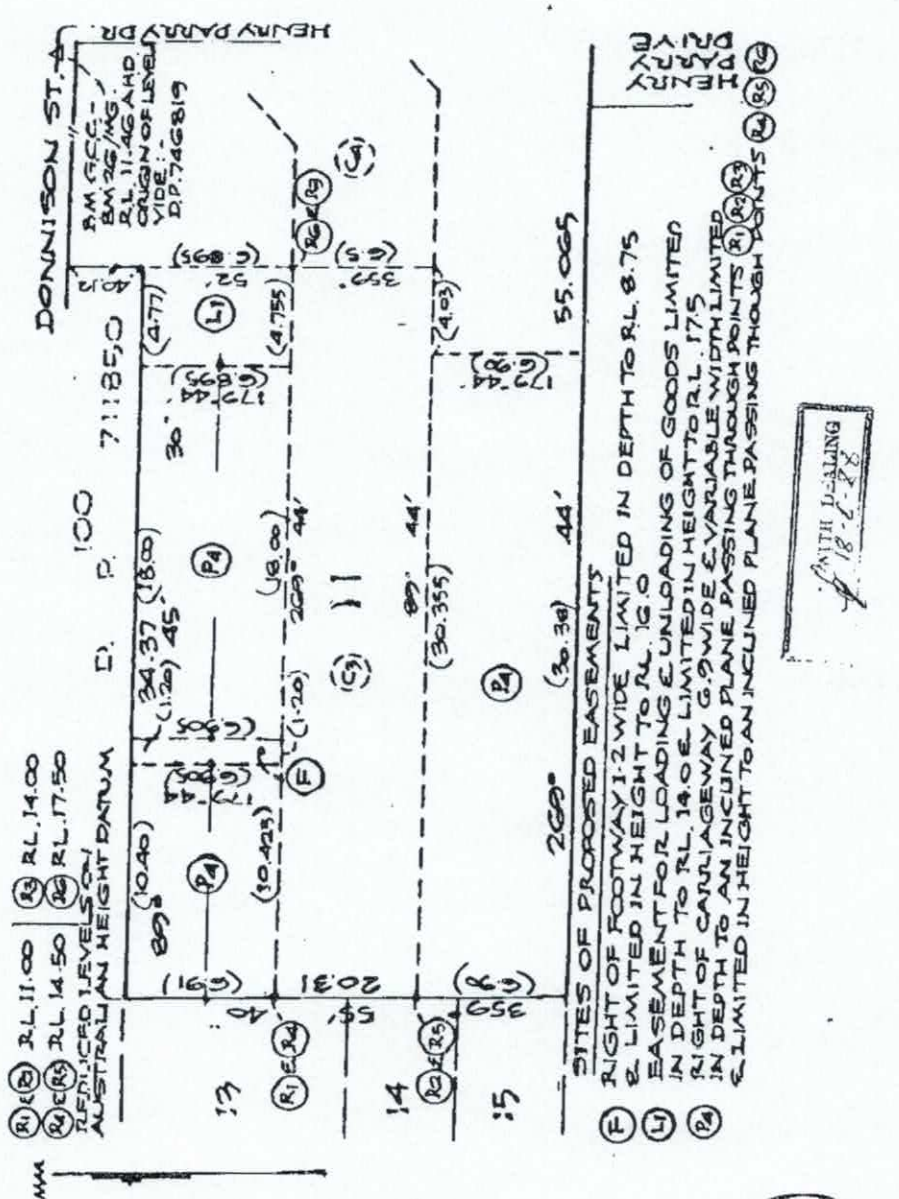
(b) except as permitted by paragraph (a) hereof, no vehicle shall obstruct or stand on or park on the burdened land;

(c) the proprietor of the lot benefited and any persons authorised by him shall comply with the rules (if any) from time to time promulgated by the proprietor of the lot burdened for the orderly management of the lot burdened PROVIDED that any such rule does not derogate from the rights hereby granted.

The persons having the right to extinguish, vary or modify any of the above easements are all of the registered proprietors for the time being of Lot 100 in Deposited Plan No. 711850 and Folio Identifier 11/746819.

"A" X790647

THIS IS THE PLAN REFERRED TO IN ANNEXED TRANSFER GRANTING EASEMENTS MADE BETWEEN PAN CONTINENTAL REALTY PTY.LIMITED AS TRANSFEROR AND JARVIS RIGDEN HAYMAN, BERNARD DOMINIC HORAN, TONY GORDON DONALD, JOHN EUGENE CURRAN , ROSS PHILLIP BARNETT, MICHAEL BESSER, RICHARD MARKHAM KENDALL, ANDREW SUTHERLAND BROOK, GAEL BROOK, PETER RONALD KLUGER AND LINDALL LEE KLUGER



PAN CONTINENTAL REALTY PTY. LIMITED Common Seal

PAN CONTINENTAL ASSOCIATED FINANCIAL SERVICES PTY. LIMITED Common Seal

X790647

CUSTOM CREDIT CORPORATION LIMITED the Mortgagee pursuant to Mortgages numbered V766737, W286022 and W869887 hereby consent to registration of the within Transfer Granting Easement.

DATED 15 August, 1988

CUSTOM CREDIT CORPORATION LIMITED
by its attorney ROSS EDWIN GOLLEDGE
pursuant to Power of Attorney
registered book 3612 No 993 and I
declare that I have no notice of
the revocation of the said Power
of Attorney

Attorney

Witness

[redacted]

RTIFICATE OF TITLE

NEW SOUTH WALES — OPERTY ACT, 1900, as amended.

10156084

Appln. No. 24480.
Prior Titles Vol. 6663 Fols. 72 & 73.

LB.

Vol. 10156 Fol. 84

1st Edition issued. 3.11.1965.

K117392. CANCELLED W

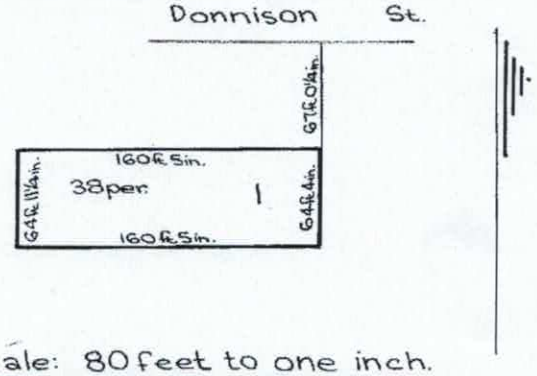
Vol. 10156 Fol. 84 (Page 1)

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness M G Mossfield

Registrar General.

PLAN SHOWING LOCATION OF LAND



K117392 [redacted]

Scale: 80 feet to one inch.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in plan lodged with Transfer No. F817574 (Filed as F.P.381824) in the Shire of Gosford Town and Parish of Gosford and County of Northumberland being part of Allotment 12 of Section 32 granted to Robert Creighton on 28.5.1855. Excepting thereout all mines of coal reserved by the Crown Grant.

Registrar General.

FIRST SCHEDULE (continued overleaf)

~~WESTFIELD DEVELOPMENT CORPORATION LIMITED~~.

Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.

Registrar General.

Vol. 10156 Fol 84

ST 1909 V. C. N. BLIGHT, GOVERNMENT PRINTER

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~The Australasian Temperance and General Mutual Life Assurance Society Limited~~	Transfer	L42596	19.4.1978	23.5.1978	
T. & G. Mutual Life Society Limited	Application	Q511545	——	13-2-1978	

NEW CERTIFICATE(S) OF TITLE ISSUING ON D.P.610446
NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO SURVEY DRAFTING BRANCH.

This deed is cancelled as to the whole
New certificates of Title have issued on 29-10-1980
for lots in deposited Plan No. 610446 as follows:-
Lots 2 Vol 14269 Fol 190 respectively.

REGISTRAR GENERAL

K533967
K551869
TOC
Premises known as the Supermarket
L42595
L42596
Q511545 C/Ref
DP610446

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Mortgage~~	~~K202191~~	~~20.12.1965~~	~~to The National Bank of Australasia Limited~~	~~29.12.1965~~		Discharged	K533728	
~~Mortgage~~	~~K533967~~	~~9-12-1966~~	~~to Defence Forces Retirement Benefits Board~~	~~17-2-1967~~		Discharged	K731062	
Lease	K551869	9-12-1966	of the shop premises known as "The Supermarket" in the Westfield Shopping Centre at Gosford erected upon part of the land within described (without evidence of consent of mortgagee) to Coles Food Markets Pty. Limited	17-2-1967				
~~Mortgage~~	~~K731067~~	~~6-7-1967~~	~~to Defence Forces Retirement Benefits Board~~	~~14-7-1967~~		Discharged	L42595	

FORM No. 62

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

[redacted]TIFICATE OF TITLE

14269190

NEW SOUTH WALES

REAL PROPERTY ACT, 1900

IVA No. 34200 (Part)
Appln No. 24480 (Part)
Prior Titles Vol. 10156 Fol. 84
Vol. 10418 Fol. 65
Vol. 10816 Fol. 40

Vol. 14269 Fol. 190

EDITION ISSUED

29 10 1980

CANCELLED

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

14269 Fol. 190

(Page 1) Vol. .....

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in Deposited Plan 610446 at Gosford in the City of Gosford Parish of Gosford and County of Northumberland being part of Allotments 11 and 12 of Section 32 separately granted to Robert Creighton on 28-5-1855 part of Allotments 8 and 9 of Section 32 separately granted to Robert Creighton on 13-6-1858 and the land granted by Crown Grant Volume 1091 Folio 157. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grants.

FIRST SCHEDULE

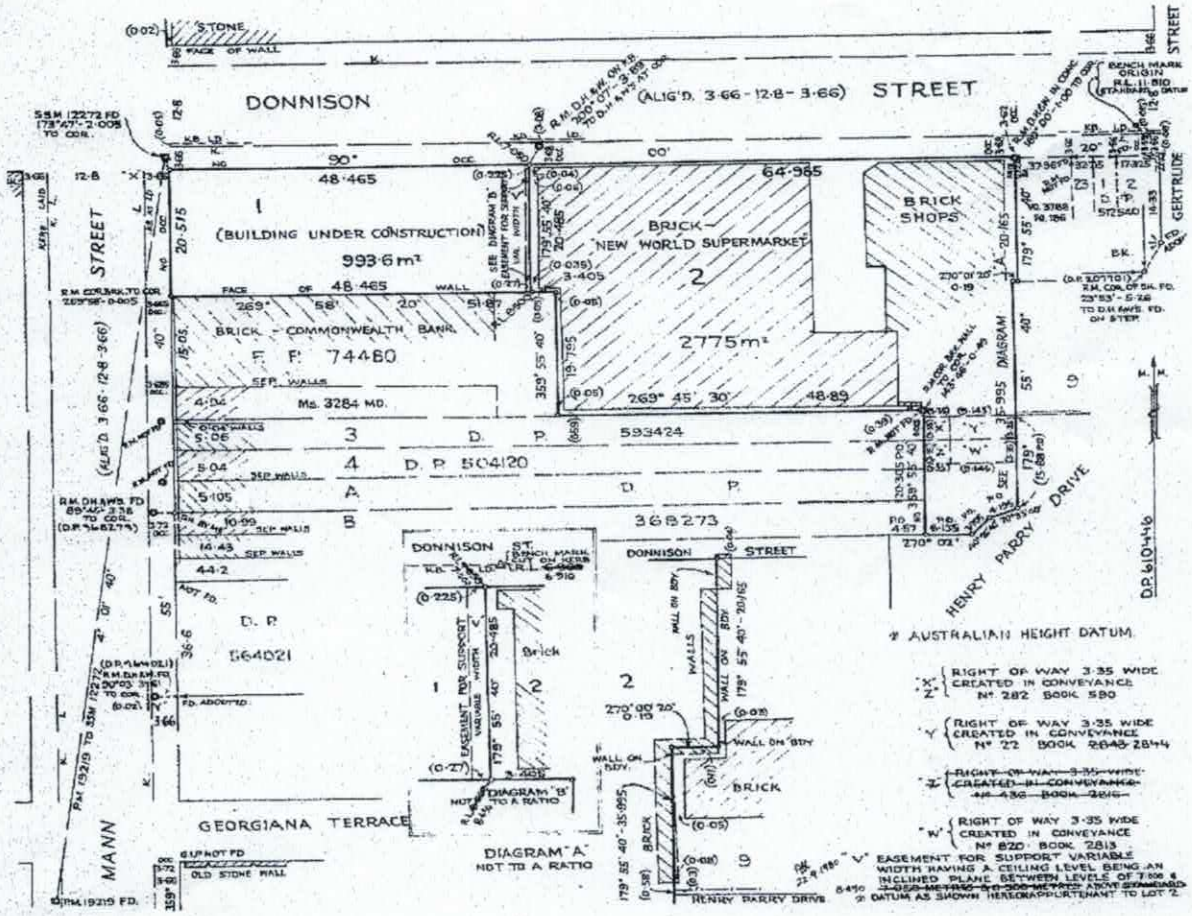
~~T. AND G. MUTUAL LIFE SOCIETY LIMITED.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in Section 28A Real Property Act, 1900) as to the part comprised in Deed Book 2883 No. 30.
3. ~~S108194 Caveat by the Registrar General as regards the land comprised in Deed Book 2883 No. 30.~~
4. Book 590 No. 282 Right of Way affecting the part of the land shown so burdened in the plan hereon.
5. Book 2813 No. 820 Right of Way affecting the part of the land shown so burdened in the plan hereon.
6. ~~Book 2831 No. 806 Lease of premises known as "The Supermarket" in the Westfield Shopping Centre at Gosford, together with and reserving rights to Coles Food Markets Pty. Limited. Expires 14-12-1985.~~ S867451
7. Book 2844 No. 22 Right of Way affecting the part of the land shown so burdened in the plan hereon.
8. ~~K551869 Lease to the shop premises known as "The Supermarket" in the Westfield Shopping Centre at Gosford together with and reserving rights to Coles Food Markets Pty. Limited. Expires 14-12-1985.~~ S867451
9. Q365301 Lease of premises known as Shop Number One, 125A Donnison Street, Gosford together with and reserving rights to Sidney Anthony Smith and Maureen Anne Smith both of Long Jetty, Retail and Wholesale Butchers. Expires 24-7-1982.
10. Deposited Plan 610446 Easement for support appurtenant to the land above described affecting the part of Lot 1 shown so burdened in the plan hereon.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General
Pan Continental Realty Pty. Limited	Transfer	S322234	20-3-1981	[signature]
711850 ~~DP/SP 711850~~ ~~Registered 4-3-1985~~ 14-12-1986 This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 100 – 101 abovementioned plan.				

