PROVINCIAL GEOTECHNICAL PTY. LTD.

CONSULTING GEOLOGISTS

A.B.N. 88 090 400 114

PRELIMINARY SITE INVESTIGATION ENVIRONMENTAL

DATE: 4th November 2021

CLIENT: H4 PROJECT GROUP
2/24 RAPTOR PLACE
SOUTH GEELONG VIC 3220

SITE: 672-690 Portarlington Road
LEOPOLD, VICTORIA

REF. NO: 18195J

COMMISSION: Preliminary Site Investigation for potential contamination.

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1. INTRODUCTION:

Provincial Geotechnical Pty Ltd was commissioned by H4 Project Group to undertake a Preliminary Site Investigation (P.S.I.) at 672-690 Portarlington Road, Leopold, Victoria.

The Land Channel Property Report for the site is appended (Appendix i).

The purpose of this P.S.I. was to assess the presence or otherwise of contamination on the site as a result of past site activities (i.e. contaminating activities carried out on site).

We understand that this investigation is part of a due diligence process requested by the client as it is proposing to develop part of the site with a new development and rezoning comprising of residential land use, with potential commercial land use on the corner of Portarlington Road and Melaluka Road (ie. North-western portion of the subject site).

2. SCOPE OF WORKS:

The scope of works undertaken by Provincial Geotechnical Pty Ltd for the investigation include:

- Site Inspection
- Soil sampling program
- Laboratory analysis
- Provision of Preliminary Site Investigation Report

This site's proposed land use can be classified as "Sensitive Uses". As a result of my inspection of the site I have determined that the potential for contamination is less than medium and therefore the appropriate level of assessment is "C-D".

I note that there is no prescribed level of assessment for low or no potential for contamination. However, my application of "C-D" is considered sufficient for this site.

I acknowledge that the property is currently reasonably classified as an existing sensitive use being a residential lot supporting an existing dwelling and outbuildings.

Alternatively, a pre-determined level of classification of "C" allows for an assessment of the site to decide the appropriate recommendation and in this case an audit is not deemed necessary.

The Planning Practice Note is appended for reference (Appendix ii).

2. SCOPE OF WORKS CONTINUED:

"Based on all available information, the soil at the Site has a **Low risk** of contamination. This view is formed based on:

- The existing residential use and no history of commercial use.
- The site's location with the urban settlement boundary and strategic intent for this site to be located within a residential zone.
- The soil testing and physical inspection undertaken.
- There is a Low likelihood of chemical contamination of soil in the paddocks due to application of fertilizers and/or herbicides.
- The Site is surrounded by low-risk properties.
- There is no apparent soil staining, soil discoloration or odors at the Site.
- There is no apparent asbestos contamination.
- There is no apparent Prescribed Industrial Waste or Putrescible Waste.

We consider this PSI to be adequate to support the rezoning. With consideration to the Planning Practice Note 30, Potentially Contaminated Land (July 2021) and whether an auditor is required to prepare a PRSA, we note this is "preferred" but is not mandatory and the Practice Note confirms that a PRSA can be deferred in certain situations. In this case, while we are satisfied that the site is **low risk** and suitable for rezoning, if considered necessary, a PRSA could be deferred to a condition of a residential subdivision permit or more intensive sensitive land use. The Practice Note also confirms this can be appropriate when there will be a "subsequent planning approval required" This is the case here where Planning Permits are still required for future land use and/or development. The Practice Note also confirms that tan exemption can be requested where the land is already used for a sensitive use, agriculture or open space as is the case here"

3. SITE DESCRIPTION:

The site is part of a residentially developed allotment located within a rural residential setting.

The site slope is negligible.

There is current physical subsurface evidence on site of historical land usage prior to its current use. We consider this was a "greenfield" site prior to the existing residential development.

There is no evidence of any contamination on the site. We note that this assessment relates only to 672-690 Portarlington Road, and we have not undertaken an assessment of 692-700 Portarlington Road.

Aerial & Site Photographs are appended to exhibit current and past site conditions (Appendix iii).

