Mackellar Excavations Pty Ltd

Preliminary Contaminated Site **Investigation**

Lots 1 and 2 DP 1226992

16 Torrens Road,
Gunnedah, NSW

82 Plain Street
TAMWORTH NSW 2340
Phone: 02 6762 1733
Fax: 02 6765 9109
Email: admin@eastwestonline.com.au
Website: www.eastwestonline.com.au
ABN 82 125 442 382

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Stephanie Cameron demonstrates the relevant qualifications, competencies, and experience appropriate to undertake this site investigation under Schedule B9 of the National Environment Protection (Assessment of Site Contamination) Measure 1999. Stephanie holds current membership of the Australian Contaminated Land Consultants Association, the Royal Australian Chemical Institute, the Australasian Land and Groundwater Association, and Soil Science Australia.

East West is a long established Tamworth-based laboratory undertaking environmental, construction, and agricultural testing. East West is accredited with the National Association of Testing Authorities and the Australasian Soil and Plant Analysis Council. East West have been successfully involved in many environmental sampling and monitoring projects over the past seven years.

This report does not provide a complete assessment of the environmental integrity of the site and is limited to the scope defined herein. Should any reader require that other matters be considered apart from those considered within this report, they should then make their own investigations and form their own conclusions.

This report has been prepared by:

Stephanie Cameron
B. App.Sci

Ashley Welch
B. Biological Science

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Desktop	01	18 May 2020	A Welch	S Cameron	Mackellar Excavations Pty Ltd
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EXECUTIVE SUMMARY

East West was requested to conduct a preliminary site investigation into past use of Lots 1 and 2 DP 1226992 (16 Torrens Road) in the Parish of Gunnedah, County of Pottinger, and Local Government Area of Gunnedah Shire Regional Council. The lots are currently owned by Mackellar Equipment Hire Pty Ltd, with plans to build sheds and holding bays on Lot 2 for a resource recovery facility.

The objective of this preliminary site investigation is to identify any risks and sources of contamination from current use and to determine whether Lot 2 is deemed free of contaminants of concern identified during the site investigation and whether it is fit for its proposed purpose or whether future investigation and sampling is required in accordance with NEPM guidelines (2013). The scope of works included a desktop investigation with site history search including historical aerial photographs, a site field investigation, targeted topsoil sampling within Lot 2 to determine with greater certainty any contamination of concern, and analysis of the results.

Site history shows the site has been held primarily by agricultural proprietors, particularly graziers. The current owner, who has owned the property since 2011, has developed the site for use as a site compound for Mackellar Excavations Pty Ltd. A site inspection was conducted on 13th May 2020, where photos were taken and the site was assessed for possible contamination risks and obvious signs of surface contamination. As a result of use as a mechanical service and repair garage and fuel refuelling and storage, the potential for contaminants of concern include total recoverable hydrocarbons (TRH), polyaromatic hydrocarbons (PAHs), benzene, toluene, ethylbenzene, xylene (BTEX), phenols, and heavy metals was identified as a moderate risk.

Soil sampling of Lot 2 was conducted on June 5th 2020, where fourteen samples at depths of 0-150mm of natural topsoil were collected using targeted sampling. The fourteen sampling locations were also screened visually by using an auger to drill soil cores to ascertain any obvious signs of fill or contamination to a depth of 1.5m.

There were no significant readings to indicate contaminants of potential concern observed in Lot 1 have migrated and contaminated the topsoil of Lot 2. Contaminants of concern were either below detection limits or well below the NEPM guidelines for the proposed commercial/industrial land use in all topsoil samples.

Considering the assessment contained within this report, there exists low potential for contamination of Lot 2 from current use in Lot 1 as evidenced by the results of the testing across the targeted topsoil samples. Therefore, on the basis of the investigations undertaken, the site at 16 Torrens Road, Lots 1 and 2 DP 1226992, Gunnedah NSW meets the adopted criteria for commercial/industrial D and is therefore suitable for the proposed use.

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INTRODUCTION

East West has been engaged by Brendon McKellar, of McKellar Excavations Pty Ltd, to carry out a preliminary contaminated site investigation on the site held as Lots 1 and 2 DP 1226992 (16 Torrens Road) in the Parish of Gunnedah, County of Pottinger, and Local Government Area of Gunnedah Shire Council.

It is understood that Lot 2 of the site is to be developed for a resource recovery facility to house sheds and holding bays.

The site is situated within the locality of Gunnedah, approximately three and a half kilometres northwest of Gunnedah's main centre.

The site is currently owned by Mackellar Equipment Hire Pty Ltd, who have owned the site since 2011.

The site is currently used as a site compound for Mackellar Excavations Pty Ltd, with a mechanic garage, small refuelling station, and office onsite. Storage of chemicals associated with mechanical servicing and repair are stored on Lot 1. Lot 2 is vacant but has predominantly been used to store stockpiles of earthwork materials such as aggregates.

The site has been subjected to a preliminary site assessment with targeted sampling on Lot 2 to determine any possible sources of potential contamination that warrant further investigation. The site assessment was carried out by East West on behalf of McKellar Excavations Pty Ltd.

The assessment was conducted as required by the EPA guideline *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites* (2000) and consists of:

- Identify all past and present potentially contaminating activities;
- Identify potential contamination types;
- Discuss the site condition;
- Provide an assessment of site contamination; and
- Assess the need for further investigation.

The scope of work undertaken in this report comprises:

- Compilation of a site history covering the last 100 years;
- Historical aerial photographs;
- Detailed inspection of the site;
- Described potential for contamination risks;
- Targeted soil sampling of Lot 2;
- Details of sampling and analysis;
- Analysis of results of the investigation and conclusions about the condition of the site.

1. SCOPE OF WORKS

The scope of work undertaken relates solely to the site known as Lots 1 and 2 DP 1226992 (16 Torrens Road).

The scope of work undertaken in this preliminary contaminated site investigation comprises:

- An appraisal of the site including summary of site history covering the last 100 years;
- An initial field observation to identify potential contaminative activities and gain information on how the site is used;
- Preliminary targeted sampling of the site with respect to Lot borders and drainage areas on Lot 2;
- Details of sampling and analysis; and
- Analysis of the results of the investigation and conclude with any recommendations about the site.

2. SITE DESCRIPTION

The site is located within the locality of Gunnedah and is approximately three and a half kilometres northwest of Gunnedah's main centre (Figure 2). The total site area is approximately 27,900 m^2.

The site has been held by Mackellar Equipment Hire since 2011, who operate and own MacKellar Excavations Pty Ltd. It is understood the site is proposed to have sheds and holding bays built on Lot 2 for a resource recovery facility. The site is zoned as IN1 – *General Industrial* in the Gunnedah Local Environment Plan 2012. The site has a six metre wide easement to drain water on its northern boundary of Lot 2.

The site has frontage along Torrens Road and has been developed into the site compound for Mackellar Excavations. Immediately surrounding the site to the west are agricultural use lots used for residences and small grazing operations. Further west of the site is Witehaven Coal Mine, approximately 1.5km to the northwest, and the decommissioned Gunnedah slaughterhouse approximately 500m to the southwest. The northern and eastern boundaries of the site are surrounded by other developed general industrial type businesses, primarily warehouses. The Mungindi railway line is just 60m to the south, across from Torrens Road.

Figure 1. Site locality plan of Lots 1 and 2 DP 1226992 displaying surrounding land use in reference to the site (16 Torrens Road, Gunnedah NSW) outlined in red. *Image Source: Google Maps*

2.1. Land Use

The current owner has developed the site for use as a depot for the excavation company, Mackellar Excavations. The site therefore the contains relevant infrastructure and uses such as a small office space, a working mechanical repair/servicing auto garage with associated chemicals used and stored on site, a refuelling station, and storage sheds for spare parts, all primarily on Lot 1 (Figure 2). Lot 2 is largely used for the storage of aggregate stockpiles related to use in earthworks (Figure 2). A residential structure exists on the southern boundary of the site and appears to be occupied (Figure 2). A portion of the site has been covered in a bitumen-sealed gravel hardstand as a driveway leading up to the office and mechanical garage through the southern entrance (Figure 3). The majority of the site appears to be covered in gravel-containing fill. An area on the eastern boundary appears to be chiefly used as a car park for staff vehicles (Figure 2). The mechanical garage sits on a concrete pad and contains a drop pit where truck wash-off, oil, grease, and vehicle fluids are collected and pumped to waste barrels. Waste chemicals are reportedly picked up by a Tamworth based waste disposal company, NLQ Pty Ltd. A large canopied open shed area is used to store chemicals related to mechanical servicing on the western boundary (Figure 2). The site contains an above-ground fuel tank that supplies diesel via a single pump. The tank is filled by fuel supply companies such as BP or Inland. Multiple small shipping containers are on site to store mechanical equipment and construction related materials such as road signs and tools (Figure 2).

2.1.1. Neighbouring Land Use

The site is surrounded to the south and west by rural lots, primarily grazing paddocks (Figure 1). To the east and immediately north of the site are other general industrial-type businesses and warehouses (Figure 2). A “GB Auto” workshop neighbours directly to the east, which is an auto electrics and air-conditioning service. Other businesses in the immediate area are Pirtek, a hydraulic equipment and supplier, and an irrigation and pumping supplier business (Figure 2). As previously mentioned, further west of the site is Whitehaven Coal Mine and the now decommissioned Gunnedah slaughterhouse (Figure 1).

Figure 2. Land use of Lots 1 and 2 DP 1226992 (outlined in red). Visible is the mechanics garage, office, residence, shed, car park, storage containers and gravel storage area. *Image Source: Google Maps*

Figure 3. Viewing the site to the north from the southern entrance. Pictured is the mechanical garage and attached office. Also in view is the diesel fuel tank and some of the storage containers in the background.

2.2 Geology and Hydrogeology

According to the Australia Manilla-Narrabri 1:250,000 Geological Series Sheet, the bedrock geology forms part of the Gunnedah basin, specifically the Boggabri Volcanics, and consists of rhylolitic to dactic lavas and ashflow tuffs with interbedded shale and rare trachyte and andesite. These bedrock components are from the Palaeozoic era.

There are two registered groundwater bores within 1km of the site - GW025597 and GW019878 - to the northwest (Figure 4). The site has a gentle slope towards the north-northeast and surface run-off would therefore flow gently towards the north-northeast. The nearest surface water is an agricultural dam, located approximately 230m west of the site. The Namoi River is located approximately 1.2km north of the site.

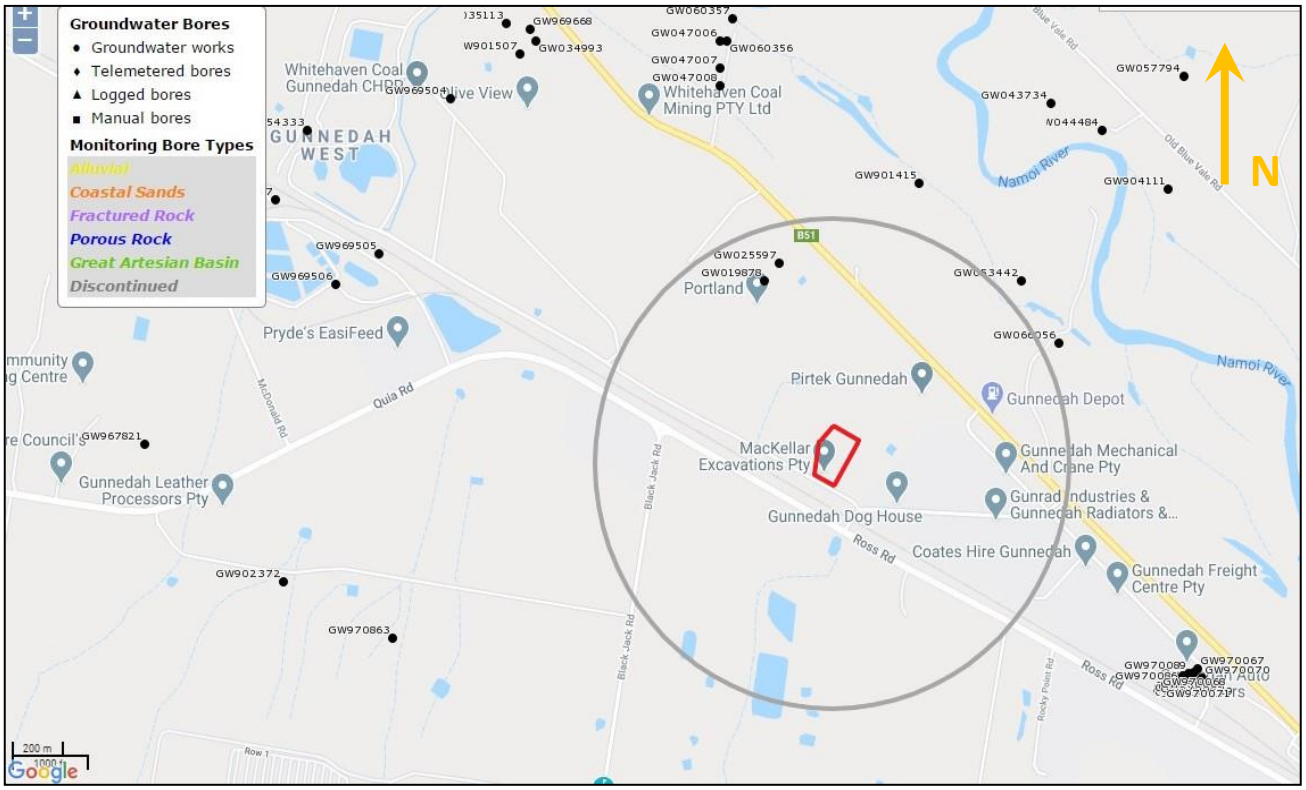

Figure 4. Published groundwater bores available from the Australian Groundwater Explorer (Australian Government, Bureau of Meteorology) within 1km radius of the site (outlined in red).