S322234 Tec 35M
S470285 [illegible]
S782594 [illegible]
S887450 s/r
1 s/L
2 Lse
3 CCL
4 Lse
5 CCL
6 Lse
7 CCL
8 Mge
R
DP711850 R

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
~~Mortgage~~	~~S322235~~	~~to Custom Credit Corporation Limited~~	~~20-3-1981~~	[signature]	Discharged	S887450
~~S470285~~	~~Caveat by~~	~~David Clifden Eager and Andrea Kerri Eager [illegible] as regards part, premises being lock-up shop [illegible] 2 and 3 [illegible] Donnison Street, Gosford Registered 25-5-1984~~		[signature]	Withdrawn	S782594
S887452	Lease to James	Corp. (Aust.) Pty. Limited being premises known as shop spaces "E" "F" and "G" in the building known as No. 123 Donnison Street, Gosford N.S.W. erected on the said land and storeroom No. 1 in the building (such spaces being in the position shown on the annexed plan hereto marked with the Letter "A" and hatched black), together with & reserving rights with option of renewal. Expires 13-8-1985. Registered 10-3-1982.		[signature]		
S887454	Lease to Monica	Stange being premises known as shop space "D" in the building known as No. 123 Donnison Street, Gosford N.S.W. erected on the said land shown on the plan annexed hereto together with and reserving rights, with option of renewal. Expires ~~24-8-1981.~~ 23-8-1985 Registered 10-3-1982.		[signature]		
S887456	Lease to David	Clifden Eager and Andrea Kerri Eager as joint tenants being premises known as shop spaces "B" and "C" in the building known as No. 123 Donnison Street, Gosford N.S.W. erected on the said land and storeroom space No. 3 in the building such spaces being in the position shown hatched black on annexed sketch, together with and reserving rights, with option of renewal. Expires ~~14-9-1981.~~ 13-9-1987 Registered 10-3-1982.		[signature]		
S887458	Mortgage to Pa	rtnership Pacific Limited. Registered 10-3-1982.		[signature]		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Vol. 14269 Fol. 190

DP 71185

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

LAND REGISTRY SERVICES

Historical Title

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 10:41AM

FOLIO: 100/711850

First Title(s): OLD SYSTEM
Prior Title(s): VOL 14269 FOL 190

Recorded	Number	Type of Instrument	C.T. Issue
4/3/1985	DP711850	DEPOSITED PLAN	FOLIO CREATED EDITION 1
22/3/1985	V638395	SURRENDER OF LEASE	
22/3/1985	V638396	SURRENDER OF LEASE	EDITION 2
7/5/1985	V662209	DISCHARGE OF MORTGAGE	
7/5/1985	V662210	LEASE	
7/5/1985	V662211	LEASE	
7/5/1985	V662212	LEASE	EDITION 3
8/5/1985	V662213	TRANSFER	
8/5/1985	V662214	MORTGAGE	
8/5/1985	V664932	MORTGAGE	EDITION 4
21/5/1985	V736518	DEPARTMENTAL DEALING	EDITION 5
14/9/1988	X790643	REQUEST	
14/9/1988	X790644	DISCHARGE OF MORTGAGE	
14/9/1988	X790645	DISCHARGE OF MORTGAGE	
14/9/1988	X790647	TRANSFER GRANTING EASEMENT	EDITION 6
26/9/1988	X790648	TRANSFER RELEASING EASEMENT	
26/9/1988	X790649	LEASE	
26/9/1988	X790650	LEASE	
26/9/1988	X790651	LEASE	
26/9/1988	X790652	MORTGAGE	EDITION 7
15/1/1992	E191083	TRANSFER	EDITION 8
22/9/1994	U629146	TRANSMISSION APPLICATION	EDITION 9
30/9/1994	U668009	LEASE	
30/9/1994	U668010	LEASE	EDITION 10
8/4/1998	3908170	DEPARTMENTAL DEALING	
17/4/1998	3922552	DISCHARGE OF MORTGAGE	
17/4/1998	3922553	TRANSFER	
17/4/1998	3922554	MORTGAGE	EDITION 11

END OF PAGE 1 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 10:41AM

FOLIO: 100/711850 PAGE 2

Recorded	Number	Type of Instrument	C.T. Issue
8/12/2000	7275576	DISCHARGE OF MORTGAGE	
8/12/2000	7275577	TRANSFER	EDITION 12
12/5/2003	9597767	LEASE	EDITION 13
23/7/2008	AE102528	LEASE	EDITION 14

*** END OF SEARCH ***

gosford PRINTED ON 31/3/2018

STAMP DUTY

V662213

TRANSFER

REAL PROPERTY ACT, 1900

T

2 5 of 6 X

$ 30

R1/3

$ =01.00 STAMP DUTY

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
PART of Volume 14269 Folio 190 (Qualified) now being whole of Identifier 100/711850	WHOLE	Parish: Gosford County: Northumberland

D

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

PAN CONTINENTAL REALTY PTY. LIMITED

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $1,650,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

JARVIS RIGDEN HAYMAN, BERNARD DOMINIC HORAN, ~~[illegible]~~ ~~[illegible]~~ TONY GORDON DONALD, JOHN EUGENE CURRAN, ROSS PHILLIP BARNETT, ~~[illegible]~~ MICHAEL BESSER AND RICHARD MARKHAM KENDALL EACH AS TO A ONE-NINTH SHARE AND ANDREW SUTHERLAND BROOK AND GAEL BROOK EACH AS TO A ONE-EIGHTEENTH SHARE AND PETER RONALD KLUGER AND LINDALL LEE KLUGER EACH AS TO A ONE-EIGHTEENTH SHARE

as ~~joint tenants~~/tenants in common

OFFICE USE ONLY

OVER

TENANCY Note (e)

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Lease S887452 2 Lease No.V662212 tC P & H W Mitchell
Leases No V662210 and V662211 both to The Commonwealth of Australia
2. 3.

DATE 29th March 1985

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL of PAN CONTINENTAL
Signature of Witness

REALTY PTY. LIMITED was hereunto duly
Name of Witness (BLOCK LETTERS)

affixed by authority of the Board of
Address and occupation of Witness

Directors in the presence of:-

PAN CONTINENTAL REALTY PTY. LIMITED Common Seal

~~Secretary~~ Signature of Transferor Director

Note (g)

Signed in my presence by the transferee who is personally known to me

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Signature of Transferee

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY
CUTLER, HUGHES & HARRIS
SOLICITORS
53 MARTIN PLACE, SYDNEY 2000
D.X. 205 SYDNEY. PHONE 232 6799
Delivery Box Number G.O. Box 229P SYDNEY

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In R.G.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED 19	Secondary Directions	
EBJ				
Signed	Extra Fee	8 MAY 1985 Registrar General	Delivery Directions	

RP 13
1983

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment by hand at the Registrar General's Office.

Typewriting and handwriting should be clear, legible and in permanent non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

If it is intended to create easements, covenants, &c., use forms RP13A, RP13B, RP13C as appropriate.

Rule up all blanks.

The following instructions relate to the SIDE NOTES on the form.

(a) Description of land:
(i) TORRENS TITLE REFERENCE.—For a manual reference insert the Volume and Folio (e.g., Vol. 8514 Fol. 126)—For a computer folio insert the folio identifier (e.g., 12/701924).
(ii) PART/WHOLE.—If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919.
(iii) LOCATION.—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Show the full name of the transferor(s).

(c) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(d) Show the full name, address and occupation or description of the transferee(s).

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold.

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, lease, charge or writ to which this dealing is subject.

(g) Execution:

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.
(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he/she is personally known.
The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his/her firm), to be typewritten or printed adjacent to the signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No.

AUTHORITY (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)) the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A. for letters of administration, &c.

OFFICE USE ONLY

L 1341

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
	PROP	J.R. HAYMAN, B.D. MORAN, T.G. DONALD, J.E. CURRAN, R.P. BARNETT (EACH AS TO 1/5 SHARE) M. BESSER, R.M. KENDALL (EACH AS TO 1/5 SHARE) A.S. BROOK AND G. BROOK (EACH AS TO 1/10 SHARE) P.R. KLUGER AND L.L. KLUGER EACH AS TO 1/10 SHARE ALL AS TENANTS IN COMMON

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS

RP 13 STAMP DUTY

OFFICE USE ONLY

E 191083 U

TRANSFER

REAL PROPERTY ACT, 1900

T | of | R

$2-00

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 100/711850	WHOLE	Gosford.

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

PETER RONALD KLUGER
LYNDALL LEE KLUGER

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 51,979.00 and transfers an estate in fee simple as to two one-eighteenth shares in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

JARVIS RIGDEN HAYMAN, TONY GORDON DONALD, ROSS PHILLIP BARNETT, RICHARD MARKHAM KENDALL, BERNARD DOMINIC HORAN, JOHN EUGENE CURRAN AND MICHAEL BESSER as tenants in common as to one-eighth share each AND ANDREW SUTHERLAND BROOK and GAEL BROOK as tenants in common as to one-sixteenth share each

OFFICE USE ONLY

PROP

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Mortgage No. X790654 Leases X790649, X790650 & X790651 2. 3.

DATE 12th November 1991.

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

Signature of Witness

H. R. ANCEL

Name of Witness (BLOCK LETTERS)

15 WALCOTT ST GORDON MEDICAL PRACTITIONER

Address and occupation of Witness

Signature of Transferor

Signed in my presence by the transferee who is personally known to me

Note (g)

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Solicitor for Signature of Transferee

H. COOK

TO BE COMPLETED BY LODGING PARTY

Notes (h) and (i)

LODGED BY

Kruger

Ref:

Delivery Box Number

PIGOTT STINSON STUART THOM
SOLICITORS
PERPETUAL TRUSTEE CHAMBERS
39 HUNTER ST., SYDNEY 2000
687 G

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In L.T.O. with
✓		Produced by SAF

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19	Secondary Directions	
AB Reg'30				
Signed	Extra Fee		Delivery Directions	

OFFICE USE ONLY

U 629146 L

RP3 STAMP DUTY

B

TRANSMISSION APPLICATION

SECTION 93, REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form)

TA | 1 of 1 | $ | R

LAND of which deceased is registered proprietor

DESCRIPTION OF LAND Note (a)

Torrens Title reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 100/711850	~~WHOLE~~ PART being an undivided ~~one-ninth~~ one-eighth share as tenant in common	Gosford

LEASE, MORTGAGE, OR CHARGE of which deceased is registered proprietor

REGISTERED DEALING Note (b)

Type of Dealing	Registered Number	Torrens Title Reference	Location
		D	

DECEASED REGISTERED PROPRIETOR Note (c)

ROSS PHILLIP BARNETT

Note (d) (the abovenamed DECEASED) is registered as one of the proprietor of the ~~abovementioned registered dealing~~ land above described. The APPLICANT

APPLICANT Note (e)

MICHELE GAIL BARNETT of 3 Mt. Gilead Road, Thirroul, 2515

OFFICE USE ONLY

ENTITLEMENT Note (f) and (i)

being entitled as ~~beneficiary~~ Executrix of the will/~~estate~~ of the abovenamed deceased

Probate No. 103251/92 ~~Letters of Administration No.~~ of whose will/~~of whose estate~~ was granted on 12th March, 1992

to Michele Gail Barnett

Note (d) hereby applies to be registered as proprietor of the estate or interest of the said deceased in the ~~abovementioned registered dealing~~ land above described.

DATE 1st September, 1992

I hereby certify this application to be correct for the purposes of the Real Property Act, 1900.

Signed in my presence by the applicant who is personally known to me.

Signature of Witness

EXECUTION Note (g)

PETER HEDLEY LEGGO

Name of Witness (BLOCK LETTERS)

SOLICITOR WARRAWONG

Address and Occupation of Witness

M. Barnett

Signature of Applicant

TO BE COMPLETED BY LODGING PARTY Notes (g) and (h)

LODGED BY GALLOWAY & CO.

Phone: 233-1011 Fax: 232-646
DX 340, L.T.O. Delivery 28A

Ref:
Delivery Box Number EVMCG - BARNETT

CT	PROBATE No. AND/OR OTHER	DATE OF DEATH	LOCATION OF DOCUMENTS
	103251/92	4-7/11/91	Herewith.
	S&R 19/9/94		In L.T.O. with
1			Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED -19	Secondary Directions		
Signed	Extra Fee		Delivery Directions		

1987

I/We MICHELE GAIL BARNETT of 3 Mt. Gilead Road, Thirroul, 2515

executor of the will of ROSS PHILLIP BARNETT
administrator of the estate of

consent to this application

Signature of Witness

Name of Witness (BLOCK LETTERS) PETER HEDLEY LEGGO

Address and Occupation of Witness SOLICITOR WARRAWONG

Signature of Executor/Administrator

CONSENT OF EXECUTOR OR ADMINISTRATOR Note (j)

INSTRUCTIONS FOR COMPLETION

Before lodgment at the Land Titles Office this application—

(i) Should be marked "Registration not Opposed" by the Commissioner of Stamp Duties if the deceased registered proprietor died before 31st December, 1982; and
(ii) Where applicable, stamp duty should be paid and the application appropriately stamped.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing in the left hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the applicant and the attesting witness.

Rule up all blanks.

The following instructions relate to the side notes on the form.

(a) Description of land. (If application is only in respect of a registered dealing, rule through this panel.)

(i) TORRENS TITLE REFERENCE. Insert the current reference to the Folio of the Register for the land the subject of the application, e.g., 12/701924 or Vol. 12364 Fol. 126.

(ii) PART/WHOLE. If part only of the land in the Folio of the Register is the subject of the application, delete the word "WHOLE" and insert the lot and plan number, portion, &c.

(iii) LOCATION. Insert the locality shown on the Folio of the Register, e.g. at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Registered dealing. (If application is only in respect of a Certificate of Title, rule through this panel.)

Show the registered number of the lease, mortgage, or charge, the title reference affected thereby, and the location of the land involved, e.g. Lease—W123456—Vol. 12634 Fol. 124—at Camperdown.

(c) Show the full name of the deceased registered proprietor.

(d) Strike out "land above described" or "abovementioned registered dealing", whichever does not apply.

(e) Show the full name, address and description of the applicant. If devisees or beneficiaries apply, indicate whether they hold as joint tenants or tenants in common, and, if as tenants in common, state the shares in which they hold.

(f) Insert executor, administrator, trustee, devisee or beneficiary as appropriate. If letters of administration have been granted, e.g., "cum testamento annexo" or "de bonis non", the entitlement may be abbreviated, e g. administrator c.t.a., administrator d.b.n., &c. Applicants should not claim as executor *and* devisee or executor *and* trustee.

(g) Execution.

GENERALLY (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.

(ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all the applicants, each applicant to execute the dealing in the presence of an adult witness, not being a party to the application, to whom he/she is personally known. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY (iii) If the application is executed by an attorney for the applicant pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g. "AB by his/her attorney (or receiver or delegate, as the case may be), XY pursuant to power of attorney registered Book No".

AUTHORITY (iv) If the application is executed pursuant to an authority (other than specified in (iii)), the form of execution must indicate the statutory, judicial or other authority pursuant to which the application has been executed.

CORPORATION (v) If the application is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g. in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title or duplicate registered dealing. List, in an abbreviated form, other documents lodged, e.g. stat. dec. for statutory declaration, pbte for probate, L/A for letters of administration.

(j) Consent of the executor or administrator is required only where the applicant claims otherwise than as executor, administrator, or trustee.

OFFICE USE ONLY

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER (OR REGD. DEALING & FOLIO IDENTIFIER)	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS

Licence: AUS/0634/96

TRANSFER

New South Wales
Real Property Act 1900

3922553 M

Instructions for filling out this form are available from the Land Titles Office

Office of State Revenue use only

$2.00 180398 9304 04 00224272303
N.S.W. STAMP DUTY

(A) **LAND TRANSFERRED**
If appropriate, specify the share or part transferred.

CERTIFICATE OF TITLE FOLIO IDENTIFIER 100/711850

(B) **LODGED BY**

LTO Box	Name, Address or DX and Telephone
4SA	NATIONAL AUSTRALIA BANK LIMITED NATIONAL AUSTRALIA BANK HOUSE George Street, SYDNEY 237-1111 Reference (15 character maximum): GA6902

(C) **TRANSFEROR** JARVIS RIDGEN HAYMAN, TONY GORDON DONALD, MICHELE GAIL BARNETT, RICHARD MARKHAM KENDALL, BERNARD DOMINIC HORAN, JOHN EUGENE CURRAN, MICHAEL BESSER, ANDREW SUTHERLAND BROOK AND GAEL BROOK

(D) acknowledges receipt of the consideration of ONE MILLION & TWO HUNDRED THOUSAND DOLLARS ($1,200,000.00)
and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable): 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T TS (s713 LGA) TW (Sheriff)	BARENGOLD ENTERPRISES PTY. LIMITED (A.C.N. 080 387 168) a Company duly incorporated in New South Wales and having its registered office at Ryan Lamont Services, Accountants, 22 Watt Street, Gosford.

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. **DATE** 19/3/98

Signed in my presence by the transferor who is personally known to me.

Signed by the Transferors by the Attorney, Davey Financial Management Pty. Limited (A.C.N. 002 736 343) under Powers of Attorney Book: 4188 Nos. 951-959 inclusive under the authority whereof they have signed the within Transfer.