4. SITE GEOLOGY:

Underlying site Geology is Quaternary aged sediments (Map code Qc1). Appended is a Geovic Map delineating the site location within the regional Geology (Appendix iv).

A Mine Subsidence Hazard Report was sourced to identify any records of historical workings on the allotment.

5. TESTING PROGRAM:

A comprehensive geotechnical testing program was undertaken with 9 test sites established to determine subsurface soil conditions.

Appended is the Test Site Location Plan (Appendix v). Nine (9) samples in total were retrieved from variable depths for discrete laboratory analysis.

The sampling program did not include sampling of ground water.

6. POTENTIAL CONTAMINANTS ANALYSED:

Laboratory analysis included the following:

i. Heavy Metal Screen
   - Arsenic
   - Cadmium
   - Chromium
   - Copper
   - Lead
   - Mercury
   - Nickel
   - Zinc

ii. Asbestos

7. CRITERIA:

The following criteria were used for threshold comparison.

1. EPA Soil Hazard Categorisation and Management IWRG – 621 – June 2009.
2. N.E.P.M Schedule B1 – Guidelines for Investigation for Soils and Groundwater (Amended 16 May 2013).

Copies of the relevant extracts from these documents are attached (Refer to Appendix vi).

8. FINDINGS:

8.1 SITE INVESTIGATION

A visual inspection of permanent land features of the site was undertaken which is a residential lifestyle allotment with a dwelling, usual outbuildings, vegetation and fencing. We are of the opinion that the site is original undisturbed ground (ie: Greenfield). There was some clean fill over the north-western portion of the site, with undisturbed (natural ground) below the fill.

For the reasons outlined above, we satisfied the site is low risk and suitable for rezoning.

There was no evidence recorded of unusual natural soil conditions.

In respect to other forms of potential contamination we did not observe any of the following:

1. visual evidence of contamination.
2. olfactory evidence of contamination.
3. evidence of rubble, refuse or organics.

The Mine Subsidence Hazard Report reads that their records do not indicate the presence of any mining activity on this site, and the site appears to be outside any known mined area (Appendix vii).

8.2 LABORATORY ANALYSIS

Comparison to the E.P.A Soil Hazard Categorisation & Management Table 2.

8.2.1 HEAVY METALS

i. Arsenic

Concentrations between 8 p.p.m. and 13 p.p.m. All 9 samples below upper threshold concentrations of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3 (20 p.p.m.).

ii. Cadmium

Concentrations <0.1 p.p.m. All 9 samples below threshold concentrations of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3 (3 p.p.m.).

iii. Chromium

Concentrations between 19 p.p.m. and 35 p.p.m. No threshold criteria available.

8.2.1 HEAVY METALS CONTINUED

iv. Copper

Concentrations between 4 p.p.m. and 10 p.p.m. All 9 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (100 p.p.m.).

v. Lead

Concentrations between 11 p.p.m. and 34 p.p.m. All 9 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (300 p.p.m.).

vi. Mercury

Concentrations <0.1 p.p.m. All 9 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (1 p.p.m.).

vii. Nickel

Concentrations between 12 p.p.m. and 20 p.p.m. All 9 samples below threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (60 p.p.m).

viii. Zinc

Concentrations between 15 p.p.m. and 44 p.p.m. All 9 samples below upper threshold of Fill Material of Table 2 of E.P.A. Classifications of Waste 448.3. (200 p.p.m.).

8.2.2 ASBESTOS

No detectable concentrations.

COMPARISON TO NEPM SCHEDULE B1 TABLE 1A (1) – HEALTH INVESTIGATION LEVELS FOR SOIL CONTAMINANTS.

All samples for potential Heavy Metal contaminants yielded concentrations below the threshold for Exposure Setting A which is the relevant exposure setting applied to this site (Residential).

9. CONCLUSION:

Based on the physical site investigation undertaken this site does not indicate evidence of contamination or historical contaminating activities that would prevent development of the existing site for the proposed use.