3. Site Investigation

3.1. Local Site History

A site historical information review was conducted in order to ascertain historical past use of the site for the last one hundred years. The site history was provided by InfoTrack and includes a review of historical deeds, easements and leases. The site history is available from 1868. To ascertain a better picture of the site's history, selected aerial photographs have been included.

The site is currently owned by Mackellar Equipment Hire Pty Ltd. The site has been owned by the current owner since 2011. Other previous owners were shown by the site history search to have been primarily former agricultural proprietors, with ownership of this type extending back to the 1920s. Some owners had occupations of Coach Painter and Motor Garage Proprietor, but given the historical aerial photographs, it is unlikely that the site has been used for any related purposes (Figures 5-7). Aerial photographs have been able to illustrate that the site has historical use consistent with agricultural purposes, presumably grazing, given that no structures or their remnants are visible (Figure 5). The site appears to have likely undergone development in 2012, after purchase by the current owner, and when the original lot was subdivided into the new industrial deposited plans. Changes to the site once purchased by the current owners are visible as they essentially exist today from 2015 (Figure 8).

There is an existing easement on the site that has existed since 2017. It is understood that this easement is for water drainage purposes. Lot 2 of the site was leased to Qube Bulk Pty Ltd from July 2017 to January 2020 and was used to park their trucks. No other leases or easements have been found. The summary of owners report can be found in Table 1.

The site is currently zoned as IN1 – *general industrial* and is currently used as a site compound for Mackellar Excavations Pty Ltd.

There are plans to further develop Lot 2, where the current owner intends to build sheds and holding bays for a resource recovery facility, which is in line with the site's current zoning.

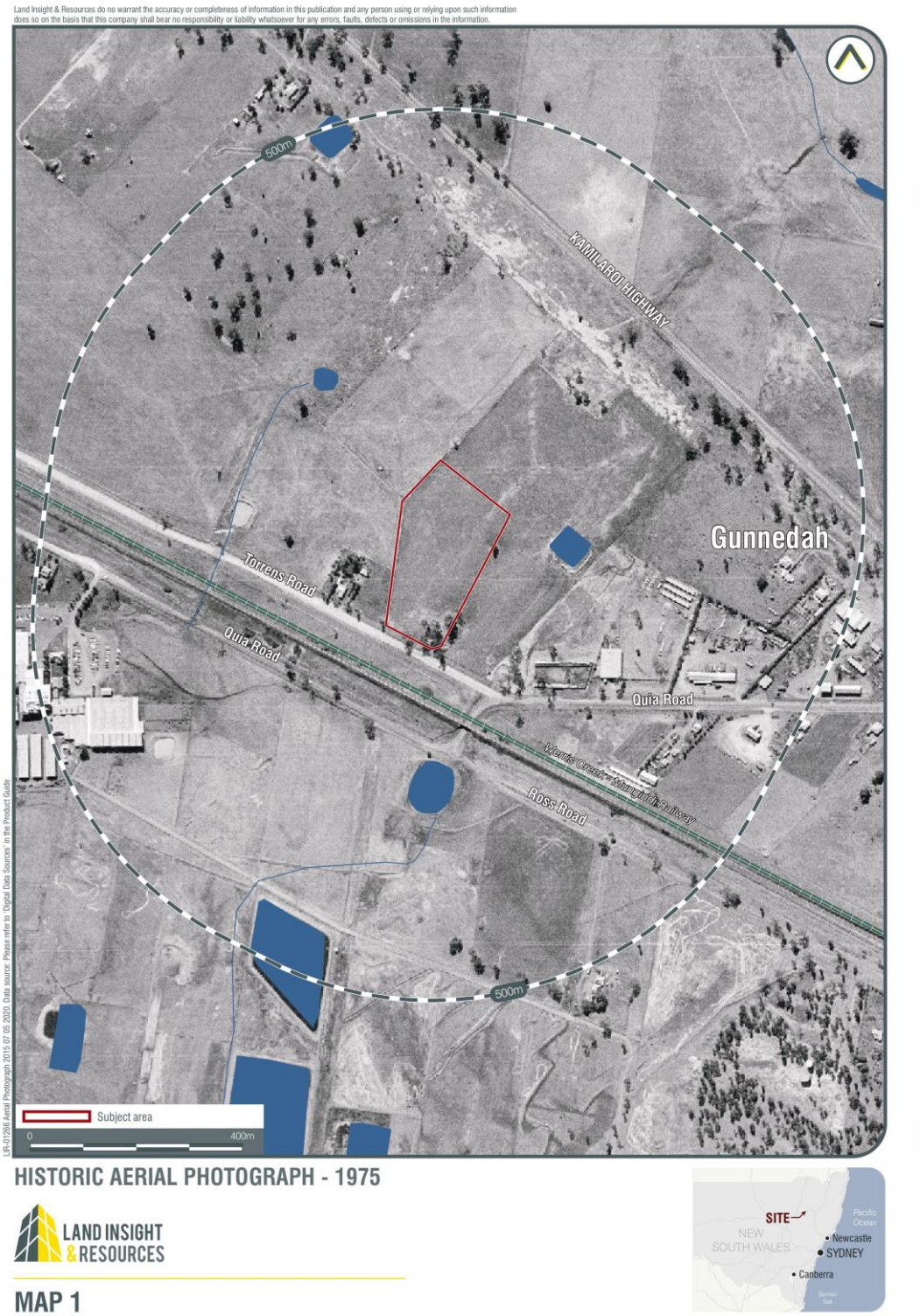

Figure 5. Earliest historical aerial photograph of the site (outlined in red) from 1975. Site appears relatively undisturbed, likely used for grazing. The now-decommissioned Gunnedah slaughterhouse is visible to the west.

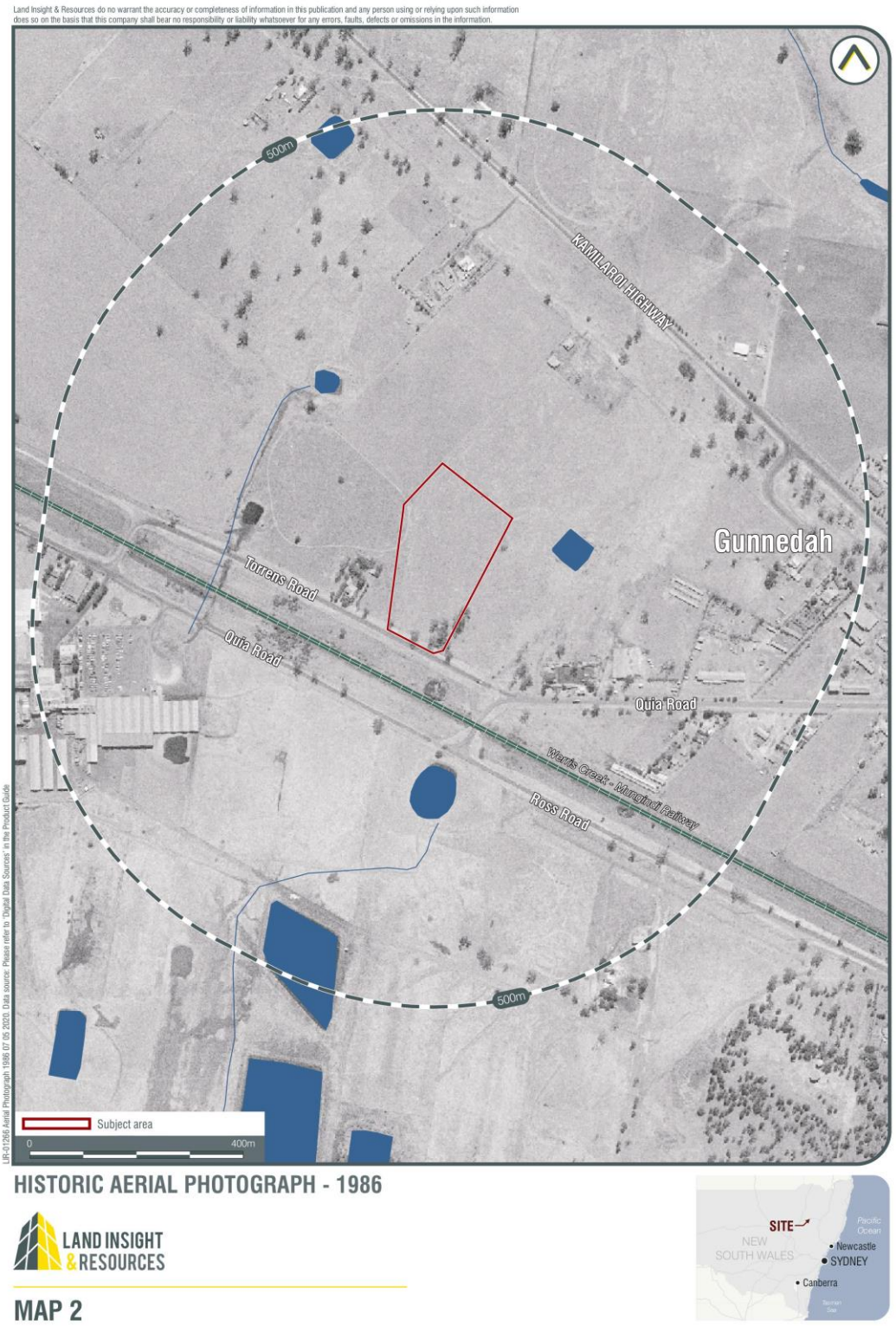

Figure 6. Historical aerial photograph of the site (outlined in red) from 1986. Site still remains relatively undisturbed.

Figure 7. Historical aerial photograph of the site (outlined in red) from 1997. The site and surrounds still remain relatively undisturbed. No visible structures have been erected.

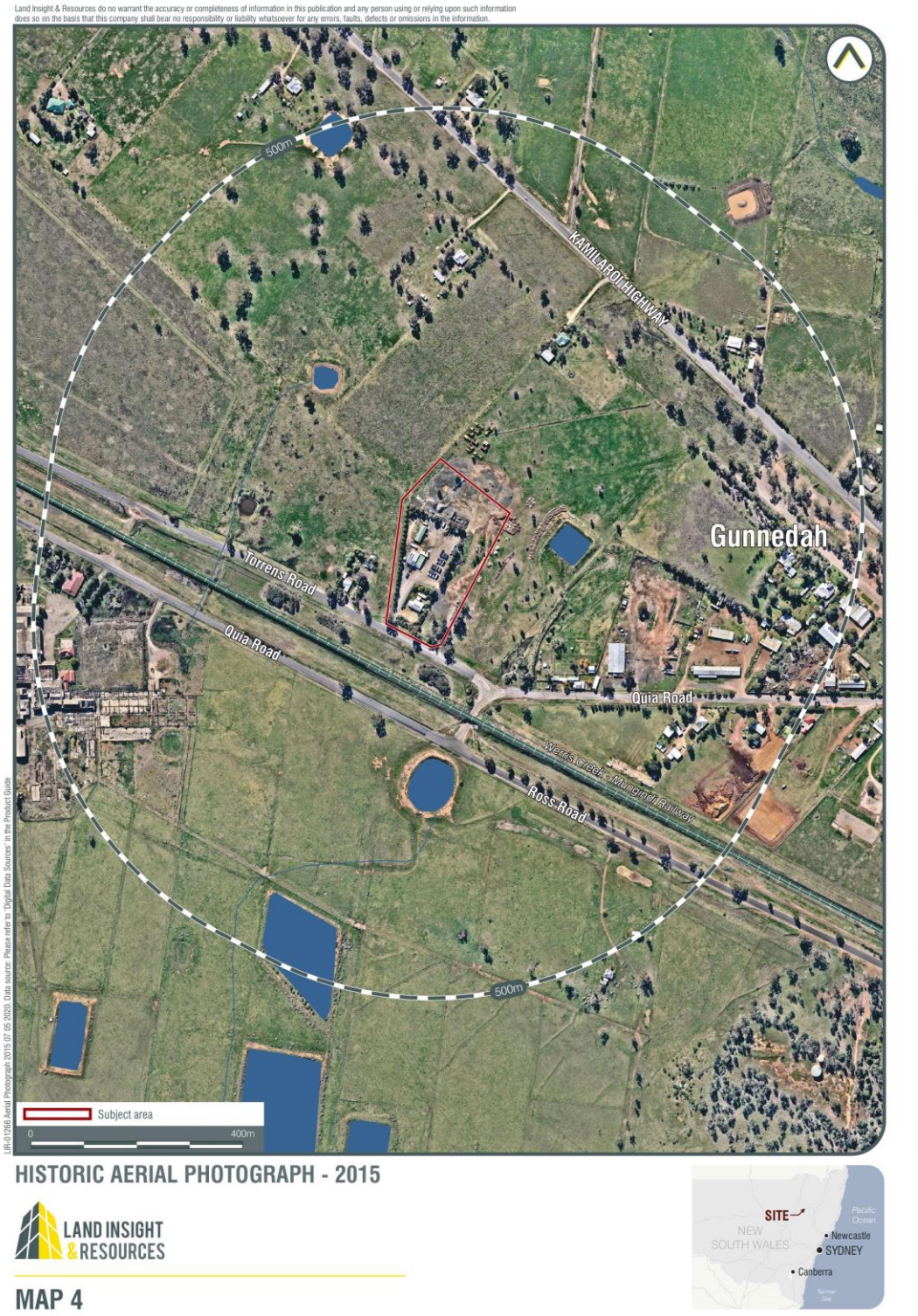

Figure 8. Historical aerial photograph of the site (outlined in red) from 2015. Site has undergone development after purchase by the current owner in 2011.

