GEOTECHNIQUE® PTY LTD

ABN 64 002 841 063

PRELIMINARY CONTAMINATION ASSESSMENT

PROPOSED RESIDENTIAL SUBDIVISION DEVELOPMENT
LOT B IN DP362093 AND LOTS 12 & 13 SECTION O IN DP712
167 RIVERSTONE ROAD AND REGENT STREET, RIVERSTONE

REPORT NO 14450/1-AA 31 MAY 2019

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Job No: 14450/1
Our Ref: 14450/1-AA
31 May 2019

Calibre Group
Level 2, 2 Burbank Place, Norwest Business Park
BAULKHAM HILLS BC NSW 2153
Email: Daniel.Obad@calibregroup.com

Attention: Mr D Obad

Dear Sir

Re: **Proposed Residential Subdivision Development**
Lot B in DP362093 and Lots 12 & 13 Section O in DP712
167 Riverstone Road and Regent Street, Riverstone
Preliminary Contamination Assessment

Please find herewith our preliminary contamination assessment (PCA) report for the above site. It is understood that the site is proposed for residential subdivision development.

A brief of the outcome of the assessment was summarised in the Executive Summary.

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully
GEOTECHNIQUE PTY LTD

ANWAR BARBHUYIA
Senior Associate
B.E (Civil), MEngSc (Enviro), MIEAust

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EXECUTIVE SUMMARY

This executive summary presents a synopsis of a preliminary contamination assessment (PCA) for a parcel of land currently registered as Lot B in DP362093 and Lots 12 and 13 Section O in DP712, located at 167 Riverstone Road and Regent Street, Riverstone, in the local government area of Blacktown, indicated on Figure 1 (page 1 of the report).

It is understood that the site is proposed for residential subdivision development.

The objectives of the assessment were to ascertain whether the site potentially presents a risk of harm to human health and the environment and to determine the suitability of the site for the proposed residential subdivision development.

The scope of work included; site reconnaissance, review of site history information and geological maps, test pit excavation, soil sampling and testing, and preparation of this report.

The findings of this PCA are summarised as follows:

- The site comprised one residential land facing Riverstone Road with market garden activities extending to another property facing Regent Street and a vacant land facing Regent Street.
- The site is proposed for residential subdivision development.
- The entire site is underlain by topsoil, overlying residual silty clay. Two site originated soil stockpiles were observed on site. The test pits did not reveal any visual evidence of asbestos or other indicators of significant contamination, such as staining, odours or significant foreign matter with the exception of the presence of fibro-cement pieces on the surface and topsoil profile at test pit TP19 and on the surface at test pit TP25.
- All the laboratory test results satisfied the criteria for stating that the analytes selected are either not present i.e. concentrations less than laboratory limits of reporting, or present in the sampled soil at concentrations that do not pose a risk of hazard to human health or the environment under a “under a “residential with access to soil” form of development, with the exception of detection of elevated concentration of zinc at one location, detection of asbestos fines (AF) and fibrous asbestos (FA) asbestos containing material (ACM) fragments in the topsoil profile including presence of ACM fragments at that location and its vicinity and the presence of ACM fragments on the surface at another test pit location, as shown on Drawing No 14450/1-AA3. Elevated zinc concentration might impact on terrestrial ecosystems but would not present a risk of harm to human health. Asbestos (AF and FA) presents a risk of harm to human health, and ACM fragments presents a potential risk of harm to human health.
- The data quality objectives outlined in the report have been satisfied.

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Based on this assessment, in our opinion, the site is considered suitable for the proposed residential subdivision development subject to implementation of the following recommendations, prior to earthworks:

- Detailed sampling and testing in the vicinity of TP19 and TP51 to delineate the extent of asbestos and zinc contamination.
- Sampling and testing of soils beneath the buildings, sheds, scrap metal, car wrecks, concrete covered area and driveway after demolition and/or removal/clearing of site features and hardstand area.
- Development of a remedial action plan (RAP) to remediate asbestos and/or zinc contaminated topsoil plus any other contamination identified through the recommended additional sampling and testing, followed by appropriate validation.

It should be noted that since the site was used in the past for agricultural activities, there is potential for buried irrigation pipes to remain beneath the site surface. It is also possible that the pipes might be formed from bonded asbestos. If any asbestos pipes are uncovered, a suitably qualified asbestos removal contractor must be engaged to carry out removal.

If any suspect materials (identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos sheets/pieces/pipes, ash material, etc.) between the sampling locations are encountered during any stage of future earthworks/site preparation, Unexpected Finds Management Protocol (Appendix G) should be implemented. In the event of contamination, detailed assessment, remediation and validation will be necessary.

For any materials to be excavated and removed from the site, it is recommended that waste classification of the materials, in accordance with the "Waste Classification Guidelines Part 1: Classifying Waste"(NSW EPA 2014), NSW EPA resource recovery exemptions and orders under the Protection of the Environment Operations (Waste) Regulation 2014, or NSW EPA Certification: Virgin excavated natural material is undertaken prior to disposal at an appropriately licensed landfill or potential re-use at other sites.

Any imported soil (fill) must be assessed by a qualified environmental consultant, prior to importation, to ensure suitability for the proposed use. In addition, the imported fill must not contain asbestos and ash, be free of unusual odour, not be discoloured and not acid sulphate soil or potential acid sulphate soil. The imported fill should either be virgin excavated natural material (VENM) or excavated natural material (ENM).

Reference should be made to Section 16.0 of the report and Appendix H, which set out details of the limitations of the assessment.

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1.0 INTRODUCTION

This report presents the results of a preliminary contamination assessment (PCA) for a parcel of land currently registered as Lot B in DP362093 and Lots 12 and 13 Section O in DP712, located at 167 Riverstone Road and Regent Street, Riverstone, in the local government area of Blacktown, as indicated on Figure 1 below:

FIGURE 1

Map Data ©2019 Google

It is understood that the site is proposed for residential subdivision development.

The objectives of the assessment were to ascertain whether the site potentially presents a risk of harm to human health and the environment and to determine the suitability of the site for the proposed residential subdivision development.

This report was prepared generally in accordance with the NSW Environment Protection Authority (EPA), "Guidelines for Consultants Reporting on Contaminated Sites" – 2011, and to satisfy Managing Land Contamination: Planning Guidelines, State Environmental Planning Policy No. 55 – Remediation of Land.

2.0 SCOPE OF WORK

In order to achieve the objective of this assessment, the following scope of work was conducted in accordance with our fee proposal (Our Ref: Q8776) dated 20 March 2019:

- A desktop study of;
  - Historical aerial photographs
  - Environment Protection Authority (EPA) records of notices
  - Groundwater bore records of Department of Primary Industries, Office of Water
  - Soil and geological maps
- Inspection by an Environmental Scientist from Geotechnique Pty Ltd (Geotechnique) to identify the site conditions and any areas of potential environmental concern based on visual and olfactory indicators of potential contamination.
- Soil sampling by the Environmental Scientist in accordance with a pre-determined sampling plan developed with reference to the NSW EPA *Sampling Design Guidelines,* aimed at ascertaining the presence or otherwise of soil contaminants in the site.
- Chemical analysis by National Association of Testing Authorities (NATA) accredited testing laboratories, in accordance with chains of custody (COC) prepared by Geotechnique.
- Implementation of industry standard quality assurance (QA) and quality control (QC) measures. QC samples were also forwarded to the testing laboratories.
- Assessment of the laboratory analytical results against current applicable guidelines.
- Assessment of field and laboratory QA and QC.
- Assessment of the contamination status of soil in accessible area.
- Preparation of this report.

3.0 SITE IDENTIFICATION

The site is located at 167 Riverstone Road and Regent Street, Riverstone, in the local government area of Blacktown and is registered as Lot B in DP362093 and Lots 12 and 13 Section O in DP712. Reference may be made on Drawing No 14450/1-AA1 for lot layout.

As shown on Drawing No 14450/1-AA1, the site is irregular in shape and covers an area of approximately 5.67 hectares (ha).

Reference may be made to the cadastral and deposited plans in Appendix B for details of the location and dimensions of the site.

4.0 SITE HISTORY

In order to formulate a picture of the site history and to assist in identification of any potential contamination, information including historical aerial photographs and NSW EPA record of notices for contaminated land were reviewed. The information is presented in the following sub-sections.

4.1 Aerial Photographs

Aerial photographs taken in 1947, 1961, 1970, 1978, 1986, 1998, 2005 and December 2018 were examined. Copies of the aerial photographs are attached in Appendix A. The writer made the following observations. Due to scale, some of the listed observations are best interpretations only.

1947	The site and adjoining properties appear to be vacant land. Some clearing is evident in the southern portion of the site and adjoining eastern property. The site is bound by a road (Regent Street) to the north and a pathway to the south. In distant eastern property a creek is visible (First Ponds Creek).
1961	It appears the site and adjoining properties are cleared vacant land. The site is bound by a road (Riverstone Road) to the south.
1970	The southern portion of the site and adjoining western and eastern properties have developed into rural residential land, whilst the northern portion of the site remain vacant.
1978	The site and adjoining properties appears unchanged since 1970, with the exception of market garden activities in the southern portion of the site and adjoining eastern property and presence of more house/sheds and a dam in the adjoining eastern property.
1986	The site and adjoining properties appears unchanged since 1978.
1998	The site and adjoining properties appears unchanged since 1986, with the exception of presence of greenhouses in the southern portion and north western portion of the site and cessation of market garden activities in the adjoining eastern property.
2005	The site and adjoining properties appears unchanged since 1998, with the exception of demolition of shed/building from the south western corner of the north western portion of the site and demolition of house from the immediate adjoining north western property.
December 2018	The site and adjoining properties appears unchanged since 2005, with the exception of presence of new residential subdivisional land in the adjoining southern properties beyond Riverstone Road.

In summary, the aerial photographs reveal that the site and adjoining properties have remained vacant until the 1960s and then developed into residential land since the 1970s. Market garden activities were evident in the southern portion of the site since the late 1970s and in the north western portion of the site since the 1990s. Market garden activities were noted in the adjoining eastern property in the late 1970s and in the 1980s.

4.2 NSW EPA Record of Notices and Environment Protection Licences

The NSW EPA publishes record of notices for contaminated lands under Section 58 of the Contaminated Land Management (CLM) Act 1997. The notices relate to investigation and/or remediation of site contamination considered to pose a significant risk of harm under the definition in the CLM Act.

A search of the EPA records on 26 April 2019 revealed no notices issued for the site.

It should be noted that the EPA record of notices for Contaminated Land does not provide a record of all contaminated lands in NSW. At the time of searching the records, 353 sites in NSW were registered in the database.

The EPA issues environment protection licences to owners or operators of various industrial premises under the Protection of the Environment Operations (POEO) Act to control the air, noise, water and waste impacts of an activity.

A search of the POEO Public Register on 26 April 2019 found no records for the site.

NSW EPA and the POEO Public Register records are detailed in Appendix C of this report.

5.0 SITE CONDITION AND SURROUNDING ENVIRONMENT

5.1 Site Condition

The site was inspected by an Environmental Scientist from Geotechnique on 15, 16 and 17 April 2019. At the time of inspection the site comprised of one rural residential property on the southern portion facing Riverstone Road, and one market garden area and one vacant land on the northern portion facing Regent Street.

167 Riverstone Street (Lot B in DP362093)
Market garden / greenhouses, former greenhouses and multiple galvanised iron (GI) sheds with concrete floor with various uses including machine maintenance dominate this rural residential property, which consist of southern portion of the site. A fibro shed and footprint of a former building was also found on the west side of the property. Two residential brick dwellings and one brick garage tiles roofs identified on the south western corner of the property. An active market garden occupies the most of the south eastern portion of the property. Two areas with scrap metals, one soil stockpile and one area with scattered fibro-cement pieces were also noted on the property.

Regent Street (Lot 13 Section O in DP712)
This property is located on the north western portion of the site and appears to be part of market garden activities observed on the southern portion of the site. In this property; one scrap metal area, a concrete driveway, a disused machine, car wrecks, a soil stockpile, a concrete water tank, a dilapidated GI shed and greenhouses are noted. A depression area is also noted in the north eastern corner of the property.

Regent Street (Lot 12 Section O in DP712)
This property is located on the north eastern portion of the site and is a vacant with no apparent usage. Two areas of scrap metal were noted along the eastern boundary of the property.

The site features are indicated on Drawing No 14450/1-AA1.

There were no obvious ash materials on the ground surface, odour, or discolouration that would indicate the potential for contamination. One area with scattered fibro-cement pieces were observed on the southern portion of the site. Few scattered asbestos pieces were also observed at one test pit location in a greenhouse at the southern portion of the site. There was no obvious features (bowser, breather pipe, inlet valve and piping) associated with underground storage tanks. There were no air emissions emanating from the site.

5.2 Surrounding Environment

At the time of field work, the neighbouring properties were as follows:

To the north:	Regent Street, and then vacant land rural residential land
To the east and west :	Rural residential land and vacant land
To the south	Riverstone Road and then new residential subdivision land

6.0 TOPOGRAPHY, GEOLOGY & HYDROGEOLOGY

In general, ground surface slopes towards the south eastern direction. Part of the northern portion of the site slopes towards the west.

The Geological Map of Penrith (Geological Series Sheet 9030, Scale 1:100,000, Edition 1, 1991), published by the Department of Minerals and Energy, indicates the residual soils within the site to be underlain by Triassic Age Shale of the Wianamatta Group, comprising shale, carbonaceous claystone, claystone, laminite, fine to medium grained lithic sandstone, rare coal and tuff.

The Soil Landscape Map of Penrith (Soil Landscape Series Sheet 9030, Scale 1:100,000, 1989), prepared by the Soil Conservation Service of NSW, indicates that the site is located within the Blacktown landscape area, and typically consists of highly plastic and relatively impermeable residual soil.

Reference should be made to Table 1 in Appendix D for descriptions of the soils encountered during sampling for this assessment. Based on information from the test pit excavation, the sub-surface profile across the site is generalised as follows:

Topsoil	Silty Clay, low to medium plasticity, brown, trace of root fibres was encountered at all test pit locations in the site, to a depth of 200mm to 300 below the below the existing ground level (EGL), underlain by natural silty clay, medium to high plasticity.
Natural Soil	Silty Clay, medium to high plasticity, orange mottled grey, was encountered beneath the topsoil.
Bedrock	Shale, extremely weathered, very low to low strength, bedrock was encountered in the site at depths ranging from 500mm to 1.9m below EGL.

No fibro-cement pieces were observed in any test pit locations, with the exception of topsoil profile at test pit TP19 and on the surface of test pits TP19 and TP25.

Two soil stockpile, comprising, silty clay, low plasticity, brown, was observed at the north western portion and southern portion of the site. Based on the contents of the soil stockpile, the natural soil profiles and regional geological information, it appears that the stockpile might have originated from the site.

First Ponds Creek is located approximately 100m to the east of the site. Based on observation and site topography, surface run-off would generally follow the topography and flow in the south eastern direction. Part of the surface run-off may eventuate in the First Ponds Creek. One depression area was observed on the northern portion of the site which might capture or divert surface run-off.

A site-specific groundwater analysis was outside the scope of this assessment. However, a search was carried out on 26 April 2019 through the website of Department of Primary Industries Office of Water for any registered groundwater bore data within a radius of 500m of the site. The search revealed that no information available on that date. The groundwater map is included in Appendix E of this report.

Based on the previous experience in the region, groundwater in the site is anticipated to be in excess of 3.0m below existing ground surface.

7.0 POTENTIAL FOR CONTAMINATION / CONCEPTUAL SITE MODEL

7.1 Potential Areas of Environmental Concern

Based on the preceding sections, areas of environmental concern (AEC) and associated contaminants of potential concern have been identified and are presented in the following table:

Areas of Environmental Concern& Associated Contaminants of Potential Concern

Potential AEC	Rational / Details	Potential Contaminants[1]
The site	Southern portion and north western portion of the site is currently an active market garden. The use of agricultural chemicals and fertilisers could lead to Metals, Organophosphate Pesticides (OPP) and persistent Organochlorine Pesticides (OCP) contamination. The predicted persistence of OCP is less than 15 years, whilst the predicted persistence of OPP is typically less than one year.	Metals [2] OCP OPP
Site originated soil stockpiles	Two site originated soil stockpiles were observe on site. Soil stockpiles could have similar potential of concern as for the remainder of the site.	Metals [2] OCP OPP
In the vicinity of houses and footprint of former building	In the surface soils surrounding the houses and footprint of former building there is potential for metals and OCP contamination due to possible pest control. Due to the age of the building, some building materials may contain asbestos.	Arsenic and Lead OCP Asbestos
Fibro structure	In the surface soil surrounding the fibro structure, there is potential for metals and OCP contamination due to possible pest control. Fibro structure may also contain asbestos.	Arsenic and Lead OCP Asbestos
Brick garage	The floor of the garage is potentially contaminated with lead, resulting from exhaust residue associated with vehicle parking. In addition, there is potential for petroleum hydrocarbon contamination resulting from possible motor oil/fuel leaks.	Lead Total Petroleum Hydrocarbons (TPH) Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX) Polycyclic Aromatic Hydrocarbons (PAH) Phenols
Area used for machinery maintenance	The area used for machinery maintenance is potentially contaminated with petroleum hydrocarbon resulting from possible motor oil/fuel leaks.	TPH BTEX PAH Phenols

Potential AEC	Rational / Details	Potential Contaminants[1]
GI sheds	In the surface soils surrounding the GI sheds there is potential for metals contamination due to degradation of building materials, such as GI sheets, paint (if painted with lead based paint). If the GI shed in the site have been used to store agricultural chemicals and fertilisers, other metals (arsenic, cadmium, copper and mercury), OCP and OPP are also potential concern.	Metals [2] OCP OPP
Disused machine and car wrecks	There is potential for there is potential for Metals contamination, resulting from degradation of the metals in the vicinity of the discussed machine and car wrecks. There is also potential for contamination resulting from motor oil/fuel spills or leaks.	Metals [3] TPH BTEX PAH Phenols
Scrap metals	There is potential for Metals contamination in the vicinity of the scrap metals resulting from degradation of the metals.	Metals [3]
Fibro-cement pieces	Fibro-cement pieces may contain asbestos.	Asbestos
Depression area	There is potential for contaminants to accumulate in the depression area from surface water run-off over the site.	Metals [2] OCP OPP

[1] The suite of potential contaminants identified will be reviewed subject to the findings of the council record and excavated materials and added to if considered appropriate.
[2] Metals suite includes arsenic, cadmium, copper, lead, mercury and zinc
[3] Metals suite includes cadmium, chromium, copper, lead, nickel and zinc
[4] Metals suite includes arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc

7.2 Potentially Contaminated Media

Potentially contaminated media present at the site include:

- Topsoil, soil stockpile and
- Natural soil.

Based on the potential mobility of contaminants and their associated potential leachability through the soil / fill profile, vertical migration of contaminants from the topsoil into the underlying deeper natural soil might have occurred. As a result, the deeper natural soil is also considered to be potentially contaminated media.

Groundwater or perched water was not encountered during sampling to a maximum depth of about 2.5m below EGL. If a substantial source of contamination is identified within the soil on-site, a groundwater assessment could be necessary.

Surface water is not identified as a potentially contaminated medium based on the absence of any permanent waterbody transecting the site.

7.3 Potential Migration

Contaminants generally migrate from a site via a combination of windblown dust, rainwater infiltration, groundwater migration and surface water run-off. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid / liquid and mobility characteristics)
- The extent of the contaminants (isolated or widespread)
- The location of the contaminants (surface soils or at depth)
- The site topography, geology, hydrology and hydrogeology

Off-site impacts of contaminants in soil are generally governed by the transport media available and likely receptors. The most common transport medium is water, whilst receptors include initially uncontaminated soils, groundwater, surface waterbodies, humans, flora and fauna.

The potential contaminants identified as part of the site history review, site inspection and field sampling were generally in a solid form e.g. metals, OCP, OPP, asbestos, etc.).

The site is grass, scattered trees or sealed by hard stand (houses, sheds, hardstand area) across the surface. The potential for migration of contaminants via wind-blown dust is considered low as a result of the exposed soils within the site. The potential for migration of contamination via surface run-off is also expected to be minor. Some migration of contaminants via surface water may still occur in the event of heavy rain. Surface run-off would generally follow the topography and part of the surface run-off may eventuate in the First Ponds Creek, which is located approximately 100m to the east of the site.

Migration of any soil contaminants to the deeper soil and/or groundwater regime would generally be via leaching from the contaminated soil, facilitated by infiltration of surface water. Given that the deeper natural soil beneath the site is relatively impermeable (refer to Section 6.0 for the regional geology information), the potential for any contaminants migrating from the contaminated soil to the groundwater table below is considered low. Furthermore, the relatively impermeable clay layer would have minimised the potential for any contaminants migrating to deeper soil.

Sensitive receptors at the site under the current site conditions and in the immediate vicinity are considered to include site visitors who may come into contact with potentially contaminated media within the site.

8.0 DATA QUALITY OBJECTIVES

The data qualitative objectives (DQO) are qualitative and quantitative statements that specify the quality of the data required for the assessment. DQO must ensure that the data obtained is sufficient to characterise the contamination of a site and enable appropriate assessment of health and environmental risks for the current or proposed use. The DQO were developed for this assessment in accordance with accordance with NEPM 2013, as well as in accordance with the Australian Standard "*Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 1: Non-volatile and semi-volatile compounds*" (AS4482.1-2005) and "*Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 2: Volatile substances*" (AS4482.2-1999). The DQO process adopted is outlined below:

State the Problem

The site was a rural residential with market garden activities and a vacant land. The site also contains two site originated soil stockpiles as well as houses, fibro structure, garage, an area used for machinery maintenance, GI sheds, disused machinery, car wrecks, scrap metals, one area with scattered fibro-cement pieces and a depression area. As a result the potential exists for contamination to have occurred within the site in the past and presently.

The site is proposed for residential subdivision development.

The following key professional personnel were involved in the assessment;

Mr Anwar Barbhuyia	Senior Associate
Mr Justin Hofmann	Environmental Scientist

Identify the Decisions

The decisions to be made in completing the assessment are as follows:

- Does the site, or is the site, likely to present a risk of harm to human health or the environment?
- Is the site currently suitable for the proposed end use?
- Is there any potential for groundwater contamination?
- Are there any off-site migration issues to be considered?
- Is further investigation required to adequately address the abovementioned decisions?
- Is further investigation required to delineate the extent of contamination identified?
- Does the site require remediation to ensure suitability for the proposed end use?

Identify Inputs to the Decisions

The inputs into the decision process are as follows:

- Historical information (presented in Section 4.0).
- Site operations and observation details (presented in Section 5.0).
- Systematic soil sampling at a density required generally to meet the NSW EPA "*Sampling Design Guidelines*" using an excavator or mattock within greenhouses.
- Soil profile information obtained through the sampling phase.
- Chemical and/or physical test data on analysed samples.
- Assessment of test data / data sets against applicable soil investigation levels in the National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPM) and NSW Site Auditor Scheme (3rd Edition), 2017 (Section 13.0). For asbestos assessment, the assessed soil must not contain asbestos containing material (ACM) in excess of 0.01%w/w and surface soil within the site is free of visible ACM, and asbestos fines (AF) and fibrous asbestos (FA) in the soil is <0.001% w/w.

Define the Study Boundaries

The study boundary for this assessment is defined by the boundaries of the subject site, as shown on Drawing No 14450/1-AA1 and summarised in Section 3.0 of this report.

Develop a Decision Rule

The information obtained through this assessment will be used to characterise the site in terms of contamination issues and risk to human health and the environment. The decision rule in characterising the site will be as follows:

- Laboratory test results will be assessed individually.
- The assessment criteria are the NSW EPA produced and/or endorsed criteria, as specified in Section 13.0 of this report. For asbestos assessment, the assessed soil must not ACM in excess of 0.01%w/w and surface soil within the site is free of visible ACM, and AF and FA in the soil is <0.001% w/w.
- The site will be deemed to potentially contain contamination "hot spots" if any of the individual concentrations exceed the assessment criteria adopted or any presence of asbestos-cement pieces on the surface soil or presence of ACM in excess of 0.01%w/w in the assessed soil and/or detection of AF and FA in excess of 0.001%w/w in the assessed soil.
- Further investigation, remediation and/or management will be recommended if the site is found to be contaminated or containing contamination "hot spots".

Laboratory test results will only be accepted and considered useable for this assessment under the following conditions:

- All laboratories used are accredited by NATA for the analyses undertaken.
- All detection limits set by the laboratories fall below the assessment criteria adopted.
- Analyte concentrations in the rinsate water sample should be less than laboratory detection limit or should not be detected significantly.
- The recovery of spike concentrations in the trip spike sample is sufficient so as not to impact on the reported concentrations of the soil samples when the same recovery is applied (BTEX only).
- The differences between the reported concentrations of analytes in the field duplicate samples and the corresponding original samples are within accepted limits (refer to Section 10.5).
- The differences between the reported concentrations of analytes in the inter-laboratory duplicate (split) samples and the corresponding original samples are within accepted limits (refer to Section 10.6).
- The QA/QC protocols and results reported by the laboratories comply with the requirements of the NEPM 1999 "*Guideline on Laboratory Analysis of Potentially Contaminated Soils*" and Australian and New Zealand Environment and Conservation Council (ANZECC)-1996 "*Guidelines for the Laboratory Analysis of Contaminated Soils*".

Specify Limits on Decision Errors
The limits on decision errors for this assessment are as follows:

- Systematic sample numbers comply with those recommended in the NSW EPA sampling design guidelines, which have risk probabilities already incorporated. Sample numbers are therefore considered adequate for site characterisation. Six judgemental sampling locations were positioned in two soil stockpiles.
- Analyte selection in the site is based on site history, site activities and the presence of site originated soil stockpiles, disused machinery and scattered fibro-cement pieces on the ground surface. The possibility of any other potential contaminants that would be detected through field observation (through odours, staining, and colouring) might need to be included.
- The assessment criteria adopted from the guidelines stated in Section 13.0 have risk probabilities already incorporated.
- The acceptable limits for field and inter-laboratory duplicate (split) comparisons are outlined in Sections 10.5 and 10.6 of this report.
- The acceptance limits for laboratory QA/QC parameters are based on the laboratory reported acceptance limits and those stated in the NEPM 1999 "*Guideline on Laboratory Analysis of Potentially Contaminated Soils*" and ANZECC 1996 "*Guidelines for the Laboratory Analysis of Contaminated Soils*".

Optimise the Design for Obtaining Data

- The procedures adopted for location and collection of environmental samples were developed prior to implementation, in accordance with NSW EPA guidelines and current industry practice. The sampling program was designed to ensure integrity of data collection during the assessment, including decontamination techniques, sample labelling, storage and chain of custody protocols.
- The analytical program was developed in theory prior to undertaking the sampling (based on site history and site activities) and refined on the basis of field observations (both surface and sub-surface) during the sampling phase. All potential contaminants have been covered within the accessible area of the site.
- Only laboratories accredited by NATA for the analyses undertaken were used for this assessment. The laboratory performance is assessed through review of statistics calculated for QA samples such as blanks, spikes, duplicates and surrogates.
- The field QA/QC protocols adopted are outlined in Section 10.0 of this report. The QA/QC program incorporates preparation of traceable documentation of procedures used in the sampling and analytical program and in data validation procedures.

Data Quality Indicators
The performance of the assessment in achieving the DQO will be assessed through the application of Data Quality Indicators (DQI), defined as follows:

Precision	A quantitative measure of the variability (or reproducibility) of data;
Accuracy	A quantitative measure of the closeness of reported data to the "true" value;

Representativeness	The confidence (expressed qualitatively) that data is representative of each media present on the site;
Completeness	A measure of the amount of useable data from a data collection activity;
Comparability	The confidence (expressed qualitatively) that data can be considered equivalent for each sampling and analytical event.

Assessment of the data quality indicators is presented in Section 9.0 (sampling) and Section 12.0 (analysis) of this report.

9.0 SAMPLING & ANALYSIS PLAN AND SAMPLING METHODOLOGY

Sampling and analyses was carried out within the site to obtain a reasonable assessment of the following:

1. Nature and location of any soil contaminant(s) within the site.
2. The risk(s) that the contaminant(s) (if present) poses to human health and/or the environment under the conditions of the proposed land uses.

Soil sampling was carried out on 15, 16 and 17 April 2019 by the Environmental Scientist from Geotechnique, who was responsible for visually assessing the site, locating the nominated test pit locations, recovery of soil samples, preparation of samples for delivery to NATA accredited laboratories, and logging the sub-surface profile encountered at each test location.

Based on the "Sampling Design Guidelines for Contaminated Sites" 1995 EPA, seventy two (72) systematic sampling locations (TP1 to TP72) were adopted in the site, aimed at maximising coverage of the site area. Most of the locations were excavated by an excavator. Sampling locations in the greenhouses were excavated by using a stainless steel mattock. A systematic test pit TP71 was also positioned near the disused machinery. TP12, TP13 and TP15 to TP19 were positioned near the area used for maintenance of machineries. Six judgmental test pits (SP1-1 to SP1-3 and SP2-1 to SP2-3) were positioned in two soil stockpiles.

The test pit locations are shown on Drawing No 14450/1-AA2.

The sampling procedures adopted were as follows:

- The test pits were excavated using an excavator, over the depth interval nominated by the Environmental Engineer. The representative soil sample was recovered directly from the excavator bucket using a stainless steel trowel. At a number of locations in greenhouses, samples were excavated using a mattock. The representative soil sample was recovered using disposable gloves from the mattock.
- The trowel and mattock were decontaminated prior to use in order to prevent cross contamination (refer to Section 10.2 for details of the procedures for decontamination of the trowel and mattock).
- To minimise the potential loss of volatiles, the laboratory soil sample was immediately transferred to a labelled, laboratory supplied, 250ml glass jar and sealed with an airtight, Teflon screw top lid. The fully filled jar was then placed in a chilled container.
- The recovered soil sample and fibro-cement pieces for asbestos analysis were transferred into a separate small plastic bag, which was placed inside a large plastic bag.

In order to ensure the analytical performance of the primary laboratory, duplicate and split samples were prepared for analyses. Samples were kept in a labelled laboratory supplied glass jars (acid-washed and solvent-rinsed) and sealed with an airtight screw top Teflon lids. The fully filled jars were placed in a chilled container.

A rinsate water sample was collected and placed in a glass bottle and vial supplied by the laboratory at the completion of each day field works. The fully filled bottle and vial were labelled and placed in a chilled container.

At the completion of field sampling, the chilled container and large plastic bag were transported to our Penrith office and the chilled container was transferred to a refrigerator where the temperature was maintained below 4°C.

The chilled containers with trip spike sample and large plastic bag were forwarded to the primary laboratory of SGS Environmental Services (SGS) and the secondary laboratory, Envirolab Services Pty Ltd (Envirolab), both NATA accredited. COC were then forwarded to the laboratories.

On receipt of the samples and COC, the laboratories returned the Sample Receipt Confirmation, verifying the integrity of all samples received.

Based on the potential for contamination mentioned in Section 7.0, all topsoil and site originated soil stockpile samples were composited and analysed for Metals (arsenic, cadmium, copper, lead, mercury and zinc). The samples were also analysed for chromium and nickel screening purposes. Few selected discrete samples recovered from greenhouses and soil stockpiles were analysed for OCP and OPP. Discrete topsoil samples, recovered from the vicinity of area used for maintenance of machineries and near the disused machinery, were analysed for TPH, BTEX, PAH and Phenols. Topsoil samples with inclusions of fibro-cement pieces and corresponding fibro-cement pieces were analysed for asbestos.

The following table provides a list of the data quality indicators (refer to Section 8.0) for the soil sampling phase of the assessment and the methods adopted in ensuring that the data quality indicators were met.

DATA QUALITY INDICATOR	METHOD(S) OF ACHIEVEMENT
Completeness	Good sampling coverage of the site; sample numbers comply with NSW EPA sampling design guidelines. Six judgemental sampling locations were positioned in two soil stockpiles. Representative coverage of potential contaminants in the site based on history, site activities and the presence of site originated soil stockpiles, disused machinery and fibro-cement pieces. On site visual assessment of soils uncovered. Use of trained and qualified field staff (Section 10.1). Preparation of sample location plan. Preparation of soil profile logs. Preparation of chain of custody records.

DATA QUALITY INDICATOR	METHOD(S) OF ACHIEVEMENT
Comparability	Using appropriate techniques for sample recovery. Appropriate industry standard decontamination procedures adopted (Section 10.2). Experienced samplers used. Using appropriate sample storage and transportation methods.
Representativeness	Good sampling coverage of the site; sample numbers comply with NSW EPA sampling design guidelines. Six judgemental sampling locations were positioned in two soil stockpiles. Representative coverage of potential contaminants in the site based on history, site activities and the presence of site originated soil stockpiles, disused machinery and fibro-cement pieces.
Precision and Accuracy	Rinsate blank water, trip spike, field duplicate, and inter-laboratory duplicate / split samples recovered or prepared (Section 10.3 to 10.6).

10.0 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

10.1 Sampling Personnel

Geotechnique undertook all the sampling associated with this assessment. An Environmental Scientist from Geotechnique (Justin Hofmann), nominated sampling positions based on the project brief prepared by the Project Manager, supervised (full time) the excavation of test pits in the open area and two soil stockpiles, carry out sampling by using a mattock in greenhouses, logged the soil profile encountered, recovered soil samples at a frequency determined by the sampling plan (project brief), and packed the samples (refer to Section 9.0).

Mr Hofmann has a Bachelor of Science degree and has been employed by Geotechnique as an Environmental Scientist since 2015. At commencement of employment, Mr Hofmann underwent supervised training in Geotechnique procedures for sampling and logging.

10.2 Decontamination Procedures

As stated in Section 9.0 of this report, soil sampling was carried out using an excavator. The stainless steel trowel was used to transfer the soil sample from the excavator bulk sample to the laboratory supplied glass jar. At a number of locations in greenhouses, samples were excavated using a mattock. The representative soil sample was recovered using disposable gloves from the mattock. The stainless steel trowel and mattock were decontaminated prior to use. As stated in Sections 10.5 and 10.6, a trowel was used to divide the soil sample into two portions to prepare duplicate/split samples. Decontamination of the trowel and mattock involved the following:

- Removal of soils adhering to the trowel and mattock by scrubbing with a brush;
- Washing the trowel thoroughly in a solution of phosphate free detergent (Decon 90) using brushes and disposable trowel and mattock;
- Rinsing the trowel and mattock thoroughly with distilled water;
- Repeating the washing / rinsing steps and rinsing with water;
- Drying the trowel and mattock with a clean cloth.

A sample of the final rinsate water sample was recovered at completion of each day sampling.

10.3 Rinsates

One rinsate water sample was recovered on completion of field work, each of the three days of field work (RS1, RS2 and RS3) in order to identify possible cross contamination between the sampling locations.

The rinsates were analysed for Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc). The test results for the rinsate water samples are summarised in Table A. The laboratory test results certificates are included in Appendix F.

As indicated in Table A, most of the concentrations in the rinsate blank sample were less than the laboratory limits of reporting (LOR), which indicates that adequate decontamination had been carried out in the field.

10.4 Trip Spikes

Trip spike sample was obtained from the laboratory on a regular basis, prior to conducting field sampling where volatile substances are suspected. The samples are held in the Penrith office of Geotechnique, at less than 4°C, for a period of not more than seven days. During the field work, the trip spike sample was kept in the chilled container with soil samples recovered from the site. The trip spike sample was then forwarded to the primary laboratory together with the soil samples recovered from the site.

The laboratory prepares the trip spike by adding a known amount of pure petrol standard to a clean sand sample. The sample is mixed thoroughly to ensure a relatively homogenous distribution of the spike throughout the sample. When the sample is submitted for analysis, the same procedure is adopted for testing as for the soil samples being analysed from the site.

The purpose of the trip spike is to detect any loss or potential loss of volatiles from the soil samples during field work, transportation, sample extraction or testing.

Two Trip spikes (TS1 and TS2) were forwarded to the primary analytical laboratory with the samples collected from the site and were tested for BTEX. The test results for the trip spikes, reported as a percentage recovery of the applied and known spike concentrations, are shown in Table B. The laboratory test results certificates are included in Appendix F.

As indicated in Table B the results show generally good recovery of the spike concentrations. Furthermore, all BTEX results were less than laboratory detection limits and there was no visible or olfactory indication of hydrocarbon contamination.

Based on the above it is considered that any loss of volatiles from the recovered samples that might have occurred would not affect the outcome / conclusions of this report.

10.5 Duplicate Samples

A field duplicate sample was prepared in the field through the following processes:

- A larger than normal quantity of soil was recovered from the sample location selected for duplication;
- The sample was placed in a decontaminated stainless bowl and divided into two portions using the decontaminated trowel;
- One portion of the sub-sample was immediately transferred using the decontaminated trowel into a labelled, laboratory supplied, 250ml glass jar and sealed with an airtight Teflon screw top lid. The fully filled jar was labelled as the duplicate sample and immediately placed in a chilled container;
- The remaining portion was stored in the same way and labelled as the original sample.

Duplicate samples were prepared on the basis of sample numbers recovered during the field work. The duplicate sample frequency was computed using the total number of samples analysed as part of this assessment. The duplicate sample frequencies computed are as follows:

Metals:	26 samples analysed;	2 duplicates;	7.7% frequency
OCP:	15 samples analysed;	1 duplicate;	6.7% frequency
OPP:	15 samples analysed;	1 duplicate;	6.7% frequency

The duplicate frequency adopted complies with the NEPM, which recommends a duplicate frequency of at least 5%.

The duplicate sample test results are presented with the analytical reports in Appendix F and summarised in Tables C1 to C3.

A comparison was made of the laboratory test results for the duplicate samples with the original samples and the Relative Percentage Differences (RPD) was computed to assess the accuracy of the laboratory test procedures. RPD within 30% are generally considered acceptable. However, this variation can be higher for organic analysis than for inorganics and for low concentrations of analytes.

As shown in Tables C1 to C3, the comparisons between the duplicates and corresponding original samples indicated generally acceptable RPD, with the exception of higher RPD of few metals in Tables C2 and C3, mainly due to the heterogeneity of samples. Therefore, the variations are not considered critical and the laboratory test data provided by SGS are of adequate accuracy and reliability for this assessment.

10.6 Inter-laboratory Duplicate (Split) Samples

The inter-laboratory duplicate (split) sample provides a check on the analytical performance of the primary laboratory. The split sample was prepared on the basis of sample numbers recovered during field work and the analyses undertaken by the primary laboratory.

The split sample was prepared in the same manner as the duplicate sample. Reference should be made to Section 10.5.

The split sample frequency was computed using the total number of samples analysed as part of this assessment. The split sample frequencies computed are as follows:

Metals:	26 samples analysed;	2 splits ;	7.7% frequency
OCP:	15 samples analysed;	1 split ;	6.7% frequency
OPP :	15 samples analysed;	1 split ;	6.7% frequency

The split sample frequency adopted complies with the NEPM, which recommends a frequency of 5%.

The laboratory certificates of analysis from Envirolab are included in Appendix F of this report. The results are also summarised in Tables D1 to D3.

Based on Schedule B (3) of the NEPM the difference in the results between the split samples should generally be within 30% of the mean concentration determined by both laboratories, i.e., RPD should be within 30%. However, this variation can be higher for organic analysis than for inorganics and for low concentrations of analytes.

As shown in Tables D1 to D3, the comparisons between the split and corresponding original sample indicated generally acceptable RPD, with the exception of higher RPD of few metals in Table D2, mainly due to the heterogeneity of samples. Therefore, the variations are not considered critical and the test results provided by the primary laboratory are deemed reliable for this assessment.

11.0 LABORATORY QUALITY ASSURANCE AND QUALITY CONTROL

Geotechnique uses only laboratories accredited by the NATA for chemical analyses. The laboratories also incorporate quality laboratory management systems to ensure that trained analysts using validated methods and suitably calibrated equipment produce reliable results.

In addition to the quality control samples, the laboratories also ensure that all analysts receive certification as to their competence in carrying out the analysis and participate in national and international proficiency studies.

SGS and Envirolab are accredited by NATA and operate a Quality System designed to comply with ISO / IEC 17025.

Generally within the allowable holding times, detailed in Schedule B(3) of The *National Environment Protection (Assessment of Site Contamination) Measure NEPM 1999 (April 2013)*, the discrete and composited soil samples were analysed. It should be noted that there is no specific holding time for asbestos analysis. Within the allowable holding times for water detailed in Standard Methods for the Examination of Water and Wastewater (APHA) the rinsate samples were analysed.

The test methods adopted by the laboratories are indicated with the laboratory test results certificates. As part of the analytical run for the project, the laboratories included laboratory blanks, duplicate samples, laboratory control samples, matrix spikes, matrix spike duplicates and/or surrogate spikes.

We have checked the QA/QC procedures and results adopted by the laboratories against the appropriate guidelines. The quality control sample numbers adopted by SGS and Envirolab are considered adequate for the analyses undertaken.

The methods used by SGS and Envirolab have been validated and endorsed by NATA.

The samples analysed for TPH (C_6–C_9) and/or BTEX were extracted by the purge and trap method recommended by the NSW EPA.

All reported laboratory Limits of Reporting (LOR) / Practical Quantitation Limit (PQL) were less than the assessment criteria adopted for each analyte.

Overall, the quality control elements adopted by SGS and Envirolab indicate that the analytical data falls within acceptable levels of accuracy and precision for the analysis of soils. The analytical data provided is therefore considered to be reliable and useable for this assessment.

12.0 QA/QC DATA EVALUATION

The following table provides a list of the data quality indicators for the analytical phase of the assessment and the methods adopted in ensuring that the data quality indicators were met:

DATA QUALITY INDICATOR	METHOD(S) OF ACHIEVEMENT
Data Completeness	Laboratory sample receipt information received confirming receipt of samples intact and appropriate chain of custody. Analysis for all potential contaminants of concern. NATA registered laboratory analytical reports / certificates of analysis provided.
Data Comparability	Use of NATA registered laboratories. Test methods consistent for each sample. Test methods comparable between primary and secondary laboratory. Acceptable Relative Percentage Differences between original samples and field duplicates and inter-laboratory duplicate / split samples.
Data Representativeness	Representative coverage of potential contaminants in the site based on history, site activities and the presence of site originated soil stockpiles, disused machinery and fibro-cement pieces. Adequate duplicate, split, trip spike and rinsate sample numbers. Adequate laboratory internal quality control and quality assurance methods, complying with the NEPM.
Data Precision and Accuracy	Acceptable concentrations in rinsate blank water samples. Acceptable recoveries of spike concentrations in trip spike samples. Acceptable RPD for duplicate comparison overall. Acceptable RPD for inter-laboratory duplicate / split sample comparison overall. Appropriate and validated laboratory test methods used. Adequate laboratory performance based on results of the blank samples, duplicates, surrogate spike samples, control samples and/or matrix spike samples.

Based on the above, it is considered that both laboratories complied with the quality assurance and quality control data quality indicators. As such, it is concluded that the laboratory test data obtained are reliable and useable for this assessment.

13.0 ASSESSMENT CRITERIA

Investigation levels and screening levels developed in the NEPM 2013 were used in this assessment, as follows:

- Risk-based HIL for a broad range of metals and organic substances. The HIL are applicable for assessing human health risk via all relevant pathways of exposure. The HIL as listed in Table 1A (1) of Schedule B1 "*Guideline on Investigation Levels for Soil and Groundwater*" are provided for different land uses.

The site is proposed for residential subdivision development. As such, with regard to human health, analytical results will be assessed against risk based HIL for *residential with garden/accessible soil* (HIL A).

- Health Screening Levels (HSL) for TPH fractions and Naphthalene are applicable for assessing human health risk via inhalation and direct contact pathways. The HSL depend on specific soil physicochemical properties, land use scenarios and the characteristics of building structures. The HSL listed in Table 1A(3) of Schedule B1 "*Guideline on Investigation Levels for Soil and Groundwater*" apply to different soil types and depths below surface to >4 m.

  For this assessment, the analytical results were assessed against the available HSL for *residential with garden/accessible soil* (HSL A) for clay to depth of 0m to <1m.

- Ecological Screening Levels (ESL) for selected petroleum hydrocarbon compounds, TPH fractions and Benzo(a)Pyrene are applicable for assessing the risk to terrestrial ecosystems. ESL listed in Table 1B(6) of Schedule B1 "*Guideline on Investigation Levels for Soil and Groundwater*" broadly apply to coarse and fine-grained soils and various land uses and are generally applicable to the top 2m of soil.

  The analytical result was assessed against the available ESL for *residential with garden/accessible soil* for fine-grained soil (clay).

- Ecological Investigation Levels (EIL), a specific type of Soil Quality Guidelines (SQG) for selected metals, is applicable for assessing the risk to terrestrial ecosystems. EIL listed in Table 1B(1-5) of Schedule B1 "*Guideline on Investigation Levels for Soil and Groundwater*" depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2m of soil. For arsenic and lead, generic EIL are adopted, for *urban residential* land use for aged contamination. For other metals, where available, EIL are calculated using the EIL calculator developed by CSIRO for NEPC. Otherwise, where available, EIL are calculated using 30% effect concentration (EC30) or lowest observed effect concentrations (LOEC) toxicity data. EIL are the sum of the added contaminant limit (ACL) and the ambient background concentration (ABC).

  For this assessment, the analytical results were assessed against the available SQG / EIL for *urban residential* land use for aged contamination in soil for low traffic volume.

  For DDT and Naphthalene, generic EIL are adopted, for *urban residential* land use for fresh contaminants.

In order to detect any potential "hot spots" of contamination within an individual composite soil sample, an Adjusted HIL A / EIL is recommended for assessment of results for individual composite samples, based on Method 1, Section 6 of the EPA "*Sampling Design Guidelines*" 1995. The Adjusted HIL A / EIL presented in the applicable tables were calculated by dividing the HIL A / EIL by three (i.e. three sub-samples comprised the composite). Individual composite samples were assessed against the Adjusted HIL A / EIL.

If the concentration of an analyte for a composite soil sample is in excess of the Adjusted EIL / HIL A, then all sub-samples of the failed composite samples will be analysed individually. The purpose of this is to detect potentially contaminated sub-samples within the failed composite sample.

For discrete soil samples, the individual concentrations of analytes were assessed against the HIL A / HSL A / ESL / EIL.

For asbestos, the assessed soil must not contain ACM in excess of 0.01%w/w and surface soil within the site is free of visible ACM, and AF and FA in the soil is <0.001% w/w.

The site will be deemed contaminated or containing contamination “hot spots” if the above criteria are unfulfilled. Further investigation, remediation and/or management will be recommended if the area of concern is found to be contaminated or containing contamination “hot spots”.

The adopted assessment criteria for the soil samples are detailed in F to K.

14.0 FIELD & LABORATORY TEST RESULTS, ASSESSMENT & DISCUSSION

14.1 Field Results

Details of the sub-surface conditions encountered during field work for this assessment are presented in Table 1 in Appendix D of this report. As discussed in Section 6.0 the general soil profile comprised topsoil, underlain by residual silty clay. Two site originated soil stockpiles were observed on site.

The test pits did not reveal any visual evidence of asbestos or other indicators of significant contamination, such as staining, odours or significant foreign matter with the exception of the presence of fibro-cement pieces on the surface and topsoil profile at test pit TP19 and on the surface at test pit TP25.

14.2 Analytical Results

Reference may be made to Appendix F for the actual laboratory analytical reports from SGS. The test results are also presented in Tables E to K together with the assessment criteria adopted. A discussion of the test data is presented in the following sub-sections.

14.2.1 Metals (As, Cd, Cr, Cu, Pb, Hg, Ni & Zn)

Test results of CEC and pH were adopted from Table E to calculate EIL in Table F.

The Metals test results for composited samples are presented in Table F and as indicated, all concentrations of Metals were below the relevant available Adjusted Ecological Investigation Level (EIL) and Adjusted Health Investigation Levels (HIL) for residential development with garden/accessible soil (HIL A), with the exception of highlighted copper (Cu), lead (Pb), nickel (Ni) and zinc (Zn) concentrations.

The highlighted Cu, Ni and Zn concentrations exceeded the relevant Adjusted EIL but were below the relevant Adjusted HIL A, whilst highlighted Pb concentrations either exceeded or equal to the Adjusted HIL A, but were below the Adjusted HIL.

The sub-samples of the failed composite samples were therefore analysed for Cu, Pb, Ni and/or Zn. The test results are summarised in Table G1.

As shown in Table G1, all concentrations of Cu, Pb, Ni and Zn were below the relevant EIL and the HIL A, with the exception of highlighted Zn concentrations. The highlighted Zn concentrations exceeded general EIL of the site but were below the HIL A.

In order to determine whether highlighted Zn concentrations exceeded relevant own EIL, a number of samples were analysed for pH & CEC to compute relevant EIL.

pH and CEC test results and elevated Zn concentrations were summarised in Tables G2-1 and G2-2. As indicated, all Zn concentrations were below their respective EIL and the HIL A, with the exception of highlighted Zn concentration of sample TP51 (0-0.15m) in Table G2-2, which exceeded its own EIL but was below the HIL A.

Zn concentration (800mg/kg) might impact on terrestrial ecosystems but would not present a risk of harm to human health.

14.2.2 TRH and BTEX

The TRH and BTEX test results for the selected discrete topsoil sample are presented in Table H.

As shown in Table H, the concentrations of F1 (TRH C6-C10 less BTEX), F2 (TRH >C10-C16 less Naphthalene), F3 (TRH >C16-C34), F4 (TRH >C34-C40) and BTEX were below the relevant HSL A and ESL adopted. Moreover, all test results were below the laboratory limits of reporting (LOR).

14.2.3 Polycyclic Aromatic Hydrocarbons (PAH)

The PAH test results for selected discrete topsoil sample are presented in Table I and as shown, concentrations of Benzo(a)pyrene, Benzo(a)pyrene TEQ, Naphthalene and Total PAH were well below the relevant HIL A or ESL or HSL A or EIL adopted. Moreover, most of the test results were below the laboratory LOR.

14.2.4 Organochlorine Pesticides (OCP)

The OCP test results for selected discrete topsoil samples are presented in Table J and as indicated, all concentrations of OCP were well below the relevant HIL A. Concentrations of DDT were also below the EIL. Moreover, all test results were below the laboratory LOR.

14.2.5 Organophosphate Pesticides (OPP)

The OPP test results for selected discrete topsoil samples are presented in Table J and as indicated, the concentrations of Chlorpyrifos (Chlorpyrifos Ethyl) were well below the relevant HIL A and less than the laboratory LOR.

14.2.6 Phenols

The Phenols test result for selected discrete topsoil samples are presented in Table J and as indicated the concentrations of Phenols were below the relevant HIL A adopted as well as below the laboratory LOR.

14.2.7 Asbestos

The asbestos test results for the selected discrete topsoil samples, where fibro-cement pieces were observed, are presented in Table K and as indicated, AF and FA in excess of 0.001%w/w were found in topsoil sample TP19, which presents a risk of harm to human health.

The asbestos test results for the fibro-cement pieces observed on the surface and/or in the topsoil profiles at TP19 and TP25, as also indicated in Table K contained ACM, which presents a potential risk of harm to human health.

15.0 CONCLUSION AND RECOMMENDATIONS

The data quality objectives outlined in the report have been satisfied. The findings of this preliminary contamination assessment (PCA) are summarised as follows:

- The site comprised one residential land facing Riverstone Road with market garden activities extending to another property facing Regent Street and a vacant land facing Regent Street.
- The site is proposed for residential subdivision development.
- The entire site is underlain by topsoil, overlying residual silty clay. Two site originated soil stockpiles were observed on site. The test pits did not reveal any visual evidence of asbestos or other indicators of significant contamination, such as staining, odours or significant foreign matter with the exception of the presence of fibro-cement pieces on the surface and topsoil profile at test pit TP19 and on the surface at test pit TP25.
- As presented in summary tables (Tables F to K) and discussed in Section 14.2, all the laboratory test results satisfied the criteria for stating that the analytes selected are either not present i.e. concentrations less than laboratory limits of reporting, or present in the sampled soil at concentrations that do not pose a risk of hazard to human health or the environment under a “under a “residential with access to soil” form of development, with the exception of detection of elevated concentration of zinc at one location, detection of asbestos fines (AF) and fibrous asbestos (FA) asbestos containing material (ACM) fragments in the topsoil profile including presence of ACM fragments at that location and its vicinity and the presence of ACM fragments on the surface at another test pit location, as shown on Drawing No 14450/1-AA3. Elevated zinc concentration might impact on terrestrial ecosystems but would not present a risk of harm to human health. Asbestos (AF and FA) presents a risk of harm to human health, and ACM fragments presents a potential risk of harm to human health.

Based on this assessment, in our opinion, the site is considered suitable for the proposed residential subdivision development subject to implementation of the following recommendations, prior to earthworks:

- Detailed sampling and testing in the vicinity of TP19 and TP51 to delineate the extent of asbestos and zinc contamination.
- Sampling and testing of soils beneath the buildings, sheds, scrap metal, car wrecks, concrete covered area and driveway after demolition and/or removal/clearing of site features and hardstand area.
- Development of a remedial action plan (RAP) to remediate asbestos and/or zinc contaminated topsoil plus any other contamination identified through the recommended additional sampling and testing, followed by appropriate validation.

It should be noted that since the site was used in the past for agricultural activities, there is potential for buried irrigation pipes to remain beneath the site surface. It is also possible that the pipes might be formed from bonded asbestos. If any asbestos pipes are uncovered, a suitably qualified asbestos removal contractor must be engaged to carry out removal.

If any suspect materials (identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos sheets/pieces/pipes, ash material, etc.) between the sampling locations are encountered during any stage of future earthworks/site preparation, Unexpected Finds Management Protocol (Appendix G) should be implemented. In the event of contamination, detailed assessment, remediation and validation will be necessary.

For any materials to be excavated and removed from the site, it is recommended that waste classification of the materials, in accordance with the "Waste Classification Guidelines Part 1: Classifying Waste"(NSW EPA 2014), NSW EPA resource recovery exemptions and orders under the Protection of the Environment Operations (Waste) Regulation 2014, or NSW EPA Certification: Virgin excavated natural material is undertaken prior to disposal at an appropriately licensed landfill or potential re-use at other sites.

Any imported soil (fill) must be assessed by a qualified environmental consultant, prior to importation, to ensure suitability for the proposed use. In addition, the imported fill must not contain asbestos and ash, be free of unusual odour, not be discoloured and not acid sulphate soil or potential acid sulphate soil. The imported fill should either be virgin excavated natural material (VENM) or excavated natural material (ENM).

16.0 LIMITATIONS

Within the scope of work outlined in the fee proposals dated 20 March 2019 (Reference Q8776), the services performed by Geotechnique were conducted in a manner consistent with the level of quality and skill generally exercised by members of the profession and consulting practice.

To the best of our knowledge, all information obtained and contained in this report is true and accurate. No further investigation has been carried out to authenticate the information provided. Supporting documentation was obtained where possible, some of which is contained in this report.

This report has been prepared for Santilli Pty Ltd through Calibre Group for the purposes stated within. Blacktown City Council may rely upon the report for development and/or construction application determinations. Reliance on this report by other parties shall be at such parties' sole risk as the report might not contain sufficient information for other purposes.

This report shall only be presented in full and may not be used to support any objective other than those set out in the report, except where written approval is provided by Geotechnique Pty Ltd.

The information in this report is considered accurate at the completion of field sampling (17 April 2019). Any variations to the site form or use beyond that date will nullify the conclusion stated.

Whilst the assessment conducted at the site was carried out in accordance with current NSW guidelines, the potential always exists for contaminated soils to be present between sampled locations.

Presented in Appendix H is a document entitled "Environmental Notes", which should be read in conjunction with this report.

GEOTECHNIQUE PTY LTD

LIST OF REFERENCES

Australian Standard "Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 1: Non-volatile and semi-volatile compounds" (AS4482.1-2005)

Australian Standard "Guide to the Sampling and Investigation of Potentially Contaminated Soil Part 2: Volatile substances" (AS4482.2-1999)

Contaminated Land Management Act 1997

Contaminated Land Management Regulation 1998

Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites – NSW Environment Protection Authority 2011

Contaminated Sites: Guidelines for Assessing Former Orchard and Market Garden - NSW Department of Environment and Conservation (DEC) 2005

Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd Edition) –NSW EPA 2017

Contaminated Sites: Sampling Design Guidelines - NSW Environment Protection Authority 1995

Geology of Penrith 1:100,000 Sheet (9030) – Geological Survey of New South Wales, Department of Minerals and Energy 1991

Guidelines for the Laboratory Analysis of Contaminated Soils - Australian and New Zealand Environment and Conservation Council (ANZECC) 1996

Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land – Department of Urban Affairs and Planning / NSW Environment Protection Authority 1998

National Environment Protection (Assessment of Site Contamination) Measure – National Environmental Protection Council 2013

Protection of the Environment Operations (Waste) Regulation 2005 – General Exemption Under Part 6, Clause 51 and 51A – The Excavated Natural Material Exemption & Order 2014

Soil Landscape of Penrith 1:100,000 Sheets (9030) – Soil Conservation Service Survey of NSW 1989

Standard Methods for the Examination of Water and Wastewater – American Public Health Association (APHA) 2005

Waste Classification Guidelines Part 1: Classifying Waste - NSW DECC (November 2014)

DRAWING

Drawing No 14450/1-AA1	*Lot Layout and Site Features*
Drawing No 14450/1-AA2	*Test Pit Locations*
Drawing No 14450/1-AA3	*Locations of Concern*

SF#	Description
1	Scrap metal
2	Concrete driveway
3	Disused machine
4	Car body
5a	Stockpile 1: 8m x 3m x 0.3m high
5b	Stockpile 2: 6m x 3m x 0.3m high
6	GI shed
7	Depression area
8	Greenhouse
9	Fibro/GI shed/timber building with electric box
10	Area used for machinery maintenance (eg oil drums)
11	Brick house with tile roof
12	Market garden
13	Former greenhouse
14	Partial concrete ground (footprint of former building)
15	Area with scattered fibro-cement pieces
16	Concrete water tank

SF#: Site Feature Number

LEGEND

(#) Site Feature Number

→ Slope

0 25 50 75 100 125m

Scale 1:2500

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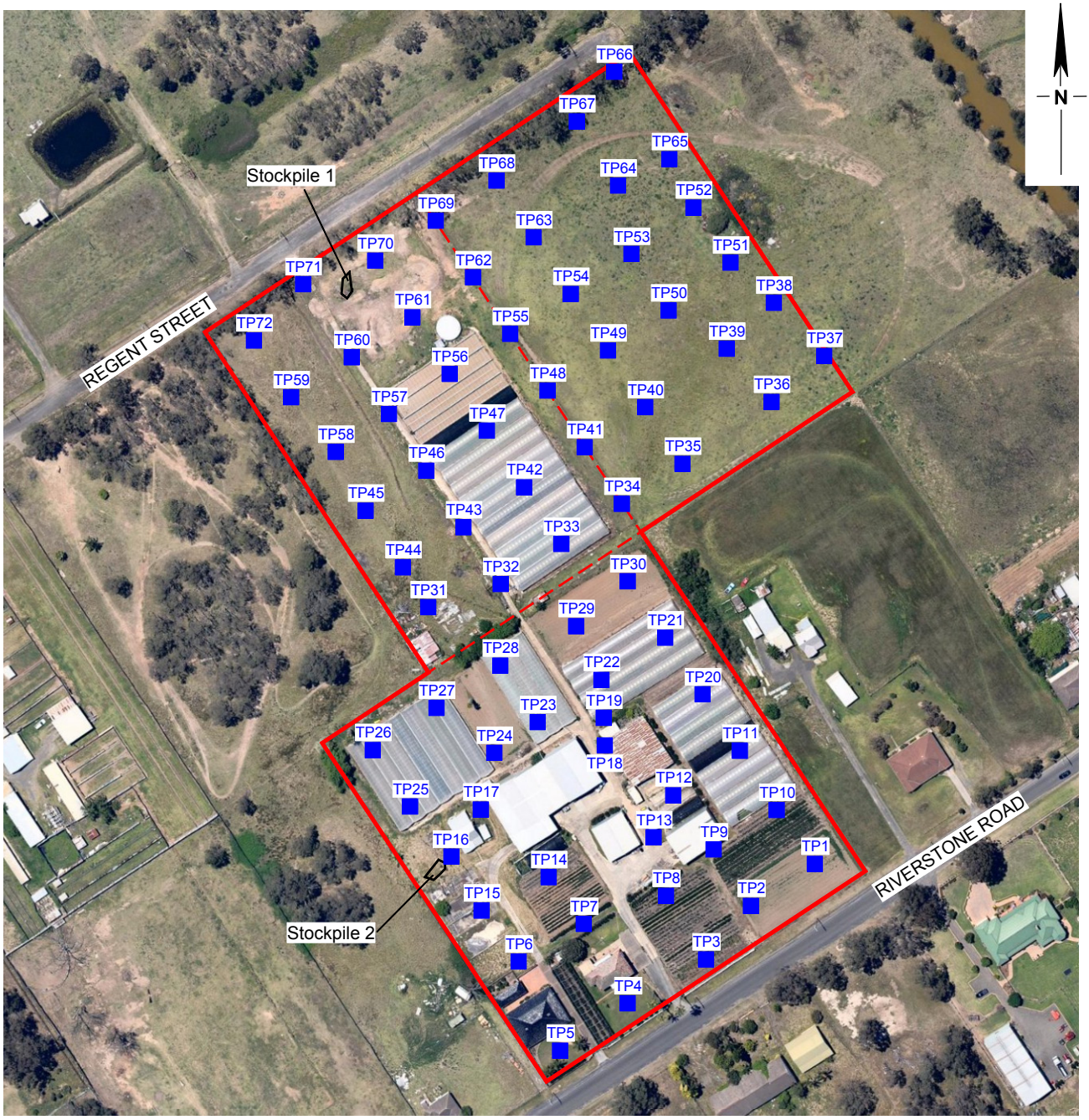
Calibre Group
Lot B DP362093 & Lots 12 & 13 Section O DP712
167 Riverstone Road & Regent Street
Riverstone

Lot Layout and Site Features

Drawing No: 14450/1-AA1
Job No: 14450/1
Drawn By: MH
Date: 13 May 2019
Checked By: JH/AB

File No: 14450-1
Layers: 0, AA1



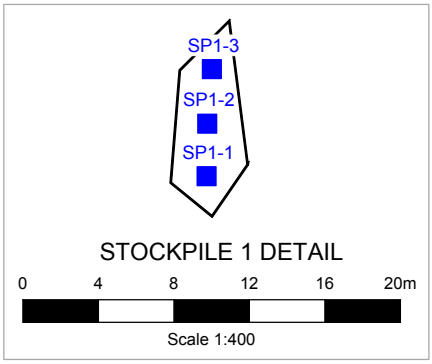
Imagery ©2019 NearMap.com

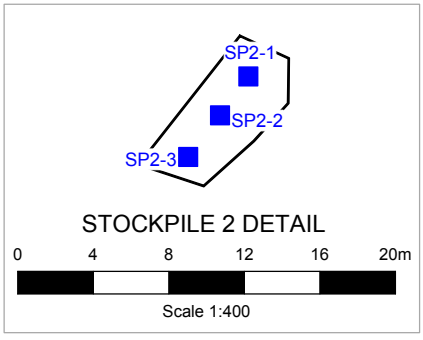
LEGEND

Test Pit

0 25 50 75 100 125m

Scale 1:2500





PREPARED BY:

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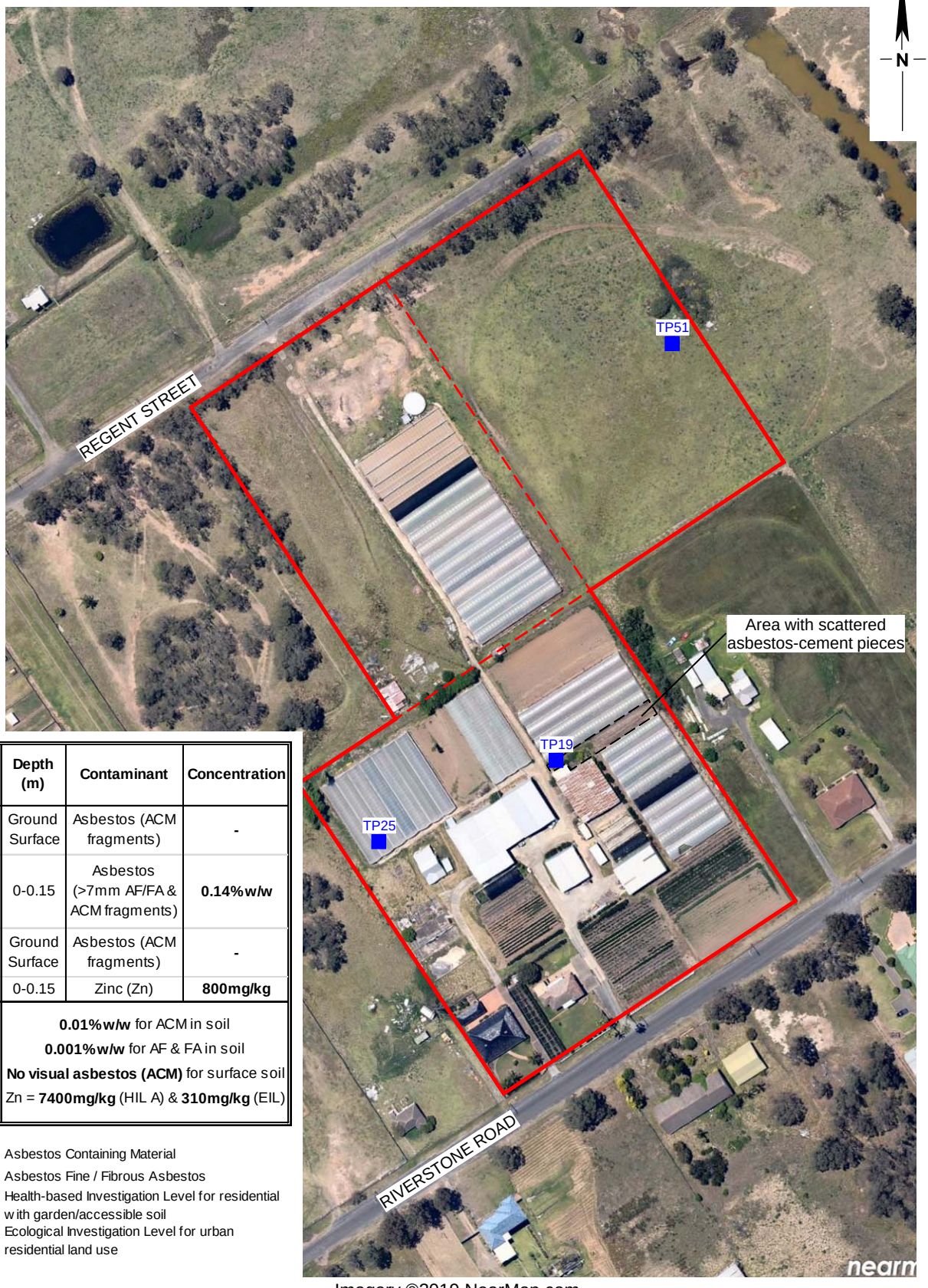
Calibre Group
Lot B DP362093 & Lots 12 & 13 Section O DP712
167 Riverstone Road & Regent Street
Riverstone