Based on the laboratory analysis program undertaken, this site does not yield concentrations of the analytes tested to a level of concern in respect to human health for the proposed site use including rezoning.

Please contact this office if you require further information or assistance.

ANDREW REDMAN BSc.
GEOLOGIST.
AR: KT

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APPENDIX i

SITE LOCALITY PLAN - PROPERTY REPORT

PROPERTY REPORT

Environment, Land, Water and Planning

From www.planning.vic.gov.au at 04 November 2021 01:50 PM

PROPERTY DETAILS

Lot and Plan Number:	**Lot 1 LP85129**
Address:	**672-690 PORTARLINGTON ROAD LEOPOLD 3224**
Standard Parcel Identifier (SPI):	**1\LP85129**
Local Government Area (Council):	**GREATER GEELONG** www.geelongaustralia.com.au
Council Property Number:	**258366**
Directory Reference:	**Melway 454 D11**

This parcel is in a designated bushfire prone area.
Special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au

SITE DIMENSIONS

All dimensions and areas are approximate. They may not agree with those shown on a title or plan.

Area: 20537 sq. m (2.05 ha)
Perimeter: 573 m
For this property:
— Site boundaries
— Road frontages

Dimensions for individual parcels require a separate search, but dimensions for individual units are generally not available.

Calculating the area from the dimensions shown may give a different value to the area shown above

For more accurate dimensions get copy of plan at Title and Property Certificates

UTILITIES

Rural Water Corporation:	**Southern Rural Water**
Urban Water Corporation:	**Barwon Water**
Melbourne Water:	**Outside drainage boundary**
Power Distributor:	**POWERCOR**

STATE ELECTORATES

Legislative Council:	**WESTERN VICTORIA**
Legislative Assembly:	**BELLARINE**

PLANNING INFORMATION

Planning Zone: FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE (FZ)

Planning Overlay: None

PROPERTY REPORT

Environment, Land, Water and Planning

Planning scheme data last updated on 28 October 2021.

A **planning scheme** sets out policies and requirements for the use, development and protection of land.
This report provides information about the zone and overlay provisions that apply to the selected land.
Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council
or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.***
It does not include information about exhibited planning scheme amendments, or zonings that may abut the land.
To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit
https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

Area Map

APPENDIX ii

PLANNING PRACTICE NOTE

Potentially Contaminated Land

Planning Practice Note 30

July 2021

The purpose of this practice note is to provide guidance for planners and applicants on:

- How to identify potentially contaminated land
- The appropriate level of assessment of contamination in different circumstances
- Appropriate provisions in planning scheme amendments
- Appropriate conditions on planning permits

Introduction and overview

Land use planning and potentially contaminated land

Development of land provides an opportunity to address contamination and mitigate any risks posed to human health, the environment, and building and structures. Contaminated land can often be safely used and developed following appropriate remediation, provided any necessary controls to manage residual contamination are implemented.

While many parties have obligations in managing potentially contaminated land, including duties under the *Environment Protection Act 2017*, this practice note provides advice about the role of the planning system and applies to situations where a planning approval or control applies.

What is potentially contaminated land?

Potentially contaminated land is defined in *Ministerial Direction No.1 - Potentially Contaminated Land* and Clause 73.01 General Terms of the *Victoria Planning Provisions* (VPP) as land:

(a) used or known to have been used for industry or mining;

(b) used or known to have been used for the storage of chemicals, gas, waste or liquid fuel (other than minor above-ground storage that is ancillary to another use of the land); or

(c) where a known past or present activity or event (occurring on or off the land) may have caused contamination on the land.

How is potentially contaminated land considered in the planning system?

Planning scheme amendments

Section 12 of the *Planning and Environment Act 1987* requires a planning authority, when preparing a planning scheme or planning scheme amendment to 'take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment'.