Table 1. Summary of Owners Report

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
16.06.1868	Within Gunnedah Temporary Common Revoked 19th September 1919	
26.10.1888	Within Gunnedah Population area Revoked 16.10.1931	
13.04.1892	Reserved from Annual Lease or Occupation Licence Revoked 19th September 1919	
30.06.1900	Partly within Travelling Stock Reserve No. 31106 Revoked 19th September 1919	
28.02.1906	Partly within Travelling Stock Reserve No. 40255 Revoked 19th September 1919	
19.09.1919	Within Returned Soldiers Special Holding Area No. 457 Revoked 22.04.1921	
22.04.1921	Within Suburban Holding Area No. 1285	
03.08.1921 (1921 to 1930)	Harold William Mirow (Coach Painter)	Crown Tenure Suburban Holding 1921/17 Gunnedah
17.07.1930 (1930 to 1935)	Richard Oscar Albert Mirow (Motor Garage Proprietor)	Crown Tenure Suburban Holding 1921/17 Gunnedah (Book 1611 No. 121)
31.12.1935 (1935 to 1956)	Mirow & Sons Limited Now Mirow & Sons Pty Limited	Crown Tenure Suburban Holding 1921/17 Gunnedah (Book 1753 No. 153)
16.05.1956 (1956 to 1980)	Colin Peter Brady (Sharefarmer)	Crown Tenure Suburban Holding 1921/17 Gunnedah (Book 2379 No. 305)
28.07.1980 (1980 to 1983)	Colin Peter Brady (Stock & Station Agent) Peter Wallis Brady (Stock & Station Agent)	Crown Tenure Suburban Holding 1921/17 Gunnedah (Book 3436 No. 676 - Mortgage) Now Vol 14244 Fol 175
26.05.1983 (1983 to 1990)	Brady Holdings (GDAH) Pty Limited	Vol 14244 Fol 175 Now 454/755503
23.07.1990 (1990 to 1998)	Council of the Shire of Gunnedah or Gunnedah Shire Council	454/755503
14.04.1998 (1998 to 2011)	Wayne Smith Now Wayne Kevin Smith	454/755503

Table 1. Continued as regards Lot 1 D.P. 1226992

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
15.06.2011 (2011 to date)	Mackellar Equipment Hire Pty Ltd	454/755503 Now 1/1226692

# Denotes current registered proprietor

Leases: - NIL

Easements: -_02.03.2017 (D.P. 1226992) Easement to Drain Water 6 metres wide

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Table 1. Continued as regards Lot 2 D.P. 1226992

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
15.06.2011 (2011 to date)	Mackellar Equipment Hire Pty Ltd	454/755503 Now 2/1226692

# Denotes current registered proprietor

Leases: - 13.07.2018 (AN 391833) to Qube Bulk Pty Ltd – expires 31.01.2020, also 2 year option

Easements: - 02.03.2017 (D.P. 1226992) Easement to Drain Water 6 metres wide

3.2. Site Inspection

A site inspection was conducted on 13th May 2020. The site was inspected, anecdotal evidence collected, and photos taken (see Appendix A). The above ground site inspection and observations for potential contamination sources revealed:

- A bitumen-sealed hardstand as a driveway leading to the mechanical garage and office (Figure 3), fill of unknown depth appeared to cover most of the site area (see Appendix A) ;
- A mechanical garage and office set up on a concrete pad in the south-eastern portion of the property, with the majority of the south-western portion of the site used for vehicle parking (Figures 2 and 3);
- The mechanical garage is used to repair, service, and wash heavy vehicles. The bay area had a drop pit installed, where waste is collected and subsequently pumped into a storage area located behind the mechanical garage (Figures 23 and 24);
- A small refuelling station with above ground fuel tank to hold diesel just north of the office building. Evidence of spills surrounding the refuelling area were present (Figures 9 and 10);
- A large open shed that stored many large tanks of chemicals associated with auto repair and servicing, such as transmission fluid, motor oil, lubricants, coolant, and AdBlue (Figures 13-16);
- Shipping containers for storage of mechanical equipment, road signs, and tools between Lot 1 and Lot 2 (Figure 22);
- A broken down car rested on wooden blocks along the western boundary of Lot 1 (Figure 17);
- Behind the office building, were various large tanks of waste chemicals, likely stockpiled waste from the mechanical garage (Figures 18 and 19);
- Various stockpiles of scrap wood, wood pallets, and scrap metal scattered around the shed and garage area as well as some concrete stormwater pipes and headwalls (Figures 11 and 12);
- A relatively small stockpile of waste concrete and miscellaneous gravel, brick, and foreign materials on the western boundary of Lot 2 (Figure 21);
- No sediment fences were observed;
- No physical evidence of asbestos was indicated on the site;
- Various visible signs of small spills with patch diameter <1m around the stockpiled tanks of waste chemicals (Figure 19);
- Chemicals were not stored on bunds;
- No obvious odours;
- No visible signs of responses to toxic contaminants from existing flora that surrounded the site; and
- No visible on-site losses of dangerous goods or discarding of explosive materials.

3.3. Possible Contaminant Sources

There is risk of surface soil contamination from the use of the site to store, fill, and refuel vehicles with diesel, as well as use of the site as an auto-repair and service garage, with improperly bunded storage of associated chemicals and small localised spills.

The most likely types of contamination would be:

- Total petroleum hydrocarbons, monocyclic aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene & xylene (BTEX)), phenols, heavy metals, polyaromatic hydrocarbons (PAHs), oil and grease, alkalis and acids (e.g. sulphuric, phosphoric) from sources and activities that include vehicle refuelling, maintenance, and repair.

During the site inspection East West noted the following sensitive receptors surrounding the site:

- Neighbouring surface waters to the south and west of the site
- The drainage area of the site is primarily towards the northeast

3.4.Potential Receptors

The potential receptors include:

- Future or transient users of the site;
- Any construction workers involved in the proposed site development;
- Local residents, including rural neighbours immediately to the west;
- Flora and fauna surrounding the site; and
- Waterways connected through the site's drainage easement

3.5. Exposure Pathways

Possible exposure pathways include:

- Ingestion, dermal contact, or inhalation of surface soil contamination;
- Inhalation through air transport of soil particulates (dust); and
- Ingestion or dermal contact with contaminated water

4. Sampling and Analysis Plan

Fourteen sampling locations were selected by East West on 5th June 2020 from targeted areas within Lot 2. The targeted areas included the boundary between Lot 1 and Lot 2, and in any drainage areas in Lot 2. Fourteen topsoil samples (SP1 through to SP14) were collected at a depth of 150mm using a ute-mounted auger in these targeted locations. According to *NSW EPA Contaminated Sites – Sampling Design Guidelines 2012*, these surface soils are most likely to be contaminated and come into contact with future users of the area or construction workers. In addition, these topsoils would reflect any migration of identified surface contaminants from Lot 1 into Lot 2. Soil samples taken discounted any imported fill on the lot and collected on natural soil only. Fill across Lot 2 was typically 50-100mm of road base. Soil cores were also observed at the fourteen sample locations to a depth of up to 1.5m to visually check for any imported fill or visual sources of contamination.

Sampling rationale was to collect one topsoil sample per 18m across the boundary between Lot 1 and Lot 2 grid area to ensure a spatial probability of detecting potential contaminant migration from Lot 1. The remaining seven samples were collected in identified drainage areas of Lot 2 in order to ascertain with greater certainty any migration of surface contamination of Lot 1.

All samples were collected carefully to ensure no cross-contamination occurred between sampling. Samples were collected from the outer edge of the soil on the auger to ensure cross contamination did not occur from the soils in contact with the auger itself. Nitrile gloves were used to collect each sample, and the auger was fully brushed off between sample points.

To effectively preserve the samples, each sample for contamination analysis was placed in a new glass jar with plastic screw-top lid and. Each jar was labelled with the job number, date, sample location, sampler, and a unique sample number.

The soil jars were transported in an esky and a sample log for was filled in with the date, job number, site address, GPS coordinates, samplers, sample locations, and sample names. The sample logs can be found in Appendix D.

A filled and signed chain of custody (COC) was filled out and accompanied the samples to their destination at Envirolab. The sample containers were wrapped in bubble wrap to ensure they did not break during transit and transported via overnight express in a cooled esky to Envirolab.

All samples were collected in accordance with the NSW EPA Sampling Design Guidelines and National Environmental Protection (Assessment of Site Contamination) Measure 1999.

Sampling was performed on 5/6/20 by Ashley Welch (Scientific Officer). Soil cores were performed by William King (Sole Trader) and observed by Ashley Welch and Steven Mitchell.

Table 2 contains a sample log of those samples collected. Figure 9 indicates where the samples were collected from and Appendix B show photos of each soil core at each sample location.

Analysis of the results for systematic grid based sampling must meet the following:

- The 95% Upper Confidence Limit (UCL) of the concentration of potential contamination (COPC) results do not exceed the soil assessment criteria;
- No single sample exceeds 250% of the COPC assessment criteria; and
- The standard deviation of the concentration COPC analytical results are less than 50% of the soil assessment criteria

Figure 9. Mud map of site – sample collection locations in Lot 2 for the site at 16 Torrens Road, Gunnedah NSW. Mud map is for illustrative purposes only and is not to scale. Lot boundaries are indicative only.

Table 2: Sample Log of Samples Collected on 5/6/20

SAMPLE ID	DEPTH	GPS COORDINATES	DESCRIPTION
EW200607-1	0-150mm	30°57.536" S 150°13.144" E	**SP1** Western edge of Lot 2 along boundary between Lot 1
EW200607-2	0-150mm	30°57.542" S 150°13.152" E	**SP2** Western side of Lot 2 along boundary between Lot 1
EW200607-3	50-200mm	30°57.545" S 150°13.162" E	**SP3** Western side of Lot 2 along boundary between Lot 1. 50mm of fill present
EW200607-4	50-200mm	30°57.549" S 150°13.174" E	**SP4** Midpoint along boundary between Lot 1 and 2. 50mm of fill present
EW200607-5	50-200mm	30°57.552" S 150°13.184" E	**SP5** Eastern side of Lot 2 along boundary between Lot 1. 50mm of fill present
EW200607-6	50-200mm	30°57.557" S 150°13.196" E	**SP6** Eastern side of Lot 2 along boundary between Lot 1. 50mm of fill present
EW200607-7	50-200mm	30°57.560" S 150°13.208" E	**SP7** Eastern edge of Lot 2 along boundary between Lot 1. 50mm of fill present
EW200607-8	50-200mm	30°57.559" S 150°13.212" E	**SP8** Eastern boundary of Lot 2. Lot showed natural slope on its eastern edge to the north-northeast. 50mm of fill present
EW200607-9	50-200mm	30°57.554" S 150°13.215" E	**SP9** Eastern boundary of Lot 2. Lot showed natural slope on its eastern edge to the north-northeast. 50mm of fill present
EW200607-10	100-250mm	30°57.550" S 150°13.217" E	**SP10** North-eastern boundary of Lot 2. Lot showed natural slope on its eastern edge to the north-northeast. 100mm of fill present
EW200607-11	0-150mm	30°57.544" S 150°13.222" E	**SP11** Northern side of Lot 2 in natural drainage area
EW200607-12	100-250mm	30°57.508" S 150°13.216" E	**SP12** Northern side of Lot 2 in natural drainage area. 100mm of fill present
EW200607-13	150-300mm	30°57.527" S 150°13.197" E	**SP13** Northern side of Lot 2 in natural drainage area. 150mm of fill present
EW200607-14	50-200mm	30°57.508" S 150°13.175" E	**SP14** North-west edge of Lot 2 in natural drainage area. 50mm of present

5. RESULTS

5.1. Soil Assessment Criteria

Health Investigation Levels (HILs) are Tier 1 risk based generic assessment criteria used for the assessment of potential risks to human health from chronic exposure to contaminants in soil. They are intentionally conservative and based on a reasonable worst-case scenario for generic land use settings. The HILs selected for the soil assessment criteria are the HIL D guidelines which are commercial/industrial areas and include premises such as shops, offices, factories and industrial sites.

Ecological investigation levels (EILs) is broadly equivalent to the HIL A, HIL B and HIL C land use scenarios. The protection levels for the generic land use settings are 60% for commercial and industrial land uses. EILs apply principally to contaminants in the top 2m of soil at the finished surface/ground level which corresponds to the root zone and habitation zone of many species.

Ambient background concentrations (ABC) for the locality assumes that by adding contaminants over and above the ecosystem background concentration has an adverse effect on the environment. In some situations the ABC may be comparatively low and have a minor effect on the magnitude of the site EIL. The added contaminants limits (ACL) used for EIL determination is the added concentration (above the ABC) of a contaminant above which further appropriate investigation and evaluation of the impact on ecological values is required. The EIL is derived by summing the ACL and the ABC.

ACLs are based on the soil characteristics of pH, CEC and clay content. Empirical relationships that can model the effect of these soil properties on toxicity are used to develop soil-specific values. These soil-specific values take into account the biological availability of the element in various soils. In this approach different soils will have different contaminant EILs rather than a single generic EIL for each contaminant. The sandy, silty, clays found in Gunnedah typically have pHs of above 6 and CECs greater than 20cmol/kg and a clay content of between 30-40%. Limits for soil specific EILs were determined by using the NEPM toolbox (2013) Interactive Calculation Spreadsheet for aged contamination in the soil for commercial/industrial areas with a standard protection level of 60%.

Ecological screening levels (ESLs) for the adopted carbon fraction ranges are based on TRH analysis with F1 being obtained after subtraction of BTEX. The ESLs selected for the soil assessment criteria are for commercial/industrial.

Health screening levels (HSLs) are Tier 1 risk based generic soil assessment criteria used for the assessment of potential risks to human health from chronic inhalation exposure of petroleum vapour emanating off petroleum contaminated soils (vapour risk). They are intentionally conservative and based on a reasonable worst-case scenario for generic soil types, contamination depth and land use settings including commercial/industrial (HSLs D). HSL D soil assessment criteria for clay soil from 0 to <1 m were adopted on the basis that the proposed land use is a resource recovery holding bay and onsite topsoil comprising of silty clay.