Test Pit Locations

Drawing No: 14450/1-AA2
Job No: 14450/1
Drawn By: MH
Date: 13 May 2019
Checked By: JH/AB

File No: 14450-1
Layers: 0, AA2



Sample Location /Area	Depth (m)	Contaminant	Concentration
TP19 and its vicinity	Ground Surface	Asbestos (ACM fragments)	-
TP19	0-0.15	Asbestos (>7mm AF/FA & ACM fragments)	**0.14%w/w**
TP25	Ground Surface	Asbestos (ACM fragments)	-
TP51	0-0.15	Zinc (Zn)	**800mg/kg**
Assessment Criteria	**0.01%w/w** for ACM in soil **0.001%w/w** for AF & FA in soil **No visual asbestos (ACM)** for surface soil Zn = **7400mg/kg** (HIL A) & **310mg/kg** (EIL)		

Notes:

ACM:	Asbestos Containing Material
AF / FA:	Asbestos Fine / Fibrous Asbestos
HIL A :	Health-based Investigation Level for residential with garden/accessible soil
EIL:	Ecological Investigation Level for urban residential land use

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LEGEND

Test Pit

0 25 50 75 100 125m

Scale 1:2500

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Calibre Group
Lot B DP362093 & Lots 12 & 13 Section O DP712
167 Riverstone Road & Regent Street
Riverstone

Locations of Concern

Drawing No: 14450/1-AA3
Job No: 14450/1
Drawn By: MH
Date: 31 May 2019
Checked By: AB

File No: 14450-1
Layers: 0, AA3

TABLES

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TABLE A
RINSATES
(Ref No: 14450/1-AA)

SAMPLE DATE	RS1 15/04/2019	RS2 16/04/2019	RS3 17/04/2019
METAL	**(mg/L)**	**(mg/L)**	**(mg/L)**
Arsenic	0.04	0.04	<0.02
Cadmium	<0.001	<0.001	<0.001
Chromium	<0.005	<0.005	<0.005
Copper	<0.005	<0.005	<0.005
Lead	<0.02	<0.02	<0.02
Mercury	<0.0001	<0.0001	<0.0001
Nickel	<0.005	<0.005	<0.005
Zinc	<0.01	<0.01	<0.01

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TABLE B
TRIP SPIKES
(Ref No: 14450/1-AA)

Sample	Sampling Date	BTEX			
		Benzene	Toluene	Ethylbenzene	Xylenes
TS1	15/04/2019	71%	85%	93%	92%
TS2	16/04/2019	89%	97%	98%	97%

Note : results are reported as percentage recovery of known spike concentrations

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TABLE C1
DUPLICATE SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	TP59 0.0-0.15 (m) mg/kg	X1 mg/kg	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
ORGANOCHLORINE PESTICIDES (OCP)			
Hexachlorobenzene (HCB)	<0.1	<0.1	-
Heptachlor	<0.1	<0.1	-
Aldrin+Dieldrin	<0.15	<0.15	-
Endrin	<0.2	<0.2	-
Methoxychlor	<0.1	<0.1	-
Mirex	<0.1	<0.1	-
Endosulfan (alpha, beta & sulphate)	<0.5	<0.5	-
DDD+DDE+DDT	<0.6	<0.6	-
Chlordane (alpha & gamma)	<0.2	<0.2	-
ORGANOPHOSPHATE PESTICIDES (OPP)			
Chlorpyrifos (Chlorpyrifos Ethyl)	<0.2	<0.2	-

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TABLE C2
DUPLICATE SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	C20 mg/kg	CDS1 mg/kg	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
Arsenic	7	6	15
Cadmium	<0.3	<0.3	-
Chromium	27	18	40
Copper	5.6	7.1	24
Lead	17	16	6
Mercury	<0.05	<0.05	-
Nickel	2.9	2.4	19
Zinc	10	19	62

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TABLE C3
DUPLICATE SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	C22 mg/kg	CDS2 mg/kg	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
Arsenic	6	5	18
Cadmium	<0.3	<0.3	-
Chromium	18	21	15
Copper	11	7.1	43
Lead	30	28	7
Mercury	<0.05	<0.05	-
Nickel	6.3	5.6	12
Zinc	310	260	18

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TABLE D1
SPLIT SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	TP70 0.0-0.15 (m) mg/kg (SGS)	Z1 mg/kg (ENVIROLAB)	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
ORGANOCHLORINE PESTICIDES (OCP)			
Hexachlorobenzene (HCB)	<0.1	<0.1	-
Heptachlor	<0.1	<0.1	-
Aldrin+Dieldrin	<0.15	<0.2	-
Endrin	<0.2	<0.1	-
Methoxychlor	<0.1	<0.1	-
Endosulfan (alpha (I), beta (II) & sulphate)	<0.5	<0.3	-
DDD+DDE+DDT	<0.6	<0.3	-
Chlordane (alpha & gamma)	<0.2	<0.2	-
ORGANOPHOSPHATE PESTICIDES (OPP)			
Chlorpyriphos	<0.2	<0.1	-

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TABLE D2
SPLIT SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	C24 mg/kg (SGS)	CSS1 mg/kg (ENVIROLAB)	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
Arsenic	5	7	33
Cadmium	<0.3	<0.4	-
Chromium	20	15	29
Copper	5.2	3	54
Lead	27	13	70
Mercury	<0.05	<0.1	-
Nickel	2	2	0
Zinc	20	6	108

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TABLE D3
SPLIT SAMPLE
(Ref No: 14450/1-AA)

ANALYTE	C23 mg/kg (SGS)	CSS2 mg/kg (ENVIROLAB)	RELATIVE PERCENTAGE DIFFERENCES (RPD) %
Arsenic	6	7	15
Cadmium	<0.3	<0.4	-
Chromium	15	13	14
Copper	6.8	6	13
Lead	18	15	18
Mercury	<0.05	<0.1	-
Nickel	3.1	4	25
Zinc	20	16	22

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TABLE E

CATION EXCHANGE CAPACITY (CEC) & pH TEST RESULTS
SUB-SAMPLES
(Ref No: 14450/1-AA)

Composite Number	Sub-sample	Depth (m)	CEC ($cmol_c/kg$)	pH
	TP1	0.0-0.15	26	7.5
C1	TP2	0.0-0.15	-	-
	TP3	0.0-0.15	-	-
	TP4	0.0-0.15	13	6.3
C2	TP5	0.0-0.15	-	-
	TP6	0.0-0.15	-	-
	TP7	0.0-0.15	14	6.8
C3	TP8	0.0-0.15	-	-
	TP9	0.0-0.15	-	-
	TP10	0.0-0.15	27	7.3
C4	TP11	0.0-0.15	-	-
	TP12	0.0-0.15	-	-
	TP13	0.0-0.15	21	7.8
C5	TP14	0.0-0.15	-	-
	TP15	0.0-0.15	-	-
	TP16	0.0-0.15	12	6.8
C6	TP17	0.0-0.15	-	-
	TP18	0.0-0.15	-	-
	TP19	0.0-0.15	27	8.1
C7	TP20	0.0-0.15	-	-
	TP21	0.0-0.15	-	-
	TP22	0.0-0.15	-	-
C8	TP23	0.0-0.15	-	-
	TP24	0.0-0.15	20	7.4
	TP25	0.0-0.15	-	-
C9	TP26	0.0-0.15	27	6.9
	TP27	0.0-0.15	-	-
	TP28	0.0-0.15	-	-
C10	TP29	0.0-0.15	26	8.0
	TP30	0.0-0.15	-	-
	TP31	0.0-0.15	-	-
C11	TP32	0.0-0.15	6.8	4.5
	TP33	0.0-0.15	-	-
	TP34	0.0-0.15	-	-
C12	TP35	0.0-0.15	7.3	6.4
	TP36	0.0-0.15	-	-
	TP37	0.0-0.15	-	-
C13	TP38	0.0-0.15	5.1	6.5
	TP39	0.0-0.15	-	-
Limit of Reporting (LOR)			0.02	0.1

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TABLE E

CATION EXCHANGE CAPACITY (CEC) & pH TEST RESULTS
SUB-SAMPLES
(Ref No: 14450/1-AA)

Composite Number	Sub-sample	Depth (m)	CEC ($cmol_c/kg$)	pH
	TP40	0.0-0.15	-	-
C14	TP41	0.0-0.15	8.0	7.1
	TP42	0.0-0.15	-	-
	TP43	0.0-0.15	-	-
C15	TP44	0.0-0.15	6.4	7.2
	TP45	0.0-0.15	-	-
	TP46	0.0-0.15	-	-
C16	TP47	0.0-0.15	8.0	7.4
	TP48	0.0-0.15	-	-
	TP49	0.0-0.15	-	-
C17	TP50	0.0-0.15	15	7.0
	TP51	0.0-0.15	-	-
	TP52	0.0-0.15	-	-
C18	TP53	0.0-0.15	5.6	6.3
	TP54	0.0-0.15	-	-
	TP55	0.0-0.15	-	-
C19	TP56	0.0-0.15	20	7.8
	TP57	0.0-0.15	-	-
	TP58	0.0-0.15	-	-
C20	TP59	0.0-0.15	8.3	6.8
	TP60	0.0-0.15	-	-
	TP61	0.0-0.15	-	-
C21	TP62	0.0-0.15	12	7.6
	TP69	0.0-0.15	-	-
	TP63	0.0-0.15	-	-
C22	TP64	0.0-0.15	-	-
	TP65	0.0-0.15	15	7.0
	TP66	0.0-0.15	-	-
C23	TP67	0.0-0.15	-	-
	TP68	0.0-0.15	3.6	5.8
	TP70	0.0-0.15	-	-
C24	TP71	0.0-0.15	8.3	6.7
	TP72	0.0-0.15	-	-
	SP1-1	0.0-0.15	36	6.8
C25	SP1-2	0.0-0.15	-	-
	SP1-3	0.0-0.15	-	-
	SP2-1	0.0-0.15	22	6.6
C26	SP2-2	0.0-0.15	-	-
	SP2-3	0.0-0.15	-	-
Limit of Reporting (LOR)			0.02	0.1

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TABLE F
METAL, CATION EXCHANGE CAPACITY (CEC) & pH TEST RESULTS
COMPOSITED SAMPLES
(Ref No: 14450/1-AA)

Composite Number	Sub-sample	Depth (m)	METAL (mg/kg)@ ARSENIC	CADMIUM	CHROMIUM (Total)	COPPER	LEAD	MERCURY	NICKEL	ZINC	CEC ($cmol_c/kg$)*	pH*
C1	TP1	0.0-0.15	22	<0.3	26	**34**	20	<0.05	6	**110**	26	7.5
C2	TP4	0.0-0.15	14	<0.3	13	14	16	<0.05	3.8	43	13	6.3
C3	TP7	0.0-0.15	17	<0.3	21	**28**	22	<0.05	5.3	**85**	14	6.8
C4	TP10	0.0-0.15	16	<0.3	19	**38**	20	<0.05	5.2	**180**	27	7.3
C5	TP13	0.0-0.15	14	0.4	21	**32**	35	<0.05	**10**	**170**	21	7.8
C6	TP16	0.0-0.15	17	<0.3	20	13	**100**	<0.05	3.7	**130**	12	6.8
C7	TP19	0.0-0.15	17	0.3	18	**40**	51	<0.05	5.6	**160**	27	8.1
C8	TP24	0.0-0.15	16	<0.3	21	**39**	24	<0.05	**9.8**	**130**	20	7.4
C9	TP26	0.0-0.15	19	0.3	23	**45**	55	0.08	**8.3**	**240**	27	6.9
C10	TP29	0.0-0.15	16	<0.3	18	**28**	18	<0.05	**7.6**	**96**	26	8.0
C11	TP32	0.0-0.15	12	<0.3	20	16	15	<0.05	3	**72**	6.8	4.5
C12	TP35	0.0-0.15	10	<0.3	14	4.2	23	0.08	2.2	35	7.3	6.4
C13	TP38	0.0-0.15	14	<0.3	17	6.3	26	<0.05	5.4	38	5.1	6.5
C15	TP44	0.0-0.15	14	<0.3	21	9.0	18	<0.05	3.1	43	6.4	7.2
C17	TP50	0.0-0.15	12	<0.3	14	9.1	20	<0.05	3.8	**180**	15	7.0
C18	TP53	0.0-0.15	11	<0.3	18	8.6	20	<0.05	4.8	39	5.6	6.3
C19	TP56	0.0-0.15	12	<0.3	17	10	17	<0.05	3.2	**60**	20	7.8
C20	TP59	0.0-0.15	7	<0.3	27	5.6	17	<0.05	2.9	10	8.3	6.8
C21	TP62	0.0-0.15	9	<0.3	24	6.3	20	<0.05	3	16	12	7.6
C22	TP65	0.0-0.15	6	<0.3	18	11	30	<0.05	6.3	**310**	15	7.0
C23	TP68	0.0-0.15	6	<0.3	15	6.8	18	<0.05	3.1	20	3.6	5.8
C24	TP71	0.0-0.15	5	<0.3	20	5.2	27	<0.05	2	20	8.3	6.7
C25	SP1-1	0.0-0.15	8	<0.3	19	**38**	20	<0.05	**9.9**	**190**	36	6.8
C26	SP2-1	0.0-0.15	8	0.4	28	**30**	**180**	0.06	5.3	**250**	22	6.6
Limit of Reporting (LOR)			1	0.3	0.5	0.5	1	0.05	0.5	2	0.02	0.1
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)												
Health-based Investigation Levels (HIL) A - Residential A[a]			100	20	100[e]	6000	300	10[f]	400	7400		
Adjusted HIL[b]			33	6.7	33	2000	100	3.33	133	2467		
Ecological Investigation Levels (EIL) - Urban residential[c]			100[g]	-	410[h]	80	1200[i]	-	20	150		
Adjusted EIL[d]			33	-	137	27	400	-	6.67	50		

Notes:
a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.
b: Adjusted HIL=HIL/3
c: EIL of aged nickel & zinc were derived from calculation spreadsheet developed by CSIRO for NEPC; Old Suburb with Low Traffic; the lowest CEC=3.6 cmolc/kg & pH=4.5; the assumed clay content=10 % were selected for derivation of EIL; a conservative approach.
EIL of aged copper = added contaminant limit (calculated based on the lowest of the pH and the lowest of the CEC) + ambient background concentration.
d: Adjusted EIL=EIL/3
e: Chromium (VI)
f: Methyl Mercury
g: Generic EIL for aged arsenic
h: Chromium (III)
@: Metal concentrations of composited sample
*: CEC & pH values of sub-sample

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TABLE G1
METAL TEST RESULTS
SUB-SAMPLES
(Ref No: 14450/1-AA)

Composite Number	Sub-Sample	Depth (m)	COPPER (mg/kg)	LEAD (mg/kg)	NICKEL (mg/kg)	ZINC (mg/kg)
	TP1	0.0-0.15	40	-	-	110
C1	TP2	0.0-0.15	33	-	-	90
	TP3	0.0-0.15	51	-	-	150
	TP7	0.0-0.15	40	-	-	110
C3	TP8	0.0-0.15	44	-	-	140
	TP9	0.0-0.15	7.4	-	-	20
	TP10	0.0-0.15	36	-	-	97
C4	TP11	0.0-0.15	47	-	-	**190**
	TP12	0.0-0.15	39	-	-	**380**
	TP13	0.0-0.15	41	-	16	**240**
C5	TP14	0.0-0.15	52	-	7.9	**160**
	TP15	0.0-0.15	14	-	3.8	39
	TP16	0.0-0.15	-	75	-	99
C6	TP17	0.0-0.15	-	170	-	**160**
	TP18	0.0-0.15	-	18	-	39
	TP19	0.0-0.15	34	-	-	**180**
C7	TP20	0.0-0.15	42	-	-	**160**
	TP21	0.0-0.15	49	-	-	150
	TP22	0.0-0.15	61	-	7.1	**180**
C8	TP23	0.0-0.15	49	-	9.9	140
	TP24	0.0-0.15	27	-	6.4	110
	TP25	0.0-0.15	54	-	9.5	**260**
C9	TP26	0.0-0.15	61	-	9.1	**260**
	TP27	0.0-0.15	60	-	16	**190**
	TP28	0.0-0.15	42	-	9.3	130
C10	TP29	0.0-0.15	31	-	10	130
	TP30	0.0-0.15	21	-	5.1	74
	TP49	0.0-0.15	-	-	-	130
C17	TP50	0.0-0.15	-	-	-	38
	TP51	0.0-0.15	-	-	-	**800**
	TP55	0.0-0.15	-	-	-	8.0
C19	TP56	0.0-0.15	-	-	-	110
	TP57	0.0-0.15	-	-	-	27
	TP63	0.0-0.15	-	-	-	22
C22	TP64	0.0-0.15	-	-	-	11
	TP65	0.0-0.15	-	-	-	60
	SP1-1	0.0-0.15	36	-	9.0	**190**
C25	SP1-2	0.0-0.15	30	-	7.7	**160**
	SP1-3	0.0-0.15	38	-	11	**180**
	SP2-1	0.0-0.15	38	110	-	**310**
C26	SP2-2	0.0-0.15	34	110	-	**280**
	SP2-3	0.0-0.15	38	130	-	**320**
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)						
Health-based Investigation Levels (HIL) A - Residential A[a]			6000	300	400	7400
Ecological Investigation Level (EIL)			80	1200	20	150

a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

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TABLE G2-1
ZINC, CATION EXCHANGE CAPACITY (CEC) & pH TEST RESULTS
SUB-SAMPLES
(Ref No: 14450/1-AA)

Sample Location	Depth (m)	mg/kg ZINC	CEC ($cmol_c$/kg)	pH
TP11	0.0-0.15	190	30	7.3
TP12	0.0-0.15	380	20	6.3
TP13	0.0-0.15	240	21	7.8
TP14	0.0-0.15	160	29	7.3
TP17	0.0-0.15	160	14	7.0
TP19	0.0-0.15	180	27	8.1
TP20	0.0-0.15	160	34	7.9
TP22	0.0-0.15	180	34	6.4
TP25	0.0-0.15	260	28	6.6
TP26	0.0-0.15	260	27	6.9
TP27	0.0-0.15	190	29	8.4
SP1-1	0.0-0.15	190	36	6.8
SP1-2	0.0-0.15	160	46	7.0
SP1-3	0.0-0.15	180	38	7.1
SP2-1	0.0-0.15	310	22	6.6
SP2-2	0.0-0.15	280	22	6.8
SP2-3	0.0-0.15	320	22	6.9
Limit of Reporting (LOR)		2	0.02	0.1
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)				
Health-based Investigation Levels (HIL) A - [a] Residential A		7400		
Ecological Investigation Levels (EIL) - [b] Urban residential		590		

Notes: a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

b: EIL of aged zinc was derived from calculation spreadsheet developed by CSIRO for NEPC; Old Suburb with Low Traffic; the lowest CEC=14 cmolc/kg & pH=6.3; the assumed clay content=10 % were selected for derivation of EIL; a conservative approach.

GEOTECHNIQUE
PTY LTD

TABLE G2-2
ZINC, CATION EXCHANGE CAPACITY (CEC) & pH TEST RESULTS
SUB-SAMPLE
(Ref No: 14450/1-AA)

Sample Location	Depth (m)	ZINC (mg/kg)	CEC ($cmol_c$/kg)	pH
TP51	0.0-0.15	**800**	5.0	6.7
Limit of Reporting (LOR)		2	0.02	0.1
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)				
Health-based Investigation Levels (HIL) A - [a] Residential A		7400		
Ecological Investigation Levels (EIL) - [b] Urban residential		310		

Notes:
a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

b: EIL of aged zinc was derived from calculation spreadsheet developed by CSIRO for NEPC; Old Suburb with Low Traffic; an individual CEC=5 cmolc/kg & pH=6.7; the assumed clay content=10 % were selected for derivation of EIL; a conservative approach.

GEOTECHNIQUE PTY LTD

TABLE H
TOTAL RECOVERABLE HYDROCARBONS (TRH) AND BTEX TEST RESULTS
DISCRETE SAMPLES
(Ref No: 14450/1-AA)

												NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)																	
			TRH (mg/kg)					BTEX (mg/kg)				Health Screening Levels (HSL) A Low density residential						Ecological Screening Levels for fine-grained soil Urban residential								Ecological Screening Levels for coarse-grained soil Urban residential							
Sample Location	Depth (m)	Soil type	F1	F2*	F2**	F3	F4	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	F1	F2*	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	F1	F2**	F3	F4	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	F1	F2**	F3	F4	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
TP12	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP13	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP15	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP16	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP17	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP18	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP19	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
TP71	0.0-0.15	Clay	<25	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	50	280	0.7	480	NL	110	180	120	1300	5600	65	105	125	45	-	-	-	-	-	-	-	-
Limit of Reporting (LOR)			25	25	25	90	120	0.1	0.1	0.1	0.3																						

Notes:
F1: C6-C10 less BTEX
F2*: >C10-C16 less Naphthalene
F2**: >C10-C16
F3: >C16-C34
F4: >C34-C40
NL: Not Limiting

GEOTECHNIQUE PTY LTD

TABLE I
POLYCYCLIC AROMATIC HYDROCARBONS (PAH) TEST RESULTS
DISCRETE SAMPLES
(Ref No: 14450/1-AA)

							NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)				
			PAH (mg/kg)				Health-based Investigation Levels (HIL) A - Residential A[a]		Health Screening Level (HSL) A - Low density residential	Generic Ecological Investigation Level (EIL) - Urban residential	Ecological Screening Level (ESL) - Urban residential
Sample Location	Depth (m)	Soil type	BaP TEQ	TOTAL PAHs	NAPHTHALENE	BENZO(a)PYRENE (BaP)	BaP TEQ	TOTAL PAHs	NAPHTHALENE	NAPHTHALENE	BENZO(a)PYRENE (BaP)
TP12	0.0-0.15	Clay	0.4	2.8	<0.1	0.2	3	300	5	170	0.7
TP13	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP15	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP16	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP17	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP18	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP19	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
TP71	0.0-0.15	Clay	<0.3	<0.8	<0.1	<0.1	3	300	5	170	0.7
Limit of Reporting (LOR)			0.3	0.8	0.1	0.1					

Notes: a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

NL: Not Limiting

GEOTECHNIQUE PTY LTD

TABLE J
ORGANOCHLORINE PESTICIDES (OCP), ORGANOPHOSPHATE PESTICIDES (OPP) & PHENOLS TEST RESULTS
DISCRETE SAMPLES
(Ref No: 14450/1-AA)

Sample Location	Depth (m)	OCP (mg/kg)										(mg/kg)	(mg/kg)
		HEXACHLOROBENZENE (HCB)	HEPTACHLOR	ALDRIN+DIELDRIN	ENDRIN	METHOXYCHLOR	MIREX	ENDOSULFAN (alpha, beta & sulphate)	DDD+DDE+DDT	DDT	CHLORDANE (alpha & gamma)	Chlorpyrifos (Chlorpyrifos Ethyl)	Phenols
TP1	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP7	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP10	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP12	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP13	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP14	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP15	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP16	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP17	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP18	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP19	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
TP21	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP24	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP26	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP28	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP38	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP42	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP47	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP59	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP70	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
TP71	0.0-0.15	-	-	-	-	-	-	-	-	-	-	-	<5
SP1-1	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
SP2-1	0.0-0.15	<0.1	<0.1	<0.15	<0.2	<0.1	<0.1	<0.5	<0.6	<0.2	<0.2	<0.2	-
Limit of Reporting (LOR)		0.1	0.1	0.15	0.2	0.1	0.1	0.5	0.6	0.2	0.2	0.2	5
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013)													
Health-based Investigation Levels (HIL) A - Residential A[a]		10	6	6	10	300	10	270	240		50	160	3000
Ecological Investigation Levels (EIL) - Urban residential										180[b]			

Notes: a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

b: Generic EIL for DDT

GEOTECHNIQUE PTY LTD

TABLE K
ASBESTOS TEST RESULTS
DISCRETE SAMPLES
(Ref No: 14450/1-AA)

Sample Location	Depth (m)	ASBESTOS (% w/w)	
Soil Sample		ACM (>7mm)	AF/FA (<7mm)
TP19	0.0-0.15	<0.01	**0.14**
TP25	0.0-0.15	<0.01	<0.001
Limits of Reporting (LOR)		0.01	0.001
NATIONAL ENVIRONMENT PROTECTION AMENDMENT MEASURE (2013) Health Screening Levels - Residential A[a]		0.01	0.001
Fibro-cement Piece			
TP19FCP	0.0-0.15	**ACM**	
TP25FCP	Surface	**ACM**	

Notes: ACM: Asbestos Containing Material

AF: Asbestos Fines

FA: Fibrous Asbestos

a: Residential with garden / accessible soil (home grown produce <10% fruit and vegetable intake (no poultry)), also includes childcare centres, preschools and primary schools.

APPENDIX A

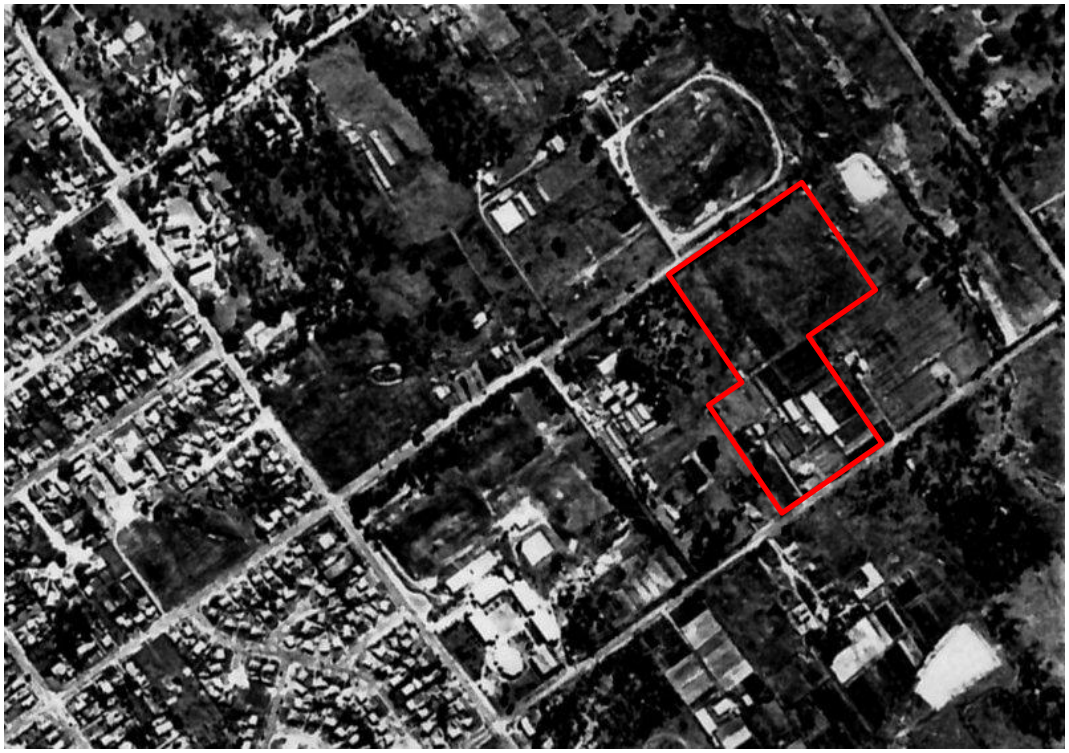
AERIAL PHOTOGRAPHS

December 2018

2005

1998

1986



1978

1970

1961

1947

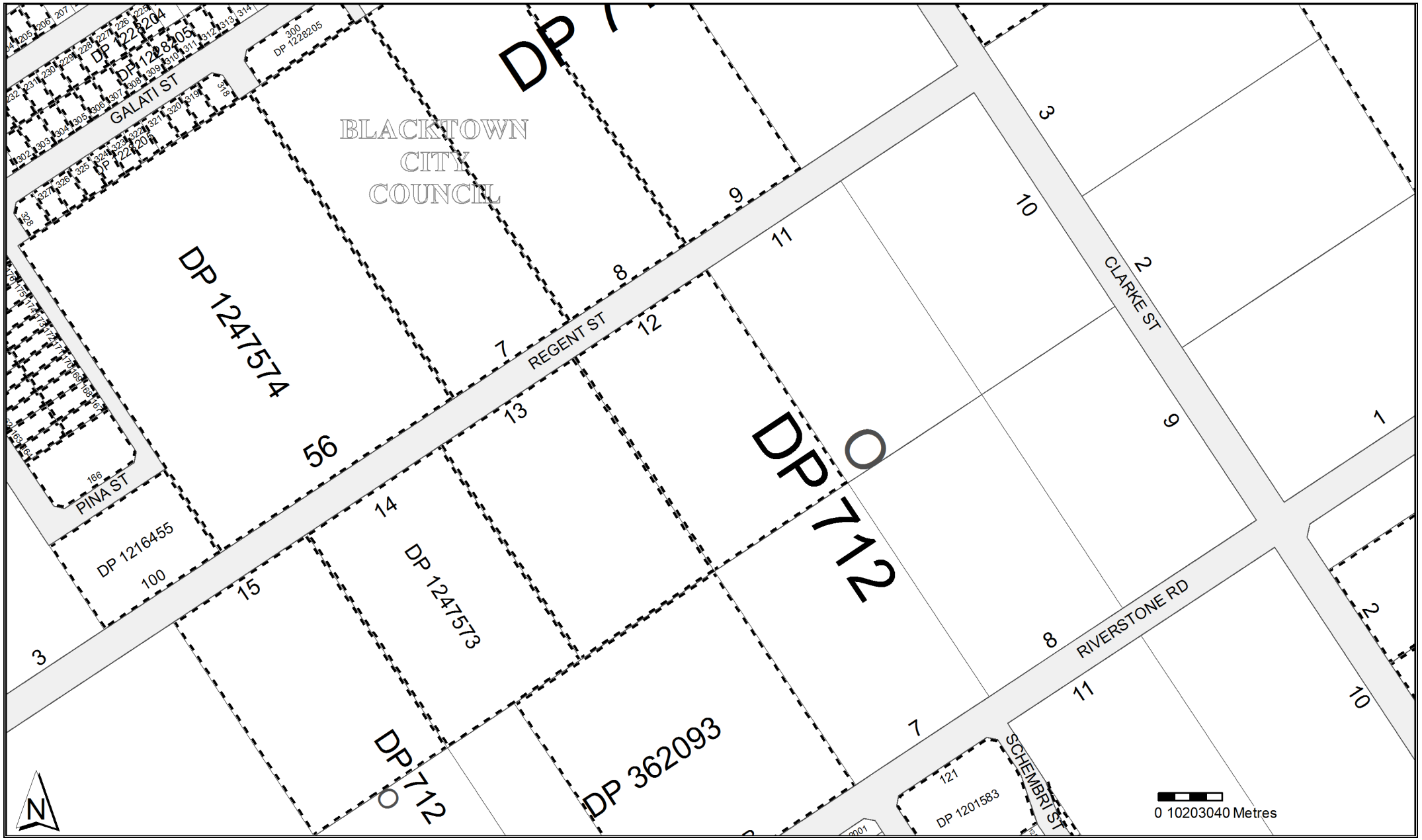
APPENDIX B

CADASTRAL AND DEPOSITED PLANS

Cadastral Records Enquiry Report : Lot 12 Section O DP 712

Ref : NOUSER

Locality : RIVERSTONE
Parish : GIDLEY
LGA : BLACKTOWN
County : CUMBERLAND



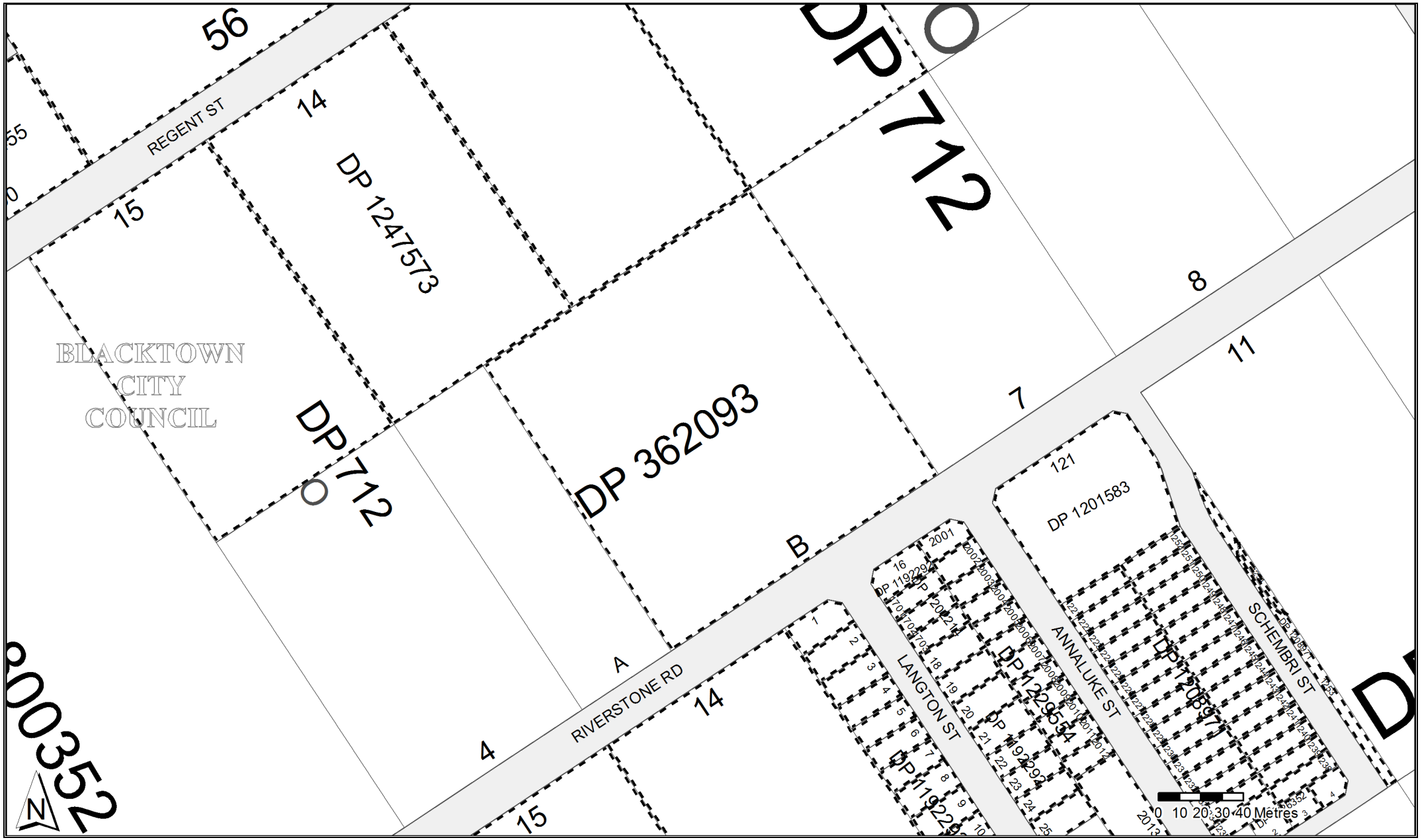
Report Generated 11:03:28 AM, 26 April, 2019

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

Cadastral Records Enquiry Report : Lot B DP 362093

Ref : NOUSER

Locality : RIVERSTONE
Parish : GIDLEY
LGA : BLACKTOWN
County : CUMBERLAND



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

"A" 13/9/81"

DP 712 (E)

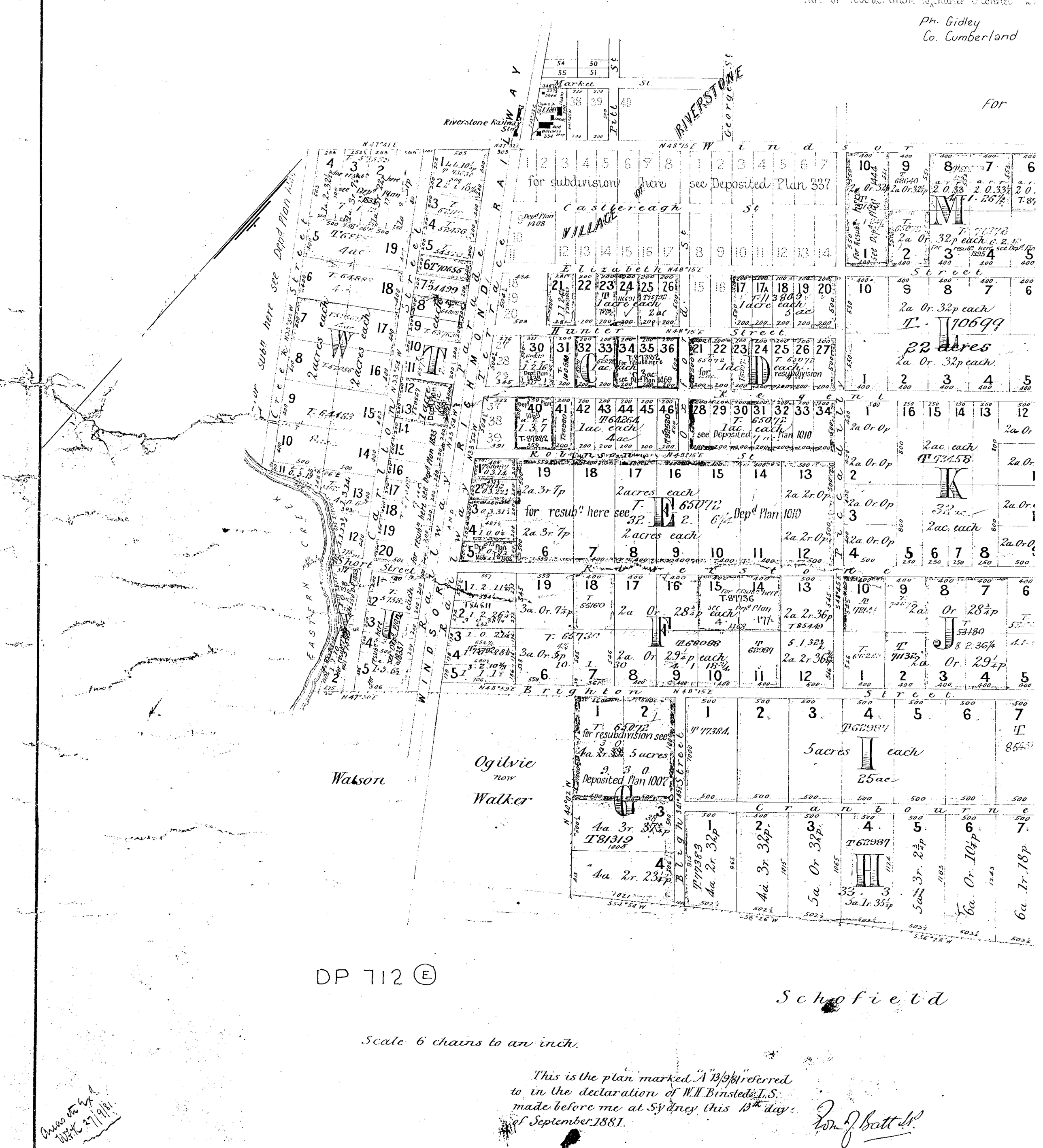
SUBDIVISIO

OF PART OF THE

RIVERSTONE

Part of 1000 ac. Grant to Charles O'Connell

Ph. Gidley
Co. Cumberland



DP 712 (E)

Schofield

Scale 6 chains to an inch.

This is the plan marked "A" 13/9/81" referred to in the declaration of W.H. Binsted L.S. made before me at Sydney this 13th day of September 1881.

Wm J. Batt J.P.

Checked WHK 27/9/81.

DP 7121 (E)

BDIVISION

PART OF THE

TONE ESTATE

Surveyed for Frederick Maxwell 22nd March 1911

Ph. Gidley
Co. Cumberland

712

For subn here see Depd Plan 1459

N 48°09' E Road

Street

N 48°15' E Street

Terrace

Rouse

(A) RESTRICTION ON USER M481165

PLAN AMENDED IN L.T.O. 18.9.1989

DP 712 (E)

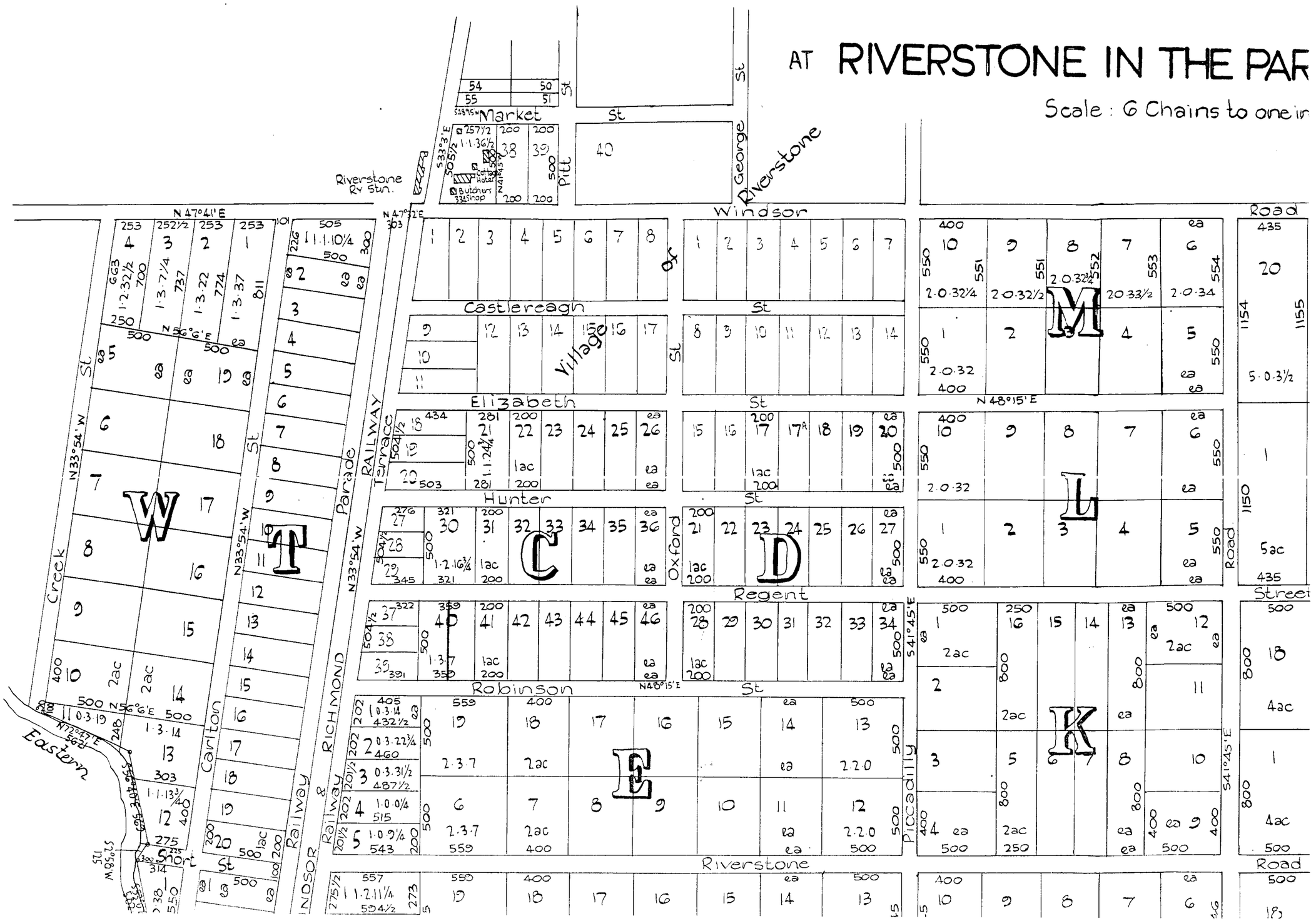
DP 712 (E)

SUBDIVISION OF PART

RIVERSTONE E

AT RIVERSTONE IN THE PAR

Scale : 6 Chains to one in



Creek
Eastern
Carlton
Railway
RICHMOND
WINDSOR
Railway
Road
Short
St
Robinson
St
Regent
Street
Piccadilly
Riverstone
Road
Brighton
St
Watson
Ogilvie
now
Walker
Bligh
St
Cranbourne
McCulloch
Schofield.

DP 712 (E)

D.P. 712.

D.P.712

D.P.712 (E) (copy)

SION OF PART OF THE

'STONE ESTATE

IE IN THE PARISH OF GIDLEY

cale : 6 Chains to one inch

(A) RESTRICTIONS ON USER - M481165

DP 712 (E)

SIGNED: N. H. BINSTED Licensed Surveyor
Declaration Dated 13th September 1881.

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 712

LINKS	METRES
3.03	0.61
7	1.41
27.4	5.51
30	6.035
55.1	11.085
90	18.105
100	20.115
100.25	20.165
105.1	21.145
112	22.53
133	26.755
138	27.76
176	35.405
178	35.81
179	36.01
186	37.415
200	40.235
201.5	40.535
202	40.635
225	45.265
226	45.465
227	45.665
248	49.89
250	50.29
252.5	50.79
253	50.9
257.5	51.8
272	54.72
273	54.92
274	55.12
275	55.32
275.5	55.42
276	55.52
281	56.53
300	60.35
303	60.95
314	63.17
320.5	64.47
321	64.57
322	64.78
334	67.19
345	69.4
359	72.22
368.5	74.13
388.5	78.15
391	78.66
396	79.66
400	80.47
405	81.47
413	83.08
432.5	87.01
434	87.31
435	87.51
460	92.54
487.5	98.07
490	98.57
500	100.58
500.5	100.68
501	100.79
502	100.99
502.5	101.09
503	101.19
503.5	101.29
504.5	101.49
505	101.59
505.5	101.69
506	101.79
512	103
515	103.6
515.5	103.7
538	108.23
543	109.23
545	109.64
546	109.84
550	110.64
551	110.84
552	111.04

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 712 CONTINUED

LINKS	METRES
553	111.25
554	111.45
557	112.05
559	112.45
569	114.46
582.5	117.18
585	117.68
594.5	119.59
632	127.14
656.25	132.02
661	132.97
663	133.37
680.5	136.89
700	140.82
706	142.02
737	148.26
766	154.09
774	155.7
800	160.93
804	161.74
811	163.15
817	164.35
818	164.56
819.5	164.86
830	166.97
843	169.58
855.5	172.1
858	172.6
872	175.42
886.5	178.34
900.5	181.15
915	184.07
958.5	192.82
965	194.13
1000	201.17
1000.5	201.27
1002	201.57
1005	202.17
1015	204.19
1021	205.39
1045	210.22
1050	211.23
1051	211.43
1065	214.24
1090	219.27
1091	219.47
1100	221.28
1124	226.11
1134	228.12
1150	231.34
1154	232.15
1155	232.35
1156	232.55
1157	232.75
1158	232.95
1159	233.15
1160	233.35
1161	233.56
1162	233.76
1183	237.98
1243	250.05
1302	261.92
1308	263.13
1338	269.16
1373	276.2
1427	287.07
1480	297.73
1534	308.59
1588	319.45
1642	330.32
1696	341.18
1750	352.04
5621	1130.8

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 712 CONTINUED

AC RD P	SQ M
- - 7	177
- - 32 1/4	815.7
- 1 -	1012
- 2 22 3/4	2599
- 2 28 3/4	2751
- 3 6 1/2	3200
- 3 14	3389
- 3 19	3516
- 3 22 3/4	3611
- 3 31 1/2	3832
1 - -	4047
1 - 1/4	4053
1 - 9 1/4	4281
1 - 21 1/4	4584
1 - 28	4755
1 - 38	5008
1 1 1 1/2	5096
1 1 10	5311
1 1 10 1/4	5318
1 1 13 3/4	5406
1 1 24 3/4	5685
1 1 36 1/2	5982
1 2 11 1/4	6355
1 2 16 3/4	6494
1 2 26 3/4	6747
1 2 32 1/2	6892
1 3 6 1/2	7246
1 3 7	7259
1 3 7 1/4	7265
1 3 14	7436
1 3 22	7638
1 3 37	8018
2 - -	8094
2 - 28 3/4	8821
2 - 29 1/4	8834
2 - 32	8903
2 - 32 1/4	8909
2 - 32 1/2	8916
2 - 32 3/4	8922
2 - 33 1/2	8941
2 - 34	8954

AC RD P	HA
2 2 -	1.012
2 2 36	1.1
2 2 36 3/4	1.1
2 3 4 1/4	1.124
2 3 7	1.13
3 - 4 1/4	1.225
3 - 7 1/4	1.232
4 - -	1.619
4 - 9 1/4	1.642
4 - 14	1.654
4 - 15	1.657
4 - 18 3/4	1.666
4 - 29	1.692
4 - 39 1/4	1.718
4 1 9 1/4	1.743
4 1 12	1.75
4 1 23 1/4	1.779
4 1 34 3/4	1.8
4 2 6	1.836
4 2 23 1/4	1.88
4 2 29 1/4	1.895
4 2 32	1.9
4 3 -	1.922
4 3 24	1.983
4 3 32	2.0
4 3 38	2.018
5 - -	2.023
5 - 2 3/4	2.03
5 - 3 1/2	2.032
5 - 3 3/4	2.033
5 - 4 1/4	2.034
5 - 4 3/4	2.035
5 - 5 1/2	2.037

CONVERSION TABLE ADDED IN REGISTRAR GENERAL'S DEPARTMENT

DP 712 CONTINUED

AC RD P	HA
5 - 5 3/4	2.038
5 - 6 1/4	2.039
5 - 7	2.041
5 - 7 1/2	2.042
5 - 18 3/4	2.071
5 - 28 3/4	2.096
5 - 32	2.1
5 1 32 3/4	2.2
5 1 34 1/2	2.212
5 1 35 1/2	2.214
5 2 -	2.226
5 3 2 3/4	2.334
6 - 10 1/4	2.454
6 1 18	2.575
6 2 18 1/4	2.677
6 2 36 1/4	2.722
6 3 4 1/4	2.742
6 3 7	2.749
7 - -	2.833
7 1 2 3/4	2.941
7 2 5 1/2	3.049
7 3 8 3/4	3.158
8 - 12	3.268
8 1 15	3.376
8 2 9	3.462
8 2 18 1/4	3.486
11 1 10 1/4	4.579

D882996

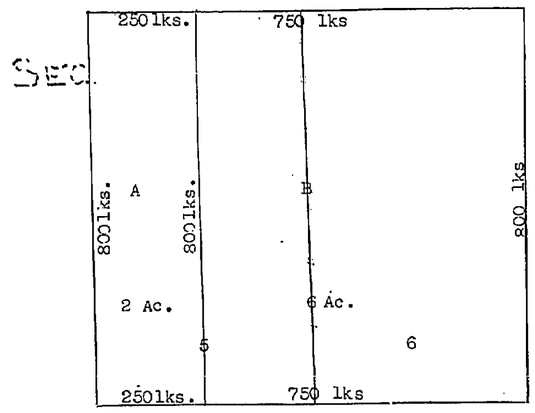
D882996

FP362093

PLAN OF SUBDIVISION of Lots 5 and 6 Section O D.P. No. 712 being the whole of the land contained in Certificate of Title Volume 780 Folio 216 into two allotments A and B containing respectively 2 acres and 6 acres.

Registered Proprietor ANNIE BERTHA BUCHAN

Ph. Gidley Co. Cumberland



Miscn Plan of Subdn. (R.P.)
Regd 62093

Mrs Walker & Son
Solicitors for the registered Proprietor,
WINDSOR.

Plan approved by Council.
Covered by Council Clerk's Cert. No. 32 of 27th July, 1948.
Shire Clerk.
BLACKTOWN.

DATED 8th July 1948

CONVERSION TABLE ADDED IN DEPARTMENT OF LANDS

DP 362093

LINKS	METRES
5	1.006
25	5.029
75	15.088
80	16.093
800	160.934
75008	15089.209

AC	RD	P	SQ M
2	-	-	8094

AC	RD	P	HA
6	-	-	2.428

Robert A Buchan
Minor: Brooke

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 28th day of August, 1978

1

APPENDIX C

NSW EPA RECORD OF NOTICES & ENVIRONMENT PROTECTION LICENCES

Contaminated land - record of notices

Record under section 58 of the Contaminated Land Management Act 1997

This record is maintained by OEH in accordance with Part 5 of the Contaminated Land Management Act 1997 (CLM Act).

The record **does** provide
- ✓ a record of written notices issued by OEH under the CLM Act, including preliminary investigation orders.
- ✓ the names of the sites, owners or occupiers **at the time of OEH action** in relation to the site
- ✓ copies of site audit statements (SAS) provided to OEH under section 52 of the CLM Act and relating to significantly contaminated land.

The record **does not** provide
- ✘ a record of all contaminated land in NSW. See frequently asked questions
- ✘ a list of notifications of contamination that OEH receives.
- ✘ the names of the sites, owners or occupiers if it changes **after OEH action** in relation to the site.
- ✘ some personal information.

... more about the CLM record of notices

From 1 July 2009 there were changes to the terminology of certain OEH actions under the CLM Act. See the list of these changes.

The record includes notices issued under sections 35 and 36 of the Environmentally Hazardous Chemicals Act 1985. These sections have been repealed. These notices are treated by the CLM Act as management orders.

Before using the record of notices see the Disclaimer and terms of use.

As at Friday, 26 April 2019 there are 1577 notices in the record relating to 377 sites.

Show me the entire record or Search the record

26 April 2019

131 555 (tel:131555)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Search results

Your search for:LGA: Blacktown City Council

Matched 9 notices relating to 2 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
KINGS PARK	21 Tattersall ROAD	Former Dow Corning Factory	6 former
SEVEN HILLS	27 Powers ROAD	Australian Waste Oil Refineries	2 current and 1 former

Page 1 of 1

26 April 2019

Search results

Your search for:Suburb: RIVERSTONE

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

26 April 2019

Search results

Your search for:FULL REGISTER

Matched 1577 notices relating to 377 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
PORT KEMBLA	Five Islands ROAD	No 2 Steelworks	4 former
PORT KEMBLA	Military ROAD	Port Kembla Copper Smelter	6 former
PORT KEMBLA	Foreshore Road and Darcy ROAD	Port Kembla Orica	2 current
PORTLAND	Williwa STREET	Blue Circle Southern Cement	2 former
PUNCHBOWL	42-44 Belmore ROAD	Punchbowl Laundry	1 current
PYMBLE	6 Philip MALL	Pymble West Dry Cleaners	1 current
PYRMONT	Pyrmont ROAD	Pyrmont Power Station	7 former
RANDWICK	126-130 Barker STREET	7-Eleven Service Station	8 current and 3 former
RANDWICK	33-37 Carrington ROAD	Service Station, Randwick	4 current
REVESBY	33-35 Violet STREET	Bituminous Products	2 current and 1 former
REVESBY	21 Marigold STREET	Mirotone Pty Ltd	2 current
RHODES	Walker STREET	Former Allied Feeds site	7 former
RHODES	Walker STREET	Former UCAL site	1 current and 54 former
RHODES	Oulton AVENUE	Homebush Bay sediments adjoining former Berger Paint factory	1 current and 11 former
RHODES	Homebush BAY	Homebush Bay Sediments adjoining the former UCAL and Allied Feeds sites	1 current and 4 former
RHODES	Mary STREET	Rhodes Waterside	2 former
ROSE BAY	638 -646 New South Head ROAD	Rose Bay Budget Service station	2 current and 7 former
ROSEBERY	321 Gardeners (Cnr Macquarie St) ROAD	Caltex Rosebery Service Station	2 current
ROSEBERY	395 Gardeners ROAD	Rosebery Service Station	6 former
ROSEHILL	2 Ritchie STREET	2 Ritchie Street, Rosehill	2 former

... 10 11 12 13 14 15 16 17 18 19

26 April 2019

For business and industry

For local government

Contact us

131 555 (tel:131555)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Search results

Your search for: **General Search** with the following criteria

Suburb - Riverstone

returned 55 results

Export to excel

1 of 3 Pages

Search Again

Number	Name	Location	Type	Status	Issued date
1100	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	09 Oct 2000
1011896	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	06 May 2002
1020686	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21 May 2003
1095658	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	12 Dec 2008
1118850	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	02 Sep 2010
1524627	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13 Oct 2014
1573186	A J BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15 Feb 2019
6361	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	09 Jun 2000
1015255	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	02 May 2002
1017861	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 Aug 2002
2550	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	POEO licence	Issued	13 Jun 2000
1027280	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 May 2003
1050914	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	01 Sep 2005
1095910	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 Jan 2009
1519688	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 Jan 2014
13102	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	POEO licence	Issued	12 Jun 2009
1532669	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	04 Aug 2015
4926	AUSTRALIAN WATER TECHNOLOGIES PTY LTD	BANDON ROAD, RIVERSTONE, NSW 2765	POEO licence	Surrendered	24 Jul 2000
1001542	AUSTRALIAN WATER TECHNOLOGIES PTY LTD	BANDON ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	19 Sep 2000
10989	BETTER DRUMS PTY LTD	3/11 EDWARD STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	15 Nov 2000

- 131 555 (tel:131555)
- info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)
- EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Search results

Your search for: **General Search** with the following criteria

Suburb - Riverstone

returned 55 results

Export to excel

2 of 3 Pages

Search Again

Number	Name	Location	Type	Status	Issued date
1021908	BETTER DRUMS PTY LTD	3/11 EDWARD STREET, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	01 Nov 2002
1664	BLACKTOWN CITY COUNCIL	GARFIELD ROAD EAST, RIVERSTONE, NSW 2765	POEO licence	Surrendered	26 Jun 2000
5726	DINGA ENTERPRISES PTY LIMITED	UNIT 4/29-31 HOBART STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	15 Aug 2000
1018797	DINGA ENTERPRISES PTY LIMITED	UNIT 4/29-31 HOBART STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	09 Dec 2002
11620	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	14 Mar 2002
1041409	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	20 Oct 2004
1042040	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	17 Nov 2004
1096075	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21 Jan 2009
1107104	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	08 Feb 2010
1522844	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	18 Jun 2014
1534351	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	28 Jan 2016
1217	HANSON CONSTRUCTION MATERIALS PTY LTD	LOT 48 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	No longer in force	01 May 2000
2701	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	No longer in force	21 Mar 2000
1007047	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	09 Jun 2001
1079609	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 Oct 2007
3085767731	J. T. K. HAULAGE PTY LTD	The Avenue, RIVERSTONE, NSW 2765	Penalty Notice	Issued	31 Jan 2013
1032742	J.M.TYRE RECYCLING PTY LTD	81 RIVERSTONE PARADE, RIVERSTONE, NSW 2765	s.55 Licence Refusal	Issued	26 Nov 2003
6070	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	11 May 2000
1005172	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21 Mar 2001
1049736	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13 Jul 2005

- 131 555 (tel:131555)
- info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)
- EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Search results

Your search for: **General Search** with the following criteria

Suburb - Riverstone

returned 55 results

Export to excel

3 of 3 Pages

Search Again

Number	Name	Location	Type	Status	Issued date
1093178	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	14 May 2009
1107106	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	11 Feb 2010
1117669	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13 Sep 2010
1122844	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16 Feb 2011
1126655	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	06 Apr 2011
1130372	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	11 Jul 2011
1502787	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	05 Dec 2011
1532057	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	01 Sep 2015
5625	ROADMASTER HAULAGE PTY LTD	81 RIVERSTONE PARADE, RIVERSTONE, NSW 2765	POEO licence	Surrendered	23 Oct 2000
11949	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	POEO licence	Issued	23 Jun 2004
1072596	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15 May 2007
1093498	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30 Dec 2008
1096756	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16 Jan 2009
1108622	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15 Jan 2010
1532886	SYDNEYWIDE PIPECLEANING PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	12 Aug 2015

26 April 2019

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Contact us

131 555 (tel:131555)

info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)

EPA Office Locations (https://www.epa.nsw.gov.au/about-us/contact-us/locations)

Background

A strategy to systematically prioritise, assess and respond to notifications under Section 60 of the ***Contaminated Land Management Act 1997*** (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under ***Government Information (Public Access) Act 2009***.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

After receiving a report, the first step is to confirm that the report does not relate to a pollution incident. The *Protection of the Environment Operations Act 1997* (POEO Act) deals with pollution incidents, waste stockpiling or dumping. The EPA also has an **incident management** process to manage significant incidents.

In many cases, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any significant risks for the community or environment. Such sites may still need to be cleaned up, but this can be done in conjunction with any subsequent building or redevelopment of the land. These sites do not require intervention under the CLM Act, and are dealt with through the **planning and development consent process**. In these cases, the EPA informs the local council or other planning authority, so that the information can be recorded and considered at the appropriate time.

Where indications are that the contamination could cause actual harm to the environment or an unacceptable offsite impact (i.e. the land is 'significantly contaminated'), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site. If the reported contamination could present an immediate or long-term threat to human health NSW Health will be consulted. SafeWork NSW and Water NSW can also be consulted if there appear to be occupational health and safety risks or an impact on groundwater quality.

As such, the sites notified to the EPA and presented in the list of contaminated sites notified to the EPA are at various stages of the assessment and remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The list provides an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the person who notified the site.

The following questions and answers may assist those interested in this issue:

Frequently asked questions

What is the difference between the 'List of NSW contaminated sites notified to EPA' and the 'Contaminated Land: Record of Notices'?

A site will be on the **Contaminated Land: Record of Notices** only if the EPA has issued a regulatory notice in relation to the site under the *Contaminated Land Management Act 1997*.

The sites appearing in the list of NSW contaminated sites notified to the EPA indicate that the notifiers consider that the sites are contaminated and warrant reporting to EPA. However, the contamination may or may not be significant enough to warrant regulation by the EPA. The EPA needs to review and, if necessary, obtain more information before it can make a determination as to whether the site warrants regulation.

Why does my site appear on the list?

Your site appears on the list for one or more of the following reasons

- The site owner and/or the person partly or fully responsible for causing the contamination notified the EPA about the contamination under Section 60 of the *Contaminated Land Management Act 1997*. In other words, the site owner or the 'polluter' believes the site is contaminated.
- The EPA has been notified via other means and is satisfied that the site is or was contaminated.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that EPA is aware of, with regard to its regulatory role under the CLM Act. An absence of a site from the list does not necessarily mean the site is not contaminated.

The EPA relies upon responsible parties to notify contaminated sites.

How are notified contaminated sites managed by the EPA?

There are different ways that the EPA manages these notified contaminated sites. First, an initial assessment is carried out by the EPA. At the completion of the initial assessment, the EPA may take one or more than one of the following management approaches:

- The contamination warrants the EPA's direct regulatory intervention either under the *Contaminated Land Management Act 1997* or the *Protection of the Environment Operations Act 1997* (POEO Act), or both. Information about current or past regulatory action on this site can be found on the EPA website.
- The contamination with respect to the current use or approved use of the site, as defined under the *Contaminated Land Management Act 1997,* is not significant enough that it warrants EPA regulation.
- The contamination does not require EPA regulation and can be managed by a planning approval process.
- The contamination is related to an operational underground petroleum storage system, such as a service station or fuel depot. The contamination may be managed under the POEO Act and the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.

Note: There are specific instances where contamination is managed under a specifically tailored program operated by another agency. For example the **Division of Resources & Geoscience's Derelict Mines Program** and the **NSW DPI Cattle tick dip site locator**.

The Legacy contamination management procedures for these sites will be detailed in a Memorandum of Understanding between the NSW EPA, NSW Resources and Energy and Dept. Primary Industries (Crown Lands and Biosecurity) (Note: the MoU is currently in draft).

I am the owner of a site that appears on the list. What should I do?

First of all, you should ensure the current use of the site is compatible with the site contamination. Secondly, if the site is the subject of EPA regulation, make sure you comply with the regulatory requirements, and you have considered your obligations to notify other parties who may be affected.

If you have any concerns, contact us and we may be able to offer you general advice, or direct you to accredited professionals who can assist with specific issues.

I am a prospective buyer of a site that appears on the list. What should I do?

You should seek advice from the vendor to put the contamination issue into perspective. You may need to seek independent expert advice.

The information provided in the list, particularly the EPA site management class, is meant to be indicative only, and a starting point for your own assessment. Site contamination as a legacy of past site uses is not uncommon, particularly in an urban environment. If the contamination on a site is properly remediated or managed, it may not materially impact upon the intended future use of the site. However, each site needs to be considered in context.

Who can I contact if I need more information about a site?