Ministerial Direction No. 1 – Potentially Contaminated Land contains more specific requirements for land which is determined to be potentially contaminated. Additional requirements apply for land proposed to be used for sensitive uses, defined as residential uses, child care centres, kindergartens, pre-school centres or primary schools, even if ancillary to another use, and for secondary schools and children's playgrounds. Where an amendment allows these uses (whether or not subject to a permit) a process under the

environmental audit system, administered by the Environment Protection Authority (EPA), is required to demonstrate that the land is suitable for its intended use. *Ministerial Direction No. 1* also details requirements for amendments relating to public open space and agriculture.

Where land has been determined to be potentially contaminated, but it is difficult or inappropriate to meet environmental audit system requirements at the amendment stage, the application of the *Environmental Audit Overlay* (EAO) to the land allows deferment of these requirements. The EAO is a mechanism provided in the VPP and planning schemes to ensure that requirements under *Ministerial Direction No. 1* are met before the commencement of a sensitive use (or children's playground or secondary school), or the construction or carrying out of any buildings and works associated with those uses. Applying the overlay ensures the requirements will be met in the future but does not prevent the assessment and approval of a planning scheme amendment.

Ministerial Direction No. 19 – Preparation and Content of Amendments that May Significantly Impact the Environment, Amenity and Human Health requires a planning authority to seek the views of EPA when undertaking a strategic planning process and preparing a planning scheme amendment that may significantly impact Victoria's environment, amenity and/or human health due to pollution and waste, including those relating to potentially contaminated land.

A planning authority must also consider the Planning Policy Framework of the VPP, including clause 13.04-1S *Contaminated and potentially contaminated land*. Clause 13.04 -1S aims to ensure that contaminated and potentially contaminated land is or will be suitable for its intended future use and development, and that this land is used and developed safely.

Planning permits and planning scheme requirements

Section 60 of the *Planning and Environment Act 1987* requires a responsible authority, before deciding on a permit application, to consider 'any significant effects which the responsible authority considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development'. Section 60 is applicable to potentially contaminated land, which may affect, or be affected by, use or development.

Clause 65.01 of the VPP requires a responsible authority, before deciding on a permit application or approval of a plan to consider as appropriate 'Any significant effects the environment, including the contamination of land, may have on the use or development'. A responsible authority must also consider relevant planning policy including clause 13.04-1S within the Planning Policy Framework of the VPP. Clause 13.04-1S aims to ensure that contaminated and potentially contaminated land is or will be suitable for its intended future use and development, and that this land is used and developed safely. Clause 13.04-1S defines sensitive uses, warranting additional protection, as residential uses, child care centres, kindergartens, pre-school centres or primary schools, even if ancillary to another use, and also for secondary schools and children's playgrounds.

In some cases, potentially contaminated land will have been previously identified through a planning scheme amendment process under *Ministerial Direction No. 1* and included in an EAO or other appropriate measure. The presence of an EAO means a determination has already been made that land is potentially contaminated, and that a process under the environmental audit system will be required before the land is used or developed for a sensitive use, a secondary school or children's playground.

Please refer to Appendix 1 and Appendix 3 for a summary of the planning regulatory framework and an overview of roles and responsibilities. Further information regarding the broader legislative and policy framework for managing contaminated and potentially contaminated land can be found at

https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection

What is the environmental audit system?

The environmental audit system is legislated under the *Environment Protection Act 2017*, and provides for the appointment of environmental auditors by EPA, and a system of preliminary risk screen assessments (PRSA) and environmental audits, which may be used to inform land use planning for potentially contaminated land. These processes provide a high level of assurance as auditors must be independent and are responsible to EPA and the people of Victoria.