Signature of Witness

THE COMMON SEAL of DAVEY FINANCIAL MANAGEMENT PTY. LIMITED (A.C.N. 002 736 343) is hereunto affixed by authority of the Board of Directors in the presence of:

Name of Witness (BLOCK LETTERS)

Address of Witness

Secretary

Director

Signature of Transferor

Common Seal
DAVEY FINANCIAL MANAGEMENT PTY. LTD.
A.C.N. 002 736 343

Signed in my presence by the transferee who is personally known to me.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

Signature of Transferee

STUART GRAEME BOLDEN TIPPLE
Solicitor for the Transferee
~~JANE JEFFREY FREEMAN~~

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name in block letters.

Checked by (LTO use) .....

LAND REGISTRY SERVICES **Title Search** InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 100/711850

SEARCH DATE	TIME	EDITION NO	DATE
31/3/2018	10:56 AM	14	23/7/2008

LAND

LOT 100 IN DEPOSITED PLAN 711850
AT GOSFORD
LOCAL GOVERNMENT AREA CENTRAL COAST
PARISH OF GOSFORD COUNTY OF NORTHUMBERLAND
TITLE DIAGRAM DP711850

FIRST SCHEDULE

THE COUNCIL OF THE CITY OF GOSFORD (T 7275577)

SECOND SCHEDULE (10 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP610446 EASEMENT FOR SUPPORT APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 DP711850 EASEMENT FOR SUPPORT AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 X790647 RIGHT OF CARRIAGEWAY 3.55 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "W", "X", "Y", "Z" ON DP746819
5 X790647 RIGHT OF CARRIAGEWAY 6.5 WIDE & VARIABLE WIDTH APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "C4" ON DP746819
6 X790647 RIGHT OF CARRIAGEWAY 6.5 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "C3" ON DP746819
7 X790647 RIGHT OF FOOTWAY 1.2 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "F" ON PLAN WITH X790647
8 X790647 EASEMENT FOR PARKING APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "P4" ON PLAN WITH X790647
9 X790647 RIGHT OF CARRIAGEWAY 4.755 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED AFFECTING THE LAND DESIGNATED "L1" ON PLAN WITH X790647
10 AE102528 LEASE TO PARKSIDE GOSFORD LTD EXPIRES: 31/1/2012. OPTION OF RENEWAL: 5 YEARS WITH A FURTHER OPTION OF 5 YEARS.

END OF PAGE 1 - CONTINUED OVER

FOLIO: 100/711850 PAGE 2

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

[redacted]

TIFICATE OF TITLE

PERTY ACT, 1900, as amended.

10418065

NEW SOUTH WALES

Crown Grant Vol. 1091 Fol. 157

Prior Title Vol. 1148 Fol. 206

RP

Vol. 10418 Fol. 65

Edition issued 18-10-1966

K451506 CANCELLED [W]

(Page 1) Vol. 10418 Fol. 65

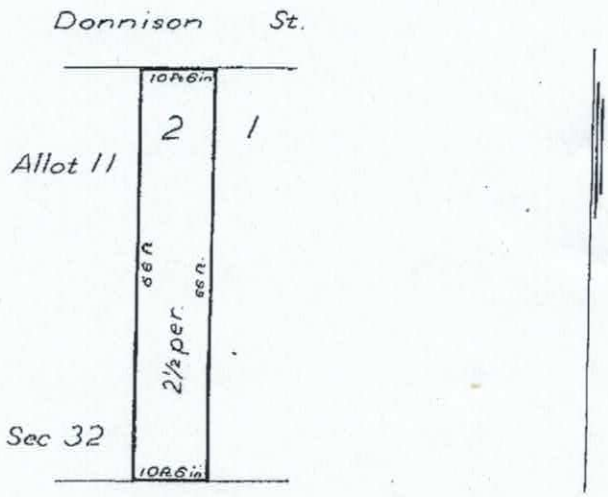
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness. S. Vandine

Jawatson
Registrar General.

REGISTRAR GENERAL NEW SOUTH WALES

PLAN SHOWING LOCATION OF LAND



K451506 ET
H.J.R

Scale: 20 feet to one inch.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 2 in plan lodged with Transfer No. 520308 (filed as F.P.105327) in the Shire of Gosford Town and Parish of Gosford and County of Northumberland. Excepting thereout the minerals reserved by the Crown Grant.

FIRST SCHEDULE (Continued overleaf)

~~WILLIAM ROBERT WHITE of Point Clare, Retired and KATHLEEN WHITE his wife, as Joint Tenants.~~

Jawatson
Registrar General

SECOND SCHEDULE (Continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Right of Way created by ~~Transfer No. 520308 affecting the land above~~ described. Extinguished K 774331
~~3. Caveat No. K204078. Entered 14-1-1966.~~ Withdrawn K456044
~~4. Caveat No. K362429. Entered 21-6-1966.~~ Withdrawn K493798
~~5. Caveat No. K451507 by The Registrar General. Entered 6-10-1966.~~ Withdrawn K474587

Jawatson
Registrar General

PT 1, 17 V.C.N. Blight, Government Printer

Vol. 10418 Fol. 65

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
~~Westfield Development Corporation Limited~~ ~~The Australasian Temperance and General Mutual Life Assurance Society Limited~~	Transfer	K474587	13-10-1966	8-12-1966	
	Transfer	142596	19.6.1968	22.5.1968	
T. & G. Mutual Life Society Limited	Application	Q511545	—	13-2-1978	

D.P. 610446

This deed is cancelled as to the whole
New certificates of Title have issued on 29-10-1980
for lots in Deposited Plan No 610446 as follows:-
Lots 2 Vol 14269 Fol 190 respectively.
Consolidation
Vide IVA 34200

REGISTRAR-GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
~~Lease~~	~~K731063~~	~~1.6.1964~~	~~to of the premises hereinafter known as Shop 2 on the Westfield Shopping Centre, Dennison Street, Gosford (excluding rights) to Charles Furnishings Pty Limited~~	14.7.1967		Expired	8.10.1972	
~~Mortgage~~ ~~Lease~~	~~K731067~~ ~~PA715172~~	~~6.7.1967~~ ~~10.5.1972~~	~~to Defence Forces Retirement Benefits Board of the premises being Shop No. 2 in the Building known as Westfield Shopping Centre (together with rights) to~~	14.7.1967		Discharged	442595	
			~~Charles Stanley Donovan of Kincumber Company Director~~	6.10.1972		Expired		
Lease	N707993	9.10.1973	of premises being Shop No.3 in the Westfield Shopping Centre at Gosford, together with rights to Charles Stanley Donovan of Kincumber, Company Director	22.2.1974		Expired	23-10-1980	

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

[redacted]

TIFICATE OF TITLE

PERTY ACT, 1900, as amended.

NEW SOUTH WALES

Vol. 10816 Fol. 40

Crown Grant Vol.1091 Fol.157

Prior Title Vol.1957 Fol.128

Edition issued 12-6-1968

AS L42596 CANCELLED

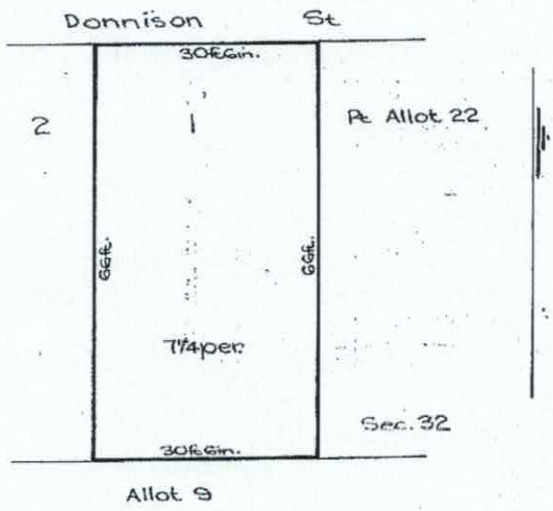
(Page 1) Vol. 10816 Fol. 40

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Witness

Registrar General.

PLAN SHOWING LOCATION OF LAND



L42596 cancelled

Scale: 20feet to one inch.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in plan lodged with Transfer No.520308 (Filed as F.P.105327) in the Shire of Gosford Town and Parish of Gosford and County of Northumberland. EXCEPTING THEREOUT the minerals reserved by the Crown Grant.

FIRST SCHEDULE (continued overleaf)

~~THE AUSTRALASIAN TEMPERANCE AND GENERAL MUTUAL LIFE ASSURANCE SOCIETY LIMITED.~~

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~Lease No.K731063 of the premises known as Shop 2 in the Westfield Shopping Centre, Donnison Street, Gosford (reserving rights) to Charles Furnishings Pty. Limited. Entered 14-7-1967.~~ Expired 14-10-1977
3. ~~Lease No.K731065 of the premises known as Shop No.1 in the Westfield Shopping Centre, Donnison Street, Gosford (reserving rights) to William Tange Pty. Limited. Entered 14-7-1967.~~ Expired 14-10-1977

Registrar General

.17 V.C.N. Blight, Government Printer

Vol. 10816 Fol 40

LQ365301L
30LC

DP610446

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
T & G Mutual Life Society Limited	Application	Q365301	------	14-10-1977	[signature]

NEW CERTIFICATES OF TITLE ISSUING OR NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO DP610446

This deed is cancelled as to the whole
New certificates of Title have issued on 29-10-1980
for lots in deposited Plan No. 610446 as follows:-
Lots 2 Vol 14269 Fol 190 respectively.
Consolidation
Vide 1VA 34200

[signature]
REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION
Lease	Q365301	------	of premises known as Shop Number One, 125A Donnison Street, Gosford, together with and reserving rights, to Sidney Anthony Smith and Maureen Anne Smith, both of Long Jetty, Retail and Wholesale Butchers. Date of expiry 24-7-1982	14-10-1977	[signature]	

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

LAND REGISTRY SERVICES

Historical Title

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 11:09AM

FOLIO: 101/711850

First Title(s): OLD SYSTEM VOL 1091 FOL 157
Prior Title(s): VOL 14269 FOL 190

Recorded	Number	Type of Instrument	C.T. Issue
4/3/1985	DP711850	DEPOSITED PLAN	FOLIO CREATED EDITION 1
11/6/1985	V766736	DISCHARGE OF MORTGAGE	
11/6/1985	V766737	MORTGAGE	EDITION 2
25/5/1987	DP746819	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

gosford PRINTED ON 31/3/2018

13565002

ICATE OF TITLE

PROPERTY ACT, 1900

NEW SOUTH WALES

Appln. No.53035

Vol. 13565 Fol. 2

EDITION ISSUED

CANCELLED 3 3 1978

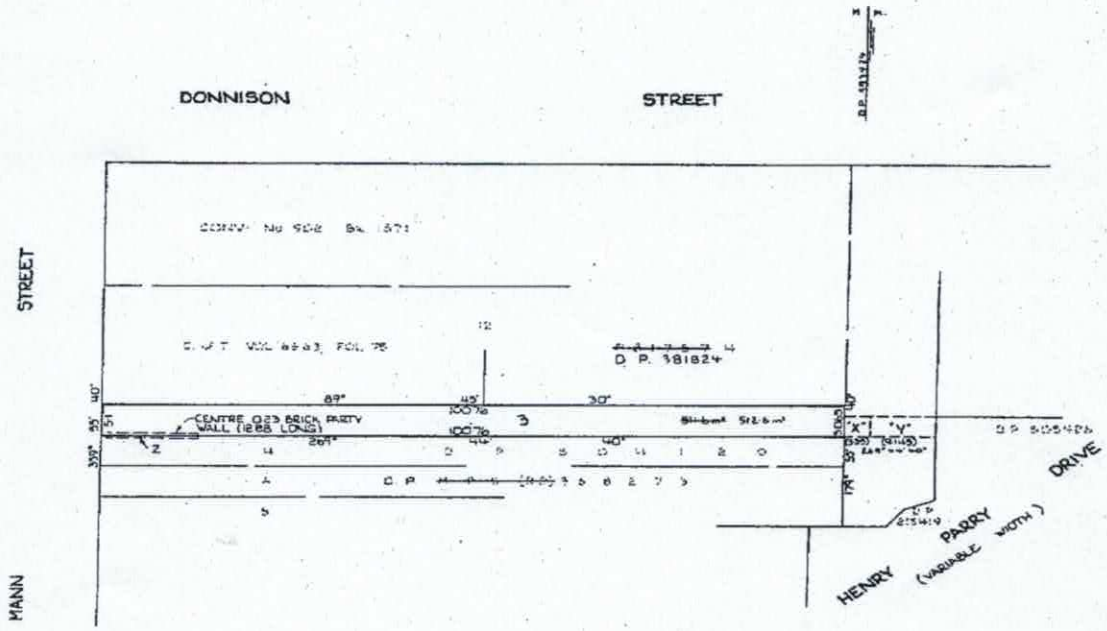
(Page 1) Vol. 13565 Fol. 2

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



"X" RIGHT OF WAY 3.35 WIDE CREATED IN CONVEYANCE No.282 BOOK 590
"Y" RIGHT OF WAY 3.35 WIDE CREATED IN CONVEYANCE No 22 BOOK ~~2843~~ 2844
Z CROSS EASEMENTS BK 1691 NO 853

13-3-1986

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 3 in Deposited Plan 593424 in the Shire of Gosford Parish of Gosford and County of Northumberland being part of Allotment 13 of Section 32 granted to Robert Creighton on 28-5-1855. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

KEVIN BERNARD SHUMACK of Gosford, Optometrist and SHIRLEY MARGARET SHUMACK, his wife as joint tenants.

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Book 590 No.282 Right of Way appurtenant to the land above described shown so benefited in the plan hereon.
3. Book ~~2843~~ 2844 No.22 Right of Way appurtenant to the land above described shown so benefited in the plan hereon.
4. Book ~~2653~~ 2652 No.853 Cross Easements (Section 181B Conveyancing Act,1919) affecting the party wall shown so burdened in the plan hereon.

13-3-1986

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

D. West, Government Printer, New South Wales

R435645

Refer to ~~Amendments~~

W651062D

W867331T
W869887M
DP746819K

Vol. 13565 Fol 2

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
DP 746819 Registered 22 MAY 1987 This folio is cancelled ~~or to whole/part~~ upon creation of computer folios for lots 11, 12, 13 in the abovementioned plan.					

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
~~Mortgage~~	~~M435645~~	~~[illegible]~~	~~to The Commercial Banking Company of Sydney Limited~~	24-9-1979		Discharged	W651062	
			created pursuant to Section 88B Conveyancing Act, [illegible] by the registration of DP 746819					
			Registered 22.5.1987					

(Page 2 of 2 pages)

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

[redacted]ICATE OF TITLE

14480115

NEW SOUTH WALES

[redacted]. PROPERTY ACT, 1900

IVA No. 34439

Vol. 14480 Fol. 115

EDITION ISSUED
CANCELLED 23/7/1981

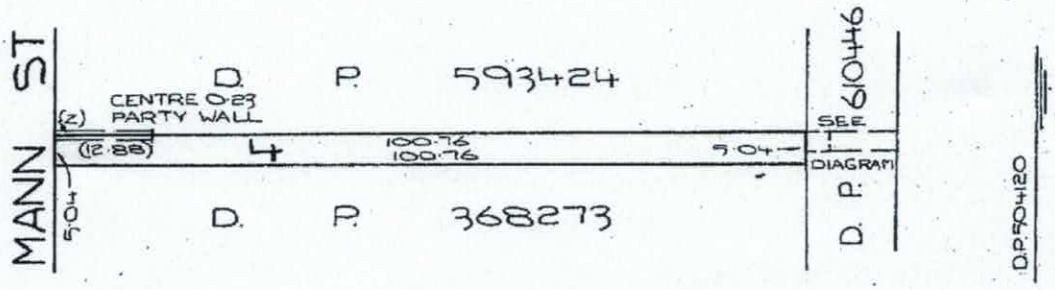
14480 Fol. 115 (Page 1) Vol.