If you have questions about a site on the list of sites notified to the EPA you can contact the Environment Line at any time. By phone: 131 555 or by email: info@environment.nsw.gov.au

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or *Protection of the Environment Operations Act 1997*.
Under Preliminary Investigation Order	The EPA has issued a Preliminary Investigation Order under s10 of the *Contaminated Land Management Act 1997*, to obtain additional information needed to complete the assessment.
Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the *Contaminated Land Management Act 1997* is not required.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the

	Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	Contamination is currently regulated under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA as *the appropriate regulatory authority* reasonably suspects that a pollution incident is occurring/ has occurred and that it requires regulation under the POEO Act. The EPA may use environment protection notices, such as clean up notices, to require clean up action to be taken. Such regulatory notices are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the *Environmental Planning and Assessment Act 1979* (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the *Contaminated Land Management Act 1997* (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the *Protection of the Environment Operations Act 1997* (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the *Contaminated Land Management Act 1997* (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ABBOTSFORD	Former Gasworks	83 Wymston PARADE	Gasworks	Contamination formerly regulated under the CLM Act	-33.85288351	151.1265979
ABBOTSFORD	Former Gasworks	82, 83, 84 Wymston Pde, & 37, 39, 43, 45 St Albans STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.85288316	151.1267729
ABBOTSFORD	Former Gasworks	85 Wymston PARADE	Gasworks	Regulation under CLM Act not required	-33.85265214	151.1266277
ABBOTSFORD	Former Gasworks	80-81 Wymston Pde and 35 and 41 St Albans STREET	Gasworks	Regulation under CLM Act not required	-33.85306653	151.1268142
ABBOTSFORD	Former Gasworks	43 St Albans STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.85270604	151.126976
ABERDEEN	Former Transport Depot	87-89 St Andrew STREET	Other Industry	Regulation under CLM Act not required	-32.17160931	150.8972859
ALBION PARK	Caltex Albion Park Service Station	1 Calderwood ROAD	Service Station	Regulation under CLM Act not required	-34.57131362	150.7647971
ALBION PARK RAIL	Caltex Service Station	174 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.56134097	150.7953663
ALBION PARK RAIL	Caltex Service Station	31 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.55162786	150.7880626
ALBION PARK RAIL	Former Timber Storage Area	36 Rivulet CRESCENT	Other Industry	Regulation under CLM Act not required	-34.54872597	150.7899351
ALBURY	Mobil Depot, Railway Place Albury	1 Railway PLACE	Other Petroleum	Regulation under CLM Act not required	-36.08526805	146.9236999
ALBURY	Woolworths Petrol	515 Young STREET	Service Station	Regulation under CLM Act not required	-36.08073723	146.92351
ALBURY	Former Caltex Service Station	842 David STREET	Service Station	Regulation under CLM Act not required	-36.06398743	146.9252143
ALBURY	SRA Land, 514 to 526 Young Street	514 to 526 Young STREET	Other Petroleum	Regulation under CLM Act not required	-36.08084123	146.9241682
ALBURY	Former Gasworks and surrounding commercial land.	441 Kiewa STREET	Gasworks	Contamination currently regulated under CLM Act	-36.08357983	146.9137004
ALBURY	Coles Express Albury	465 Guinea STREET	Service Station	Regulation under CLM Act not required	-36.07513665	146.9213077
ALBURY	Former Thales Australia site, Albury	161 Fallon STREET	Other Industry	Contamination currently regulated under CLM Act	-36.064966	146.9434831
ALBURY	Xpress Service Station	616-624 Young STREET	Service Station	Contamination formerly regulated under the CLM Act	-36.07555262	146.9256466
ALBURY	Albury Plaza	Cnr Smollett Street and Townsend STREET	Other Industry	Regulation under CLM Act not required	-36.08112933	146.9135719
ALBURY	Mobil Albury Aviation Fuel Depot	Hangar 8 (Albury Airport), Ogden PLACE	Other Petroleum	Regulation under CLM Act not required	-36.07178139	146.9530165
ALBURY	SRA Land	448 and 452 Young STREET	Unclassified	Regulation under CLM Act not required	-36.08438605	146.9235454
ALBURY	Caltex Service Station	Dean Street, Corner Creek STREET	Service Station	Regulation under CLM Act not required	-36.07978937	146.9110825

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ALEXANDRIA	Former Mobil Service Station	20 O'Riordan STREET	Service Station	Regulation under CLM Act not required	-33.9075539	151.2014811
ALEXANDRIA	Caltex Alexandria Service Station	133 Wyndham St, cnr McEvoy STREET	Service Station	Regulation under CLM Act not required	-33.90220927	151.2000425
ALEXANDRIA	Former Cadbury Schweppes	49-59 O'Riordan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.91406619	151.195067
ALEXANDRIA	Formerly Gas N Go Alexandria (fully redeveloped into residential	10-20 Botany ROAD	Service Station	Under preliminary investigation order	-33.895363	151.198779
ALEXANDRIA	Mascot Developments	494-504 Gardeners ROAD	Other Industry	Regulation under CLM Act not required	-33.9198218	151.191282
ALEXANDRIA	Alexandria GoGas	562 Botany ROAD	Service Station	Regulation under CLM Act not required	-33.91577222	151.2000753
ALEXANDRIA	Australian Refined Alloys	202-212 Euston ROAD	Metal Industry	Regulation under CLM Act not required	-33.91505136	151.185872
ALEXANDRIA	Alexandra Canal Sediments	Off Huntley STREET	Unclassified	Contamination currently regulated under CLM Act	-33.92204213	151.1770009
ALEXANDRIA	Australia Post	10-24 Ralph STREET	Other Industry	Contamination was addressed via the planning process (EP&A Act)	-33.91583041	151.197997
ALEXANDRIA	Perry Park	1B Maddox STREET	Landfill	Regulation under CLM Act not required	-33.90809949	151.1962945
ALEXANDRIA	Alexandria Gardens	146-156 Wyndham Street & 146-156 Botany ROAD	Unclassified	Regulation under CLM Act not required	-33.89956961	151.1997377
ALEXANDRIA	Sydney Park	Sydney Park, Alexandria ROAD	Landfill	Contamination currently regulated under CLM Act	-33.91163421	151.1840827
ALEXANDRIA	Former Industrial Site (now Value Suites)	16 O'Riordan STREET	Other Industry	Regulation under CLM Act not required	-33.9069796	151.201902
ALEXANDRIA	The Gentry Alexandria - 31 to 41 William St.	31-41 William STREET	Unclassified	Regulation under CLM Act not required	-33.91288033	151.1980106
ALSTONVILLE	Caltex Service Station Alstonville	73 Main STREET	Service Station	Regulation under CLM Act not required	-28.84115994	153.4388699
AMBARVALE	Caltex Service Station	37 Woodhouse DRIVE	Service Station	Regulation under CLM Act not required	-34.08438034	150.8019168
ANNANDALE	7-Eleven (former Mobil) Annandale Service Station	198 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.88706434	151.1741135
ANNANDALE	Shell Coles Express Service Station	124-126 Johnston STREET	Service Station	Regulation under CLM Act not required	-33.88085651	151.1704805
APPIN	Elladale Creek Aqueduct Upper Canal	Macquariedale ROAD	Unclassified	Regulation under CLM Act not required	-34.18867067	150.7539597
APPIN	West Cliff Colliery	Wedderburn ROAD	Other Petroleum	Regulation under CLM Act not required	-34.21970612	150.8217522
ARDLETHAN	Landmark Fertiliser Storage Facility	18 & 24-26 Ariah STREET	Chemical Industry	Regulation under CLM Act not required	-34.35696645	146.9007084
ARGENTON	NSW Mines Rescue Services - Argenton	533 Lake ROAD	Other Industry	Regulation under CLM Act not required	-32.93807208	151.6269664

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ARMIDALE	Former Mobil Depot	132 Niagara STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.51115918	151.6490343
ARMIDALE	Caltex Service Station	146 Miller STREET	Service Station	Regulation under CLM Act not required	-30.51362759	151.6481123
ARMIDALE	RTA land adjoining Martin Street estate	adjoining Martin STREET	Other Industry	Contamination formerly regulated under the CLM Act	-30.5045	151.6433
ARMIDALE	Shell Service Station	93 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.51299824	151.6697557
ARMIDALE	Parklands near the former gasworks	Beardy Street and Allingham STREET	Gasworks	Regulation under CLM Act not required	-30.51013465	151.6652722
ARMIDALE	Gasworks and portion of Harris Park	Corner of Beardy Street and Allingham STREET	Gasworks	Contamination currently regulated under CLM Act	-30.51157406	151.6623073
ARMIDALE	Martin Street Estate, Lot 3	Lot 3 Martin STREET	Other Industry	Regulation under CLM Act not required	-30.5066659	151.6453692
ARMIDALE	Martin Street Estate	Martin STREET	Other Industry	Regulation under CLM Act not required	-30.50559024	151.6431854
ARMIDALE	Caltex Armidale Girraween Service Station	6-8 Queen Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-30.50348872	151.6510748
ARMIDALE	Martin Street, Crown Land	Martin STREET	Other Industry	Contamination formerly regulated under the CLM Act	-30.50414076	151.6429516
ARMIDALE	Former Shell Depot	134 Niagara STREET	Other Petroleum	Regulation under CLM Act not required	-30.51180178	151.6488634
ARMIDALE	Caltex Service Station	144 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.51709925	151.6675802
ARMIDALE	Caltex North Hill Service Station	2-4 Marsh STREET	Service Station	Regulation under CLM Act not required	-30.50320439	151.6727051
ARMIDALE	Mobil Armidale Service Station and Former Depot	10-12 McLennan STREET	Service Station	Regulation under CLM Act not required	-30.51107573	151.648242
ARMIDALE	Caltex Service Station	19/10541 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-30.53210764	151.6160492
ARMIDALE	Armidale Dumaresq Council Grafton Road Depot	15-25 Grafton ROAD	Other Petroleum	Regulation under CLM Act not required	-30.52058076	151.6815261
ARNCLIFFE	7-Eleven Arncliffe	28 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.93428397	151.1525438
ARTARMON	7-Eleven (former Mobil) Artarmon Service Station	477 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.81053826	151.1774248
ASHBY	Ashby Dry Dock	via Clarence STREET	Other Industry	Contamination formerly regulated under the CLM Act	-29.44158377	153.1972304
ASHFIELD	Vehicle Workshop	445-449 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88826829	151.1167477
ASQUITH	BP Service Station	462 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.68982678	151.106156
ATTUNGA	Attunga Limestone Mine (Waste Oil Site)	Garthowen ROAD	Other Industry	Regulation under CLM Act not required	-30.92920627	150.8579435

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
AUBURN	DIC Australia	323 Chisholm ROAD	Other Industry	Regulation under CLM Act not required	-33.87228962	151.0157032
AUBURN	Former Ajax chemical factory	9 Short STREET	Other Industry	Contamination currently regulated under CLM Act	-33.83671601	151.0292071
AUBURN	Janyon	Manchester ROAD	Other Industry	Regulation under CLM Act not required	-33.84467826	151.020745
AUBURN	Maintrain Facility - Sydney Trains Auburn	Manchester ROAD	Other Industry	Regulation under CLM Act not required	-33.84410947	151.0242502
AUBURN	Department of Corrective Services land adjacent to the former	Jamieson STREET	Landfill	Contamination formerly regulated under the CLM Act	-33.82928257	151.0590653
AWABA	Awaba Colliery	Wilton ROAD	Other Industry	Regulation under CLM Act not required	-33.02098186	151.5383612
BALGOWLAH	BP Service Station	Cnr Sydney Road and Maretimo STREET	Service Station	Regulation under CLM Act not required	-33.79546175	151.2559309
BALGOWLAH	Part of Manly Council Maintenance Depot	8-10 Roseberry STREET	Other Petroleum	Regulation under CLM Act not required	-33.78928907	151.2679557
BALGOWNIE	Fuel Power Plus	99 Balgownie ROAD	Service Station	Under assessment	-34.38925632	150.8808544
BALLINA	Former Mobil Service Station	37-41 Cherry STREET	Service Station	Regulation under CLM Act not required	-28.87022308	153.5620713
BALLINA	Ballina Shell	273 River STREET	Service Station	Regulation under CLM Act not required	-28.86809272	153.5552789
BALLINA	Woolworths Petrol	Kerr STREET	Service Station	Regulation under CLM Act not required	-28.85824461	153.5605439
BALLINA	Ballina Mays Motors	River STREET	Other Petroleum	Regulation under CLM Act not required	-28.86935402	153.5585931
BALRANALD	Caltex Service Station	Sturt HIGHWAY	Service Station	Regulation under CLM Act not required	-34.66747746	143.5662034
BANKSIA	Woolworths Petrol Service Station Banksia	314 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.94567308	151.1416884
BANKSIA	Cooks Cove Development	Cooks Cove PARK	Landfill	Under assessment	-33.948464	151.153128
BANKSMEADOW	Orica Botany Groundwater Project	16-20 Beauchamp ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.9552673	151.2151954
BANKSMEADOW	Discovery Cove, Former Ampol Rail Terminal	1801 Botany ROAD	Other Petroleum	Regulation being finalised	-33.96162178	151.2184122
BANKSMEADOW	Caltex Terminal	1-3 Penrhyn ROAD	Other Petroleum	Contamination currently regulated under POEO Act	-33.96335328	151.2171062
BANKSMEADOW	Orica Botany (Pre-2003 Regulation)	Port Feeder ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.9516159	151.2195804
BANKSMEADOW	Veolia Waste Transfer Terminal (former Keith Engineering site)	34-36 McPherson STREET	Other Industry	Under assessment	-33.95811039	151.2195225
BANKSMEADOW	Orica Former Chlor Alkali Plant	Botany Industrial Park, off Denison STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.95664283	151.221685

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BANKSMEADOW	Former Pipeline	Corish CIRCLE	Other Petroleum	Regulation being finalised	-33.94705787	151.2209919
BANKSMEADOW	Pacific National Rail Siding	1 Beauchamp ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.95757712	151.2204974
BANKSMEADOW	Former Mobil Banksmeadow Terminal	Coal Pier ROAD	Other Petroleum	Regulation under CLM Act not required	-33.95405624	151.2142048
BANKSMEADOW	Orica Car Park Waste Encapsulation	Corish CIRCLE	Landfill	Contamination formerly regulated under the POEO Act	-33.94703665	151.22083
BANKSTOWN	7-Eleven Service Station	689 Henry Lawson DRIVE	Service Station	Regulation under CLM Act not required	-33.92749953	150.9804784
BANORA POINT	Caltex Service Station	Corner Leisure Drive and Darlington DRIVE	Service Station	Regulation under CLM Act not required	-28.21390712	153.5417434
BARGO	Tahmoor Colliery	Remembrance DRIVE	Other Industry	Regulation under CLM Act not required	-34.25090795	150.5793631
BARMEDMAN	Caltex - Barmedman	Corner Watson Street and Star STREET	Other Petroleum	Regulation under CLM Act not required	-34.14351302	147.3824934
BARRACK HEIGHTS	Caltex Service Station	332-336 Shellharbour ROAD	Service Station	Regulation under CLM Act not required	-34.56489171	150.8597814
BATEAU BAY	Former landfill	The Entrance ROAD	Landfill	Contamination currently regulated under CLM Act	-33.3938305	151.4699046
BATEAU BAY	Woolworths Service Station Bateau Bay	9 Bay Village ROAD	Service Station	Regulation under CLM Act not required	-33.37316432	151.4737125
BATEHAVEN	Caltex Service Station	264 Beach ROAD	Service Station	Regulation under CLM Act not required	-35.73255166	150.1997536
BATEHAVEN	Coles Express Service Station Batehaven	198 Beach ROAD	Service Station	Regulation under CLM Act not required	-35.72671807	150.1944931
BATEMANS BAY	Caltex Service Station	87-89 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.71940701	150.1762788
BATHURST	Shell Coles Express Service Station	(Cnr Stewart and Rocket Street) 298 Stewart STREET	Service Station	Regulation under CLM Act not required	-33.41910999	149.5677773
BATHURST	Former Shell Depot Bathurst	56 Bant STREET	Other Petroleum	Regulation under CLM Act not required	-33.43471575	149.5774595
BATHURST	Bathurst Rail Fabrication Centre	34 Alpha STREET	Other Industry	Regulation under CLM Act not required	-33.43037796	149.5821533
BATHURST	Bathurst - Former Caltex Depot	114 Howick STREET	Other Petroleum	Regulation under CLM Act not required	-33.42296963	149.5862574
BATHURST	Caltex Bathurst Service Station	53 Durham STREET	Service Station	Regulation under CLM Act not required	-33.41689545	149.5848527
BATHURST	Former Police Station	Corner of William Street and Durham STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.41592424	149.5842233
BATHURST	Former Mobil Depot	1 Lambert STREET	Other Petroleum	Regulation under CLM Act not required	-33.42875534	149.5806344
BATHURST	Crago Mill site	Piper STREET	Other Industry	Regulation under CLM Act not required	-33.42777602	149.5809428

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BATHURST	Former Mobil Depot	Lower Russell STREET	Other Petroleum	Regulation under CLM Act not required	-33.42497876	149.585128
BATHURST	Shell Coles Express Bathurst Service Station	59 Durham STREET	Service Station	Regulation under CLM Act not required	-33.41639415	149.5843243
BATHURST	Former Gasworks	71 Russell STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.42420302	149.5864517
BATHURST	Devro Cattle Hide Processing Plant	46 Vale ROAD	Other Industry	Regulation under CLM Act not required	-33.43926137	149.5803563
BAULKHAM HILLS	Caltex Baulkham Hills Service Station	117 Seven Hills ROAD	Service Station	Regulation under CLM Act not required	-33.76139872	150.9750767
BAULKHAM HILLS	Caltex Service Station	130 Seven Hills ROAD	Service Station	Regulation under CLM Act not required	-33.76180431	150.9746297
BAULKHAM HILLS	Shell Coles Express Service Station	363 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.7601819	150.9916224
BEACON HILL	Caltex Service Station	176 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.75381485	151.2602617
BEACON HILL	Former 7 - Eleven Service Station, Beacon Hill	312 Warringah ROAD	Service Station	Regulation under CLM Act not required	-33.7515497	151.2469442
BEACONSFIELD	63-85 Victoria St, Beaconsfield	63-85 Victoria STREET	Other Industry	Regulation under CLM Act not required	-33.9102929	151.2016275
BEGA	Coles Express (former Caltex) Service Station	2-6 Swan (Corner Carp) STREET	Service Station	Regulation under CLM Act not required	-36.67388263	149.838163
BEGA	Former BP Service Station	100 - 102 Gipps STREET	Service Station	Regulation under CLM Act not required	-36.67563094	149.8433291
BEGA	Former Bega Gasworks	19-29 Upper STREET	Gasworks	Under preliminary investigation order	-36.67710613	149.8480253
BEGA	Caltex Service Station	36-40 Lagoon STREET	Service Station	Regulation under CLM Act not required	-36.66832965	149.8289048
BEGA	Lands Adjoining the Former Bega Gasworks	Part of Upper, East, Gordon & Gloucester STREET	Gasworks	Under preliminary investigation order	-36.67710613	149.8480253
BEGA	Spenco Site - owned by Bega Spotlight Property 2 Pty Ltd	53-65 Bega Street STREET	Other Industry	Under assessment	-36.67135539	149.8450828
BELMONT	Coles Express Belmont Service Station	502 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.03317155	151.6605194
BELMONT	Former Ampol Service Station	467-469 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.0299728	151.6613301
BELMONT NORTH	Woolworths Service Station Belmont North	399 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.02454211	151.6634893
BELMONT NORTH	Caltex Belmont North Service Station	406 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.02476876	151.6623655
BELMONT NORTH	Belmont Bus Depot	2 Floraville ROAD	Other Petroleum	Regulation under CLM Act not required	-33.02476269	151.6606657
BELMORE	SRA Land	348 Burwood ROAD	Unclassified	Regulation under CLM Act not required	-33.91753611	151.0859487

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BELMORE	7-Eleven Service Station	792-794 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.92567992	151.0873469
BELROSE	Glenrose Shopping Centre	56-58 Glen STREET	Unclassified	Contamination currently regulated under CLM Act	-33.73917996	151.2101029
BELROSE	Woolworths Petrol	60 Glen STREET	Service Station	Regulation under CLM Act not required	-33.74009002	151.2091045
BELROSE	Caltex Service Station	157 Forest WAY	Service Station	Regulation under CLM Act not required	-33.7347675	151.2212004
BENNETTS GREEN	Former Windale Wastewater Treatment Works	8 Templar PLACE	Other Industry	Regulation under CLM Act not required	-33.00317523	151.6936636
BERESFIELD	BP Beresfield Truckstop	2 Kinta Drive, corner John Renshaw DRIVE	Service Station	Regulation under CLM Act not required	-32.81122768	151.6393427
BERESFIELD	Former Koppers Timber Treatment Site	53 Weakleys DRIVE	Other Industry	Regulation under CLM Act not required	-32.79902937	151.6358846
BERKELEY VALE	Former Berkeley Vale Service Station	121-123 Lakedge AVENUE	Service Station	Regulation under CLM Act not required	-33.34899186	151.4423109
BERKSHIRE PARK	Shell Coles Express Berkshire Park	746 - 752 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.66508654	150.7990243
BEROWRA	Caltex Berowra Service Station	12-14 Berowra Waters ROAD	Service Station	Regulation under CLM Act not required	-33.6233827	151.1505554
BEROWRA	7-Eleven Berowra Service Station	965-969 Pacific (Cnr Waratah Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-33.62673163	151.1479171
BEROWRA	Shell Coles Express Berowra	955 Pacific (Cnr Yallambee Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-33.62818015	151.1475736
BEROWRA	42 Berowra Waters Road	42 Berowra Waters ROAD	Unclassified	Regulation under CLM Act not required	-33.6203211	151.1482454
BERRIGAN	Caltex Service Station Berrigan	155-165 Chanter STREET	Service Station	Regulation under CLM Act not required	-35.6557616	145.8015557
BERRY	Berry Service Centre - Shell Branded	88 Queen STREET	Service Station	Regulation under CLM Act not required	-34.77571634	150.6961713
BERRY	Shell Berry - Now Oleum branded	75 Queen STREET	Service Station	Contamination currently regulated under POEO Act	-34.77500516	150.695167
BEXLEY	7-Eleven Bexley	474 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.95160096	151.1252355
BEXLEY	7-Eleven (former Mobil) Service Station Bexley	613 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.95539246	151.118447
BILLINUDGEL	CSR Readymix	Mogo PLACE	Other Industry	Regulation under CLM Act not required	-28.50210255	153.5278161
BILLINUDGEL	Billinudgel General Store	2A Wilfred STREET	Service Station	Under assessment	-28.50435	153.52701
BLACKMANS FLAT	Mount Piper Extension Development Site	2847 Boulder ROAD	Other Industry	Regulation under CLM Act not required	-33.35619968	150.0279881
BLACKMANS FLAT	Lamberts Gully Mine	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.36713827	150.0483236

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BLACKTOWN	Former Caltex Service Station	131 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.75866104	150.8962614
BLACKTOWN	Valspar Blacktown	4 Steel STREET	Chemical Industry	Regulation under CLM Act not required	-33.75425018	150.9127714
BLACKTOWN	Land at Reservoir Road	Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.79119448	150.8967838
BLACKTOWN	7-Eleven Service Station	60 Walters ROAD	Service Station	Regulation under CLM Act not required	-33.77599783	150.8948926
BLAKEHURST	Woolworths Service Station Blakehurst	390 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.990197	151.11361
BLAKEHURST	The Bay Nursing Home	392-394 Princes HIGHWAY	Service Station	Under assessment	-33.99030465	151.1140293
BLAXLAND	7-Eleven (former Mobil) Service Station	137 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.74627	150.6137669
BOAMBEE	Lindsay Bros transport depot site	542 Pacific HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-30.33106848	153.0802985
BOAMBEE	BP-branded (former Mobil) Boambee Service Station	601 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.33544287	153.0817266
BOBS FARM	Bob's Farm	15 Fenningham Island ROAD	Other Industry	Regulation under CLM Act not required	-32.74867207	152.0316217
BOGGABILLA	Former Caltex Service Station	90 Simpson Street, corner Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-28.60654029	150.3571056
BOGGABILLA	Lowes (Former Mobil) Depot	Newell HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-28.61023985	150.3529156
BOMADERRY	Caltex Service Station	341 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.84561952	150.5946978
BOMADERRY	Caltex Service Station Bomaderry	246 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.83833824	150.5958799
BOMADERRY	Former Mobil Emoleum Depot	7 Victa WAY	Other Petroleum	Regulation under CLM Act not required	-34.84454618	150.6139462
BOMADERRY	Former Shell Depot	44 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-34.85193621	150.6117038
BOMADERRY	SRA Land	Lot 2 Meroo STREET	Unclassified	Regulation under CLM Act not required	-34.85314813	150.6099573
BOMADERRY	Bomaderry Works Depot	10 McIntyre WAY	Other Petroleum	Regulation under CLM Act not required	-34.84576748	150.6131411
BOMADERRY	Commercial Land	320 Princes HIGHWAY	Other Industry	Contamination currently regulated under CLM Act	-34.84424073	150.5958149
BOMBALA	Caltex Service Station Bombala	159-161 Maybe STREET	Service Station	Regulation under CLM Act not required	-36.91234945	149.2374622
BOMBALA	Former Bright Street Timber Mill	Bright STREET	Other Industry	Regulation under CLM Act not required	-36.91547645	149.2302454
BOMBALA	Caltex Bombala Service Station	High Street corner Stephen STREET	Service Station	Regulation under CLM Act not required	-36.90447935	149.241292

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BOMBALA	Prime Pine site	Sandy LANE	Other Industry	Regulation under CLM Act not required	-36.9315425	149.2110959
BOMEN	Caltex Terminal	34 Lewington STREET	Other Petroleum	Regulation under CLM Act not required	-35.0700202	147.4121955
BONDI	BP-branded Service Station	185 Bondi ROAD	Service Station	Regulation under CLM Act not required	-33.89432208	151.2647671
BONDI	Caltex Service Station Bondi	51 Bondi ROAD	Service Station	Regulation under CLM Act not required	-33.8936307	151.260001
BONDI JUNCTION	Waverley Bus Depot	1-15 Oxford STREET	Other Industry	Regulation under CLM Act not required	-33.89165341	151.2421246
BONNY HILLS	Bonny View Store	923 Ocean DRIVE	Service Station	Regulation under CLM Act not required	-31.59075636	152.8392935
BONNYRIGG	Metro (Formerly United & AP SAVER) Service Station Bonnyrigg	709 Cabramatta Road West ROAD	Service Station	Under preliminary investigation order	-33.893058	150.892476
BONNYRIGG HEIGHTS	BP-Branded Service Station Bonnyrigg	451 North Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.89416327	150.8578378
BOOLAROO	Cardiff West Estate - Pasminco Cockle Creek	Adjacent to PCC Smelter at 13A Main ROAD	Metal Industry	Regulation under CLM Act not required	-32.93950137	151.6349183
BOOLAROO	Cockle Creek and Cockle Bay Sediments	Off Creek Reserve ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.96079541	151.6141327
BOOLAROO	Pasminco Cockle Creek Smelter	Lake ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.94434593	151.6307345
BOOLAROO	Incitec Pivot	13 Main STREET	Other Industry	Contamination formerly regulated under the CLM Act	-32.94803538	151.6302187
BOOLAROO	Bunnings Site - Pasminco Cockle Creek	13a Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94364503	151.6252316
BOOLAROO	Part Lot 2 DP1127713 (proposed Lot G) - Pasminco Cockle Creek	13a Main ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-32.94364503	151.6252316
BOOLAROO	Lot 600 DP1228699 (formerly Part Lot 2 DP1127713 & proposed 'Lot	Main ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.944397	151.626397
BOOROWA	Former Mobil Depot	14-16 Brial STREET	Other Petroleum	Regulation under CLM Act not required	-34.43673234	148.7300821
BOOROWA	Mobil Service Station	63-69 Marsden STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.44157331	148.7162391
BOTANY	Former Aerosols of Australia	1617 Botany ROAD	Chemical Industry	Regulation under CLM Act not required	-33.9529386	151.2037468
BOTANY	Nuplex Resins	49-61 Stephen ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.952588	151.21101
BOTANY	Former Tannery	2 Daniel STREET	Other Industry	Regulation under CLM Act not required	-33.94126194	151.1991087
BOTANY	Botany, Underwood	14a Underwood AVENUE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.94508532	151.1947626
BOTANY	Roads and Maritime Service	5 - 9 Lord STREET	Other Industry	Regulation under CLM Act not required	-33.94100279	151.1968763

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BOTANY	Former Industrial Site	28 Folkestone PARADE	Unclassified	Contamination being managed via the planning process (EP&A Act)	-33.95187539	151.1960537
BOURKE	Caltex Service Station	82-86 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09500388	145.9414388
BOURKE	Former Shell Bourke Depot	94-106 Anson STREET	Service Station	Regulation under CLM Act not required	-30.09548497	145.9436745
BOWENFELS	Bowenfels Field Support Centre	9-13 Cooerwull ROAD	Other Petroleum	Regulation under CLM Act not required	-33.47514572	150.1323899
BOWRAL	Shell Coles Express Bowral Service Station	430 Bong Bong STREET	Service Station	Regulation under CLM Act not required	-34.48269596	150.417389
BOWRAL	Former Gasworks	Merrigang STREET	Gasworks	Contamination currently regulated under CLM Act	-34.4783957	150.4255053
BOX HILL	Former Waste Management Facility	25 Terry ROAD	Landfill	Regulation under CLM Act not required	-33.65559259	150.8977986
BOX HILL	Former Poultry Farm	27-33 Boundary ROAD	Other Industry	Regulation under CLM Act not required	-33.64866563	150.8815467
BOX HILL	Former Poultry Farm	19-25 Boundary ROAD	Other Industry	Under assessment	-33.64975248	150.8819725
BRANXTON	Former Service Station Branxton	Part of 70 Maitland STREET	Service Station	Under preliminary investigation order	-32.65647051	151.3516199
BRANXTON	Branxton Wastewater Treatment Works	2151 New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.66069944	151.3625572
BREWARRINA	Dowell's Fuel	39 Doyle STREET	Service Station	Regulation under CLM Act not required	-29.96152786	146.8612561
BRIGHTON-LE-SANDS	Shell Service Station Brighton Le Sands & adjacent land	2 General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.9579214	151.1578665
BRIGHTON-LE-SANDS	Cook Park	General Holmes DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-33.9581072	151.1579572
BROADMEADOW	Former Industrial Site	16 Broadmeadow ROAD	Service Station	Regulation under CLM Act not required	-32.91444096	151.7300112
BROADMEADOW	Nineways Broadmeadow Coles Express SS	Corner Brunker Road and Lambton ROAD	Service Station	Regulation under CLM Act not required	-32.92511185	151.7364247
BROKEN HEAD	South Byron Sewage Treatment Works	Broken Head ROAD	Other Industry	Regulation under CLM Act not required	-28.67233626	153.6148974
BROKEN HILL	Former Caltex Depot	3 Kanandah ROAD	Service Station	Regulation under CLM Act not required	-31.98341823	141.4332211
BROKEN HILL	Former Caltex Service Station	167-173 Argent STREET	Service Station	Regulation under CLM Act not required	-31.96066663	141.4624175
BROKEN HILL	Caltex Service Station	535 Argent STREET	Service Station	Regulation under CLM Act not required	-31.95311924	141.4745274
BROKEN HILL	Tasco Petroleum (Former Mobil) Depot	5 Kanandah ROAD	Other Petroleum	Regulation under CLM Act not required	-31.9843986	141.4329127
BROKEN HILL	Former Mobil Aviation Refuelling Facility, Broken Hill Airport	Airport ROAD	Other Petroleum	Regulation under CLM Act not required	-31.99928312	141.4685759

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BROKEN HILL	Caltex Service Station	73-87 Oxide STREET	Service Station	Contamination formerly regulated under the CLM Act	-31.95519591	141.4658647
BROKEN HILL	Former Mobil Depot	Corner Of Talc Street and Gossan STREET	Other Petroleum	Regulation under CLM Act not required	-31.96018102	141.4514752
BROKEN HILL	Former Gasworks	Cornish STREET	Gasworks	Contamination formerly regulated under the CLM Act	-31.96330562	141.4470611
BROOKLYN	Former Oyster Farm	139 Brooklyn (Off Government) ROAD	Unclassified	Regulation under CLM Act not required	-33.54716867	151.2229744
BROOKVALE	Coles Express Service Station Brookvale	198 Harbord ROAD	Service Station	Regulation under CLM Act not required	-33.76332299	151.2794028
BROOKVALE	Woolworths Petrol Brookvale	756 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.76170587	151.2762411
BROOKVALE	Caltex Service Station Brookvale	740-742 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.76146721	151.2745358
BROOKVALE	Harrison Manufacturing	75 Old Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.76497282	151.2637961
BROOKVALE	Brookvale Bus Depot	630-636 Pittwater ROAD	Other Petroleum	Regulation under CLM Act not required	-33.76641698	151.2705659
BROOKVALE	Warringah Mall	Cnr Condamine Street, Old Pittwater Rd & Cross STREET	Other Industry	Regulation under CLM Act not required	-33.76729923	151.2657272
BROOKVALE	Littles Dry Cleaning	123 Old Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.76759121	151.2625932
BROWNSVILLE	Caltex Service Station	342 Kanahooka ROAD	Service Station	Regulation under CLM Act not required	-34.48591734	150.8064373
BRUNSWICK HEADS	Caltex Service Station	5 Tweed STREET	Service Station	Regulation under CLM Act not required	-28.5381619	153.5487135
BUDGEWOI	Colongra Power Station	Off Scenic DRIVE	Other Industry	Under assessment	-33.21463137	151.5529338
BULAHDELAH	Caltex Service Station	8 Red Gum Road, Corner Mahogany STREET	Service Station	Regulation under CLM Act not required	-32.39837094	152.2106015
BULAHDELAH	Former Caltex Service Station	53-59 Bulahdelah WAY	Service Station	Regulation under CLM Act not required	-32.40721638	152.2110291
BULAHDELAH	BP-branded (former Mobil) Service Station	73-75 Bulahdelah WAY	Service Station	Regulation under CLM Act not required	-32.40971018	152.2105785
BULLABURRA	Former Burmah Bullaburra Service Station	367 - 369 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.72482995	150.4124537
BULLI	Scrap Yard	7 Molloy STREET	Other Industry	Contamination formerly regulated under the CLM Act	-34.33663195	150.9131154
BULLI	Bulli Brickworks	Quilkey PLACE	Other Industry	Regulation under CLM Act not required	-34.33263113	150.9086247
BUNGENDORE	Former Timber Treatment Plant	Corner King Street and Butmaroo STREET	Other Industry	Contamination formerly regulated under the CLM Act	-35.26151273	149.4434907
BURONGA	Caltex Service Station	Sturt Hwy Cnr Silver City HIGHWAY	Service Station	Regulation under CLM Act not required	-34.17056496	142.1813847

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
BURWOOD	Burwood STA Depot	Cnr Shaftesbury and Parramatta ROADS	Other Industry	Contamination formerly regulated under the CLM Act	-33.86982934	151.1089057
BYRON BAY	Residential Development	Lot 15 Seaview STREET	Unclassified	Regulation under CLM Act not required	-28.65214464	153.6165573
BYRON BAY	Butler Street Reserve Byron Bay	Butler STREET	Landfill	Under preliminary investigation order	-28.6434329	153.6101099
CABARITA	Dulux (Orica Australia)	Cabarita ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.84643972	151.1157115
CABARITA	Cabarita Wellcome	47 and 48 Phillips STREET	Other Industry	Ongoing maintenance required to manage residual contamination	-33.85250251	151.1176366
CABRAMATTA	Caltex Service Station Cabramatta	168 John STREET	Service Station	Regulation under CLM Act not required	-33.89422314	150.9279279
CABRAMATTA	Cabramatta Creek	17 A and 19A Liverpool Street STREET	Unclassified	Regulation under CLM Act not required	-33.90282	150.941563
CALGA	Former service station	101 Peats Ridge ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.37592138	151.2254951
CALLALA BEACH	Callala Beach General Store	(formerly 1 Quay Rd) 114A Quay ROAD	Service Station	Regulation under CLM Act not required	-35.0101817	150.6964322
CAMBRIDGE GARDENS	Caltex Cambridge Park	1 Boomerang PLACE	Service Station	Regulation under CLM Act not required	-33.74068794	150.717174
CAMDEN	Camden High School (former)	John STREET	Gasworks	Regulation under CLM Act not required	-34.05114079	150.6951285
CAMDEN	Caltex Camden Service Station	21 Barsden STREET	Service Station	Regulation under CLM Act not required	-34.05808413	150.6914744
CAMDEN SOUTH	Coles Express Service Station Camden South	273 Old Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08660995	150.6945444
CAMELLIA	Hymix Concrete	14 Grand AVENUE	Metal Industry	Contamination currently regulated under CLM Act	-33.82243454	151.044789
CAMELLIA	Mauri Foods	15 Grand AVENUE	Other Industry	Regulation being finalised	-33.81996985	151.0335725
CAMELLIA	James Hardie Factory (former, eastern portion)	1 Grand AVENUE	Other Industry	Ongoing maintenance required to manage residual contamination	-33.8182384	151.0261019
CAMELLIA	Bitumen Manufacturer	12 Grand AVENUE	Other Industry	Contamination currently regulated under CLM Act	-33.82189695	151.0429251
CAMELLIA	Hambear	14 Thackeray STREET	Metal Industry	Regulation under CLM Act not required	-33.81920482	151.0419394
CAMELLIA	Former Asciano Properties	39 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.82056014	151.0443331
CAMELLIA	Railway Land	27 Grand AVENUE	Other Industry	Regulation under CLM Act not required	-33.81910822	151.0382483
CAMELLIA	Wrigg	13 Grand AVENUE	Metal Industry	Under preliminary investigation order	-33.81971361	151.0321525
CAMELLIA	Former Akzo Nobel site	6 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.82238826	151.0319264

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
CAMELLIA	Former Shell Clyde Refinery	Durham STREET	Other Industry	Contamination currently regulated under POEO Act	-33.82804924	151.0378966
CAMELLIA	Council Reserve	11B Grand AVENUE	Metal Industry	Regulation under CLM Act not required	-33.81850502	151.0302425
CAMELLIA	Veolia	37 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.81980027	151.0430689
CAMELLIA	Sydney Water	41 Grand AVENUE	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.8217493	151.0453367
CAMELLIA	Maritime Services Board	33A Grand AVENUE	Metal Industry	Regulation under CLM Act not required	-33.81836086	151.0401249
CAMMERAY	Tunks Park	Brothers AVENUE	Landfill	Contamination formerly regulated under the CLM Act	-33.81734704	151.2113338
CAMMERAY	Coles Express Cammeray	477-483 Miller STREET	Service Station	Regulation under CLM Act not required	-33.82141124	151.2108658
CAMPBELLTOWN	Mobil Service Station	96-98 Queen STREET	Service Station	Regulation under CLM Act not required	-34.06407588	150.8170082
CAMPBELLTOWN	BP Macarthur Service Station	Cnr Blaxland ROAD and Campbelltown ROAD	Service Station	Regulation under CLM Act not required	-34.05312872	150.8234349
CAMPBELLTOWN	Former vehicle wrecking yard	38 Blaxland ROAD	Other Industry	Regulation under CLM Act not required	-34.06055735	150.8130598
CAMPERDOWN	Former Gee Graphics	27 Church STREET	Other Industry	Regulation under CLM Act not required	-33.88737747	151.1773616
CAMPERDOWN	O'Dea Reserve	Salisbury LANE	Landfill	Contamination formerly regulated under the CLM Act	-33.89072786	151.1736948
CAMPERDOWN	The Spruce	12-14 Marsden STREET	Other Industry	Regulation under CLM Act not required	-33.88720632	151.1784514
CAMPSIE	Budget Petroleum and adjacent property	403 Canterbury Road and 1 Una STREET	Service Station	Contamination currently regulated under CLM Act	-33.91605617	151.1086596
CAMPSIE	Former Sunbeam factory	60 Charlotte STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.92254225	151.1025796
CANLEY HEIGHTS	Former Caltex Canley Heights	368 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88271081	150.9154176
CANLEY HEIGHTS	Caltex Canley Heights Service Station	280-286 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88393501	150.9241656
CANLEY VALE	Coles Express Lansvale	99 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.89295753	150.9606136
CANLEY VALE	Former Mobil Service Station	96 Canley Vale ROAD	Service Station	Regulation under CLM Act not required	-33.88591573	150.9369801
CANOWINDRA	BP-branded Jasbe Service Station	76 Rodd STREET	Service Station	Regulation under CLM Act not required	-33.56131773	148.6682805
CANTERBURY	Metro Petroleum Service Station	13-19 Canterbury ROAD	Service Station	Contamination currently regulated under CLM Act	-33.90783455	151.125207
CARDIFF	7-Eleven Service Station	399 Main ROAD	Service Station	Regulation under CLM Act not required	-32.93391137	151.6562111

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
CARDIFF	Former Caltex Service Station	367 Main ROAD	Service Station	Regulation under CLM Act not required	-32.93761223	151.6577781
CARDIFF	Maneela Oval	Main ROAD	Other Industry	Regulation under CLM Act not required	-32.93018443	151.6435559
CARDIFF	Former Mobil Depot	7 Ranton STREET	Other Petroleum	Regulation under CLM Act not required	-32.94516764	151.6470387
CARDIFF	BP Service Station (Reliance Petroleum)	Corner Sturt and Main ROADS	Service Station	Regulation under CLM Act not required	-32.93792229	151.6569905
CARDIFF	Woolworths (former Mobil) Cardiff Service Station	43 Macquarie ROAD	Service Station	Regulation under CLM Act not required	-32.94118246	151.6578195
CARINGBAH	Adjacent to Spirent Australia	101-103 Cawarra ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-34.03360747	151.1245577
CARINGBAH	Former Consumer Health Products Manufacturer	32-40 Cawarra ROAD	Other Industry	Regulation under CLM Act not required	-34.03024369	151.1277755
CARINGBAH	Caltex Lilli Pilli Service Station	477-481 Port Hacking ROAD	Service Station	Regulation under CLM Act not required	-34.05243807	151.1216353
CARINGBAH	7-Eleven Service Station	367 The KINGSWAY	Service Station	Regulation under CLM Act not required	-34.03948677	151.1203268
CARINGBAH	Spirent Australia	105 Cawarra ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-34.03425343	151.1245092
CARINGBAH	BP Caringbah	54 Captain Cook DRIVE	Service Station	Under assessment	-34.032652	151.125487
CARLINGFORD	Caltex Service Station Carlingford	131 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.78762398	151.0279422
CARLINGFORD	Caltex Service Station	797 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.7757819	151.0516532
CARLTON	Shell Coles Express Service Station	277 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.9748579	151.1272732
CARRINGTON	Commercial Metals Company (CMC) Australia Pty Ltd	117-121 Bourke STREET	Other Industry	Regulation under CLM Act not required	-32.9148832	151.7677193
CARRINGTON	Carrington redevelopment site	11 Howden STREET	Other Industry	Regulation under CLM Act not required	-32.91309509	151.7625341
CARRINGTON	Forgacs Dockyard	81 Denison STREET	Other Industry	Regulation under CLM Act not required	-32.9207441	151.764816
CARRINGTON	NAT vacant land	Bourke STREET	Unclassified	Regulation under CLM Act not required	-32.91276029	151.7685894
CARRINGTON	Dyke Point Containment Cell	Dyke ROAD	Other Industry	Regulation under CLM Act not required	-32.91763422	151.7727101
CARRINGTON	Carrington Coal Tar Pavements	Bourke Street to Dyke ROAD	Other Industry	Regulation under CLM Act not required	-32.91441348	151.770271
CARRINGTON	Pasminco Ship Loader	Dyke Berth 2 (off Bourke Street) OTHER	Metal Industry	Regulation under CLM Act not required	-32.9148698	151.7716837
CARSS PARK	Vacant Property	334 Princes HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.98628486	151.1133908

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CARWELL	Cement Australia Carwell Creek Quarries	Quarry ROAD	Other Industry	Regulation under CLM Act not required	-32.85413742	149.923172
CASINO	Caltex Service Station and Depot Casino	28 & 32 Dyraaba STREET	Service Station	Regulation under CLM Act not required	-28.85488567	153.044806
CASINO	Caltex Service Station	96 Centre STREET	Service Station	Regulation under CLM Act not required	-28.86539567	153.0450654
CASINO	Former Gasworks	134-136 North STREET	Gasworks	Regulation under CLM Act not required	-28.86080712	153.0526043
CASINO	Woolworths Service Station Casino	130 Canterbury STREET	Service Station	Regulation under CLM Act not required	-28.86231341	153.0464642
CASINO	18 Beith Street, Casino	18 Beith STREET	Unclassified	Regulation under CLM Act not required	-28.84951426	153.0446585
CASINO	Corner Store	30 Barker STREET	Service Station	Regulation under CLM Act not required	-28.86316792	153.0389124
CASINO	Casino Roadhouse	86 Johnston STREET	Service Station	Under assessment	-28.85960698	153.0562429
CASULA	Caltex Casula Service Station	646 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.95641262	150.8934783
CATHERINE HILL BAY	Catherine Hill Bay Coal Handling and Preparation Plant	1A Keene STREET	Other Industry	Regulation under CLM Act not required	-33.16120556	151.6302456
CESSNOCK	Caltex Cessnock Service Station	103-105 Wollombi (Cnr James Street) ROAD	Service Station	Regulation under CLM Act not required	-32.83936243	151.3430078
CESSNOCK	Former Mobil Service Station	102 Wollombi ROAD	Service Station	Regulation under CLM Act not required	-32.83844074	151.3436022
CESSNOCK	Former Service Station	2-4 Allandale ROAD	Service Station	Under assessment	-32.83118911	151.3560677
CHARBON	Charbon Colliery	Charbon ROAD	Other Industry	Regulation under CLM Act not required	-32.92390131	149.9839098
CHARLESTOWN	7-Eleven Charlestown	273 Charlestown ROAD	Service Station	Under assessment	-32.95802555	151.6897931
CHARLESTOWN	Caltex Service Station	81 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-32.96708479	151.6955919
CHARLESTOWN	Caltex Woolworths (Former BP)	91-93 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-32.96633569	151.6959051
CHARLESTOWN	Ausgrid Powell Street Depot	8 Powell STREET	Other Industry	Regulation under CLM Act not required	-32.95912375	151.6944136
CHARMHAVEN	Caltex Charmhaven Service Station	13-15 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.21655768	151.5091452
CHATSWOOD	Former Caltex Chatswood Service Station	607 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.80396472	151.1795766
CHATSWOOD	Woolworths Chatswood	364-366 Eastern Valley WAY	Service Station	Regulation under CLM Act not required	-33.78667419	151.2010828
CHATSWOOD	Caltex Service Station Chatswood	572 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.80381271	151.1789656

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
CHATSWOOD	Auto Repairs	2 Devonshire STREET	Service Station	Regulation under CLM Act not required	-33.8015482	151.1859632
CHATSWOOD	Coles Express Service Station Chatswood	877-879 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.79182176	151.1804867
CHATSWOOD WEST	Chatswood Toyota	728 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.79654247	151.1776136
CHERRYBROOK	Caltex Service Station	67 Shepherds DRIVE	Service Station	Regulation under CLM Act not required	-33.72069183	151.0451415
CHESTER HILL	Former Orica, Chester Hill	127 Orchard ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.8869823	150.9952873
CHIPPENDALE	Frasers Development	Wellington STREET	Chemical Industry	Under assessment	-33.88669108	151.2015805
CHIPPING NORTON	Former Solchem (Mobil) Depot Chipping Norton	49-51 Riverside ROAD	Other Petroleum	Regulation under CLM Act not required	-33.91621314	150.9696948
CHIPPING NORTON	Former ACR	85-107 Alfred STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.92226795	150.9586496
CHISWICK	Former Sydney Wiremills (BHP) site	Blackwall Point ROAD	Other Industry	Regulation under CLM Act not required	-33.85131849	151.1369131
CHITTAWAY BAY	Former Caltex Chittaway Point	100 Chittaway ROAD	Service Station	Regulation under CLM Act not required	-33.32707555	151.4293546
CHULLORA	Chullora Railway Workshops	Worth STREET	Other Industry	Regulation under CLM Act not required	-33.88639388	151.0598201
CLARENCE	Clarence Colliery	Chifley ROAD	Other Industry	Regulation under CLM Act not required	-33.46450217	150.2522729
CLARENDON	Coles Express Clarendon Service Station	244 Hawkesbury Valley WAY	Service Station	Regulation under CLM Act not required	-33.6083729	150.7890956
CLEARFIELD	Former Pamplings Dip Site	Off Clearfield ROAD	Cattle Dip	Regulation under CLM Act not required	-29.16287185	152.882974
CLYBUCCA	BP Service Station	2171 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.93845014	152.9422791
CLYDE	7-Eleven Clyde	3 Parramatta (Cnr Harbord Street) ROAD	Service Station	Regulation under CLM Act not required	-33.83494433	151.0222628
COBAR	Former Caltex (Bogas) Service Station Cobar	56-58 Marshall STREET	Service Station	Regulation under CLM Act not required	-31.49793339	145.8346684
COBAR	Mckinnons Gold Mine	Cobar ROAD	Metal Industry	Regulation under CLM Act not required	-31.78179755	145.693
COBAR	Caltex Service Station Cobar	99 Marshall (formerly Cnr Barrier Highway and Bathurst Street)	Service Station	Regulation under CLM Act not required	-31.49631924	145.8275727
COBAR	Caltex Service Station	Lot 10 Railway PARADE	Service Station	Regulation under CLM Act not required	-31.49350124	145.8442372
COFFS HARBOUR	BP Service Station	134-136 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-30.29187037	153.1182106
COFFS HARBOUR	Dan Murphy's Coffs Harbour	10 Elbow STREET	Service Station	Regulation under CLM Act not required	-30.29439262	153.115069

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
COFFS HARBOUR	Mobil Service Station	314-316 Harbour DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-30.3056983	153.131966
COFFS HARBOUR	Mobil Coffs Harbour Airport	Aviation DRIVE	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.313385	153.1175018
COFFS HARBOUR	Woolworths Petrol	Park Beach Plaza, Arthur STREET	Service Station	Regulation under CLM Act not required	-30.28101154	153.132027
COFFS HARBOUR	Caltex Service Station	157 Orlando STREET	Service Station	Regulation under CLM Act not required	-30.28975334	153.1306354
COFFS HARBOUR	Coffs Harbour Slipway	38 Marina DRIVE	Other Industry	Under assessment	-30.30325637	153.1441437
COFFS HARBOUR	Aussitel Backpackers Hostel	312 Harbour DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-30.3057	153.132
COLEAMBALLY	Former Mobil Coleambally Depot	19 Bencubbin AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.80279552	145.8945239
COLLARENEBRI	Former Shell Depot	Corner Narran Street and Queen STREET	Other Petroleum	Regulation under CLM Act not required	-29.54114772	148.5789365
COLONGRA	Munmorah Colliery	Scenic DRIVE	Other Industry	Regulation under CLM Act not required	-33.21297737	151.5416882
COLONGRA	Endeavour Colliery	Scenic DRIVE	Other Industry	Regulation under CLM Act not required	-33.21297737	151.5416882
COLYTON	Ampol Service Station	88 Great Western HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.7754	150.7954
CONCORD	Caltex Service Station	89 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.86785624	151.0993769
CONCORD WEST	Caltex Service Station	369-375 Concord ROAD	Service Station	Regulation under CLM Act not required	-33.84113835	151.0888843
CONDOBOLIN	BP-Branded Service Station	38 Denison Street, corner Molong STREET	Service Station	Regulation under CLM Act not required	-33.08520378	147.1524976
CONDOBOLIN	Former Mobil Depot	6 Burnett STREET	Other Petroleum	Contamination currently regulated under CLM Act	-33.08010515	147.1642972
CONDOBOLIN	Former Ampol Depot	Cnr Parkes Road and Goobang STREET	Service Station	Regulation under CLM Act not required	-33.08034753	147.1642436
CONDOBOLIN	Former Caltex Depot	Parkes ROAD	Service Station	Regulation under CLM Act not required	-33.08255593	147.1585922
CONDOBOLIN	Mobil Condobolin Depot Railway Siding	Railway Siding behind 6 Burnett STREET	Other Petroleum	Regulation under CLM Act not required	-33.08058612	147.164225
CONSTITUTION HILL	Sydney Water Land	Caloola ROAD	Unclassified	Regulation under CLM Act not required	-33.79776636	150.9697715
COOGEE	Caltex Coogee Service Station	146-148 Coogee Bay (Cnr Mount St) ROAD	Service Station	Regulation under CLM Act not required	-33.91989232	151.2517454
COOKS HILL	Former Council Depot Cooks Hill	152 Bruce Street and 115 Corlette STREET	Other Industry	Regulation under CLM Act not required	-32.93525537	151.7641074
COOLAC	Coolac Service Station	Corner Hume Highway and Coleman STREET	Service Station	Regulation under CLM Act not required	-34.95435052	148.1595525

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
COOLAH	BP Depot (Reliance Petroleum)	72 (formerly 17-23) Cunningham STREET	Other Petroleum	Regulation under CLM Act not required	-31.82275896	149.7243171
COOLONGOLOOK	Caltex Service Station	Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-32.21648325	152.322813
COOMA	Caltex Cooma Service Station	44 Sharp (Cnr Baron St) STREET	Service Station	Regulation under CLM Act not required	-36.23323489	149.1304134
COOMA	Former Mobil Cooma Depot	2 Commissioner STREET	Other Petroleum	Regulation under CLM Act not required	-36.23267537	149.1346338
COOMA	Former Caltex Cooma Depot	2 Short STREET	Service Station	Regulation under CLM Act not required	-36.2338672	149.1348862
COOMA	Lowes Petroleum Cooma Depot and Service Station (Former BP	2-4 Sharp STREET	Other Petroleum	Regulation under CLM Act not required	-36.22862603	149.1356483
COOMA	Woolworths Caltex Cooma Service Station	Bombala Street Cnr Massie STREET	Service Station	Regulation under CLM Act not required	-36.23364626	149.1267469
COOMA	Former Shell Depot	48-50 Bradley STREET	Other Petroleum	Regulation under CLM Act not required	-36.23448955	149.1347987
COOMA	Former Shell Service Station	48-52 Sharp STREET	Service Station	Contamination formerly regulated under the CLM Act	-36.23350402	149.1299514
COONABARABRAN	Former Mobil Depot	49 Cowper STREET	Other Petroleum	Regulation under CLM Act not required	-31.27096226	149.2818461
COONABARABRAN	Shell Coles Express Service Station	2-6 John STREET	Service Station	Regulation under CLM Act not required	-31.27706775	149.27836
COONABARABRAN	Former Shell Coonabarabran CVRO	Corner Cowper St and Dawson St, formerly 51 Cowper STREET	Other Petroleum	Regulation under CLM Act not required	-31.27003745	149.281788
COONABARABRAN	Caltex Service Station	Cnr Dawson & Drummond STREET	Service Station	Regulation under CLM Act not required	-31.26994941	149.28183
COONABARABRAN	Caltex Service Station	85-87 John STREET	Service Station	Regulation under CLM Act not required	-31.27231215	149.2771297
COONAMBLE	Former Shell Coonamble Depot	Corner Aberford Street and Quambone ROAD	Other Petroleum	Regulation under CLM Act not required	-30.95349182	148.3793432
COONAMBLE	Caltex Service Station	Quambone ROAD	Service Station	Regulation under CLM Act not required	-30.95410067	148.3792167
COORANBONG	Former Poultry Farm - 91 Alton Road, Cooranbong	64 - 98 Alton ROAD	Unclassified	Regulation under CLM Act not required	-33.06860138	151.4512156
COORANBONG	Avondale Auto Centre	677 Freemans DRIVE	Service Station	Under assessment	-33.06968809	151.4636293
COOTAMUNDRA	Former BP Depot	1-5 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.62915841	148.0306962
COOTAMUNDRA	Caltex Service Station	26-34 Hovell STREET	Service Station	Regulation under CLM Act not required	-34.63624703	148.0347479
COOTAMUNDRA	Former Caltex Depot	219 Sutton STREET	Other Petroleum	Regulation under CLM Act not required	-34.65126548	148.0145283
COOTAMUNDRA	Former Ampol Service Station	72 Parker STREET	Service Station	Regulation under CLM Act not required	-34.63471008	148.0296112

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
COOTAMUNDRA	Cootamundra Gasworks	140-146 Hovell STREET	Gasworks	Contamination currently regulated under CLM Act	-34.64572841	148.0255049
COOTAMUNDRA	Former Amoco Depot	68-72 Hovell STREET	Other Petroleum	Contamination currently regulated under CLM Act	-34.63871124	148.0321134
COOTAMUNDRA	Former Ampol Cootamundra Rail Siding	Back Brawlin ROAD	Other Petroleum	Under assessment	-34.65326425	148.0143068
CORAMBA	Martin Street	End of Martin Street and adjacent car park OTHER	Service Station	Ongoing maintenance required to manage residual contamination	-30.22125208	153.0156997
COROWA	Corowa Shire Council Works Depot	24 Poseidon ROAD	Other Petroleum	Regulation under CLM Act not required	-35.98807923	146.3652266
COROWA	Former Ampol Corowa	10 Bow STREET	Service Station	Regulation under CLM Act not required	-35.99364786	146.3901259
COROWA	Cignall Corowa	280 Hume STREET	Service Station	Under assessment	-36.00996015	146.3760437
CORRIMAL	Woolworths Petrol - Corrimal	275-277 Princes HIGHWAY	Service Station	Under assessment	-34.37527426	150.8962637
CORRIMAL	7-Eleven Corrimal	138-146 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.36986923	150.8978271
COWRA	Landmark Fertiliser Storage Facility	Corner Young Road & Waratah STREET	Chemical Industry	Regulation under CLM Act not required	-33.84321832	148.6722578
COWRA	Lowes Petroleum (former BP Cowra Depot)	12 Campbell STREET	Other Petroleum	Regulation under CLM Act not required	-33.83803706	148.6977873
COWRA	Former Gasworks	30 Brougham STREET	Gasworks	Contamination currently regulated under CLM Act	-33.8389659	148.6963482
COWRA	Shell Depot	34 Brougham STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.83932421	148.6976295
CRANGAN BAY	Big T Road House.	555 and 565 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.17326538	151.6083864
CREMORNE	Shell Coles Express Service Station	225 Military ROAD	Service Station	Regulation under CLM Act not required	-33.83063306	151.226223
CRESTWOOD	Former Caltex Depot Queanbeyan	36 Kendall (Cnr Stephens Rd) AVENUE	Other Petroleum	Regulation under CLM Act not required	-35.34615546	149.207807
CRESTWOOD	Former BP Queanbeyan	64 Uriarra ROAD	Service Station	Regulation under CLM Act not required	-35.34646177	149.2246263
CRONULLA	Breen Holdings	Bate Bay ROAD	Other Industry	Regulation under CLM Act not required	-34.03861737	151.1614114
CROWS NEST	Caltex Service Station	111-121 Falcon STREET	Service Station	Regulation under CLM Act not required	-33.82868236	151.2060317
CROYDON	Caltex Service Station	404-410 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88853994	151.115879
CROYDON	BP Ashfield	584 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.87399409	151.1267296
CROYDON PARK	Mobil Service Station	334 Georges River ROAD	Service Station	Regulation under CLM Act not required	-33.89771626	151.0999194

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CULCAIRN	Caltex Service Station	2883 Olympic HIGHWAY	Service Station	Regulation under CLM Act not required	-35.67441635	147.0356845
CULLEN BULLEN	Baal Bone Colliery	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.27193875	150.0587194
CUNDLETOWN	Caltex Service Station (1 Manning River Drive)	Old Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-31.89329598	152.5068225
CURL CURL	John Fisher Park	Corner Harbord and Abbott ROADS	Landfill	Regulation under CLM Act not required	-33.76352692	151.2798462
DACEYVILLE	Astrolabe Park	Cook AVENUE	Landfill	Under assessment	-33.92963704	151.221773
DAPTO	RailCorp Dapto	(Rear of property) 12-14 Hamilton STREET	Other Industry	Regulation under CLM Act not required	-34.50045405	150.787353
DAPTO	Nicheinvest Pty Ltd	133-139 Lakelands DRIVE	Service Station	Under assessment	-34.50335	150.803144
DARLINGHURST	Proposed Retail Unit	139-155 Palmer STREET	Unclassified	Regulation under CLM Act not required	-33.87504688	151.2168106
DARLINGHURST	Cross City Tunnel	Riley Street and William STREET	Service Station	Contamination was addressed via the planning process (EP&A Act)	-33.87424636	151.2158305
DARLINGHURST	18-28 Neild Avenue, Darlinghurst	18-28 Neild AVENUE	Landfill	Regulation under CLM Act not required	-33.87876581	151.2276546
DEE WHY	United Dee Why	1 The Strand STREET	Service Station	Contamination currently regulated under POEO Act	-33.75569207	151.2959451
DEE WHY	Caltex Service Station	793-797 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.74566596	151.2920719
DEE WHY	Dee Why Town Centre	Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.753169	151.2875805
DEE WHY	Roche Products Dee Why Facility	Inman ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.73834964	151.2876392
DENHAM COURT	Service Station and Caravan Park Denham Court	505 Campbelltown ROAD	Service Station	Under assessment	-33.98208395	150.8459471
DENILIQUIN	Shell Coles Express Service Station	336 Victoria STREET	Service Station	Contamination formerly regulated under the CLM Act	-35.52373613	144.9807345
DENILIQUIN	Former Deniliquin Gasworks	365, 369 and 329-331 George and 380 and 386 Charlotte STREET	Gasworks	Under assessment	-35.52663588	144.9634994
DENILIQUIN	Landmark Fertiliser Storage Facility	99-101 Davidson STREET	Chemical Industry	Regulation under CLM Act not required	-35.52534735	144.975142
DENILIQUIN	Former Deniliquin Caltex Depot	116-118 Hardinge (Cnr Wood St) STREET	Service Station	Regulation under CLM Act not required	-35.53196985	144.9544597
DENILIQUIN	BP Depot (Reliance Petroleum)	125 - 127 Hardinge STREET	Service Station	Regulation under CLM Act not required	-35.53222124	144.9517397
DENILIQUIN	Former Shell Depot	143-147 Napier STREET	Other Petroleum	Regulation under CLM Act not required	-35.5342355	144.953169
DENMAN	Former Industrial Site	10 Fontana WAY	Metal Industry	Regulation under CLM Act not required	-32.37945456	150.6868239

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
DENMAN	Former Industrial Site	9 Fontana WAY	Metal Industry	Regulation under CLM Act not required	-32.37911159	150.6869866
DORA CREEK	Former Service Station	4 Doree PLACE	Service Station	Under assessment	-33.08452746	151.502415
DOYALSON	Part Lot 3 DP 259306	Off David STREET	Other Industry	Regulation under CLM Act not required	-33.20436131	151.5232558
DOYALSON	Munmorah Power Station	(Central Coast Highway) Scenic DRIVE	Unclassified	Regulation under CLM Act not required	-33.20678347	151.540795
DOYALSON	Mannering Colliery (formerly Wyee)	Rutleys ROAD	Other Industry	Regulation under CLM Act not required	-33.17179576	151.5419248
DOYALSON NORTH	Caltex Service Station	235 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.18501024	151.5526114
DOYALSON NORTH	Shell Coles Express Service Station	260-270 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.18636608	151.5482399
DRUMMOYNE	Coles Express Service Station Drummoyne (Eastbound)	36-46 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.85576628	151.1593519
DRUMMOYNE	Former Dry Cleaners	225 Victoria ROAD	Chemical Industry	Regulation under CLM Act not required	-33.8507152	151.1537113
DRUMMOYNE	Coles Express Service Station Drummoyne South (Westbound)	39-45 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.85606575	151.1589061
DRUMMOYNE	Caltex Service Station	191-195 Lyons ROAD	Service Station	Regulation under CLM Act not required	-33.85699216	151.1460356
DUBBO	BP Reliance Petroleum Service Station (Former Mobil Depot)	107 Erskine STREET	Other Petroleum	Regulation under CLM Act not required	-32.24441287	148.6111704
DUBBO	Dubbo Police Station	143 Brisbane STREET	Other Petroleum	Regulation under CLM Act not required	-32.24652288	148.6034702
DUBBO	Shell Coles Express Service Station	131-133 Cobra STREET	Service Station	Regulation under CLM Act not required	-32.25511317	148.6126147
DUBBO	Shell Coles Express Service Station	45-49 Whylandra STREET	Service Station	Regulation under CLM Act not required	-32.2474598	148.5932769
DUBBO	Former Mobil depot	40-44 Morgan STREET	Other Petroleum	Regulation under CLM Act not required	-32.23912277	148.6182711
DUBBO	Caltex Service Station, Dubbo	60 Windsor PARADE	Service Station	Regulation under CLM Act not required	-32.25459322	148.6318
DUBBO	BP-Branded Service Station Dubbo West	51-63 Whylandra STREET	Service Station	Regulation under CLM Act not required	-32.24827657	148.5927084
DUBBO	Lowes Petroleum (BP-Branded) Depot, Dubbo	105 Erskine STREET	Service Station	Regulation under CLM Act not required	-32.24423247	148.6101676
DUBBO	Inland Petroleum (Former Shell) Depot	109 Erskine STREET	Other Petroleum	Regulation under CLM Act not required	-32.24470512	148.6124108
DUBBO	Former Caltex Depot	Phillip (corner Fitzroy) STREET	Service Station	Regulation under CLM Act not required	-32.24534863	148.6150144
DUBBO	Caltex Service Station	119 Bourke STREET	Service Station	Regulation under CLM Act not required	-32.24336464	148.6091931

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
DUBBO	Former Ambulance Station	165 Brisbane STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-32.24850755	148.6031749
DUBBO	United (former Volume Plus) Service Station	219-223 Cobra STREET	Service Station	Regulation under CLM Act not required	-32.2565155	148.6228586
DUBBO	Caltex Service Station, Dubbo	Cnr Brisbane Street and Cobra STREET	Service Station	Contamination currently regulated under CLM Act	-32.25322183	148.603164
DULWICH HILL	Former Tyre Recapping	115-117 Constitution ROAD	Other Industry	Regulation under CLM Act not required	-33.90300876	151.1387724
DULWICH HILL	Denison Road Playground	194 Denison ROAD	Landfill	Regulation under CLM Act not required	-33.90121956	151.1404637
DUNEDOO	Former Shell Depot Dunedoo	Cnr Bolaro and Redbank STREET	Other Petroleum	Regulation under CLM Act not required	-32.01565761	149.3922418
DUNGOG	Lot 54 Common Rd	54 Common ROAD	Unclassified	Regulation under CLM Act not required	-32.39490989	151.739821
DUNGOG	Former HWC Maintenance Depot for Civil Engineering Works	86 Abelard STREET	Other Industry	Under assessment	-32.40429396	151.7514073
DUNMORE	Equestrian Centre	71 Fig Hill LANE	Unclassified	Regulation under CLM Act not required	-34.62313393	150.8421544
DURAL	Caltex Dural Service Station	917-923 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.68312075	151.0287519
DURAL	BP Dural Service Station	580 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69569985	151.0283357
DURAL	Caltex Service Station	530 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
DURAL	Woolworths Service Station	532 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.69348472	151.0202716
EAGLE VALE	BP Service Station	Corner Eagle Vale Drive and Gould ROAD	Service Station	Regulation under CLM Act not required	-34.03128043	150.816363
EARLWOOD	RTA Land	3 Jackson PLACE	Unclassified	Contamination currently regulated under CLM Act	-33.9272087	151.1432854
EARLWOOD	Wolli Creek Aqueduct	Unwin STREET	Unclassified	Regulation under CLM Act not required	-33.92788788	151.1480807
EAST BALLINA	Caltex East Ballina Service Station	34 Links AVENUE	Service Station	Regulation under CLM Act not required	-28.85009113	153.5829246
EAST GOSFORD	Presbyterian Aged Care Facility	8-18 Enid CRESCENT	Landfill	Regulation under CLM Act not required	-33.4376675	151.3577947
EAST GOSFORD	Mobil Service Station	44 Victoria STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.43804781	151.353303
EAST GOSFORD	Hylton Moore Park	Althrop STREET	Landfill	Under assessment	-33.43521607	151.3600229
EAST MAITLAND	United Service Station East Maitland	164 (also known as 250) Newcastle STREET	Service Station	Regulation under CLM Act not required	-32.75248998	151.5869338
EAST MAITLAND	Former Gasworks Site	Corner Melbourne Street and Brisbane STREET	Gasworks	Regulation under CLM Act not required	-32.74939199	151.5788783