NEPM Management Limits for petroleum have been developed for prevention of explosive vapour accumulation, prevention of the formation of observable Light Non-Aqueous Phase Liquids (LNAPL) and protection against effects on buried infrastructure. Commercial/industrial space management limits (fine) have been adopted based on the proposed land use and onsite topsoil comprising of silty clay.

NEPM Soil Ecological Assessment Levels

Soil ecological assessment was not considered warranted based on the following:

- The proposed land use is for use as a resource holding bay containing sheds; and
- There are no onsite or nearby offsite sensitive ecological receptors.

The guidelines have been located through the NSW Environment and Protection Authority (EPA) and they indicate suitable threshold values for contaminants in soil from the appropriate guidelines outlined in the *National Environment Protection (Assessment of Site Contamination) Measure (NEPM) 1999* (April 2013), NEPC 2013, Canberra.

5.2. Discussion of Results

All fourteen topsoil samples were tested for heavy metal contaminants (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylene (BTEX), and polycyclic aromatic hydrocarbons (PAHs) at Envirolab (NATA accreditation 2901).

A summary of analysis for the soil samples (project reference EW200607) are located in Table 3. The first column contains the analytes (element and compounds tested for), the second column is the units of the results (i.e. mg/kg is milligram per kilogram or ppm of soil), and the middle columns contain the validation results for the soil samples collected. The last column displays the maximum permissible concentration of a contaminant for specific Health-Based Investigation Levels (HILs). Values over the maximum permissible concentration of a contaminant will be highlighted and further appropriate health investigation and evaluation is required.

All fourteen topsoil sample results at SP1 through to SP14 indicate levels for tested analytes below detectable limits of instrument analysis or below the soil assessment criteria – HIL commercial/industrial D threshold values (Table 3). Appendix C shows the 95% Upper Confidence Limit (UCL) of the concentration of potential contamination (COPC) and that all contaminants are within the thresholds for ESLs, EILs and/or HSLs.

The basis on which information was selected for the results summaries was to identify those contaminants that were common contaminants, contaminants of concern, or recorded a measurement above the lowest obtainable reading (LOR or limit of detection). Levels that measure below the instrument's level of detection are typically below guideline limits for contaminants but were still included to show the overall condition of the soil at the site. The quality control data was reviewed and not incorporated into the contained information in the summary as there were no anomalies that needed to be highlighted. The full laboratory documents are attached in Appendix D.

The results of the boreholes to a depth of 1.5m at the sampling locations indicated no signs of visible contamination, apart from the top 50-150mm of roadbase, and were consistent with natural soil profiles as to be expected in the area. The site generally consisted of red-brown silty clays with varying proportions of gravel. Photos of soil cores are located in Appendix B.

The results of the sampling from the initial and further investigation reveal that:

- No contaminants of concern have been detected with the 95% Upper Confidence Limit (UCL) of the concentration of potential contamination (COPC) with no contaminant exceeding the specified soil assessment criteria for HILs and EILs;
- No single sample exceeds 250% of the COPC assessment criteria; and
- The standard deviation of the concentration COPC analytical results are less than 50% of the soil assessment criteria.

Statistical analysis of the results and a full summary of the results against NEPM guidelines can be found in Appendix C.

Table 3: Summary of Topsoil Analysis Results

ANALYTE	Units	SP 1 **200607-1** **0-150mm**	SP 2 **200607-2** **0-150mm**	SP 3 **200607-3** **50-200mm**	SP 4 **200607-4** **50-200mm**	SP 5 **200607-5** **50-200mm**	SP 6 **200607-6** **50-200mm**	SP 7 **200607-7** **50-200mm**	SP 8 **200607-8** **50-200mm**	SP 9 **200607-9** **50-200mm**	SP 10 **200607-10** **100-250mm**	SP 11 **200607-11** **0-150mm**	SP 12 **200607-12** **100-250mm**	SP 13 **200607-13** **150-300mm**	SP 14 **200607-14** **50-200mm**	*NEPC Guidelines NEPM Health-Based Investigation Levels (Commercial-Industrial D)*
Heavy Metals																
Arsenic	mg/kg	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	***3000***
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	***800***
Chromium	mg/kg	28	27	21	26	22	27	23	26	24	27	23	31	34	24	***3000***
Copper	mg/kg	10	12	9	13	10	12	11	12	12	14	9	14	13	9	***250000***
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	***4000 (inorganic Hg)***
Nickel	mg/kg	14	17	13	24	15	18	13	18	18	24	13	32	24	12	***4000***
Lead	mg/kg	11	12	11	12	11	12	12	13	17	13	12	13	12	10	***1500***
Zinc	mg/kg	34	24	19	25	23	26	20	27	24	30	18	31	24	20	***400000***
Total Recoverable Hydrocarbons (TRH)																
vTPH C6-C10 less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	***250 (0 to <1m in silty clay)***
TRH >C10-C16 less naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	***NL***
Polyaromatic Hydrocarbons (PAHs)																
Total +ve PAHs	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	***4000***
Benzo(a)pyrene TEQ	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	***40***

6. QUALITY ASSURANCE/QUALITY CONTROL

6.1. QA/QC Documentation

All samples were transported to the laboratories for analysis with relevant COC documentation containing the following:

- Site identification;
- Sampler(s);
- Nature of the sample – soil;
- Collection date; and
- Analysis to be performed

Original COC and sample receipts advisory (SRA) documentation can be found in Appendix C.

6.2. Laboratories

Samples were submitted to NATA accredited laboratory, Envirolab (NATA accreditation 2901).

As part of their National Association of Testing Authorities NATA accreditation, the laboratories are required to carry out routine in-house quality control (QC) procedures, which are presented in Appendix C.

7. CONCLUSIONS

East West was commissioned to undertake a preliminary site investigation with sampling to estimate the potential site contamination risks from use as a site compound for Mackellar Excavations Pty Ltd, and whether use as a site compound could affect future development of the site's Lot 2.

Preliminary investigations of the site history were consistent with primary production, particularly use as grazing fields. The site has been developed for use as a site compound for aggregate stockpiling, mechanical servicing, and office space. A site inspection was conducted on 13th May 2020 to ascertain the site condition and identify any sources of contamination or contaminating activities. The predominant areas of concern noted during the site inspection were the diesel tank refuelling area and areas where chemicals are used and stored. There exists potential for small localised areas of shallow contamination associated with these areas. Identified surface contamination from use in Lot 1 could have the potential to migrate to Lot 2 considering the site's drainage to the north-northeast.

In order to determine the likelihood for migration of potential surface contamination from those areas identified on Lot 1 into Lot 2, preliminary sampling of the site in Lot 2 was conducted on June 5th 2020. Results of the sampling across the border of Lot 1 and 2 and in the identified drainage areas of Lot 2 revealed that contaminants of potential concern (COPC) were not identified in soil at concentrations in excess of assessment criteria in all soil samples analysed.

Considering the assessment contained within this report, there exists low potential for contamination of Lot 2 from current use in Lot 1 as evidenced by the results of the testing across the targeted topsoil samples. The results of the investigation reveal that the site at 16 Torrens Road, Lots 1 and 2 DP 1226992, Gunnedah NSW is considered fit for Lot 2's proposed development as a resource recovery bay and holding facility under industrial guidelines.

7. REPORT LIMITATIONS

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only.

This report does not provide a complete assessment of the environmental integrity of the site and is limited by the scope as defined above.

8. REFERENCES

NSW EPA [2000], *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites.* Sydney South, ISBN 0 7310 3892 4

NEPC [2013], *Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater Measure 1999* (May 2013). Canberra.

APPENDIX A – SITE INSPECTION PHOTOGRAPHS (MAY 13 2020)

Figure 9. The above ground fuel storage and refuelling area. Visible is an area of localised surface spill

Figure 10. View of the refilling pump

Figure 11. Various stockpiles of timber

Figure 12. Storage of concrete products

Figure 13. Stored transmission fluid and motor oil in the main open shed

Figure 14. Dust suppressant for use in mine sites, on roads and graded tracks to help control airborne dust stored in main open shed

Figure 15. An example of the chemicals stored on site - gear oil lubricant

Figure 16. Coolant premix stored in main open shed (predominantly ethylene glycol as active ingredient)

Figure 17. Broken down car stored next to main shed

Figure 18. Overview of stockpiled waste oils behind office building

Figure 19. Example of the size of small localised spills

Figure 20. Example of other waste chemicals stored behind office building

Figure 21. Stockpile of concrete waste and miscellaneous foreign materials on Lot 2

Figure 22. Sample of the storage shed contents on site

Figure 23. Installed pit for the collection of wastes such as grease and oils in the mechanics garage

Figure 24. Wastes are pumped out of pit and collected in waste tanks and disposed of off-site by a disposal company

APPENDIX B – EVIDENCE OF SOIL CORES TAKEN DURING SOIL SAMPLING (5 JUNE 2020)

Figure 25. SP1 borehole displaying dry, natural soil

Figure 26. SP2 borehole displaying dry, natural soil

Figure 27. SP3 borehole displaying dry, natural soil beneath 50mm of road base

Figure 28. SP4 borehole displaying dry, natural soil beneath 50mm of road base

Figure 29. SP5 borehole displaying dry, natural soil beneath 50mm of road base

Figure 30. SP6 borehole displaying moister soil beneath 50mm of road base.

Figure 31. SP7 borehole displaying moist, natural soil beneath 50mm of road base

Figure 32. SP8 borehole displaying moist, natural soil beneath 50mm of road base

Figure 33. SP9 borehole displaying moist, natural soil beneath 50mm of road base

Figure 34. SP10 borehole displaying dry, natural soil beneath 100mm of road base

Figure 35. SP11 borehole displaying dry, natural soil

Figure 36. SP12 borehole displaying dry, natural soil beneath 100mm of road base

Figure 37. SP13 borehole displaying moist, natural soil beneath 10mm of road base

F**igure 38.** SP14 borehole displaying dry, natural soil beneath 50mm of road base

APPENDIX C – FULL RESULTS TABLES

		Arsenic	Cadmium	Chromium	Copper	Mercury	Nickel	Lead	Zinc
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		4	0.4	5	5	0.1	5	5	5
NSW 2014 General Solid Waste CT1 (No Leaching)		100	20	100		4	40	100	
NSW 2014 General Solid Waste CT2 (No Leaching)		400	80	400		16	160	400	
NEPM 2013 Table 1A(3) Commercial/Industrial D Soil HSL for Vapour Intrusion (Sand) 0-1m									
NEPM 2013 Table 1A(3) Commercial/Industrial D for Vapour Intrusion (Silt) 0-1m									
NEPM 2013 Table 1B(4) Generic EIL – Commercial and Industrial		170						1800	
NEPM 2013 Table 1B(5) ESLs for Commercial and Industrial (Coarse Soil) 0-2m									
NEPM 2013 Table 1B(5) ESLs for Commercial and Industrial (Fine Soil) 0-2m									
NEPM 2013 Table 1A(1) HILs Commercial/Industrial D		3000	800	3000	250000	4000	4000	1500	400000
Field ID	Date								
200607-1	6/5/20	<4	<0.4	28	10	<0.1	14	11	34
200607-2	6/5/20	<4	<0.4	27	12	<0.1	17	12	24
200607-3	6/5/20	<4	<0.4	21	9	<0.1	13	11	19
200607-4	6/5/20	<4	<0.4	26	13	<0.1	24	12	25
200607-5	6/5/20	<4	<0.4	22	10	<0.1	15	11	23
200607-6	6/5/20	<4	<0.4	27	12	<0.1	18	12	26
200607-7	6/5/20	<4	<0.4	23	11	<0.1	13	12	20
200607-8	6/5/20	<4	<0.4	26	12	<0.1	18	13	27
200607-9	6/5/20	<4	<0.4	24	12	<0.1	18	17	24
200607-10	6/5/20	<4	<0.4	27	14	<0.1	24	13	30
200607-11	6/5/20	<4	<0.4	23	12	<0.1	13	12	18
200607-12	6/5/20	<4	<0.4	31	13	<0.1	32	13	31
200607-13	6/5/20	<4	<0.4	34	12	<0.1	24	12	24
200607-14	6/5/20	<4	<0.4	24	10	<0.1	12	10	20
	Mean (mg/L)	4	0.4	25.9	11.6	0.1	18.2	12.21	24.64
	Std Dev	0.00	0.00	3.54	1.40	0.00	5.82	1.63	4.70
	CV	0.00	0.00	0.14	0.12	0.00	0.32	0.13	0.19
	α at 95% (n-1)	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	95% UCL	4	0.4	28.82	12.72	0.1	23.00	13.55	28.50
	Guidelines Pass/Fail	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Preliminary Contaminated Site Investigation
Lots 1 and 2 DP 1226992
Gunnedah, NSW

		BTEX						TRH							TPH				
		Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6-C10	C6-C10 (F1 minus BTEX)	C10-C16	C10-C16 (F2 minus Napthalene)	C16-C34	C134-C40	C10-C40 (Sum of total)	C6-C9	C10-C14	C15-C28	C29-C36	+C10-C36 (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.2	0.5	1	2	1	1	25	25	50	50	100	100	50	25	50	100	100	100
NSW 2014 General Solid Waste CT1 (No Leaching)		10	288	600			1000								650				10000
NSW 2014 General Solid Waste CT2 (No Leaching)		40	1152	2400			4000								2600				40000
NEPM 2013 Table 1A(3) Commercial/Industrial D Soil HSL for Vapour Intrusion (Sand)																			
0-1m		3					230		260										
1-2m		3							370										
2-4m		3							630										
>=4m		3																	
NEPM 2013 Table 1A(3) Commercial/Industrial D for Vapour Intrusion (Silt)																			
0-1m		4							250										
1-2m		4							360										
2-4m		6							590										
>=4m		10																	
NEPM 2013 Table 1B(4) Generic EIL – Commercial and Industrial																			
NEPM 2013 Table 1B(5) ESLs for Commercial and Industrial (Coarse Soil)																			
0-2m		75	135	165			180		215		170	1700	3300						
NEPM 2013 Table 1B(5) ESLs for Commercial and Industrial (Fine Soil)																			
0-2m		95	135	185			95		215		170	2500	6600						
NEPM 2013 Table 1A(1) HILs Commercial/Industrial D																			
Field ID	Date																		
200607-1	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-2	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-3	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-4	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-5	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-6	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-7	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-8	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-9	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-10	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-11	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-12	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-13	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
200607-14	6/5/20	<0.2	<0.5	<1	>2	<1	<1	<25	<25	<50	<50	<100	<100	<50	<25	<50	<100	<100	<100
	Mean (mg/L)	0.2	0.5	1	2	1	1	25	25	50	50	100	100	50	25	50	100	100	100
	Std Dev	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	α at 95% (n-1)	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	95% UCL	0.2	0.5	1	2	1	1	25	25	50	50	100	100	50	25	50	100	100	100
	Guidelines Pass/Fail	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