Under s 204 of the *Environment Protection Act 2017*, the purpose of a PRSA is to:

- *assess the likelihood of the presence of contaminated land; and*
- *determine if an environmental audit is required; and*
- *if an environmental audit is required, to recommend a scope for the environmental audit.*

Under s 208 of the *Environment Protection Act 2017*, the purpose of an environmental audit for land use planning purposes is to:

- *assess the nature and extent of the risk of harm to human health or the environment from the contaminated land*
- *recommend measures to manage the risk of harm to human health of the environment from the contaminated land*
- *make recommendations to manage the contaminated land, waste, pollution or activity*

When an environmental audit is specifically for land use planning purposes, the scope of the audit must identify the proposed use of the site. Where an audit assesses the use or proposed use of the site, an auditor must include a statement regarding the suitability of the site. The auditor will make one of the following three statements:

- *the site is suitable for the purposes specified in the statement; or*
- *the site is suitable for the purposes specified in the statement if the recommendations made in the statement are complied with; or*
- *the site is not suitable for the purposes specified in the statement at the time the statement was prepared.*

Both a PRSA and environmental audit result in the issue of a formal statement and accompanying report which is publicly available on the EPA website. Under s 210 of the *Environment Protection Act 2017*, the statement must be provided to the relevant planning and responsible authority within five business days of issue. The person in management or control of the site must also provide a copy of any statement to any person who proposes to become the person in management or control of the site (for example a potential purchaser). An environmental audit or PRSA statement reflects the condition of the site at the date of issue.

Further information on the environmental audit system can be found in Appendix 2 and on the **EPA website**.

What is the National Environment Protection (Assessment of Site Contamination) Measure?

The National Environment Protection (Assessment of Site Contamination Measure 1999 (ASC NEPM) establishes a nationally consistent approach to the assessment of site contamination by regulators, site assessors, auditors, landowners and developers. Processes under the environmental audit system follow the ASC NEPM methodology, and other contaminated land investigations conducted by suitably qualified environmental consultants should also adhere to it.

The ASC NEPM establishes the first stage of investigations for contaminated sites as the *Preliminary Site Investigation* (PSI), a primarily desktop investigation to establish the site history, and develop a conceptual site model (CSM). The CSM will identify likely sources of contamination, and any pathways for contamination to reach receptors (such as site occupants), under the land use/development scenario. The purpose of the PSI is to recommend whether the land warrants further field investigation. Where this is the case, the NEPM provides standards for further assessment.

Further information on investigations defined under the NEPM can be found in Appendix 2 of this practice note or on the **NEPC website**.

Assessing strategic and statutory planning proposals for potentially contaminated land

Three key steps are involved in assessing a planning proposal relating to potentially contaminated land, as set out in Figure 1 below. The following sections provide context on each step. Where applicable, this is divided into sections specific to strategic or statutory planning.

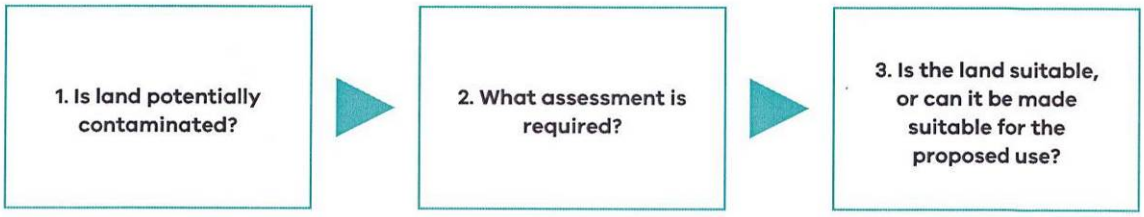

Figure 1: Process for assessing a planning proposal for potentially contaminated land.

1. Is land potentially contaminated?

To determine whether land is potentially contaminated land, it is necessary to obtain information on current and past land uses and identify any which are potentially contaminating. Many planning and responsible authorities determine potentially contaminated land systematically across their area of jurisdiction and maintain a spatial database. This approach is encouraged, but potential contamination may also be determined on a case-by-case basis when preparing an amendment or assessing a permit application.

How is potentially contaminated land identified?

A range of information sources exists on potentially contaminating land uses. Information sources set out in Table 1 should be consulted. These include council records, EPA/DELWP publicly available databases, and applicant information. Other sources, such as the additional resources in the references section, may also be utilised.