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
EAST MAITLAND	Caltex East Maitland Service Station	Newcastle Road, Corner William STREET	Service Station	Regulation under CLM Act not required	-32.74883712	151.5829296
EAST TAMWORTH	Caltex Service Station	350-362 Armidale ROAD	Service Station	Regulation under CLM Act not required	-31.11401974	150.9613327
EASTERN CREEK	Caltex Service Station	M4 (Eastbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.801607	150.8857989
EASTERN CREEK	Caltex Service Station M4 Motorway Westbound	M4 (Westbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.80255701	150.8829211
EASTERN CREEK	Fulton Hogan Industries (formerly Pioneer Road Services)	Honeycomb DRIVE	Other Industry	Regulation under CLM Act not required	-33.80231274	150.8288299
EASTGARDENS	130-150 Bunnerong Road Eastgardens	130 - 150 Bunnerong ROAD	Other Industry	Regulation under CLM Act not required	-33.94230414	151.2248138
EASTLAKES	Former Shell Rosebery service station and adjacent land	275-279 Gardeners ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92470279	151.2100722
EASTLAKES	Eastlakes Reserve	Evans AVENUE	Service Station	Contamination formerly regulated under the CLM Act	-33.92497291	151.2102725
EASTLAKES	Budget Petroleum Eastlakes	102 Maloney STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.93096702	151.2056606
EASTLAKES	Budget Petroleum Eastlakes	102 Maloney STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.93120382	151.2054267
EASTLAKES	73 Gardeners Road	73 Gardeners ROAD	Unclassified	Regulation under CLM Act not required	-33.92541594	151.2182856
EASTWOOD	Former Mobil Service Station Eastwood	3-5 Trelawney (Cnr Rutledge St) STREET	Service Station	Regulation under CLM Act not required	-33.79273381	151.079584
EDEN	Caltex Service Station	159 Imlay STREET	Service Station	Regulation under CLM Act not required	-37.06324099	149.9044022
EDEN	Former Caltex Eden Depot	80-82 Imlay STREET	Service Station	Contamination currently regulated under CLM Act	-37.0570984	149.9038538
EDENSOR PARK	Caltex Bonnyrigg Service Station, Edensor Park	549 Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-33.88840816	150.8822609
EDENSOR PARK	7-Eleven (former Mobil) Service Station	615-621 Cowpasture Road (Cnr Elizabeth) DRIVE	Service Station	Regulation under CLM Act not required	-33.88326139	150.865591
EDGECLIFF	BP-branded (former Coles Express) Service Station	73-85A New South Head ROAD	Service Station	Regulation under CLM Act not required	-33.8769602	151.2311617
EDGEWORTH	Caltex Service Station	662 Main ROAD	Service Station	Regulation under CLM Act not required	-32.92566329	151.6278888
EDGEWORTH	Woolworths Edgeworth	738-742 Main ROAD	Service Station	Under assessment	-32.92455492	151.6202897
EMERALD BEACH	Shell Coles Express Woolgoolga Service Station	1850 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-30.16450856	153.1826673
EMERTON	7-Eleven Emerton	135-137 Popondetta ROAD	Service Station	Regulation under CLM Act not required	-33.74463908	150.8102251
EMU HEIGHTS	7-Eleven Service Station	126 Old Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.74299098	150.6547098

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
EMU HEIGHTS	Woolworths Service Station	132 Old Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.7429739	150.6559655
EMU PLAINS	Woolworths Service Station	283 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.75371349	150.6530165
ENGADINE	Former Caltex Service Station	995 Old Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.06413459	151.0155734
ENGADINE	BP Service Station	1234 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.07735416	151.01121
ENGADINE	BP Branded Service Station	963 Old Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.06428454	151.0167121
EPPING	7-Eleven (former Mobil) Service Station	246 Beecroft ROAD	Service Station	Regulation under CLM Act not required	-33.77073552	151.080581
ERINA	Coles Express Service Station Erina	211 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43547804	151.3850522
ERINA	7-Eleven Erina	214 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43494257	151.3879511
ERINA	7-Eleven Service Station	96 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43786868	151.3729331
ERINA	Former Frozen Food Distribution Depot	1 Aston ROAD	Other Petroleum	Contamination currently regulated under CLM Act	-33.434878	151.3845431
ERINA	Caltex Service Station	155 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.43824871	151.3801096
ERMINGTON	Blue Star Ermington	700 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.808595	151.066004
ERMINGTON	Caltex Service Station	562 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81392814	151.0547543
ERSKINE PARK	Western Sydney Service Centre	25-55 Templar ROAD	Other Industry	Regulation under CLM Act not required	-33.81897822	150.7937394
ERSKINEVILLE	Redevelopment Site (Former Industrial Park) Erskineville	36/1A Coulson STREET	Other Industry	Regulation under CLM Act not required	-33.90325501	151.1855668
ERSKINEVILLE	Department of Housing	52 John STREET	Other Industry	Regulation under CLM Act not required	-33.8982925	151.1840284
ERSKINEVILLE	RailCorp land	Coulson STREET	Other Industry	Regulation under CLM Act not required	-33.90279502	151.1846827
ERSKINEVILLE	Lot 4/1A Coulson Street	Coulson STREET	Other Industry	Under assessment	-33.90316549	151.1867963
ERSKINEVILLE	Area B - Public Domain / The Roadway	1A Coulson STREET	Other Petroleum	Regulation under CLM Act not required	-33.90479634	151.1871194
EUABALONG WEST	BP Euabalong West Depot (Reliance Petroleum)	12 Illewong STREET	Other Petroleum	Regulation under CLM Act not required	-33.05720426	146.3946386
EVANS HEAD	Evans Head Aerodrome	Memorial Airport DRIVE	Other Industry	Regulation under CLM Act not required	-29.10389976	153.4216791
EVANS HEAD	Bundjalung National Park	The Gap ROAD	Unclassified	Regulation under CLM Act not required	-29.24433977	153.3626472

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
EVANS HEAD	Evans Head Residential subdivision	Bounded by Currajong, Woodburn, Carrabeen Streets and	Unclassified	Regulation under CLM Act not required	-29.1080969	153.4243577
EVELEIGH	Macdonaldtown Triangle	Burren STREET	Gasworks	Contamination being managed via the planning process (EP&A Act)	-33.89803492	151.186059
EVELEIGH	Australian Technology Park	Henderson ROAD	Other Industry	Regulation under CLM Act not required	-33.89634136	151.1944915
FAIRFIELD	Endeavour Energy Fairfield Zone Substation	22 Hedges STREET	Other Industry	Regulation under CLM Act not required	-33.86133019	150.9555899
FAIRFIELD EAST	Speedway-Branded Service Station Fairfield	251 The Horsley DRIVE	Service Station	Regulation under CLM Act not required	-33.8711661	150.9630077
FAIRFIELD HEIGHTS	7-Eleven Fairfield Heights	234 Hamilton (Cnr The Boulevarde) ROAD	Service Station	Regulation under CLM Act not required	-33.87208474	150.9373134
FAIRY MEADOW	Woolworths Petrol Service Station	47 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.39399705	150.8925369
FAIRY MEADOW	Caltex Fuel Depot and adjoining land	46 Montague STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.40050499	150.8953125
FAIRY MEADOW	Deynal (Seeman)	51-59 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.39437085	150.8924666
FARLEY	Farley Wastewater Treatment Works	Owlpen LANE	Other Industry	Regulation under CLM Act not required	-32.74431314	151.5194217
FASSIFERN	Newstan Colliery	Fassifern ROAD	Other Industry	Regulation under CLM Act not required	-32.97942521	151.5660046
FASSIFERN	Former Arsenic Smelter	Fassifern ROAD	Other Industry	Regulation under CLM Act not required	-32.99649819	151.5618283
FEDERAL	Federal General Store	3-6 Federal DRIVE	Service Station	Contamination formerly regulated under the CLM Act	-28.65190728	153.4552976
FERN BAY	Former service station	37 Fullerton (1006 Nelson Bay Road) STREET	Service Station	Regulation under CLM Act not required	-32.87245004	151.7939904
FIVE DOCK	7-Eleven Five Dock Service Station	231-235 Great North ROAD	Service Station	Regulation under CLM Act not required	-33.86488376	151.130002
FIVE DOCK	Caltex Five Dock Service Station	47 Ramsay Road, corner Fairlight STREET	Service Station	Regulation under CLM Act not required	-33.87002804	151.1301835
FORBES	BP (Former Mobil) Depot Forbes	3-15 Union STREET	Other Petroleum	Regulation under CLM Act not required	-33.37751977	148.0101422
FORBES	Former Gasworks	24-26 Union STREET	Gasworks	Contamination currently regulated under CLM Act	-33.37752036	148.0090064
FORBES	Woolworths (Former Save on Fuel) Service Station	26 Dowling STREET	Service Station	Regulation under CLM Act not required	-33.38148764	148.0109845
FORBES	BP Service Station Forbes	29 Dowling STREET	Other Petroleum	Regulation under CLM Act not required	-33.38121776	148.0100351
FORBES	Former Shell Depot	Stephen STREET	Other Petroleum	Regulation under CLM Act not required	-33.37704755	148.0103001
FORBES	Caltex Service Station Forbes	Parkes ROAD	Service Station	Regulation under CLM Act not required	-33.36333714	148.0223727

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
FORESTVILLE	BP Service Station	632 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.75997969	151.2142944
FORESTVILLE	Shell Service Station	667 Warringah ROAD	Service Station	Contamination currently regulated under CLM Act	-33.76035336	151.2184929
FORRESTERS BEACH	Caltex Service Station	The Entrance Rd Cnr Bellevue ROAD	Service Station	Regulation under CLM Act not required	-33.40057818	151.4687631
FORSTER	Caltex Service Station	16-18 Lake STREET	Service Station	Regulation under CLM Act not required	-32.18306967	152.5162492
FORSTER	Shell (Kneebone's) Service Station	2-6 The Lakes WAY	Service Station	Regulation under CLM Act not required	-32.1946108	152.5145662
FORSTER	Enhance (Former Mobil) Service Station	86-88 Macintosh STREET	Service Station	Regulation under CLM Act not required	-32.19079468	152.5154847
FREDERICKTON	Former Service station	2-4 Great North ROAD	Service Station	Regulation under CLM Act not required	-31.03513998	152.8794105
FRENCHS FOREST	Former BP Service Station	Russell AVENUE	Service Station	Regulation under CLM Act not required	-33.75018093	151.2245005
FRENCHS FOREST	Former 7-Eleven / Mobil Beacon Hill Service Station, Frenchs Forest	312 Warringah ROAD	Service Station	Regulation under CLM Act not required	-33.75129647	151.2469656
FRESHWATER	Prime Service Station Freshwater	117 Harbord ROAD	Service Station	Regulation under CLM Act not required	-33.77286748	151.2794354
GEORGETOWN	Former Caltex Service Station	4 Georgetown ROAD	Service Station	Regulation under CLM Act not required	-32.91121105	151.7319693
GERRINGONG	Gerringong Cooperative	18 Belinda STREET	Other Petroleum	Regulation under CLM Act not required	-34.74518835	150.8181054
GILGANDRA	United (Former Mobil) Service Station	13 Castlereagh STREET	Service Station	Regulation under CLM Act not required	-31.71715641	148.6581574
GILGANDRA	Former Mobil Depot	2 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70937362	148.6522102
GILGANDRA	Former Mobil Depot	20 Federation STREET	Other Petroleum	Regulation under CLM Act not required	-31.70771744	148.6514198
GILGANDRA	Caltex Service Station Gilgandra	6425 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-31.72545524	148.65281
GILLENBAH	Caltex (Former Mobil) Narrandera Service Station	16321 - 16335 Newell HIGHWAY	Service Station	Regulation under CLM Act not required	-34.76124219	146.5398604
GIRRAWEEN	Industrial Galvanizers site	20-22 Amax AVENUE	Metal Industry	Contamination currently regulated under POEO Act	-33.80500693	150.9396743
GIRRAWEEN	Caltex Pendle Hill Service Station Girraween	602 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.80827518	150.9421511
GLADESVILLE	Caltex Service Station	287-295 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8285374	151.1268639
GLADESVILLE	Road Reserve	Pittwater ROAD	Other Industry	Regulation under CLM Act not required	-33.81603924	151.1355085
GLADESVILLE	Caltex Service Station	116 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.83575319	151.1277863

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GLADESVILLE	Glade View Business Park	436-484 Victoria ROAD	Other Industry	Under assessment	-33.82382382	151.1223941
GLEBE	The Hill and Jubilee Embankment	12 Maxwell ROAD	Other Industry	Regulation under CLM Act not required	-33.87573032	151.1776027
GLEN INNES	Ambulance Station	106 Bourke STREET	Unclassified	Regulation under CLM Act not required	-29.73805854	151.7313138
GLEN INNES	Telstra Depot Glen Innes	126 Lambeth STREET	Unclassified	Regulation under CLM Act not required	-29.73565341	151.7278271
GLEN INNES	Caltex Glen Innes Service Station	Meade Street, corner Church STREET	Service Station	Regulation under CLM Act not required	-29.73699014	151.7379335
GLEN INNES	Former Shell Depot	Lambeth STREET	Other Petroleum	Regulation under CLM Act not required	-29.7376309	151.7276309
GLEN INNES	Former Caltex Depot, Glen Innes	Lot 1 DP785636 Lambeth STREET	Other Petroleum	Regulation under CLM Act not required	-29.73525485	151.7279167
GLEN INNES	Council-owned Laneway	Lot 2 Lang STREET	Gasworks	Regulation under CLM Act not required	-29.74385432	151.7323049
GLEN INNES	Caltex Service Station	Cnr Taylor Street & Church STREET	Service Station	Regulation under CLM Act not required	-29.73289036	151.739653
GLEN INNES	Caltex Glen Innes Paddock	9979 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-29.75608853	151.7344106
GLENBROOK	Caltex Service Station Glenbrook	78 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76545234	150.6215447
GLENDALE	Coles Express Glendale	593 Main ROAD	Service Station	Regulation under CLM Act not required	-32.92709242	151.637946
GLENDALE	Settlement Pond	65 Glendale DRIVE	Unclassified	Under assessment	-32.93411399	151.6483695
GLENDALE	Former Service Station	334-342 Lake ROAD	Unclassified	Regulation under CLM Act not required	-32.92775076	151.6433463
GLENDALE	Woolworths Service Station	Stockland DRIVE	Service Station	Regulation under CLM Act not required	-32.93250548	151.6404097
GLENDENNING	7-Eleven Plumpton Service Station Glendenning	1 Dublin Street, corner Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.73988232	150.8603323
GLENORIE	Caltex Glenorie Service Station	912 Old Northern ROAD	Service Station	Regulation under CLM Act not required	-33.60550946	151.0126731
GLENTHORNE	Caltex Taree Service Station	Manning River DRIVE	Service Station	Regulation under CLM Act not required	-31.94415251	152.4703511
GLOUCESTER	Caltex Service Station	141 Church STREET	Service Station	Regulation under CLM Act not required	-32.01222514	151.9579521
GOOLMANGAR	Goolmangar General Store	851 Nimbin ROAD	Service Station	Regulation under CLM Act not required	-28.74694441	153.225401
GOONELLABAH	Former Invercauld Road Cattle Dip	161 Invercauld ROAD	Cattle Dip	Contamination currently regulated under CLM Act	-28.8308417	153.3098878
GOSFORD	United (former Mobil) Depot	Corner Merinee Road and Bowen CRESCENT	Other Petroleum	Regulation under CLM Act not required	-33.41523225	151.3257069

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GOULBURN	Former Goulburn Gasworks	1 Blackshaw ROAD	Gasworks	Contamination currently regulated under CLM Act	-34.75237525	149.725507
GOULBURN	Goulburn Tannery	13 Gibson STREET	Other Industry	Regulation under CLM Act not required	-34.73756525	149.72059
GOULBURN	Caltex Depot	13 Sloane STREET	Other Petroleum	Regulation under CLM Act not required	-34.77423152	149.7088626
GOULBURN	Metro Goulburn Depot	23 Braidwood ROAD	Other Petroleum	Regulation under CLM Act not required	-34.76217302	149.7170897
GOULBURN	Caltex Service Station	72-74 Clinton STREET	Service Station	Regulation under CLM Act not required	-34.75728157	149.7135824
GOULBURN	Caltex Service Station	68 Goldsmith STREET	Service Station	Regulation under CLM Act not required	-34.75054432	149.7192098
GOULBURN	Former Shell Autoport Service Station	Corner Bruce Street and Lagoon STREET	Service Station	Regulation under CLM Act not required	-34.74807885	149.7266246
GOULBURN	Coles Express Service Station	90 Cowper (Corner Clinton Street) STREET	Service Station	Regulation under CLM Act not required	-34.75566648	149.7107831
GOULBURN	Mobil Service Station	129 Lagoon STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.74618793	149.7330484
GOULBURN	Caltex Service Station	315 Auburn, corner Bradley STREET	Service Station	Regulation under CLM Act not required	-34.74942293	149.7232692
GOULBURN	Former Mobil Service Station Goulburn	422-426 Auburn STREET	Service Station	Regulation under CLM Act not required	-34.74869879	149.7229392
GRAFTON	Former General Store and Service Station Grafton	161 Turf STREET	Service Station	Regulation under CLM Act not required	-29.67412811	152.9336609
GRAFTON	Lowes Petroleum (BP-Branded) Depot, Grafton	13 Orara STREET	Other Petroleum	Regulation under CLM Act not required	-29.67016421	152.918161
GRAFTON	Former Shell Depot	2 Milton STREET	Other Petroleum	Regulation under CLM Act not required	-29.67723019	152.9205374
GRAFTON	Grafton Works Depot	26-28 Bruce STREET	Other Petroleum	Regulation under CLM Act not required	-29.67975507	152.9249357
GRAFTON	Former BP Service Station (Reliance Petroleum)	202 Queen STREET	Service Station	Regulation under CLM Act not required	-29.67645469	152.9423977
GRAFTON	Woolworths Petrol	75 - 77 Fitzroy Street Cnr of Duke STREET	Service Station	Regulation under CLM Act not required	-29.69221713	152.9343562
GRAFTON	Caltex Service Station	Corner Villiers St and Fitzroy STREET	Service Station	Regulation under CLM Act not required	-29.69296308	152.9366431
GRAFTON	BP Service Station (Reliance Petroleum)	14 Villiers (Cnr Fitzroy) STREET	Service Station	Regulation under CLM Act not required	-29.69345456	152.9373123
GRAFTON	Former Mobil Depot Grafton	2-16 Bruce STREET	Other Petroleum	Regulation under CLM Act not required	-29.68093591	152.9231289
GRAFTON	Caltex Service Station	179 Prince STREET	Service Station	Regulation under CLM Act not required	-29.68600117	152.9371093
GRANVILLE	Caltex Service Station	144 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.83039605	151.0109216

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GRANVILLE	Australand	15-17 Berry STREET	Other Industry	Contamination being managed via the planning process (EP&A Act)	-33.83600073	151.0211988
GRANVILLE	Woolworths Service Station Granville	158 Clyde STREET	Service Station	Regulation under CLM Act not required	-33.84623338	151.0124885
GRANVILLE	Commercial Property	2B Factory STREET	Other Industry	Ongoing maintenance required to manage residual contamination	-33.84173556	151.0165687
GRANVILLE	Old Granville Depot	23 Elizabeth STREET	Unclassified	Regulation under CLM Act not required	-33.83765925	151.008528
GRANVILLE	7-Eleven Service Station	154-160 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.83022685	151.0101322
GRANVILLE	A'Becketts Creek	Albert STREET	Unclassified	Under assessment	-33.82735397	151.0113643
GREENACRE	Former Plating Works	12 Claremont STREET	Unclassified	Regulation under CLM Act not required	-33.89992254	151.0386128
GREENACRE	7-Eleven (former Mobil) Service Station	301-305 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90524488	151.0419971
GREENACRE	Caltex Service Station	87 - 91 Roberts ROAD	Service Station	Regulation under CLM Act not required	-33.90461089	151.0648581
GREENWICH	Gore Creek Reserve - Drainage Line	St Vincents ROAD	Other Industry	Regulation under CLM Act not required	-33.82888693	151.1819101
GRENFELL	Former SRA Fuel Depot	Grafton STREET	Other Petroleum	Regulation under CLM Act not required	-33.89351237	148.1560188
GRENFELL	Grenfell Gasworks	Corner Gooloogong Road & Bourke STREET	Gasworks	Regulation under CLM Act not required	-33.89006016	148.1615443
GRETA	Coles Express Greta	122 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.67656357	151.3872818
GRETA	redevelopment site	112-114 High STREET	Other Industry	Regulation under CLM Act not required	-32.67706709	151.3876682
GRETA	Former landfill	Hollingshed ROAD	Landfill	Regulation under CLM Act not required	-32.66705287	151.3923474
GREYSTANES	Metro Branded (former Mobil) Service Station	73 Ettalong ROAD	Service Station	Regulation under CLM Act not required	-33.81822648	150.9513946
GRIFFITH	Liberty Depot (former Shell CVRO) Griffith	6-10 Mackay AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.2910045	146.063824
GRIFFITH	Former Murrumbidgee Irrigation Depot	55-77 Banna AVENUE	Other Industry	Regulation under CLM Act not required	-34.28858242	146.0567509
GRIFFITH	Mobil Depot - Griffith Airport	Off Rememberance DRIVE	Other Petroleum	Regulation under CLM Act not required	-34.25618872	146.0620449
GRIFFITH	Former Ampol Depot	32-34 Mackay AVENUE	Other Petroleum	Regulation under CLM Act not required	-34.2933331	146.0679503
GRIFFITH	Caltex Service Station and Depot	2-4 Mackay AVENUE	Service Station	Regulation under CLM Act not required	-34.2908766	146.0630815
GRIFFITH	Former Landmark Fertiliser Storage Facility	2-8 Jensen ROAD	Chemical Industry	Regulation under CLM Act not required	-34.29365599	146.0536413

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GRIFFITH	Belford Petroleum (former Mobil) Depot	30 Banna AVENUE	Service Station	Regulation under CLM Act not required	-34.29042827	146.0595497
GRIFFITH	Former BP Service Station (Reliance Petroleum)	81 Banna AVENUE	Service Station	Regulation under CLM Act not required	-34.28851251	146.0540815
GUILDFORD	7-Eleven Service Station Guildford West	176 Fowler ROAD	Service Station	Regulation under CLM Act not required	-33.85149493	150.9722491
GULGONG	Lowes Petroleum (former BP) Depot Gulgong	6 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-32.35950625	149.5461499
GULGONG	The Oval Site	Queen STREET	Unclassified	Regulation under CLM Act not required	-32.36169815	149.531075
GULMARRAD	BP Service Station Maclean	3976 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-29.48537407	153.2004311
GUMLY GUMLY	Caltex Service Station	3723 Sturt HIGHWAY	Service Station	Regulation under CLM Act not required	-35.13590309	147.4424551
GUMLY GUMLY	Brick Kiln Reserve	Eunony Bridge ROAD	Landfill	Regulation under CLM Act not required	-35.12098411	147.4196309
GUNDAGAI	Former Mobil Depot	98 Mount STREET	Other Petroleum	Regulation under CLM Act not required	-35.08206783	148.096221
GUNNEDAH	Caltex Service Station	21 Abbott STREET	Service Station	Regulation under CLM Act not required	-30.98021001	150.2561856
GUNNEDAH	Former Shell Depot Gunnedah	85-89 Barber STREET	Other Petroleum	Regulation under CLM Act not required	-30.97949284	150.2507401
GUNNEDAH	Mobil Gunnedah Depot	16-24 Wentworth STREET	Other Petroleum	Regulation under CLM Act not required	-30.98428725	150.260609
GUNNEDAH	BP Depot and Retail Fuel Outlet Gunnedah	103 Mathias ROAD	Other Petroleum	Under assessment	-30.96665001	150.2326526
GUNNEDAH	BP Service Station	Corner Conadilly Street & Henry STREET	Service Station	Contamination formerly regulated under the CLM Act	-30.98116266	150.2583066
GUNNEDAH	Mobil Service Station	341 Conadilly STREET	Service Station	Contamination formerly regulated under the CLM Act	-30.9807394	150.2578428
GUNNEDAH	Property NSW Site	35-37 Abbott STREET	Other Petroleum	Regulation under CLM Act not required	-30.9789841	150.25737
GUNNEDAH	Former Telstra Line Depot	81 Barber STREET	Other Petroleum	Regulation under CLM Act not required	-30.97933809	150.2503121
GUNNEDAH	Adjacent to Service Station	Intersection of Henry Street and Conadilly STREET	Service Station	Contamination formerly regulated under the CLM Act	-30.98072588	150.2582802
GUNNEDAH	Former Caltex Depot	61 Railway AVENUE	Other Petroleum	Contamination formerly regulated under the CLM Act	-30.97953242	150.2494457
GUNNING	Gunning Motors	56 Yass STREET	Service Station	Regulation under CLM Act not required	-34.78159326	149.2684791
GUYRA	Guyra Fourways Service Centre	87-89 Bradley STREET	Service Station	Regulation under CLM Act not required	-30.24580085	151.6701156
GUYRA	Caltex-branded Service Station	4352 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-30.20601937	151.6757291

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
GUYRA	StateRail land leased to Incitec	Starr ROAD	Other Industry	Regulation under CLM Act not required	-30.23157011	151.6707135
GWANDALAN	Metro Petroleum Gwandalan (Formerly Gwandalan Auto Care)	47 Orana ROAD	Service Station	Regulation under CLM Act not required	-33.13632941	151.5813396
GWANDALAN	Former Gwandalan Landfill	Kanangra DRIVE	Landfill	Regulation under CLM Act not required	-33.17497722	151.5917107
GYMEA	7-Eleven (former Mobil) Gymea Service Station	110 Gymea Bay ROAD	Service Station	Regulation under CLM Act not required	-34.03745848	151.0848547
GYMEA	Coles Express Kirrawee	470 Princes (Cnr The Boulevarde) HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.02735302	151.0845079
GYMEA	Former Shell Service Station Gymea	Gymea Bay ROAD	Service Station	Regulation under CLM Act not required	-34.04129676	151.0841328
HABERFIELD	7-Eleven Haberfield	25-35 Parramatta ROAD	Service Station	Contamination currently regulated under CLM Act	-33.887956	151.142868
HALEKULANI	Former Halekulani Landfill	Macleay DRIVE	Landfill	Regulation under CLM Act not required	-33.21446301	151.5527625
HAMILTON	SRA Land	10 Maitland ROAD	Unclassified	Regulation under CLM Act not required	-32.91994358	151.7512417
HAMILTON	Taxi Services	116 Tudor STREET	Service Station	Contamination formerly regulated under the CLM Act	-32.92351606	151.7454742
HAMILTON	Caltex Hamilton	59-63 Tudor STREET	Service Station	Regulation under CLM Act not required	-32.92498593	151.7509313
HAMILTON	Newcastle Toyota	65 Tudor STREET	Other Petroleum	Regulation under CLM Act not required	-32.925171	151.7504048
HAMILTON	Hamilton Bus Depot	Cnr Denison Street and Gordon AVENUE	Other Petroleum	Regulation under CLM Act not required	-32.92542648	151.7512512
HAMILTON NORTH	Shell Newcastle Terminal	5 Chatham STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.91630469	151.7408712
HAMILTON NORTH	Former Black and Decker Site	56 Clyde STREET	Metal Industry	Contamination currently regulated under CLM Act	-32.91080413	151.7358236
HAMILTON NORTH	Hamilton Gasworks	1 Chatham ROAD	Gasworks	Contamination currently regulated under CLM Act	-32.91362741	151.7406241
HAMILTON NORTH	Former ELMA Site	54 Clyde STREET	Other Industry	Contamination currently regulated under CLM Act	-32.91145768	151.7367691
HARBORD	Former Dry Cleaners	121 Wyndora AVENUE	Other Industry	Regulation under CLM Act not required	-33.77425321	151.2821553
HARDEN	SRA Site	31 Aurvill ROAD	Unclassified	Regulation under CLM Act not required	-34.54998656	148.3689577
HARDEN	SRA Site	51 Whitton LANE	Unclassified	Contamination formerly regulated under the CLM Act	-34.55396035	148.3713349
HARDEN	South West Fuel Harden	294 Albury STREET	Service Station	Regulation under CLM Act not required	-34.550176	148.351276
HARRIS PARK	Dalley Street Reserve	2A Dalley STREET	Other Industry	Regulation under CLM Act not required	-33.82749118	151.0097545

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
HARTLEY VALE	Former Shale Oil Refinery	Lot 52 Hartley Vale ROAD	Unclassified	Contamination currently regulated under CLM Act	-33.52925119	150.24216
HASTINGS POINT	Coles Express Hastings Point	99 Tweed Coast ROAD	Service Station	Regulation under CLM Act not required	-28.36914103	153.5725676
HAY	SRA Land	429, 431, 435, 437 & 439 Murray STREET	Other Industry	Regulation under CLM Act not required	-34.49965611	144.840976
HAY	SRA Land	443 Murray STREET	Other Industry	Contamination formerly regulated under the CLM Act	-34.49966753	144.8410778
HAY	Former Shell Hay Depot	391 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.50028195	144.8463999
HAY	Former Mobil Depot Hay	397-399 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-34.50019184	144.8456578
HAY SOUTH	Caltex Service Station	429-431 Moama STREET	Service Station	Regulation under CLM Act not required	-34.52001427	144.8380121
HAZELBROOK	Caltex Service Station Hazelbrook	198 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.72106175	150.4520976
HEATHCOTE	Caltex Service Station	1344 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08841066	151.0072048
HEATHCOTE	Caltex Service Station	1403 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.09059834	151.003752
HEATHCOTE	Shell Coles Express Service Station	1355 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.08780042	151.0069741
HEATHERBRAE	Bogas (Former Caltex) Service Station	3 Speedy Lock LANE	Service Station	Regulation under CLM Act not required	-32.78057822	151.7372135
HEATHERBRAE	Shell Coles Express Motto Farm Service Station	2137 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-32.79835449	151.7176284
HEXHAM	QR National - Hexham Precinct	179 & 3/67 Maitland ROAD	Other Industry	Regulation under CLM Act not required	-32.83474038	151.6821895
HEXHAM	Caltex Diesel Stop	360 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82844873	151.6851063
HEXHAM	Cummins Newcastle Facility Hexham	21 Galleghan STREET	Other Industry	Regulation under CLM Act not required	-32.83186739	151.686709
HEXHAM	BP Service Station (Reliance Petroleum)	Corner Pacific Highway and Old Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82756403	151.6846929
HEXHAM	Former Forgacs Site	21 Sparke STREET	Chemical Industry	Contamination currently regulated under CLM Act	-32.85464558	151.6988053
HEXHAM	Caltex-Bogas Warehouse	239 Old Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.82899942	151.6861849
HEXHAM	Industrial Galvanizers	312 Pacific HIGHWAY	Metal Industry	Contamination currently regulated under POEO Act	-32.83457186	151.6884941
HILLSTON	Former BP Depot Hillston	141-143 Cowper STREET	Other Petroleum	Regulation under CLM Act not required	-33.48823546	145.5381623
HOLBROOK	Caltex Truckstop	Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-35.71332625	147.3207237

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
HOMEBUSH	Ausgrid Mason Park Substation	1 Underwood ROAD	Other Industry	Regulation under CLM Act not required	-33.85674677	151.0747044
HOMEBUSH BAY	SUEZ Waste Recycling Centre (WRC) and Cleanaway Liquid	Corner Pondage Link and Hill ROAD	Landfill	Regulation under CLM Act not required	-33.84359299	151.0593656
HOMEBUSH WEST	Caltex Service Station Homebush West	334-336 Parramatta ROAD	Service Station	Regulation under CLM Act not required	-33.8581543	151.0681261
HOMEBUSH WEST	Former Ford Landfill	22 Mandemar AVENUE	Landfill	Under preliminary investigation order	-33.86180526	151.0635664
HORNSBY	Midas Car Care Centre Hornsby	2A Linda STREET	Unclassified	Regulation under CLM Act not required	-33.70052215	151.1004786
HORNSBY	Coles Express Hornsby	194- 206 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.7071993	151.0991452
HORNSBY	Hornsby Train Maintenance Centre	1B Stephen STREET	Other Industry	Regulation under CLM Act not required	-33.69342449	151.1035295
HOXTON PARK	Endeavour Energy Hoxton Park	490 Hoxton Park ROAD	Other Industry	Regulation under CLM Act not required	-33.92766437	150.8689069
HUNTERS HILL	Coles Express Hunters Hill	4 Ryde ROAD	Service Station	Regulation under CLM Act not required	-33.8317985	151.141655
HUNTERS HILL	Foreshore Land	Rear of 7, 9 & 11 Nelson PARADE	Other Industry	Contamination currently regulated under CLM Act	-33.84248362	151.1649249
HUNTERS HILL	7, 9 and 11 Nelson Parade Hunters Hill	7, 9 and 11 Nelson PARADE	Other Industry	Regulation under CLM Act not required	-33.84218911	151.164968
HURLSTONE PARK	Former Telstra Depot	82 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.90803171	151.1258121
HURLSTONE PARK	Former Speedway Petroleum Service Station	610 - 618 New Canterbury ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.90541228	151.1322009
HURLSTONE PARK	7-Eleven Hurlstone Park	670 New Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.90510388	151.1299825
HURSTVILLE GROVE	Moore Reserve	Morshead DRIVE	Landfill	Contamination currently regulated under CLM Act	-33.97920603	151.0873578
INGLEBURN	7-Eleven Ingleburn	63 Oxford St (Cnr Cumberland St) STREET	Service Station	Under assessment	-33.9999965	150.8680085
INVERELL	Former Shell Depot	25 Edward STREET	Other Petroleum	Regulation under CLM Act not required	-29.76151684	151.1182033
INVERELL	Former Service Station	20 Oliver STREET	Service Station	Regulation under CLM Act not required	-29.77229743	151.1152692
INVERELL	Former Caltex Depot Inverell	4 Edward STREET	Service Station	Regulation under CLM Act not required	-29.76123104	151.1147983
INVERELL	Former Mobil Inverell Depot	29-33 Edward STREET	Other Petroleum	Regulation under CLM Act not required	-29.76135322	151.1171412
INVERELL	Caltex Service Station	55-59 Ring STREET	Service Station	Regulation under CLM Act not required	-29.76204512	151.1141737
INVERELL	Former Mobil Service Station	Corner Otho Street and Henderson STREET	Service Station	Regulation under CLM Act not required	-29.7786926	151.1149921

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
INVERELL	Former Caltex Service Station	141 Otho STREET	Service Station	Regulation under CLM Act not required	-29.77819403	151.1145699
ISLINGTON	Caltex Service Station	240 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.91138644	151.7457701
ISLINGTON	Shell Pipeline Easement (vacant land)	24 Fern STREET	Other Petroleum	Regulation under CLM Act not required	-32.91706254	151.7473809
JAMISONTOWN	BP Service Station Jamisontown	124 - 128 Mulgoa ROAD	Service Station	Regulation under CLM Act not required	-33.76978323	150.6764977
JAMISONTOWN	Former Caltex Jamisontown	229-231 Mulgoa ROAD	Service Station	Regulation under CLM Act not required	-33.76661447	150.6784735
JAMISONTOWN	7-Eleven Service Station	92 Mulgoa ROAD	Service Station	Contamination currently regulated under CLM Act	-33.7667231	150.6796488
JANNALI	Former Mobil Service Station	121 Georges River ROAD	Service Station	Regulation under CLM Act not required	-34.01614613	151.0681921
JANNALI	Former IGA	541 Box ROAD	Other Industry	Regulation under CLM Act not required	-34.01602134	151.0660384
JENNINGS	Jennings Former Arsenic Poison Factory	Duke Street, Manor Street, and Ballandean STREET	Chemical Industry	Contamination currently regulated under CLM Act	-28.92833023	151.9301552
JESMOND	Caltex Service Station	27 Bluegum ROAD	Service Station	Regulation under CLM Act not required	-32.9029287	151.691164
JINDABYNE	BP Service Station (Reliance Petroleum)	8 Kosciuszko ROAD	Service Station	Regulation under CLM Act not required	-36.41478692	148.6178882
JINDABYNE	Caltex Service Station	50 Kosciuszko ROAD	Service Station	Regulation under CLM Act not required	-36.41395847	148.6225113
JINGELLIC	Former Jingellic School	3179 River ROAD	Other Industry	Under assessment	-35.926501	147.701011
JUNEE	Subdivision Proposal	5858 Gundagai ROAD	Unclassified	Regulation under CLM Act not required	-34.87783587	147.6067578
KANAHOOKA	Former Smelter Site	Kanahooka ROAD	Metal Industry	Under assessment	-34.49406369	150.8227583
KANDOS	Cement Australia Kandos Cement Works	1 Jamison STREET	Other Industry	Regulation under CLM Act not required	-32.86399912	149.9779259
KANWAL	Kanwal General Store and Fuel Supplies and Adjacent Land	68 and part of 70 Craigie AVENUE	Service Station	Contamination currently regulated under CLM Act	-33.263026	151.482125
KANWAL	Former Bus and Truck Rental Yard	645-647 Pacific Highway HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-33.26233802	151.4825469
KARIONG	Coles Express Kariong	6 Central Coast HIGHWAY	Service Station	Regulation under CLM Act not required	-33.43443192	151.2963401
KARIONG	Caltex Service Station	Lot 2 Langford DRIVE	Service Station	Regulation under CLM Act not required	-33.43934827	151.2935447
KARUAH	BP Roadhouse Karuah	403 Tarean ROAD	Service Station	Regulation under CLM Act not required	-32.65371781	151.9629963
KATOOMBA	Aldi Stores	201 Katoomba STREET	Service Station	Regulation under CLM Act not required	-33.71756625	150.3101649

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
KATOOMBA	Former Katoomba/Leura Gasworks	Megalong STREET	Gasworks	Contamination currently regulated under CLM Act	-33.71318559	150.3187284
KELLYVILLE	Caltex Service Station	3-5 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.71436125	150.9602175
KELLYVILLE	BP Service Station Kellyville	19-23 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.71280997	150.9590756
KELSO	Caltex Service Station Kelso	19 Sydney ROAD	Service Station	Regulation under CLM Act not required	-33.41904247	149.6023985
KELSO	BP Service Station (Reliance Petroleum)	63 Sydney ROAD	Service Station	Regulation under CLM Act not required	-33.41925328	149.6076677
KEMBLA GRANGE	ShawCor Australia	66 West Dapto ROAD	Other Petroleum	Regulation under CLM Act not required	-34.46875328	150.8106326
KEMBLAWARRA	Griffins Bay, Lake Illawarra	Shellharbour ROAD	Landfill	Regulation under CLM Act not required	-34.49653984	150.8943776
KEMPS CREEK	Caltex-branded Service Station	1163 Mamre ROAD	Service Station	Regulation under CLM Act not required	-33.86972102	150.7966074
KEMPSEY	Kempsey Showground	19 Sea STREET	Unclassified	Contamination being managed via the planning process (EP&A Act)	-31.07334836	152.8308795
KEMPSEY	Former Shell Depot	43-51 Gladstone STREET	Other Petroleum	Regulation under CLM Act not required	-31.07500944	152.8346699
KEMPSEY	Former Mobil Depot	14 Hopetoun STREET	Other Petroleum	Regulation under CLM Act not required	-31.07603107	152.8350132
KEMPSEY	Shell Coles Express Service Station Kempsey	165 Smith STREET	Service Station	Regulation under CLM Act not required	-31.07036743	152.8461571
KEMPSEY	Mobil Depot	154 Belgrave STREET	Service Station	Regulation under CLM Act not required	-31.07965043	152.8326303
KEMPSEY	Liberty (Former Mobil) Service Station	108-112 Smith STREET	Service Station	Regulation under CLM Act not required	-31.07492508	152.8431945
KENSINGTON	7-Eleven Kensington	135 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.91035885	151.2228537
KENSINGTON	Former Ampol Service Station	76-82 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.9059246	151.2242891
KENSINGTON	Footpath adjacent to 10-20 Anzac Parade	10-20 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.9032124	151.2237836
KENSINGTON	Caltex Service Station	211-213 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.91460752	151.2251266
KENTHURST	Vacant Land	259 McCylmonts ROAD	Unclassified	Regulation under CLM Act not required	-33.61283529	150.9425303
KHANCOBAN	Khancoban Tip	Alpine WAY	Landfill	Regulation under CLM Act not required	-36.21994191	148.1542718
KIAMA	Former Gasworks	105 to 109 and 113 Shoalhaven STREET	Gasworks	Regulation under CLM Act not required	-34.67416881	150.8504143
KIAMA HEIGHTS	Former Mobil Service Station Kiama	7-9 South Kiama DRIVE	Service Station	Regulation under CLM Act not required	-34.69553931	150.8437977

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
KILLARA	7-Eleven Service Station (Former Mobil)	496 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.77146554	151.1606903
KILLARA	Former Caltex Service Station	692B-694 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.76306802	151.1550109
KILLARA	Killara Garage	544 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76974164	151.1599696
KILLARA	Former BP Service Station Lindfield	478 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.7719298	151.1613874
KILLARA	Land Adjacent to Former Service Station Site	684-684a, 690, 692 and 696 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.76312226	151.1549237
KINCUMBER	Frost Reserve	Avoca DRIVE	Landfill	Under assessment	-33.47065695	151.3909044
KINGS PARK	Multi-Fill	14 Garling ROAD	Unclassified	Regulation being finalised	-33.74478046	150.9111964
KINGS PARK	Former Dow Corning Factory	21 Tattersall ROAD	Chemical Industry	Regulation under CLM Act not required	-33.75012653	150.9138477
KINGSFORD	Caltex Service Station	603-611 Anzac PARADE	Service Station	Regulation under CLM Act not required	-33.93435787	151.2371198
KINGSFORD	Coles Express Service Station Kingsford	58 Gardeners ROAD	Service Station	Regulation under CLM Act not required	-33.9250054	151.2257601
KINGSGROVE	Shell Coles Express Service Station	137 Kingsgrove ROAD	Service Station	Regulation under CLM Act not required	-33.93276948	151.099026
KINGSGROVE	Caltex Kingsgrove	351-357 Stoney Creek ROAD	Service Station	Regulation under CLM Act not required	-33.95132175	151.0926872
KINGSGROVE	State Transit Authority Depot	17-23 Richland STREET	Other Petroleum	Regulation under CLM Act not required	-33.93646086	151.0973617
KIRRAWEE	Ingal Civil Products	127-141 Bath ROAD	Metal Industry	Regulation under CLM Act not required	-34.03029516	151.0754469
KIRRAWEE	7-Eleven (former Mobil) Service Station	542-546 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.03238179	151.0758071
KIRRAWEE	Caltex-branded Kirrawee Service Station	(1-3 Waratah Street) 487 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.02915971	151.0808279
KOGARAH	Scarborough Park South	184R Production AVENUE	Landfill	Regulation being finalised	-33.97922253	151.140276
KOGARAH	Caltex Service Station	29 President AVENUE	Service Station	Regulation under CLM Act not required	-33.96516866	151.141145
KOGARAH	7-Eleven Service Station	736 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.96406472	151.1376011
KOGARAH	Woolworths Petrol Service Station	69 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.96330397	151.1371182
KOOLKHAN	Former Koolkhan Power Station	Summerland WAY	Other Industry	Regulation under CLM Act not required	-29.61688704	152.9300645
KOORAGANG	NPC, berths 2 and 3	Heron ROAD	Metal Industry	Regulation being finalised	-32.89260063	151.7742527

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
KOORAGANG	Kooragang Island Waste Facility	Off Cormorant ROAD	Metal Industry	Contamination currently regulated under POEO Act	-32.88250732	151.7466125
KOORAGANG	Orica Kooragang Island	15 Greenleaf ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-32.89654619	151.7771372
KOORAGANG	Former Boral Timber Export Facility	16 Heron ROAD	Other Industry	Regulation under CLM Act not required	-32.89710295	151.7739966
KOORAGANG	Cleanaway Technical Services	19 Egret STREET	Unclassified	Regulation under CLM Act not required	-32.8634857	151.7414904
KOORAGANG	Industrial Facility	39 Heron ROAD	Chemical Industry	Under assessment	-32.89106439	151.7784064
KOORAGANG	Vacant Land	Raven Street and Cormorant ROAD	Unclassified	Regulation under CLM Act not required	-32.88410199	151.7701334
KOORAGANG	Linx Logistics	240 Cormorant ROAD	Other Industry	Regulation under CLM Act not required	-32.87480951	151.7757352
KOORINGAL	Former Shell Wagga Depot	11-15 Lake Albert ROAD	Other Petroleum	Regulation under CLM Act not required	-35.12273113	147.3786005
KOORINGAL	Caltex Service Station	265-267 Lake Albert ROAD	Service Station	Regulation under CLM Act not required	-35.14078443	147.3755442
KOORINGAL	Caltex-branded (former Mobil) Service Station	24 Lake Albert ROAD	Service Station	Regulation under CLM Act not required	-35.12239591	147.3769936
KOSCIUSZKO	Smiggin Holes Snow Clearing Shed	Link ROAD	Landfill	Regulation under CLM Act not required	-36.39098211	148.4304981
KOSCIUSZKO	Khancoban Spoil Dump	Alpine WAY	Landfill	Regulation under CLM Act not required	-36.21982803	148.1527401
KOSCIUSZKO	Sawpit Creek landfill	13km from Jindabyne, off Kosciuszko ROAD	Landfill	Regulation under CLM Act not required	-36.34858097	148.5673374
KURMOND	BP Service Station	501 Bells Line of road ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.55096662	150.6911676
KURNELL	Former Phillips Imperial Chemicals site	260 Captain Cook DRIVE	Chemical Industry	Regulation under CLM Act not required	-34.02493837	151.1952149
KURNELL	Caltex Refinery	2 Solander STREET	Other Petroleum	Contamination currently regulated under POEO Act	-34.0175214	151.2159572
KURNELL	Abbott Australasia	Captain Cook DRIVE	Chemical Industry	Contamination formerly regulated under the CLM Act	-34.02339937	151.19921
KURNELL	Former Caltex Kurnell Service Station	Corner Captain Cook Drive and Solander STREET	Service Station	Regulation under CLM Act not required	-34.01269846	151.2094347
KURRI KURRI	Caltex Service Station Kurri Kurri	279-281 Lang STREET	Service Station	Contamination currently regulated under CLM Act	-32.82047175	151.477646
KURRI KURRI	Kurri Kurri Smelter	Hart ROAD	Metal Industry	Regulation under CLM Act not required	-32.7873063	151.4828827
KYOGLE	Caltex Service Station	22-24 Summerland WAY	Service Station	Regulation under CLM Act not required	-28.61806766	153.003862
LAKE HAVEN	Caltex Service Station	Goobarabah Ave Cnr Gorokan DRIVE	Service Station	Regulation under CLM Act not required	-33.24337276	151.5065335

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
LAKEMBA	Former Lakemba Police Station	59 Quigg STREET	Unclassified	Regulation under CLM Act not required	-33.92199239	151.079412
LAKEMBA	Caltex Service Station - Corner Punchbowl Rd and Wangee Rd	81 Wangee ROAD	Service Station	Regulation under CLM Act not required	-33.91153044	151.073306
LAKEMBA	Caltex Service Station	961-967 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.92671102	151.0814905
LAMBTON	Caltex Service Station	422 Newcastle ROAD	Service Station	Regulation under CLM Act not required	-32.9095592	151.7109684
LANE COVE	7-Eleven Service Station	203 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81458334	151.1543844
LANE COVE	BP-branded Jasbe Service Station	62-70 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.81108427	151.1641531
LANE COVE	Pacific Power	Sirius ROAD	Landfill	Ongoing maintenance required to manage residual contamination	-33.80701776	151.1449658
LANE COVE	Coles Express Service Station Burns Bay	254 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81719214	151.1518774
LANE COVE NORTH	Former Caltex Service Station	428-432 Mowbray ROAD	Service Station	Regulation under CLM Act not required	-33.80804563	151.1721538
LANE COVE NORTH	BP Artarmon Service Station, Lane Cove North	432 Pacific HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.8112038	151.175547
LANE COVE WEST	Caltex Lane Cove West	235-245 Burns Bay ROAD	Service Station	Regulation under CLM Act not required	-33.81719214	151.1518774
LANE COVE WEST	Ventemans Reach Bushland	Off Mars ROAD	Unclassified	Regulation under CLM Act not required	-33.80615015	151.1451474
LANSVALE	Mobil Service Station	161 Hume HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.89442261	150.9571507
LANSVALE	Mobil Service Station	44 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.89172416	150.9656537
LAURIETON	Camden Haven Tyre and Brake Centre (Former Caltex Service	461 Ocean DRIVE	Service Station	Regulation under CLM Act not required	-31.64367775	152.7977735
LAVENDER BAY	SRA Land	French STREET	Unclassified	Regulation under CLM Act not required	-33.84560621	151.2030148
LAVINGTON	Former Caltex Service Station	373-375 Wagga ROAD	Service Station	Regulation under CLM Act not required	-36.04797551	146.9385325
LAVINGTON	Caltex Service Station	436 Wagga (corner Dick Road) ROAD	Service Station	Regulation under CLM Act not required	-36.04500034	146.9444932
LAVINGTON	Former ERS liquid waste treatment and storage facility	819 Knights ROAD	Other Industry	Regulation under CLM Act not required	-36.06763885	146.942143
LEETON	Former Mobil Depot	108 Calrose STREET	Other Petroleum	Regulation under CLM Act not required	-34.55813326	146.3921296
LEETON	Caltex Service Station	1 Belah STREET	Service Station	Regulation under CLM Act not required	-34.55421752	146.3998431
LEETON	Yenda Producers (formerly Incitec) Leeton	1 - 2 Canal STREET	Other Petroleum	Regulation under CLM Act not required	-34.55184684	146.3862573

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
LEETON	Former Fuel Depot, Leeton	1-3 Short STREET	Other Petroleum	Regulation under CLM Act not required	-34.55253237	146.3864507
LEICHHARDT	SRA Land	10-11 Balmain ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.87774852	151.1590952
LEICHHARDT	Former Kolotex site	22 George STREET	Other Industry	Contamination currently regulated under CLM Act	-33.888	151.148
LEICHHARDT	Former Labelcraft Site	30-40 George STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.887795	151.148486
LEICHHARDT	Leichhardt Bus Depot Area E	240 Balmain Road, corner City West LINK	Other Industry	Regulation under CLM Act not required	-33.87589727	151.1598073
LEICHHARDT	RailCorp Leichhardt	7 Darley ROAD	Other Industry	Regulation under CLM Act not required	-33.87520846	151.1539012
LENNOX HEAD	Former Caltex Lennox Head	Byron STREET	Service Station	Regulation under CLM Act not required	-28.79189328	153.5883225
LENNOX HEAD	Spoors Dip	13 Fig Tree Hill DRIVE	Cattle Dip	Contamination formerly regulated under the CLM Act	-28.78258175	153.5752527
LEPPINGTON	Coles Express Leppington	1443 Camden Valley WAY	Service Station	Regulation under CLM Act not required	-33.96631609	150.8154793
LEUMEAH	Caltex Service Station	6 Rudd ROAD	Service Station	Regulation under CLM Act not required	-34.05398325	150.8299209
LEURA	Former Leura Garage	126-128 Leura MALL	Service Station	Regulation under CLM Act not required	-33.7125311	150.3315386
LIDCOMBE	Metro Lidcombe (former Liberty)	134 John STREET	Service Station	Contamination currently regulated under POEO Act	-33.854665	151.046744
LIDDELL	Liddell Power Station	New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.37393962	150.9756283
LIDSDALE	Angus Place Colliery	Wolgan ROAD	Other Industry	Regulation under CLM Act not required	-33.35274573	150.0996773
LIDSDALE	Kerosene Vale Colliery	Wolgan ROAD	Other Industry	Regulation under CLM Act not required	-33.38145755	150.0940097
LIGHTNING RIDGE	Former Ambulance Station	18 - 42 Pandora STREET	Other Industry	Regulation under CLM Act not required	-29.43133877	147.9812981
LIGHTNING RIDGE	Caltex Service Station	Onyx Street, corner Morilla STREET	Service Station	Regulation under CLM Act not required	-29.42922885	147.9747954
LILLIAN ROCK	Former 'Peters Dip' Cattle Tick Dip Site	427 Lillian Rock ROAD	Cattle Dip	Regulation under CLM Act not required	-28.5314327	153.1556392
LINDFIELD	7-Eleven (former Mobil) Service Station	238 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.7788603	151.1689594
LISAROW	OneSteel Recycling	902A Pacific HIGHWAY	Metal Industry	Regulation under CLM Act not required	-33.38420179	151.3655856
LISMORE	Caltex Lismore Service Station	136 Woodlark STREET	Service Station	Regulation under CLM Act not required	-28.80807597	153.2807591
LISMORE	Shell Coles Express Service Station	100 Dawson STREET	Service Station	Regulation under CLM Act not required	-28.81140865	153.2800472

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
LISMORE	Former Shell Depot	116 Wilson STREET	Other Petroleum	Regulation under CLM Act not required	-28.81070081	153.2621577
LISMORE	Caltex Service Station	73-75 Dawson STREET	Service Station	Regulation under CLM Act not required	-28.80894415	153.2809619
LISMORE	Lismore Gasworks	Cnr John Street & Keen STREET	Gasworks	Ongoing maintenance required to manage residual contamination	-28.81764489	153.2710196
LISMORE	SRA Land	Norco LANE	Unclassified	Regulation under CLM Act not required	-28.810742	153.2702306
LISMORE HEIGHTS	Coles Express Lismore Heights	426 Ballina ROAD	Service Station	Contamination currently regulated under CLM Act	-28.81068067	153.3053065
LISMORE HEIGHTS	Beardow Street Landslip Project	22 New Ballina ROAD	Unclassified	Under assessment	-28.804051	153.291801
LITHGOW	Former Shell CVRO and Depot	77 Bridge Street and 6 Gas Works LANE	Other Petroleum	Regulation under CLM Act not required	-33.47995091	150.162216
LITHGOW	Lithgow Thales	4 Martini PARADE	Metal Industry	Contamination formerly regulated under the CLM Act	-33.49012248	150.1415389
LITHGOW	Former Mobil Depot	353 Main STREET	Other Petroleum	Regulation under CLM Act not required	-33.48235166	150.1383012
LITHGOW	Former Gasworks	Mort STREET	Gasworks	Regulation under CLM Act not required	-33.47995167	150.1635401
LITHGOW	Jasbe BP-branded Service Station (Former Reliance Petroleum)	1106 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.48426647	150.134992
LITHGOW	Caltex Lithgow (Quota Park)	Adjacent to 1131 Great Western HIGHWAY	Unclassified	Regulation under CLM Act not required	-33.47927554	150.1366238
LIVERPOOL	AC McGrath (Wholesale) Pty Ltd	20 Shepherd Street and 6A & 6B Atkinson STREET	Other Industry	Regulation under CLM Act not required	-33.9320192	150.9236862
LIVERPOOL	Former Car Park	4 - 6 Rose STREET	Unclassified	Regulation under CLM Act not required	-33.93258955	150.9157936
LIVERPOOL	Woolworths Service Station	59-67 Orange Grove ROAD	Service Station	Regulation under CLM Act not required	-33.90711248	150.9178855
LIVERPOOL	68 Speed Street, Liverpool NSW	68 Speed STREET	Gasworks	Under assessment	-33.929889	150.92243
LOFTUS	BP Freedom Fuel Service Station Loftus	127 Loftus AVENUE	Service Station	Regulation under CLM Act not required	-34.04570765	151.0508004
LONG JETTY	Long Jetty Servo	326 The Entrance ROAD	Service Station	Under assessment	-33.35897356	151.4847709
LONG JETTY	Caltex Service Station	431 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.36022468	151.4826553
LONG JETTY	Westside Petroleum Service Station	290-294 The Entrance ROAD	Service Station	Contamination currently regulated under CLM Act	-33.35688982	151.4862246
LONG JETTY	7-Eleven (former Mobil) Service Station	184-186 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.35089363	151.4924904
LONGUEVILLE	Caltex Service Station	5-7 Northwood ROAD	Service Station	Regulation under CLM Act not required	-33.82452775	151.1725758

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
LUCAS HEIGHTS	Harringtons Quarry	access from Little Forest ROAD	Landfill	Contamination currently regulated under CLM Act	-34.03555347	150.9751826
LUCAS HEIGHTS	IWC landfill	Little Forest ROAD	Landfill	Contamination currently regulated under CLM Act	-34.03214889	150.9753474
LUDDENHAM	Caltex Service Station	3019-3035 The Northern ROAD	Service Station	Regulation under CLM Act not required	-33.87536093	150.6888872
MACKSVILLE	Caltex Service Station	Pacific (22-24 Cooper Street) HIGHWAY	Service Station	Regulation under CLM Act not required	-30.70977455	152.9198448
MACLEAN	MacLean Outdoors	255 River STREET	Service Station	Regulation under CLM Act not required	-29.45782683	153.1970725
MACQUARIE FIELDS	Caltex Service Station	68 Harold STREET	Service Station	Regulation under CLM Act not required	-33.98557276	150.8933681
MACQUARIE PARK	Caltex North Ryde Service Station	41-43 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.79138236	151.1312248
MACQUARIE PARK	1-7 Waterloo Road, Macquarie Park	1-7 Waterloo ROAD	Other Petroleum	Regulation under CLM Act not required	-33.78806877	151.1332148
MACQUARIE PARK	Porters Creek Depot - Proposed Operations Centre Site	160 Wicks ROAD	Landfill	Regulation under CLM Act not required	-33.785348	151.13663
MACQUARIE PARK	De Burghs Cycleway - Lane Cove National Park	Riverside DRIVE	Other Petroleum	Regulation under CLM Act not required	-33.77802854	151.1367529
MAITLAND	Maitland Gasworks	Charles STREET	Gasworks	Contamination currently regulated under CLM Act	-32.73603658	151.5578926
MAITLAND	Hannan and High Street	Hannan Street and High STREET	Service Station	Regulation under CLM Act not required	-32.72731682	151.5515673
MAITLAND	Coles Express Service Station	235 High STREET	Service Station	Regulation under CLM Act not required	-32.73923807	151.5620399
MALABAR	ANZAC Rifle Range former landfill	Franklin STREET	Landfill	Regulation being finalised	-33.95792671	151.2566373
MANDALONG	Mandalong Mine	Mandalong ROAD	Other Industry	Regulation under CLM Act not required	-33.11725583	151.4616452
MANGROVE MOUNTAIN	Poultry Litter Containment Pit site	258 Waratah ROAD	Unclassified	Regulation under CLM Act not required	-33.28917277	151.167235
MANILLA	Tamworth Regional Council Works Depot - Manilla	73 River STREET	Other Petroleum	Regulation under CLM Act not required	-30.746085	150.725363
MANLY	Caltex Service Station	86 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.79306889	151.2858638
MANLY	Former Little Manly Point Gasworks	End of Stuart STREET	Gasworks	Regulation under CLM Act not required	-33.80842005	151.2877784
MANLY	St Patrick's Estate	151 Darley ROAD	Unclassified	Regulation under CLM Act not required	-33.8044568	151.2938595
MANLY	Little Manly Point	Stuart STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.80814626	151.2876245
MANLY VALE	Caltex Service Station Manly Vale	236-238 Condamine STREET	Service Station	Regulation under CLM Act not required	-33.78508231	151.2674386

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MANLY VALE	Former Landfill Addiscombe Road	Addiscombe ROAD	Landfill	Contamination currently regulated under CLM Act	-33.78307439	151.2747846
MANNERING PARK	Parkview General Store (a former service station)	2 Vales ROAD	Service Station	Regulation under CLM Act not required	-33.14753814	151.5387832
MANNERING PARK	Mannering Park Mini Mart	70 Vales ROAD	Service Station	Regulation under CLM Act not required	-33.15236501	151.5371767
MARAYONG	7-Eleven (former Mobil Blacktown West) Service Station Marayong	173 Richmond ROAD	Service Station	Regulation under CLM Act not required	-33.75472796	150.8913605
MARAYONG	Woolworths Petrol Service Station Marayong	Corner Vardys Road and Turbo ROAD	Service Station	Regulation under CLM Act not required	-33.7452356	150.9041601
MARDI	Former Mardi Landfill	70-90 McPherson ROAD	Landfill	Regulation under CLM Act not required	-33.29273289	151.4100941
MARKS POINT	Former Mobil Service Station (now 7-Eleven)	770-772 Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-33.05646268	151.6533795
MARKS POINT	Former Mobil Aviation Depot Belmont Airport	864 Pacific HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-33.06657244	151.6497674
MAROUBRA	Coles Express Pagewood Service Station, Maroubra	299 Bunnerong PARADE	Service Station	Regulation under CLM Act not required	-33.94071282	151.2285063
MARRANGAROO	United (Former Mobil) Service Station Marrangaroo	394-398 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.45253322	150.1181023
MARRICKVILLE	Former Mobil Service Station	384 Illawarra ROAD	Service Station	Regulation under CLM Act not required	-33.91534969	151.1506717
MARRICKVILLE	TRW Steering and Suspension	22-28 Carrington ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.92012667	151.1566181
MARRICKVILLE	Woolworths Petrol Service Station Marrickville	490 Illawarra ROAD	Service Station	Regulation under CLM Act not required	-33.91845177	151.1459951
MARRICKVILLE	RailCorp	361 Victoria ROAD	Other Industry	Regulation under CLM Act not required	-33.91404835	151.1557132
MARRICKVILLE	Mackey Park	Cnr Richardsons Crescent and Carrington ROAD	Landfill	Regulation under CLM Act not required	-33.9220263	151.1547903
MARRICKVILLE	Cooks River Aqueduct	Thornley STREET	Unclassified	Contamination formerly regulated under the CLM Act	-33.92204604	151.1480332
MARRICKVILLE	2 Carrington Road	2 Carrington ROAD	Unclassified	Regulation under CLM Act not required	-33.91596071	151.1597199
MARRICKVILLE	Former Dry Cleaners and Loading Dock (adjacent Lot 1 DP612551)	Smidmore STREET	Other Industry	Contamination currently regulated under CLM Act	-33.90707592	151.171701
MARSDEN PARK	226 Grange Avenue	226 Grange AVENUE	Unclassified	Regulation under CLM Act not required	-33.70259609	150.83825
MARSFIELD	Coles Express Service Station Marsfield	189 Epping ROAD	Service Station	Regulation under CLM Act not required	-33.77519246	151.1053691
MARULAN	BP Express Marulan (Northbound)	(Northbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.7188332	149.9949547
MARULAN	BP Service Station	(Southbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.71932066	150.0014827

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MARYVILLE	7-Eleven Service Station	184-188 Hannell STREET	Service Station	Contamination currently regulated under CLM Act	-32.91336028	151.7579315
MASCOT	Former Zinc Smelter and Paint Manufacturing Facility	163 O'Riordan STREET	Metal Industry	Regulation under CLM Act not required	-33.92526513	151.1892582
MASCOT	Caltex Service Station	125 O'Riordan STREET	Service Station	Regulation under CLM Act not required	-33.92309169	151.1911539
MASCOT	Mascot Pioneer Plating	25-29 Ricketty STREET	Metal Industry	Contamination currently regulated under CLM Act	-33.92075288	151.1824801
MASCOT	Heritage Business Centre	5-9 Ricketty STREET	Unclassified	Regulation under CLM Act not required	-33.92029202	151.1816656
MASCOT	Telstra Exchange	904-922 Botany ROAD	Other Industry	Regulation under CLM Act not required	-33.9293166	151.1942777
MASCOT	Former Shell Service Station Mascot	746 Botany ROAD	Service Station	Contamination currently regulated under CLM Act	-33.92352295	151.1955852
MASCOT	Ing Industrial Fund (unoccupied Land and General Parking)	19-33 Kent ROAD	Landfill	Regulation under CLM Act not required	-33.922765	151.185262
MASCOT	Former Mascot Galvanising	336-348 King STREET	Metal Industry	Contamination currently regulated under CLM Act	-33.92902126	151.185874
MASCOT	Sokol Corporation	50-56 Robey STREET	Other Industry	Regulation under CLM Act not required	-33.93162265	151.1904955
MASCOT	Linear Park	Off O'Riordan STREET	Landfill	Regulation under CLM Act not required	-33.92278693	151.1904751
MATRAVILLE	Port Botany Bus Depot	7 Bumborah Point ROAD	Other Petroleum	Regulation under CLM Act not required	-33.96880413	151.2255889
MATRAVILLE	Former Golden Fleece Terminal No2	151 Beauchamp ROAD	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.95719404	151.2259884
MATRAVILLE	Former Rieco Incinerator	Kain AVENUE	Other Industry	Contamination being managed via the planning process (EP&A Act)	-33.95980534	151.2423679
MATRAVILLE	7-Eleven Service Station Matraville	515 Bunnerong ROAD	Service Station	Contamination currently regulated under CLM Act	-33.95943536	151.2317598
MATRAVILLE	Former Golden Fleece Terminal No1	133 -149 Beauchamp ROAD	Other Petroleum	Contamination formerly regulated under the CLM Act	-33.95776666	151.2248518
MATRAVILLE	Vacant Lot	3 Wilkes AVENUE	Other Industry	Regulation under CLM Act not required	-33.96006406	151.2431087
MAYFIELD	7-Eleven (Former Mobil) Service Station	412-416 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.89292005	151.7300948
MAYFIELD	Shell Coles Express Service Station	63-69 Maud STREET	Service Station	Regulation under CLM Act not required	-32.89358962	151.7221298
MAYFIELD	BHP Closure Site (Hunter River Sediments)	Bed Sediments of the Hunter adjacent to Lot 221 DP1013964	Metal Industry	Contamination formerly regulated under the CLM Act	-32.89203741	151.7646702
MAYFIELD	Australian Tube Mills Newcastle Site	Industrial DRIVE	Metal Industry	Under assessment	-32.88835767	151.7450751
MAYFIELD	BHP Steel River	The Buffer Zone' extending directly adjacent to the Hunter	Metal Industry	Contamination currently regulated under CLM Act	-32.8773556	151.7252427