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

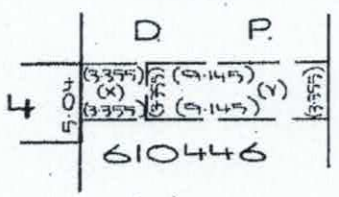
Registrar General.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



DIAGRAM



(X) RIGHT OF WAY 3.355 WIDE - BK 590 NO 282
(Y) RIGHT OF CARRIAGEWAY 3.355 WIDE - BK 2813 NO 820
(Z) CROSS-EASEMENTS - BK 2653 NO 853

IVA34439

AREA: 505·9m²

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 4 in Deposited Plan 504120 at Gosford in the City of Gosford Parish of Gosford County of Northumberland being part of Allotment 13 of Section 32 granted to Robert Creighton on 28-5-1855. EXCEPTING THEREOUT all mines of coal reserved by the Crown Grant.

FIRST SCHEDULE

~~THE SOUTH BRITISH INSURANCE COMPANY LIMITED.~~

NOP

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown grant above referred to.
2. CAUTION. The land within described is held subject to any subsisting interest (as defined in Section 28A Real Property Act, 1900).
3. Book 590 No. 282 Right of way appurtenant to the land above described affecting the land shown so burdened in the plan hereon.
4. Book ~~2653~~ 2652 No. 853 Cross-easements (Section 181B Conveyancing Act, 1919) affecting the party walls shown so burdened in the plan hereon.
5. Book 2813 No. 820 Right of carriageway appurtenant to the land above described affecting the land shown so burdened in the plan hereon.

3.9.1985

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

2/64

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	Registrar General
Gradenne Pty. Limited by Transfer W286021. Registered 18-4-1986. DP 746819 Registered 22 MAY 1987 This folio is cancelled as to whole/~~part~~ upon creation of computer folios for lots 11, 13 in the aforementioned plan.	

SECOND SCHEDULE (continued)

PARTICULARS	Registrar General	CANCELLATION
W286022 Mortgage to Custom Credit Corporation Limited. Registered 18-4-1986. Interests created pursuant to Section 88B Conveyancing Act, 1919, by the registration of DP 746819 Registered 22.5.1987		

NOTATIONS AND UNREGISTERED DEALINGS

W286021T 22MAY

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE

LAND REGISTRY SERVICES

Historical Title

InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 10:34AM

FOLIO: 11/746819

First Title(s): OLD SYSTEM VOL 1091 FOL 157
Prior Title(s): 101/711850 VOL 6215 FOL 126
VOL 8443 FOL 18 VOL 13565 FOL 2
VOL 14480 FOL 115

Recorded	Number	Type of Instrument	C.T. Issue
25/5/1987	DP746819	DEPOSITED PLAN	FOLIO CREATED EDITION 1
1/7/1987	W867381	TRANSFER	
1/7/1987	W869887	MORTGAGE	EDITION 2
3/7/1987		AMENDMENT: CT DELIVEREE	
10/11/1987	X114616	REQUEST	
10/11/1987	X114618	TRANSFER	EDITION 3
14/9/1988	X790646	TRANSFER	
14/9/1988	X790647	TRANSFER GRANTING EASEMENT	EDITION 4
26/9/1988	X790648	TRANSFER RELEASING EASEMENT	EDITION 5
30/1/1989	Y125585	LEASE	EDITION 6
22/2/1989	Y203365	LEASE	EDITION 7
21/3/1989	Y250547	DISCHARGE OF MORTGAGE	
21/3/1989	Y250548	TRANSFER	
21/3/1989	Y250549	REQUEST	
21/3/1989	Y250550	MORTGAGE	EDITION 8
17/7/1990	Z133457	DEPARTMENTAL DEALING	
17/7/1990	Z125752	LEASE	
17/7/1990	Z108260	SUB-LEASE	EDITION 9
4/3/1993	I163597	LEASE	EDITION 10
24/8/1994	U557086	SURRENDER OF LEASE	
24/8/1994	U557085	LEASE	EDITION 11
31/10/1996	2576056	DISCHARGE OF MORTGAGE	
31/10/1996	2576057	MORTGAGE	EDITION 12
3/2/1997	2804339	LEASE	EDITION 13

END OF PAGE 1 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 10:34AM

FOLIO: 11/746819 PAGE 2

Recorded	Number	Type of Instrument	C.T. Issue
15/7/1997	3232006	DISCHARGE OF MORTGAGE	
15/7/1997	3232007	MORTGAGE	EDITION 14
6/3/2000	6618787	LEASE	EDITION 15
19/8/2002	8874280	LEASE	EDITION 16
3/2/2003	9342958	DISCHARGE OF MORTGAGE	
3/2/2003	9342959	MORTGAGE	
3/2/2003	9342960	LEASE	EDITION 17
10/2/2004	AA186978	TRANSFER OF LEASE	
10/2/2004	AA186966	SUB-LEASE	
23/6/2005	AB570083	APPLICATION FOR REPLACEMENT CERTIFICATE OF TITLE	EDITION 18
28/6/2005	AB521929	LEASE	EDITION 19
18/8/2005	AB705680	LEASE	EDITION 20
17/10/2005	AB842914	LEASE	EDITION 21
3/11/2005	AB885467	DISCHARGE OF MORTGAGE	EDITION 22
26/4/2007	AD42761	TRANSFER	EDITION 23
8/11/2007	AD548284	LEASE	EDITION 24
4/2/2009	AE480173	LEASE	EDITION 25
5/3/2010	AE843199	APPLICATION	
31/5/2011	AG269182	LEASE	EDITION 26
4/1/2013	AH466015	LEASE	EDITION 27
27/3/2013	AH543572	CHANGE OF NAME	
18/3/2014	AI375797	LEASE	EDITION 28
18/7/2017	AM572774	TRANSFER	
18/7/2017	AM572775	MORTGAGE	EDITION 29

END OF PAGE 2 - CONTINUED OVER

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
31/3/2018 10:34AM

FOLIO: 11/746819 PAGE 3

Recorded	Number	Type of Instrument	C.T. Issue

*** END OF SEARCH ***

gosford PRINTED ON 31/3/2018

W867381

RP 13
1985

STAMP DUTY

TRANSFER

REAL PROPERTY ACT, 1900

T

A 1 of 1 X

$ 37

R 1/2

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a)	PART of the land in Certificate of Title Volume 13565 Folio 2 NOW BEING 11/746819 } PART 13/746819	PART being ~~that~~ part of the land in Certificate of Title Volume 13565 Folio 2 which is not included in Lot 12 shown in plan of subdivision approved by the Council of the City of Gosford No. 1348 of 19/3/1987	GOSFORD.

TRANSFEROR
Note (b)

KEVIN BERNARD SHUMACK of Gosford, Optometrist, and SHIRLEY MARGARET SHUMACK his wife.

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 45,000.00

ESTATE
Note (c)

and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE
Note (d)

GRADENNE PTY. LIMITED of ~~26/199~~ 26/199 Pacific Highway, North Sydney.

TENANCY
Note (e)

as joint tenants/tenants in common

OFFICE USE ONLY

OVER

PRIOR ENCUMBRANCES
Note (f)

subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3. .....

DATE 30/4/1987

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION
Note (g)

Signed in my presence by the transferor who is personally known to me

J Drinan
Signature of Witness

JENNIFER DRINAN
Name of Witness (BLOCK LETTERS)

3/119 MANN STREET, GOSFORD
Address and occupation of Witness

LEGAL SECRETARY

S. M. Shumack

Signature of Transferor

Note (g)

Signed in my presence by the transferee who is personally known to me

(S) $37

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Ian Stabback

Signature of Transferee's SOLICITOR

IAN STABBACK

TO BE COMPLETED BY LODGING PARTY
Notes (h) and (i)

LODGED BY

IAN. R. STABBACK
SOLICITOR
DX 246.

Delivery Box Number - 810.L.

139
OFFICE USE ONLY

Checked	Passed
EBS	EF3.
Signed	Extra Fee

REGISTERED - -19

-1 JUL 1987

LOCATION OF DOCUMENTS

CT	OTHER	
		Herewith.
		In L.T.O. with
		Produced by DP 746819

Secondary Directions		
Delivery Directions		

FEE

Ø Dr 746819

RP 13
1985

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment by hand at the Land Titles Office.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing in the left hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

If it is intended to create easements, covenants, &c., use forms RP13A, RP13B, RP13C as appropriate.

Rule up all blanks.

The following instructions relate to the SIDE NOTES on the form.

(a) Description of land.
- (i) TORRENS TITLE REFERENCE.—For a manual reference insert the Volume and Folio (e.g., Vol. 8514 Fol. 126)—For a computer folio insert the folio identifier (e.g., 12/701974).
- (ii) PART/WHOLE.—If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919.
- (iii) LOCATION.—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Show the full name of the transferor(s).

(c) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(d) Show the full name, address and occupation or description of the transferee(s).

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold.

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, lease, charge or writ to which this dealing is subject.

(g) Execution.

GENERALLY
- (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.
- (ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he/she is personally known.
  The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his/her firm), to be typewritten or printed adjacent to the signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY
- (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No."

AUTHORITY
- (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)), the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION
- (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number, and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A for letters of administration, &c.

OFFICE USE ONLY

LO 1341

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
11/746819	PROP	DAN CONTINENTAL REALTY PTY. LTD of part formerly in 101/711850, and GRADENNE PTY. LIMITED of part formerly in V. 6215 F 126, V 8443 F 18 V 13565 F 2 and V 14480 F. 115.
13/746819	S	GRADENNE PTY. LIMITED

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTFN TYPE	(G) DEALING NUMBER	(H) DETAILS

RP 13
1985

STAMP DUTY

X114618

$4089

TRANSFER

REAL PROPERTY ACT, 1900

T 3 3 of 3 X
$ 47

R3/3

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 11/746819	PART: ~~XXXXXXXX~~ as much of land in Folio 11/746819 as was in Certificates of Title Volume 6215 Folio 126 and Volume 8443 Folio 18	Gosford

DESCRIPTION OF LAND
Note (a)

TRANSFEROR
Note (b)

GRADENNE PTY.LIMITED

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $160,000-00
and transfers an estate in fee simple
in the land above described to the TRANSFEREE

ESTATE
Note (c)

TRANSFEREE
Note (d)

PAN CONTINENTAL REALTY PTY.LIMITED c/- Moore + Beaford, 120 Pacific Highway. St. Leonards Nsw.

OFFICE USE ONLY

OVER.

TENANCY
Note (e)

~~as joint tenants/tenants in common~~

PRIOR ENCUMBRANCES
Note (f)

subject to the following PRIOR ENCUMBRANCES 1. ..... 2. ..... 3. .....

DATE 20/8/87

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION
Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF GRADENNE PTY LIMITED was affixed by authority of its Board of Directors

Director

Signature of Witness

Name of Witness (BLOCK LETTERS)

Secretary

Address and occupation of Witness

Signature of Transferor

GRADENNE PTY. LTD. Common Seal

Note (g)

Signed in my presence by the transferee who is personally known to me

THE COMMON SEAL OF PAN CONTINENTAL REALTY PTY.LIMITED was affixed by authority of its Board of Directors

Signature of Witness

Name of Witness (BLOCK LETTERS)

Secretary

Address and occupation of Witness

Signature of Transferee

PAN CONTINENTAL REALTY PTY. LIMITED Common Seal

TO BE COMPLETED BY LODGING PARTY
Notes (h) and (i)

LODGED BY IAN R. STABBACK

Delivery Box Number 810.L.

LOCATION OF DOCUMENTS

	OTHER	
3		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED -19
Signed	Extra Fee	10 NOV 1987

Secondary Directions		
Delivery Directions	OVER	

RP 13
1985

INSTRUCTIONS FOR COMPLETION

This dealing should be marked by the Commissioner of Stamp Duties before lodgment by hand at the Land Titles Office.

Typewriting and handwriting should be clear, legible and in permanent dense black or dark blue non-copying ink.

Alterations are not to be made by erasure; the words rejected are to be ruled through and initialled by the parties to the dealing in the left hand margin.

If the space provided is insufficient, additional sheets of the same size and quality of paper and having the same margins as this form should be used. Each additional sheet must be identified as an annexure and signed by the parties and the attesting witnesses.

If it is intended to create easements, covenants, &c., use forms RP13A, RP13B, RP13C as appropriate.

Rule up all blanks.

The following instructions relate to the SIDE NOTES on the form.

(a) Description of land.
- (i) TORRENS TITLE REFERENCE —For a manual reference insert the Volume and Folio (e.g., Vol 8514 Fol 126)—For a computer folio insert the folio identifier (e.g., 12/701924)
- (ii) PART/WHOLE.—If part only of the land in the folio of the Register is being transferred, delete the word "WHOLE" and insert the lot and plan number, portion, &c. See also sections 327 and 327AA of the Local Government Act, 1919
- (iii) LOCATION.—Insert the locality shown on the Certificate of Title/Crown Grant, e.g., at Chullora. If the locality is not shown, insert the Parish and County, e.g., Ph. Lismore Co. Rous.

(b) Show the full name of the transferor(s).

(c) If the estate being transferred is a lesser estate than an estate in fee simple, delete "fee simple" and insert appropriate estate.

(d) Show the full name, address and occupation or description of the transferee(s).

(e) Delete if only one transferee. If more than one transferee, delete either "joint tenants" or "tenants in common", and, if the transferees hold as tenants in common, state the shares in which they hold.

(f) In the memorandum of prior encumbrances, state only the registered number of any mortgage, lease, charge or writ to which this dealing is subject.

(g) Execution.

GENERALLY
- (i) Should there be insufficient space for the execution of this dealing, use an annexure sheet.
- (ii) The certificate of correctness under the Real Property Act, 1900, must be signed by all parties to the transfer, each party to execute the dealing in the presence of an adult witness, not being a party to the dealing, to whom he/she is personally known.
The solicitor for the transferee may sign the certificate on behalf of the transferee, the solicitor's name (not that of his/her firm), to be typewritten or printed adjacent to the signature. Any person falsely or negligently certifying is liable to the penalties provided by section 117 of the Real Property Act, 1900.

ATTORNEY
- (iii) If the transfer is executed by an attorney for the transferor/transferee pursuant to a registered power of attorney, the form of attestation must set out the full name of the attorney, and the form of execution must indicate the source of his/her authority, e.g., "AB by his attorney (or receiver or delegate, as the case may be) XY pursuant to power of attorney registered Book No"

AUTHORITY
- (iv) If the transfer is executed pursuant to an authority (other than specified in (iii)), the form of execution must indicate the statutory, judicial or other authority pursuant to which the transfer has been executed.

CORPORATION
- (v) If the transfer is executed by a corporation under seal, the form of execution should include a statement that the seal has been properly affixed, e.g., in accordance with the Articles of Association of the corporation. Each person attesting the affixing of the seal must state his/her position (e.g., director, secretary) in the corporation.

(h) Insert the name, postal address, Document Exchange reference, telephone number, and delivery box number of the lodging party.

(i) The lodging party is to complete the LOCATION OF DOCUMENTS panel. Place a tick in the appropriate box to indicate the whereabouts of the Certificate of Title. List, in an abbreviated form, other documents lodged, e.g., stat. dec. for statutory declaration, pbte for probate, L/A for letters of administration, &c.

OFFICE USE ONLY

L.O. 1341

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) DIRECTION	(C) NAME
	PROP	PAN CONTINENTAL REALTY PTY. LTD. of part formerly in 101/711850 Vol 6215 Fol 126 and Vol 8443 Fol 18 and GRADENNE PTY. LIMITED of part formerly in Vol 13565 Fol 2 and Vol 14480 Fol 115

SECOND SCHEDULE AND OTHER DIRECTIONS

(D) FOLIO IDENTIFIER	(E) DIRECTION	(F) NOTEN TYPE	(G) DEALING NUMBER	(H) DETAILS
CT	~~RELEASE~~		Box 85 M	

Req:R368822 /Doc:DL X114618 /Rev:15-Sep-2010 /Sts:OK.SC /Pgs:ALL /Prt:31-Mar-2018 10:35 /Seq:2 of 2
Ref:gosford /Src:M

STAMP DUTY

X790646

TRANSFER

REAL PROPERTY ACT, 1900

T 3 4 of 10 X R4/5

$ 5¢

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Folio Identifier 11/746819	PART ~~XXXXXX~~ being that part still registered in the name of the transferor namely those parts formerly in Certificates of Title Volume 13565 Folio 2 and Volume 14480 Folio 115	At Gosford

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

GRADENNE PTY.LIMITED of 3/120 Pacific Highway St Leonards

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 160,000 already paid to the transferor and transfers an estate in fee simple and being the same consideration as referred to on Transfer of 20/12/1987
in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

PAN CONTINENTAL REALTY PTY.LIMITED
of 3/120 Pacific Highway St. Leonards

OFFICE USE ONLY S

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

subject to the following PRIOR ENCUMBRANCES 1. Mortgage W 286022
2. Mortgage W869887 3.