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		PAHs																		
		Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b, j + k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Napthalene	Phenanthrene	Pyrene	Benzo(a)pyrene TEQ calc (Half)	Benzo(a)pyrene TEQ (LOR)	Benzo(a)pyrene TEQ calc (PQL)	PAHs (Sum of total)
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05
NSW 2014 General Solid Waste CT1 (No Leaching)						0.8														200
NSW 2014 General Solid Waste CT2 (No Leaching)						3.2														800
NEPM 2013 Table 1A(3) Commercial/Industrial D Soil HSL for Vapour Intrusion (Sand)																				
0-1m																				
NEPM 2013 Table 1A(3) Commercial/Industrial D for Vapour Intrusion (Silt)																				
0-1m																				
NEPM 2013 Table 1B(4) Generic EIL – Commercial and Industrial														370						
NEPM 2013 Table 1B(5) ESLs for Commercial and Industrial (Coarse Soil)																				
0-2m						0.7														
NEPM 2013 Table 1B(5) ESLs for Urban Res (Fine Soil)																				
0-2m						1.4														
NEPM 2013 Table 1A(1) HILs Commercial/Industrial D																	3	3	3	300
Field ID	Date																			
200607-1	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-2	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-3	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-4	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-5	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-6	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-7	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-8	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-9	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-10	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-11	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-12	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-13	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
200607-14	5/6/20	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.05
	Mean (mg/L)	0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.	0.1	0.5	0.5	0.5	0.05
	Std Dev	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	α at 95% (n-1)	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	95% UCL	0.1	0.1	0.1	0.1	0.05	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.05
	Guidelines Pass/Fail	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

APPENDIX D – SUPPORTING DOCUMENTS

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 244432

Client Details

Client	East West Enviroag Pty Ltd
Attention	Ashley Welch
Address	82 Plain St, Tamworth, NSW, 2340

Sample Details

Your Reference	**EW200607**
Number of Samples	14 Soil
Date samples received	09/06/2020
Date completed instructions received	09/06/2020

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.

Report Details

Date results requested by	16/06/2020
Date of Issue	12/06/2020

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Results Approved By
Dragana Tomas, Senior Chemist
Hannah Nguyen, Senior Chemist
Jaimie Loa-Kum-Cheung, Metals Supervisor
Steven Luong, Organics Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		244432-1	244432-2	244432-3	244432-4	244432-5
Your Reference	UNITS	200607-1	200607-2	200607-3	200607-4	200607-5
Depth		0-150mm	0-150mm	50-200mm	50-200mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
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	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	113	118	107	98	118

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		244432-6	244432-7	244432-8	244432-9	244432-10
Your Reference	UNITS	200607-6	200607-7	200607-8	200607-9	200607-10
Depth		50-200mm	50-200mm	50-200mm	50-200mm	100-250mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
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	<3	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	114	108	111	95	109

vTRH(C6-C10)/BTEXN in Soil					
Our Reference		244432-11	244432-12	244432-13	244432-14
Your Reference	UNITS	200607-11	200607-12	200607-13	200607-14
Depth		0-150mm	100-250mm	150-300mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25
vTPH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
naphthalene	mg/kg	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<3	<3	<3	<3
Surrogate aaa-Trifluorotoluene	%	106	117	114	114

svTRH (C10-C40) in Soil						
Our Reference		244432-1	244432-2	244432-3	244432-4	244432-5
Your Reference	UNITS	200607-1	200607-2	200607-3	200607-4	200607-5
Depth		0-150mm	0-150mm	50-200mm	50-200mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
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	95	108	104	96

svTRH (C10-C40) in Soil						
Our Reference		244432-6	244432-7	244432-8	244432-9	244432-10
Your Reference	UNITS	200607-6	200607-7	200607-8	200607-9	200607-10
Depth		50-200mm	50-200mm	50-200mm	50-200mm	100-250mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	11/06/2020
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	%	94	94	103	94	94

svTRH (C10-C40) in Soil					
Our Reference		244432-11	244432-12	244432-13	244432-14
Your Reference	UNITS	200607-11	200607-12	200607-13	200607-14
Depth		0-150mm	100-250mm	150-300mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	11/06/2020	11/06/2020	11/06/2020	11/06/2020
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	<50	<50
Surrogate o-Terphenyl	%	94	95	94	99

PAHs in Soil						
Our Reference		244432-1	244432-2	244432-3	244432-4	244432-5
Your Reference	UNITS	200607-1	200607-2	200607-3	200607-4	200607-5
Depth		0-150mm	0-150mm	50-200mm	50-200mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
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	<0.05	<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	<0.05	<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	%	103	102	109	100	102

PAHs in Soil						
Our Reference		244432-6	244432-7	244432-8	244432-9	244432-10
Your Reference	UNITS	200607-6	200607-7	200607-8	200607-9	200607-10
Depth		50-200mm	50-200mm	50-200mm	50-200mm	100-250mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
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	<0.05	<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	<0.05	<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	%	102	101	93	100	97

PAHs in Soil					
Our Reference		244432-11	244432-12	244432-13	244432-14
Your Reference	UNITS	200607-11	200607-12	200607-13	200607-14
Depth		0-150mm	100-250mm	150-300mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	100	100	101	103

Acid Extractable metals in soil						
Our Reference		244432-1	244432-2	244432-3	244432-4	244432-5
Your Reference	UNITS	200607-1	200607-2	200607-3	200607-4	200607-5
Depth		0-150mm	0-150mm	50-200mm	50-200mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Arsenic	mg/kg	<4	4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	28	27	21	26	22
Copper	mg/kg	10	12	9	13	10
Lead	mg/kg	11	12	11	12	11
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	14	17	13	24	15
Zinc	mg/kg	34	24	19	25	23

Acid Extractable metals in soil						
Our Reference		244432-6	244432-7	244432-8	244432-9	244432-10
Your Reference	UNITS	200607-6	200607-7	200607-8	200607-9	200607-10
Depth		50-200mm	50-200mm	50-200mm	50-200mm	100-250mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Arsenic	mg/kg	<4	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	27	23	26	24	27
Copper	mg/kg	12	11	12	12	14
Lead	mg/kg	12	12	13	17	13
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	18	13	18	18	24
Zinc	mg/kg	26	20	27	24	30

Acid Extractable metals in soil					
Our Reference		244432-11	244432-12	244432-13	244432-14
Your Reference	UNITS	200607-11	200607-12	200607-13	200607-14
Depth		0-150mm	100-250mm	150-300mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Arsenic	mg/kg	<4	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	23	31	34	24
Copper	mg/kg	9	14	13	9
Lead	mg/kg	12	13	12	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	13	32	24	12
Zinc	mg/kg	18	31	24	20

Moisture						
Our Reference		244432-1	244432-2	244432-3	244432-4	244432-5
Your Reference	UNITS	200607-1	200607-2	200607-3	200607-4	200607-5
Depth		0-150mm	0-150mm	50-200mm	50-200mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	11/06/2020	11/06/2020	11/06/2020	11/06/2020	11/06/2020
Moisture	%	6.1	8.8	5.4	7.9	6.5

Moisture						
Our Reference		244432-6	244432-7	244432-8	244432-9	244432-10
Your Reference	UNITS	200607-6	200607-7	200607-8	200607-9	200607-10
Depth		50-200mm	50-200mm	50-200mm	50-200mm	100-250mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	11/06/2020	11/06/2020	11/06/2020	11/06/2020	11/06/2020
Moisture	%	8.5	8.8	12	11	11

Moisture					
Our Reference		244432-11	244432-12	244432-13	244432-14
Your Reference	UNITS	200607-11	200607-12	200607-13	200607-14
Depth		0-150mm	100-250mm	150-300mm	50-200mm
Date Sampled		05/06/2020	05/06/2020	05/06/2020	05/06/2020
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	10/06/2020	10/06/2020	10/06/2020	10/06/2020
Date analysed	-	11/06/2020	11/06/2020	11/06/2020	11/06/2020
Moisture	%	9.8	8.3	8.5	10

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	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-020	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-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/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-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	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.

Method ID	Methodology Summary
Org-023	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-6	244432-2
Date extracted	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Date analysed	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
TRH C_6 - C_9	mg/kg	25	Org-023	<25	1	<25	<25	0	103	108
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	1	<25	<25	0	103	108
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	99	105
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	120	120
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	108	115
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	95	101
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	92	97
naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	127	1	113	108	5	112	107

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Date analysed	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	[NT]	11	<25	<25	0	[NT]	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	[NT]	11	<25	<25	0	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	[NT]	11	<0.5	<0.5	0	[NT]	[NT]
Ethylbenzene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	[NT]	[NT]
m+p-xylene	mg/kg	2	Org-023	[NT]	11	<2	<2	0	[NT]	[NT]
o-Xylene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	[NT]	[NT]
naphthalene	mg/kg	1	Org-023	[NT]	11	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	[NT]	11	106	117	10	[NT]	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	244432-2
Date extracted	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Date analysed	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	1	<50	<50	0	115	86
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	1	<100	<100	0	113	118
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	1	<100	<100	0	77	108
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	1	<50	<50	0	115	86
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	1	<100	<100	0	113	118
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	1	<100	<100	0	77	108
Surrogate o-Terphenyl	%		Org-020	96	1	97	96	1	117	85

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Date analysed	-			[NT]	11	11/06/2020	11/06/2020		[NT]	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	[NT]	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	[NT]	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	[NT]	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	[NT]	11	<50	<50	0	[NT]	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	[NT]	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	[NT]	11	<100	<100	0	[NT]	[NT]
Surrogate o-Terphenyl	%		Org-020	[NT]	11	94	94	0	[NT]	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	244432-2
Date extracted	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Date analysed	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	120	120
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	114	106
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	108	102
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	102
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	114	106
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	92
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	<0.05	<0.05	0	116	106
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	104	1	103	102	1	106	102

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date extracted	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Date analysed	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluorene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Pyrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	[NT]	11	<0.2	<0.2	0	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	[NT]	11	<0.05	<0.05	0	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	[NT]	11	100	100	0	[NT]	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	244432-2
Date prepared	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Date analysed	-			10/06/2020	1	10/06/2020	10/06/2020		10/06/2020	10/06/2020
Arsenic	mg/kg	4	Metals-020	<4	1	<4	<4	0	100	91
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	102	105
Chromium	mg/kg	1	Metals-020	<1	1	28	27	4	108	98
Copper	mg/kg	1	Metals-020	<1	1	10	9	11	103	106
Lead	mg/kg	1	Metals-020	<1	1	11	11	0	105	101
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	100	94
Nickel	mg/kg	1	Metals-020	<1	1	14	12	15	106	100
Zinc	mg/kg	1	Metals-020	<1	1	34	29	16	106	104

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Date analysed	-			[NT]	11	10/06/2020	10/06/2020		[NT]	[NT]
Arsenic	mg/kg	4	Metals-020	[NT]	11	<4	<4	0	[NT]	[NT]
Cadmium	mg/kg	0.4	Metals-020	[NT]	11	<0.4	<0.4	0	[NT]	[NT]
Chromium	mg/kg	1	Metals-020	[NT]	11	23	24	4	[NT]	[NT]
Copper	mg/kg	1	Metals-020	[NT]	11	9	9	0	[NT]	[NT]
Lead	mg/kg	1	Metals-020	[NT]	11	12	13	8	[NT]	[NT]
Mercury	mg/kg	0.1	Metals-021	[NT]	11	<0.1	<0.1	0	[NT]	[NT]
Nickel	mg/kg	1	Metals-020	[NT]	11	13	12	8	[NT]	[NT]
Zinc	mg/kg	1	Metals-020	[NT]	11	18	17	6	[NT]	[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.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

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: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-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.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 42 43 44

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
Ph 02 9910 6200 / sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt Myaree, WA 6154
Ph 08 9317 2505 / lab@mpl.com.au

Melbourne Lab - Envirolab Services
1A Dalmore Drive Scoresby VIC 3179
Ph 03 9763 2500 / melbourne@envirolab.com.au

Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
Ph 07 3266 9532 / brisbane@envirolab.com.au

Adelaide Office - Envirolab Services
7a The Parade, Norwood, SA 5067
Ph 0406 350 706 / adelaide@envirolab.com.au

Client: East West Enviroag

Contact Person: Ashley Welch

Phone: 02 6762 1733

Sampler: AW

Address: 82 Plain Street Tamworth 2340

Phone: 02 6762 1733 **Mob:** 0447 116 818

Email: stephanie.c@eastwestonline.com.au
ashley.w@eastwestonline.com.au
admin @eastwestonline.com.au

Client Project Name / Number / Site etc (ie report title): EW200607

PO No.: EW200607

Envirolab Quote No. :

Date results required: Standard

Note: Inform lab in advance if urgent turnaround is required - surcharges apply

Report format: esdat / equis /

Lab Comments:

Sample information					Tests Required	Comments
Envirolab Sample ID	Client Sample ID or information	Depth	Date sampled	Type of sample		Provide as much information about the sample as you can
1	200607-1	0-150mm	5/06/2020	Soil	TRH, BTEX, 8 heavy metals, PAHs on all samples (combo 3)	
2	200607-2	0-150mm	5/06/2020	Soil		
3	200607-3	50-200mm	5/06/2020	Soil		
4	200607-4	50-200mm	5/06/2020	Soil		
5	200607-5	50-200mm	5/06/2020	Soil		
6	200607-6	50-200mm	5/06/2020	Soil		
7	200607-7	50-200mm	5/06/2020	Soil		
8	200607-8	50-200mm	5/06/2020	Soil		
9	200607-9	50-200mm	5/06/2020	Soil		
10	200607-10	100-250mm	5/06/2020	Soil		
11	200607-11	0-150mm	5/06/2020	Soil		
12	200607-12	100-250mm	5/06/2020	Soil		
13	200607-13	150-300mm	5/06/2020	Soil		
14	200607-14	50-200mm	5/06/2020	Soil		

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 144432
9/6/20
1055
Date Received:
Time Received:
Received by: MM
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Relinquished by (Company): East West
Print Name: Ashley Welch
Date & Time: 05/06/2020
Signature:

Received by (Company): EWS
Print Name: T. Mulcahy
Date & Time: 9/6/20 1055
Signature:

Lab use only:
Samples Received: Cool or Ambient (circle one)
Temperature Received at: 11.3 (if applicable)
Transported by: Hand delivered / courier

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

SAMPLE RECEIPT ADVICE

Client Details

Client	East West Enviroag Pty Ltd
Attention	Ashley Welch

Sample Login Details

Your reference	EW200607
Envirolab Reference	244432
Date Sample Received	09/06/2020
Date Instructions Received	09/06/2020
Date Results Expected to be Reported	16/06/2020

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	14 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	11.3
Cooling Method	None
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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

Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Acid Extractable metalsin soil
200607-1-0-150mm	✓	✓	✓	✓
200607-2-0-150mm	✓	✓	✓	✓
200607-3-50-200mm	✓	✓	✓	✓
200607-4-50-200mm	✓	✓	✓	✓
200607-5-50-200mm	✓	✓	✓	✓
200607-6-50-200mm	✓	✓	✓	✓
200607-7-50-200mm	✓	✓	✓	✓
200607-8-50-200mm	✓	✓	✓	✓
200607-9-50-200mm	✓	✓	✓	✓
200607-10-100-250mm	✓	✓	✓	✓
200607-11-0-150mm	✓	✓	✓	✓
200607-12-100-250mm	✓	✓	✓	✓
200607-13-150-300mm	✓	✓	✓	✓
200607-14-50-200mm	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

eastwest
GEO•AG•ENVIRO

SOIL SAMPLING LOG SHEET

Project ID: EW 200 607	Date and Time: 5th June 2020 9:00am	Sampled by: AW ~~BSF~~
Client Details: Mackellar Excavations	Sampling Location: 16 Torrens Road	

EW Sample ID	Site Name	Client ID # Hole/ Pit #	Co-ordinates/ GPS	Depth and Units	Description/ Comments	Number of Samples
200607-1		SP 1	30° 57·536N 150° 13·144 E	0-150	Soil on western boundary, along border of lot 1	1
200607-2		SP 2	30° 57·542 150° 13·152	0-150	" "	1
200607-3		SP 3	30° 57·545 150° 13·162	50-200 ~~0-150~~ SM.	" 50mm Roadbase. FILL	1
200607-4		SP 4	30° 57·549 150° 13·174	50-200 ~~0-150~~	" on midpoint of site, along border of lot 1	1
200607-5		SP 5	30° 57·552 150° 13·184	50-200	" "	1
200607-6		SP 6	30° 57·557 150° 13·196	50-200	" "	1
200607-7		SP 7	30° 57·560 150° 13·208	50-200	" along border of lot 1 on eastern boundary.	1
200607-8		SP 8	30° 57·559 150° 13·212	50-200	" on eastern side of lot 2 ~~along border of lot 1~~	1
200607-9		SP 9	30° 57·554 150° 13·215	50-200	" " " "	1
200607-10		SP 10	30° 57·550 150° 13·217	100-250	" 100mm R'base	1

eastwest
GEO•AG•ENVIRO

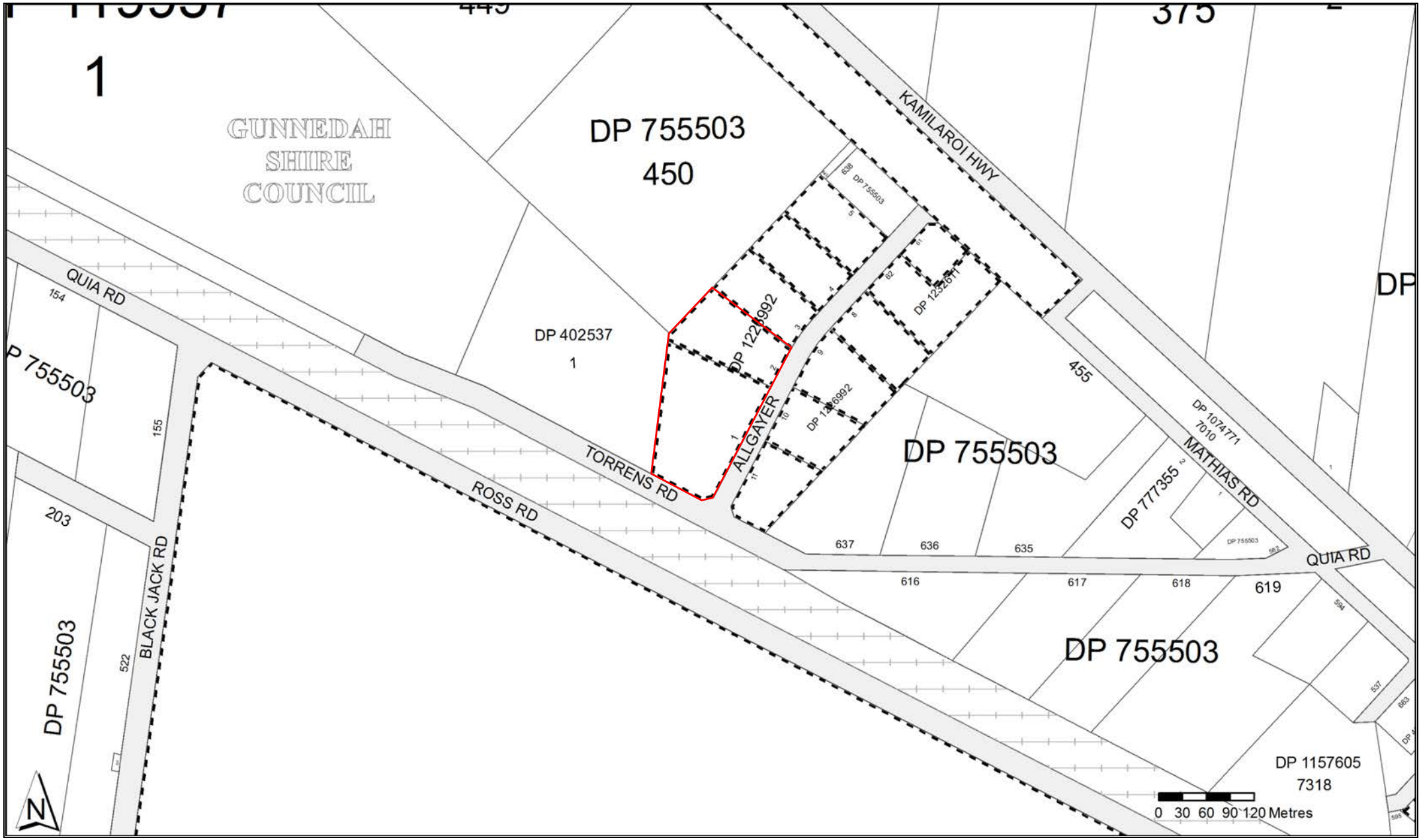
EW Sample ID	Site Name	Client ID # Hole/ Pit #	Co-ordinates/ GPS	Depth and Units	Description/ Comments	Number of Samples
200607-11		SP11	30° 57.544 150° 13.222	0-150	So. 1	1
200607-12		SP12	30.57.508 150° 13-216	100-250	" 100 mm roadbase	1
200607-13		SP13	30° 57.527 150° 13.197	150-300	" 150mm	1
200607-14		SP14	30° 57.508 150° 13.175	150-200	" 50mm	1

LAND REGISTRY SERVICES

Cadastral Records Enquiry Report : Lot 1 DP 1226992

Ref : Gunnedah 16 Torrens Rd

Locality : GUNNEDAH
Parish : GUNNEDAH
LGA : GUNNEDAH
County : POTTINGER



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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

InfoTrack

InfoTrack

PLAN FORM 2 (A2) DP1226992 WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION ePlan Sheet 1 of 1 sheets

Req:R044711 /Doc:DP 1226992 P /Rev:03-Mar-2017 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:17 /Seq:1 of 3
© Office of the Registrar-General /Src:INFOTRACK /Ref:Gunnedah 16 Torrens Rd

SCHEDULE OF CURVED BOUNDARIES

LINE	CH. BEARING	CH. DISTANCE	ARC	RADIUS
1	201°30'50"	12.02	12.025	233
2	209°11'25"	50.31	50.405	233
3	27°42'45"	55.835	56	209

CONNECTIONS

FROM	TO	BEARING	DISTANCE
SSM 181637	SSM 181638	16°20'43"	224.533
SSM 181638	SSM 181339	38°43'30"	242.75
SSM 181639	SSM 2085	316°23'53"	519.831
SSM 2085	PM 84468	127°08'44"	1111.208

DIAGRAM 5
1:1,000

DIAGRAM 2
1:1,000

DIAGRAM 1
1:10,000

DIAGRAM 3
1:250

DIAGRAM 4
1:1,000

SURVEYING AND SPATIAL INFORMATION REGULATION 2012: CLAUSE 35(1)(b)

MARK	M.G.A. CO-ORDINATES EASTING	M.G.A. CO-ORDINATES NORTHING	CLASS	ORDER	METHOD	ORIGIN
SSM 2085	234357	6572212	U	N/A	HAND HELD GNSS	FOUND
PM 84468	235148	6571431	U	N/A	HAND HELD GNSS	FOUND
SSM 181639	234663	6571792	U	N/A	HAND HELD GNSS	PLACED
SSM 181637	234397	6571418	U	N/A	HAND HELD GNSS	PLACED
SSM 181638	234488	6571624	U	N/A	HAND HELD GNSS	PLACED
ZONE: 56						

GNSS OBSERVATIONS WERE USED ON LINES GREATER THAN 100m

SCHEDULE OF REFERENCE MARKS

COR.	BEARING	DISTANCE	MARK
C	35°24'	0.78	R.M.G.I.P. FD (P6286-1781)
D	125°26'	5.165 & 18.865	R.M.D.H.&W'S
E	305°23'	5.205 & 18.805	R.M.D.H.&W'S
F	287°09'	5.21 & 18.84	R.M.D.H.&W'S
G	110°02'	5.21 & 18.805	R.M.D.H.&W'S
H	26°43'	1.175	R.M.G.I.P.

(W) EASEMENT TO DRAIN SEWAGE 3 WIDE
(X) EASEMENT TO DRAIN WATER 15 WIDE
(Y) EASEMENT TO DRAIN WATER 6 WIDE
(Z) EASEMENT FOR MULTI PURPOSE ELECTRICAL INSTALLATION 4.2 WIDE

Surveyor: CLIFFORD R. STEWART, STEWART SURVEYS PTY LTD, P.O. BOX 592, GUNNEDAH NSW 2380 Date of Survey: 7th November 2016 Surveyor's Ref: 3961	PLAN OF SUBDIVISION OF LOT 454 IN DP 755503	LGA: GUNNEDAH Locality: GUNNEDAH Subdivision No: 1056729 Lengths are in metres. Reduction Ratio 1: 2,000	Registered 2.3.2017	DP1226992

Req:R044711 /Doc:DP 1226992 P /Rev:03-Mar-2017 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:17 /Seq:2 of 3
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ePlan

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 2.3.2017

Title System: TORRENS

Purpose: SUBDIVISION

Office Use Only

DP1226992

PLAN OF

SUBDIVISION OF LOT 454 IN DP 755503

LGA: GUNNEDAH
Locality: GUNNEDAH
Parish: GUNNEDAH
County: POTTINGER

Crown Lands NSW/Western Lands Office Approval

I ..... (Authorising Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown hereon have been given.

Signature: .....

Date: .....

File Number: .....

Office: .....

Subdivision Certificate

I, ERIC GROTH

*~~Authorised Person~~/*General Manager/*~~Accredited Certifier~~, certify that the provisions of s.109J of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, ~~new road or reserve~~ set out herein.

Consent Authority : GUNNEDAH SHIRE COUNCIL

Date of endorsement : 10 FEBRUARY 2017

Accreditation no : .....

Subdivision Certificate no : 1056729

File no : DA 610514.004

* Delete whichever is inapplicable.

Survey Certificate

I, CLIFFORD R. STEWART

of STEWART SURVEYS PTY LTD
P.O. BOX 592 GUNNEDAH ACN 002 886 508

a surveyor registered under the *Surveying and Spatial Information Act, 2002*, certify that

*(a) The land showed in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation, 2012*, is accurate and the survey was completed on: 7TH NOVEMBER 2016

~~*(b) The part of the land shown in the plan(*being/*excluding ^ .....~~
~~.....)~~
~~was surveyed in accordance with the *Surveying and Spatial Information Regulation, 2012*, is accurate and the survey was completed on, ... the part not surveyed was compiled in accordance with that Regulation.~~

~~*(c) the land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation, 2012*.~~

Signature: C R Stewart Dated: 15TH NOV 2016

Surveyor ID: 2026

Datum Line: "A"~"B" (P6285-1781)

Type: *Urban/~~*Rural~~

The Terrain is *Level-Undulating / ~~Steep-Mountainous.~~

*Strike through if inapplicable.
^Specify the land actually surveyed or specify and land shown in the plan that is not the subject of the survey.