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MAYFIELD	BHPB Supply site	Lot 223 South and West - Industrial DRIVE	Metal Industry	Contamination currently regulated under CLM Act	-32.88583041	151.7388423
MAYFIELD	Waratah Steel Mill	23 Frith STREET	Metal Industry	Regulation under CLM Act not required	-32.89426592	151.7257429
MAYFIELD	OneSteel (BHP)	Industrial DRIVE	Metal Industry	Contamination currently regulated under CLM Act	-32.88366987	151.7449491
MAYFIELD NORTH	OneSteel - Newcastle Market Mills	141 & 151 Ingall STREET	Metal Industry	Under assessment	-32.89008485	151.752949
MAYFIELD WEST	Stevenson Park landfill	2/559 Maitland ROAD	Landfill	Regulation under CLM Act not required	-32.88472556	151.7224791
MAYFIELD WEST	Koppers Coal Tar	East of Woodstock Street and Tourle STREET	Other Industry	Contamination currently regulated under CLM Act	-32.88554791	151.7368545
MAYFIELD WEST	Tourle Street Bridge Project	Tourle STREET	Landfill	Regulation under CLM Act not required	-32.88075518	151.7330073
MCDOUGALLS HILL	Caltex Service Station	4949 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.54484714	151.1490757
MEADOWBANK	Former Council Works Depot	2 Parsonage STREET	Unclassified	Regulation under CLM Act not required	-33.82191421	151.0951974
MENAI	7-Eleven (Former Mobil) Service Station Menai	289 Menai ROAD	Service Station	Regulation under CLM Act not required	-34.01579095	151.0131737
MENAI	Caltex Service Station Menai	1 Carter Road ROAD	Service Station	Regulation under CLM Act not required	-34.01654043	151.0124133
MEREWETHER	Merewether Childcare Centre	2/23 Caldwell STREET	Unclassified	Regulation under CLM Act not required	-32.94249653	151.7504279
MERIMBULA	Caltex Service Station	19-25 Merimbula DRIVE	Service Station	Regulation under CLM Act not required	-36.88757881	149.9089159
MERIMBULA	Former Mobil Service Station	27 Market STREET	Service Station	Regulation under CLM Act not required	-36.88941693	149.9103485
MERRYLANDS	Former Timber Yard and Hardware	11-19 Centenary ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83083025	150.9698915
MERRYLANDS	Caltex Service Station	229 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.84547463	150.9983413
MERRYLANDS	Caltex Service Station Merrylands	148 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.83818499	150.9997199
MERRYLANDS	Stockland Merrylands Court	249-259 Merrylands ROAD	Service Station	Regulation under CLM Act not required	-33.83560037	150.9869735
MERRYLANDS	7-Eleven Merrylands Service Station	295-297 Merrylands (Cnr Windsor Rd) ROAD	Service Station	Regulation under CLM Act not required	-33.83533205	150.9851801
MERRYLANDS	Former Stockfeed Manufacturing Site	1-7 & 9-11 Neil STREET	Other Petroleum	Regulation under CLM Act not required	-33.83390257	150.9947449
MERRYLANDS WEST	Former Mobil Service Station	3 Centenary ROAD	Service Station	Regulation under CLM Act not required	-33.83214226	150.9698958
MILLER	Caltex Service Station	86 Cartwright AVENUE	Service Station	Regulation under CLM Act not required	-33.91878146	150.8827514

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MILLERS FOREST	Chichester Trunk Gravity Main	water pipeline	Other Industry	Contamination currently regulated under POEO Act	-32.772877	151.6826841
MILLERS POINT	Former AGL Gasworks	30 - 34 Hickson ROAD	Gasworks	Regulation under CLM Act not required	-33.86179594	151.2031726
MILLERS POINT	Moores Wharf UPSS	4 Towns PLACE	Other Petroleum	Regulation under CLM Act not required	-33.85581123	151.2024759
MILLERS POINT	Former AGL Gasworks	38 Hickson and road reserve ROAD	Gasworks	Contamination being managed via the planning process (EP&A Act)	-33.86280104	151.2032452
MILLERS POINT	Former AGL Gasworks	Berths 5, 6 and 7 (already demolished) and part Hickson	Gasworks	Contamination currently regulated under CLM Act	-33.86053571	151.2015022
MILLERS POINT	Former AGL Gasworks	Road reserve fronting 30-38 Hickson ROAD	Gasworks	Contamination currently regulated under CLM Act	-33.86241531	151.2024634
MILLERS POINT	Former AGL Gasworks 36 Hickson Road	36 Hickson ROAD	Gasworks	Contamination formerly regulated under the CLM Act	-33.86243824	151.2032514
MILPERRA	Heatcraft Australia Pty Ltd	286 Horsley ROAD	Other Industry	Regulation under CLM Act not required	-33.94031556	150.9958606
MILPERRA	United Group Rail Pty Limited	373 Horsley ROAD	Landfill	Regulation under CLM Act not required	-33.93286283	150.9934071
MILPERRA	Caltex Service Station	264 Milperra ROAD	Service Station	Regulation under CLM Act not required	-33.93018101	150.9910964
MILPERRA	Former Landfill	479 Henry Lawson DRIVE	Landfill	Regulation under CLM Act not required	-33.933968	150.977629
MILTON	Former Sanitary Depot	Slaughterhouse ROAD	Other Industry	Regulation under CLM Act not required	-35.33819825	150.4471917
MILTON	Caltex Milton Service Station and Depot	331 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.33154474	150.4492852
MINCHINBURY	7-Eleven (former Mobil) Service Station	815 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.78812909	150.8495992
MINCHINBURY	BP Service Station	1055 Great Western Highway corner Archbold ROAD	Service Station	Regulation under CLM Act not required	-33.78211857	150.8244185
MINTO	Land adjacent to Former Shell depot	Airds Road and Essex STREET	Other Petroleum	Regulation under CLM Act not required	-34.02140447	150.8415134
MINTO	Shell Coles Express Service Station	73 Pembroke STREET	Service Station	Regulation under CLM Act not required	-34.02316454	150.8503118
MINTO	Former Endeavour Energy Depot	Pembroke ROAD	Other Petroleum	Regulation under CLM Act not required	-34.0408973	150.8451837
MINTO	Logistics Hub - Culverston Road, Minto	Culverston ROAD	Other Petroleum	Regulation under CLM Act not required	-34.0421711	150.833825
MIRANDA	Woolworth's Service Station	455 Kingsway OTHER	Service Station	Contamination currently regulated under CLM Act	-34.03492814	151.1124681
MITTAGONG	Enhance (former Coles Express) Service Station	224 Old Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.44746118	150.4326183
MITTAGONG	Lots 1 and 2 Alfred St.	Alfred STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-34.44738105	150.4565159

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MITTAGONG	Caltex Mittagong Service Station	65 Bowral ROAD	Service Station	Regulation under CLM Act not required	-34.45245915	150.4381291
MOAMA	Caltex Moama Service Station	73 Meninya (Cnr Regent St) STREET	Service Station	Regulation under CLM Act not required	-36.10815134	144.752849
MOLONG	Cabonne BP Service Station	2 Gidley STREET	Service Station	Contamination currently regulated under CLM Act	-33.09026307	148.8695809
MOLONG	Former Gasworks	Hill STREET	Gasworks	Contamination currently regulated under CLM Act	-33.09074595	148.8703262
MONA VALE	Mona Vale Bus Depot	58 Darley STREET	Other Petroleum	Contamination currently regulated under CLM Act	-33.67452414	151.3074246
MONA VALE	Former Caltex service station and adjacent properties	79 Barrenjoey Road, 2 Polo Avenue, 6 Polo Avenue, 45	Service Station	Contamination formerly regulated under the CLM Act	-33.6743659	151.3096932
MONA VALE	7-Eleven (former Mobil) Service Station	24 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.676909	151.3082515
MONA VALE	BP Peninsula Express Service Station	Corner Barrenjoey Road and Darley Street East STREET	Service Station	Regulation under CLM Act not required	-33.67670799	151.3090068
MONA VALE	BP Service Station Mona Vale	1721 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.68043443	151.3023553
MONA VALE	Caltex Investigation Area	Polo Ave, Perak STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.67431333	151.3091148
MOOBALL	Mooball General Store	5913 Tweed Valley WAY	Service Station	Regulation under CLM Act not required	-28.44204594	153.4887648
MOONBI	Caltex Moonbi Service Station	New England HIGHWAY	Service Station	Regulation under CLM Act not required	-31.02264369	151.069094
MOORE PARK	Area 2, Moore Park	Driver AVENUE	Unclassified	Regulation under CLM Act not required	-33.89426868	151.2226839
MOOREBANK	Caltex Service Station	216 Newbridge ROAD	Service Station	Regulation under CLM Act not required	-33.92930835	150.9551469
MOOREBANK	Joyce Foam Products	5-9 Bridges ROAD	Chemical Industry	Regulation under CLM Act not required	-33.92596302	150.9335273
MOOREBANK	ABB Australia Pty Ltd	(a) 1 Bapaume ROAD	Other Industry	Ongoing maintenance required to manage residual contamination	-33.94143741	150.9208754
MOOREBANK	Caltex Service Station Moorebank	2 Bridges ROAD	Service Station	Regulation under CLM Act not required	-33.92839682	150.9327012
MOOREBANK	Former Landfill Site	Newbridge ROAD	Landfill	Under assessment	-33.93907207	150.9654125
MOOREBANK	Former Concrete Recyclers property, Newbridge Road,	Newbridge ROAD	Landfill	Under assessment	-33.938825	150.965169
MOORLAND	Caltex Service Station	99 Jericho ROAD	Service Station	Regulation under CLM Act not required	-31.79436622	152.6514849
MOREE	Former Freedom Service Station Site Moree	1 Dover STREET	Service Station	Contamination currently regulated under CLM Act	-29.4715814	149.8440279
MOREE	Caltex Depot	101 Gosport STREET	Other Petroleum	Regulation under CLM Act not required	-29.47603684	149.8476728

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MOREE	Former Golden Fleece Depot	Gosport STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-29.47698315	149.8477108
MOREE	Former Mobil Depot	Gosport STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-29.47771921	149.8478438
MOREE	Moree Airport Evaporation Pond	Newell HIGHWAY	Unclassified	Regulation under CLM Act not required	-29.50289837	149.8411301
MOREE	Caltex Service Station	54 Alice STREET	Service Station	Contamination currently regulated under CLM Act	-29.47158492	149.8433182
MOREE	Former Shell Depot	Adelaide STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-29.47655335	149.8465698
MOREE	Shell Coles Express Service Station	Corner Gwydir and Balo STREET	Service Station	Regulation under CLM Act not required	-29.46081826	149.8419975
MOREE	BP Truckstop and Depot Moree	Newell Highway - 423 Frome STREET	Service Station	Regulation under CLM Act not required	-29.48223274	149.8463679
MOREE	Sunnyside Road	Sunnyside ROAD	Unclassified	Regulation under CLM Act not required	-29.456633	149.8225
MORISSET	Railcorp Station Masters Cottage	24 Dora STREET	Unclassified	Regulation under CLM Act not required	-33.10849681	151.4880317
MORPETH	Telstra Cable Installation and RTA Bridge work	Northumberland STREET	Other Petroleum	Regulation under CLM Act not required	-32.72489729	151.6266795
MORPETH	Former Service Station	Swan STREET	Service Station	Regulation under CLM Act not required	-32.72477413	151.6250642
MORTLAKE	Former Petroleum Storage Site	108-116 Tennyson ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83979033	151.1064889
MORTLAKE	Kendall Bay Sediments	Kendall BAY	Gasworks	Contamination currently regulated under CLM Act	-33.83905999	151.1120458
MORTLAKE	Former AGL site	Tennyson ROAD	Gasworks	Contamination formerly regulated under the CLM Act	-33.84287407	151.1109313
MORTLAKE	Majors Bay Redevelopment	14-22 Hilly STREET	Other Industry	Regulation under CLM Act not required	-33.839553	151.105554
MORUYA	Former Fuel Depot Moruya	11 to 13 Ford STREET	Other Petroleum	Regulation under CLM Act not required	-35.9112243	150.0826475
MORUYA	Caltex Service Station Moruya	80-84 Campbell STREET	Service Station	Regulation under CLM Act not required	-35.91195596	150.0824213
MORUYA	Caltex Service Station	26 Campbell STREET	Service Station	Regulation under CLM Act not required	-35.9104985	150.0711419
MOSMAN	7-Eleven Mosman	162A Spit Road Corner Mitchell ROAD	Service Station	Regulation under CLM Act not required	-33.81747016	151.2433633
MOSMAN	BP Service Station	175 Ourimbah ROAD	Service Station	Regulation under CLM Act not required	-33.82106757	151.233291
MOSMAN	7-Eleven Service Station Mosman	45 Spit ROAD	Service Station	Regulation under CLM Act not required	-33.82302718	151.2435627
MOSS VALE	Woolworths Service Station Moss Vale	609 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.55409411	150.3609797

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MOSS VALE	Coles Express Service Station	579 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.55313422	150.364684
MOSS VALE	Moss Vale Refuelling Facility	Lackey ROAD	Other Petroleum	Regulation under CLM Act not required	-34.54662421	150.3721525
MOUNT ANNAN	Woolworths Caltex Mount Annan	157 Narellan (Corner Smeaton Grange Road) ROAD	Service Station	Under assessment	-34.046954	150.760354
MOUNT ANNAN	Great Southern Railways Aqueduct	Off Narellan ROAD	Unclassified	Regulation under CLM Act not required	-34.07308479	150.7707436
MOUNT COLAH	Caltex Service Station Mount Colah	603 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.67034662	151.1151861
MOUNT COLAH	Foxglove Oval	Mount Colah ROAD	Landfill	Under assessment	-33.65829855	151.1229638
MOUNT DRUITT	Caltex (former Mobil) Service Station	17 Mount STREET	Service Station	Regulation under CLM Act not required	-33.76567994	150.8244544
MOUNT HUTTON	Woolworths Service Station	46 Wilsons ROAD	Service Station	Regulation under CLM Act not required	-32.9836378	151.67309
MOUNT PRITCHARD	7-Eleven Service Station	352 Elizabeth DRIVE	Service Station	Regulation under CLM Act not required	-33.90260656	150.8963326
MOUNT THORLEY	Bulga Surface Operations	Broke ROAD	Other Industry	Regulation under CLM Act not required	-32.68325751	151.1206158
MOUNT THORLEY	Lowes Petroleum (Former BP) Depot Mount Thorley	74 Mount Thorley ROAD	Other Petroleum	Regulation under CLM Act not required	-32.62443074	151.1025122
MOUNT VICTORIA	Former Mobil Service Station	81 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.5889727	150.2511783
MOUNT VICTORIA	Caltex Service Station	36a Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.58436517	150.2465528
MUDGEE	Caltex Service Station	114-116 Church STREET	Service Station	Regulation under CLM Act not required	-32.59428029	149.5876199
MUDGEE	Shell Coles Express Service Station	47 Church STREET	Service Station	Regulation under CLM Act not required	-32.59347493	149.5884623
MUDGEE	BP Service Station Mudgee	77 Church STREET	Service Station	Regulation under CLM Act not required	-32.59545872	149.588123
MUDGEE	Mobil Depot	47 Douro STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.60023979	149.5823448
MUDGEE	Mudgee Gasworks	Mortimer Street and Court STREET	Gasworks	Regulation under CLM Act not required	-32.59168859	149.5817705
MUDGEE	Former Essential Energy Depot	27-31 Inglis STREET	Other Industry	Regulation under CLM Act not required	-32.60073	149.585658
MUDGEE	Former Caltex Depot Mudgee	cnr Nicholson Street & Atkinson STREET	Other Petroleum	Regulation under CLM Act not required	-32.60125298	149.5851398
MULGRAVE	7-Eleven (former Mobil) Service Station	Corner Windsor Road and Mulgrave ROAD	Service Station	Regulation under CLM Act not required	-33.61687781	150.8341809
MULWALA	Mulwala ADI Explosives Factory	Bayly STREET	Other Industry	Regulation being finalised	-35.97572689	145.9809786

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
MURWILLUMBAH	Puma Murwillumbah (formerly Matilda)	182 Tweed Valley WAY	Service Station	Contamination currently regulated under CLM Act	-28.3263681	153.4103824
MURWILLUMBAH	Murwillumbah Ambulance Depot	27 Queen STREET	Other Petroleum	Regulation under CLM Act not required	-28.32552576	153.4000182
MURWILLUMBAH SOUTH	Former Norco Butter Factory (Eastern Portion)	230 Tweed Valley WAY	Other Petroleum	Regulation under CLM Act not required	-28.32791359	153.4073052
MUSWELLBROOK	Former Caltex Depot	1 Lower William STREET	Other Petroleum	Regulation under CLM Act not required	-32.26614257	150.8865136
MUSWELLBROOK	Vacant Rail Land	27 Brook STREET	Unclassified	Regulation under CLM Act not required	-32.26346086	150.8873181
MUSWELLBROOK	United Branded (Former Mobil) Service Station Muswellbrook	49-51 Maitland STREET	Service Station	Regulation under CLM Act not required	-32.27218162	150.8900206
MUSWELLBROOK	Former Mobil Depot Muswellbrook	43-51 Ford STREET	Other Petroleum	Regulation under CLM Act not required	-32.2599725	150.887573
MUSWELLBROOK	Woolworths Petrol	72 Brook STREET	Service Station	Regulation under CLM Act not required	-32.26325377	150.8905966
MUSWELLBROOK	Caltex Muswellbrook Service Station	84-86 Maitland STREET	Service Station	Regulation under CLM Act not required	-32.27793094	150.8980938
MUSWELLBROOK	Former Gasworks	Cnr Carl St and Foley STREET	Gasworks	Regulation under CLM Act not required	-32.26672337	150.8935982
MUSWELLBROOK	Bayswater Power Station	New England HIGHWAY	Other Industry	Regulation under CLM Act not required	-32.3954046	150.9502683
MUSWELLBROOK	Former Industrial Site	Lot 89 Rathmore STREET	Other Industry	Regulation under CLM Act not required	-32.30544071	150.8823657
MUSWELLBROOK	Caltex Service Station	12-16 Sydney STREET	Service Station	Regulation under CLM Act not required	-32.26785559	150.8879601
MUSWELLBROOK	Former Caltex Depot	47-50 Victoria STREET	Service Station	Regulation under CLM Act not required	-32.26788823	150.8930609
NABIAC	Caltex Service Station Nabiac	3964 Wallanbah (Cnr Wallanbah Rd and Pacific Hwy) ROAD	Service Station	Regulation under CLM Act not required	-32.09864883	152.3754346
NAMBUCCA HEADS	Former Mobil Service Station	6 Bowra STREET	Service Station	Regulation under CLM Act not required	-30.64282127	153.0035884
NARELLAN	Caltex Service Station Narellan	1 George Hunter DRIVE	Service Station	Regulation under CLM Act not required	-34.03963992	150.7432386
NARELLAN	Former Landfill	1 Elyard STREET	Landfill	Regulation under CLM Act not required	-34.043474	150.7393256
NAROOMA	Narooma Service Station	60 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-36.21617955	150.126261
NAROOMA	Former Caltex - Narooma	82 Princes HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-36.21711766	150.1279305
NARRABEEN	Caltex Service Station	1509-1511 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70455756	151.2969352
NARRABEEN	Shell Coles Express Service Station	1418 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70013931	151.3002782

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
NARRABEEN	Narrabeen Shotgun Range Sydney Academy of Sport	Wakehurst PARKWAY	Unclassified	Ongoing maintenance required to manage residual contamination	-33.72138423	151.2642798
NARRABEEN	7-Eleven Service Station	1234 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.71958892	151.298272
NARRABRI	Caltex Service Station	13 Doyle STREET	Service Station	Regulation under CLM Act not required	-30.3239182	149.7843052
NARRABRI	Lowes Petroleum (Former Mobil) Narrabri Depot	3 Old Gunnedah ROAD	Other Petroleum	Regulation under CLM Act not required	-30.33473586	149.789587
NARRABRI	Caltex Service Station	31-35 Cooma ROAD	Service Station	Regulation under CLM Act not required	-30.33968576	149.7657241
NARRABRI	Caltex Narrabri Service Station	31 Dangar (Cnr Anne and Dangar) STREET	Service Station	Regulation under CLM Act not required	-30.32989667	149.7756598
NARRABRI	Caltex Service Station	12 Reid STREET	Other Petroleum	Regulation under CLM Act not required	-30.32282764	149.7901182
NARRABRI	Cargill Soapstock Disposal Site	Westport ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-30.4698458	149.6981931
NARRABRI	Caltex Service Station	7-13 James STREET	Service Station	Regulation under CLM Act not required	-30.33016168	149.7940732
NARRANDERA	Former Mobil Narrandera Depot	24 Whitton STREET	Other Petroleum	Regulation under CLM Act not required	-34.7410523	146.5620667
NARRANDERA	Former Mobil Emoleum Narrandera Depot	5-7 Margaret STREET	Other Petroleum	Regulation under CLM Act not required	-34.74105391	146.5628144
NARROMINE	Narromine Fuel (Former Caltex) Service Station	Cnr Burraway Street and Algalah STREET	Service Station	Regulation under CLM Act not required	-32.23565321	148.2454259
NELLIGEN	Former Clay Target Shooting Range	1398 Kings Highway and adjoining land on Old Bolaro Mountain	Unclassified	Contamination currently regulated under CLM Act	-35.64392469	150.0955224
NELLIGEN	Lot 2 Old Bolaro Road	Old Bolaro ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-35.64485609	150.0937341
NELSON BAY	Shell Coles Express Service Station	25 Stockton STREET	Service Station	Regulation under CLM Act not required	-32.72265762	152.1437317
NELSON BAY	Former Caltex Service Station Nelson Bay	38 Stockton STREET	Service Station	Regulation under CLM Act not required	-32.72335662	152.1429384
NEMINGHA	Caltex Service Station and Depot Nemingha	428 Armidale (previously 16 New England Highway) ROAD	Service Station	Regulation under CLM Act not required	-31.12425169	150.9909054
NEUTRAL BAY	Caltex Service Station	16-38 Military ROAD	Service Station	Under assessment	-33.82907162	151.2163342
NEUTRAL BAY	Shell Coles Express Service Station	200-204 Ben Boyd ROAD	Service Station	Regulation under CLM Act not required	-33.82915781	151.219437
NEW LAMBTON	Caltex Service Station New Lambton	144 Bridges ROAD	Service Station	Regulation under CLM Act not required	-32.93283668	151.7141748
NEW LAMBTON	BP Service Station	105 St James ROAD	Service Station	Regulation under CLM Act not required	-32.92910325	151.7155801
NEW LAMBTON	7-Eleven (former Mobil) Service Station	291 Turton ROAD	Service Station	Regulation under CLM Act not required	-32.91773864	151.7243096

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
NEWCASTLE	Reclaimed Land	26-28 Honeysuckle DRIVE	Unclassified	Contamination formerly regulated under the CLM Act	-32.92604705	151.7649508
NEWCASTLE	Wharf Road Newcastle Car Park	313-317 Wharf ROAD	Unclassified	Regulation under CLM Act not required	-32.92570385	151.7744076
NEWCASTLE	Newcastle Foreshore	40 Stevenson Place STREET	Other Industry	Regulation under CLM Act not required	-32.92556503	151.7876742
NEWCASTLE	BHP Steelworks (Closure site)	Bound by Hunter River, Selwyn Street & Industrial DRIVE	Metal Industry	Ongoing maintenance required to manage residual contamination	-32.89436064	151.7590762
NEWCASTLE	SRA Land	Scott STREET	Gasworks	Regulation under CLM Act not required	-32.92641425	151.7837817
NEWCASTLE WEST	Former Mobil Service Station	113 Parry STREET	Service Station	Regulation under CLM Act not required	-32.92560628	151.7558542
NEWPORT	7-Eleven (former Mobil) Service Station	307 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.65632902	151.3182089
NEWPORT	Former Caltex Service Station Newport	316-324 Barrenjoey ROAD	Service Station	Regulation under CLM Act not required	-33.65634516	151.3191571
NEWTOWN	Caltex Service Station Newtown	26 - 36 Enmore ROAD	Service Station	Regulation under CLM Act not required	-33.89851331	151.17714
NEWTOWN	Former Service Station	81 Wilson STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.89626791	151.1827556
NEWTOWN	Aluminium Enterprises	66 Brocks LANE	Metal Industry	Contamination was addressed via the planning process (EP&A Act)	-33.89467126	151.1847528
NEWTOWN	Adjacent to Former Service Station	79 Wilson STREET	Service Station	Contamination formerly regulated under the CLM Act	-33.89630155	151.1826567
NORAVILLE	Former Toukley Landfill	Wilfred Barrett DRIVE	Landfill	Regulation under CLM Act not required	-33.27734185	151.5537784
NORTH ALBURY	Caltex Service Station and Diesel Stop	79 Union ROAD	Service Station	Regulation under CLM Act not required	-36.05496713	146.9487635
NORTH BOAMBEE VALLEY	Caltex Service Station	Cnr Pacific Hwy & Halls ROAD	Service Station	Regulation under CLM Act not required	-30.30639482	153.1007996
NORTH BONDI	Caltex Service Station North Bondi	321 Old South Head ROAD	Service Station	Regulation under CLM Act not required	-33.88463526	151.268551
NORTH NARRABEEN	7-Eleven Service Station	1501-1503 Pittwater ROAD	Service Station	Regulation under CLM Act not required	-33.70749859	151.296351
NORTH RICHMOND	Caltex Service Station	50 Bells Line Of ROAD	Service Station	Regulation under CLM Act not required	-33.57991338	150.7202346
NORTH ROCKS	7-Eleven Service Station North Rocks	340 North Rocks ROAD	Service Station	Regulation under CLM Act not required	-33.76895144	151.0305952
NORTH ST MARYS	BP Service Station	76 Glossop STREET	Service Station	Regulation under CLM Act not required	-33.76020183	150.7818149
NORTH STRATHFIELD	Budget Service Station	143 Concord ROAD	Service Station	Regulation under CLM Act not required	-33.85945248	151.0927853
NORTH STRATHFIELD	Former Caltex Service Station	92a Concord ROAD	Service Station	Regulation under CLM Act not required	-33.86244297	151.0932434

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
NORTH SYDNEY	Iora Complex	1 Kiara PLACE	Gasworks	Regulation under CLM Act not required	-33.843145	151.2161142
NORTH SYDNEY	Neutral Bay Sediments	Adjacent to HMAS Platypus, 118 High STREET	Gasworks	Contamination formerly regulated under the CLM Act	-33.842724	151.2174523
NORTH SYDNEY	HMAS Platypus Neutral Bay	High STREET	Gasworks	Contamination currently regulated under CLM Act	-33.84325935	151.2170347
NORTH WOLLONGONG	Former Mobil Depot	122-126 Montague STREET	Other Petroleum	Regulation under CLM Act not required	-34.40988259	150.8939374
NORTHMEAD	Former Prestige Plastics	1C Redbank ROAD	Other Industry	Regulation under CLM Act not required	-33.79716925	150.989926
NORTHMEAD	Coles Express Service Station Northmead	197 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.77741733	151.0001719
NORTHMEAD	Sydney Water Land	51c Hammers ROAD	Landfill	Regulation under CLM Act not required	-33.7887535	150.9858088
NORTHMEAD	Caltex Service Station	98-100 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.78786563	150.9945909
NORTHMEAD	7-Eleven Service Station Northmead	56 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.79090731	150.9967332
NOWRA	Former Gasworks Managers Residence	24 Osborne STREET	Gasworks	Regulation under CLM Act not required	-34.8708875	150.5992586
NOWRA	Fire Station	69 Bridge ROAD	Gasworks	Regulation under CLM Act not required	-34.87081582	150.6004881
NOWRA	Historically Filled Land	70 Bridge ROAD	Unclassified	Regulation under CLM Act not required	-34.87081809	150.6013231
NOWRA	Shell Coles Express Service Station	55 Kinghorne STREET	Service Station	Regulation under CLM Act not required	-34.87633757	150.6023481
NOWRA	Former gasworks	Lamonds LANE	Gasworks	Contamination currently regulated under CLM Act	-34.87111182	150.6000803
NOWRA	Former Hollingworth Scrap Yard	72-74 Jervis and 117 East STREET	Other Industry	Regulation under CLM Act not required	-34.88324216	150.6034361
NOWRA	Woolworths Service Station	2 Berry STREET	Service Station	Regulation being finalised	-34.87266278	150.6014052
NOWRA	Harry Sawkins Park	Bounded by Princes Hwy, Graham St & McGrath AVENUE	Gasworks	Regulation under CLM Act not required	-34.87093993	150.6037157
NOWRA EAST	Mobil Service Station	Lot 3 Kalandar STREET	Service Station	Contamination formerly regulated under the CLM Act	-34.88850535	150.6093504
NYNGAN	Caltex Service Station	39-41 Pangee STREET	Service Station	Regulation under CLM Act not required	-31.56101006	147.1914997
NYNGAN	Caltex Service Station	126 Pangee STREET	Service Station	Regulation under CLM Act not required	-31.56482841	147.2002892
OAK FLATS	Shellharbour City Works Depot	132 Industrial ROAD	Other Industry	Regulation under CLM Act not required	-34.56546013	150.8087225
OBERON	Caltex Service Station and Depot	Lowes Mount ROAD	Service Station	Regulation under CLM Act not required	-33.69509055	149.8570553

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
OBERON	Oberon Timber Complex	Lowes Mount ROAD	Other Industry	Regulation under CLM Act not required	-33.69264862	149.8564588
OBERON	Former Shell Depot	32 O'Connell ROAD	Other Petroleum	Regulation under CLM Act not required	-33.6997172	149.8450057
OBERON	CSR Ltd Property and King's Stockyard Creek	Off Endeavour STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.6922152	149.8686909
OCEAN SHORES	Former Ocean Shores Service Station	Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-28.51270299	153.5301496
OLD GUILDFORD	Caltex Service Station	636-644 Woodville ROAD	Service Station	Regulation under CLM Act not required	-33.86670857	150.9879189
ORANGE	Former Fuel Depot	24-26 Peisley STREET	Other Petroleum	Contamination currently regulated under CLM Act	-33.29624293	149.1017277
ORANGE	Caltex Orange Depot	184 Byng STREET	Service Station	Regulation under CLM Act not required	-33.28285589	149.1050273
ORANGE	Woolworths Orange Service Station	357-361 Summer Street, corner William STREET	Service Station	Regulation under CLM Act not required	-33.28445811	149.1053604
ORANGE	BP Orange Service Station (Reliance Petroleum)	81 Summer STREET	Service Station	Regulation under CLM Act not required	-33.2825884	149.0951535
ORANGE	BP-Branded Lowes Petroleum Depot	197 - 201 Margaret STREET	Other Petroleum	Regulation under CLM Act not required	-33.27145977	149.1078103
ORANGE	Caltex Summer Street Service Station Orange	70-74 Summer Street, corner Hill STREET	Service Station	Regulation under CLM Act not required	-33.28311722	149.0940712
ORANGE	Lowes Petroleum (BP-branded) Service Station	76 Peisley STREET	Service Station	Regulation under CLM Act not required	-33.29025034	149.1027194
ORANGE	Former Mobil Service Station	24-28 Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.2866912	149.1066505
ORANGE	BP (Reliance Petroleum) Service Station Orange	56-60 Bathurst ROAD	Service Station	Regulation under CLM Act not required	-33.28980053	149.1086212
ORANGE	Former Mobil Service Station	168 Peisley STREET	Service Station	Regulation under CLM Act not required	-33.28525478	149.1037259
ORANGE	Electrolux Orange	5-7 Edward STREET	Other Industry	Contamination currently regulated under CLM Act	-33.29874849	149.1038449
OURIMBAH	Palmdale Service Centre Pty Ltd	3130 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.3381336	151.374586
OURIMBAH	Shell Coles Express Service Station	78-80 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.3468202	151.3710098
OXLEY VALE	Hayes Transport Services	10 Manilla ROAD	Other Petroleum	Regulation under CLM Act not required	-31.06991417	150.9101381
OYSTER BAY	Shell Coles Express Service Station	20 Carvers ROAD	Service Station	Contamination currently regulated under CLM Act	-34.00934475	151.0758626
OYSTER COVE	Cove Marine Pty Ltd	60 Frederick STREET	Unclassified	Contamination currently regulated under POEO Act	-32.73549959	151.952446
PADDINGTON	7-Eleven Service Station	59 Oxford STREET	Service Station	Contamination currently regulated under CLM Act	-33.88322921	151.2205024

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PADDINGTON	Former Workshop	52 Hopewell STREET	Other Industry	Regulation under CLM Act not required	-33.881947	151.222074
PADSTOW	Caltex Padstow	115 Fairford ROAD	Service Station	Regulation under CLM Act not required	-33.9434571	151.0345671
PADSTOW	Selleys / Dulux	1-29 Gow STREET	Chemical Industry	Regulation under CLM Act not required	-33.93904125	151.0381725
PADSTOW	Former Exide Battery Manufacturing & Recycling	55 Bryant STREET	Other Industry	Contamination currently regulated under CLM Act	-33.94265241	151.0378986
PADSTOW	Galvatech	49 Gow STREET	Metal Industry	Contamination currently regulated under POEO Act	-33.93808679	151.0346862
PADSTOW	Foseco Australia	7 Stuart STREET	Chemical Industry	Regulation under CLM Act not required	-33.94342957	151.0377316
PADSTOW	Sebel Furniture	Parts 64 and 92 Gow STREET	Other Industry	Regulation under CLM Act not required	-33.93606752	151.0322057
PAGEWOOD	Former Email Site	Corner of Page Street and Holloway STREET	Metal Industry	Contamination currently regulated under CLM Act	-33.94302462	151.2132036
PAMBULA	Offsite area (roadways) adjacent to United Service Station Pambula	Corner Quondola Street and Bullara STREET	Service Station	Regulation under CLM Act not required	-36.93104481	149.8746763
PARKES	Caltex Service Station Parkes	352-360 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.13317454	148.173643
PARKES	Former Caltex Parkes (Mugincoble) Depot - Eugowra	Eugowra ROAD	Service Station	Regulation under CLM Act not required	-33.19007031	148.224822
PARKES	BP Truckstop	(Newell Highway) 1 Forbes ROAD	Other Petroleum	Regulation under CLM Act not required	-33.14309226	148.1710282
PARKES	Former BP Telescope Service Station	339-341 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.13216152	148.1743239
PARKES	BP Reliance East End Service Station Parkes	46 Clarinda STREET	Service Station	Regulation under CLM Act not required	-33.14243539	148.1846227
PARKLEA	Caltex Parklea Service Station	Old Windsor (north of Miami Street) ROAD	Service Station	Regulation under CLM Act not required	-33.72427108	150.9388531
PARRAMATTA	BP Service Station	435 Church STREET	Service Station	Regulation under CLM Act not required	-33.80498714	151.0056151
PARRAMATTA	Coleman Oval Embankment	Cnr of Pitt STREET and Maquarie STREET	Unclassified	Regulation under CLM Act not required	-33.80441625	150.9954841
PARRAMATTA	7-Eleven (former Mobil) Service Station	81 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.80919769	151.0142894
PARRAMATTA	Parramatta Park Toilet Block Demolition	The Cresent Toilet Block Parramatta PARK	Unclassified	Regulation under CLM Act not required	-33.81054034	150.9961968
PAUPONG	Former Timber Treatment Plant	Off Paupong ROAD	Other Industry	Regulation under CLM Act not required	-36.57657408	148.6624998
PENDLE HILL	7-Eleven Service Station	217 Wentworth AVENUE	Service Station	Regulation under CLM Act not required	-33.8017814	150.9577994
PENNANT HILLS	Shell Coles Express Pennant Hills West	386 Pennant Hills ROAD	Service Station	Contamination currently regulated under CLM Act	-33.73936462	151.0680237

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PENRITH	Mirvac Industrial Site	2101 Castlereagh ROAD	Other Industry	Regulation under CLM Act not required	-33.73497514	150.6954097
PENRITH	7-Eleven (former Mobil) Service Station	212-222 Andrews ROAD	Service Station	Regulation under CLM Act not required	-33.73059678	150.6952571
PENRITH	Lowes Petroleum (Former Mobil) Depot Penrith	174 Coreen AVENUE	Other Petroleum	Regulation under CLM Act not required	-33.74484268	150.6980504
PENRITH	Caltex Service Station	Castlereagh Rd Cnr Lugard STREET	Service Station	Regulation under CLM Act not required	-33.73426843	150.6933382
PENRITH	BP Express Service Station	Corner Coreen Avenue and Castlereagh ROAD	Service Station	Regulation under CLM Act not required	-33.74385498	150.6925743
PENRITH	Crane Enfield Metals	Castlereagh ROAD	Metal Industry	Contamination currently regulated under CLM Act	-33.73734959	150.696442
PENRITH	7-Eleven Service Station Penrith	30 Henry STREET	Service Station	Regulation under CLM Act not required	-33.75408799	150.7045594
PENRITH	Caltex Penrith Service Station	153 Coreen AVENUE	Service Station	Regulation under CLM Act not required	-33.74287244	150.6927071
PENRITH	Jet 60 Dry Cleaners	Shop 3 134-138 Henry STREET	Unclassified	Regulation under CLM Act not required	-33.75231953	150.6964541
PENRITH	St Mary's Shopping Village	Charles Hackett DRIVE	Other Industry	Under assessment	-33.766814	150.770363
PENSHURST	7-Eleven Service Station	612 Forest ROAD	Service Station	Regulation under CLM Act not required	-33.96153533	151.0793525
PENSHURST	Caltex Service Station	641 King Georges ROAD	Service Station	Regulation under CLM Act not required	-33.95985335	151.0891118
PERISHER VALLEY	Perisher Centre Loading Dock	Kosciuszko ROAD	Other Petroleum	Regulation under CLM Act not required	-36.40392862	148.4111593
PERISHER VALLEY	Perisher Ski Resort	Kosciuszko ROAD	Other Petroleum	Regulation under CLM Act not required	-36.41106374	148.4005469
PETERSHAM	Fanny Durack Aquatic Centre	Station STREET	Unclassified	Regulation under CLM Act not required	-33.89194583	151.151824
PHEASANTS NEST	7-Eleven Service Station	(Southbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.28291571	150.6394606
PHEASANTS NEST	7-Eleven (former Mobil) Service Station	(Northbound) Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.28303112	150.6363145
PICTON	Coles Express Picton	93-99 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.16844337	150.6114236
PICTON	McDonalds	69 -71 Argyle STREET	Service Station	Regulation under CLM Act not required	-34.16711877	150.6121524
PLUMPTON	Woolworths Service Station Plumpton (Plumpton Marketplace	260 Jersey ROAD	Service Station	Regulation under CLM Act not required	-33.74478874	150.8369408
PORT BOTANY	Vopak B	20 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97946548	151.2121752
PORT BOTANY	Vopak A	49 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97426175	151.2206228

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PORT BOTANY	Terminals	45 Friendship ROAD	Chemical Industry	Regulation under CLM Act not required	-33.97609287	151.2174402
PORT BOTANY	Bunnerong Canal	Between Brotherson Dock and Bumborah Point ROAD	Unclassified	Regulation under CLM Act not required	-33.96800557	151.2227633
PORT BOTANY	Bulk Liquids Berth UPSS, Port Botany	Charlotte ROAD	Other Petroleum	Regulation under CLM Act not required	-33.97386329	151.2120157
PORT BOTANY	Port Operations Centre UPSS, Port Botany	Penrhyn ROAD	Other Petroleum	Regulation under CLM Act not required	-33.96803686	151.2205968
PORT BOTANY	Port Botany Railway Corridors	Friendship ROAD	Other Industry	Regulation under CLM Act not required	-33.95467008	151.2178012
PORT BOTANY	Smith Bros	4 Bumborah Point ROAD	Other Petroleum	Regulation under CLM Act not required	-33.9681757	151.2239505
PORT KEMBLA	Coates Hire Facility (Eastern Portion)	1 Flinders STREET	Other Industry	Regulation under CLM Act not required	-34.47104817	150.89162
PORT KEMBLA	Shell Port Kembla CVRO	87-89 Flinders STREET	Other Petroleum	Regulation under CLM Act not required	-34.46964995	150.8953859
PORT KEMBLA	Darcy Road Rail Sidings	Darcy ROAD	Other Industry	Regulation under CLM Act not required	-34.47792834	150.9105503
PORT KEMBLA	No 2 Steelworks	Five Islands ROAD	Metal Industry	Regulation under CLM Act not required	-34.45965024	150.8844432
PORT KEMBLA	Port Kembla Orica	Foreshore Road and Darcy ROAD	Other Industry	Contamination currently regulated under CLM Act	-34.47773583	150.9054545
PORT KEMBLA	Port Kembla, Auszinc Metals and Alloys	Lot 2 Shellharbour ROAD	Metal Industry	Regulation under CLM Act not required	-34.49335414	150.8961205
PORT KEMBLA	South Yard Rail Sidings	Lot 3 Old Port ROAD	Unclassified	Regulation under CLM Act not required	-34.47500551	150.8951759
PORT KEMBLA	Manildra Park	Flinders STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-34.46946878	150.8935731
PORT KEMBLA	Port Kembla Copper Smelter	Military ROAD	Metal Industry	Under assessment	-34.4810006	150.9063426
PORT KEMBLA	Caltex Service Station	16 Flinders STREET	Service Station	Regulation under CLM Act not required	-34.47058088	150.8945864
PORT KEMBLA	BHP Area 21	Springhill ROAD	Metal Industry	Contamination formerly regulated under the CLM Act	-34.45244614	150.8676517
PORT KEMBLA	Port Kembla Steelworks Recycling Area	Springhill ROAD	Unclassified	Regulation under CLM Act not required	-34.45271181	150.8677127
PORT KEMBLA	Commonwealth Rolling Mills (CRM)	Old Port ROAD	Metal Industry	Regulation under CLM Act not required	-34.47476117	150.8974746
PORT KEMBLA	Port Kembla, Former Electricity Commission Site	Old Port Road/Christie Drive ROAD	Other Industry	Regulation under CLM Act not required	-34.46899143	150.8982854
PORT KEMBLA	Port Kembla Steelworks - Steelhaven	Five Islands ROAD	Other Industry	Regulation under CLM Act not required	-34.47605247	150.891144
PORT KEMBLA	Port Kembla Steelworks - No.1 Works Site	Five Islands ROAD	Metal Industry	Regulation under CLM Act not required	-34.47386606	150.8794912

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PORT KEMBLA	Port Kembla Springhill Works	Springhill ROAD	Metal Industry	Regulation under CLM Act not required	-34.45905808	150.8749558
PORT MACQUARIE	Former Mobil Depot	211 Lake ROAD	Other Petroleum	Regulation under CLM Act not required	-31.44688513	152.8864499
PORT MACQUARIE	Caltex Service Station	112-114 Gordon STREET	Service Station	Regulation under CLM Act not required	-31.43491709	152.9047618
PORT MACQUARIE	Caltex Port Macquarie Service Station	29 Lord STREET	Service Station	Regulation under CLM Act not required	-31.43326436	152.9169873
PORT MACQUARIE	Coles Myer	43 John Oxley DRIVE	Service Station	Regulation under CLM Act not required	-31.45741442	152.8739626
PORT MACQUARIE	Air BP Avgas Facility	Oliver DRIVE	Other Petroleum	Regulation under CLM Act not required	-31.43227222	152.8681083
PORT MACQUARIE	Former Mobil Service Station	Corner Oxley Highway and Major Innes DRIVE	Service Station	Regulation under CLM Act not required	-31.45738931	152.873956
PORT MACQUARIE	Port Macquarie Council Depot	Koala STREET	Unclassified	Regulation under CLM Act not required	-31.45341586	152.9032764
PORT MACQUARIE	Shell Coles Express Port Macquarie Service Station	121 Gordon STREET	Service Station	Regulation under CLM Act not required	-31.4343131	152.9046869
PORT MACQUARIE	Caltex Service Station	92 Hastings River DRIVE	Service Station	Regulation under CLM Act not required	-31.42934052	152.8830188
PORT MACQUARIE	Caltex Service Station	12-14 Bolwarra ROAD	Service Station	Regulation under CLM Act not required	-31.45015286	152.8854769
PORT MACQUARIE	Car park	28 Hayward STREET	Other Industry	Regulation under CLM Act not required	-31.43385131	152.9072399
PORTLAND	Ivanhoe Colliery	Pipers Flat ROAD	Other Industry	Regulation under CLM Act not required	-33.36595748	150.0099577
PORTLAND	Mt Piper Power Station	350 Boulder ROAD	Other Petroleum	Regulation under CLM Act not required	-33.35581541	150.0350801
PRAIRIEWOOD	7-Eleven (former Caltex) Service Station	485-487 Smithfield ROAD	Service Station	Regulation under CLM Act not required	-33.87102509	150.9031383
PROSPECT	7-Eleven (former Mobil) Service Station Prospect	354 Flushcombe ROAD	Service Station	Regulation under CLM Act not required	-33.79541624	150.9049417
PROSPECT	Pincott's Cottage, Gate C1	Off Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.81589773	150.9144343
PROSPECT	Gatehouse, 544 Reservoir Road	544 Reservoir ROAD	Unclassified	Regulation under CLM Act not required	-33.81049244	150.9157439
PROSPECT	Cottage 3, William Lawson Drive	William Lawson DRIVE	Unclassified	Regulation under CLM Act not required	-33.81490331	150.9149885
PUNCHBOWL	Former BP Service Station	1375 Canterbury Road, corner Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.93170424	151.0537302
PUNCHBOWL	Punchbowl Laundry	42-44 Belmore ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.93582701	151.0562638
PUNCHBOWL	Caltex Service Station Punchbowl	1285-1289 Canterbury ROAD	Service Station	Regulation under CLM Act not required	-33.93146308	151.0596348

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
PUTNEY	Putney Marina	20 Waterview STREET	Other Industry	Regulation being finalised	-33.82608091	151.1003966
PYMBLE	Caltex Service Station	1089 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.74102977	151.1385257
PYMBLE	Shell Coles Express Service Station	21 Ryde ROAD	Service Station	Regulation under CLM Act not required	-33.75198512	151.1438115
PYMBLE	Former 3M site	950 Pacific HIGHWAY	Gasworks	Regulation under CLM Act not required	-33.75050288	151.1460578
PYMBLE	Pymble West Dry Cleaners	6 Philip MALL	Other Industry	Under preliminary investigation order	-33.76109009	151.1284329
PYRMONT	Former Council Works Depot (Fig and Wattle Depot)	14-26 Wattle STREET	Other Industry	Regulation under CLM Act not required	-33.8752655	151.1942645
QUAKERS HILL	7-Eleven (former Mobil) Service Station	83 Lalor ROAD	Service Station	Regulation under CLM Act not required	-33.72759077	150.8966764
QUAKERS HILL	BP Branded Parkway (Former Caltex) Service Station Quakers	450 Quakers Hill PARKWAY	Service Station	Regulation under CLM Act not required	-33.72998613	150.9023617
QUEANBEYAN	Former Mobil Service Station	153 Uriarra ROAD	Service Station	Regulation under CLM Act not required	-35.34425514	149.2148687
QUEANBEYAN	Bill Lilley Automotive	169 Crawford STREET	Service Station	Regulation under CLM Act not required	-35.35138121	149.232486
QUEANBEYAN	Woolworths Queanbeyan Service Station	196 Crawford (Cnr Morisset St) STREET	Service Station	Regulation under CLM Act not required	-35.35163055	149.2335759
QUEANBEYAN	Caltex Queanbeyan Service Station	88 Macquoid (also known as Bungendore Rd) STREET	Service Station	Regulation under CLM Act not required	-35.34930535	149.2438607
QUEANBEYAN	Former Mobil Emoleum Depot	109-111 High STREET	Other Petroleum	Regulation under CLM Act not required	-35.3396115	149.237556
QUEANBEYAN	Former Caltex Depot	20-30 Railway STREET	Other Petroleum	Regulation under CLM Act not required	-35.34523	149.22333
QUEANBEYAN EAST	BP-Branded Service Station Queanbeyan	50 Yass ROAD	Service Station	Regulation under CLM Act not required	-35.34126641	149.2445103
QUEANBEYAN WEST	Caltex Service Station	Lanyon Dr Cnr Mccrae St (1 Suraci Place) STREET	Service Station	Regulation under CLM Act not required	-35.36372923	149.2067531
QUIRINDI	Former Mobil Depot Quirindi	4-6 Cross STREET	Other Petroleum	Regulation under CLM Act not required	-31.49903355	150.681972
QUIRINDI	Tamarang ServiCentre Quirindi	113-117 Station (also known as 119-121 Nowland) STREET	Service Station	Under assessment	-31.50179204	150.6814611
QUIRINDI	Caltex Service Station, Quirindi	199-201 George STREET	Service Station	Regulation under CLM Act not required	-31.50654793	150.6803589
RAMSGATE	Shell Coles Express Service Station	Grand Parade cnr Ramsgate ROAD	Service Station	Regulation under CLM Act not required	-33.98537988	151.1471234
RANDWICK	7-Eleven Service Station	126-130 Barker STREET	Service Station	Contamination currently regulated under CLM Act	-33.92096152	151.2355927
RANDWICK	Caltex Service Station	2 Alison ROAD	Service Station	Regulation under CLM Act not required	-33.9065752	151.2320697

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
RANDWICK	Metro Petroleum	345 Avoca STREET	Service Station	Regulation under CLM Act not required	-33.92544832	151.2396799
RANDWICK	Service Station, Randwick	33-37 Carrington ROAD	Service Station	Contamination currently regulated under CLM Act	-33.90655015	151.2525065
RAVENSWORTH	Ravensworth Operations Narama Mine	Lemington ROAD	Other Industry	Regulation under CLM Act not required	-32.47115903	151.0359579
RAVENSWORTH	Cumnock Colliery	Pikes Gully ROAD	Other Industry	Regulation under CLM Act not required	-32.40218281	150.9960082
RAYMOND TERRACE	Shell Coles Express Raymond Terrace	107 Adelaide (formerly Pacific Highway) STREET	Service Station	Regulation under CLM Act not required	-32.76110922	151.7492847
RAYMOND TERRACE	Caltex Service Station Raymond Terrace	136 Adelaide Street, corner Glenelg STREET	Service Station	Regulation under CLM Act not required	-32.76503842	151.7425264
RAYMOND TERRACE	Former Motor Registry	53 William STREET	Other Petroleum	Regulation under CLM Act not required	-32.76286473	151.7445839
RAYMOND TERRACE	Raymond Terrace Wastewater Treatment Works	22 Elizabeth AVENUE	Other Industry	Regulation under CLM Act not required	-32.774658	151.749978
REDFERN	BP Service Station	116 Regent STREET	Service Station	Regulation under CLM Act not required	-33.89367876	151.1995256
REDFERN	Former Printing Works	101a Marriott STREET	Other Industry	Regulation under CLM Act not required	-33.89512556	151.2113422
REDFERN	BP-branded Jasbe Surry Hills	411 Cleveland STREET	Service Station	Regulation under CLM Act not required	-33.89183974	151.2132466
REVESBY	Dorf Clark Industries	184-194 Milperra ROAD	Metal Industry	Regulation under CLM Act not required	-33.93387149	151.000553
REVESBY	Bituminous Products	33-35 Violet STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.93702092	151.0067896
REVESBY	Mirotone Pty Ltd	21 Marigold STREET	Chemical Industry	Contamination currently regulated under POEO Act	-33.93559608	151.0002207
REVESBY	Caltex Service Station Revesby	181 The River ROAD	Service Station	Regulation under CLM Act not required	-33.95573605	151.0171779
RHODES	Homebush Bay Sediments adjoining former UCAL & Allied	Homebush BAY	Chemical Industry	Ongoing maintenance required to manage residual contamination	-33.8263749	151.0839216
RHODES	Former Glad factory site	10-16 Marquet STREET	Chemical Industry	Regulation under CLM Act not required	-33.82884048	151.0848716
RHODES	Former Allied Feeds site	Walker STREET	Other Industry	Contamination was addressed via the planning process (EP&A Act)	-33.82465376	151.0870401
RHODES	Former UCAL site	Walker STREET	Chemical Industry	Ongoing maintenance required to manage residual contamination	-33.82727505	151.0853195
RHODES	Homebush Bay sediments adjoining former Berger Paint	Oulton AVENUE	Chemical Industry	Ongoing maintenance required to manage residual contamination	-33.83535308	151.083238
RICHMOND	Caltex Richmond Service Station	98 March (Cnr East Market St) STREET	Service Station	Regulation under CLM Act not required	-33.59937996	150.7514483
RIVERSTONE	Axalta Coating Systems	15-23 Melbourne ROAD	Other Industry	Regulation under CLM Act not required	-33.6636649	150.8557519

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
RIVERSTONE	7-Eleven Riverstone	55 Garfield ROAD	Service Station	Regulation under CLM Act not required	-33.67802232	150.8635246
RIVERSTONE	Woolworths Vineyard Service Station, Riverstone	1 Woodland Street, corner of Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65607641	150.8724067
RIVERSTONE	Vacant Commercial Land	88-94 Junction ROAD	Unclassified	Regulation under CLM Act not required	-33.66226398	150.8789967
RIVERWOOD	7-Eleven Riverwood	30 Bonds ROAD	Service Station	Regulation under CLM Act not required	-33.9523701	151.0583887
ROCKDALE	7-Eleven (former Mobil) Service Station	293 West Botany STREET	Service Station	Regulation under CLM Act not required	-33.94995672	151.1484667
ROCKDALE	7-Eleven Service Station	99 Railway STREET	Service Station	Regulation under CLM Act not required	-33.95247322	151.1356785
ROOTY HILL	7-Eleven (former Mobil) Service Station	106 Rooty Hill Road South ROAD	Service Station	Regulation under CLM Act not required	-33.78036181	150.8501998
ROOTY HILL	7-Eleven (former Mobil) Service Station	1042 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.78214955	150.8287656
ROSE BAY	Caltex Rose Bay Service Station	488 Old South Head ROAD	Service Station	Regulation under CLM Act not required	-33.87475145	151.2723847
ROSE BAY	Rose Bay Budget Service station	638 -646 New South Head ROAD	Service Station	Contamination currently regulated under CLM Act	-33.87062149	151.2677617
ROSEBERY	Autofoil P/L	2 Mentmore AVENUE	Other Industry	Regulation under CLM Act not required	-33.91121318	151.2054882
ROSEBERY	Caltex Rosebery Service Station	321 Gardeners (Cnr Macquarie St) ROAD	Service Station	Contamination currently regulated under CLM Act	-33.92302898	151.2059541
ROSEBERY	Former Industrial Site (Former Electroplating Facility)	108 Dunning AVENUE	Other Industry	Regulation under CLM Act not required	-33.91630811	151.201557
ROSEBERY	Rosebery Service Station	395 Gardeners ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92246784	151.2024589
ROSEHILL	James Hardie Australia and former James Hardie lands	Devon STREET	Landfill	Ongoing maintenance required to manage residual contamination	-33.82539019	151.0339466
ROSEHILL	2 Ritchie Street, Rosehill	2 Ritchie STREET	Unclassified	Contamination formerly regulated under the CLM Act	-33.82691192	151.0154948
ROSEHILL	James Hardie Factory (former, western portion)	181 James Ruse DRIVE	Other Industry	Ongoing maintenance required to manage residual contamination	-33.81605834	151.0238145
ROSELANDS	Roselands Shopping Centre	24 Roseland AVENUE	Service Station	Regulation under CLM Act not required	-33.93499281	151.0691284
ROSELANDS	Woolworths Caltex Petrol Service Station Roselands	218 King Georges ROAD	Service Station	Regulation under CLM Act not required	-33.933243	151.073586
ROSELANDS	7-Eleven (former Mobil) Service Station	91 Canary's ROAD	Service Station	Regulation under CLM Act not required	-33.93356078	151.0736274
ROSEVILLE	Mobil Service Station	2 Boundary STREET	Service Station	Regulation under CLM Act not required	-33.78769177	151.1796011
ROSEVILLE CHASE	Coles Express Roseville Chase	388 Eastern Valley WAY	Service Station	Regulation under CLM Act not required	-33.78337722	151.1973901

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ROZELLE	Caltex Service Station	121 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.86252996	151.168497
ROZELLE	7-Eleven (former Mobil) Service Station	178-180 (176-184) Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8630268	151.1680857
ROZELLE	Kennards Rozelle	15-39 Wellington STREET	Other Petroleum	Regulation under CLM Act not required	-33.86176757	151.1686519
ROZELLE	White Bay Power Station	Robert STREET	Other Industry	Regulation under CLM Act not required	-33.86674636	151.1772204
ROZELLE	BP Service Station	Corner Darling Street and Thornton STREET	Service Station	Regulation under CLM Act not required	-33.8591647	151.1716591
RUFUS RIVER	SA Water Depot - Rufus River	Old Wentworth STREET	Other Petroleum	Regulation under CLM Act not required	-34.04191512	141.2679475
RUSHCUTTERS BAY	d'Albora Marinas	1b New Beach ROAD	Other Industry	Contamination currently regulated under POEO Act	-33.87351297	151.2345082
RUTHERFORD	Rutherford Transpacific	11 Kyle STREET	Other Industry	Regulation under CLM Act not required	-32.71105203	151.500311
RUTHERFORD	Shell Coles Express Service Station Rutherford	118 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7208703	151.5394595
RUTHERFORD	Caltex Service Station	134-138 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7202589	151.5381526
RUTHERFORD	Transpacific Industrial Services/Nationwide Oil Pty Ltd	99 Kyle STREET	Chemical Industry	Regulation under CLM Act not required	-32.71262159	151.5013865
RYDALMERE	Caltex Service Station	309 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81196193	151.0371185
RYDALMERE	Mitsubishi Electric	348 Victoria ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.81040138	151.0392812
RYDALMERE	Rheem Australia	1 Alan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.81545013	151.0295476
RYDALMERE	BP Service Station	265 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8109483	151.0328101
RYDALMERE	Hunter Douglas	Victoria ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81009112	151.0384732
RYDALMERE	United Petroleum (former 7-Eleven) Service Station Rydalmere	262-272 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81006724	151.032377
RYDE	Shell Coles Express Ryde	45 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80726028	151.109981
RYDE	Caltex Service Station	110 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80142973	151.1137925
RYDE	7-Eleven (former Mobil) Service Station	326-328 Blaxland ROAD	Service Station	Regulation under CLM Act not required	-33.80242183	151.1004278
RYDE	Ryde Bus Depot	51 - 75 Buffalo ROAD	Other Petroleum	Regulation under CLM Act not required	-33.81679771	151.1225255
SANCTUARY POINT	United Service Station, Sanctuary Point	147 Larmer AVENUE	Service Station	Regulation under CLM Act not required	-35.09918861	150.6329537

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
SANDGATE	Caltex Service Station Sandgate	162 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.86501596	151.706161
SANDGATE	North Limited Storage Handling facility	Maitland ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-32.86598453	151.7012866
SANS SOUCI	7-Eleven (Former Mobil) Service Station	474 Rocky Point ROAD	Service Station	Regulation under CLM Act not required	-33.99088939	151.1333779
SANS SOUCI	Kendall Street Reserve	Lawson Street and Kendall STREET	Landfill	Under preliminary investigation order	-33.99966431	151.13005
SANS SOUCI	Former Service Station	542-544 Rocky Point ROAD	Service Station	Contamination was addressed via the planning process (EP&A Act)	-33.99376148	151.1316131
SANS SOUCI	Former 7-Eleven Ramsgate	368 Rocky Point ROAD	Service Station	Contamination currently regulated under CLM Act	-33.98631668	151.135849
SCONE	Shell Coles Express Service Station	91- 93 Kelly STREET	Service Station	Contamination currently regulated under CLM Act	-32.04715941	150.8676346
SCONE	Scone Works Depot	220 Susan STREET	Other Petroleum	Regulation under CLM Act not required	-32.04444892	150.879152
SCONE	Mobil Scone Airport Elt	8 Walter Pye AVENUE	Other Petroleum	Regulation under CLM Act not required	-32.03596733	150.8323698
SCONE	BP - Former Depot	Scone St, Guernsey St & Susan STREET	Service Station	Contamination formerly regulated under the CLM Act	-32.04599284	150.8662046
SEVEN HILLS	7-Eleven (Former Mobil) Service Station Seven Hills	151 Prospect HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76894646	150.9427004
SEVEN HILLS	Australia Post	3 Powers ROAD	Unclassified	Regulation under CLM Act not required	-33.77434009	150.9395495
SEVEN HILLS	Car Park (Former Brickworks / Warehouse)	1 Powers ROAD	Other Industry	Regulation under CLM Act not required	-33.77387442	150.9379787
SEVEN HILLS	BP-branded Jasbe Petroleum Service Station	156 Prospect HIGHWAY	Service Station	Regulation under CLM Act not required	-33.76906502	150.9414821
SEVEN HILLS	Caltex Service Station	38 Abbott ROAD	Service Station	Regulation under CLM Act not required	-33.76692649	150.9548271
SEVEN HILLS	Caltex Service Station Seven Hills	105 Station ROAD	Service Station	Regulation under CLM Act not required	-33.77435881	150.9448733
SEVEN HILLS	Australian Waste Oil Refineries	27 Powers ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.77536127	150.9511122
SHELLY BEACH	Former Shelly Beach Landfill	Oaks AVENUE	Landfill	Regulation under CLM Act not required	-33.36700551	151.4913631
SHORTLAND	Former Astra St landfill	1, 2 & 28 Astra STREET	Landfill	Contamination currently regulated under CLM Act	-32.86716222	151.6966948
SHORTLAND	Tuxford Park landfill	10 King STREET	Landfill	Regulation under CLM Act not required	-32.87721139	151.6936837
SHORTLAND	Former Lorna St landfill	8/475 Sandgate ROAD	Landfill	Regulation under CLM Act not required	-32.87888726	151.7023245
SHORTLAND	7-Eleven (Former BP) Service Station	298-302 Sandgate ROAD	Service Station	Regulation under CLM Act not required	-32.8861645	151.6953912

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
SILVERWATER	Former Silverwater Landfill	Carnarvon ROAD	Landfill	Regulation under CLM Act not required	-33.83506394	151.033214
SILVERWATER	Vacant property	103-105 Silverwater ROAD	Other Industry	Regulation under CLM Act not required	-33.83831374	151.0472576
SILVERWATER	Storage Facility	54-58 Derby STREET	Unclassified	Under assessment	-33.83855869	151.0478649
SILVERWATER	Former Printing Facility	46-58 Derby STREET	Unclassified	Under assessment	-33.83855869	151.0478649
SILVERWATER	Silverwater Correctional Complex	Holker STREET	Landfill	Under assessment	-33.82944797	151.0567486
SINGLETON	BP Service Station Singleton	53 George (Cnr Macquarie St) STREET	Other Petroleum	Regulation under CLM Act not required	-32.56182325	151.1748054
SINGLETON	Singleton Gasworks	55-57 John STREET	Gasworks	Contamination currently regulated under CLM Act	-32.56774715	151.1658188
SINGLETON	Shell Coles Express Service Station	69-73 George STREET	Service Station	Regulation under CLM Act not required	-32.56297156	151.1755215
SINGLETON	Mobil Singleton Airport Elt	74B Range ROAD	Other Petroleum	Regulation under CLM Act not required	-32.60270846	151.1944828
SINGLETON	Putty Saw Mill	(via Singleton) Putty ROAD	Unclassified	Contamination currently regulated under CLM Act	-32.99958725	150.7111684
SINGLETON	NSW Mines Rescue Services - Singleton	6 Lachlan AVENUE	Other Industry	Regulation under CLM Act not required	-32.54537821	151.156584
SMITHFIELD	Caltex Smithfield	16-18 Tait STREET	Service Station	Regulation under CLM Act not required	-33.84596441	150.9435497
SMITHFIELD	Freestones	1 Hume ROAD	Other Petroleum	Regulation under CLM Act not required	-33.83577694	150.9310112
SMITHFIELD	Liquip International	13 Hume ROAD	Other Industry	Regulation under CLM Act not required	-33.83802635	150.9319034
SMITHFIELD	Coles Express (former Mobil) Service Station	678 The Horsley Drive, corner Smithfield ROAD	Service Station	Regulation under CLM Act not required	-33.85376154	150.9400104
SMITHFIELD	Former Landfill	Little STREET	Landfill	Contamination being managed via the planning process (EP&A Act)	-33.85025253	150.9411561
SOUTH ALBURY	BP Border Service Station	Corner Ebden Street and Wodonga PLACE	Service Station	Contamination currently regulated under CLM Act	-36.08875942	146.9093882
SOUTH BOWENFELS	Shell Coles Express Service Station	Lot 1 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.50589001	150.1238487
SOUTH COOGEE	Caltex South Coogee Service Station	169-173 Malabar ROAD	Service Station	Regulation under CLM Act not required	-33.93233184	151.2574377
SOUTH GRAFTON	Shell Coles Express Service Station	91 Bent STREET	Service Station	Regulation under CLM Act not required	-29.70605829	152.9400329
SOUTH GRAFTON	Former United (former Mobil) Service Station	Corner Pacific Highway and Charles STREET	Service Station	Regulation under CLM Act not required	-29.70814828	152.9412928
SOUTH GRAFTON	Former Caltex Service Station	46-58 Schwinghammer STREET	Service Station	Regulation under CLM Act not required	-29.71128273	152.9458313