DATE 20 /12/1987

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)

Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF GRADENNE PTY.LIMITED was affixed in accordance with its Articles of Association in the presence of the director and secretary whose signatures appear hereon.

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Secretary

Director

Signature of Transferor

GRADENNE PTY. LTD. Common Seal

Note (g)

Signed in my presence by the transferee who is personally known to me

THE COMMON SEAL OF PAN CONTINENTAL REALTY PTY.LIMITED was affixed in accordance with its Articles of Association in the presence of the director and secretary whose signatures appear hereon

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Secretary

Director

Signature of Transferee

PAN CONTINENTAL REALTY PTY. LIMITED Common Seal

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY Pigott Stinson

Delivery Box Number 687G

LOCATION OF DOCUMENTS	CT	OTHER
Herewith.		
In L.T.O. with		
Produced by 46X	e1	

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19	Secondary Directions	
EBN				
Signed	Extra Fee	14 SEP 1988	Delivery Directions	

RP 13 (1) STAMP DUTY [redacted]

OFFICE USE ONLY

Y250548

TRANSFER

REAL PROPERTY ACT, 1900

T

$1-00

Y250548

	Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
DESCRIPTION OF LAND Note (a)	FOLIO IDENTIFIER 11/746819	WHOLE	GOSFORD

TRANSFEROR Note (b): PAN CONTINENTAL REALTY PTY. LIMITED of 267 Pacific Highway, North Sydney

ESTATE Note (c): (the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 2,600,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d): TRENT DOUGLAS FAREBROTHER of RMB 7033 Taylor Road, Lisarow NSW 2251 Medical Practitioner

OFFICE USE ONLY: S

TENANCY Note (e): as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f): subject to the following PRIOR ENCUMBRANCES 1. Y125585 2. Y203565 3.

DATE 28/2/1989

We hereby certify this dealing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g): Signed in my presence by the transferor who is personally known to me

THE COMMON SEAL OF PAN CONTINENTAL REALTY PTY LIMITED WAS HEREUNTO AFFIXED IN THE PRESENCE OF THE DIRECTOR AND SECRETARY WHOSE SIGNATURES APPEAR HEREON

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

PAN CONTINENTAL REALTY PTY. LIMITED Common Seal

Signature of XXXXX DIRECTOR

Note (g): Signed in my presence by the transferee who is personally known to me

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

SIGNATURE OF SECRETARY

Signature of Transferee

Solicitor for Transferee.

D. K. Wells.

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)

LODGED BY: Westpac Banking Corporation, THE BANKING HOUSE, 223 PITT STREET, SYDNEY, 2000 PHONE: 226-2511 DELIVERY BOX No. 37Y

Delivery Box Number

LOCATION OF DOCUMENTS

CT	OTHER	
✓ D.M.R.		Herewith.
M.		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed	REGISTERED - -19
6A13		21 MAR 1989
Signed	Extra Fee	

Secondary Directions

Delivery Directions

Req:R368827 /Doc:DL AD042761 /Rev:27-Apr-2007 /Sts:NO.OK /Pgs:ALL /Prt:31-Mar-2018 10:36 /Seq:1 of 1
Ref:gosford /Src:M

Form: 01T
Release: 3.1
www.lands.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

AD42761K

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 1408011 75
Duty: 82 Trans No: 4120934
Asst details:

(A) **TORRENS TITLE** 1

11/746819

(B) **LODGED BY**

Document Collection Box	Name, Address or DX and Telephone	CODES
LLPN 12352A 717A	ADAMS RAVES MARSH & CO. SOLICITORS 227 ELIZABETH ST SYDNEY 2000 (DX 255 SYDNEY) Reference: Farebrother	T TW (Sheriff)

(C) **TRANSFEROR** TRENT DOUGLAS FAREBROTHER

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 2,650,000.00 and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** BAKST (NO 71) PTY LIMITED ACN 001 838 393

(I) **TENANCY:**

DATE 30 March 2007.

(J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Signature of witness:

Name of witness: Sarah Jane Whan
Address of witness: 131 Donnison St
GOSFORD.

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of transferor: TDF X

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: PHILIP STROUD
Signatory's capacity: transferee's solicitor

Req:R368825 /Doc:DL AM572774 /Rev:21-Jul-2017 /Sts:NO.OK /Pgs:ALL /Prt:31-Mar-2018 10:36 /Seq:1 of 1
Ref:gosford /Src:M

Form: 01T
Licence: 05-11-638
Licensee: Softdocs
Tonkin Drysdale Partners

TRANSFER

New South Wales
Real Property Act 1900

AM572774S

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Re by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 2122472 68
Duty: $10.00 Trans No: 9099785-001
Asst details:

(A) **TORRENS TITLE** 11/746819

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
8590	Acc. No. 123619N TONKIN DRYSDALE PARTNERS DX 8803 WOY WOY Tel: (02) 4341 2355 Reference (optional): PT:PH:170485	T TW

(C) **TRANSFEROR** BAKST (NO. 71) PTY LIMITED ACN 007 838 393

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 3,500,000.00 and as regards the land

(E) **ESTATE** specified above transfers to the transferee an estate in fee simple.

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** EMPLOYMENT AND TRAINING AUSTRALIA INCORPORATED ABN 60 459 500 248

(I) **TENANCY:**

DATE 01/06/2017

(J) Certified correct for the purposes of the Real Property Act 1900 by the company named below the common seal of which was affixed pursuant to the authority specified and in the presence of the authorised person(s) whose signature(s) appear(s) below.
Company: BAKST (NO. 71) PTY LIMITED
Authority: Section 127(2) of the Corporations Act 2001

Signature of authorised person: R.J. Fanebrother
Name of authorised person: RHONDA SUE FAREBROTHER
Office held: Secretary

Signature of authorised person:
Name of authorised person: TRENT FAREBROTHER
Office held: DIRECTOR

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: Paul Damian Tonkin
Capacity: Solicitor for the transferee

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1307985 Full Name: Paul Damian Tonkin Signature:

** s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

LAND REGISTRY SERVICES **Title Search** InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 11/746819

SEARCH DATE	TIME	EDITION NO	DATE
31/3/2018	11:27 AM	29	18/7/2017

LAND

LOT 11 IN DEPOSITED PLAN 746819
AT GOSFORD
LOCAL GOVERNMENT AREA CENTRAL COAST
PARISH OF GOSFORD COUNTY OF NORTHUMBERLAND
TITLE DIAGRAM DP746819

FIRST SCHEDULE

EMPLOYMENT AND TRAINING AUSTRALIA INCORPORATED (T AM572774)

SECOND SCHEDULE (11 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 F164795 COVENANT AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM.
3 DP610446 EASEMENT FOR SUPPORT APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED IN THE TITLE DIAGRAM
4 EASEMENT(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM CREATED BY:
DP746819 -RIGHT OF CARRIAGEWAY 3.35 WIDE OVER LANDS DESIGNATED W,X,Y,Z
DP746819 -RIGHT OF CARRIAGEWAY 6.5 WIDE DESIGNATED C3
DP746819 -RIGHT OF CARRIAGEWAY 6.5 WIDE & VARIABLE WIDTH DESIGNATED C4
X790647 -RIGHT OF CARRIAGEWAY 3.55 WIDE OVER LANDS DESIGNATED W, X, Y, Z
X790647 -RIGHT OF CARRIAGEWAY 6.5 WIDE & VARIABLE WIDTH OVER LANDS DESIGNATED C4
X790647 -RIGHT OF CARRIAGEWAY 6.5 WIDE OVER LANDS DESIGNATED C3
5 DP711850 EASEMENT FOR SUPPORT APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BENEFITED IN THE TITLE DIAGRAM
6 X790647 RIGHT OF FOOTWAY 1.2 WIDE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN WITH X790647
7 X790647 EASEMENT FOR PARKING AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN WITH X790647
8 X790647 RIGHT OF CARRIAGEWAY 4.755 WIDE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED ON PLAN

END OF PAGE 1 - CONTINUED OVER

FOLIO: 11/746819 PAGE 2

SECOND SCHEDULE (11 NOTIFICATIONS) (CONTINUED)

WITH X790647

9 AH466015 LEASE TO BLINK MOBILE TECHNOLOGIES PTY LTD OF SUITE 2 / 123-125 DONNISON STREET, GOSFORD. EXPIRES: 1/1/2017. OPTION OF RENEWAL: 4 YEARS.

10 AI375797 LEASE TO GOVERNMENT PROPERTY NSW OF SUITES 3, 5, 6 AND 7 FIRST FLOOR, 123-125 DONNISON STREET, GOSFORD. EXPIRES: 30/11/2018.

11 AM572775 MORTGAGE TO GENE PTY LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

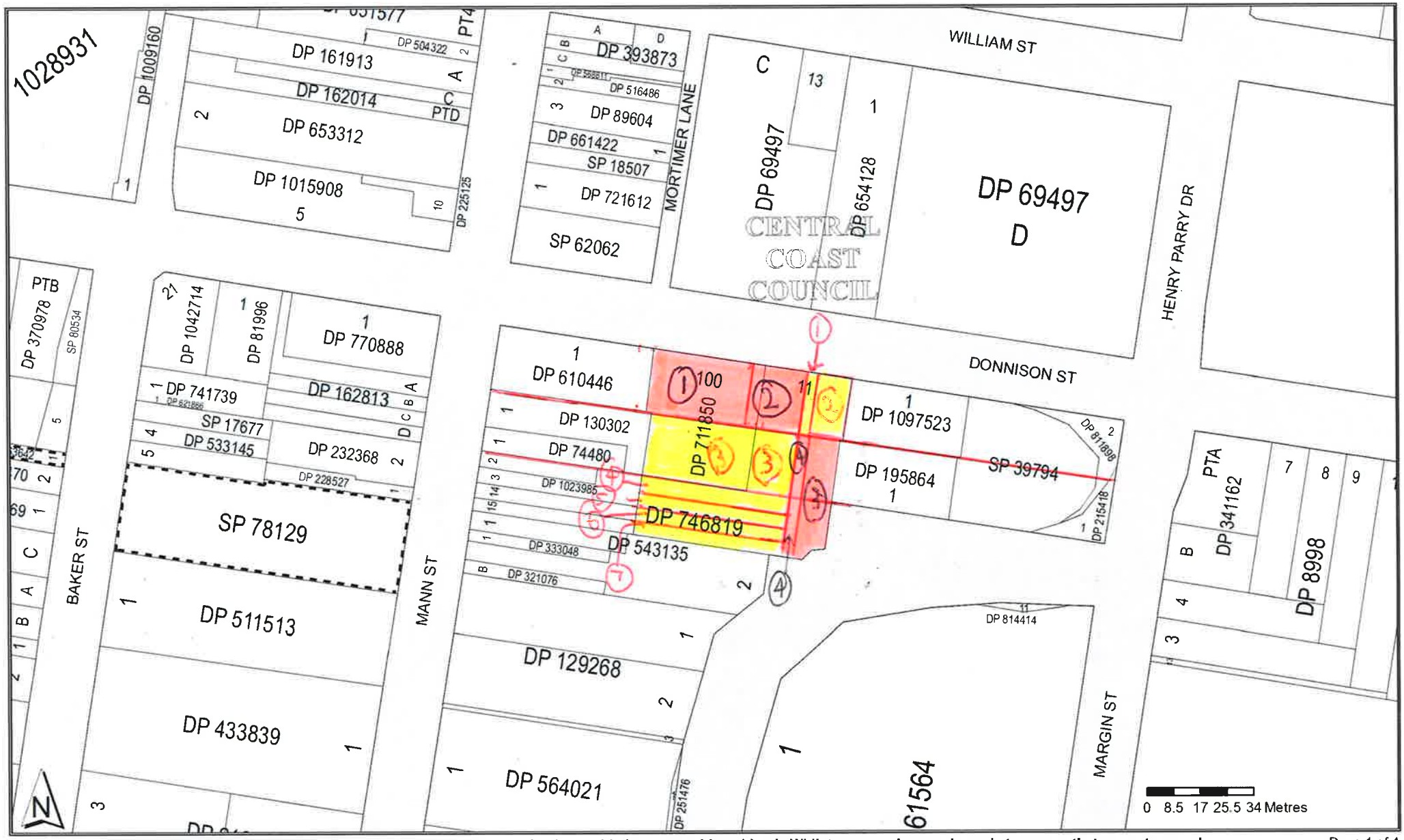
*** END OF SEARCH ***

LAND REGISTRY SERVICES

Cadastral Records Enquiry Report : Lot 100 DP 711850

Locality : GOSFORD
LGA : CENTRAL COAST

Parish : GOSFORD
County : NORTHUMBERLAND



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Appendix D

Site Assessment Criteria

Appendix D – Site Assessment Criteria

It is understood that future development planning is only at a preliminary stage, however it is likely to comprise include a multi-level commercial building (library) with possibly two levels of basement car parking.

The Site Assessment Criteria (SAC) applied in the current investigation are informed by the CSM which identified human and environmental receptors to potential contamination on the site (refer to Section 6). Analytical results are assessed (as a Tier 1 assessment) against the SAC comprising primarily the investigation and screening levels of Schedule B1, *National Environment Protection (Assessment of Site Contamination) Measure* 1999, as amended 2013 (NEPC, 2013).

The investigation and screening levels applied in the current investigation comprise levels adopted for a generic commercial land use scenario.

D1 Soils

Health Investigation and Screening Levels

The generic Health Investigation Levels (HILs) and Health Screening Levels (HSLs) are considered to be appropriate for the assessment of human health risk associated with contamination at the site. The adopted soil HILs and HSLs for the potential contaminants of concern are presented in Table D2, with inputs into their derivation shown on Table D1

Table D1: Inputs to the Derivation of HSLs

Variable	Input	Rationale
Potential exposure pathway	Soil vapour intrusion (inhalation)	The adopted HSLs are predicated on a potential vapour intrusion pathway, as identified in the CSM.
Soil Type	Sand	Sand, silt and clay soils encountered at the site. Sand has been conservatively adopted as being the predominant soil type.
Depth to contamination	0 m to <1 m	0 m to <1 m conservatively assumed.

Table D2: HIL and HSL in mg/kg Unless Otherwise Stated

Contaminants		HIL- D	HSL- D
Metals	Arsenic	3,000	
	Cadmium	900	
	Chromium (VI)	3,600	
	Copper	240,000	
	Lead	1,500	
	Mercury (inorganic)	730	
	Nickel	6,000	
	Zinc	400,000	
PAH	Benzo(a)pyrene TEQ[1]	40	
	Naphthalene		NL[3]
	Total PAH	4,000	
TRH	C6 – C10 (less BTEX) [F1]		260
	>C10-C16 (less Naphthalene) [F2]		NL[3]
	>C16-C34 [F3]		
	>C34-C40 [F4]		3
BTEX	Benzene		
	Toluene		NL[3]
	Ethylbenzene		NL[3]
	Xylenes		230
OCP	Aldrin + Dieldrin	45	
	Chlordane	530	
	DDT+DDE+DDD	3,600	
	Endosulfan	2,000	
	Endrin	100	
	Heptachlor	50	
	HCB	80	
	Methoxychlor	2,500	
PCB [2]		7	
Phenols		240,000	

Notes:

1 Sum of carcinogenic PAH

2 Non dioxin-like PCBs only.

3 The soil saturation concentration (Csat) is defined as the soil concentration at which the porewater phase cannot dissolve any more of an individual chemical. The soil vapour that is in equilibrium with the porewater will be at its maximum. If the derived soil HSL exceeds Csat, a soil vapour source concentration for a petroleum mixture could not exceed a level that would results in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'.