STATEMENTS of intention to dedicate public roads, to create public reserves and drainage reserves.

IT IS INTENDED TO DEDICATE THE ROAD 24 WIDE TO THE PUBLIC AS PUBLIC ROAD

Plans used in the preparation of survey/compilation

P4612-1781, P4642-1781, P5004-1781, P5005-1781, P5006-1781, P5007-1781, P5036-1781, P5037-1781, P6285-1781, P6826-1781, DP402537, DP1074771, DP1074926

If space is insufficient continue on Plan Form 6A

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Surveyor's Reference: 3961

Req:R044711 /Doc:DP 1226992 P /Rev:03-Mar-2017 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:17 /Seq:3 of 3
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ePlan

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 2.3.2017

Office Use Only

DP1226992

PLAN OF

SUBDIVISION OF LOT 454 IN DP 755503

This sheet is for the provision of the following information as require.
- A schedule of lots and addresses - See 60(c) SSI regulation 2012
- Statements of intention to create and release affecting interests in accordance with section 88B Conveyancing Act 1919
- Signatures and Seals - see 195D Conveyancing Act 1919
- Any information which cannot fit into the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: 1056729

Date of Endorsement: 10 FEBRUARY 2017

Signatures, Seals and Section 88B Statements

SURVEYING AND SPATIAL INFORMATION REGULATION 2012: Cl. 60(c)				
LOT	STREET REFERENCE			LOCALITY
	No.	NAME	TYPE	
1	N/A	N/A	N/A	GUNNEDAH
2	N/A	N/A	N/A	GUNNEDAH
3	N/A	N/A	N/A	GUNNEDAH
4	N/A	N/A	N/A	GUNNEDAH
5	N/A	N/A	N/A	GUNNEDAH
6	N/A	N/A	N/A	GUNNEDAH
7	N/A	N/A	N/A	GUNNEDAH
8	N/A	N/A	N/A	GUNNEDAH
9	N/A	N/A	N/A	GUNNEDAH
10	N/A	N/A	N/A	GUNNEDAH
11	N/A	N/A	N/A	GUNNEDAH

BRENDON MACKELLAR
SOLE DIRECTOR/SECRETARY
EXECUTED BY
MACKELLAR EQUIPMENT
HIRE PTY LTD
ACN 129 678 815 BY
ITS AUTHORISED OFFICERS
SEC 127 CORP. ACT 2001

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT, 1919
IT IS INTENDED TO CREATE:
1] EASEMENT TO DRAIN SEWAGE 3 WIDE
2] EASEMENT TO DRAIN WATER 15 WIDE
3] EASEMENT TO DRAIN WATER 6 WIDE
4] EASEMENT FOR MULTI PURPOSE ELECTRICAL INSTALLATION 4.2 WIDE

ARUNA PRAKASH
275 KENT ST, SYDNEY
NSW 2000
WITNESS

RICHARD WALKER
TIER TWO ATTORNEY
WESTPAC BANKING CORPORATION
BOOK 4299 NO 332

DP1226992

Surveyor's Reference: 3961

Req:R044787 /Doc:CP 05036-1781 P /Rev:26-Nov-2012 /NSW LRS /Prt:12-May-2020 13:23 /Seq:1 of 1
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LIVERPOOL PLAINS SHIRE

AMWORTH LAND BOARD DISTRICT HEAD ENCLOSURE. No.

PLAN OF PORTION 454

County of Pottinger Parish of Gunnedah

LAND DISTRICT OF GUNNEDAH LAND BOARD DISTRICT OF TAMWORTH

Resumed Area No.______ Pastoral Holding. Central Division

LAND BOARD DISTRICT HEAD OFFICE TAMWORTH No. 177 ENCLOSURE.

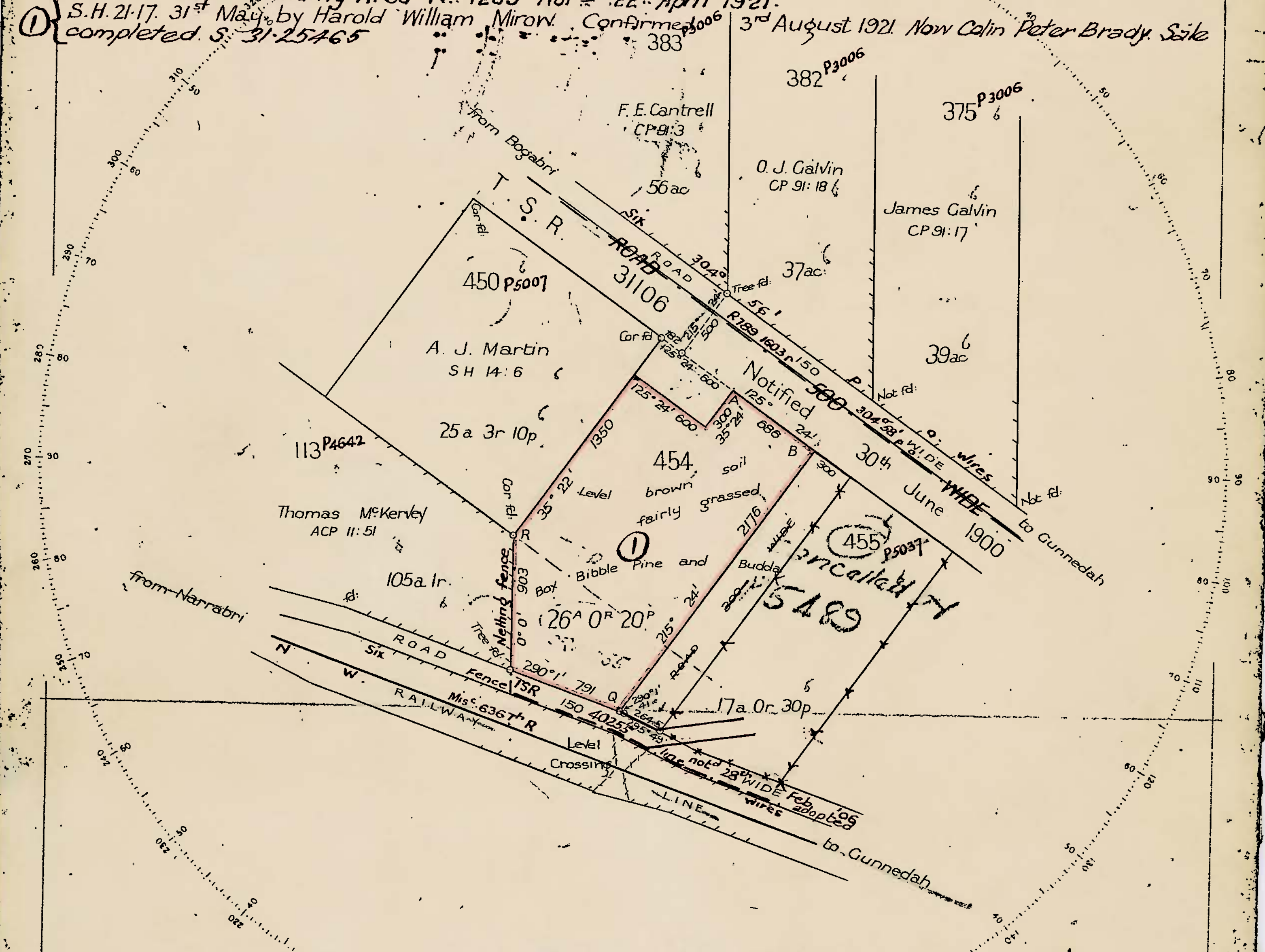
Applied for under the Section of the Crown Lands Act of 1 by

~~Within Gunnedah Population Area~~ procd 26th Sept 1888. Revoked 16.10.31

Within Gunnedah Temp. Common notd 16th June 1868. Resfr An Ls or Occ Lic 13th April 1892.
Partly within TSR 31106 notd 30th June 1900. Resfr Occ for Res or Bus Purp 8.3.01. } Revkd 19th Sept 19
Partly within TSR 40255 notd 28th Feb 1906.

Within Returned Soldiers' Special Holding Area No 457 Notfd 19th Septr 1919. Revoked 22nd April 1921.
Within Suburban Holding Area No 1285 Notfd 22nd April 1921.

(1){ S.H. 21-17. 31st May by Harold William Mirow. Confirmed 3rd August 1921. Now Colin Peter Brady. Sale completed S. 31-25465



Azimuth taken from Por 450
Field Book Vol. 3405 Folio 25

PLAN MICROFILMED
NO ADDITIONS OR AMENDMENTS TO BE MADE

STANDARD TRACING PREPARED 8.3.16

Reference to Corners

Corner	Bearing	From	Links	No on Tree
A	159° 35'	Box	38.4	454.455. P.5489
B	105 49	Box	56.2	454
Q	349° 23	Bibble	61	454.455. P.5489.
R	321° 15'	Box	116	113 450 454 N.P.

Reference to Traverse

Stn	Bearing	Distance

Value of Improvements.
9 Chs fence net fence £50 p.m. ½ Val £2 16

I hereby certify that I in person made and on the 18th Novbr 1915 completed the survey represented on this plan on which are written the bearings and lengths of the lines measured by me and I declare that the survey has been executed in accordance with the regulations published for the guidance of Licensed Surveyors and the practice of the Department of Lands.

T.H. Turner Licensed Surveyor

Transmitted to the District Surveyor with my letter of 20th Jany 1916 No 18

Charted on Head Office Maps 23 Mar 1916
Examined 3.16

Voucher No 16 Passed for £4 . 5 . 2. 21/2/16
Calculation Book No B137 Folio 98
Checked and Charted J Edwards 23rd February 1916
Examined and Plan approved } 25th February 1916

E. Paterson
Draftsman-in-Charge

P5036 1781

Scale 10 Chains to an Inch.

P5036 1781

Req:R044721 /Doc:CT 14244-175 CT /Rev:13-Jan-2011 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:18 /Seq:1 of 2
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STATE OF NEW SOUTH WALES

CROWN GRANT

14244175

No. 53431

Vol 14244 Fol 175
Registered 29-10-1980

Registrar General

(Page 1) Vol. 14244 Fol. 175

We, Elizabeth the Second, by the Grace of God Queen of Australia and Her other Realms and Territories, Head of the Commonwealth, do hereby grant to the person described in the First Schedule an Estate in Fee Simple in the land within described, subject nevertheless to such reservations, conditions and other provisions as are shown in the Second Schedule. In testimony whereof We have caused this Our Grant to be sealed with the seal of Our said State

Witness Our Governor of Our State of New South Wales and its Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this twenty third day of October in the twenty ninth year of Our Reign and in the year of Our Lord one thousand nine hundred and eighty.

W. A. Sutton

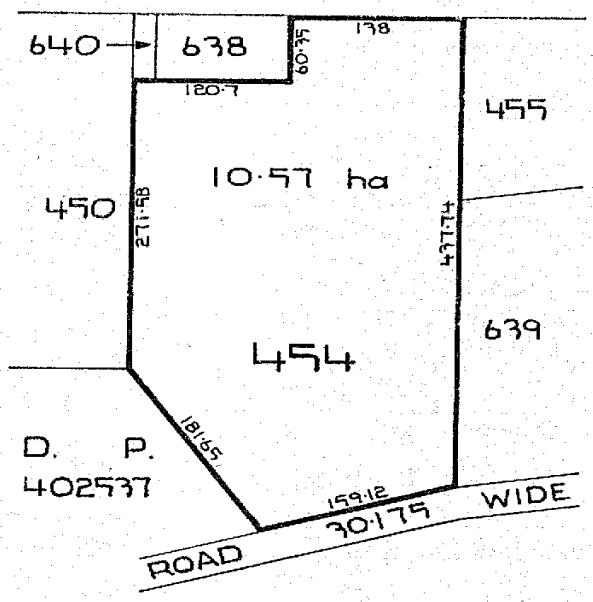
Governor

CANCELLED

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



REDUCTION RATIO 1:5000

LAND REFERRED TO

Portion 454 in the Shire of Gunnedah Parish of Gunnedah and County of Pottinger.

FIRST SCHEDULE

~~COMMONWEALTH TRADING BANK OF AUSTRALIA.~~

MORTGAGEE

SECOND SCHEDULE

GRM 1. The reservation and exception unto Us Our Heirs and Successors of:—

(a) all minerals which the said land contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorised by Us or Them to enter upon the said land and to search for mine dig and remove the said minerals;

(b) all such parts and so much of the said land as may hereafter be required for public ways in over and through the same to be set out by Our Governor for the time being of Our said State or some person by him authorised in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Them or him authorised in that behalf to make and conduct all such public ways; and

(c) the right of full and free ingress egress and regress into out of and upon the said land for the several purposes aforesaid or any of them.

~~2. Restrictions on dealings see section 129B Crown Lands Consolidation Act, 1913 (S.H.P. 1921/17 Gunnedah).~~ T357442.

3. ~~Q1 Caveat by the Registrar General. Mortgage dated 28-7-1980: mortgagors Peter Wallace Brady and Colin Peter Brady.~~ T534502.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE REGISTRAR GENERAL'S OFFICE.

RG 2/120

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

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General
Brady Holdings (GDAH) Pty. Limited by Transfers T524502, T524503. Registered 26-5-1983.				

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION
T357442	Request.	Attention is directed to section 8 of the Land Aggregation Tax Management Act, 1971. Registered 8-2-1983.			
T524504	Mortgage	to Commonwealth Trading Bank of Australia. Registered 26-5-1983.			