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
SOUTH GRAFTON	Former Caltex Depot South Grafton	72-82 Swallow ROAD	Other Petroleum	Regulation under CLM Act not required	-29.73168549	152.944024
SOUTH GRAFTON	Caltex Service Station	Pacific Hwy Cnr Gwyder HIGHWAY	Service Station	Regulation under CLM Act not required	-29.70739015	152.9425508
SOUTH GRANVILLE	Enhance Service Station south Granville	2 Rawson ROAD	Service Station	Regulation under CLM Act not required	-33.86366193	151.0088768
SOUTH KEMPSEY	Caltex Service Station	52 Lachlan STREET	Service Station	Regulation under CLM Act not required	-31.09361084	152.8370796
SOUTH LISMORE	North Coast Petroleum (Former Mobil) Depot Lismore	19-21 Elliot ROAD	Other Petroleum	Regulation under CLM Act not required	-28.81212046	153.2661935
SOUTH LISMORE	Former Mobil Service Station	126 - 128 Union STREET	Service Station	Regulation under CLM Act not required	-28.81242175	153.267541
SOUTH LISMORE	Caltex Service Station	237 Union STREET	Service Station	Regulation under CLM Act not required	-28.82052708	153.2648111
SOUTH LISMORE	Former Mobil Depot	26-32 Phyllis STREET	Other Petroleum	Regulation under CLM Act not required	-28.81005206	153.2660073
SOUTH MURWILLUMBAH	Former Caltex Depot	39 Lundberg DRIVE	Service Station	Regulation under CLM Act not required	-28.332622	153.4212884
SOUTH MURWILLUMBAH	Caltex Service Station	1-7 Buchanan (Cnr Tweed Valley Way) STREET	Service Station	Regulation under CLM Act not required	-28.32687988	153.4093274
SOUTH MURWILLUMBAH	Former Mobil Depot	45 Wardrop STREET	Other Petroleum	Regulation under CLM Act not required	-28.33421395	153.3993772
SOUTH NOWRA	Caltex South Nowra	100 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.90516081	150.6029621
SOUTH PENRITH	7-Eleven Service Station	45 Aspen STREET	Service Station	Regulation under CLM Act not required	-33.77727694	150.7107228
SOUTH TAMWORTH	Coles Express Tamworth	251 - 253 Goonoo Goonoo ROAD	Service Station	Contamination currently regulated under CLM Act	-31.11058167	150.9236721
SOUTH TAMWORTH	Caltex Service Station	2 Kathleen Street, corner Kent STREET	Service Station	Regulation under CLM Act not required	-31.10361712	150.9186343
SOUTH WENTWORTHVILLE	Aldi Stores Development	331-339 Great Western HIGHWAY	Metal Industry	Regulation under CLM Act not required	-33.81605854	150.9697429
SOUTH WENTWORTHVILLE	Caltex Service Station	313 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.81643692	150.9718802
SOUTH WEST ROCKS	Former Trial Bay Caltex Depot	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89190078	153.0573056
SOUTH WEST ROCKS	Former Shell Trial Bay Depot	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89273836	153.0612772
SOUTH WEST ROCKS	Residential area and Reserve opposite Former Caltex terminal	Phillip DRIVE	Other Petroleum	Regulation under CLM Act not required	-30.89172594	153.0573164
SPRINGVALE	Springvale Colliery	Castlereagh HIGHWAY	Other Industry	Regulation under CLM Act not required	-33.40334736	150.1070462
ST CLAIR	7-Eleven (former Mobil) Service Station	4 Endeavour AVENUE	Service Station	Regulation under CLM Act not required	-33.79430926	150.7885793

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ST IVES	7-Eleven (former Mobil) St Ives Service Station	157-159 Mona Vale Road, corner Putarri AVENUE	Service Station	Regulation under CLM Act not required	-33.73265301	151.1563899
ST IVES	Caltex Service Station	452 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.70752272	151.187545
ST IVES	Caltex Service Station	164 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.7307595	151.1570462
ST IVES	Caltex Service Station St Ives	363 Mona Vale ROAD	Service Station	Regulation under CLM Act not required	-33.7168971	151.1735263
ST IVES	Shell Service Station	179-181 Mona Vale ROAD	Service Station	Contamination currently regulated under CLM Act	-33.73124859	151.1575827
ST LEONARDS	Telstra Data Centre	4A Herbert STREET	Other Petroleum	Under assessment	-33.81873741	151.1914222
ST MARYS	Former Woolworths Service Station	120-128 Forrester ROAD	Service Station	Regulation under CLM Act not required	-33.75525115	150.7752897
ST MARYS	7-Eleven (former Mobil) Service Station	2 Christie STREET	Service Station	Regulation under CLM Act not required	-33.74790843	150.7767667
ST MARYS	7-Eleven (former Mobil) Service Station	2 Wilson STREET	Service Station	Regulation under CLM Act not required	-33.77790415	150.771689
ST MARYS	Solveco	38 LINKS ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.738673	150.771554
ST MARYS	Integral Energy Mt Druitt Transmission Substation	69 Kurrajong North ROAD	Other Industry	Regulation under CLM Act not required	-33.76376093	150.7921691
ST MARYS	Caltex St Marys Service Station	Wordoo St Cnr Forrester ROAD	Service Station	Regulation under CLM Act not required	-33.75334263	150.7755489
ST MARYS	Chemcolour Industries Ltd	19-25 Anne STREET	Chemical Industry	Under assessment	-33.75027071	150.7725397
ST MARYS	Old Drycleaning location	1-7 Queen STREET	Other Industry	Under assessment	-33.73873	150.771747
ST PETERS	Cooks River Rail Terminal	20 Canal ROAD	Unclassified	Regulation under CLM Act not required	-33.91943986	151.1726689
ST PETERS	Camdenville Park	May STREET	Other Industry	Regulation under CLM Act not required	-33.90911815	151.176951
ST PETERS	Former Tidyburn Facility	53 Barwon Park ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.9130091	151.1809912
ST PETERS	BP Express Service Station	2 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90982281	151.1809936
ST PETERS	Former Industrial Manufacturing Facility (Taubman's Paints)	75 Mary STREET	Other Industry	Regulation under CLM Act not required	-33.91307297	151.1731383
STANMORE	125 Corunna Road	125 Corunna ROAD	Unclassified	Regulation under CLM Act not required	-33.88937382	151.1644589
STRATHFIELD	7-Eleven (former Mobil) Service Station	577 Liverpool ROAD	Service Station	Regulation under CLM Act not required	-33.88736091	151.0743474
STRATHFIELD SOUTH	Former Landfill Site	7-9 Dunlop STREET	Landfill	Regulation under CLM Act not required	-33.89509698	151.0796751

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
STROUD	Stroud Fuel Supplies (Former Caltex) Service Station	1 Cowper STREET	Service Station	Regulation under CLM Act not required	-32.39092749	151.9563089
SUFFOLK PARK	BP Service Station	207-209 Broken Head ROAD	Service Station	Regulation under CLM Act not required	-28.68800088	153.6083821
SUFFOLK PARK	Suffolk Park dip site	Cnr Broken Head Road & Beech DRIVE	Cattle Dip	Regulation under CLM Act not required	-28.6874242	153.6072824
SURRY HILLS	Woolworths Petrol Surry Hills	475 Cleveland STREET	Service Station	Regulation under CLM Act not required	-33.89203644	151.216217
SURRY HILLS	Former Legion Cabs (Trading) Cooperative	81 & 81A (Formerly 69 - 81) Foveaux STREET	Service Station	Regulation under CLM Act not required	-33.88470082	151.2107944
SURRY HILLS	Ausgrid Road Reserve	Mary STREET	Other Industry	Regulation under CLM Act not required	-33.88292195	151.2095176
SUTHERLAND	United Service Station and Sutherland Reservoir	1 to 3 Oxford STREET	Service Station	Contamination currently regulated under CLM Act	-34.029532	151.0579906
SUTHERLAND	7-Eleven Service Station	693 Old Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.02976735	151.0588789
SUTTON FOREST	Coles Express Sutton Forest West	Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-34.60808989	150.2250592
SWANSEA	Caltex Service Station	126 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.08811841	151.6381764
SWANSEA	Swansea 1 - Wastewater Pumping Station	137 and 137a Northcote AVENUE	Other Industry	Under assessment	-33.09745672	151.6473257
SYDENHAM	SRA Land	117 Railway PARADE	Other Industry	Regulation under CLM Act not required	-33.91560723	151.1656846
SYDENHAM	Sydenham XPT Maintenance Facility	Way STREET	Other Industry	Regulation under CLM Act not required	-33.91698468	151.1614089
SYDNEY	Interpro House (OSP 46581)	447 Kent STREET	Other Petroleum	Regulation under CLM Act not required	-33.87225413	151.204761
SYDNEY OLYMPIC PARK	RMS Western Precinct	14A-14E and 16 Hill ROAD	Other Petroleum	Regulation under CLM Act not required	-33.82239777	151.0758664
SYDNEY OLYMPIC PARK	Haslams Creek South Area 3	At Kronos Hill, Kevin Coombes AVENUE	Landfill	Contamination formerly regulated under the CLM Act	-33.84113059	151.0602966
SYDNEY OLYMPIC PARK	Bicentennial Park	Bicentennial DRIVE	Landfill	Ongoing maintenance required to manage residual contamination	-33.84456248	151.0788116
SYDNEY OLYMPIC PARK	Former Golf Driving Range Landfill	Sarah Durack AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.85358517	151.0713987
SYDNEY OLYMPIC PARK	Kronos Hill Landfill	Kevin Coombes AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.84014442	151.0649521
SYDNEY OLYMPIC PARK	Wilson Park (Former oil gas plant site)	Newington ROAD	Gasworks	Ongoing maintenance required to manage residual contamination	-33.82633586	151.0534322
SYDNEY OLYMPIC PARK	Woo-la-ra Landfill	Hill ROAD	Landfill	Ongoing maintenance required to manage residual contamination	-33.82695807	151.07282
SYDNEY OLYMPIC PARK	Aquatic Centre Carpark Landfill	Shane Gould AVENUE	Landfill	Ongoing maintenance required to manage residual contamination	-33.85093439	151.0656713

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
SYDNEY OLYMPIC PARK	Blaxland Common Landfill	Jamieson STREET	Landfill	Ongoing maintenance required to manage residual contamination	-33.82638382	151.05972
SYLVANIA	Caltex Service Station - Sylvania Heights	414-416 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-34.02361051	151.0895394
SYLVANIA	Caltex Service Station	61 Port Hacking ROAD	Service Station	Regulation under CLM Act not required	-34.0140089	151.104212
TALBINGO	Old Town Landfill	Bridle STREET	Landfill	Regulation under CLM Act not required	-35.59018237	148.3041771
TALBINGO	T3 Spoil dump and adjoining river sediments	Off Snowy Mountains HIGHWAY	Landfill	Contamination formerly regulated under the CLM Act	-35.6177268	148.2926158
TALBINGO	Former grit blasting site	Old Damsite ROAD	Other Industry	Regulation under CLM Act not required	-35.60894551	148.3030165
TAMINDA	Mobil Depot	9 Hinkler ROAD	Other Petroleum	Regulation under CLM Act not required	-31.09584286	150.9040493
TAMWORTH	Caltex Tamworth Service Station	109 Gunnedah ROAD	Service Station	Regulation under CLM Act not required	-31.09723226	150.8955299
TAMWORTH	Curlew Crescent	19-29 Curlew CRESCENT	Metal Industry	Regulation under CLM Act not required	-31.06963607	150.9069306
TAMWORTH	Former Service Station, Fitzpatrick Super Fund, Tamworth	210 Goonoo Goonoo ROAD	Service Station	Regulation under CLM Act not required	-31.10613594	150.9234143
TAMWORTH	Gunnedah Road Site	49 GUNNEDAH ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-31.09574904	150.9021583
TAMWORTH	Elovera Former Sheep Dip	730 Ascot Calala ROAD	Cattle Dip	Regulation under CLM Act not required	-31.1801846	150.962897
TAMWORTH	Housing NSW	29 -33 White STREET	Other Petroleum	Regulation under CLM Act not required	-31.0915651	150.9357811
TAMWORTH	BP Tamworth Service Station and Depot	27-29 Gunnedah ROAD	Other Petroleum	Under assessment	-31.09642128	150.9058193
TAMWORTH	Former Mobil Service Station	373-375 Armidale ROAD	Service Station	Regulation under CLM Act not required	-31.10122679	150.9441341
TAMWORTH	Kensell's Mitsubishi	11-14 Kable AVENUE	Other Petroleum	Regulation under CLM Act not required	-31.08921565	150.9273063
TAMWORTH	Caltex Star Tamworth	21 White STREET	Service Station	Regulation under CLM Act not required	-31.09255137	150.9341709
TAMWORTH	Former Service Station Tamworth	(Cnr Scott Rd) 254-256 Goonoo Goonoo ROAD	Service Station	Regulation under CLM Act not required	-31.1118945	150.9228523
TARCUTTA	Mobil Service Station	(Hume Highway) 32 Sydney STREET	Service Station	Contamination formerly regulated under the CLM Act	-35.2772942	147.73574
TAREE	Caltex Taree	12 Pitt STREET	Service Station	Regulation under CLM Act not required	-31.90551738	152.4783334
TAREE	Former Caltex Depot	44 Stevenson STREET	Other Petroleum	Regulation under CLM Act not required	-31.90563595	152.4640848
TAREE	Former BP Service Station (Reliance Petroleum)	150 Manning River DRIVE	Service Station	Regulation under CLM Act not required	-31.93842026	152.4682056

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
TAREE	Former Shell Depot	53-55 Stevenson STREET	Other Petroleum	Regulation under CLM Act not required	-31.90514622	152.4649706
TAREE	United Service Station and Former Mobil Depot	85 Muldoon Street, corner Grey Gum ROAD	Service Station	Regulation under CLM Act not required	-31.89744109	152.4508569
TAREE	Caltex Service Station	104-106 Commerce STREET	Service Station	Regulation under CLM Act not required	-31.90720519	152.4500926
TAREE	Footpath in front of the former BP service station	53-55 Victoria STREET	Service Station	Regulation under CLM Act not required	-31.91015653	152.4659073
TAREN POINT	Former Oyster Farm	Part 2R Alexander Avenue and part 98 Woodlands ROAD	Other Industry	Contamination being managed via the planning process (EP&A Act)	-34.01714802	151.1252694
TAREN POINT	Former Oyster Farmer	1A Atkinson ROAD	Other Industry	Regulation under CLM Act not required	-34.02081803	151.1283282
TAREN POINT	Former manufacturing site	46-50 Bay ROAD	Other Industry	Regulation under CLM Act not required	-34.0236184	151.1231649
TAREN POINT	Mangrove Lane Cycle pathway	Mangrove LANE	Unclassified	Regulation under CLM Act not required	-34.02404025	151.1324783
TAREN POINT	Caltex Service Station	114 Taren Point ROAD	Service Station	Regulation under CLM Act not required	-34.02065958	151.1218938
TAREN POINT	Shell Coles Express Service Station	99-103 Parraweena ROAD	Service Station	Regulation under CLM Act not required	-34.02630233	151.1200897
TAREN POINT	Redevelopment Site	25 Bay ROAD	Other Industry	Under assessment	-34.021451	151.12813
TELARAH	Former Ausgrid Depot	Green STREET	Other Industry	Regulation under CLM Act not required	-32.7276446	151.5269745
TELARAH	ACIRL	5 Junction STREET	Other Industry	Regulation under CLM Act not required	-32.73457183	151.5400128
TEMPE	Tempe Depot	1a Gannon STREET	Other Petroleum	Regulation under CLM Act not required	-33.92408255	151.1596469
TEMPE	Caltex Service Station	775 Princes HIGHWAY	Service Station	Contamination currently regulated under CLM Act	-33.9253681	151.1596532
TEMPE	Former Tempe Tip	South STREET	Landfill	Contamination currently regulated under CLM Act	-33.9255792	151.1668117
TEMPE	Railcorp Site Renwick Street	Renwick STREET	Other Industry	Regulation under CLM Act not required	-33.91997709	151.1576058
TERALBA	Lake Macquarie Teralba Sanitary Depot	Griffen ROAD	Landfill	Regulation under CLM Act not required	-32.9372059	151.6214528
TERALBA	Lucky's Scrap Metal Yard	21 Racecourse ROAD	Metal Industry	Contamination currently regulated under CLM Act	-32.946805	151.61698
TERANIA CREEK	Former Izzards Cattle Tick Dip	Wallace ROAD	Cattle Dip	Contamination formerly regulated under the CLM Act	-28.65425776	153.2767438
THIRLMERE	Thirlmere Rail Heritage Museum	10 Barbour ROAD	Other Industry	Regulation under CLM Act not required	-34.20689245	150.5693902
THORNLEIGH	Caltex Thornleigh Service Station	192-198 Pennant Hills (Cnr Duffy Ave) ROAD	Service Station	Regulation under CLM Act not required	-33.72660793	151.08364

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
THORNLEIGH	Coles Express Service Station Thornleigh	188 - 190 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.72502184	151.0850569
THORNTON	Energy Australia Thornton Pole Yard	55 Weakleys DRIVE	Other Industry	Regulation under CLM Act not required	-32.79973875	151.6374998
TIGHES HILL	Holcim Australia Cement Batching Plant	340 Industrial DRIVE	Other Industry	Regulation under CLM Act not required	-32.90532418	151.7574857
TIGHES HILL	SRA Land	73 Elizabeth STREET	Unclassified	Regulation under CLM Act not required	-32.90795794	151.754631
TIGHES HILL	Former Ampol Depot	94 Elizabeth STREET	Other Petroleum	Regulation being finalised	-32.90658137	151.757239
TIGHES HILL	Former Mobil Terminal	110 Elizabeth STREET	Other Petroleum	Contamination formerly regulated under the CLM Act	-32.90600406	151.7586907
TOCUMWAL	Former Mobil Depot	250 Murray STREET	Other Petroleum	Regulation under CLM Act not required	-35.79180653	145.5648214
TOCUMWAL	Former Mobil Depot	79-83 Deniliquin ROAD	Other Petroleum	Regulation under CLM Act not required	-35.80914914	145.5585528
TOMAGO	Balcombe Sweat Furnace	26 Laverick AVENUE	Metal Industry	Regulation under CLM Act not required	-32.82557395	151.7056416
TOMAGO	Former Hydromet Site	25 School DRIVE	Metal Industry	Under assessment	-32.8301553	151.7300603
TOMAGO	RZM Site - Tomago	1877 Pacific HIGHWAY	Other Industry	Under assessment	-32.81419433	151.6985159
TOMERONG	Log Cabin Service Station (United Petroleum)	D1300 Princes HIGHWAY	Service Station	Under assessment	-35.01820959	150.5779687
TOONGABBIE	7-Eleven (Former Mobil) Service Station Toongabbie	3 Metella ROAD	Service Station	Regulation under CLM Act not required	-33.78692357	150.9462837
TOORMINA	Caltex Service Station	2 Minorca PLACE	Service Station	Regulation under CLM Act not required	-30.35229568	153.0906606
TORONTO	Coles XP (Former Mobil) Toronto Service Station	133 - 137 Cary (Cnr Thorne St) STREET	Service Station	Regulation under CLM Act not required	-33.01187681	151.5930879
TORONTO	BP Toronto Service Station	132 Cary (Cnr Donnelly Ave) STREET	Service Station	Regulation under CLM Act not required	-33.01144673	151.5937863
TORONTO	Toronto Hotel	74 Victory PARADE	Unclassified	Regulation under CLM Act not required	-33.01214835	151.5958127
TORONTO	Caltex Service Station	147 Cary STREET	Service Station	Regulation under CLM Act not required	-33.01288007	151.5928388
TOUKLEY	Former Shell Toukley Autoport	211 Main ROAD	Service Station	Regulation under CLM Act not required	-33.26383791	151.5386268
TOUKLEY	7-Eleven Australia	287 Main ROAD	Service Station	Regulation under CLM Act not required	-33.26469166	151.5462414
TRANGIE	Caltex Service Station	(Mitchell Hwy) 76 Narromine STREET	Service Station	Regulation under CLM Act not required	-32.03234676	147.985164
TUGGERAH	BP Tuggerah	100 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.30578167	151.4198083

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
TUMBARUMBA	Former Caltex Depot	150 Albury STREET	Other Petroleum	Regulation under CLM Act not required	-35.77024081	147.9927182
TUMBI UMBI	Former Tumbi Landfill	140 Bellevue ROAD	Landfill	Regulation under CLM Act not required	-33.3993472	151.456471
TUMUT	CSR Blue Dam	Jepsen AVENUE	Other Industry	Regulation being finalised	-35.30098337	148.1958308
TUMUT	CSR Railway cutting	Jepsen AVENUE	Unclassified	Regulation being finalised	-35.30422002	148.1942579
TUMUT	Former Telstra Depot	22-26 Carey STREET	Other Industry	Regulation under CLM Act not required	-35.29873079	148.2191122
TUROSS HEAD	Tern Inn Restaurant (abandoned UPSS)	2 Trafalgar ROAD	Service Station	Regulation under CLM Act not required	-36.05871059	150.1308443
TURRAMURRA	7-Eleven (former Mobil) Service Station Turramurra	1408 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.73326389	151.1264194
TURRAMURRA	Woolworths Service Station	1233 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.73317594	151.1313195
TURRELLA	Tulloch Australia Pty Limited	61 Turrella STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.92857213	151.1475387
TURRELLA	Rail Corridor and adjacent industrial land	75 Henderson STREET	Other Industry	Under assessment	-33.928402	151.148355
TWEED HEADS	Former Mobil Quix Service Station	60 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-28.20143775	153.5445381
TWEED HEADS	Francis Street Road Reserve adjacent to 79-81 Wharf Street,	79-81 Wharf STREET	Other Petroleum	Regulation under CLM Act not required	-28.17351959	153.542262
TWEED HEADS SOUTH	Former BP Depot	142 Minjungbal DRIVE	Other Petroleum	Regulation under CLM Act not required	-28.20860702	153.5455932
TWEED HEADS SOUTH	Coles Express Service Station	Corner Minjungbal Drive and Heffron STREET	Service Station	Regulation under CLM Act not required	-28.19459987	153.5419978
TWEED HEADS SOUTH	Woolworths Plus Petrol	98-102 Pacific (100 Minjungbal Drive) HIGHWAY	Service Station	Regulation under CLM Act not required	-28.20488521	153.5448675
TWEED HEADS WEST	Caltex Service Station	96 to 98 Kennedy DRIVE	Service Station	Regulation being finalised	-28.1871486	153.5229866
TYAGARAH	Tyagarah Airstrip	25 Staceys WAY	Other Petroleum	Under assessment	-28.59553079	153.5469165
ULAN	Ulan Coal Mine	4505 Ulan ROAD	Other Industry	Regulation under CLM Act not required	-32.25620603	149.7558075
ULLADULLA	Coles Express Ulladulla	153 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36288274	150.47272
ULLADULLA	Woolworths Petrol Station	155-157 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36316263	150.4725668
ULLADULLA	Caltex Service Station	62A Deering Street, corner Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-35.36276828	150.473578
ULTIMO	Shell Coles Express Service Station	387-429 Wattle STREET	Service Station	Regulation under CLM Act not required	-33.88138825	151.1966791

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
UNANDERRA	Endeavour Energy Springhill Field Service Centre	195 Five Island ROAD	Other Industry	Regulation under CLM Act not required	-34.45837706	150.8598825
UNANDERRA	BlueScope Stainless Steel	13 Marley PLACE	Metal Industry	Contamination currently regulated under CLM Act	-34.44959798	150.8571632
UNANDERRA	Unanderra Weekend Detention Centre	34-40 Lady Penryhn DRIVE	Landfill	Regulation under CLM Act not required	-34.4620226	150.8473821
UNANDERRA	Veolia Environmental Services	9 Waynote PLACE	Other Industry	Regulation under CLM Act not required	-34.46042393	150.863232
UNANDERRA	Caltex Service Station	86-98 Princes HIGHWAY	Service Station	Regulation under CLM Act not required	-34.45414951	150.845165
UNANDERRA	Former Prime Service Station and adjoining lands	41-49 Princes HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-34.45056105	150.8490833
URALLA	Caltex Service Station	103 Bridge STREET	Service Station	Regulation under CLM Act not required	-30.64524911	151.4934484
URALLA	Phoenix Foundry	44 Duke STREET	Metal Industry	Regulation under CLM Act not required	-30.65093272	151.5004479
URANQUINTY	Former Caltex Depot Kapooka (Wagga Wagga)	6876 Olympic (Uranquinty Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-35.15319793	147.3085469
URUNGA	Former Antimony Process plant	Hillside DRIVE	Chemical Industry	Contamination currently regulated under CLM Act	-30.50422942	153.0132011
VALENTINE	BP Express Service Station	855 Macquarie DRIVE	Service Station	Regulation under CLM Act not required	-33.00801109	151.6425806
VALENTINE	Valentine Public School	Tallawalla ROAD	Unclassified	Regulation under CLM Act not required	-33.0091613	151.6423231
VILLAWOOD	Nepotian (Former Toll) Site	110A Christina ROAD	Other Industry	Under preliminary investigation order	-33.87919117	150.9812193
VILLAWOOD	Former Defence Site	29 Biloela STREET	Landfill	Regulation under CLM Act not required	-33.88782978	150.9886275
VILLAWOOD	Former Siemens/Westinghouse	49 Miowera ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.87641909	150.9836746
VILLAWOOD	Former Orica Crop Care	2 Christina ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.880329	150.9896329
VILLAWOOD	PPG Industries	9 Birmingham AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.87800757	150.9887929
VILLAWOOD	Former Electrical Component Manufacturer	66 Christina ROAD	Other Industry	Ongoing maintenance required to manage residual contamination	-33.88018315	150.9838773
VILLAWOOD	Ettason Villawood Site	2A Birmingham AVENUE	Chemical Industry	Under preliminary investigation order	-33.878734	150.98259
VINEYARD	Shell Coles Express Service Station	731 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65780463	150.8753245
WAGGA WAGGA	Caltex Service Station	170 Fitzmaurice STREET	Service Station	Regulation under CLM Act not required	-35.10289587	147.3679002
WAGGA WAGGA	Former BP Service Station	31 Bourke STREET	Service Station	Regulation under CLM Act not required	-35.12626628	147.3547199

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WAGGA WAGGA	Caltex (former Mobil) Service Station	106 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11910909	147.3682364
WAGGA WAGGA	Former Caltex Depot	60 Lake Albert DRIVE	Service Station	Regulation under CLM Act not required	-35.12316794	147.37724
WAGGA WAGGA	Former Mobil Depot Wagga Wagga	97-99 Coleman STREET	Other Petroleum	Regulation under CLM Act not required	-35.12173871	147.3576651
WAGGA WAGGA	Ashmont Autoport	Cnr Tobruk Street and Bardia STREET	Service Station	Regulation under CLM Act not required	-35.12517373	147.329919
WAGGA WAGGA	Former Caltex Service Station	343 Hammond AVENUE	Service Station	Regulation under CLM Act not required	-35.12420793	147.4157959
WAGGA WAGGA	Caltex Service Station	56 - 60 Docker St STREET	Service Station	Regulation under CLM Act not required	-35.11737947	147.3558145
WAGGA WAGGA	Former Iron Foundry	212-230 Hammond STREET	Metal Industry	Regulation under CLM Act not required	-35.12605478	147.4045461
WAGGA WAGGA	Coles Express Wagga Wagga	353-355 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11606625	147.3509339
WAGGA WAGGA	Former Wiradjuri landfill	Narrung STREET	Landfill	Under assessment	-35.09628532	147.3619535
WAGGA WAGGA	Former Gasworks	54 Chaston STREET	Gasworks	Contamination currently regulated under CLM Act	-35.12262069	147.3482778
WAGGA WAGGA	Former Gasworks	Cnr Tarcutta Street and Cross STREET	Gasworks	Contamination currently regulated under CLM Act	-35.10871183	147.3737933
WAGGA WAGGA	BP Wagga Wagga	180 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11850802	147.3639619
WAGGA WAGGA	Former Dry Cleaning Facility	183 Fitzmaurice STREET	Other Industry	Contamination currently regulated under CLM Act	-35.10209987	147.3683852
WAHROONGA	Coles Express Wahroonga	1601 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71945571	151.1163002
WAHROONGA	7-Eleven Service Station	1579 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71974617	151.1168106
WAITARA	Caltex Service Station	59-61 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71064349	151.1024644
WALGETT	Former Shell Depot	Castlereagh HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-30.00861179	148.1239938
WALLERAWANG	Wallerawang Power Station	1 Main STREET	Other Petroleum	Regulation under CLM Act not required	-33.40339296	150.0855101
WALLERAWANG	Lidsdale Coal Loading Facility	Main STREET	Other Industry	Regulation under CLM Act not required	-33.39996523	150.0737717
WALLSEND	Caltex Maryland Service Station Wallsend	41 Minmi ROAD	Service Station	Regulation under CLM Act not required	-32.88967866	151.6619253
WALLSEND	Coles Express Wallsend East	15 Thomas STREET	Service Station	Regulation under CLM Act not required	-32.90719444	151.6693426
WALLSEND	OneSteel Recycling	64-80 Sandgate ROAD	Metal Industry	Regulation under CLM Act not required	-32.89425477	151.6799648

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WALLSEND	Ausgrid Wallsend Depot	Abbott STREET	Other Industry	Regulation under CLM Act not required	-32.90162796	151.6857267
WALLSEND	Cnr of Douglas Street and 111 Newcastle Road Wallsend	111 Newcastle ROAD	Metal Industry	Regulation under CLM Act not required	-32.90414175	151.6830784
WAMBERAL	Caltex Service Station	654 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.42338668	151.4375685
WANGI WANGI	Myuna Colliery	Wangi Point ROAD	Other Industry	Regulation under CLM Act not required	-33.06139532	151.5697186
WARATAH	Waratah Area Health	Turton ROAD	Unclassified	Regulation under CLM Act not required	-32.90961233	151.7260867
WARATAH	Waratah former Gasworks	Turton and Georgetown ROADS	Gasworks	Under assessment	-32.9057763	151.7270033
WARDELL	Nancys Cattle Dip, Thurgates Lane, Wardell	Thurgates LANE	Cattle Dip	Under assessment	-28.954176	153.427349
WARILLA	Woolworths Petrol Warilla	43 -57 Shellharbour ROAD	Service Station	Regulation under CLM Act not required	-34.5470966	150.863748
WARKWORTH	Emulsion Plant, Dyno Nobel Asia Pacific Pty Ltd	186 Long Point ROAD	Chemical Industry	Regulation under CLM Act not required	-32.5781708	151.0834387
WARKWORTH	United Colliery	Jerrys Plains ROAD	Other Industry	Regulation under CLM Act not required	-32.5654356	150.9916698
WARNERS BAY	Caltex Service Station	55 King STREET	Service Station	Regulation under CLM Act not required	-32.97418806	151.6476184
WARNERS BAY	7-Eleven (former Mobil) Service Station	393 Hillsborough ROAD	Service Station	Regulation under CLM Act not required	-32.9659363	151.6543264
WARNERS BAY	Historically Filled Land	41-43 Charles STREET	Unclassified	Regulation under CLM Act not required	-32.97340461	151.6464383
WARNERVALE	Former Timber Treatment Plant	Aldenham and Railway ROADS	Other Industry	Contamination formerly regulated under the CLM Act	-33.24732018	151.4469037
WARRAGAMBA	Warragamba Dam Viewing Platform	Eighteenth STREET	Unclassified	Regulation under CLM Act not required	-33.88546354	150.6024501
WARRAGAMBA	Megarrity's Creek Site	Weir ROAD	Unclassified	Regulation under CLM Act not required	-33.885049	150.597628
WARRAWONG	Caltex Service Station	75-77 King STREET	Service Station	Regulation under CLM Act not required	-34.49037817	150.888802
WARREN	Former Shell Depot	8 Dubbo STREET	Other Petroleum	Regulation under CLM Act not required	-31.69379262	147.8308088
WARREN	Caltex Warren Service Station	1 Coonamble ROAD	Service Station	Regulation under CLM Act not required	-31.69508383	147.8405578
WARREN	Former Mobil Warren Depot	16 Dubbo STREET	Other Petroleum	Contamination currently regulated under CLM Act	-31.6943058	147.8314606
WARWICK FARM	Warwick Farm Public School	95 Lawrence Hargrave ROAD	Landfill	Under assessment	-33.91050532	150.9302197
WATERLOO	Proposed Construction Site	2 John STREET	Other Industry	Regulation under CLM Act not required	-33.89989686	151.2010324

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WATERLOO	Waverley Woollahra Process Plant	355 Botany ROAD	Other Industry	Regulation under CLM Act not required	-33.9063092	151.2042672
WATERLOO	Shell Coles Express Service Station	867-877 South Dowling STREET	Service Station	Regulation under CLM Act not required	-33.90179774	151.2143789
WATERLOO	Lawrence Dry Cleaners	887-893 Bourke STREET	Unclassified	Contamination currently regulated under CLM Act	-33.89897433	151.2101436
WATERLOO	Diversity Waterloo	1-13 Archibald AVENUE	Other Industry	Under assessment	-33.90204305	151.2097328
WATERLOO	Iconic (Former Chubb Factory) Waterloo	830-838 Elizabeth STREET	Other Industry	Regulation under CLM Act not required	-33.90227718	151.2060305
WATERLOO	22-24 Archibald Avenue	22-24 Archibald AVENUE	Other Petroleum	Regulation under CLM Act not required	-33.90263766	151.2132105
WAUCHOPE	Expressway Spares UST	3 Sancrox ROAD	Other Petroleum	Regulation under CLM Act not required	-31.44421922	152.8218723
WAUCHOPE	Former Shell Depot	56-64 High STREET	Other Petroleum	Regulation under CLM Act not required	-31.45804845	152.7314151
WAUCHOPE	Wauchope Service Station	57 High STREET	Service Station	Regulation under CLM Act not required	-31.45737022	152.7305018
WAUCHOPE	Former Timber Treatment Site	Blackbutt DRIVE	Other Industry	Regulation under CLM Act not required	-31.46575645	152.7228555
WAUCHOPE	Shell Coles Express Service Station	64 High STREET	Service Station	Regulation under CLM Act not required	-31.45764495	152.7315975
WAUCHOPE	Wauchope Public Primary School	2 Waugh STREET	Unclassified	Regulation under CLM Act not required	-31.4556387	152.7295455
WAVERTON	SRA Land	95 Bay ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-33.83716728	151.1969497
WAVERTON	Berry's Bay Woodley's Marina	1 Balls Head DRIVE	Other Industry	Contamination formerly regulated under the POEO Act	-33.84441851	151.1947433
WAVERTON	Oyster Cove AGL	2 King STREET	Gasworks	Ongoing maintenance required to manage residual contamination	-33.83637995	151.193541
WEE JASPER	Wee Jasper Tavern	6499 Wee Jasper ROAD	Other Industry	Under assessment	-35.110374	148.679405
WELLINGTON	Former Caltex Service Station	124-128 Lee STREET	Service Station	Regulation under CLM Act not required	-32.55082729	148.9411537
WELLINGTON	BP Wellington Service Station	35A Maxwell STREET	Service Station	Under assessment	-32.55835121	148.9447284
WELLINGTON	Woolworths Petrol Wellington	79 Lee STREET	Service Station	Under assessment	-32.54874227	148.9408531
WENTWORTH	Caltex - Wentworth	110 Adams STREET	Service Station	Regulation under CLM Act not required	-34.1024927	141.9160539
WENTWORTH FALLS	Bodington Hospital	Bodington DRIVE	Unclassified	Contamination formerly regulated under the CLM Act	-33.73201608	150.3874102
WENTWORTH POINT	RMS Eastern Precinct	3-7 Burroway ROAD	Other Petroleum	Regulation under CLM Act not required	-33.8233882	151.0815668

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WENTWORTH POINT	Former TNT Express	23 Bennelong PARKWAY	Other Petroleum	Regulation under CLM Act not required	-33.83115118	151.0726636
WENTWORTHVILLE	Former Workshop	2 Rawson Rd and 8 Barfil CRESCENT	Unclassified	Regulation under CLM Act not required	-33.81568808	150.9671853
WERRINGTON	Caltex Service Station	Cnr Dunheved Rd and Henry Lawson DRIVE	Service Station	Regulation under CLM Act not required	-33.74577725	150.7409877
WERRINGTON	Claremont Meadows Former landfill	Gipps STREET	Landfill	Regulation under CLM Act not required	-33.77341076	150.7557628
WERRINGTON COUNTY	7-Eleven Werrington	Lot 122 Dunheved ROAD	Service Station	Regulation under CLM Act not required	-33.74699408	150.7428609
WEST BALLINA	Caltex Big Prawn Service Station	Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-28.86374913	153.5321482
WEST GOSFORD	Caltex Service Station	283 Manns ROAD	Service Station	Regulation under CLM Act not required	-33.41659727	151.325219
WEST GOSFORD	Caltex Service Station	69-71 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42729985	151.3214621
WEST GOSFORD	Caltex Service Station	30a Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42778813	151.3190581
WEST GOSFORD	Adcock Memorial Park	Central Coast HIGHWAY	Landfill	Under assessment	-33.42963075	151.3273331
WEST NOWRA	Endeavour Energy Nowra Field Service Centre	20 Depot ROAD	Other Industry	Regulation under CLM Act not required	-34.88993085	150.5878854
WEST PENNANT HILLS	7-Eleven (former Mobil) Service Station	552 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.74686545	151.0508067
WEST RYDE	7-Eleven (former Mobil) Service Station	917 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.80921103	151.0932917
WEST RYDE	Pfizer Australia Pty Ltd	38-42 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81021085	151.0693631
WEST RYDE	Reckitt Benckiser	44 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81172205	151.0692752
WEST RYDE	JHM Property Development	2A Mellor STREET	Other Industry	Regulation under CLM Act not required	-33.81207534	151.094598
WEST TAMWORTH	Woolworths Petrol	119 Bridge STREET	Service Station	Regulation under CLM Act not required	-31.09358262	150.9167693
WEST WYALONG	Lowes Petroleum (Former BP) Depot West Wyalong	Compton (formerly known as Town Bypass/Railway Road)	Other Petroleum	Regulation under CLM Act not required	-33.93440247	147.2154596
WEST WYALONG	Caltex Depot	(Wyalong By-pass Rd) Lot 1-3 Showground ROAD	Service Station	Regulation under CLM Act not required	-33.92556	147.1981659
WEST WYALONG	Former Mobil Depot	104 Compton ROAD	Other Petroleum	Regulation under CLM Act not required	-33.93449194	147.2147948
WESTON	Illegal Dumping Site	Corner Kline Street & First STREET	Unclassified	Regulation under CLM Act not required	-32.81367986	151.4551507
WETHERILL PARK	Former Fuel Storage Depot	200-212 Cowpasture ROAD	Other Petroleum	Regulation under CLM Act not required	-33.84568871	150.8764012

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WETHERILL PARK	Sims Wetherill Park	35-37 Frank STREET	Metal Industry	Regulation under CLM Act not required	-33.84056122	150.9086265
WETHERILL PARK	Shell Coles Express Service Station	565 Polding STREET	Service Station	Regulation under CLM Act not required	-33.8569731	150.8992804
WETHERILL PARK	Cleanaway (Formerly Nationwide Oil) Wetherill Park	6 Davis ROAD	Other Industry	Regulation under CLM Act not required	-33.83770038	150.9045197
WETHERILL PARK	BOC Sydney Operations Centre	428-440 Victoria STREET	Chemical Industry	Under assessment	-33.84400237	150.8967556
WETHERILL PARK	Camide Former Landfill	Newton ROAD	Landfill	Regulation under CLM Act not required	-33.83898879	150.8963813
WICKHAM	Caltex Terminal	156 Hannell STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.91520778	151.7563638
WICKHAM	Former Warehouse	10 Dangar STREET	Unclassified	Regulation under CLM Act not required	-32.92383206	151.759761
WICKHAM	Former Factory	57 Annie STREET	Other Industry	Regulation under CLM Act not required	-32.91524827	151.7539893
WICKHAM	Railcorp Wickham	50 Railway STREET	Other Industry	Regulation under CLM Act not required	-32.9210433	151.7544687
WICKHAM	Fuchs Lubricants (Australasia) Pty Ltd Wickham	2 Holland STREET	Other Industry	Regulation under CLM Act not required	-32.9214709	151.7556928
WILBERFORCE	Former Drum Reconditioners	12-14 Box AVENUE	Other Industry	Contamination formerly regulated under the CLM Act	-33.5453884	150.8587934
WILBERFORCE	Former Solvent Recycling Site	13 Box AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.54557427	150.8577006
WILEY PARK	Sydney Water Property	1B Hillcrest STREET	Other Industry	Regulation under CLM Act not required	-33.92391634	151.0676256
WILLIAMTOWN	Hunter Land Effluent Pond	38 Cabbage Tree ROAD	Other Industry	Regulation under CLM Act not required	-32.80750069	151.8310107
WILLOUGHBY	Shell Coles Express Service Station	616-626 Willoughby ROAD	Service Station	Regulation under CLM Act not required	-33.80593769	151.1988559
WILLOUGHBY	Caltex Service Station	157 Penhur STREET	Service Station	Regulation under CLM Act not required	-33.79793513	151.1981926
WILLOUGHBY	BP Express Tower	498 Willoughby STREET	Service Station	Under assessment	-33.81022918	151.199315
WILLOUGHBY EAST	Willoughby Bus Depot	Corner Ann Street and Stan STREET	Other Industry	Regulation under CLM Act not required	-33.7982569	151.2038993
WILTON	Condell Park Homestead	(Part Lot 17 DP 270536) Condell Park ROAD	Unclassified	Regulation under CLM Act not required	-34.21910141	150.6837962
WINDANG	Caltex Service Station	244-248 Windang ROAD	Service Station	Regulation under CLM Act not required	-34.5274434	150.8691161
WINDSOR	Former Caltex Service Station	46-52 Macquarie STREET	Service Station	Regulation under CLM Act not required	-33.60783315	150.8213428
WINDSOR	Former Caltex Windsor Depot and Service Station	48-50 Mileham STREET	Service Station	Regulation under CLM Act not required	-33.61538627	150.8157517

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WINDSOR	Woolworths (former Caltex) Service Station	Cnr Macquarie Street & Baker STREET	Service Station	Regulation under CLM Act not required	-33.60569346	150.8232803
WINGHAM	Former Caltex Service Station	1036-1038 Wingham ROAD	Service Station	Regulation under CLM Act not required	-31.86236594	152.3805752
WINGHAM	Bogas Service Station	Cnr Primrose Street and Isabella STREET	Service Station	Regulation under CLM Act not required	-31.86833656	152.3716346
WINMALEE	Prime Winmalee Service Station	281 Hawkesbury ROAD	Service Station	Regulation under CLM Act not required	-33.68223276	150.5997203
WIRLINGA	Former Liquid Waste Disposal Facility	704 Riverina ROAD	Unclassified	Regulation under CLM Act not required	-36.07103958	147.0193522
WOLLI CREEK	Former Ausgrid Substation 10061	13 Gertrude STREET	Other Industry	Regulation under CLM Act not required	-33.93364031	151.1543818
WOLLONGONG	Redevelopment site	33 - 39 Beatson STREET	Other Petroleum	Regulation under CLM Act not required	-34.43196083	150.8976661
WOLLONGONG	Caltex Service Station	9 Flinders STREET	Service Station	Regulation under CLM Act not required	-34.41505616	150.8932515
WOLLONGONG	Greenhouse Park	Springhill ROAD	Landfill	Contamination currently regulated under CLM Act	-34.44119949	150.8931764
WOLLONGONG	Former Wollongong Gasworks	120 and 122 Smith STREET	Gasworks	Regulation under CLM Act not required	-34.42030173	150.8906745
WOLLONGONG	Woolworths Service Station	425 Crown STREET	Service Station	Contamination currently regulated under CLM Act	-34.42637378	150.8799288
WOLLONGONG	Wollongong Harbour Central Spur	Off Endeavour DRIVE	Other Petroleum	Regulation under CLM Act not required	-34.42066879	150.906821
WOODBURN	Caltex Service Station	129 River STREET	Service Station	Regulation under CLM Act not required	-29.07206887	153.3409769
WOODBURN	Crown Reserve 88037 Woodburn	Pacific HIGHWAY	Landfill	Regulation under CLM Act not required	-29.06580577	153.3541886
WOOLGOOLGA	Caltex Woolgoolga Service Station	16 Bosworth ROAD	Service Station	Regulation under CLM Act not required	-30.12569561	153.1946006
WOOLGOOLGA	United Petroleum Service Station	56 Clarence STREET	Service Station	Regulation under CLM Act not required	-30.11045544	153.1904609
WOOLLAHRA	Former Service Station	20 Wallis STREET	Service Station	Regulation under CLM Act not required	-33.8901965	151.2372752
WOOLLAHRA	Proposed Jewish Care Centre	7 -21 Saber STREET	Unclassified	Regulation under CLM Act not required	-33.8904055	151.2480062
WOOLLAHRA	Caltex Woollahra Service Station	116 Old South Head ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.88959697	151.2553736
WOOLLOOMOOLOO	Former BP Service Station	2 Dowley STREET	Service Station	Contamination being managed via the planning process (EP&A Act)	-33.86940191	151.2218741
WOOLOMIN	Woolomin Gold Rush Store	65 Nundle ROAD	Other Petroleum	Contamination currently regulated under CLM Act	-31.30415134	151.149729
WOOLOOWARE	Caltex Service Station	100 Woolooware ROAD	Service Station	Regulation under CLM Act not required	-34.05274635	151.1408413

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WOOLOOWARE	Oyster Farm	Captain Cook DRIVE	Other Industry	Under assessment	-34.03807914	151.1476055
WOONGARRAH	Former Warnervale Landfill	236-264 Hakone ROAD	Landfill	Regulation under CLM Act not required	-33.2376313	151.464362
WOOTTON	Former Chemical Spill Site	11859 Pacific HIGHWAY	Chemical Industry	Regulation under CLM Act not required	-32.28168548	152.3117819
WOY WOY	Mobil Former Woy Woy Service Station and adjacent land	177-181 Blackwall ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.49254403	151.3270829
WOY WOY	Barry Robertson Holden	231 Blackwall ROAD	Service Station	Regulation under CLM Act not required	-33.49621068	151.3285128
WOY WOY	Bogas Service Station	66 Memorial AVENUE	Service Station	Contamination currently regulated under CLM Act	-33.5069738	151.3315579
WOY WOY	Rogers Park	Dunban ROAD	Landfill	Under assessment	-33.50009693	151.3181347
WOY WOY	Austin Butler Memorial Oval	Blackwall ROAD	Landfill	Under assessment	-33.48626871	151.3276042
WOY WOY	James Browne Oval	Welcome STREET	Landfill	Under assessment	-33.49756053	151.3234871
WYALONG	Caltex Service Station	50 Neeld (Newell Highway) STREET	Service Station	Regulation under CLM Act not required	-33.92665025	147.2446546
WYOMING	Caltex Service Station Wyoming	465 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.40945391	151.3499812
WYONG	Wyong Bayer/Kemcon	16 Lucca ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.26192339	151.4429446
WYONG	Caltex Service Station	M1 Pacific (Northbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25641477	151.4024821
WYONG	Caltex Service Station	M1 Pacific (Southbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25330747	151.4053862
WYONG	IXOM Facility	8 Pavitt CRESCENT	Other Industry	Regulation under CLM Act not required	-33.26379108	151.4485113
YAGOONA	Galserv Galvanising Services	117-153 Rookwood ROAD	Metal Industry	Contamination currently regulated under CLM Act	-33.89493085	151.0388013
YAGOONA	BP Service Station Potts Hill (Yagoona)	155 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89330525	151.0390969
YAGOONA	7-Eleven (former Mobil) Service Station	519 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90760623	151.0207783
YAGOONA	Shell Coles Express Service Station	112 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89856213	151.0370458
YAGOONA	Sydney Water Corporation Potts Hill Complex	91 Brunker ROAD	Other Industry	Regulation under CLM Act not required	-33.89887589	151.0289165
YALLAH	Tallawarra Power Station site	Princes HIGHWAY	Unclassified	Ongoing maintenance required to manage residual contamination	-34.52412143	150.8062159
YAMBA	Caltex Service Station	22 Treelands DRIVE	Service Station	Regulation under CLM Act not required	-29.42701701	153.3279204

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
YANCO	Former Service Station	14 Main AVENUE	Service Station	Contamination formerly regulated under the CLM Act	-34.60356494	146.4105016
YASS	Caltex Service Station	228 Comur STREET	Service Station	Regulation under CLM Act not required	-34.84440036	148.9140179
YASS	Caltex Service Station	1715 Yass Valley WAY	Service Station	Regulation under CLM Act not required	-34.80708856	148.8824228
YASS	Former Mobil Depot Yass and adjacent land	54-58 Laidlaw STREET	Service Station	Contamination currently regulated under CLM Act	-34.83252976	148.9068888
YASS	Former Gasworks	Dutton STREET	Gasworks	Contamination currently regulated under CLM Act	-34.83982614	148.9060029
YASS	Transgrid Depot Yass	Perry STREET	Unclassified	Under assessment	-34.86238341	148.9052809
YENNORA	Former Alcoa Australia Rolled Products Facility - Area 3	1 Kiora CRESCENT	Metal Industry	Regulation under CLM Act not required	-33.86568158	150.9649297
YENNORA	Spicer Axle Australia Manufacturing Facility	205-231 Fairfield ROAD	Other Industry	Regulation under CLM Act not required	-33.85655114	150.9579167
YENNORA	Former Caltex Service Station	137-141 Fairfield STREET	Service Station	Regulation under CLM Act not required	-33.86824768	150.9706137
YENNORA	Former Metal Plant	44 Larra STREET	Metal Industry	Contamination formerly regulated under the CLM Act	-33.86340576	150.9764349
YENNORA	TetraPak Site	6 Foray STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.8557183	150.9561605
YENNORA	19 Pine Road, Yennora	Pine ROAD	Metal Industry	Contamination currently regulated under CLM Act	-33.86713232	150.9621172
YETHOLME	Yetholme CCA Timber Treatment Plant	351 Eusdale ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.45386256	149.8537787
YOUNG	Former Mobil Depot and Service Station Young	149 Lovell STREET	Service Station	Regulation under CLM Act not required	-34.31024587	148.290424
YOUNG	Former Shell Depot	166 Nasmyth STREET	Other Petroleum	Regulation under CLM Act not required	-34.31025192	148.2931008
YOUNG	Former battery recycler	45 Nasmyth STREET	Metal Industry	Contamination currently regulated under CLM Act	-34.31201571	148.306772
YOUNG	Adjacent to former battery recycler	47 Nasmyth STREET	Metal Industry	Contamination formerly regulated under the CLM Act	-34.31176273	148.3064765
YOUNG	Mobil Depot	186 Nasmyth STREET	Other Petroleum	Contamination currently regulated under CLM Act	-34.30954389	148.2908476
YOUNG	Former Caltex Depot	95 Lovell STREET	Service Station	Regulation under CLM Act not required	-34.31127119	148.2955092
ZETLAND	Energy Australia/ Ausgrid Zetland Depot	122 - 138 Joynton AVENUE	Other Industry	Regulation under CLM Act not required	-33.90883116	151.2101184
ZETLAND	Former Goodrich Control Systems, Zetland	84 - 92 Epsom ROAD	Other Industry	Under assessment	-33.91025707	151.2078048

APPENDIX D

TABLE 1 - TEST PIT LOGS

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP1	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP2	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP3	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
	0.5-0.6	NS			SHALE	
TP4	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP5	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP6	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.8	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
	0.8-0.9	NS			SHALE	
TP7	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP8	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP9	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP10	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-1.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey, F, M≤PL	
	1.5-2.5	NS			(CH) Silty CLAY, high plasticity, grey, sandstone laminate, F-St	
TP11	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP12	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP13	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP14	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
TP15	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey, F, M≤PL	
TP16	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey, F, M≤PL	
	0.5-0.6	NS			SHALE	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP17	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP18	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP19	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	Fibro-cement pieces on surface and in profile
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP20	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP21	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP22	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP23	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP24	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
	0.5-1.2	NS			(CH) Silty CLAY, high plasticity, grey, sandstone laminate	
	1.2-1.4	NS			SHALE	
TP25	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	Fibro-cement piece on ground surface

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP26	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP27	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP28	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP29	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
	0.5-2.5	NS			(CH) Silty CLAY, high plasticity, grey, sandstone laminate	
TP30	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP31	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-1.0	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
	1.0-1.9	NS			(CH) Silty CLAY, high plasticity, grey, sandstone laminate	
	1.9-2.1	NS			SHALE	
	2.1	NS			Refusal on shale	
TP32	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
TP33	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP34	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP35	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP36	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP37	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP38	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP39	0.0-0.2	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
TP40	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
TP41	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP42	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP43	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP44	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP45	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP46	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
TP47	0.0-0.2	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
TP48	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP49	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP50	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP51	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP52	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP53	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP54	0.0-0.3	0.0-0.15	17/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP55	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP56	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP57	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP58	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	Seepage at 1.0m
TP59	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP60	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP61	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP62	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP63	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP64	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP65	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP66	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP67	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-1.2	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
	1.2-2.5	NS			(CH) Silty CLAY, high plasticity, grey, sandstone laminate	
TP68	0.0-0.3	0.0-0.15	16/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

Project	**Proposed Residential Subdivision Development**	**Job No**	**14450/1**
Location	**Lot B DP362093 and Lots 12 & 13 Section 0 DP712**	**Refer to Drawing No**	**14450/1-AA2**
	167 Riverstone Road and Regent Street, Riverstone	**Logged & Sampled by**	**JH**

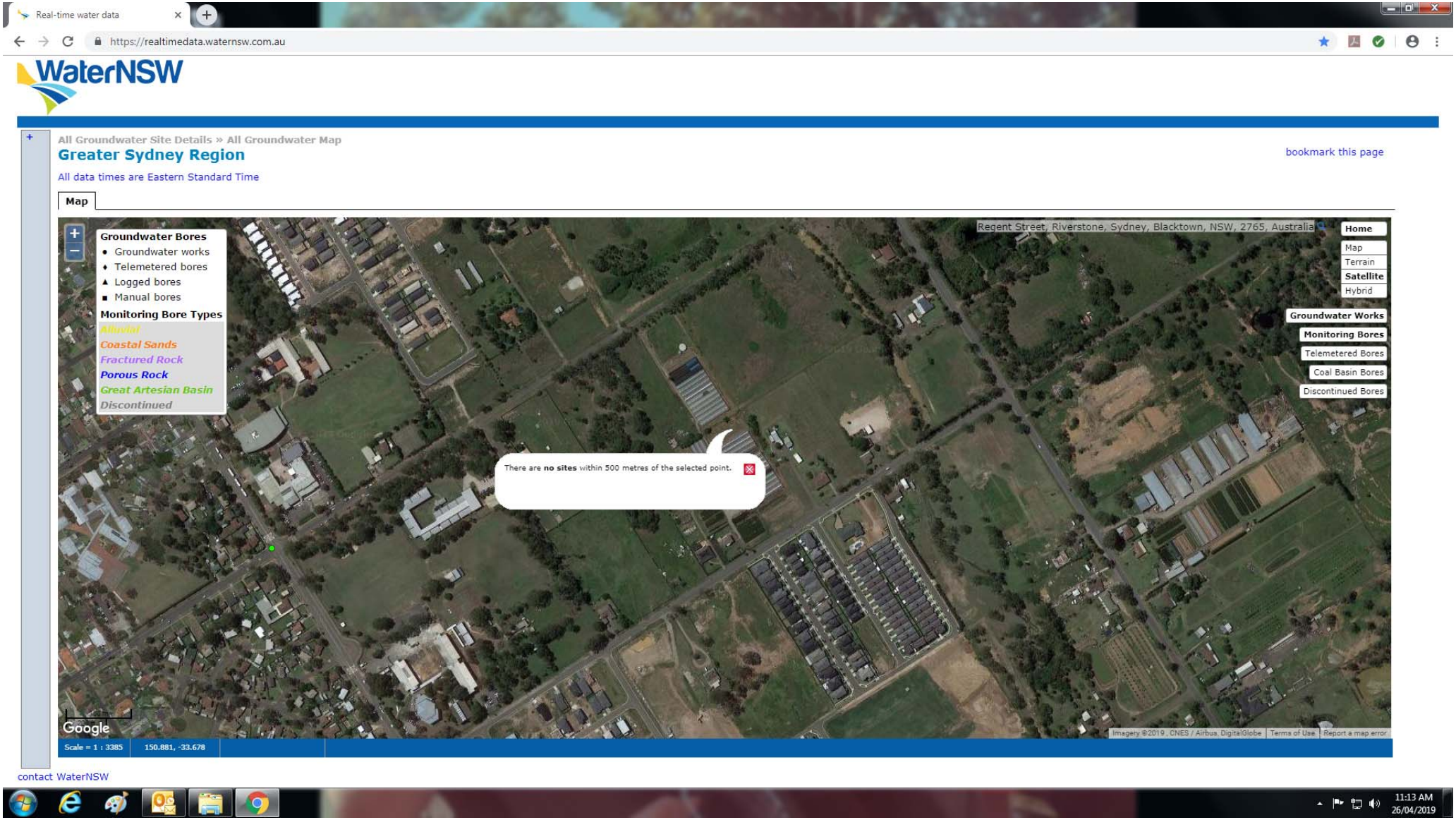
TABLE 1

Test Pit	Depth (m)	Sample Depth (m)	Date	Time	Material Description	Remarks*
TP69	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, brown mottled grey	
TP70	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled greyL	
TP71	0.0-0.2	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.2-2.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
TP72	0.0-0.3	0.0-0.15	15/04/2019	-	TOPSOIL: Silty Clay, low to medium plasticity, brown, trace of root fibres	
	0.3-0.5	NS			(CI-CH) Silty CLAY, medium to high plasticity, orange mottled grey	
SP1-1	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	
SP1-2	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	
SP1-3	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	
SP2-1	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	
SP2-2	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	
SP2-3	0.0-0.3	0.0-0.15	17/04/2019	-	STOCKPILE: Silty Clay, low plasticity, brown	

NS = No Sample
*Odour (O), Discolouration (D), Petroleum Hydrocarbon Staining (PHS), Asbestos Containing Material (ACM), Ash Material (ASHM), Demolition Waste (DW), Groundwater (GW), Perched Water (PW) PID reading etc.

APPENDIX E

GROUNDWATER MAP


Real-time water data
https://realtimedata.waternsw.com.au
WaterNSW
All Groundwater Site Details » All Groundwater Map
Greater Sydney Region
bookmark this page
All data times are Eastern Standard Time
Map
Groundwater Bores
Groundwater works
Telemetered bores
Logged bores
Manual bores
Monitoring Bore Types
Alluvial
Coastal Sands
Fractured Rock
Porous Rock
Great Artesian Basin
Discontinued
Regent Street, Riverstone, Sydney, Blacktown, NSW, 2765, Australia
Home
Map
Terrain
Satellite
Hybrid
Groundwater Works
Monitoring Bores
Telemetered Bores
Coal Basin Bores
Discontinued Bores
There are no sites within 500 metres of the selected point.
Google
Imagery ©2019 , CNES / Airbus, DigitalGlobe
Terms of Use
Report a map error
Scale = 1 : 3385
150.881, -33.678
contact WaterNSW
11:13 AM
26/04/2019

APPENDIX F

LABORATORY TEST RESULTS REPORTS/CERTIFICATES

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826 R0**
Date Received	18/4/2019
Date Reported	2/5/2019

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

Sample # 19 : Asbestos found in approx 12x6x4mm cement sheet fragments x3.

Asbestos analysed by Approved Identifiers Yusuf Kuthpudin and Ravee Sivasubramaniam .