Ecological Investigation Levels

Ecological Investigation Levels (EILs) and Added Contaminant Limits (ACLs), where appropriate, have been derived in NEPC (2013) for only a short list of contaminants comprising As, Cu, Cr (III), DDT, naphthalene, Ni, Pb and Zn. The adopted EILs, derived using the *Interactive (Excel) Calculation Spreadsheet* (Standing Council on Environment and Water (SCEW) website (http://www.scew.gov.au/node/941)) are shown in the following Table D4, with inputs into their derivation shown on Table D3.

Table D3: Inputs to the Derivation of EILs

Variable	Input	Rationale
Age of contaminants	"Aged" (>2 years)	*Potential contamination sources are generally greater than 2 years*
pH	6	*Terrigal Formation soils in the local area are known to be slightly acidic*
CEC	5 $cmol_c/kg$	*Typical CEC value for local clay soils that comprise the majority of the top 2 m of soil profile*.
Clay content	5%	*Conservatively assumed clay content of 5%*
Traffic volumes	low	*Conservatively assumed traffic low volume*
State / Territory	NSW	

Table D4: EIL in mg/kg

Analyte		EIL
Metals	Arsenic	160
	Copper	150
	Nickel	60
	Chromium III	530
	Lead	1800
	Zinc	440
PAH	Naphthalene	370
OCP	DDT	640

Ecological Screening Levels

Ecological Screening Levels (ESLs) are used to assess the risk of selected petroleum hydrocarbon compounds, BTEX and benzo(a)pyrene to terrestrial ecosystems. The adopted ESLs, based on a coarse soil type, are shown in the following Table D5.

Table D5: ESL in mg/kg

Analyte		ESL[1]	Comments
TRH	C6 – C10 (less BTEX) [F1]	215*	All ESLs are low reliability apart from those marked with * which are moderate reliability
	>C10-C16 (less Naphthalene) [F2]	170*	
	>C16-C34 [F3]	1,700	
	>C34-C40 [F4]	3,300	
BTEX	Benzene	75	
	Toluene	135	
	Ethylbenzene	165	
	Xylenes	180	
PAH	Benzo(a)pyrene	1.4	

Management Limits

In addition to appropriate consideration and application of the HSLs and ESLs, there are additional considerations which reflect the nature and properties of petroleum hydrocarbons, including:

- Formation of observable light non-aqueous phase liquids (LNAPL);
- Fire and explosion hazards;
- Effects on buried infrastructure e.g. penetration of, or damage to, in-ground services.

The adopted management limits, based on a coarse soil type, are shown in the following Table D6.

Table D6: Management Limits in mg/kg

Analyte		Management Limit
TRH	$C_6 – C_{10}$ (F1) #	700
	$>C_{10}-C_{16}$ (F2) #	1,000
	$>C_{16}-C_{34}$ (F3)	3,500
	$>C_{34}-C_{40}$ (F4)	10,000

Separate management limits for BTEX and naphthalene are not available hence these have not been subtracted from the relevant fractions to obtain F1 and F2

Asbestos in Soil

Asbestos only poses a risk to human health when asbestos fibres are made airborne and inhaled. If asbestos is bound in a matrix such as cement or resin, it is not readily made airborne except through substantial physical damage. Bonded Asbestos-Containing Materials (ACM) in sound condition represents a low human health risk, whilst both Fibrous Asbestos (FA) and Asbestos Fines (AF) materials have the potential to generate, or be associated with, free asbestos fibres. Consequently, FA and AF must be carefully managed to prevent the release of asbestos fibres into the air.

A detailed asbestos assessment was not undertaken as part of these works as asbestos was not an identified as a contaminant of concern at the time of writing the proposal. Therefore the presence or absence of asbestos at a limit of reporting of 0.1 g/kg has been adopted for this assessment as an initial screen.

Appendix E

Borehole Logs

Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:

  4,6,7
  N=13

- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:

  15, 30/40 mm

The results of the SPT tests can be related empirically to the engineering properties of the soils.

Dynamic Cone Penetrometer Tests / Perth Sand Penetrometer Tests

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.

Soil Descriptions

Douglas Partners

Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS 1726-1993, Geotechnical Site Investigations Code. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	20 - 63
Medium gravel	6 - 20
Fine gravel	2.36 - 6
Coarse sand	0.6 - 2.36
Medium sand	0.2 - 0.6
Fine sand	0.075 - 0.2

The proportions of secondary constituents of soils are described as:

Term	Proportion	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	20 - 35%	Sandy Clay
Slightly	12 - 20%	Slightly Sandy Clay
With some	5 - 12%	Clay with some sand
With a trace of	0 - 5%	Clay with a trace of sand

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	vs	<12
Soft	s	12 - 25
Firm	f	25 - 50
Stiff	st	50 - 100
Very stiff	vst	100 - 200
Hard	h	>200

Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	SPT N value	CPT qc value (MPa)
Very loose	vl	<4	<2
Loose	l	4 - 10	2 -5
Medium dense	md	10 - 30	5 - 15
Dense	d	30 - 50	15 - 25
Very dense	vd	>50	>25

Soil Descriptions

Soil Origin

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Transported soils - formed somewhere else and transported by nature to the site; or
- Filling - moved by man.

Transported soils may be further subdivided into:

- Alluvium - river deposits
- Lacustrine - lake deposits
- Aeolian - wind deposits
- Littoral - beach deposits
- Estuarine - tidal river deposits
- Talus - scree or coarse colluvium
- Slopewash or Colluvium - transported downslope by gravity assisted by water. Often includes angular rock fragments and boulders.

Rock Strength

Rock strength is defined by the Point Load Strength Index ($Is_{(50)}$) and refers to the strength of the rock substance and not the strength of the overall rock mass, which may be considerably weaker due to defects. The test procedure is described by Australian Standard 4133.4.1 - 2007. The terms used to describe rock strength are as follows:

Term	Abbreviation	Point Load Index $Is_{(50)}$ MPa	Approximate Unconfined Compressive Strength MPa*
Extremely low	EL	<0.03	<0.6
Very low	VL	0.03 - 0.1	0.6 - 2
Low	L	0.1 - 0.3	2 - 6
Medium	M	0.3 - 1.0	6 - 20
High	H	1 - 3	20 - 60
Very high	VH	3 - 10	60 - 200
Extremely high	EH	>10	>200

* Assumes a ratio of 20:1 for UCS to $Is_{(50)}$. It should be noted that the UCS to $Is_{(50)}$ ratio varies significantly for different rock types and specific ratios should be determined for each site.

Degree of Weathering

The degree of weathering of rock is classified as follows:

Term	Abbreviation	Description
Extremely weathered	EW	Rock substance has soil properties, i.e. it can be remoulded and classified as a soil but the texture of the original rock is still evident.
Highly weathered	HW	Limonite staining or bleaching affects whole of rock substance and other signs of decomposition are evident. Porosity and strength may be altered as a result of iron leaching or deposition. Colour and strength of original fresh rock is not recognisable
Moderately weathered	MW	Staining and discolouration of rock substance has taken place
Slightly weathered	SW	Rock substance is slightly discoloured but shows little or no change of strength from fresh rock
Fresh stained	Fs	Rock substance unaffected by weathering but staining visible along defects
Fresh	Fr	No signs of decomposition or staining

Degree of Fracturing

The following classification applies to the spacing of natural fractures in diamond drill cores. It includes bedding plane partings, joints and other defects, but excludes drilling breaks.

Term	Description
Fragmented	Fragments of <20 mm
Highly Fractured	Core lengths of 20-40 mm with some fragments
Fractured	Core lengths of 40-200 mm with some shorter and longer sections
Slightly Fractured	Core lengths of 200-1000 mm with some shorter and longer sections
Unbroken	Core lengths mostly > 1000 mm

Rock Descriptions

Rock Quality Designation

The quality of the cored rock can be measured using the Rock Quality Designation (RQD) index, defined as:

$$\text{RQD \%} = \frac{\text{cumulative length of 'sound' core sections} \geq 100 \text{ mm long}}{\text{total drilled length of section being assessed}}$$

where 'sound' rock is assessed to be rock of low strength or better. The RQD applies only to natural fractures. If the core is broken by drilling or handling (i.e. drilling breaks) then the broken pieces are fitted back together and are not included in the calculation of RQD.

Stratification Spacing

For sedimentary rocks the following terms may be used to describe the spacing of bedding partings:

Term	Separation of Stratification Planes
Thinly laminated	< 6 mm
Laminated	6 mm to 20 mm
Very thinly bedded	20 mm to 60 mm
Thinly bedded	60 mm to 0.2 m
Medium bedded	0.2 m to 0.6 m
Thickly bedded	0.6 m to 2 m
Very thickly bedded	> 2 m

Symbols & Abbreviations

Introduction

These notes summarise abbreviations commonly used on borehole logs and test pit reports.

Drilling or Excavation Methods

C	Core drilling
R	Rotary drilling
SFA	Spiral flight augers
NMLC	Diamond core - 52 mm dia
NQ	Diamond core - 47 mm dia
HQ	Diamond core - 63 mm dia
PQ	Diamond core - 81 mm dia

Water

▷	Water seep
▽	Water level

Sampling and Testing

A	Auger sample
B	Bulk sample
D	Disturbed sample
E	Environmental sample
U_{50}	Undisturbed tube sample (50mm)
W	Water sample
pp	Pocket penetrometer (kPa)
PID	Photo ionisation detector
PL	Point load strength Is(50) MPa
S	Standard Penetration Test
V	Shear vane (kPa)

Description of Defects in Rock

The abbreviated descriptions of the defects should be in the following order: Depth, Type, Orientation, Coating, Shape, Roughness and Other. Drilling and handling breaks are not usually included on the logs.

Defect Type

B	Bedding plane
Cs	Clay seam
Cv	Cleavage
Cz	Crushed zone
Ds	Decomposed seam
F	Fault
J	Joint
Lam	Lamination
Pt	Parting
Sz	Sheared Zone
V	Vein

Orientation

The inclination of defects is always measured from the perpendicular to the core axis.

h	horizontal
v	vertical
sh	sub-horizontal
sv	sub-vertical

Coating or Infilling Term

cln	clean
co	coating
he	healed
inf	infilled
stn	stained
ti	tight
vn	veneer

Coating Descriptor

ca	calcite
cbs	carbonaceous
cly	clay
fe	iron oxide
mn	manganese
slt	silty

Shape

cu	curved
ir	irregular
pl	planar
st	stepped
un	undulating

Roughness

po	polished
ro	rough
sl	slickensided
sm	smooth
vr	very rough

Other

fg	fragmented
bnd	band
qtz	quartz

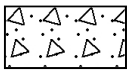
Symbols & Abbreviations

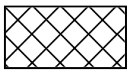
Graphic Symbols for Soil and Rock

General

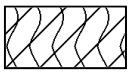

Asphalt

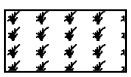

Road base

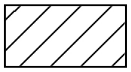

Concrete

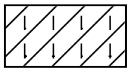

Filling

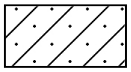
Soils


Topsoil

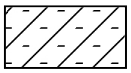

Peat

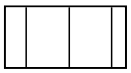

Clay

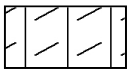

Silty clay

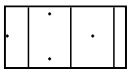

Sandy clay

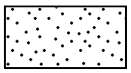

Gravelly clay

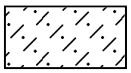

Shaly clay

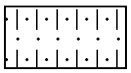

Silt


Clayey silt


Sandy silt

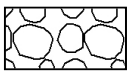

Sand

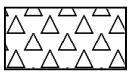

Clayey sand


Silty sand


Gravel

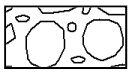

Sandy gravel


Cobbles, boulders

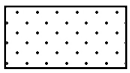

Talus

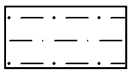
Sedimentary Rocks

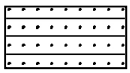

Boulder conglomerate

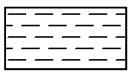

Conglomerate


Conglomeratic sandstone

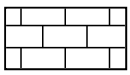

Sandstone


Siltstone

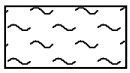

Laminite

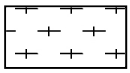

Mudstone, claystone, shale

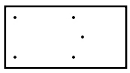

Coal


Limestone

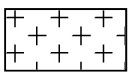
Metamorphic Rocks

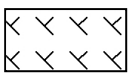

Slate, phyllite, schist

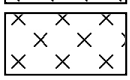

Gneiss

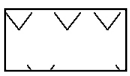

Quartzite

Igneous Rocks


Granite


Dolerite, basalt, andesite


Dacite, epidote


Tuff, breccia


Porphyry

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 15.7 AHD*
EASTING: 345950
NORTHING: 6300071
DIP/AZIMUTH: 90°/--

BORE No: 1
PROJECT No: 83343.00
DATE: 19/3/2018
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.05	ASPHALT/SPRAYED SEAL: Black asphalt/sprayed seal, sub-angular gravels up to 20mm in size		D/E	0.08		PID=<1ppm		
	0.1	FILLING: Dark grey sandy gravel filling (roadbase), gravel is fine to medium grained and sub-angular, sand is medium to coarse grained, damp		D/E	0.5		PID=<1ppm		
	0.6	FILLING: Grey silty sand filling, sand is fine grained, humid. Possibly reworked site soils.							
15	1	SAND: Loose, brown/yellow sand, fine grained, humid		D/E	1.0		PID=<1ppm		1
	1.2	SANDY CLAY: Stiff, orange/brown sandy clay, sand is fine to medium grained, M<Wp		S	1.2		pp = 350-400 3,3,6 N = 9		
				D/E	1.45 1.5		pp >400 PID=<1ppm		
14	1.6	CLAY: Very stiff, brown/red clay, trace fine to medium grianed sand, M<Wp							
	2			D/E	2.0		PID=<1ppm		2
		- hard at 2.5m		D	2.5				
13				S			7,9,12 N = 21 PID=<1ppm		
	3				2.9 2.95		pp >400		3
				D	3.5		PID=<1ppm		
12	4	- grading to red/brown and grey at 4.0m			4.0				4
				S			7,14,16 N = 30		
				D	4.45 4.5		PID=<1ppm		
11	5								5
				D	5.5		26		
	5.6			S	5.55 5.6		refusal		
10		SANDSTONE: Pale grey and brown/red sandstone, fine to medium grained, thinly bedded (0-5°)							
	6				5.94		PL(A) = 0.3 PL(D) = 0.29		6
9				C	6.74		PL(A) = 0.3 PL(D) = 0.25		
	6.89								
	7	SILTSTONE AND SANDSTONE: Pale grey and brown/red interlaminated siltstone/sandstone, fine grained, thinly laminated to thinly bedded (0-5°), with some claystone laminations							7
					7.57		PL(A) = 0.08 PL(D) = 0.04		
8									

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** J Rayner **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 5.6m, then NMLC coring to 14.53m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 15.7 AHD*
EASTING: 345950
NORTHING: 6300071
DIP/AZIMUTH: 90°/--

BORE No: 1
PROJECT No: 83343.00
DATE: 19/3/2018
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SILTSTONE AND SANDSTONE: Pale grey and brown/red interlaminated siltstone/sandstone, fine grained, thinly laminated to thinly bedded (0-5°), with some claystone laminations *(continued)*		C	8.06		PL(A) = 1.12 PL(D) = 1.42		
	8.5	SILTSTONE: Pale grey and grey with some brown/red and orange staining, thinly laminated to very thinly bedded (0-5°)			8.5				
					8.75		PL(A) = 0.18 PL(D) = 0.09		
					9.71		PL(A) = 0.11 PL(D) = 0.02		
	9.92	SILTSTONE AND SANDSTONE: Pale grey and brown/orange interlaminated siltstone/sandstone, fine to medium grained, thinly laminated (0-5°)		C					
					10.34		PL(A) = 0.12 PL(D) = 0.09		
					10.93		PL(A) = 1.72 PL(D) = 1.03		
					11.4				
	11.82	SANDSTONE: Grey and brown sandstone, medium to coarse gained, indistinct bedding			11.77		PL(A) = 0.06 PL(D) = 0.08		
					12.31		PL(A) = 0.73 PL(D) = 0.69		
				C					
					13.68		PL(A) = 0.97 PL(D) = 0.54		
	14.53	Bore discontinued at 14.53m. Limit of investigation. Standpipe piezometer installed upon completion.			14.53				