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

CT. 1.12.82.
T357442 RL
T524502 Tc
– 03 Tc
– 04 M

(Page 2 of 2 pages)

Vol. 14244 Fol. 175

Req:R044721 /Doc:CT 14244-175 CT /Rev:13-Jan-2011 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:18 /Seq:2 of 2
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Req:R046507 /Doc:DL T524502 /Rev:24-Mar-2011 /NSW LRS /Pgs:ALL /Prt:12-May-2020 15:56 /Seq:1 of 2
© Office of the Registrar-General /Src:INFOTRACK /Ref:Gunnedah 16 Torrens Rd

1978

[redacted]

APR 1983 09 15

T 524502

OFFICE USE ONLY

T 2 1 of 4 X

$ 30

TRANSFER by way of release of mortgage REAL PROPERTY ACT, 1900

(See Instructions for Completion on back of form

NO STAMP DUTY IS PAYABLE ON THIS INSTRUMENT

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
Volume 14244 Folio 175	WHOLE	Parish of Gunnedah County of Pottinger

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

COMMONWEALTH TRADING BANK OF AUSTRALIA
CNR PITT ST AND MARTIN PLACE SYDNEY NSW
2000

OFFICE USE ONLY N

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $ 1-00 (one dollar) by way of release of Mortgage and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (b)

Peter Wallis Brady of 34 Palmer Crescent Gunnedah and Colin Peter Brady of Stock Road Gunnedah both STock and Station Agents

OFFICE USE ONLY

OVER.

TENANCY Note (d)

~~as joint tenants~~/tenants in common in equal shares

PRIOR ENCUMBRANCES Note (e)

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

DATE OF TRANSFER 22-11-82

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

EXECUTION Note (f)

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

JOHN WILLIAM DIMENTO
Signature of Witness

A Branch Securities Officer of the Commonwealth Trading Bank of Australia, the duly constituted Attorney of said Bank, who is personally known to me.
Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

G. D. HANSEN, J.P.

COMMONWEALTH TRADING BANK OF AUSTRALIA by its attorney who is A BRANCH SECURITIES OFFICER for the time being at Sydney and who is the attorney mentioned and referred to in Power of Attorney registered in the Office of the Registrar-General, Book 3441 No. 668 and who hereby states that he has not received any notice of the revocation of such Power of Attorney.

Signature of Transferor

JOHN WILLIAM DIMENTO

Note (f)

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

Signature of Witness

GLENDA JOY BRADBURY
Name of Witness (BLOCK LETTERS)

14 KING ST GUNNEDAH NSW BANK OFFICER
Address and occupation of Witness

Signature of Transferee

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

LODGED BY
COMMONWEALTH TRADING BANK
OF AUSTRALIA
BRANCH SECURITIES
PITT STREET & MARTIN PLACE
SYDNEY. PHONE 238-3155
D.X. 1020 SYDNEY
241
Delivery Box Number

LOCATION OF DOCUMENTS

CT	OTHER

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

OFFICE USE ONLY

Extra Fee	Checked by	REGISTERED 26-5-1983. Registrar General
	IES	

OFF RCX

Q1 WITHDRAWN

RP 13
1978

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.

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. —Insert the current Folio Identifier or Volume and Folio of the Certificate of Title/Crown Grant for the land being transferred, e.g., 135/SP12345 or Vol. 8514.Fol. 126.
- (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, address and occupation or description.

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

(d) 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.

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

(f) Execution:

GENERALLY
- (i) Should there be insufficient space for 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 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 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.

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

(h) 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

DIRECTION: PROP

No. OF NAMES:

FIRST SCHEDULE DIRECTIONS

(A) FOLIO IDENTIFIER	(B) No.	(C) SHARE	(D)	(E) NAME AND DESCRIPTION
				Conforite with T524503.

SECOND SCHEDULE & OTHER DIRECTIONS

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

Req:R046507 /Doc:DL T524502 /Rev:24-Mar-2011 /NSW LRS /Pgs:ALL /Prt:12-May-2020 15:56 /Seq
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Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
12/5/2020 1:18PM

FOLIO: 454/755503

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 14244 FOL 175

Recorded	Number	Type of Instrument	C.T. Issue
12/12/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
30/1/1989		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
23/7/1990	Z126294	DISCHARGE OF MORTGAGE	
23/7/1990	Z126295	TRANSFER	EDITION 1
16/4/1991		AMENDMENT: TITLE DIAGRAM	
14/4/1998	3913883	TRANSFER	EDITION 2
13/5/1998	3981102	CHANGE OF NAME	
13/5/1998	3981103	MORTGAGE	EDITION 3
16/2/2007	AC943664	VARIATION OF MORTGAGE	EDITION 4
15/6/2011	AG300956	DISCHARGE OF MORTGAGE	
15/6/2011	AG300957	TRANSFER	
15/6/2011	AG300958	MORTGAGE	EDITION 5
27/2/2017	AM174581	REQUEST	
2/3/2017	DP1226992	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

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Received: 12/05/2020 13:18:19

Req:R044722 /Doc:DL Z126295 /Rev:29-Jul-2010 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:18 /Seq:1 of 1
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RP 13 STAMP DUTY

OFFICE USE ONLY

Z 126295

OFFICE OF STATE REVENUE (N.S.W TREASURY) 1990/91 N5 NO STAMP DUTY IS PAYABLE ON THIS INSTRUMENT

TRANSFER

REAL PROPERTY ACT, 1900

T 3 2 of 2 X

$ 44

R2/2

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
VOLUME 14244 FOLIO 175 NOW BEING Whole OF LAND CONTAINED IN FOLIO/C/X 454 / 755503	WHOLE	Parish Gunnedah County Pottinger

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)

BRADY HOLDINGS (GDAH) PTY LIMITED

ESTATE Note (c)

(the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of $90,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)

COUNCIL OF THE SHIRE OF GUNNEDAH

OFFICE USE ONLY S

TENANCY Note (e)

as joint tenants/tenants in common

PRIOR ENCUMBRANCES Note (f)

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

DATE 6. 7. 1990

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

BRADY HOLDINGS (Gdah) PTY. LTD. COMMON SEAL

EXECUTION Note (g)

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

...The Common Seal of BRADY HOLDINGS (GDAH) PTY. LIMITED was hereunto affixed by the authority of a resolution of the Board of Directors in the presence of a Director whose signature is set opposite hereto:

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address and occupation of Witness

Director Secretary

Signature of Transferor

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

A.J. BEER SOLICITOR FOR TRANSFEREE

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

LODGED BY Morris, Hayes & Edgar LAW STATIONERS 99 ELIZABETH STREET SYDNEY AM64468 DX 420 232-2-111

Delivery Box Number 350

LOCATION OF DOCUMENTS		
CT	OTHER	
✓		Herewith.
		In L.T.O. with
		Produced by

OFFICE USE ONLY

Checked	Passed
EAS	
Signed	Extra Fee

REGISTERED - -19 23 JUL 1990

Secondary Directions		
Delivery Directions	CT	350

Req:R044724 /Doc:DL 3913883 /Rev:17-Apr-1998 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:18 /Seq:1 of 1
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TRANSFER

Real Property Act, 1900

3913883 Q

Office

(1)

N.S.W. STAMP DUTY
260398 2003 04 800755112/02 $2.00

(A) **LAND TRANSFERRED**

Show no more than 20 References to Title.
If appropriate, specify the share transferred.

CERTIFICATE OF TITLE, IDENTIFIER 454/755503

(B) **LODGED BY**

L.T.O. Box	Name, Address or DX and Telephone
35D	MORRIS, HAYES & EDGAR 1BF5352 LAW STATIONERS 74 CASTLEREAGH ST., SYDNEY WBEER DX 420 REFERENCE (max. 15 characters): 9232 2411

(C) **TRANSFEROR** GUNNEDAH SHIRE COUNCIL

(D) acknowledges receipt of the consideration of $55,000.00

and as regards the land specified above transfers to the Transferee an estate in fee simple

(E) subject to the following **ENCUMBRANCES** 1. ..... 2. ..... 3. .....

(F) **TRANSFEREE**

T TS (s713 LGA) TW (Sheriff)	WAYNE SMITH "TWO-BOB", KAMILAROI ROAD, GUNNEDAH NSW 2380

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act, 1900. **DATED** 8/4/1998

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

THE COMMON SEAL OF THE COUNCIL OF THE SHIRE OF GUNNEDAH was hereunto affixed this 27th March, 1998 in pursuance of a resolution passed by the Council on 4th March, 1998 in the presence of:

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

GEOFF MARSHALL - MAYOR

MAXWELL KERSHAW Signature of Transferor GENERAL MANAGER

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

Signature of Witness

Name of Witness (BLOCK LETTERS)

Address of Witness

A.J. BEER SOLICITOR FOR TRANSFEREE

Signature of Transferee

INSTRUCTIONS FOR FILLING OUT THIS FORM ARE AVAILABLE FROM THE LAND TITLES OFFICE

CHECKED BY (office use only) 2m

AUSDOC Office Pty. Ltd.

OFF BA T357442

Req:R044725 /Doc:DL AG300957 /Rev:20-Jun-2011 /NSW LRS /Pgs:ALL /Prt:12-May-2020 13:18 /Seq:1 of 1
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Form: 01T
Release: 4.0
www.lpma.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

AG300957F

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

STAMP DUTY — Office of State Revenue use only

Office of State Revenue
NSW Treasury
Client No: 1400470
Duty: $10.00 Trans No: 6256880 190
Acct details:

(A) TORRENS TITLE — 454/755503

(B) LODGED BY

Document Collection Box 37Y Westfarmers	Name, Address or DX, Telephone, and LLPN if any	CODES
	LLPN: 123839X 37Y Westpac Banking Corporation 1 KING ST CONCORD WEST 2138 IBN35 (02) 8767 3120 LLPN: 123839X37Y Reference: 29953397	T TW TJ JT

(C) TRANSFEROR — WAYNE KEVIN SMITH

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

(E) ESTATE — the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED

(G) Encumbrances (if applicable):

(H) TRANSFEREE — MACKELLAR EQUIPMENT HIRE PTY LTD ABN 90 129 678 815

(I) TENANCY:

DATE 11 May 2011

(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.

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

Signature of witness:

Signature of transferor:

Name of witness: Stacey Anne Thibault
Address of witness: Licensed Conveyancer
238 Conadilly St, Gunnedah

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

Signature:

Signatory's name: Michael William Allen Baxter
Signatory's capacity: Transferee's Solicitor

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. Full name: MICHAEL WILLIAM ALLEN BAXTER Signature:

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
12/5/2020 1:18PM

FOLIO: 1/1226992

First Title(s): VOL 14244 FOL 175
Prior Title(s): 454/755503

Recorded	Number	Type of Instrument	C.T. Issue
2/3/2017	DP1226992	DEPOSITED PLAN	FOLIO CREATED EDITION 1
29/5/2017	AM361616	REQUEST	EDITION 2
29/5/2017	AM385742	CAVEAT	
23/10/2018	AN696639	DISCHARGE OF MORTGAGE	
23/10/2018	AN696640	MORTGAGE	EDITION 3 CORD ISSUED

*** END OF SEARCH ***

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Received: 12/05/2020 13:18:18

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/1226992

SEARCH DATE	TIME	EDITION NO	DATE
12/5/2020	1:17 PM	3	23/10/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.
CONTROL OF THE RIGHT TO DEAL IS HELD BY NATIONAL AUSTRALIA BANK LIMITED.

LAND

LOT 1 IN DEPOSITED PLAN 1226992
AT GUNNEDAH
LOCAL GOVERNMENT AREA GUNNEDAH
PARISH OF GUNNEDAH COUNTY OF POTTINGER
TITLE DIAGRAM DP1226992

FIRST SCHEDULE

MACKELLAR EQUIPMENT HIRE PTY LTD

SECOND SCHEDULE (4 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 DP1226992 EASEMENT TO DRAIN WATER 6 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
* 3 AM385742 CAVEAT BY GUNNEDAH SHIRE COUNCIL
* AN696640 CAVEATOR CONSENTED
4 AN696640 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
12/5/2020 1:18PM

FOLIO: 2/1226992

First Title(s): VOL 14244 FOL 175
Prior Title(s): 454/755503

Recorded	Number	Type of Instrument	C.T. Issue
2/3/2017	DP1226992	DEPOSITED PLAN	FOLIO CREATED EDITION 1
29/5/2017	AM361616	REQUEST	EDITION 2
29/5/2017	AM385742	CAVEAT	
13/7/2018	AN499742	WITHDRAWAL OF CAVEAT	
13/7/2018	AN391833	LEASE	EDITION 3 CORD ISSUED
23/10/2018	AN696639	DISCHARGE OF MORTGAGE	
23/10/2018	AN696640	MORTGAGE	EDITION 4 CORD ISSUED

*** END OF SEARCH ***

Gunnedah 16 Torrens Rd PRINTED ON 12/5/2020

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Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 2/1226992

SEARCH DATE	TIME	EDITION NO	DATE
12/5/2020	1:16 PM	4	23/10/2018

NO CERTIFICATE OF TITLE HAS ISSUED FOR THE CURRENT EDITION OF THIS FOLIO.
CONTROL OF THE RIGHT TO DEAL IS HELD BY NATIONAL AUSTRALIA BANK LIMITED.

LAND

LOT 2 IN DEPOSITED PLAN 1226992
AT GUNNEDAH
LOCAL GOVERNMENT AREA GUNNEDAH
PARISH OF GUNNEDAH COUNTY OF POTTINGER
TITLE DIAGRAM DP1226992

FIRST SCHEDULE

MACKELLAR EQUIPMENT HIRE PTY LTD

SECOND SCHEDULE (4 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 DP1226992 EASEMENT TO DRAIN WATER 6 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 AN391833 LEASE TO QUBE BULK PTY LTD EXPIRES: 31/1/2020. OPTION OF RENEWAL: TWO YEARS.
4 AN696640 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Received: 12/05/2020 13:16:39

eastwest
geo ag enviro
ABN 82 125 442 382

82 Plain St
Tamworth NSW
2340

Phone 02 6762 1733
Fax 02 6765 9109
Email admin@eastwestonline.com.au
Web www.eastwestonline.com.au