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemist

Huong Crawford
Production Manager

Kamrul Ahsan
Senior Chemist

Ly Kim Ha
Organic Section Head

Ravee Sivasubramaniam
Hygiene Team Leader

Shane McDermott
Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071	TS1 SAND - 16/4/2019 SE191826.090	TS2 SAND - 16/4/2019 SE191826.091
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	[71%]	[89%]
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	[85%]	[97%]
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	[93%]	[98%]
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	[92%]	[97%]
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	[93%]	[98%]
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	-	-
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	-	-
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	-	-

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071
TRH C6-C9	mg/kg	20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071
TRH C10-C14	mg/kg	20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110
TRH C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	**0.5**	**0.1**	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.4**	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**0.2**	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.2**	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.3**	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	**0.2**	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	**0.3**	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	**0.4**	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.4**	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	**2.8**	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**2.8**	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	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)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826.001	TP7 CLAY 0.0-0.15 16/4/2019 SE191826.007	TP10 CLAY 0.0-0.15 16/4/2019 SE191826.010	TP14 CLAY 0.0-0.15 16/4/2019 SE191826.014	TP21 CLAY 0.0-0.15 17/4/2019 SE191826.021
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 24/4/2019 (continued)

PARAMETER	UOM	LOR	TP24 CLAY 0.0-0.15 16/4/2019 SE191826.024	TP26 CLAY 0.0-0.15 17/4/2019 SE191826.026	TP28 CLAY 0.0-0.15 17/4/2019 SE191826.028	TP38 CLAY 0.0-0.15 17/4/2019 SE191826.038	TP42 CLAY 0.0-0.15 17/4/2019 SE191826.042
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 24/4/2019 (continued)

PARAMETER	UOM	LOR	TP47 CLAY 0.0-0.15 17/4/2019 SE191826.047	TP59 CLAY 0.0-0.15 15/4/2019 SE191826.059	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826.073	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826.076	X1 CLAY 0.0-0.15 15/4/2019 SE191826.079
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OP Pesticides in Soil [AN420] Tested: 24/4/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826.001	TP7 CLAY 0.0-0.15 16/4/2019 SE191826.007	TP10 CLAY 0.0-0.15 16/4/2019 SE191826.010	TP14 CLAY 0.0-0.15 16/4/2019 SE191826.014	TP21 CLAY 0.0-0.15 17/4/2019 SE191826.021
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	TP24 CLAY 0.0-0.15 16/4/2019 SE191826.024	TP26 CLAY 0.0-0.15 17/4/2019 SE191826.026	TP28 CLAY 0.0-0.15 17/4/2019 SE191826.028	TP38 CLAY 0.0-0.15 17/4/2019 SE191826.038	TP42 CLAY 0.0-0.15 17/4/2019 SE191826.042
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	TP47 CLAY 0.0-0.15 17/4/2019 SE191826.047	TP59 CLAY 0.0-0.15 15/4/2019 SE191826.059	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826.073	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826.076	X1 CLAY 0.0-0.15 15/4/2019 SE191826.079
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

Total Phenolics in Soil [AN289] Tested: 30/4/2019

PARAMETER	UOM	LOR	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
Total Phenols	mg/kg	5	<5	<5	<5	<5	<5

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071
Total Phenols	mg/kg	5	<5	<5	<5

pH in soil (1:5) [AN101] Tested: 23/4/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826.001	TP4 CLAY 0.0-0.15 16/4/2019 SE191826.004	TP7 CLAY 0.0-0.15 16/4/2019 SE191826.007	TP10 CLAY 0.0-0.15 16/4/2019 SE191826.010	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013
pH	pH Units	0.1	7.5	6.3	6.8	7.3	7.8

PARAMETER	UOM	LOR	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP24 CLAY 0.0-0.15 16/4/2019 SE191826.024	TP26 CLAY 0.0-0.15 17/4/2019 SE191826.026	TP29 CLAY 0.0-0.15 15/4/2019 SE191826.029
pH	pH Units	0.1	6.8	8.1	7.4	6.9	8.0

PARAMETER	UOM	LOR	TP32 CLAY 0.0-0.15 15/4/2019 SE191826.032	TP35 CLAY 0.0-0.15 17/4/2019 SE191826.035	TP38 CLAY 0.0-0.15 17/4/2019 SE191826.038	TP41 CLAY 0.0-0.15 15/4/2019 SE191826.041	TP44 CLAY 0.0-0.15 15/4/2019 SE191826.044
pH	pH Units	0.1	4.5	6.4	6.5	7.1	7.2

PARAMETER	UOM	LOR	TP47 CLAY 0.0-0.15 17/4/2019 SE191826.047	TP50 CLAY 0.0-0.15 17/4/2019 SE191826.050	TP53 CLAY 0.0-0.15 17/4/2019 SE191826.053	TP56 CLAY 0.0-0.15 15/4/2019 SE191826.056	TP59 CLAY 0.0-0.15 15/4/2019 SE191826.059
pH	pH Units	0.1	7.4	7.0	6.3	7.8	6.8

PARAMETER	UOM	LOR	TP62 CLAY 0.0-0.15 15/4/2019 SE191826.062	TP65 CLAY 0.0-0.15 16/4/2019 SE191826.065	TP68 CLAY 0.0-0.15 16/4/2019 SE191826.068	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826.073
pH	pH Units	0.1	7.6	7.0	5.8	6.7	6.8

PARAMETER	UOM	LOR	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826.076
pH	pH Units	0.1	6.6

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 30/4/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826.001	TP4 CLAY 0.0-0.15 16/4/2019 SE191826.004	TP7 CLAY 0.0-0.15 16/4/2019 SE191826.007	TP10 CLAY 0.0-0.15 16/4/2019 SE191826.010	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013
Exchangeable Sodium, Na	mg/kg	2	48	37	51	82	71
Exchangeable Sodium, Na	meq/100g	0.01	0.21	0.16	0.22	0.36	0.31
Exchangeable Sodium Percentage*	%	0.1	0.8	1.2	1.6	1.3	1.4
Exchangeable Potassium, K	mg/kg	2	540	430	44	530	52
Exchangeable Potassium, K	meq/100g	0.01	1.4	1.1	0.11	1.4	0.13
Exchangeable Potassium Percentage*	%	0.1	5.3	8.2	0.8	5.0	0.6
Exchangeable Calcium, Ca	mg/kg	2	4000	1700	2200	4200	3500
Exchangeable Calcium, Ca	meq/100g	0.01	20	8.6	11	21	17
Exchangeable Calcium Percentage*	%	0.1	77.4	64.2	77.5	77.1	81.7
Exchangeable Magnesium, Mg	mg/kg	2	530	430	350	540	420
Exchangeable Magnesium, Mg	meq/100g	0.02	4.3	3.5	2.8	4.5	3.4
Exchangeable Magnesium Percentage*	%	0.1	16.5	26.4	20.1	16.6	16.2
Cation Exchange Capacity	meq/100g	0.02	26	13	14	27	21

PARAMETER	UOM	LOR	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP24 CLAY 0.0-0.15 16/4/2019 SE191826.024	TP26 CLAY 0.0-0.15 17/4/2019 SE191826.026	TP29 CLAY 0.0-0.15 15/4/2019 SE191826.029
Exchangeable Sodium, Na	mg/kg	2	48	68	36	270	100
Exchangeable Sodium, Na	meq/100g	0.01	0.21	0.30	0.16	1.2	0.45
Exchangeable Sodium Percentage*	%	0.1	1.8	1.1	0.8	4.5	1.7
Exchangeable Potassium, K	mg/kg	2	220	300	600	480	440
Exchangeable Potassium, K	meq/100g	0.01	0.58	0.77	1.5	1.2	1.1
Exchangeable Potassium Percentage*	%	0.1	4.9	2.9	7.6	4.6	4.4
Exchangeable Calcium, Ca	mg/kg	2	1700	4700	3100	3800	4000
Exchangeable Calcium, Ca	meq/100g	0.01	8.3	23	15	19	20
Exchangeable Calcium Percentage*	%	0.1	70.4	86.9	75.4	71.6	76.9
Exchangeable Magnesium, Mg	mg/kg	2	330	300	400	630	540
Exchangeable Magnesium, Mg	meq/100g	0.02	2.7	2.5	3.3	5.2	4.4
Exchangeable Magnesium Percentage*	%	0.1	23.0	9.2	16.2	19.3	17.0
Cation Exchange Capacity	meq/100g	0.02	12	27	20	27	26

PARAMETER	UOM	LOR	TP32 CLAY 0.0-0.15 15/4/2019 SE191826.032	TP35 CLAY 0.0-0.15 17/4/2019 SE191826.035	TP38 CLAY 0.0-0.15 17/4/2019 SE191826.038	TP41 CLAY 0.0-0.15 15/4/2019 SE191826.041	TP44 CLAY 0.0-0.15 15/4/2019 SE191826.044
Exchangeable Sodium, Na	mg/kg	2	97	15	91	17	89
Exchangeable Sodium, Na	meq/100g	0.01	0.42	0.07	0.39	0.08	0.39
Exchangeable Sodium Percentage*	%	0.1	6.2	0.9	7.7	0.9	6.0
Exchangeable Potassium, K	mg/kg	2	180	150	110	110	200
Exchangeable Potassium, K	meq/100g	0.01	0.45	0.38	0.27	0.28	0.50
Exchangeable Potassium Percentage*	%	0.1	6.7	5.2	5.3	3.5	7.8
Exchangeable Calcium, Ca	mg/kg	2	980	1100	430	1300	760
Exchangeable Calcium, Ca	meq/100g	0.01	4.9	5.7	2.2	6.3	3.8
Exchangeable Calcium Percentage*	%	0.1	71.9	78.3	42.0	78.8	58.7
Exchangeable Magnesium, Mg	mg/kg	2	130	140	280	160	220
Exchangeable Magnesium, Mg	meq/100g	0.02	1.0	1.1	2.3	1.3	1.8
Exchangeable Magnesium Percentage*	%	0.1	15.2	15.6	45.1	16.8	27.5
Cation Exchange Capacity	meq/100g	0.02	6.8	7.3	5.1	8.0	6.4

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 30/4/2019 (continued)

PARAMETER	UOM	LOR	TP47 CLAY 0.0-0.15 17/4/2019 SE191826.047	TP50 CLAY 0.0-0.15 17/4/2019 SE191826.050	TP53 CLAY 0.0-0.15 17/4/2019 SE191826.053	TP56 CLAY 0.0-0.15 15/4/2019 SE191826.056	TP59 CLAY 0.0-0.15 15/4/2019 SE191826.059
Exchangeable Sodium, Na	mg/kg	2	28	52	66	78	81
Exchangeable Sodium, Na	meq/100g	0.01	0.12	0.23	0.29	0.34	0.35
Exchangeable Sodium Percentage*	%	0.1	1.5	1.6	5.2	1.7	4.2
Exchangeable Potassium, K	mg/kg	2	250	270	67	310	120
Exchangeable Potassium, K	meq/100g	0.01	0.63	0.68	0.17	0.79	0.31
Exchangeable Potassium Percentage*	%	0.1	7.8	4.7	3.1	4.1	3.7
Exchangeable Calcium, Ca	mg/kg	2	1100	2100	660	3400	1000
Exchangeable Calcium, Ca	meq/100g	0.01	5.5	10	3.3	17	5.0
Exchangeable Calcium Percentage*	%	0.1	68.5	71.1	58.9	86.3	60.0
Exchangeable Magnesium, Mg	mg/kg	2	220	400	220	190	330
Exchangeable Magnesium, Mg	meq/100g	0.02	1.8	3.3	1.8	1.6	2.7
Exchangeable Magnesium Percentage*	%	0.1	22.1	22.6	32.8	7.9	32.1
Cation Exchange Capacity	meq/100g	0.02	8.0	15	5.6	20	8.3

PARAMETER	UOM	LOR	TP62 CLAY 0.0-0.15 15/4/2019 SE191826.062	TP65 CLAY 0.0-0.15 16/4/2019 SE191826.065	TP68 CLAY 0.0-0.15 16/4/2019 SE191826.068	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826.073
Exchangeable Sodium, Na	mg/kg	2	140	51	37	390	80
Exchangeable Sodium, Na	meq/100g	0.01	0.59	0.22	0.16	1.7	0.35
Exchangeable Sodium Percentage*	%	0.1	5.1	1.5	4.4	20.3	1.0
Exchangeable Potassium, K	mg/kg	2	110	400	64	100	380
Exchangeable Potassium, K	meq/100g	0.01	0.28	1.0	0.16	0.26	0.98
Exchangeable Potassium Percentage*	%	0.1	2.4	7.0	4.5	3.1	2.7
Exchangeable Calcium, Ca	mg/kg	2	1100	1900	390	410	5800
Exchangeable Calcium, Ca	meq/100g	0.01	5.7	9.7	1.9	2.0	29
Exchangeable Calcium Percentage*	%	0.1	49.0	65.8	53.6	24.4	81.2
Exchangeable Magnesium, Mg	mg/kg	2	610	460	170	530	660
Exchangeable Magnesium, Mg	meq/100g	0.02	5.0	3.8	1.4	4.4	5.4
Exchangeable Magnesium Percentage*	%	0.1	43.5	25.8	37.4	52.1	15.1
Cation Exchange Capacity	meq/100g	0.02	12	15	3.6	8.3	36

PARAMETER	UOM	LOR	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826.076
Exchangeable Sodium, Na	mg/kg	2	91
Exchangeable Sodium, Na	meq/100g	0.01	0.40
Exchangeable Sodium Percentage*	%	0.1	1.8
Exchangeable Potassium, K	mg/kg	2	240
Exchangeable Potassium, K	meq/100g	0.01	0.61
Exchangeable Potassium Percentage*	%	0.1	2.8
Exchangeable Calcium, Ca	mg/kg	2	3500
Exchangeable Calcium, Ca	meq/100g	0.01	17
Exchangeable Calcium Percentage*	%	0.1	78.6
Exchangeable Magnesium, Mg	mg/kg	2	450
Exchangeable Magnesium, Mg	meq/100g	0.02	3.7
Exchangeable Magnesium Percentage*	%	0.1	16.8
Cation Exchange Capacity	meq/100g	0.02	22

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 29/4/2019

PARAMETER	UOM	LOR	C1 CLAY - 16/4/2019 SE191826.092	C2 CLAY - 16/4/2019 SE191826.093	C3 CLAY - 16/4/2019 SE191826.094	C4 CLAY - 16/4/2019 SE191826.095	C5 CLAY - 16/4/2019 SE191826.096
Arsenic, As	mg/kg	1	22	14	17	16	14
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	0.4
Chromium, Cr	mg/kg	0.5	26	13	21	19	21
Copper, Cu	mg/kg	0.5	34	14	28	38	32
Lead, Pb	mg/kg	1	20	16	22	20	35
Nickel, Ni	mg/kg	0.5	6.0	3.8	5.3	5.2	10
Zinc, Zn	mg/kg	2	110	43	85	180	170

PARAMETER	UOM	LOR	C6 CLAY - 16/4/2019 SE191826.097	C7 CLAY - 17/4/2019 SE191826.098	C8 CLAY - 17/4/2019 SE191826.099	C9 CLAY - 17/4/2019 SE191826.100	C10 CLAY - 15/4/2019 SE191826.101
Arsenic, As	mg/kg	1	17	17	16	19	16
Cadmium, Cd	mg/kg	0.3	<0.3	0.3	<0.3	0.3	<0.3
Chromium, Cr	mg/kg	0.5	20	18	21	23	18
Copper, Cu	mg/kg	0.5	13	40	39	45	28
Lead, Pb	mg/kg	1	100	51	24	55	18
Nickel, Ni	mg/kg	0.5	3.7	5.6	9.8	8.3	7.6
Zinc, Zn	mg/kg	2	130	160	130	240	96

PARAMETER	UOM	LOR	C11 CLAY - 16/4/2019 SE191826.102	C12 CLAY - 17/4/2019 SE191826.103	C13 CLAY - 16/4/2019 SE191826.104	C14 CLAY - 15/4/2019 SE191826.105	C15 CLAY - 15/4/2019 SE191826.106
Arsenic, As	mg/kg	1	12	10	14	14	14
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	20	14	17	29	21
Copper, Cu	mg/kg	0.5	16	4.2	6.3	19	9.0
Lead, Pb	mg/kg	1	15	23	26	19	18
Nickel, Ni	mg/kg	0.5	3.0	2.2	5.4	4.5	3.1
Zinc, Zn	mg/kg	2	72	35	38	100	43

PARAMETER	UOM	LOR	C16 CLAY - 16/4/2019 SE191826.107	C17 CLAY - 17/4/2019 SE191826.108	C18 CLAY - 17/4/2019 SE191826.109	C19 CLAY - 15/4/2019 SE191826.110	C20 CLAY - 15/4/2019 SE191826.111
Arsenic, As	mg/kg	1	18	12	11	12	7
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	14	18	17	27
Copper, Cu	mg/kg	0.5	34	9.1	8.6	10	5.6
Lead, Pb	mg/kg	1	21	20	20	17	17
Nickel, Ni	mg/kg	0.5	5.2	3.8	4.8	3.2	2.9
Zinc, Zn	mg/kg	2	130	180	39	60	10

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 29/4/2019

(continued)

PARAMETER	UOM	LOR	C21 CLAY - 15/4/2019 SE191826.112	C22 CLAY - 16/4/2019 SE191826.113	C23 CLAY - 16/4/2019 SE191826.114	C24 CLAY - 15/4/2019 SE191826.115	C25 CLAY - 17/4/2019 SE191826.116
Arsenic, As	mg/kg	1	9	6	6	5	8
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	24	18	15	20	19
Copper, Cu	mg/kg	0.5	6.3	11	6.8	5.2	38
Lead, Pb	mg/kg	1	20	30	18	27	20
Nickel, Ni	mg/kg	0.5	3.0	6.3	3.1	2.0	9.9
Zinc, Zn	mg/kg	2	16	310	20	20	190

PARAMETER	UOM	LOR	C26 CLAY - 17/4/2019 SE191826.117	CDS1 CLAY - 15/4/2019 SE191826.118	CDS2 CLAY - 16/4/2019 SE191826.119
Arsenic, As	mg/kg	1	8	6	5
Cadmium, Cd	mg/kg	0.3	0.4	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	28	18	21
Copper, Cu	mg/kg	0.5	30	7.1	7.1
Lead, Pb	mg/kg	1	180	16	28
Nickel, Ni	mg/kg	0.5	5.3	2.4	5.6
Zinc, Zn	mg/kg	2	250	19	260

Mercury in Soil [AN312] Tested: 29/4/2019

PARAMETER	UOM	LOR	C1 CLAY - 16/4/2019 SE191826.092	C2 CLAY - 16/4/2019 SE191826.093	C3 CLAY - 16/4/2019 SE191826.094	C4 CLAY - 16/4/2019 SE191826.095	C5 CLAY - 16/4/2019 SE191826.096
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C6 CLAY - 16/4/2019 SE191826.097	C7 CLAY - 17/4/2019 SE191826.098	C8 CLAY - 17/4/2019 SE191826.099	C9 CLAY - 17/4/2019 SE191826.100	C10 CLAY - 15/4/2019 SE191826.101
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	**0.08**	<0.05

PARAMETER	UOM	LOR	C11 CLAY - 16/4/2019 SE191826.102	C12 CLAY - 17/4/2019 SE191826.103	C13 CLAY - 16/4/2019 SE191826.104	C14 CLAY - 15/4/2019 SE191826.105	C15 CLAY - 15/4/2019 SE191826.106
Mercury	mg/kg	0.05	<0.05	**0.08**	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C16 CLAY - 16/4/2019 SE191826.107	C17 CLAY - 17/4/2019 SE191826.108	C18 CLAY - 17/4/2019 SE191826.109	C19 CLAY - 15/4/2019 SE191826.110	C20 CLAY - 15/4/2019 SE191826.111
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C21 CLAY - 15/4/2019 SE191826.112	C22 CLAY - 16/4/2019 SE191826.113	C23 CLAY - 16/4/2019 SE191826.114	C24 CLAY - 15/4/2019 SE191826.115	C25 CLAY - 17/4/2019 SE191826.116
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	C26 CLAY - 17/4/2019 SE191826.117	CDS1 CLAY - 15/4/2019 SE191826.118	CDS2 CLAY - 16/4/2019 SE191826.119
Mercury	mg/kg	0.05	**0.06**	<0.05	<0.05

Moisture Content [AN002] Tested: 27/4/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826.001	TP4 CLAY 0.0-0.15 16/4/2019 SE191826.004	TP7 CLAY 0.0-0.15 16/4/2019 SE191826.007	TP10 CLAY 0.0-0.15 16/4/2019 SE191826.010	TP12 CLAY 0.0-0.15 16/4/2019 SE191826.012
% Moisture	%w/w	0.5	15	26	16	18	23

PARAMETER	UOM	LOR	TP13 CLAY 0.0-0.15 16/4/2019 SE191826.013	TP14 CLAY 0.0-0.15 16/4/2019 SE191826.014	TP15 CLAY 0.0-0.15 16/4/2019 SE191826.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826.017
% Moisture	%w/w	0.5	19	23	15	16	13

PARAMETER	UOM	LOR	TP18 CLAY 0.0-0.15 16/4/2019 SE191826.018	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP21 CLAY 0.0-0.15 17/4/2019 SE191826.021	TP24 CLAY 0.0-0.15 16/4/2019 SE191826.024	TP26 CLAY 0.0-0.15 17/4/2019 SE191826.026
% Moisture	%w/w	0.5	14	15	8.4	18	12

PARAMETER	UOM	LOR	TP28 CLAY 0.0-0.15 17/4/2019 SE191826.028	TP29 CLAY 0.0-0.15 15/4/2019 SE191826.029	TP32 CLAY 0.0-0.15 15/4/2019 SE191826.032	TP35 CLAY 0.0-0.15 17/4/2019 SE191826.035	TP38 CLAY 0.0-0.15 17/4/2019 SE191826.038
% Moisture	%w/w	0.5	12	17	18	3.9	6.0

PARAMETER	UOM	LOR	TP41 CLAY 0.0-0.15 15/4/2019 SE191826.041	TP42 CLAY 0.0-0.15 17/4/2019 SE191826.042	TP44 CLAY 0.0-0.15 15/4/2019 SE191826.044	TP47 CLAY 0.0-0.15 17/4/2019 SE191826.047	TP50 CLAY 0.0-0.15 17/4/2019 SE191826.050
% Moisture	%w/w	0.5	14	2.5	14	14	24

PARAMETER	UOM	LOR	TP53 CLAY 0.0-0.15 17/4/2019 SE191826.053	TP56 CLAY 0.0-0.15 15/4/2019 SE191826.056	TP59 CLAY 0.0-0.15 15/4/2019 SE191826.059	TP62 CLAY 0.0-0.15 15/4/2019 SE191826.062	TP65 CLAY 0.0-0.15 16/4/2019 SE191826.065
% Moisture	%w/w	0.5	11	13	21	19	32

PARAMETER	UOM	LOR	TP68 CLAY 0.0-0.15 16/4/2019 SE191826.068	TP71 CLAY 0.0-0.15 15/4/2019 SE191826.071	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826.073	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826.076	X1 CLAY 0.0-0.15 15/4/2019 SE191826.079
% Moisture	%w/w	0.5	15	19	21	13	17

Moisture Content [AN002] Tested: 27/4/2019 (continued)

PARAMETER	UOM	LOR	C1 CLAY - 16/4/2019 SE191826.092	C2 CLAY - 16/4/2019 SE191826.093	C3 CLAY - 16/4/2019 SE191826.094	C4 CLAY - 16/4/2019 SE191826.095	C5 CLAY - 16/4/2019 SE191826.096
% Moisture	%w/w	0.5	17	18	15	20	19

PARAMETER	UOM	LOR	C6 CLAY - 16/4/2019 SE191826.097	C7 CLAY - 17/4/2019 SE191826.098	C8 CLAY - 17/4/2019 SE191826.099	C9 CLAY - 17/4/2019 SE191826.100	C10 CLAY - 15/4/2019 SE191826.101
% Moisture	%w/w	0.5	15	13	8.4	14	11

PARAMETER	UOM	LOR	C11 CLAY - 16/4/2019 SE191826.102	C12 CLAY - 17/4/2019 SE191826.103	C13 CLAY - 16/4/2019 SE191826.104	C14 CLAY - 15/4/2019 SE191826.105	C15 CLAY - 15/4/2019 SE191826.106
% Moisture	%w/w	0.5	7.0	10	36	27	15

PARAMETER	UOM	LOR	C16 CLAY - 16/4/2019 SE191826.107	C17 CLAY - 17/4/2019 SE191826.108	C18 CLAY - 17/4/2019 SE191826.109	C19 CLAY - 15/4/2019 SE191826.110	C20 CLAY - 15/4/2019 SE191826.111
% Moisture	%w/w	0.5	35	18	24	9.0	13

PARAMETER	UOM	LOR	C21 CLAY - 15/4/2019 SE191826.112	C22 CLAY - 16/4/2019 SE191826.113	C23 CLAY - 16/4/2019 SE191826.114	C24 CLAY - 15/4/2019 SE191826.115	C25 CLAY - 17/4/2019 SE191826.116
% Moisture	%w/w	0.5	18	15	14	18	22

PARAMETER	UOM	LOR	C26 CLAY - 17/4/2019 SE191826.117	CDS1 CLAY - 15/4/2019 SE191826.118	CDS2 CLAY - 16/4/2019 SE191826.119
% Moisture	%w/w	0.5	12	15	14

Fibre Identification in soil [AN602] Tested: 29/4/2019

PARAMETER	UOM	LOR	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP25 CLAY 0.0-0.15 17/4/2019 SE191826.025
Asbestos Detected	No unit	-	Yes	No
Estimated Fibres*	%w/w	0.01	**>0.01**	<0.01

Gravimetric Determination of Asbestos in Soil [AN605] Tested: 29/4/2019

PARAMETER	UOM	LOR	TP19 CLAY 0.0-0.15 16/4/2019 SE191826.019	TP25 CLAY 0.0-0.15 17/4/2019 SE191826.025
Total Sample Weight*	g	1	**603**	**583**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	**0.815**	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	**0.14**	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	**0.14**	<0.001
Fibre Type*	No unit	-	-	-

Fibre ID in bulk materials [AN602] Tested: 30/4/2019

PARAMETER	UOM	LOR	TP19FCP MATERIAL 0.0-0.15 16/4/2019 SE191826.085	TP25FCP MATERIAL Surface 17/4/2019 SE191826.086
Asbestos Detected	No unit	-	Yes	Yes

Metals in Water (Dissolved) by ICPOES [AN320] Tested: 24/4/2019

PARAMETER	UOM	LOR	RS1 WATER - 15/4/2019 SE191826.087	RS2 WATER - 16/4/2019 SE191826.088	RS3 WATER - 17/4/2019 SE191826.089
Arsenic, As	mg/L	0.02	**0.04**	**0.04**	<0.02
Cadmium, Cd	mg/L	0.001	<0.001	<0.001	<0.001
Chromium, Cr	mg/L	0.005	<0.005	<0.005	<0.005
Copper, Cu	mg/L	0.005	<0.005	<0.005	<0.005
Lead, Pb	mg/L	0.02	<0.02	<0.02	<0.02
Nickel, Ni	mg/L	0.005	<0.005	<0.005	<0.005
Zinc, Zn	mg/L	0.01	<0.01	<0.01	<0.01

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 30/4/2019

PARAMETER	UOM	LOR	RS1 WATER - 15/4/2019 SE191826.087	RS2 WATER - 16/4/2019 SE191826.088	RS3 WATER - 17/4/2019 SE191826.089
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN122	Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.
AN122	The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100. ESP can be used to categorise the sodicity of the soil as below: ESP < 6% non-sodic ESP 6-15% sodic ESP >15% strongly sodic Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-
AN289	Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN320	Metals by ICP-OES: Samples are preserved with 10% nitric acid for a wide range of metals and some non-metals. This solution is measured by Inductively Coupled Plasma. Solutions are aspirated into an argon plasma at 8000-10000K and emit characteristic energy or light as a result of electron transitions through unique energy levels. The emitted light is focused onto a diffraction grating where it is separated into components.
AN320	Photomultipliers or CCDs are used to measure the light intensity at specific wavelengths. This intensity is directly proportional to concentration. Corrections are required to compensate for spectral overlap between elements. Reference APHA 3120 B.
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents.
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.

AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
AN605	This technique gravimetrically determines the mass of Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free fibres which are only observed by standard trace analysis as per AN 602.
AN605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been perfomed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au.pv.sgsvr/en-gb/environment.

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STATEMENT OF QA/QC PERFORMANCE

SE191826 R0

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826 R0**
Date Received	18 Apr 2019
Date Reported	02 May 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	pH in soil (1:5)	8 items
	Total Phenolics in Soil	1 item
Analysis Date	Total Phenolics in Soil	1 item
Duplicate	Mercury in Soil	1 item
	Total Phenolics in Soil	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
Matrix Spike	Total Phenolics in Soil	1 item

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP4	SE191826.004	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP7	SE191826.007	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP10	SE191826.010	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP13	SE191826.013	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP16	SE191826.016	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP19	SE191826.019	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP24	SE191826.024	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP26	SE191826.026	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP29	SE191826.029	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP32	SE191826.032	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP35	SE191826.035	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP38	SE191826.038	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP41	SE191826.041	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP44	SE191826.044	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP47	SE191826.047	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP50	SE191826.050	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP53	SE191826.053	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
TP56	SE191826.056	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP59	SE191826.059	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP62	SE191826.062	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
TP65	SE191826.065	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP68	SE191826.068	LB172508	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	01 May 2019
TP71	SE191826.071	LB172508	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	01 May 2019
SP1-1	SE191826.073	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019
SP2-1	SE191826.076	LB172508	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	01 May 2019

Fibre ID in bulk materials

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP19FCP	SE191826.085	LB172504	16 Apr 2019	18 Apr 2019	15 Apr 2020	30 Apr 2019	15 Apr 2020	30 Apr 2019
TP25FCP	SE191826.086	LB172504	17 Apr 2019	18 Apr 2019	16 Apr 2020	30 Apr 2019	16 Apr 2020	30 Apr 2019

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP19	SE191826.019	LB172450	16 Apr 2019	18 Apr 2019	15 Apr 2020	29 Apr 2019	15 Apr 2020	30 Apr 2019
TP25	SE191826.025	LB172450	17 Apr 2019	18 Apr 2019	16 Apr 2020	29 Apr 2019	16 Apr 2020	30 Apr 2019

Gravimetric Determination of Asbestos in Soil

Method: ME-(AU)-[ENV]AN605

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP19	SE191826.019	LB172450	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
TP25	SE191826.025	LB172450	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RS1	SE191826.087	LB172482	15 Apr 2019	18 Apr 2019	13 May 2019	30 Apr 2019	13 May 2019	30 Apr 2019
RS2	SE191826.088	LB172482	16 Apr 2019	18 Apr 2019	14 May 2019	30 Apr 2019	14 May 2019	30 Apr 2019
RS3	SE191826.089	LB172482	17 Apr 2019	18 Apr 2019	15 May 2019	30 Apr 2019	15 May 2019	30 Apr 2019

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C1	SE191826.092	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C2	SE191826.093	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C3	SE191826.094	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C4	SE191826.095	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C5	SE191826.096	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C6	SE191826.097	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C7	SE191826.098	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C8	SE191826.099	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C9	SE191826.100	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C10	SE191826.101	LB172440	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C11	SE191826.102	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C12	SE191826.103	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Mercury in Soil (continued)

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C13	SE191826.104	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C14	SE191826.105	LB172440	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C15	SE191826.106	LB172440	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C16	SE191826.107	LB172440	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C17	SE191826.108	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C18	SE191826.109	LB172440	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C19	SE191826.110	LB172440	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C20	SE191826.111	LB172467	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C21	SE191826.112	LB172467	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C22	SE191826.113	LB172467	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C23	SE191826.114	LB172467	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019
C24	SE191826.115	LB172467	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
C25	SE191826.116	LB172467	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
C26	SE191826.117	LB172467	17 Apr 2019	18 Apr 2019	15 May 2019	29 Apr 2019	15 May 2019	30 Apr 2019
CDS1	SE191826.118	LB172467	15 Apr 2019	18 Apr 2019	13 May 2019	29 Apr 2019	13 May 2019	30 Apr 2019
CDS2	SE191826.119	LB172467	16 Apr 2019	18 Apr 2019	14 May 2019	29 Apr 2019	14 May 2019	30 Apr 2019

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-[ENV]AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
RS1	SE191826.087	LB172147	15 Apr 2019	18 Apr 2019	12 Oct 2019	24 Apr 2019	12 Oct 2019	26 Apr 2019
RS2	SE191826.088	LB172147	16 Apr 2019	18 Apr 2019	13 Oct 2019	24 Apr 2019	13 Oct 2019	26 Apr 2019
RS3	SE191826.089	LB172147	17 Apr 2019	18 Apr 2019	14 Oct 2019	24 Apr 2019	14 Oct 2019	26 Apr 2019

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP4	SE191826.004	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP7	SE191826.007	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP10	SE191826.010	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP12	SE191826.012	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP13	SE191826.013	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP14	SE191826.014	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP15	SE191826.015	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP16	SE191826.016	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP17	SE191826.017	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP18	SE191826.018	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP19	SE191826.019	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP21	SE191826.021	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP24	SE191826.024	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP26	SE191826.026	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP28	SE191826.028	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP29	SE191826.029	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP32	SE191826.032	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP35	SE191826.035	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP38	SE191826.038	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP41	SE191826.041	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP42	SE191826.042	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP44	SE191826.044	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP47	SE191826.047	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP50	SE191826.050	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP53	SE191826.053	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP56	SE191826.056	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP59	SE191826.059	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP62	SE191826.062	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP65	SE191826.065	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP68	SE191826.068	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
TP71	SE191826.071	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
SP1-1	SE191826.073	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
SP2-1	SE191826.076	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	29 Apr 2019
X1	SE191826.079	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	29 Apr 2019
C1	SE191826.092	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

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Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C2	SE191826.093	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C3	SE191826.094	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C4	SE191826.095	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C5	SE191826.096	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C6	SE191826.097	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C7	SE191826.098	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C8	SE191826.099	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C9	SE191826.100	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C10	SE191826.101	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C11	SE191826.102	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C12	SE191826.103	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C13	SE191826.104	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C14	SE191826.105	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C15	SE191826.106	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C16	SE191826.107	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C17	SE191826.108	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C18	SE191826.109	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C19	SE191826.110	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C20	SE191826.111	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C21	SE191826.112	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C22	SE191826.113	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C23	SE191826.114	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C24	SE191826.115	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C25	SE191826.116	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
C26	SE191826.117	LB172359	17 Apr 2019	18 Apr 2019	01 May 2019	27 Apr 2019	02 May 2019	30 Apr 2019
CDS1	SE191826.118	LB172359	15 Apr 2019	18 Apr 2019	29 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019
CDS2	SE191826.119	LB172359	16 Apr 2019	18 Apr 2019	30 Apr 2019	27 Apr 2019	02 May 2019	30 Apr 2019

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP7	SE191826.007	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP10	SE191826.010	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP12	SE191826.012	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP13	SE191826.013	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP14	SE191826.014	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP15	SE191826.015	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP16	SE191826.016	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP17	SE191826.017	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP18	SE191826.018	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP19	SE191826.019	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP21	SE191826.021	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP24	SE191826.024	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP26	SE191826.026	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP28	SE191826.028	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP38	SE191826.038	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP42	SE191826.042	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP47	SE191826.047	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP59	SE191826.059	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP71	SE191826.071	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP1-1	SE191826.073	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP2-1	SE191826.076	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
X1	SE191826.079	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP7	SE191826.007	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP10	SE191826.010	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP12	SE191826.012	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP13	SE191826.013	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP14	SE191826.014	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP15	SE191826.015	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP16	SE191826.016	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP17	SE191826.017	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP18	SE191826.018	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP19	SE191826.019	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP21	SE191826.021	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP24	SE191826.024	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP26	SE191826.026	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP28	SE191826.028	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP38	SE191826.038	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP42	SE191826.042	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP47	SE191826.047	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP59	SE191826.059	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP71	SE191826.071	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP1-1	SE191826.073	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP2-1	SE191826.076	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
X1	SE191826.079	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP7	SE191826.007	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP10	SE191826.010	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP12	SE191826.012	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP13	SE191826.013	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP14	SE191826.014	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP15	SE191826.015	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP16	SE191826.016	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP17	SE191826.017	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP18	SE191826.018	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP19	SE191826.019	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP21	SE191826.021	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP24	SE191826.024	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP26	SE191826.026	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP28	SE191826.028	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP38	SE191826.038	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP42	SE191826.042	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP47	SE191826.047	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP59	SE191826.059	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP71	SE191826.071	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP1-1	SE191826.073	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
SP2-1	SE191826.076	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	01 May 2019
X1	SE191826.079	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP4	SE191826.004	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP7	SE191826.007	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP10	SE191826.010	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP13	SE191826.013	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP16	SE191826.016	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP19	SE191826.019	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP24	SE191826.024	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP26	SE191826.026	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP29	SE191826.029	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
TP32	SE191826.032	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
TP35	SE191826.035	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP38	SE191826.038	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP41	SE191826.041	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

pH in soil (1:5) (continued)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP44	SE191826.044	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
TP47	SE191826.047	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP50	SE191826.050	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP53	SE191826.053	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP56	SE191826.056	LB172537	15 Apr 2019	18 Apr 2019	22 Apr 2019	30 Apr 2019†	01 May 2019	30 Apr 2019
TP59	SE191826.059	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
TP62	SE191826.062	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
TP65	SE191826.065	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP68	SE191826.068	LB172045	16 Apr 2019	18 Apr 2019	23 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
TP71	SE191826.071	LB172045	15 Apr 2019	18 Apr 2019	22 Apr 2019	23 Apr 2019†	24 Apr 2019	23 Apr 2019
SP1-1	SE191826.073	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019
SP2-1	SE191826.076	LB172045	17 Apr 2019	18 Apr 2019	24 Apr 2019	23 Apr 2019	24 Apr 2019	23 Apr 2019

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP12	SE191826.012	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP13	SE191826.013	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP15	SE191826.015	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP16	SE191826.016	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP17	SE191826.017	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP18	SE191826.018	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP19	SE191826.019	LB172488	16 Apr 2019	18 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019	30 Apr 2019
TP71	SE191826.071	LB172488	15 Apr 2019	18 Apr 2019	29 Apr 2019	30 Apr 2019†	29 Apr 2019	30 Apr 2019†

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
C1	SE191826.092	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C2	SE191826.093	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C3	SE191826.094	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C4	SE191826.095	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C5	SE191826.096	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C6	SE191826.097	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C7	SE191826.098	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C8	SE191826.099	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C9	SE191826.100	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C10	SE191826.101	LB172439	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C11	SE191826.102	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C12	SE191826.103	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C13	SE191826.104	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C14	SE191826.105	LB172439	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C15	SE191826.106	LB172439	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C16	SE191826.107	LB172439	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C17	SE191826.108	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C18	SE191826.109	LB172439	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C19	SE191826.110	LB172439	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C20	SE191826.111	LB172466	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C21	SE191826.112	LB172466	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C22	SE191826.113	LB172466	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C23	SE191826.114	LB172466	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019
C24	SE191826.115	LB172466	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
C25	SE191826.116	LB172466	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
C26	SE191826.117	LB172466	17 Apr 2019	18 Apr 2019	14 Oct 2019	29 Apr 2019	14 Oct 2019	30 Apr 2019
CDS1	SE191826.118	LB172466	15 Apr 2019	18 Apr 2019	12 Oct 2019	29 Apr 2019	12 Oct 2019	30 Apr 2019
CDS2	SE191826.119	LB172466	16 Apr 2019	18 Apr 2019	13 Oct 2019	29 Apr 2019	13 Oct 2019	30 Apr 2019

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826.001	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP7	SE191826.007	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP10	SE191826.010	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP12	SE191826.012	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019

HOLDING TIME SUMMARY

SE191826 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP13	SE191826.013	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP14	SE191826.014	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP15	SE191826.015	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP16	SE191826.016	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP17	SE191826.017	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP18	SE191826.018	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP19	SE191826.019	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP21	SE191826.021	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP24	SE191826.024	LB172227	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP26	SE191826.026	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP28	SE191826.028	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP38	SE191826.038	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP42	SE191826.042	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP47	SE191826.047	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP59	SE191826.059	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
TP71	SE191826.071	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
SP1-1	SE191826.073	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
SP2-1	SE191826.076	LB172227	17 Apr 2019	18 Apr 2019	01 May 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019
X1	SE191826.079	LB172227	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	30 Apr 2019

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP12	SE191826.012	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP13	SE191826.013	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP15	SE191826.015	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP16	SE191826.016	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP17	SE191826.017	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP18	SE191826.018	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP19	SE191826.019	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP71	SE191826.071	LB172224	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TS1	SE191826.090	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TS2	SE191826.091	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP12	SE191826.012	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP13	SE191826.013	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP15	SE191826.015	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP16	SE191826.016	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP17	SE191826.017	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP18	SE191826.018	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP19	SE191826.019	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TP71	SE191826.071	LB172224	15 Apr 2019	18 Apr 2019	29 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TS1	SE191826.090	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019
TS2	SE191826.091	LB172224	16 Apr 2019	18 Apr 2019	30 Apr 2019	24 Apr 2019	03 Jun 2019	01 May 2019

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP1	SE191826.001	%	60 - 130%	97
	TP7	SE191826.007	%	60 - 130%	104
	TP10	SE191826.010	%	60 - 130%	95
	TP14	SE191826.014	%	60 - 130%	98
	TP21	SE191826.021	%	60 - 130%	97
	TP24	SE191826.024	%	60 - 130%	91
	TP26	SE191826.026	%	60 - 130%	92
	TP28	SE191826.028	%	60 - 130%	93
	TP38	SE191826.038	%	60 - 130%	94
	TP42	SE191826.042	%	60 - 130%	91
	TP47	SE191826.047	%	60 - 130%	93
	TP59	SE191826.059	%	60 - 130%	108
	SP1-1	SE191826.073	%	60 - 130%	91
	SP2-1	SE191826.076	%	60 - 130%	91
	X1	SE191826.079	%	60 - 130%	97

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	TP1	SE191826.001	%	60 - 130%	100
	TP7	SE191826.007	%	60 - 130%	104
	TP10	SE191826.010	%	60 - 130%	108
	TP14	SE191826.014	%	60 - 130%	110
	TP21	SE191826.021	%	60 - 130%	100
	TP24	SE191826.024	%	60 - 130%	104
	TP26	SE191826.026	%	60 - 130%	94
	TP28	SE191826.028	%	60 - 130%	106
	TP38	SE191826.038	%	60 - 130%	94
	TP42	SE191826.042	%	60 - 130%	98
	TP47	SE191826.047	%	60 - 130%	94
	TP59	SE191826.059	%	60 - 130%	102
	SP1-1	SE191826.073	%	60 - 130%	98
	SP2-1	SE191826.076	%	60 - 130%	102
	X1	SE191826.079	%	60 - 130%	96
d14-p-terphenyl (Surrogate)	TP1	SE191826.001	%	60 - 130%	108
	TP7	SE191826.007	%	60 - 130%	118
	TP10	SE191826.010	%	60 - 130%	108
	TP14	SE191826.014	%	60 - 130%	110
	TP21	SE191826.021	%	60 - 130%	100
	TP24	SE191826.024	%	60 - 130%	112
	TP26	SE191826.026	%	60 - 130%	98
	TP28	SE191826.028	%	60 - 130%	114
	TP38	SE191826.038	%	60 - 130%	94
	TP42	SE191826.042	%	60 - 130%	102
	TP47	SE191826.047	%	60 - 130%	100
	TP59	SE191826.059	%	60 - 130%	110
	SP1-1	SE191826.073	%	60 - 130%	106
	SP2-1	SE191826.076	%	60 - 130%	112
	X1	SE191826.079	%	60 - 130%	106

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	TP12	SE191826.012	%	70 - 130%	108
	TP13	SE191826.013	%	70 - 130%	94
	TP15	SE191826.015	%	70 - 130%	96
	TP16	SE191826.016	%	70 - 130%	94
	TP17	SE191826.017	%	70 - 130%	96
	TP18	SE191826.018	%	70 - 130%	82
	TP19	SE191826.019	%	70 - 130%	94
	TP71	SE191826.071	%	70 - 130%	84
d14-p-terphenyl (Surrogate)	TP12	SE191826.012	%	70 - 130%	114
	TP13	SE191826.013	%	70 - 130%	94
	TP15	SE191826.015	%	70 - 130%	100

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	TP16	SE191826.016	%	70 - 130%	94
	TP17	SE191826.017	%	70 - 130%	96
	TP18	SE191826.018	%	70 - 130%	88
	TP19	SE191826.019	%	70 - 130%	98
	TP71	SE191826.071	%	70 - 130%	86
d5-nitrobenzene (Surrogate)	TP12	SE191826.012	%	70 - 130%	114
	TP13	SE191826.013	%	70 - 130%	96
	TP15	SE191826.015	%	70 - 130%	94
	TP16	SE191826.016	%	70 - 130%	94
	TP17	SE191826.017	%	70 - 130%	98
	TP18	SE191826.018	%	70 - 130%	86
	TP19	SE191826.019	%	70 - 130%	100
	TP71	SE191826.071	%	70 - 130%	88

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP12	SE191826.012	%	60 - 130%	73
	TP13	SE191826.013	%	60 - 130%	74
	TP15	SE191826.015	%	60 - 130%	72
	TP16	SE191826.016	%	60 - 130%	76
	TP17	SE191826.017	%	60 - 130%	72
	TP18	SE191826.018	%	60 - 130%	75
	TP19	SE191826.019	%	60 - 130%	79
	TP71	SE191826.071	%	60 - 130%	76
	TS1	SE191826.090	%	60 - 130%	81
	TS2	SE191826.091	%	60 - 130%	82
d4-1,2-dichloroethane (Surrogate)	TP12	SE191826.012	%	60 - 130%	74
	TP13	SE191826.013	%	60 - 130%	78
	TP15	SE191826.015	%	60 - 130%	73
	TP16	SE191826.016	%	60 - 130%	76
	TP17	SE191826.017	%	60 - 130%	71
	TP18	SE191826.018	%	60 - 130%	71
	TP19	SE191826.019	%	60 - 130%	74
	TP71	SE191826.071	%	60 - 130%	75
	TS1	SE191826.090	%	60 - 130%	92
	TS2	SE191826.091	%	60 - 130%	89
d8-toluene (Surrogate)	TP12	SE191826.012	%	60 - 130%	77
	TP13	SE191826.013	%	60 - 130%	71
	TP15	SE191826.015	%	60 - 130%	74
	TP16	SE191826.016	%	60 - 130%	71
	TP17	SE191826.017	%	60 - 130%	72
	TP18	SE191826.018	%	60 - 130%	71
	TP19	SE191826.019	%	60 - 130%	75
	TP71	SE191826.071	%	60 - 130%	75
	TS1	SE191826.090	%	60 - 130%	71
	TS2	SE191826.091	%	60 - 130%	73
Dibromofluoromethane (Surrogate)	TP12	SE191826.012	%	60 - 130%	76
	TP13	SE191826.013	%	60 - 130%	75
	TP15	SE191826.015	%	60 - 130%	77
	TP16	SE191826.016	%	60 - 130%	77
	TP17	SE191826.017	%	60 - 130%	77
	TP18	SE191826.018	%	60 - 130%	72
	TP19	SE191826.019	%	60 - 130%	71
	TP71	SE191826.071	%	60 - 130%	72
	TS1	SE191826.090	%	60 - 130%	82
	TS2	SE191826.091	%	60 - 130%	80

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP12	SE191826.012	%	60 - 130%	73
	TP13	SE191826.013	%	60 - 130%	74
	TP15	SE191826.015	%	60 - 130%	72

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP16	SE191826.016	%	60 - 130%	76
	TP17	SE191826.017	%	60 - 130%	72
	TP18	SE191826.018	%	60 - 130%	75
	TP19	SE191826.019	%	60 - 130%	79
	TP71	SE191826.071	%	60 - 130%	76
d4-1,2-dichloroethane (Surrogate)	TP12	SE191826.012	%	60 - 130%	74
	TP13	SE191826.013	%	60 - 130%	78
	TP15	SE191826.015	%	60 - 130%	73
	TP16	SE191826.016	%	60 - 130%	76
	TP17	SE191826.017	%	60 - 130%	71
	TP18	SE191826.018	%	60 - 130%	71
	TP19	SE191826.019	%	60 - 130%	74
	TP71	SE191826.071	%	60 - 130%	75
d8-toluene (Surrogate)	TP12	SE191826.012	%	60 - 130%	77
	TP13	SE191826.013	%	60 - 130%	71
	TP15	SE191826.015	%	60 - 130%	74
	TP16	SE191826.016	%	60 - 130%	71
	TP17	SE191826.017	%	60 - 130%	72
	TP18	SE191826.018	%	60 - 130%	71
	TP19	SE191826.019	%	60 - 130%	75
	TP71	SE191826.071	%	60 - 130%	75
Dibromofluoromethane (Surrogate)	TP12	SE191826.012	%	60 - 130%	76
	TP13	SE191826.013	%	60 - 130%	75
	TP15	SE191826.015	%	60 - 130%	77
	TP16	SE191826.016	%	60 - 130%	77
	TP17	SE191826.017	%	60 - 130%	77
	TP18	SE191826.018	%	60 - 130%	72
	TP19	SE191826.019	%	60 - 130%	71
	TP71	SE191826.071	%	60 - 130%	72

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result
LB172508.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB172482.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB172440.001	Mercury	mg/kg	0.05	<0.05
LB172467.001	Mercury	mg/kg	0.05	<0.05

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-[ENV]AN320

Sample Number	Parameter	Units	LOR	Result
LB172147.001	Arsenic, As	mg/L	0.02	<0.02
	Cadmium, Cd	mg/L	0.001	<0.001
	Chromium, Cr	mg/L	0.005	<0.005
	Copper, Cu	mg/L	0.005	<0.005
	Lead, Pb	mg/L	0.02	<0.02
	Nickel, Ni	mg/L	0.005	<0.005
	Zinc, Zn	mg/L	0.01	<0.01

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB172227.001	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Alpha BHC	mg/kg	0.1	<0.1
	Lindane	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.2	<0.2
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.05	<0.05
	Endrin	mg/kg	0.2	<0.2
	Beta Endosulfan	mg/kg	0.2	<0.2
	p,p'-DDD	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	Endrin Aldehyde	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
	Endrin Ketone	mg/kg	0.1	<0.1
	Isodrin	mg/kg	0.1	<0.1
	Mirex	mg/kg	0.1	<0.1
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	90

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB172227.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB172227.001		Bromophos Ethyl	mg/kg	0.2	<0.2
		Methidathion	mg/kg	0.5	<0.5
		Ethion	mg/kg	0.2	<0.2
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	100

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB172227.001		Naphthalene	mg/kg	0.1	<0.1
		2-methylnaphthalene	mg/kg	0.1	<0.1
		1-methylnaphthalene	mg/kg	0.1	<0.1
		Acenaphthylene	mg/kg	0.1	<0.1
		Acenaphthene	mg/kg	0.1	<0.1
		Fluorene	mg/kg	0.1	<0.1
		Phenanthrene	mg/kg	0.1	<0.1
		Anthracene	mg/kg	0.1	<0.1
		Fluoranthene	mg/kg	0.1	<0.1
		Pyrene	mg/kg	0.1	<0.1
		Benzo(a)anthracene	mg/kg	0.1	<0.1
		Chrysene	mg/kg	0.1	<0.1
		Benzo(a)pyrene	mg/kg	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	98
		2-fluorobiphenyl (Surrogate)	%	-	94
		d14-p-terphenyl (Surrogate)	%	-	100

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result
LB172488.001	Total Phenols	mg/kg	5	<5

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result
LB172439.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2
LB172466.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result
LB172227.001	TRH C10-C14	mg/kg	20	<20
	TRH C15-C28	mg/kg	45	<45
	TRH C29-C36	mg/kg	45	<45
	TRH C37-C40	mg/kg	100	<100
	TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number	Parameter	Units	LOR

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB172224.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	73
		d4-1,2-dichloroethane (Surrogate)	%	-	74
		d8-toluene (Surrogate)	%	-	76
		Bromofluorobenzene (Surrogate)	%	-	79
	Totals	Total BTEX	mg/kg	0.6	<0.6

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB172224.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	73
		d4-1,2-dichloroethane (Surrogate)	%	-	74
		d8-toluene (Surrogate)	%	-	76

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.101	LB172440.014	Mercury	mg/kg	0.05	<0.05	<0.05	152	0
SE191826.110	LB172440.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE191826.116	LB172467.014	Mercury	mg/kg	0.05	<0.05	<0.05	194	0
SE192093.006	LB172467.024	Mercury	mg/kg	0.05	0.14	0.28	54	69 ②

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-[ENV]AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.089	LB172147.022	Arsenic, As	mg/L	0.02	<0.02	0.03	95	48
		Cadmium, Cd	mg/L	0.001	<0.001	<0.001	200	0
		Chromium, Cr	mg/L	0.005	<0.005	<0.005	200	0
		Copper, Cu	mg/L	0.005	<0.005	<0.005	200	0
		Lead, Pb	mg/L	0.02	<0.02	<0.02	200	0
		Nickel, Ni	mg/L	0.005	<0.005	<0.005	200	0
		Zinc, Zn	mg/L	0.01	<0.01	<0.01	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.065	LB172359.033	% Moisture	%w/w	0.5	32	30	33	4
SE191826.116	LB172359.066	% Moisture	%w/w	0.5	22	20	35	12

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.026	LB172227.034		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	0	200	0
			Alpha BHC	mg/kg	0.1	<0.1	0	200	0
			Lindane	mg/kg	0.1	<0.1	0	200	0
			Heptachlor	mg/kg	0.1	<0.1	0	200	0
			Aldrin	mg/kg	0.1	<0.1	0	200	0
			Beta BHC	mg/kg	0.1	<0.1	0	200	0
			Delta BHC	mg/kg	0.1	<0.1	0	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	0	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	0	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	0	200	0
			trans-Nonachlor	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	0	200	0
			Dieldrin	mg/kg	0.05	<0.05	0	200	0
			Endrin	mg/kg	0.2	<0.2	0	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	0	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	0	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	0	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	0	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	0	200	0
			Methoxychlor	mg/kg	0.1	<0.1	0	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	0	200	0
			Isodrin	mg/kg	0.1	<0.1	0	200	0
			Mirex	mg/kg	0.1	<0.1	0	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	0	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.145	30	5

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.026	LB172227.034	Dichlorvos	mg/kg	0.5	<0.5	0	200	0
		Dimethoate	mg/kg	0.5	<0.5	0	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	0	200	0
		Fenitrothion	mg/kg	0.2	<0.2	0	200	0
		Malathion	mg/kg	0.2	<0.2	0	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	0	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	0	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.026	LB172227.034		Bromophos Ethyl	mg/kg	0.2	<0.2	0	200	0
			Methidathion	mg/kg	0.5	<0.5	0	200	0
			Ethion	mg/kg	0.2	<0.2	0	200	0
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	0	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	0	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.51	30	8
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.55	30	12

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.013	LB172045.035	pH	pH Units	0.1	7.8	7.646	31	2
SE191826.044	LB172045.036	pH	pH Units	0.1	7.2	7.254	31	1
SE191826.056	LB172537.005	pH	pH Units	0.1	7.8	7.8	31	0
SE191826.073	LB172045.037	pH	pH Units	0.1	6.8	6.967	31	2

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.012	LB172488.004	Total Phenols	mg/kg	5	<5	<5	28	74 ②
SE191931.013	LB172488.016	Total Phenols	mg/kg	5	<0.1	<0.1	200	0

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.101	LB172439.014	Arsenic, As	mg/kg	1	16	16	36	3
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	170	0
		Chromium, Cr	mg/kg	0.5	18	22	32	23
		Copper, Cu	mg/kg	0.5	28	21	32	28
		Nickel, Ni	mg/kg	0.5	7.6	5.8	37	26
		Lead, Pb	mg/kg	1	18	19	35	4
		Zinc, Zn	mg/kg	2	96	80	32	19
SE191826.110	LB172439.024	Arsenic, As	mg/kg	1	12	12	38	3
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	17	17	33	0
		Copper, Cu	mg/kg	0.5	10	8.9	35	15
		Nickel, Ni	mg/kg	0.5	3.2	3.8	44	19
		Lead, Pb	mg/kg	1	17	18	36	7
		Zinc, Zn	mg/kg	2	60	54	34	11
SE191826.116	LB172466.014	Arsenic, As	mg/kg	1	8	7	43	19
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	185	0
		Chromium, Cr	mg/kg	0.5	19	17	33	13
		Copper, Cu	mg/kg	0.5	38	34	31	11
		Nickel, Ni	mg/kg	0.5	9.9	8.9	35	10
		Lead, Pb	mg/kg	1	20	20	35	3
		Zinc, Zn	mg/kg	2	190	180	31	7
SE192093.006	LB172466.024	Arsenic, As	mg/kg	1	2	2	87	17
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	168	0
		Chromium, Cr	mg/kg	0.5	4.5	3.9	42	14
		Copper, Cu	mg/kg	0.5	15	13	34	15
		Nickel, Ni	mg/kg	0.5	2.4	1.4	56	51
		Lead, Pb	mg/kg	1	200	460	30	80 ②
		Zinc, Zn	mg/kg	2	98	130	32	27

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.012	LB172224.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.8	3.8	50	1
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.7	3.8	50	2

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.012	LB172224.014	Surrogates	d8-toluene (Surrogate)	mg/kg	-	3.8	3.8	50	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.7	3.6	50	3
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE191826.071	LB172224.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	0	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	0	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	0	200	0
			m/p-xylene	mg/kg	0.2	<0.2	0	200	0
			o-xylene	mg/kg	0.1	<0.1	0	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	0	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.6	3.59	50	0
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.8	3.74	50	0
			d8-toluene (Surrogate)	mg/kg	-	3.8	3.87	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.8	3.76	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	0	200	0
			Total BTEX	mg/kg	0.6	<0.6	0	200	0

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826.012	LB172224.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.8	3.8	30	1
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.7	3.8	30	2
			d8-toluene (Surrogate)	mg/kg	-	3.8	3.8	30	1
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.7	3.6	30	3
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE191826.071	LB172224.025		TRH C6-C10	mg/kg	25	<25	0	200	0
			TRH C6-C9	mg/kg	20	<20	0	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.6	3.59	30	0
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.8	3.74	30	0
			d8-toluene (Surrogate)	mg/kg	-	3.8	3.87	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.8	3.76	30	2
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	0	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	0	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172508.002	Exchangeable Sodium, Na	mg/kg	2	NA	72.68	80 - 120	103
	Exchangeable Potassium, K	mg/kg	2	NA	238.12	80 - 120	101
	Exchangeable Calcium, Ca	mg/kg	2	NA	692	80 - 120	98
	Exchangeable Magnesium, Mg	mg/kg	2	NA	134.2	80 - 120	102

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172440.002	Mercury	mg/kg	0.05	0.22	0.2	70 - 130	108
LB172467.002	Mercury	mg/kg	0.05	0.21	0.2	70 - 130	104

Metals in Water (Dissolved) by ICPOES

Method: ME-(AU)-[ENV]AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172147.002	Arsenic, As	mg/L	0.02	1.9	2	80 - 120	96
	Cadmium, Cd	mg/L	0.001	1.9	2	80 - 120	97
	Chromium, Cr	mg/L	0.005	1.9	2	80 - 120	97
	Copper, Cu	mg/L	0.005	2.0	2	80 - 120	100
	Lead, Pb	mg/L	0.02	1.9	2	80 - 120	95
	Nickel, Ni	mg/L	0.005	2.0	2	80 - 120	101
	Zinc, Zn	mg/L	0.01	2.0	2	80 - 120	98

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172227.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	90
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	88
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	83
		Dieldrin	mg/kg	0.05	0.18	0.2	60 - 140	89
		Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	86
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	78
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.17	0.15	40 - 130	113

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172227.002		Dichlorvos	mg/kg	0.5	1.8	2	60 - 140	88
		Diazinon (Dimpylate)	mg/kg	0.5	1.9	2	60 - 140	95
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	2	60 - 140	89
		Ethion	mg/kg	0.2	1.7	2	60 - 140	83
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	92
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172227.002		Naphthalene	mg/kg	0.1	4.7	4	60 - 140	118
		Acenaphthylene	mg/kg	0.1	4.9	4	60 - 140	121
		Acenaphthene	mg/kg	0.1	4.9	4	60 - 140	123
		Phenanthrene	mg/kg	0.1	4.9	4	60 - 140	123
		Anthracene	mg/kg	0.1	4.5	4	60 - 140	111
		Fluoranthene	mg/kg	0.1	4.4	4	60 - 140	110
		Pyrene	mg/kg	0.1	4.9	4	60 - 140	122
		Benzo(a)pyrene	mg/kg	0.1	4.7	4	60 - 140	118
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	92
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	98

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172045.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB172537.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Phenolics in Soil (continued)

Method: ME-(AU)-[ENV]AN289

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172488.002	Total Phenols	mg/kg	5	<5	2.5	70 - 130	97

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172439.002	Arsenic, As	mg/kg	1	340	336.32	79 - 120	100
	Cadmium, Cd	mg/kg	0.3	400	416.6	69 - 131	96
	Chromium, Cr	mg/kg	0.5	38	35.2	80 - 120	108
	Copper, Cu	mg/kg	0.5	300	370.46	80 - 120	81
	Nickel, Ni	mg/kg	0.5	190	210.88	79 - 120	91
	Lead, Pb	mg/kg	1	89	107.87	79 - 120	82
	Zinc, Zn	mg/kg	2	270	301.27	80 - 121	90
LB172466.002	Arsenic, As	mg/kg	1	340	336.32	79 - 120	102
	Cadmium, Cd	mg/kg	0.3	430	416.6	69 - 131	102
	Chromium, Cr	mg/kg	0.5	38	35.2	80 - 120	108
	Copper, Cu	mg/kg	0.5	340	370.46	80 - 120	92
	Nickel, Ni	mg/kg	0.5	190	210.88	79 - 120	90
	Lead, Pb	mg/kg	1	92	107.87	79 - 120	86
	Zinc, Zn	mg/kg	2	280	301.27	80 - 121	93

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172227.002		TRH C10-C14	mg/kg	20	42	40	60 - 140	105
		TRH C15-C28	mg/kg	45	<45	40	60 - 140	93
		TRH C29-C36	mg/kg	45	<45	40	60 - 140	78
	TRH F Bands	TRH >C10-C16	mg/kg	25	40	40	60 - 140	100
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	85
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	80

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172224.002	Monocyclic	Benzene	mg/kg	0.1	2.6	2.9	60 - 140	90
	Aromatic	Toluene	mg/kg	0.1	2.5	2.9	60 - 140	87
		Ethylbenzene	mg/kg	0.1	2.4	2.9	60 - 140	82
		m/p-xylene	mg/kg	0.2	5.6	5.8	60 - 140	97
		o-xylene	mg/kg	0.1	2.3	2.9	60 - 140	81
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	5	60 - 140	77
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.6	5	60 - 140	72
		d8-toluene (Surrogate)	mg/kg	-	3.8	5	60 - 140	76
		Bromofluorobenzene (Surrogate)	mg/kg	-	3.8	5	60 - 140	77

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172224.002		TRH C6-C10	mg/kg	25	<25	24.65	60 - 140	94
		TRH C6-C9	mg/kg	20	21	23.2	60 - 140	89
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	3.9	5	60 - 140	77
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	3.6	5	60 - 140	72
		d8-toluene (Surrogate)	mg/kg	-	3.8	5	60 - 140	76
		Bromofluorobenzene (Surrogate)	mg/kg	-	3.8	5	60 - 140	77
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	7.25	60 - 140	107

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE191826.092	LB172440.004	Mercury	mg/kg	0.05	0.25	<0.05	0.2	106
SE191897A.11	LB172467.004	Mercury	mg/kg	0.05	0.24	0.02953320451	0.2	104

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE191826.007	LB172227.035		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	-	-
			Alpha BHC	mg/kg	0.1	<0.1	-	-
			Lindane	mg/kg	0.1	<0.1	-	-
			Heptachlor	mg/kg	0.1	<0.1	0.2	95
			Aldrin	mg/kg	0.1	<0.1	0.2	81
			Beta BHC	mg/kg	0.1	<0.1	-	-
			Delta BHC	mg/kg	0.1	<0.1	0.2	93
			Heptachlor epoxide	mg/kg	0.1	<0.1	-	-
			o,p'-DDE	mg/kg	0.1	<0.1	-	-
			Alpha Endosulfan	mg/kg	0.2	<0.2	-	-
			Gamma Chlordane	mg/kg	0.1	<0.1	-	-
			Alpha Chlordane	mg/kg	0.1	<0.1	-	-
			trans-Nonachlor	mg/kg	0.1	<0.1	-	-
			p,p'-DDE	mg/kg	0.1	<0.1	-	-
			Dieldrin	mg/kg	0.05	<0.05	0.2	95
			Endrin	mg/kg	0.2	<0.2	0.2	90
			o,p'-DDD	mg/kg	0.1	<0.1	-	-
			o,p'-DDT	mg/kg	0.1	<0.1	-	-
			Beta Endosulfan	mg/kg	0.2	<0.2	-	-
			p,p'-DDD	mg/kg	0.1	<0.1	-	-
			p,p'-DDT	mg/kg	0.1	<0.1	0.2	79
			Endosulfan sulphate	mg/kg	0.1	<0.1	-	-
			Endrin Aldehyde	mg/kg	0.1	<0.1	-	-
			Methoxychlor	mg/kg	0.1	<0.1	-	-
			Endrin Ketone	mg/kg	0.1	<0.1	-	-
			Isodrin	mg/kg	0.1	<0.1	-	-
			Mirex	mg/kg	0.1	<0.1	-	-
			Total CLP OC Pesticides	mg/kg	1	<1	-	-
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	-	99

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE191826.010	LB172227.033		Dichlorvos	mg/kg	0.5	<0.5	2	98
			Dimethoate	mg/kg	0.5	<0.5	-	-
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	2	102
			Fenitrothion	mg/kg	0.2	<0.2	-	-
			Malathion	mg/kg	0.2	<0.2	-	-
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	2	99
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	-	-
			Bromophos Ethyl	mg/kg	0.2	<0.2	-	-
			Methidathion	mg/kg	0.5	<0.5	-	-
			Ethion	mg/kg	0.2	<0.2	2	81
			Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	-	-
			Total OP Pesticides*	mg/kg	1.7	<1.7	-	-
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	-	98
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	-	98

Total Phenolics in Soil

Method: ME-(AU)-[ENV]AN289

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE191931.025	LB172488.019	Total Phenols	mg/kg	5	<5	<0.1	2.5	68 ④

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued) — **Method: ME-(AU)-[ENV]AN040/AN320**

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE191826.092	LB172439.004	Arsenic, As	mg/kg	1	66	22	50	86
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	86
		Chromium, Cr	mg/kg	0.5	64	26	50	77
		Copper, Cu	mg/kg	0.5	84	34	50	99
		Nickel, Ni	mg/kg	0.5	51	6.0	50	89
		Lead, Pb	mg/kg	1	59	20	50	79
		Zinc, Zn	mg/kg	2	160	110	50	99
SE191897A.11	LB172466.004	Arsenic, As	mg/kg	1	48	5.66302666802	50	85
5		Cadmium, Cd	mg/kg	0.3	46	-0.05195437310	50	92
		Chromium, Cr	mg/kg	0.5	58	19.07158445922	50	78
		Copper, Cu	mg/kg	0.5	54	5.99207103100	50	96
		Nickel, Ni	mg/kg	0.5	48	3.01335363986	50	89
		Lead, Pb	mg/kg	1	56	12.79376437616	50	86
		Zinc, Zn	mg/kg	2	69	20.95926001523	50	95

MATRIX SPIKE DUPLICATES

SE191826 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

SAMPLE RECEIPT ADVICE

SE191826

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Thu 18/4/2019
Report Due	Tue 30/4/2019
SGS Reference	**SE191826**

SUBMISSION DETAILS

This is to confirm that 119 samples were received on Thursday 18/4/2019. Results are expected to be ready by COB Tuesday 30/4/2019.
Please quote SGS reference SE191826 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	87 Soil,3 Water,2 FCP
Date documentation received	18/4/2019@2:47PM	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	1 Day/Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

SAMPLE RECEIPT ADVICE

SE191826

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	pH in soil (1:5)	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	TP1 0.0-0.15	29	14	-	1	-	-	-	-
004	TP4 0.0-0.15	-	-	-	1	-	-	-	-
007	TP7 0.0-0.15	29	14	-	1	-	-	-	-
010	TP10 0.0-0.15	29	14	-	1	-	-	-	-
012	TP12 0.0-0.15	-	-	26	-	1	10	12	8
013	TP13 0.0-0.15	-	-	26	1	1	10	12	8
014	TP14 0.0-0.15	29	14	-	-	-	-	-	-
015	TP15 0.0-0.15	-	-	26	-	1	10	12	8
016	TP16 0.0-0.15	-	-	26	1	1	10	12	8
017	TP17 0.0-0.15	-	-	26	-	1	10	12	8
018	TP18 0.0-0.15	-	-	26	-	1	10	12	8
019	TP19 0.0-0.15	-	-	26	1	1	10	12	8
021	TP21 0.0-0.15	29	14	-	-	-	-	-	-
024	TP24 0.0-0.15	29	14	-	1	-	-	-	-

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE191826

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	pH in soil (1:5)
026	TP26 0.0-0.15	29	14	1
028	TP28 0.0-0.15	29	14	-
029	TP29 0.0-0.15	-	-	1
032	TP32 0.0-0.15	-	-	1
035	TP35 0.0-0.15	-	-	1
038	TP38 0.0-0.15	29	14	1
041	TP41 0.0-0.15	-	-	1
042	TP42 0.0-0.15	29	14	-
044	TP44 0.0-0.15	-	-	1
047	TP47 0.0-0.15	29	14	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	pH in soil (1:5)	Total Phenolics in Soil	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
050	TP50 0.0-0.15	-	-	-	1	-	-	-	-
053	TP53 0.0-0.15	-	-	-	1	-	-	-	-
056	TP56 0.0-0.15	-	-	-	1	-	-	-	-
059	TP59 0.0-0.15	29	14	-	1	-	-	-	-
062	TP62 0.0-0.15	-	-	-	1	-	-	-	-
065	TP65 0.0-0.15	-	-	-	1	-	-	-	-
068	TP68 0.0-0.15	-	-	-	1	-	-	-	-
071	TP71 0.0-0.15	-	-	26	1	1	10	12	8

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	pH in soil (1:5)	VOC's in Soil
073	SP1-1 0.0-0.15	29	14	1	-
076	SP2-1 0.0-0.15	29	14	1	-
079	X1 0.0-0.15	29	14	-	-
090	TS1	-	-	-	12
091	TS2	-	-	-	12

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SAMPLE RECEIPT ADVICE

SE191826

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil	Moisture Content
001	TP1 0.0-0.15	13	-	-	1
004	TP4 0.0-0.15	13	-	-	1
007	TP7 0.0-0.15	13	-	-	1
010	TP10 0.0-0.15	13	-	-	1
012	TP12 0.0-0.15	-	-	-	1
013	TP13 0.0-0.15	13	-	-	1
014	TP14 0.0-0.15	-	-	-	1
015	TP15 0.0-0.15	-	-	-	1
016	TP16 0.0-0.15	13	-	-	1
017	TP17 0.0-0.15	-	-	-	1
018	TP18 0.0-0.15	-	-	-	1
019	TP19 0.0-0.15	13	2	9	1
021	TP21 0.0-0.15	-	-	-	1
024	TP24 0.0-0.15	13	-	-	1

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil	Moisture Content
025	TP25 0.0-0.15	-	2	9	-
026	TP26 0.0-0.15	13	-	-	1
028	TP28 0.0-0.15	-	-	-	1
029	TP29 0.0-0.15	13	-	-	1
032	TP32 0.0-0.15	13	-	-	1
035	TP35 0.0-0.15	13	-	-	1
038	TP38 0.0-0.15	13	-	-	1
041	TP41 0.0-0.15	13	-	-	1
042	TP42 0.0-0.15	-	-	-	1
044	TP44 0.0-0.15	13	-	-	1
047	TP47 0.0-0.15	13	-	-	1

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Moisture Content
050	TP50 0.0-0.15	13	1
053	TP53 0.0-0.15	13	1
056	TP56 0.0-0.15	13	1
059	TP59 0.0-0.15	13	1
062	TP62 0.0-0.15	13	1
065	TP65 0.0-0.15	13	1
068	TP68 0.0-0.15	13	1
071	TP71 0.0-0.15	13	1

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	Mercury in Soil	Moisture Content	Total Recoverable Elements in Soil/Waste
073	SP1-1 0.0-0.15	13	-	1	-
076	SP2-1 0.0-0.15	13	-	1	-
079	X1 0.0-0.15	-	-	1	-
092	C1	-	1	1	7
093	C2	-	1	1	7
094	C3	-	1	1	7
095	C4	-	1	1	7
096	C5	-	1	1	7

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CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content	Total Recoverable Elements in Soil/Waste
097	C6	1	1	7
098	C7	1	1	7
099	C8	1	1	7
100	C9	1	1	7
101	C10	1	1	7
102	C11	1	1	7
103	C12	1	1	7
104	C13	1	1	7
105	C14	1	1	7
106	C15	1	1	7
107	C16	1	1	7
108	C17	1	1	7
109	C18	1	1	7
110	C19	1	1	7
111	C20	1	1	7
112	C21	1	1	7
113	C22	1	1	7
114	C23	1	1	7
115	C24	1	1	7
116	C25	1	1	7
117	C26	1	1	7
118	CDS1	1	1	7
119	CDS2	1	1	7