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** J Rayner **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 5.6m, then NMLC coring to 14.53m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 11.3 AHD*
EASTING: 345900
NORTHING: 6300089
DIP/AZIMUTH: 90°/--

BORE No: 2
PROJECT No: 83343.00
DATE: 19/3/2018
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
11	0.04	ASPHALT/SPRAYED SEAL: Black asphalt/sprayed seal, sub-angular gravels up to 20mm in size		D/E	0.1		PID=<1ppm		
	0.25	FILLING: Dark grey sandy gravel filling (roadbase), gravel is fine to medium grained and sub-angular, sand is medium to coarse grained, damp		D/E	0.5		PID=<1ppm		
	0.7	FILLING: Grey silty sand filling, sand is fine grained, humid. Possibly reworked site soils.							
1				D/E	1.0		PID=<1ppm		1
	1.1	SAND: Loose, brown/yellow sand, fine grained, with trace very minor charcoal, humid		S			4,5,4 N = 9		
10	1.4	CLAYEY SAND: Loose, brown sand, fine to medium grained, humid			1.4		pp = 300-400		
		SANDY CLAY: Very stiff, brown sandy clay, sand is fine to medium grained, M<Wp		D/E	1.45		PID=<1ppm		
	1.8				1.5				
2		CLAY: Very stiff, brown/red clay, trace fine to medium grianed sand, M=Wp		D/E	2.0		PID=<1ppm		2
9				D/E	2.5		PID=<1ppm		
				S			7,9,11 N = 20		
					2.9		pp = 300-400		
3		- brown/red mottled pale grey and brown at 3.0m		D/E	2.95		PID=<1ppm		3
8					3.0				
				D/E	3.5				
4	4.0	CLAY: Hard, pale grey mottled brown/red, trace fine grained sand, M<Wp		D/E	4.0		PID=<1ppm		4
7				S			12,14,17 N = 31		
					4.4		pp >400		
					4.45				
5									5
6					5.5				
		- becoming weathered rock at 5.6m		S	5.7		14,20 refusal		
	5.8				5.79		pp >400		
6		SILTSTONE AND SANDSTONE: Pale grey and brown/red interbedded siltstone/sandstone, fine grained, very thinly bedded to thinly bedded (0-5°)			5.8				6
5				C					
7									7
4					7.4				
				C					

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** J Rayner **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 5.8m, then NMLC coring to 12.70m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 11.3 AHD*
EASTING: 345900
NORTHING: 6300089
DIP/AZIMUTH: 90°/--

BORE No: 2
PROJECT No: 83343.00
DATE: 19/3/2018
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SILTSTONE AND SANDSTONE: Pale grey and brown/red interbedded siltstone/sandstone, fine grained, very thinly bedded to thinly bedded (0-5°) *(continued)*			8.24		PL(A) = 0.8 PL(D) = 0.87		
	9	8.19m: Sandstone is fine to medium grained, thinly bedded to medium bedded		C					9
	9.8	SANDSTONE: Pale grey and brown/orange sandstone, medium to coarse grained, indistinct bedding			9.95		PL(A) = 0.66 PL(D) = 0.61		
	10				10.0				10
	11				10.95		PL(A) = 0.69 PL(D) = 0.69		11
				C					
	12				11.95		PL(A) = 0.84 PL(D) = 0.73		12
	12.32	SILTSTONE: Grey siltstone, very thinly laminated (0-5°)			12.42		PL(A) = 0.29 PL(D) = 0.14		
	12.64 12.7	SANDSTONE: Pale grey and brown/orange sandstone, medium to coarse grained, indistinct bedding			12.7				
	13	Bore discontinued at 12.7m. Limit of investigation. Standpipe piezometer installed upon completion.							13
	14								14
	15								15

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** J Rayner **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 5.8m, then NMLC coring to 12.70m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 8.5 AHD*
EASTING: 345946
NORTHING: 6300127
DIP/AZIMUTH: 90°/--

BORE No: 3
PROJECT No: 83343.00
DATE: 20/3/2018
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.05	ASPHALT/SPRAYED SEAL: Black asphalt/sprayed seal, sub-angular gravels up to 20mm in size		D/E	0.1		PID=<1ppm		
	0.4	FILLING: Generally comprising yellow/brown sandy gravel filling (roadbase), gravel is sub-rounded to sub-angular up to 20mm in size, sand is fine to coarse grained, humid		D/E	0.5		PID=<1ppm		
	0.8	SANDY CLAY: Stiff, red/brown and grey/brown sandy clay, sand is fine to medium grained, M=Wp		D/E	1.0		PID=<1ppm		
		CLAY: Very stiff, brown/red clay, trace fine to medium grianed sand, M<Wp		S			4,6,6 N = 12		
					1.4		pp = 300-400		
				D/E	1.45 1.5		PID=<1ppm		
				D/E	2.0		PID=<1ppm		
		- hard at 2.5m			2.5				
				S			6,9,20 N = 29		
					2.9		pp >400		
	3.0	- grading to red/brown and grey, with some ironstone gravel at 2.9m		D/E	2.95 3.0		PID=<1ppm		
		SANDSTONE: Low strength, highly weathered, yellow/brown sandstone							
	3.7	SANDSTONE: Pale grey and brown/red to brown/orange sandstone, fine to medium grained, indistinct bedding, some zones of extremely weathered rock with soil like properties			3.7				
					3.92		PL(A) = 0.17 PL(D) = 0.15		
				C					
					4.9		PL(A) = 0.11 PL(D) = 0.09		
					5.13				
					5.91		PL(A) = 0.69 PL(D) = 0.66		
				C					
					6.57		PL(A) = 0.77 PL(D) = 1		
					7.33				
				C					
	7.75	SANDSTONE: Brown/red and pale grey sandstone, medium to coarse grained, indistinct bedding			7.93		PL(A) = 0.44		

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** M Harrison **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 3.7m, then NMLC coring to 10.02m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 8.5 AHD*
EASTING: 345946
NORTHING: 6300127
DIP/AZIMUTH: 90°/--

BORE No: 3
PROJECT No: 83343.00
DATE: 20/3/2018
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SANDSTONE: Brown/red and pale grey sandstone, medium to coarse grained, indistinct bedding *(continued)*					PL(D) = 0.5		
	8.69	SILTSTONE: Grey siltstone, indistinct bedding		C	8.79		PL(A) = 0.09 PL(D) = 0.08		
	9.2	SILTSTONE AND SANDSTONE: Grey and brown/orange interlaminated siltstone/sandstone, fine grained, thinly laminated (0-5°)							
	9.76	SILTSTONE: Grey and brown/orange siltstone, indistinct bedding			9.9		PL(A) = 0.14 PL(D) = 0.21		
	10.02	Bore discontinued at 10.02m. Limit of investigation. Standpipe piezometer installed upon completion.			10.02				

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** M Harrison **CASING:** NW to 3.0 m

TYPE OF BORING: 100mm ϕ Solid Flight Auger to V-Bit refusal at 3.7m, then NMLC coring to 10.02m.

WATER OBSERVATIONS: No free groundwater observed whilst augering, groundwater then precluded due to coring techniques

REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 8.5 AHD*
EASTING: 345940
NORTHING: 63100108
DIP/AZIMUTH: 90°/--

BORE No: 4
PROJECT No: 83343.00
DATE: 20/3/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.08	PAVERS: Red/brown pavers, 80mm thick							
	0.19	CONCRETE: Grey concrete, sub-rounded to sub-angular gravels up to 30mm in size							
	0.3	FILLING: Generally comprising clayey gravel, gravel is sub-angular and up to 50mm in size, humid		D/E	0.25		PID=<1ppm		
8		SANDY CLAY: Red/brown and slightly grey sandy clay, M<Wp		D/E	0.5		PID=<1ppm		
	1			D/E	1.0		PID=<1ppm		1
7				D/E	1.5		PID=<1ppm		
	2	2.0 Bore discontinued at 2.0m. Limit of investigation		D/E	2.0		PID=<1ppm		2
6	3								3
5									

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** M Harrison **CASING:**
TYPE OF BORING: 100mm ϕ V-Bit Auger
WATER OBSERVATIONS: No free groundwater observed
REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 13.6 AHD*
EASTING: 345950
NORTHING: 6300088
DIP/AZIMUTH: 90°/--

BORE No: 5
PROJECT No: 83343.00
DATE: 20/3/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
13	0.05	ASPHALT/SPRAYED SEAL: Black asphalt/sprayed seal, sub-angular gravels up to 20mm in size		D/E	0.1		PID=<1ppm		
	0.15	FILLING: Generally comprising grey sandy gravel filling (roadbase), gravel is sub-angular and up to 30mm in size, sand is fine to coarse grained, humid							
		FILLING: Generally comprising yellow brown sand filling with some gravel, sand is fine to medium grained, gravel is sub-rounded to sub-angular and up to 30mm in size, humid		D/E	0.5		PID=<1ppm		
	1			D/E	1.0		PID=<1ppm		1
	1.3	SANDY CLAY: Red/brown and slightly grey sandy clay, M<Wp							
12				D/E	1.5		PID=<1ppm		
	2			D/E	2.0		PID=<1ppm		2
		- red/brown and grey at 2.3m							
	2.5	Bore discontinued at 2.5m. Limit of investigation		D/E	2.5		PID=<1ppm		
11	3								3
10									

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** M Harrison **CASING:**
TYPE OF BORING: 100mm ϕ V-Bit Auger
WATER OBSERVATIONS: No free groundwater observed
REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Central Coast Council
PROJECT: Proposed Gosford Regional Library
LOCATION: 123A-125B Donnison Street, Gosford

SURFACE LEVEL: 13.5 AHD*
EASTING: 345920
NORTHING: 6300075
DIP/AZIMUTH: 90°/--

BORE No: 6
PROJECT No: 83343.00
DATE: 20/3/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
	0.03	ASPHALT/SPRAYED SEAL: Black asphalt/sprayed seal, sub-angular gravels up to 20mm in size		D/E	0.05		PID=<1ppm		
	0.13	FILLING: Generally comprising grey sandy gravel filling (roadbase), gravel is sub-angular and up to 30mm in size, sand is fine to coarse grained, humid		D/E	0.2		PID=<1ppm		
13	0.5	FILLING: Generally comprising dark brown clayey silty sand with trace plastic and glass, humid (possibly reworked site-won soils)							
		SAND: Yellow/brown sand with trace clay, sand is fine to medium grained, humid		D/E	0.7		PID=<1ppm		
	1								1
12				D/E	1.5		PID=<1ppm		
	1.6	SANDY CLAY: Red/brown and slightly grey sandy clay, M<Wp							
	2			D/E	2.0		PID=<1ppm		2
11	2.5	Bore discontinued at 2.5m. Limit of investigation		D/E	2.5		PID=<1ppm		
	3								3
10									

RIG: Scout 1 (Traccess) **DRILLER:** S Kennedy **LOGGED:** M Harrison **CASING:**
TYPE OF BORING: 100mm ϕ V-Bit Auger
WATER OBSERVATIONS: No free groundwater observed
REMARKS: Location coordinates are in MGA94 Zone 56 H. *Surface level interpolated from survey plan

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

Appendix F

Laboratory Certificates
Chain of Custody Documentation

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 187943

Client Details

Client	Douglas Partners Tuggerah
Attention	Brent Kerry
Address	Unit 5, 3 Teamster Close, Tuggerah, NSW, 2259

Sample Details

Your Reference	**83343.01, PSI & Waste Class**
Number of Samples	10 Soil, 1 Water
Date samples received	23/03/2018
Date completed instructions received	23/03/2018

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	03/04/2018
Date of Issue	03/04/2018

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Identifier: Jessica Hie
Authorised by Asbestos Approved Signatory: Paul Ching

Results Approved By
Dragana Tomas, Senior Chemist
Jeremy Faircloth, Organics Supervisor
Long Pham, Team Leader, Metals
Nick Sarlamis, Inorganics Supervisor
Paul Ching, Senior Analyst

Authorised By

Jacinta Hurst, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	74	82	82	81	80

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date extracted	-	26/03/2018
Date analysed	-	26/03/2018
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	81

svTRH (C10-C40) in Soil						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50	<50
Surrogate o-Terphenyl	%	97	96	96	98	97

svTRH (C10-C40) in Soil		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date extracted	-	26/03/2018
Date analysed	-	26/03/2018
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	96

PAHs in Soil						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.07	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	0.3	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	98	95	100	99	98

PAHs in Soil		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date extracted	-	26/03/2018
Date analysed	-	26/03/2018
Naphthalene	mg/kg	<0.1
Acenaphthylene	mg/kg	<0.1
Acenaphthene	mg/kg	<0.1
Fluorene	mg/kg	<0.1
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.1
Fluoranthene	mg/kg	0.3
Pyrene	mg/kg	0.3
Benzo(a)anthracene	mg/kg	<0.1
Chrysene	mg/kg	0.2
Benzo(b,j+k)fluoranthene	mg/kg	0.3
Benzo(a)pyrene	mg/kg	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1
Total +ve PAH's	mg/kg	1.3
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5
Surrogate p-Terphenyl-d14	%	95

Organochlorine Pesticides in soil						
Our Reference		187943-1	187943-2	187943-3	187943-4	187943-5
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	2/1.0	4/0.25
Date Sampled		19/03/2018	19/03/2018	19/03/2018	19/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	102	97	108	102	107

Organochlorine Pesticides in soil					
Our Reference		187943-6	187943-7	187943-8	187943-9
Your Reference	UNITS	4/0.5	5/0.5	6/0.2	6/0.7
Date Sampled		20/03/2018	20/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCMX	%	111	92	106	106

PCBs in Soil						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	102	97	108	107	92

PCBs in Soil		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date extracted	-	26/03/2018
Date analysed	-	26/03/2018
Aroclor 1016	mg/kg	<0.1
Aroclor 1221	mg/kg	<0.1
Aroclor 1232	mg/kg	<0.1
Aroclor 1242	mg/kg	<0.1
Aroclor 1248	mg/kg	<0.1
Aroclor 1254	mg/kg	<0.1
Aroclor 1260	mg/kg	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1
Surrogate TCLMX	%	106

Acid Extractable metals in soil						
Our Reference		187943-1	187943-2	187943-3	187943-4	187943-5
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	2/1.0	4/0.25
Date Sampled		19/03/2018	19/03/2018	19/03/2018	19/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	27/03/2018	27/03/2018	27/03/2018	27/03/2018	27/03/2018
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	0.7	<0.4	<0.4
Chromium	mg/kg	3	14	12	4	25
Copper	mg/kg	<1	71	46	<1	20
Lead	mg/kg	8	5	380	8	7
Mercury	mg/kg	<0.1	<0.1	0.8	<0.1	<0.1
Nickel	mg/kg	<1	52	8	<1	21
Zinc	mg/kg	15	31	140	6	11

Acid Extractable metals in soil						
Our Reference		187943-6	187943-7	187943-8	187943-9	187943-10
Your Reference	UNITS	4/0.5	5/0.5	6/0.2	6/0.7	QA1
Date Sampled		20/03/2018	20/03/2018	20/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	27/03/2018	27/03/2018	27/03/2018	27/03/2018	27/03/2018
Arsenic	mg/kg	<4	<4	6	<4	<4
Cadmium	mg/kg	<0.4	<0.4	5.5	<0.4	<0.4
Chromium	mg/kg	19	8	10	5	5
Copper	mg/kg	5	6	79	2	8
Lead	mg/kg	10	5	290	7	7
Mercury	mg/kg	<0.1	<0.1	5.0	<0.1	<0.1
Nickel	mg/kg	5	6	14	1	2
Zinc	mg/kg	5	12	4,600	19	25

Misc Soil - Inorg						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Total Phenolics (as Phenol)	mg/kg	<5	<5	<5	<5	<5

Misc Soil - Inorg		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date prepared	-	26/03/2018
Date analysed	-	26/03/2018
Total Phenolics (as Phenol)	mg/kg	<5

Moisture						
Our Reference		187943-1	187943-2	187943-3	187943-4	187943-5
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	2/1.0	4/0.25
Date Sampled		19/03/2018	19/03/2018	19/03/2018	19/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	27/03/2018	27/03/2018	27/03/2018	27/03/2018	27/03/2018
Moisture	%	9.7	8.0	13	8.1	18

Moisture						
Our Reference		187943-6	187943-7	187943-8	187943-9	187943-10
Your Reference	UNITS	4/0.5	5/0.5	6/0.2	6/0.7	QA1
Date Sampled		20/03/2018	20/03/2018	20/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	26/03/2018	26/03/2018	26/03/2018	26/03/2018	26/03/2018
Date analysed	-	27/03/2018	27/03/2018	27/03/2018	27/03/2018	27/03/2018
Moisture	%	20	6.7	15	7.5	7.4

Asbestos ID - soils						
Our Reference		187943-1	187943-2	187943-3	187943-5	187943-7
Your Reference	UNITS	1/0.5	2/0.1	2/0.5	4/0.25	5/0.5
Date Sampled		19/03/2018	19/03/2018	19/03/2018	20/03/2018	20/03/2018
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	03/04/2018	03/04/2018	03/04/2018	03/04/2018	03/04/2018
Sample mass tested	g	Approx. 30g	Approx. 40g	Approx. 30g	Approx. 30g	Approx. 30g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected

Asbestos ID - soils		
Our Reference		187943-8
Your Reference	UNITS	6/0.2
Date Sampled		20/03/2018
Type of sample		Soil
Date analysed	-	03/04/2018
Sample mass tested	g	28.6g
Sample Description	-	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	Chrysotile asbestos detected Organic fibres detected
Trace Analysis	-	No asbestos detected

vTRH(C6-C10)/BTEXN in Water		
Our Reference	UNITS	187943-11
Your Reference		RB1
Date Sampled		20/03/2018
Type of sample		Water
Date extracted	-	29/03/2018
Date analysed	-	29/03/2018
TRH C_6 - C_9	µg/L	<10
TRH C_6 - C_{10}	µg/L	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	115
Surrogate toluene-d8	%	116
Surrogate 4-BFB	%	106

svTRH (C10-C40) in Water		
Our Reference	UNITS	187943-11
Your Reference		RB1
Date Sampled		20/03/2018
Type of sample		Water
Date extracted	-	26/03/2018
Date analysed	-	28/03/2018
TRH C_{10} - C_{14}	µg/L	<50
TRH C_{15} - C_{28}	µg/L	180
TRH C_{29} - C_{36}	µg/L	<100
TRH >C_{10} - C_{16}	µg/L	160
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	160
TRH >C_{16} - C_{34}	µg/L	<100
TRH >C_{34} - C_{40}	µg/L	<100
Surrogate o-Terphenyl	%	108

Metals in Water - Dissolved		
Our Reference		187943-11
Your Reference	UNITS	RB1
Date Sampled		20/03/2018
Type of sample		Water
Date digested	-	26/03/2018
Date analysed	-	28/03/2018
Arsenic - Dissolved	mg/L	<0.05
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0005
Nickel - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.

Method ID	Methodology Summary
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-013	Water samples are analysed directly by purge and trap GC-MS.
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date extracted	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
TRH C_6 - C_9	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-016	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	[NT]	[NT]	110	[NT]
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	[NT]	[NT]	106	[NT]
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	97	[NT]
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	109	[NT]
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-016	86	[NT]	[NT]	[NT]	[NT]	77	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date extracted	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	130	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	130	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	110	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	92	[NT]
Surrogate o-Terphenyl	%		Org-003	74	[NT]	[NT]	[NT]	[NT]	105	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date extracted	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Naphthalene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	106	[NT]
Acenaphthylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Phenanthrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-012	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-012	<0.05	[NT]	[NT]	[NT]	[NT]	108	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-012	108	[NT]	[NT]	[NT]	[NT]	126	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date extracted	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	101	[NT]
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	93	[NT]
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	81	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	85	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	80	[NT]
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	83	[NT]
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	119	[NT]	[NT]	[NT]	[NT]	116	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date extracted	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Aroclor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Aroclor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCLMX	%		Org-006	119	[NT]	[NT]	[NT]	[NT]	108	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date prepared	-			26/03/2018	6	26/03/2018	26/03/2018		26/03/2018	[NT]
Date analysed	-			27/03/2018	6	27/03/2018	27/03/2018		27/03/2018	[NT]
Arsenic	mg/kg	4	Metals-020	<4	6	<4	<4	0	108	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	6	<0.4	<0.4	0	99	[NT]
Chromium	mg/kg	1	Metals-020	<1	6	19	20	5	108	[NT]
Copper	mg/kg	1	Metals-020	<1	6	5	8	46	110	[NT]
Lead	mg/kg	1	Metals-020	<1	6	10	9	11	107	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	6	<0.1	<0.1	0	78	[NT]
Nickel	mg/kg	1	Metals-020	<1	6	5	8	46	107	[NT]
Zinc	mg/kg	1	Metals-020	<1	6	5	7	33	100	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	8	26/03/2018	26/03/2018		[NT]	[NT]
Date analysed	-			[NT]	8	27/03/2018	27/03/2018		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	8	6	7	15	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	8	5.5	6.3	14	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	8	10	11	10	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	8	79	110	33	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	8	290	230	23	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	8	5.0	5.2	4	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	8	14	14	0	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	8	4600	4300	7	[NT]	[NT]

QUALITY CONTROL: Misc Soil - Inorg						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-11	[NT]
Date prepared	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Total Phenolics (as Phenol)	mg/kg	5	Inorg-031	<5	[NT]	[NT]	[NT]	[NT]	96	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			29/03/2018	[NT]	[NT]	[NT]	[NT]	29/03/2018	[NT]
Date analysed	-			29/03/2018	[NT]	[NT]	[NT]	[NT]	29/03/2018	[NT]
TRH C_6 - C_9	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-016	<10	[NT]	[NT]	[NT]	[NT]	105	[NT]
Benzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Toluene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Ethylbenzene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	106	[NT]
m+p-xylene	µg/L	2	Org-016	<2	[NT]	[NT]	[NT]	[NT]	106	[NT]
o-xylene	µg/L	1	Org-016	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Naphthalene	µg/L	1	Org-013	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-016	116	[NT]	[NT]	[NT]	[NT]	115	[NT]
Surrogate toluene-d8	%		Org-016	115	[NT]	[NT]	[NT]	[NT]	121	[NT]
Surrogate 4-BFB	%		Org-016	103	[NT]	[NT]	[NT]	[NT]	111	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			28/03/2018	[NT]	[NT]	[NT]	[NT]	28/03/2018	[NT]
Date analysed	-			28/03/2018	[NT]	[NT]	[NT]	[NT]	28/03/2018	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	130	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	132	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	121	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-003	<50	[NT]	[NT]	[NT]	[NT]	130	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	132	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-003	<100	[NT]	[NT]	[NT]	[NT]	121	[NT]
Surrogate o-Terphenyl	%		Org-003	81	[NT]	[NT]	[NT]	[NT]	112	[NT]

QUALITY CONTROL: Metals in Water - Dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date digested	-			26/03/2018	[NT]	[NT]	[NT]	[NT]	26/03/2018	[NT]
Date analysed	-			28/03/2018	[NT]	[NT]	[NT]	[NT]	28/03/2018	[NT]
Arsenic - Dissolved	mg/L	0.05	Metals-020	<0.05	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	103	[NT]
Chromium - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Copper - Dissolved	mg/L	0.01	Metals-020	<0.01	[NT]	[NT]	[NT]	[NT]	105	[NT]
Lead - Dissolved	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mercury - Dissolved	mg/L	0.0005	Metals-021	<0.0005	[NT]	[NT]	[NT]	[NT]	94	[NT]
Nickel - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	110	[NT]
Zinc - Dissolved	mg/L	0.02	Metals-020	<0.02	[NT]	[NT]	[NT]	[NT]	104	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Report Comments

svTRH (C10-C40) in Water - The positive result in the rinsate sample is due to a single peak with no hydrocarbon profile, consistent with plastic containers

Asbestos: A portion of the supplied sample was sub-sampled for asbestos analysis according to Envirolab procedures.
We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g of sample in its own container.
Note: Samples 187943- 1-3 & 5-8 were sub-sampled from jars provided by the client.

Sample 187943-8; Chrysotile asbestos identified in matted material, it is estimated to be 0.13g/kg in 28.60g of soil (i.e. > reporting limit for the method of 0.1g/kg).

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY DESPATCH SHEET

Project No:	83343.01	**Suburb:**	Gosford	**To:**	Envirolab Services
Project Name:	PSI & Waste Class	**Order Number**			
Project Manager:	Brent Kerry	**Sampler:**	MJH	**Attn:**	Aileen
Emails:	brent.kerry@douglaspartners.com.au			**Phone:**	
Date Required:	Same day ☐ 24 hours ☐ 48 hours ☐ 72 hours ☐ Standard ☑			**Email:**	
Prior Storage:	☑ Esky ☑ Fridge ☐ Shelved	Do samples contain 'potential' HBM?	Yes ☐	No ☑	(If YES, then handle, transport and store in accordance with FPM HAZID)

Sample ID	Lab ID	Date Sampled	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Heavy Metals	OCP/OPP PCB	TRH and BTEX	PAH	Total Phenols	Asbestos 500 ml	Combo#7	Combo#7A	OCP	Notes/preservation
1/0.5	1	19/03/18	S	G								X		
2/0.1	2	19/03/18	S	G								X		
2/0.5	3	19/03/18	S	G								X		
2/1.0	4	19/03/18	S	G	X								X	
4/0.25	5	20/03/18	S	G								X		
4/0.5	6	20/03/18	S	G	X								X	
5/0.5	7	20/03/18	S	G								X		
6/0.2	8	20/03/18	S	G								X		
6/0.7	9	20/03/18	S	G	X								X	
QA1	10	20/03/18	S	G	X									
RB1	11	20/03/18	S	G	X		X							
PQL (S) mg/kg												**ANZECC PQLs req'd for all water analytes** ☐		

ENVIROLAB — Envirolab Services, 12 Ashley St, Chatswood NSW 2067, Ph: (02) 9910 6200
Job No: 187943
Date Received: 23/3/2018
Time Received: 10:30
Received by: RL
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None 6.8

PQL = practical quantitation limit. If none given, default to Laboratory Method Detection Limit

Metals to Analyse: 8HM unless specified here:

Lab Report/Reference No:

Total number of samples in container: 11 **Relinquished by:** BJK **Transported to laboratory by:** TNT

Send Results to: Douglas Partners Pty Ltd **Address** Tuggerah **Phone:** **Fax:**

Signed: **Received by:** **Date & Time:** 23/3/2018 10:30

Appendix G

Quality Assurance / Quality Control

APPENDIX G – QA/QC Procedures and Results

G1. Quality Assurance and Quality Control

The investigation has been devised broadly in accordance with the seven step data quality objective (DQO) process which is provided in Appendix B, Schedule B2 of the National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended 2013 (NEPC 2013 – Ref 3). The DQO process is outlined as follows:

- Stating the Problem;
- Identifying the Decision;
- Identifying Inputs to the Decision;
- Defining the Boundary of the Assessment;
- Developing a Decision Rule;
- Specifying Acceptable Limits on Decision Errors; and
- Optimising the Design for Obtaining Data.

The DQOs have been addressed within the report as shown in Table G1.

Table G1: Data Quality Objectives

Data Quality Objective	Report Section Where Addressed
State the Problem	S1 Introduction
Identify the Decision	S12 Discussion of Results S13 Conclusions and Recommendations
Identify Inputs to the Decision	S1 Introduction S3 Physical Setting S4 Summary of Site History S5 Site Walkover S6 Preliminary Conceptual Site Model S9 Site Assessment Criteria S10 Field Work S11 Laboratory Testing
Define the Boundary of the Assessment	S1 Introduction Drawing 1 - Appendix B
Develop a Decision Rule	S9 Site Assessment Criteria
Specify Acceptable Limits on Decision Errors	S10 Field Work S11 Laboratory Testing Quality Assurance / Quality Control - Appendix G
Optimise the Design for Obtaining Data	S2 Scope of Works S10 Field Work Quality Assurance / Quality Control

G2. Field and Laboratory Quality Control

The field and laboratory QC procedures and results are summarised in the following Table G2. Reference should be made to the field work and analysis procedures in Section 9 and the laboratory results certificates in Appendix F for further details.

Table G2: Field and Laboratory QC

Item	Evaluation / Acceptance Criteria	Achievement
Analytical laboratories used	NATA accreditation	yes
Holding times	Various based on type of analysis	yes
Intra-laboratory replicates	5% of primary samples; <50% RPD (>5 x PQL)	yes[1]
Rinsates	1 per sampling event; <PQL	yes
Laboratory / Reagent Blanks	1 per batch; <PQL	yes
Matrix Spikes	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	yes
Surrogate Spikes	All organics analysis; 70-130% recovery (inorganics); 60-140% recovery (organics)	yes
Control Samples	1 per lab batch; 70-130% recovery (inorganics); 60-140% recovery (organics)	yes

NOTE: 1 qualitative assessment of RPD results overall. A single minor exception was identified for the 6/0.7-QA1 (Cu) field intra-laboratory duplicate result, which reported an RPD of 120%; however, this was considered to be acceptable due to the relatively low absolute concentration difference.

In summary, the QC data is determined to be of sufficient quality to be considered acceptable for the assessment.

G3. Data Quality Indicators

The reliability of field procedures and analytical results was assessed against the following data quality indicators (DQIs):

- Completeness – a measure of the amount of usable data from a data collection activity;
- Comparability – the confidence (qualitative) that data may be considered to be equivalent for each sampling and analytical event;
- Representativeness – the confidence (qualitative) of data representativeness of media present on-site;
- Precision – a measure of variability or reproducibility of data; and
- Accuracy – a measure of closeness of the data to the 'true' value.

The DQIs were assessed as outlined in the following Table G3.

Table G3: Data Quality Indicators

Data Quality Indicator	Method(s) of Achievement
Completeness	Planned broad-spaced systematic and selected target locations sampled. Locations were limited to accessible areas that were clear of in-ground services ; Preparation of field logs, sample location plan and chain of custody (COC) records; Laboratory sample receipt information received confirming receipt of samples intact and appropriateness of the chain of custody; Samples analysed for contaminants of potential concern (COPC) identified in the Conceptual Site Model (CSM); Completion of COC documentation; NATA endorsed laboratory certificates provided by the laboratory; Satisfactory frequency and results for field and laboratory QC samples as discussed in Section G2.
Comparability	Using appropriate techniques for sample recovery, storage and transportation, which were the same for the duration of the project; Works undertaken by appropriately experienced and trained DP environmental scientist / engineer / geologist; Use of a NATA registered laboratory, Satisfactory results for field and laboratory QC samples.
Representativeness	Target media sampled; Spatial and temporal distribution of sample locations; Sample numbers recovered and analysed are considered to be representative of the target media and complying with DQOs; Samples were extracted and analysed within holding times; Samples were analysed in accordance with the analysis request.
Precision	Acceptable RPD between the original sample and the replicate; Satisfactory results for all other field and laboratory QC samples.
Accuracy	Satisfactory results for all field and laboratory QC samples.

Based on the above, it is considered that the DQIs have been complied with. As such, it is concluded that the field and laboratory test data obtained are reliable and useable for this assessment.