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE191826

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre ID in bulk materials	Mercury (dissolved) in Water	Metals in Water (Dissolved) by ICPOES
085	TP19FCP 0.0-0.15	1	-	-
086	TP25FCP Surface	1	-	-
087	RS1	-	1	7
088	RS2	-	1	7
089	RS3	-	1	7

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E-MAILED 18/4/19 @ 2-47

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date:** Tuesday, 23 April 2019

Except pH Results Required By 24 hrs **Date:** Friday, 19 April 2019

Your Reference No.:

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
1	TP1	0.0-0.15	16/04/19	G		Clay		✓	✓												✓				
2	TP2	0.0-0.15	16/04/19	G		Clay																			
3	TP3	0.0-0.15	16/04/19	G		Clay																			
4	TP4	0.0-0.15	16/04/19	G		Clay		✓	✓																
5	TP5	0.0-0.15	16/04/19	G		Clay																			
6	TP6	0.0-0.15	16/04/19	G		Clay																			
7	TP7	0.0-0.15	16/04/19	G		Clay		✓	✓												✓				
8	TP8	0.0-0.15	16/04/19	G		Clay																			
9	TP9	0.0-0.15	16/04/19	G		Clay																			
10	TP10	0.0-0.15	16/04/19	G		Clay		✓	✓												✓				
11	TP11	0.0-0.15	16/04/19	G		Clay																			
12	TP12	0.0-0.15	16/04/19	G		Clay				✓												✓			
13	TP13	0.0-0.15	16/04/19	G		Clay		✓	✓	✓												✓			
14	TP14	0.0-0.15	16/04/19	G		Clay															✓				
15	TP15	0.0-0.15	16/04/19	G		Clay				✓												✓			
16	TP16	0.0-0.15	16/04/19	G		Clay		✓	✓	✓												✓			
17	TP17	0.0-0.15	16/04/19	G		Clay				✓												✓			
18	TP18	0.0-0.15	16/04/19	G		Clay				✓												✓			

SGS EHS Alexandria Laboratory
SE191826 COC
Received: 18 – Apr – 2019

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date:** Tuesday, 23 April 2019

Except pH Results Required By 24 hrs **Date:** Friday, 19 April 2019

Your Reference No.:

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
TP19FCP	0.0-0.15	16/04/19	P												✓									
TP19	0.0-0.15	16/04/19	GP		Clay		✓	✓	✓					✓							✓			
TP20	0.0-0.15	17/04/19	G		Clay																			
TP21	0.0-0.15	17/04/19	G		Clay															✓				
TP22	0.0-0.15	17/04/19	G		Clay																			
TP23	0.0-0.15	17/04/19	G		Clay																			
TP24	0.0-0.15	16/04/19	G		Clay		✓	✓												✓				
TP25FCP	Surface	17/04/19	P												✓									
TP25	0.0-0.15	17/04/19	GP		Clay									✓										
TP26	0.0-0.15	17/04/19	G		Clay		✓	✓												✓				
TP27	0.0-0.15	17/04/19	G		Clay																			
TP28	0.0-0.15	17/04/19	G		Clay															✓				
TP29	0.0-0.15	15/04/19	G		Clay		✓	✓																
TP30	0.0-0.15	15/04/19	G		Clay																			
TP31	0.0-0.15	15/04/19	G		Clay																			
TP32	0.0-0.15	15/04/19	G		Clay		✓	✓																
TP33	0.0-0.15	17/04/19	G		Clay																			
TP34	0.0-0.15	15/04/19	G		Clay																			

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date:** Tuesday, 23 April 2019

Except pH Results Required By 24 hrs **Date:** Friday, 19 April 2019

Your Reference No.:

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
35	TP35	0.0-0.15	17/04/19	G		Clay		✓	✓																
36	TP36	0.0-0.15	17/04/19	G		Clay																			
37	TP37	0.0-0.15	17/04/19	G		Clay																			
38	TP38	0.0-0.15	17/04/19	G		Clay		✓	✓												✓				
39	TP39	0.0-0.15	16/04/19	G		Clay																			
40	TP40	0.0-0.15	17/04/19	G		Clay																			
41	TP41	0.0-0.15	15/04/19	G		Clay		✓	✓																
42	TP42	0.0-0.15	17/04/19	G		Clay															✓				
43	TP43	0.0-0.15	15/04/19	G		Clay																			
44	TP44	0.0-0.15	15/04/19	G		Clay		✓	✓																
45	TP45	0.0-0.15	15/04/19	G		Clay																			
46	TP46	0.0-0.15	15/04/19	G		Clay																			
47	TP47	0.0-0.15	17/04/19	G		Clay		✓	✓												✓				
48	TP48	0.0-0.15	15/04/19	G		Clay																			
49	TP49	0.0-0.15	17/04/19	G		Clay																			
50	TP50	0.0-0.15	17/04/19	G		Clay		✓	✓																
51	TP51	0.0-0.15	17/04/19	G		Clay																			
52	TP52	0.0-0.15	17/04/19	G		Clay																			

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date:** Tuesday, 23 April 2019

Except pH Results Required By 24 hrs **Date:** Friday, 19 April 2019

Your Reference No.:

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: **JH** Ref No: **14450/1** Project Manager: **ANWAR BARBHUYIA**

Location: **Riverstone**

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
53	TP53	0.0-0.15	17/04/19	G		Clay		✓	✓																
54	TP54	0.0-0.15	17/04/19	G		Clay																			
55	TP55	0.0-0.15	15/04/19	G		Clay																			
56	TP56	0.0-0.15	15/04/19	G		Clay		✓	✓																
57	TP57	0.0-0.15	15/04/19	G		Clay																			
58	TP58	0.0-0.15	15/04/19	G		Clay																			
59	TP59	0.0-0.15	15/04/19	G		Clay		✓	✓												✓				
60	TP60	0.0-0.15	15/04/19	G		Clay																			
61	TP61	0.0-0.15	15/04/19	G		Clay																			
62	TP62	0.0-0.15	15/04/19	G		Clay		✓	✓																
63	TP63	0.0-0.15	16/04/19	G		Clay																			
64	TP64	0.0-0.15	16/04/19	G		Clay																			
65	TP65	0.0-0.15	16/04/19	G		Clay		✓	✓																
66	TP66	0.0-0.15	16/04/19	G		Clay																			
67	TP67	0.0-0.15	16/04/19	G		Clay																			
68	TP68	0.0-0.15	16/04/19	G		Clay		✓	✓																
69	TP69	0.0-0.15	15/04/19	G		Clay																			
70	TP70	0.0-0.15	15/04/19	G		Clay															✓				

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date: Tuesday, 23 April 2019**

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TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: **JH** Ref No: **14450/1** Project Manager: **ANWAR BARBHUYIA**

Location: **Riverstone**

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
71	TP71	0.0-0.15	15/04/19	G		Clay		✓	✓	✓												✓			
72	TP72	0.0-0.15	15/04/19	G		Clay																			
73	SP1-1	0.0-0.15	17/04/19	GP		Clay		✓	✓												✓				
74	SP1-2	0.0-0.15	17/04/19	GP		Clay																			
75	SP1-3	0.0-0.15	17/04/19	GP		Clay																			
76	SP2-1	0.0-0.15	17/04/19	GP		Clay		✓	✓												✓				
77	SP2-2	0.0-0.15	17/04/19	GP		Clay																			
78	SP2-3	0.0-0.15	17/04/19	GP		Clay																			
79	X1		15/04/19	G		Clay															✓				
80	X2		15/04/19	G		Clay																			
81	X3		15/04/19	G		Clay																			
82	X4		16/04/19	G		Clay																			
83	X5		16/04/19	G		Clay																			
84	X6		16/04/19	G		Clay																			
87	RS1						✓																		
88	RS2						✓																		
89	RS3						✓																		
90	TS1																✓								

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date: Tuesday, 23 April 2019**

Except pH Results Required By 24 hrs **Date: Friday, 19 April 2019**

Your Reference No.:

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: **14450/1** Project Manager: **ANWAR BARBHUYIA**

Location: **Riverstone**

Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Asbestos 0.001% w/w	Asbestos	BTEX	TRH & BTEX	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
91 TS2																✓								

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
ANWAR BARBHUYIA	AB	18/04/19			18/4 2pm

WG: Water sample (glass bottle) G Soil sample (glass jar) FCP Fibro Cement Piece (plastic bag) *: As,Cd,Cr,Cu,Pb,Hg,Ni & Zn (8 metals)

WP: Water sample (plastic bottle) P Soil sample (plastic bag) ✓ Test required

GEOTECHNIQUE PTY LTD

CHAIN OF CUSTODY

Results Required by: Normal Turnaround

Date: Tuesday, 23 April 2019

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015
Tel: 02 8594 0400

Ref No.: 14450/1

Location: Riverstone

	Composite	Sub-Sample	Depth (m)	Metals As Cd Cr Cu Pb Hg Ni Zn	OCP	OCP & PCB	Phenol	Cyanide	OCP, OPP & PCB
92	C1	1 TP1	0.0-0.15	✓					
		2 TP2	0.0-0.15						
		3 TP3	0.0-0.15						
93	C2	4 TP4	0.0-0.15	✓					
		5 TP5	0.0-0.15						
		6 TP6	0.0-0.15						
94	C3	7 TP7	0.0-0.15	✓					
		8 TP8	0.0-0.15						
		9 TP9	0.0-0.15						
95	C4	10 TP10	0.0-0.15	✓					
		11 TP11	0.0-0.15						
		12 TP12	0.0-0.15						
96	C5	TP13	0.0-0.15	✓					
		TP14	0.0-0.15						
		TP15	0.0-0.15						
97	C6	TP16	0.0-0.15	✓					
		TP17	0.0-0.15						
		TP18	0.0-0.15						
98	C7	TP19	0.0-0.15	✓					
		TP20	0.0-0.15						
		21 TP21	0.0-0.15						
99	C8	TP22	0.0-0.15	✓					
		TP23	0.0-0.15						
		TP24	0.0-0.15						
100	C9	TP25	0.0-0.15	✓					
		TP26	0.0-0.15						
		TP27	0.0-0.15						
101	C10	TP28	0.0-0.15	✓					
		TP29	0.0-0.15						
		TP30	0.0-0.15						
102	C11	TP31	0.0-0.15	✓					
		TP32	0.0-0.15						
		TP33	0.0-0.15						
103	C12	TP34	0.0-0.15	✓					
		TP35	0.0-0.15						
		TP36	0.0-0.15						
104	C13	TP37	0.0-0.15	✓					
		TP38	0.0-0.15						
		TP39	0.0-0.15						
105	C14	TP40	0.0-0.15	✓					
		TP41	0.0-0.15						
		TP42	0.0-0.15						
106	C15	TP43	0.0-0.15	✓					
		TP44	0.0-0.15						
		TP45	0.0-0.15						
107	C16	TP46	0.0-0.15	✓					
		TP47	0.0-0.15						
		TP48	0.0-0.15						
108	C17	TP49	0.0-0.15	✓					
		TP50	0.0-0.15						
		TP51	0.0-0.15						
109	C18	TP52	0.0-0.15	✓					
		TP53	0.0-0.15						
		TP54	0.0-0.15						
110	C19	TP55	0.0-0.15	✓					
		TP56	0.0-0.15						
		TP57	0.0-0.15						
111	C20	TP58	0.0-0.15	✓					
		TP59	0.0-0.15						
		TP60	0.0-0.15						
112	C21	TP61	0.0-0.15	✓					
		TP62	0.0-0.15						
		TP69	0.0-0.15						
113	C22	TP63	0.0-0.15	✓					
		TP64	0.0-0.15						
		TP65	0.0-0.15						
114	C23	TP66	0.0-0.15	✓					
		TP67	0.0-0.15						
		TP68	0.0-0.15						
115	C24	TP70	0.0-0.15	✓					
		TP71	0.0-0.15						
		72 TP72	0.0-0.15						
116	C25	73 SP1-1	0.0-0.15	✓					
		74 SP1-2	0.0-0.15						
		75 SP1-3	0.0-0.15						
117	C26	76 SP2-1	0.0-0.15	✓					
		77 SP2-2	0.0-0.15						
		78 SP2-3	0.0-0.15						
118	CDS1	79 X1		✓					
		80 X1							
		81 X3							
119	CDS2	82 X4		✓					
		83 X5							
		84 X6							

Relinquished by		
Name	Signature	Date
ANWAR BARBHUYIA	AB	18/04/19

Form No 4.7F3-11 SGS

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826B R0**
Date Received	2/5/2019
Date Reported	8/5/2019

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

Kamrul Ahsan
Senior Chemist

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 3/5/2019

PARAMETER	UOM	LOR	TP1 CLAY 0.0-0.15 16/4/2019 SE191826B.001	TP2 CLAY 0.0-0.15 16/4/2019 SE191826B.002	TP3 CLAY 0.0-0.15 16/4/2019 SE191826B.003	TP7 CLAY 0.0-0.15 16/4/2019 SE191826B.007	TP8 CLAY 0.0-0.15 16/4/2019 SE191826B.008
Copper, Cu	mg/kg	0.5	40	33	51	40	44
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-	-
Zinc, Zn	mg/kg	2	110	90	150	110	140

PARAMETER	UOM	LOR	TP9 CLAY 0.0-0.15 16/4/2019 SE191826B.009	TP10 CLAY 0.0-0.15 16/4/2019 SE191826B.010	TP11 CLAY 0.0-0.15 16/4/2019 SE191826B.011	TP12 CLAY 0.0-0.15 16/4/2019 SE191826B.012	TP13 CLAY 0.0-0.15 16/4/2019 SE191826B.013
Copper, Cu	mg/kg	0.5	7.4	36	47	39	41
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-	16
Zinc, Zn	mg/kg	2	20	97	190	380	240

PARAMETER	UOM	LOR	TP14 CLAY 0.0-0.15 16/4/2019 SE191826B.014	TP15 CLAY 0.0-0.15 16/4/2019 SE191826B.015	TP16 CLAY 0.0-0.15 16/4/2019 SE191826B.016	TP17 CLAY 0.0-0.15 16/4/2019 SE191826B.017	TP18 CLAY 0.0-0.15 16/4/2019 SE191826B.018
Copper, Cu	mg/kg	0.5	52	14	-	-	-
Lead, Pb	mg/kg	1	-	-	75	170	18
Nickel, Ni	mg/kg	0.5	7.9	3.8	-	-	-
Zinc, Zn	mg/kg	2	160	39	99	160	39

PARAMETER	UOM	LOR	TP19 CLAY 0.0-0.15 16/4/2019 SE191826B.019	TP20 CLAY 0.0-0.15 17/4/2019 SE191826B.020	TP21 CLAY 0.0-0.15 17/4/2019 SE191826B.021	TP22 CLAY 0.0-0.15 17/4/2019 SE191826B.022	TP23 CLAY 0.0-0.15 17/4/2019 SE191826B.023
Copper, Cu	mg/kg	0.5	34	42	49	61	49
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	7.1	9.9
Zinc, Zn	mg/kg	2	180	160	150	180	140

PARAMETER	UOM	LOR	TP24 CLAY 0.0-0.15 16/4/2019 SE191826B.024	TP25 CLAY 0.0-0.15 17/4/2019 SE191826B.025	TP26 CLAY 0.0-0.15 17/4/2019 SE191826B.026	TP27 CLAY 0.0-0.15 17/4/2019 SE191826B.027	TP28 CLAY 0.0-0.15 17/4/2019 SE191826B.028
Copper, Cu	mg/kg	0.5	27	54	61	60	42
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	6.4	9.5	9.1	16	9.3
Zinc, Zn	mg/kg	2	110	260	260	190	130

PARAMETER	UOM	LOR	TP29 CLAY 0.0-0.15 15/4/2019 SE191826B.029	TP30 CLAY 0.0-0.15 15/4/2019 SE191826B.030	TP49 CLAY 0.0-0.15 17/4/2019 SE191826B.049	TP50 CLAY 0.0-0.15 17/4/2019 SE191826B.050	TP51 CLAY 0.0-0.15 17/4/2019 SE191826B.051
Copper, Cu	mg/kg	0.5	31	21	-	-	-
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	10	5.1	-	-	-
Zinc, Zn	mg/kg	2	130	74	130	38	800

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 3/5/2019

(continued)

PARAMETER	UOM	LOR	TP55 CLAY 0.0-0.15 15/4/2019 SE191826B.055	TP56 CLAY 0.0-0.15 15/4/2019 SE191826B.056	TP57 CLAY 0.0-0.15 15/4/2019 SE191826B.057	TP63 CLAY 0.0-0.15 16/4/2019 SE191826B.063	TP64 CLAY 0.0-0.15 16/4/2019 SE191826B.064
Copper, Cu	mg/kg	0.5	-	-	-	-	-
Lead, Pb	mg/kg	1	-	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-	-
Zinc, Zn	mg/kg	2	8	110	27	22	11

PARAMETER	UOM	LOR	TP65 CLAY 0.0-0.15 16/4/2019 SE191826B.065	SP1-1 CLAY 0.0-0.15 17/4/2019 SE191826B.073	SP1-2 CLAY 0.0-0.15 17/4/2019 SE191826B.074	SP1-3 CLAY 0.0-0.15 17/4/2019 SE191826B.075	SP2-1 CLAY 0.0-0.15 17/4/2019 SE191826B.076
Copper, Cu	mg/kg	0.5	-	36	30	38	38
Lead, Pb	mg/kg	1	-	-	-	-	110
Nickel, Ni	mg/kg	0.5	-	9.0	7.7	11	-
Zinc, Zn	mg/kg	2	60	190	160	180	310

PARAMETER	UOM	LOR	SP2-2 CLAY 0.0-0.15 17/4/2019 SE191826B.077	SP2-3 CLAY 0.0-0.15 17/4/2019 SE191826B.078
Copper, Cu	mg/kg	0.5	34	38
Lead, Pb	mg/kg	1	110	130
Nickel, Ni	mg/kg	0.5	-	-
Zinc, Zn	mg/kg	2	280	320

Moisture Content [AN002] Tested: 3/5/2019

PARAMETER	UOM	LOR	TP2 CLAY 0.0-0.15 16/4/2019 SE191826B.002	TP3 CLAY 0.0-0.15 16/4/2019 SE191826B.003	TP8 CLAY 0.0-0.15 16/4/2019 SE191826B.008	TP9 CLAY 0.0-0.15 16/4/2019 SE191826B.009	TP11 CLAY 0.0-0.15 16/4/2019 SE191826B.011
% Moisture	%w/w	1	17.1	17.9	23.0	11.0	20.4

PARAMETER	UOM	LOR	TP14 CLAY 0.0-0.15 16/4/2019 SE191826B.014	TP20 CLAY 0.0-0.15 17/4/2019 SE191826B.020	TP22 CLAY 0.0-0.15 17/4/2019 SE191826B.022	TP23 CLAY 0.0-0.15 17/4/2019 SE191826B.023	TP25 CLAY 0.0-0.15 17/4/2019 SE191826B.025
% Moisture	%w/w	1	22.9	20.3	10.4	5.4	13.4

PARAMETER	UOM	LOR	TP27 CLAY 0.0-0.15 17/4/2019 SE191826B.027	TP28 CLAY 0.0-0.15 17/4/2019 SE191826B.028	TP30 CLAY 0.0-0.15 15/4/2019 SE191826B.030	TP49 CLAY 0.0-0.15 17/4/2019 SE191826B.049	TP51 CLAY 0.0-0.15 17/4/2019 SE191826B.051
% Moisture	%w/w	1	23.8	12.6	14.0	26.0	12.9

PARAMETER	UOM	LOR	TP55 CLAY 0.0-0.15 15/4/2019 SE191826B.055	TP57 CLAY 0.0-0.15 15/4/2019 SE191826B.057	TP63 CLAY 0.0-0.15 16/4/2019 SE191826B.063	TP64 CLAY 0.0-0.15 16/4/2019 SE191826B.064	SP1-2 CLAY 0.0-0.15 17/4/2019 SE191826B.074
% Moisture	%w/w	1	12.5	2.5	15.3	4.0	20.6

PARAMETER	UOM	LOR	SP1-3 CLAY 0.0-0.15 17/4/2019 SE191826B.075	SP2-2 CLAY 0.0-0.15 17/4/2019 SE191826B.077	SP2-3 CLAY 0.0-0.15 17/4/2019 SE191826B.078
% Moisture	%w/w	1	18.7	11.7	13.9

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been perfomed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au.pv.sgsvr/en-gb/environment.

STATEMENT OF QA/QC PERFORMANCE

SE191826B R0

CLIENT DETAILS

Contact	Anwar Barbhuyia
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Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
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Telephone	+61 2 8594 0400
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Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826B R0**
Date Received	02 May 2019
Date Reported	08 May 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	Moisture Content	23 items
Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE191826B R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP2	SE191826B.002	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP3	SE191826B.003	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP8	SE191826B.008	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP9	SE191826B.009	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP11	SE191826B.011	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP14	SE191826B.014	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP20	SE191826B.020	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP22	SE191826B.022	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP23	SE191826B.023	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP25	SE191826B.025	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP27	SE191826B.027	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP28	SE191826B.028	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP30	SE191826B.030	LB172892	15 Apr 2019	02 May 2019	29 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP49	SE191826B.049	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP51	SE191826B.051	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
TP55	SE191826B.055	LB172892	15 Apr 2019	02 May 2019	29 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP57	SE191826B.057	LB172892	15 Apr 2019	02 May 2019	29 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP63	SE191826B.063	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
TP64	SE191826B.064	LB172892	16 Apr 2019	02 May 2019	30 Apr 2019	03 May 2019†	08 May 2019	06 May 2019
SP1-2	SE191826B.074	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
SP1-3	SE191826B.075	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
SP2-2	SE191826B.077	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019
SP2-3	SE191826B.078	LB172892	17 Apr 2019	02 May 2019	01 May 2019	03 May 2019†	08 May 2019	06 May 2019

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE191826B.001	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP2	SE191826B.002	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP3	SE191826B.003	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP7	SE191826B.007	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP8	SE191826B.008	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP9	SE191826B.009	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP10	SE191826B.010	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP11	SE191826B.011	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP12	SE191826B.012	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP13	SE191826B.013	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP14	SE191826B.014	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP15	SE191826B.015	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP16	SE191826B.016	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP17	SE191826B.017	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP18	SE191826B.018	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP19	SE191826B.019	LB172889	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP20	SE191826B.020	LB172889	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP21	SE191826B.021	LB172889	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP22	SE191826B.022	LB172889	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP23	SE191826B.023	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP24	SE191826B.024	LB172890	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP25	SE191826B.025	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP26	SE191826B.026	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP27	SE191826B.027	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP28	SE191826B.028	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP29	SE191826B.029	LB172890	15 Apr 2019	02 May 2019	12 Oct 2019	03 May 2019	12 Oct 2019	06 May 2019
TP30	SE191826B.030	LB172890	15 Apr 2019	02 May 2019	12 Oct 2019	03 May 2019	12 Oct 2019	06 May 2019
TP49	SE191826B.049	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP50	SE191826B.050	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP51	SE191826B.051	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
TP55	SE191826B.055	LB172890	15 Apr 2019	02 May 2019	12 Oct 2019	03 May 2019	12 Oct 2019	06 May 2019
TP56	SE191826B.056	LB172890	15 Apr 2019	02 May 2019	12 Oct 2019	03 May 2019	12 Oct 2019	06 May 2019
TP57	SE191826B.057	LB172890	15 Apr 2019	02 May 2019	12 Oct 2019	03 May 2019	12 Oct 2019	06 May 2019
TP63	SE191826B.063	LB172890	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019

HOLDING TIME SUMMARY

SE191826B R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP64	SE191826B.064	LB172890	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
TP65	SE191826B.065	LB172890	16 Apr 2019	02 May 2019	13 Oct 2019	03 May 2019	13 Oct 2019	06 May 2019
SP1-1	SE191826B.073	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
SP1-2	SE191826B.074	LB172890	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
SP1-3	SE191826B.075	LB172891	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
SP2-1	SE191826B.076	LB172891	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
SP2-2	SE191826B.077	LB172891	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019
SP2-3	SE191826B.078	LB172891	17 Apr 2019	02 May 2019	14 Oct 2019	03 May 2019	14 Oct 2019	06 May 2019

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result
LB172889.001	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2
LB172890.001	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Zinc, Zn	mg/kg	2	<2
LB172891.001	Copper, Cu	mg/kg	0.5	<0.5
	Nickel, Ni	mg/kg	0.5	<0.5
	Lead, Pb	mg/kg	1	<1
	Zinc, Zn	mg/kg	2	<2

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826B.025	LB172892.011	% Moisture	%w/w	1	13.4	14.0	37	5
SE191826B.074	LB172892.022	% Moisture	%w/w	1	20.6	16.9	35	20

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826B.013	LB172889.014	Copper, Cu	mg/kg	0.5	41	42	31	1
		Nickel, Ni	mg/kg	0.5	16	16	33	4
		Zinc, Zn	mg/kg	2	240	240	31	0
SE191826B.022	LB172889.024	Copper, Cu	mg/kg	0.5	61	60	31	3
		Nickel, Ni	mg/kg	0.5	7.1	6.8	37	4
		Zinc, Zn	mg/kg	2	180	200	31	7
SE191826B.050	LB172890.014	Zinc, Zn	mg/kg	2	38	40	35	4
SE191826B.074	LB172890.024	Copper, Cu	mg/kg	0.5	30	36	32	18
		Nickel, Ni	mg/kg	0.5	7.7	11	35	38 ②
		Zinc, Zn	mg/kg	2	160	200	31	21
SE191826B.078	LB172891.008	Copper, Cu	mg/kg	0.5	38	38	31	0
		Lead, Pb	mg/kg	1	130	120	31	8
		Zinc, Zn	mg/kg	2	320	310	31	4

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB172889.002	Copper, Cu	mg/kg	0.5	300	370.46	80 - 120	80
	Nickel, Ni	mg/kg	0.5	180	210.88	79 - 120	86
	Lead, Pb	mg/kg	1	88	107.87	79 - 120	82
	Zinc, Zn	mg/kg	2	250	301.27	80 - 121	83
LB172890.002	Copper, Cu	mg/kg	0.5	320	370.46	80 - 120	85
	Nickel, Ni	mg/kg	0.5	180	210.88	79 - 120	86
	Zinc, Zn	mg/kg	2	280	301.27	80 - 121	92
LB172891.002	Copper, Cu	mg/kg	0.5	330	370.46	80 - 120	89
	Nickel, Ni	mg/kg	0.5	190	210.88	79 - 120	90
	Lead, Pb	mg/kg	1	91	107.87	79 - 120	84
	Zinc, Zn	mg/kg	2	290	301.27	80 - 121	96

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES — **Method: ME-(AU)-[ENV]AN040/AN320**

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE191826B.00	LB172889.004	Copper, Cu	mg/kg	0.5	84	40	50	90
1		Zinc, Zn	mg/kg	2	140	110	50	61 ④
SE191826B.02	LB172890.004	Copper, Cu	mg/kg	0.5	92	49	50	87
3		Nickel, Ni	mg/kg	0.5	52	9.9	50	84
		Zinc, Zn	mg/kg	2	180	140	50	78
SE191826B.07	LB172891.004	Copper, Cu	mg/kg	0.5	74	38	50	72
5		Nickel, Ni	mg/kg	0.5	50	11	50	78
		Zinc, Zn	mg/kg	2	180	180	50	1 ⑨

MATRIX SPIKE DUPLICATES

SE191826B R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

SAMPLE RECEIPT ADVICE

SE191826B

CLIENT DETAILS

Contact	Anwar Barbhuyia
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Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

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Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
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Email	au.environmental.sydney@sgs.com
Samples Received	Thu 2/5/2019
Report Due	Wed 8/5/2019
SGS Reference	**SE191826B**

SUBMISSION DETAILS

This is to confirm that 119 samples were received on Thursday 2/5/2019. Results are expected to be ready by COB Wednesday 8/5/2019.
Please quote SGS reference SE191826B when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	42 Soils
Date documentation received	2/5/19@1L05pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

SAMPLE RECEIPT ADVICE

SE191826B

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Elements in Soil/Waste
001	TP1 0.0-0.15	-	2
002	TP2 0.0-0.15	1	2
003	TP3 0.0-0.15	1	2
007	TP7 0.0-0.15	-	2
008	TP8 0.0-0.15	1	2
009	TP9 0.0-0.15	1	2
010	TP10 0.0-0.15	-	2
011	TP11 0.0-0.15	1	2
012	TP12 0.0-0.15	-	2
013	TP13 0.0-0.15	-	3
014	TP14 0.0-0.15	1	3
015	TP15 0.0-0.15	-	3
016	TP16 0.0-0.15	-	2
017	TP17 0.0-0.15	-	2
018	TP18 0.0-0.15	-	2
019	TP19 0.0-0.15	-	2
020	TP20 0.0-0.15	1	2
021	TP21 0.0-0.15	-	2
022	TP22 0.0-0.15	1	3
023	TP23 0.0-0.15	1	3
024	TP24 0.0-0.15	-	3

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826B

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Elements in Soil/Waste
025	TP25 0.0-0.15	1	3
026	TP26 0.0-0.15	-	3
027	TP27 0.0-0.15	1	3
028	TP28 0.0-0.15	1	3
029	TP29 0.0-0.15	-	3
030	TP30 0.0-0.15	1	3

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826B

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Elements in Soil/Waste
049	TP49 0.0-0.15	1	1
050	TP50 0.0-0.15	-	1
051	TP51 0.0-0.15	1	1
055	TP55 0.0-0.15	1	1
056	TP56 0.0-0.15	-	1
057	TP57 0.0-0.15	1	1
063	TP63 0.0-0.15	1	1
064	TP64 0.0-0.15	1	1
065	TP65 0.0-0.15	-	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826B

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Moisture Content	Total Recoverable Elements in Soil/Waste
073	SP1-1 0.0-0.15	-	3
074	SP1-2 0.0-0.15	1	3
075	SP1-3 0.0-0.15	1	3
076	SP2-1 0.0-0.15	-	3
077	SP2-2 0.0-0.15	1	3
078	SP2-3 0.0-0.15	1	3

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date: Wednesday, 8 May 2019**

Except pH Results Required By **Date:**

Your Reference No.: SE191826

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
1	TP1	0.0-0.15	16/04/19	G		Clay									✓			✓							
2	TP2	0.0-0.15	16/04/19	G		Clay									✓			✓							
3	TP3	0.0-0.15	16/04/19	G		Clay									✓			✓							
	TP4	0.0-0.15	16/04/19	G		Clay																			
	TP5	0.0-0.15	16/04/19	G		Clay																			
	TP6	0.0-0.15	16/04/19	G		Clay																			
7	TP7	0.0-0.15	16/04/19	G		Clay									✓			✓							
8	TP8	0.0-0.15	16/04/19	G		Clay									✓			✓							
9	TP9	0.0-0.15	16/04/19	G		Clay									✓			✓							
10	TP10	0.0-0.15	16/04/19	G		Clay									✓			✓							
11	TP11	0.0-0.15	16/04/19	G		Clay									✓			✓							
12	TP12	0.0-0.15	16/04/19	G		Clay									✓			✓							
13	TP13	0.0-0.15	16/04/19	G		Clay									✓		✓	✓							
14	TP14	0.0-0.15	16/04/19	G		Clay									✓		✓	✓							
15	TP15	0.0-0.15	16/04/19	G		Clay									✓		✓	✓							
16	TP16	0.0-0.15	16/04/19	G		Clay										✓		✓							
17	TP17	0.0-0.15	16/04/19	G		Clay										✓		✓							
18	TP18	0.0-0.15	16/04/19	G		Clay										✓		✓							

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UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: **JH** Ref No: **14450/1** Project Manager: **ANWAR BARBHUYIA**

Location: **Riverstone**

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
	TP19FCP	0.0-0.15	16/04/19	P																					
19	TP19	0.0-0.15	16/04/19	GP		Clay									✓			✓							
20	TP20	0.0-0.15	17/04/19	G		Clay									✓			✓							
21	TP21	0.0-0.15	17/04/19	G		Clay									✓			✓							
22	TP22	0.0-0.15	17/04/19	G		Clay									✓		✓	✓							
23	TP23	0.0-0.15	17/04/19	G		Clay									✓		✓	✓							
24	TP24	0.0-0.15	16/04/19	G		Clay									✓		✓	✓							
	TP25FCP	Surface	17/04/19	P																					
25	TP25	0.0-0.15	17/04/19	GP		Clay									✓		✓	✓							
26	TP26	0.0-0.15	17/04/19	G		Clay									✓		✓	✓							
27	TP27	0.0-0.15	17/04/19	G		Clay									✓		✓	✓							
28	TP28	0.0-0.15	17/04/19	G		Clay									✓		✓	✓							
29	TP29	0.0-0.15	15/04/19	G		Clay									✓		✓	✓							
30	TP30	0.0-0.15	15/04/19	G		Clay									✓		✓	✓							
	TP31	0.0-0.15	15/04/19	G		Clay																			
	TP32	0.0-0.15	15/04/19	G		Clay																			
	TP33	0.0-0.15	17/04/19	G		Clay																			
	TP34	0.0-0.15	15/04/19	G		Clay																			

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1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date: Wednesday, 8 May 2019**

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Your Reference No.: SE191826

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
TP35	0.0-0.15	17/04/19	G		Clay																			
TP36	0.0-0.15	17/04/19	G		Clay																			
TP37	0.0-0.15	17/04/19	G		Clay																			
TP38	0.0-0.15	17/04/19	G		Clay																			
TP39	0.0-0.15	16/04/19	G		Clay																			
TP40	0.0-0.15	17/04/19	G		Clay																			
TP41	0.0-0.15	15/04/19	G		Clay																			
TP42	0.0-0.15	17/04/19	G		Clay																			
TP43	0.0-0.15	15/04/19	G		Clay																			
TP44	0.0-0.15	15/04/19	G		Clay																			
TP45	0.0-0.15	15/04/19	G		Clay																			
TP46	0.0-0.15	15/04/19	G		Clay																			
TP47	0.0-0.15	17/04/19	G		Clay																			
TP48	0.0-0.15	15/04/19	G		Clay																			
49 TP49	0.0-0.15	17/04/19	G		Clay												✓							
50 TP50	0.0-0.15	17/04/19	G		Clay												✓							
51 TP51	0.0-0.15	17/04/19	G		Clay												✓							
TP52	0.0-0.15	17/04/19	G		Clay																			

GEOTECHNIQUE PTY LTD

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CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date: Wednesday, 8 May 2019**

Except pH Results Required By **Date:**

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TO: SGS
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ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA

Location: Riverstone

Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
TP53	0.0-0.15	17/04/19	G		Clay																			
TP54	0.0-0.15	17/04/19	G		Clay																			
55 TP55	0.0-0.15	15/04/19	G		Clay												✓							
56 TP56	0.0-0.15	15/04/19	G		Clay												✓							
57 TP57	0.0-0.15	15/04/19	G		Clay												✓							
TP58	0.0-0.15	15/04/19	G		Clay																			
TP59	0.0-0.15	15/04/19	G		Clay																			
TP60	0.0-0.15	15/04/19	G		Clay																			
TP61	0.0-0.15	15/04/19	G		Clay																			
TP62	0.0-0.15	15/04/19	G		Clay																			
63 TP63	0.0-0.15	16/04/19	G		Clay												✓							
64 TP64	0.0-0.15	16/04/19	G		Clay												✓							
65 TP65	0.0-0.15	16/04/19	G		Clay												✓							
TP66	0.0-0.15	16/04/19	G		Clay																			
TP67	0.0-0.15	16/04/19	G		Clay																			
TP68	0.0-0.15	16/04/19	G		Clay																			
TP69	0.0-0.15	15/04/19	G		Clay																			
TP70	0.0-0.15	15/04/19	G		Clay																			

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1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

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Location: **Riverstone**

Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
TP71	0.0-0.15	15/04/19	G		Clay																			
TP72	0.0-0.15	15/04/19	G		Clay																			
13 SP1-1	0.0-0.15	17/04/19	GP		Clay									✓		✓	✓							
14 SP1-2	0.0-0.15	17/04/19	GP		Clay									✓		✓	✓							
15 SP1-3	0.0-0.15	17/04/19	GP		Clay									✓		✓	✓							
16 SP2-1	0.0-0.15	17/04/19	GP		Clay									✓	✓		✓							
17 SP2-2	0.0-0.15	17/04/19	GP		Clay									✓	✓		✓							
18 SP2-3	0.0-0.15	17/04/19	GP		Clay									✓	✓		✓							

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
ANWAR BARBHUYIA	AB	02/05/19			2/5/19 1.05p

WG: Water sample (glass bottle) G Soil sample (glass jar) FCP Fibro Cement Piece (plastic bag) *: As,Cd,Cr,Cu,Pb,Hg,Ni & Zn (8 metals)

WP: Water sample (plastic bottle) P Soil sample (plastic bag) ✓ Test required

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826C R0**
Date Received	24/5/2019
Date Reported	30/5/2019

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemist

Shane McDermott
Inorganic/Metals Chemist

pH in soil (1:5) [AN101] Tested: 30/5/2019

PARAMETER	UOM	LOR	TP11 CLAY 0.0-0.15 16/4/2019 SE191826C.011	TP12 CLAY 0.0-0.15 16/4/2019 SE191826C.012	TP14 CLAY 0.0-0.15 16/4/2019 SE191826C.014	TP17 CLAY 0.0-0.15 16/4/2019 SE191826C.017	TP20 CLAY 0.0-0.15 17/4/2019 SE191826C.020
pH	pH Units	0.1	7.3	6.3	7.3	7.0	7.9

PARAMETER	UOM	LOR	TP22 CLAY 0.0-0.15 17/4/2019 SE191826C.022	TP25 CLAY 0.0-0.15 17/4/2019 SE191826C.025	TP27 CLAY 0.0-0.15 17/4/2019 SE191826C.027	TP51 CLAY 0.0-0.15 17/4/2019 SE191826C.051	SP1-2 CLAY 0.0-0.15 17/4/2019 SE191826C.074
pH	pH Units	0.1	6.4	6.6	8.4	6.7	7.0

PARAMETER	UOM	LOR	SP1-3 CLAY 0.0-0.15 17/4/2019 SE191826C.075	SP2-2 CLAY 0.0-0.15 17/4/2019 SE191826C.077	SP2-3 CLAY 0.0-0.15 17/4/2019 SE191826C.078
pH	pH Units	0.1	7.1	6.8	6.9

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 29/5/2019

PARAMETER	UOM	LOR	TP11 CLAY 0.0-0.15 16/4/2019 SE191826C.011	TP12 CLAY 0.0-0.15 16/4/2019 SE191826C.012	TP14 CLAY 0.0-0.15 16/4/2019 SE191826C.014	TP17 CLAY 0.0-0.15 16/4/2019 SE191826C.017	TP20 CLAY 0.0-0.15 17/4/2019 SE191826C.020
Exchangeable Sodium, Na	mg/kg	2	47	120	93	56	580
Exchangeable Sodium, Na	meq/100g	0.01	0.20	0.52	0.40	0.24	2.5
Exchangeable Sodium Percentage*	%	0.1	0.7	2.7	1.4	1.8	7.5
Exchangeable Potassium, K	mg/kg	2	380	160	490	230	660
Exchangeable Potassium, K	meq/100g	0.01	0.98	0.42	1.3	0.59	1.7
Exchangeable Potassium Percentage*	%	0.1	3.3	2.1	4.4	4.3	5.0
Exchangeable Calcium, Ca	mg/kg	2	4800	3200	4500	2000	4700
Exchangeable Calcium, Ca	meq/100g	0.01	24	16	22	9.8	24
Exchangeable Calcium Percentage*	%	0.1	79.4	81.5	77.6	71.4	69.7
Exchangeable Magnesium, Mg	mg/kg	2	610	330	580	380	730
Exchangeable Magnesium, Mg	meq/100g	0.02	5.0	2.7	4.8	3.1	6.0
Exchangeable Magnesium Percentage*	%	0.1	16.6	13.7	16.6	22.5	17.8
Cation Exchange Capacity	meq/100g	0.02	30	20	29	14	34

PARAMETER	UOM	LOR	TP22 CLAY 0.0-0.15 17/4/2019 SE191826C.022	TP25 CLAY 0.0-0.15 17/4/2019 SE191826C.025	TP27 CLAY 0.0-0.15 17/4/2019 SE191826C.027	TP51 CLAY 0.0-0.15 17/4/2019 SE191826C.051	SP1-2 CLAY 0.0-0.15 17/4/2019 SE191826C.074
Exchangeable Sodium, Na	mg/kg	2	490	310	360	170	140
Exchangeable Sodium, Na	meq/100g	0.01	2.1	1.3	1.5	0.73	0.62
Exchangeable Sodium Percentage*	%	0.1	6.2	4.7	5.3	14.6	1.4
Exchangeable Potassium, K	mg/kg	2	770	730	470	100	630
Exchangeable Potassium, K	meq/100g	0.01	2.0	1.9	1.2	0.26	1.6
Exchangeable Potassium Percentage*	%	0.1	5.8	6.6	4.1	5.1	3.5
Exchangeable Calcium, Ca	mg/kg	2	4700	3900	3900	380	7000
Exchangeable Calcium, Ca	meq/100g	0.01	23	20	19	1.9	35
Exchangeable Calcium Percentage*	%	0.1	68.2	69.2	66.6	37.9	75.4
Exchangeable Magnesium, Mg	mg/kg	2	830	670	850	260	1100
Exchangeable Magnesium, Mg	meq/100g	0.02	6.8	5.5	7.0	2.1	9.1
Exchangeable Magnesium Percentage*	%	0.1	19.8	19.5	24.0	42.4	19.7
Cation Exchange Capacity	meq/100g	0.02	34	28	29	5.0	46

PARAMETER	UOM	LOR	SP1-3 CLAY 0.0-0.15 17/4/2019 SE191826C.075	SP2-2 CLAY 0.0-0.15 17/4/2019 SE191826C.077	SP2-3 CLAY 0.0-0.15 17/4/2019 SE191826C.078
Exchangeable Sodium, Na	mg/kg	2	80	49	65
Exchangeable Sodium, Na	meq/100g	0.01	0.35	0.21	0.28
Exchangeable Sodium Percentage*	%	0.1	0.9	1.0	1.3
Exchangeable Potassium, K	mg/kg	2	450	440	360
Exchangeable Potassium, K	meq/100g	0.01	1.1	1.1	0.91
Exchangeable Potassium Percentage*	%	0.1	3.0	5.1	4.1
Exchangeable Calcium, Ca	mg/kg	2	6200	3500	3500
Exchangeable Calcium, Ca	meq/100g	0.01	31	17	18
Exchangeable Calcium Percentage*	%	0.1	80.8	78.7	78.9
Exchangeable Magnesium, Mg	mg/kg	2	720	410	430
Exchangeable Magnesium, Mg	meq/100g	0.02	5.9	3.4	3.5
Exchangeable Magnesium Percentage*	%	0.1	15.3	15.2	15.8
Cation Exchange Capacity	meq/100g	0.02	38	22	22

Moisture Content [AN002] Tested: 30/5/2019

PARAMETER	UOM	LOR	TP11 CLAY 0.0-0.15 16/4/2019 SE191826C.011	TP12 CLAY 0.0-0.15 16/4/2019 SE191826C.012	TP14 CLAY 0.0-0.15 16/4/2019 SE191826C.014	TP17 CLAY 0.0-0.15 16/4/2019 SE191826C.017	TP20 CLAY 0.0-0.15 17/4/2019 SE191826C.020
% Moisture	%w/w	1	18.5	34.7	21.1	13.6	21.2

PARAMETER	UOM	LOR	TP22 CLAY 0.0-0.15 17/4/2019 SE191826C.022	TP25 CLAY 0.0-0.15 17/4/2019 SE191826C.025	TP27 CLAY 0.0-0.15 17/4/2019 SE191826C.027	TP51 CLAY 0.0-0.15 17/4/2019 SE191826C.051	SP1-2 CLAY 0.0-0.15 17/4/2019 SE191826C.074
% Moisture	%w/w	1	9.9	12.4	22.9	13.0	18.0

PARAMETER	UOM	LOR	SP1-3 CLAY 0.0-0.15 17/4/2019 SE191826C.075	SP2-2 CLAY 0.0-0.15 17/4/2019 SE191826C.077	SP2-3 CLAY 0.0-0.15 17/4/2019 SE191826C.078
% Moisture	%w/w	1	20.5	12.2	13.0

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN122	Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.
AN122	The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100. ESP can be used to categorise the sodicity of the soil as below: ESP < 6% non-sodic ESP 6-15% sodic ESP >15% strongly sodic Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been perfomed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au.pv.sgsvr/en-gb/environment.

STATEMENT OF QA/QC PERFORMANCE

SE191826C R0

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE191826C R0**
Date Received	24 May 2019
Date Reported	30 May 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date	Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)	13 items
	Moisture Content	13 items
	pH in soil (1:5)	13 items
Analysis Date	Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)	14 items

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	13 Soils
Date documentation received	24/5/19@11:34am	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE191826C R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR)

Method: ME-(AU)-[ENV]AN122

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP11	SE191826C.011	LB175018	16 Apr 2019	24 May 2019	14 May 2019	29 May 2019†	14 May 2019	30 May 2019†
TP12	SE191826C.012	LB175018	16 Apr 2019	24 May 2019	14 May 2019	29 May 2019†	14 May 2019	30 May 2019†
TP14	SE191826C.014	LB175018	16 Apr 2019	24 May 2019	14 May 2019	29 May 2019†	14 May 2019	30 May 2019†
TP17	SE191826C.017	LB175018	16 Apr 2019	24 May 2019	14 May 2019	29 May 2019†	14 May 2019	30 May 2019†
TP20	SE191826C.020	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
TP22	SE191826C.022	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
TP25	SE191826C.025	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
TP27	SE191826C.027	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
TP51	SE191826C.051	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
SP1-2	SE191826C.074	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
SP1-3	SE191826C.075	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
SP2-2	SE191826C.077	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†
SP2-3	SE191826C.078	LB175018	17 Apr 2019	24 May 2019	15 May 2019	29 May 2019†	15 May 2019	30 May 2019†

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP11	SE191826C.011	LB175074	16 Apr 2019	24 May 2019	30 Apr 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP12	SE191826C.012	LB175074	16 Apr 2019	24 May 2019	30 Apr 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP14	SE191826C.014	LB175074	16 Apr 2019	24 May 2019	30 Apr 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP17	SE191826C.017	LB175074	16 Apr 2019	24 May 2019	30 Apr 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP20	SE191826C.020	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP22	SE191826C.022	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP25	SE191826C.025	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP27	SE191826C.027	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
TP51	SE191826C.051	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
SP1-2	SE191826C.074	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
SP1-3	SE191826C.075	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
SP2-2	SE191826C.077	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019
SP2-3	SE191826C.078	LB175074	17 Apr 2019	24 May 2019	01 May 2019	30 May 2019†	04 Jun 2019	30 May 2019

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP11	SE191826C.011	LB175077	16 Apr 2019	24 May 2019	23 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP12	SE191826C.012	LB175077	16 Apr 2019	24 May 2019	23 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP14	SE191826C.014	LB175077	16 Apr 2019	24 May 2019	23 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP17	SE191826C.017	LB175077	16 Apr 2019	24 May 2019	23 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP20	SE191826C.020	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP22	SE191826C.022	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP25	SE191826C.025	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP27	SE191826C.027	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
TP51	SE191826C.051	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
SP1-2	SE191826C.074	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
SP1-3	SE191826C.075	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
SP2-2	SE191826C.077	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019
SP2-3	SE191826C.078	LB175077	17 Apr 2019	24 May 2019	24 Apr 2019	30 May 2019†	31 May 2019	30 May 2019

SURROGATES

SE191826C R0

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) — **Method: ME-(AU)-[ENV]AN122**

Sample Number	Parameter	Units	LOR	Result
LB175018.001	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0
LB175018.024	Exchangeable Sodium, Na	mg/kg	2	0
	Exchangeable Potassium, K	mg/kg	2	0
	Exchangeable Calcium, Ca	mg/kg	2	0
	Exchangeable Magnesium, Mg	mg/kg	2	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

pH in soil (1:5) — **Method: ME-(AU)-[ENV]AN101**

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE191826C.074	LB175077.014	pH	pH Units	0.1	7.0	7.1	31	1
SE191826C.078	LB175077.018	pH	pH Units	0.1	6.9	6.9	31	1

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) — Method: ME-(AU)-[ENV]AN122

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB175018.002	Exchangeable Sodium, Na	mg/kg	2	NA	72.68	80 - 120	105
	Exchangeable Potassium, K	mg/kg	2	NA	238.12	80 - 120	102
	Exchangeable Calcium, Ca	mg/kg	2	NA	692	80 - 120	102
	Exchangeable Magnesium, Mg	mg/kg	2	NA	134.2	80 - 120	99
LB175018.026	Exchangeable Sodium, Na	mg/kg	2	NA	72.68	80 - 120	104
	Exchangeable Potassium, K	mg/kg	2	NA	238.12	80 - 120	101
	Exchangeable Calcium, Ca	mg/kg	2	NA	692	80 - 120	102
	Exchangeable Magnesium, Mg	mg/kg	2	NA	134.2	80 - 120	99

pH in soil (1:5) — Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB175077.003	pH	pH Units	0.1	7.4	7.415	98 - 102	99

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

E-MAILED
24/5/19 @ 11:34am

SGS EHS Alexandria Laboratory
SE191826C COC
Received: 24 – May – 2019

GEOTECHNIQUE PTY LTD

1 LEMKO PLACE PENRITH NSW 2750 Tel: (02) 4722 2700

CHAIN OF CUSTODY

Results Required By: Normal Turnaround **Date:** Thursday, 30 May 2019
Except pH Results Required By [redacted] **Date:**
Your Reference No.: SE191826

TO: SGS
UNIT 16, 33 MADDOX STREET
ALEXANDRIA NSW 2015 Tel: 02 8594 0400

Sampled By: JH Ref No: 14450/1 Project Manager: ANWAR BARBHUYIA
Location: Riverstone

	Location	Depth (m)	Date	Soil	Water	Material	Metals As Cd Cr Cu Pb Hg Ni Zn	pH	CEC	CL8 TRH BTEX PAH	CL10 Metals* TRH BTEX PAH	CL16 Metals* TRH BTEX PAH OC PCB	Be B Co Mn Se	Mn	Cu	Pb	Ni	Zn	PAH	OCP	OCP & OPP	Phenol	Cyanide	VOC	OCP OPP & PCB
11	TP11	0.0-0.15	16/04/19	G		Clay		✓	✓																
12	TP12	0.0-0.15	16/04/19	G		Clay		✓	✓																
14	TP14	0.0-0.15	16/04/19	G		Clay		✓	✓																
17	TP17	0.0-0.15	16/04/19	G		Clay		✓	✓																
20	TP20	0.0-0.15	17/04/19	G		Clay		✓	✓																
22	TP22	0.0-0.15	17/04/19	G		Clay		✓	✓																
25	TP25	0.0-0.15	17/04/19	GP		Clay		✓	✓																
27	TP27	0.0-0.15	17/04/19	G		Clay		✓	✓																
51	TP51	0.0-0.15	17/04/19	G		Clay		✓	✓																
94	SP1-2	0.0-0.15	17/04/19	GP		Clay		✓	✓																
75	SP1-3	0.0-0.15	17/04/19	GP		Clay		✓	✓																
77	SP2-2	0.0-0.15	17/04/19	GP		Clay		✓	✓																
78	SP2-3	0.0-0.15	17/04/19	GP		Clay		✓	✓																

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
ANWAR BARBHUYIA	AB	24/05/19	[illegible]	[illegible]	24/5/19 @ 11:34

WG: Water sample (glass bottle) G Soil sample (glass jar) FCP Fibro Cement Piece (plastic bag) *: As,Cd,Cr,Cu,Pb,Hg,Ni & Zn (8 metals)
WP: Water sample (plastic bottle) P Soil sample (plastic bag) ✓ Test required

SAMPLE RECEIPT ADVICE

SE191826C

CLIENT DETAILS

Contact	Anwar Barbhuyia
Client	Geotechnique
Address	P.O. Box 880 PENRITH NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	anwar@geotech.com.au
Project	**14450-1 Riverstone Additional**
Order Number	(Not specified)
Samples	119

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 24/5/2019
Report Due	Thu 30/5/2019
SGS Reference	**SE191826C**

SUBMISSION DETAILS

This is to confirm that 119 samples were received on Friday 24/5/2019. Results are expected to be ready by COB Thursday 30/5/2019. Please quote SGS reference SE191826C when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	13 Soils
Date documentation received	24/5/19@11:34am	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	11.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

SAMPLE RECEIPT ADVICE

SE191826C

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
011	TP11 0.0-0.15	13	1
012	TP12 0.0-0.15	13	1
014	TP14 0.0-0.15	13	1
017	TP17 0.0-0.15	13	1
020	TP20 0.0-0.15	13	1
022	TP22 0.0-0.15	13	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826C

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
025	TP25 0.0-0.15	13	1
027	TP27 0.0-0.15	13	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826C

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
051	TP51 0.0-0.15	13	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE191826C

CLIENT DETAILS

Client Geotechnique

Project 14450-1 Riverstone Additional

SUMMARY OF ANALYSIS

No.	Sample ID	Exchangeable Cations and Cation Exchange Capacity	pH in soil (1:5)
074	SP1-2 0.0-0.15	13	1
075	SP1-3 0.0-0.15	13	1
077	SP2-2 0.0-0.15	13	1
078	SP2-3 0.0-0.15	13	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

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 216125

Client Details

Client	Geotechnique Pty Ltd
Attention	Anwar Barbhuyia
Address	PO Box 880, Penrith, NSW, 2751

Sample Details

Your Reference	**144450/1, Riverstone**
Number of Samples	8 Soil
Date samples received	18/04/2019
Date completed instructions received	23/04/2019

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	01/05/2019
Date of Issue	01/05/2019

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Results Approved By
Giovanni Agosti, Group Technical Manager
Hinoko Miyazaki, Senior Chemist
Jaimie Loa-Kum-Cheung, Metals Supervisor

Authorised By

Nancy Zhang, Laboratory Manager

Organophosphorus Pesticides		
Our Reference		216125-1
Your Reference	UNITS	Z1
Composite Reference		-
Date Sampled		15-16/04/2019
Type of sample		Soil
Date extracted	-	24/04/2019
Date analysed	-	24/04/2019
Azinphos-methyl (Guthion)	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Diazinon	mg/kg	<0.1
Dichlorvos	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Ethion	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Malathion	mg/kg	<0.1
Parathion	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Surrogate TCMX	%	81

Organochlorine Pesticides in soil		
Our Reference		216125-1
Your Reference	UNITS	Z1
Composite Reference		-
Date Sampled		15-16/04/2019
Type of sample		Soil
Date extracted	-	24/04/2019
Date analysed	-	24/04/2019
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1
Surrogate TCMX	%	81

Acid Extractable metals in soil			
Our Reference		216125-7	216125-8
Your Reference	UNITS	CSS1	CSS2
Composite Reference		1 + 2 + 3	4 + 5 + 6
Date Sampled		15-16/04/2019	15-16/04/2019
Type of sample		Soil	Soil
Date prepared	-	24/04/2019	24/04/2019
Date analysed	-	24/04/2019	24/04/2019
Arsenic	mg/kg	7	7
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	15	13
Copper	mg/kg	3	6
Lead	mg/kg	13	15
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	2	4
Zinc	mg/kg	6	16

Moisture				
Our Reference		216125-1	216125-7	216125-8
Your Reference	UNITS	Z1	CSS1	CSS2
Composite Reference		-	1 + 2 + 3	4 + 5 + 6
Date Sampled		15-16/04/2019	15-16/04/2019	15-16/04/2019
Type of sample		Soil	Soil	Soil
Date prepared	-	24/04/2019	24/04/2019	24/04/2019
Date analysed	-	26/04/2019	26/04/2019	26/04/2019
Moisture	%	13	14	17

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-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.

QUALITY CONTROL: Organophosphorus Pesticides						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
Date analysed	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Chlorpyriphos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dichlorvos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	129	[NT]
Malathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	94	[NT]
Parathion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	110	[NT]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NT]	[NT]	108	[NT]
Surrogate TCMX	%		Org-008	103	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date extracted	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
Date analysed	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	92	[NT]
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	122	[NT]
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	112	[NT]
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	123	[NT]
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	114	[NT]
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	115	[NT]
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate TCMX	%		Org-005	103	[NT]	[NT]	[NT]	[NT]	87	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
Date analysed	-			24/04/2019	[NT]	[NT]	[NT]	[NT]	24/04/2019	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	102	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	107	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]

Result Definitions

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

Quality Control Definitions

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

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

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

Duplicates: >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; 60-140% for organics (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

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

Measurement Uncertainty estimates are available for most tests upon request.

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

Job No: 216125
Date Received: 18/4/2019 COC 23/4/2019
Time Received: 16.55 13:30
Received by: PL
Temp: Cool/Ambient
Cooling: Ice/Icepack 14.2
Security: Intact/Broken/None

GEOTECHNIQUE PTY LTD

Laboratory Test Request / Chain of Custody Record

Lemko Place
PENRITH NSW 2750 Tel: (02) 4722 2700

TO: ENVIROLAB SERVICES PTY LD
12 ASHLEY STREET
CHATSWOOD NSW 2067

PH: 02 9910 6200

ATTN: MS AILEEN HIE

Sampling By: JH
Ref No: 14450/1
Project:
Project Manager: AB
Location: Riverstone

Results required by: NORMAL TURNAROUND TIME

	Sampling details			Sample type											
	Location	Depth (m)	Date	Time	Soil	Water	METALS As, Cd, Cr, Cu, Pb, Hg, Ni and Zn	TRH & BTEX	PAH	OCP	OPP	PHENOL	CYANIDE	COMBO NO		
1	Z1		15/04/2019	-	G					✓	✓					
2	Z2		15/04/2019	-	G											
3	Z3		15/04/2019	-	G											
4	Z4		16/04/2019	-	G											
5	Z5		16/04/2019	-	G											
6	Z6		16/04/2019	-	G											

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
ANWAR BARBHUYIA	AB	18/04/2019	Ray		23/4/2019

Legend:
WG Water sample, glass bottle
WP Water sample, plastic bottle
G Soil sample (glass jar)
P Soil sample (plastic bag)
✓ Test required

GEOTECHNIQUE PTY LTD

ENVIROLAB SERVICES

Sampling Date: 15/4 & 16/4/2019 Job No: 14450/1
Sampled by: JH
Project Manager: AB Location: Riverstone

Results Required by: Normal TAT

Composite Sample	Sub-Samples	Analyte	
		Metals	OCP
CSS1	Z1 + Z2 + Z3	✔	
CSS2	Z4 + Z5 + Z6	✔	

✔ Test required

Metals include arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni) and zinc (Zn)

AB
180/04/2019
(ANWAR BARBHUYIA)
Geotechnique Pty Ltd

216125 23/4/2019

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	Geotechnique Pty Ltd
Attention	Anwar Barbhuyia

Sample Login Details

Your reference	144450/1, Riverstone
Envirolab Reference	216125
Date Sample Received	18/04/2019
Date Instructions Received	23/04/2019
Date Results Expected to be Reported	01/05/2019

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	14.2
Cooling Method	Ice Pack
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	Organophosphorus Pesticides	Organochlorine Pesticidesin soil	Acid Extractable metalsin soil	On Hold
Z1	✓	✓		
Z2				✓
Z3				✓
Z4				✓
Z5				✓
Z6				✓
CSS1			✓	
CSS2			✓	

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.

APPENDIX G

UNEXPECTED FINDS MANAGEMENT PROTOCOL

GEOTECHNIQUE® PTY LTD

ABN 64 002 841 063

UNEXPECTED FINDS MANAGEMENT PROTOCOL

LOT B IN DP362093 AND LOTS 12 & 13 SECTION O IN DP712 167 RIVERSTONE ROAD AND REGENT STREET, RIVERSTONE

In the event that unexpected finds and/or suspect materials (identified by unusual staining, odour, discolouration or inclusions such as building rubble, asbestos sheeting/pieces/pipes, ash material, imported fill, etc.) are encountered during future earthworks/demolitions or in between sampling locations, the following actions are to be undertaken.

Management of unexpected finds and/or suspect materials
If unexpected finds and/or suspect materials are encountered:

- Works are to be ceased.
- An Environmental consultant is to be engaged to take appropriate action.
- If contamination is identified, the contaminated materials must be disposed of at an EPA licensed landfill facility with an appropriate waste classification.

Management of bonded asbestos containing material (ACM)
If ACM is encountered, the following measures are implemented:

- Engage a Class B Licence for bonded asbestos contractor.
- Removal of the asbestos waste must be carried out in accordance with the requirements of the regulators, such as SafeWork NSW and NSW EPA.
- A competent personnel or a SafeWork NSW Licensed Asbestos Assessor or a Professional Hygienist should be engaged to provide a clearance certificate.

Management of friable asbestos within the soil
It is recommended that the following measures are implemented if friable asbestos is encountered:

- Engage a Class A licensed contractor for friable asbestos
- Removal of the asbestos waste must be carried out in accordance with the requirements of the regulators, such as SafeWork NSW and NSW EPA
- A SafeWork NSW Licensed Asbestos Assessor or a Professional Hygienist must be engaged to provide a clearance certificate

Lemko Place, Penrith NSW 2750 PO Box 880, Penrith NSW 2751
Telephone (02) 4722 2700 Facsimile (02) 4722 2777
e-mail: info@geotech.com.au www.geotech.com.au

APPENDIX H

ENVIRONMENTAL NOTES

IMPORTANT INFORMATION REGARDING YOUR ENVIRONMENTAL SITE ASSESSMENT

These notes have been prepared by Geotechnique Pty Ltd, using guidelines prepared by the ASFE (Associated Soil and Foundation Engineers). The notes are offered to assist in the interpretation of your environmental site assessment report.

REASONS FOR AN ENVIRONMENTAL ASSESSMENT

Environmental site assessments are typically, though not exclusively, performed in the following circumstances:

- As a pre-acquisition assessment on behalf of either a purchaser or a vendor, when a property is to be sold
- As a pre-development assessment, when a property or area of land is to be redeveloped, or the land use has changed e.g. from a factory to a residential subdivision
- As a pre-development assessment of greenfield sites, to establish baseline conditions and assess environmental, geological and hydrological constraints to the development of e.g. a landfill
- As an audit of the environmental effects of previous and present site usage

Each circumstance requires a specific approach to the assessment of soil and groundwater contamination. In all cases the objective is to identify and if possible quantify the risks that unrecognised contamination poses to the ongoing proposed activity. Such risks may be both financial (clean-up costs or limitations in site use) and physical (health risks to site users or the public).

ENVIRONMENTAL SITE ASSESSMENT LIMITATIONS

Although information provided by an environmental site assessment can reduce exposure to the risk of the presence of contamination, no environmental site assessment can eliminate the risk. Even a rigorous professional assessment may not detect all contamination within a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which did not show signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant that may occur; only the most likely contaminants are screened.

AN ENVIRONMENTAL SITE ASSESSMENT REPORT IS BASED ON A UNIQUE SET OF PROJECT SPECIFIC FACTORS

In the following events and in order to avoid cost problems, you should ask your consultant to assess any changes in the conclusion and recommendations made in the assessment:

- When the nature of the proposed development is changed e.g. if a residential development is proposed, rather than a commercial development
- When the size or configuration of the proposed development is altered e.g. if a basement is added
- When the location or orientation of the proposed structure is modified
- When there is a change of land ownership, or
- For application to an adjacent site

ENVIRONMENTAL SITE ASSESSMENT FINDINGS ARE PROFESSIONAL ESTIMATES

Site assessment identifies actual sub-surface conditions only at those points where samples are taken, when they are taken. Data obtained from the sampling and subsequent laboratory analyses are interpreted by geologists, engineers or scientists and opinions are drawn about the overall sub-surface conditions, the nature and extent of contamination, the likely impact on any proposed development and appropriate remediation measures. Actual conditions may differ from those inferred, because no professional, no matter how qualified and no sub-surface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, however, steps can be taken to help minimise the impact. For this reason site owners should retain the services of their consultants throughout the development stages of the project in order to identify variances, conduct additional tests that may be necessary and to recommend solutions to problems encountered on site.

Soil and groundwater contamination is a field in which legislation and interpretation of legislation by government departments is changing rapidly. Whilst every attempt is made by Geotechnique Pty Ltd to be familiar with current policy, our interpretation of the investigation findings should not be taken to be that of the relevant authority. When approval from a statutory authority is required for a project, approval should be directly sought.

STABILITY OF SUB-SURFACE CONDITIONS

Sub-surface conditions can change by natural processes and site activities. As an environmental site assessment is based on conditions existing at the time of the investigation, project decisions should not be based on environmental site assessment data that may have been affected by time. The consultant should be requested to advise if additional tests are required.

ENVIRONMENTAL SITE ASSESSMENTS ARE PERFORMED FOR SPECIFIC PURPOSES AND CLIENTS

Environmental site assessments are prepared in response to a specific scope of work required to meet the specific needs of specific individuals e.g. an assessment prepared for a consulting civil engineer may not be adequate to a construction contractor or another consulting civil engineer.

An assessment should not be used by other persons for any purpose or by the client for a different purpose. No individual, other than the client, should apply an assessment, even for its intended purpose, without first conferring with the consultant. No person should apply an assessment for any purpose other than that originally contemplated, without first conferring with the consultant.

MISINTERPRETATION OF ENVIRONMENTAL SITE ASSESSMENTS

Costly problems can occur when design professionals develop plans based on misinterpretation of an environmental site assessment. In order to minimise problems, the environmental consultant should be retained to work with appropriate design professionals, to explain relevant findings and to review the adequacy of plans and specifications relative to contamination issues.

LOGS SHOULD NOT BE SEPARATED FROM THE REPORT

Borehole and test pit logs are prepared by environmental scientists, engineers or geologists, based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these would not be redrawn for inclusion in site remediation or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however, contractors can still misinterpret the logs during bid preparation if separated from the text of the assessment. Should this occur, delays and disputes, or unanticipated costs may result.

To reduce the likelihood of borehole and test pit log misinterpretation, the complete assessment should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of sub-surface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations, such as contractors.

READ RESPONSIBILITY CLAUSES CLOSELY

An environmental site assessment is based extensively on judgement and opinion; therefore, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. In order to aid in prevention of this problem, model clauses have been developed for use in written transmittals. These are definitive clauses, designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site assessment and you are encouraged to read them closely. Your consultant will be happy to give full and frank answers to any questions you may have.