Table 1: Basic information sources for identifying potentially contaminated land

Planning/ responsible authority information	• Presence of EAO (while noting that not all potentially contaminated sites will have an EAO). • Current and previous zoning, planning or building permits, ownership or activities for the site and surrounds. • Any known contamination investigations or other relevant environmental assessments.
Public databases	• Victoria Unearthed https://mapshare.vic.gov.au/victoriaunearthed/ which brings together existing information on potential land and groundwater information, including EPA datasets and historical land use information from Sands and McDougall. • Databases on the EPA website www.epa.vic.gov.au, including EPA's Public Register, which provides access to PRSA and environmental audit statements, information on licenced businesses, court proceedings and other regulatory information. EPA's database of groundwater quality restricted use zones also includes information on past land uses.
Application/ proposal information	• Information from a site analysis presented in accordance with clauses 54.01-1 or 55.01-1 of the VPP. • Observations by responsible authority officers during a site inspection.

Obtaining this information is a shared responsibility and every effort should be made by the applicant or proponent to obtain this information prior to submitting an application or planning scheme amendment.

When should additional information be required from the applicant?

If there is insufficient information to determine the current and historical uses of land and its surrounds following the review of information sources in Table 1, a site history review (as described in Appendix 2) may be commissioned to gather further information. The site history review may be obtained through a request to the proponent or applicant under s 54 of the *Planning and Environment Act 1987*. A request for a site history review must be made prior to a decision on a planning scheme amendment or permit application, to ensure that a determination on whether land is potentially contaminated can be reached.

If the review of the current and historical use of the land and surrounds shows a history of non-contaminating activities and there is no other evidence or suspicion for contamination, further investigation is not required.

What land uses or activities might indicate potential contamination?

Table 2 lists the types of land uses that may have potential for contaminating land.

Land defined as contaminated land under the *Environment Protection Act 2017* will generally also meet the broader definition of potentially contaminated land.

Table 2: Land uses with potential to contaminate land

High potential for contamination		Medium potential for contamination
Abattoir	Fuel storage depot	**Ancillary use or activities**
Abrasive blasting	Gasworks	In some cases, while the land use onsite may be benign, an ancillary land use or even a one-off activity or event has the potential to cause contamination. Examples include: • Above ground storage of chemicals or fuels (where such storage is ancillary to the primary site activities but is not minor) • Waste disposal such as illegal dumping • Stockpiles of imported fill
Airport	Glass manufacture	
Asbestos production/disposal	Iron and steel works	
Asphalt manufacturing	Landfill sites/waste depots	
Automotive repair/engine works	Lime works	
Battery manufacturing/ recycling	Materials recycling and transfer stations	
Bitumen manufacturing	Mass animal burial on agricultural sites	**Adjacent contaminating activity**
Boat building/maintenance	Metal coating / electroplating	For the activities listed below, potential for contamination from adjoining land, and, if there is reason to suspect further offsite contamination, other nearby land, should be considered.
Breweries/distilleries	Metal finishing and treatments	Automotive repair/engine works
Brickworks	Metal smelting/refining/finishing	Bitumen Manufacturing
Cement manufacture	Mining and extractive industries[1]	Chemical Manufacturing/storage/blending
Ceramic works	Oil or gas production/refining	Council Works Depot
Chemical manufacturing/ storage/blending	Pest control depots	Gasworks
Chemical treatment / destruction facilities	Printing shops	Defence works
Coke works	Pulp or paper works	Dry Cleaning
Compost manufacturing	Railway yards	Electrical/ electrical components manufacturer
Concrete batching	Scrap metal recovery	Electroplating
Council works depot	Service stations/fuel storage	Landfill
Defence works	Sewage treatment plant	Service station
Drum re-conditioning facility	Ship building/breaking yards	Fuel storage depot
Dry cleaning	Shipping facilities – bulk (rate <100 t/day)	Tannery
Electrical/electrical components manufacture	Shooting or gun clubs	Underground storage tanks
Electricity generation/power station	Stock dipping sites	
Electroplating	Tannery (and associated trades)	**Agriculture and animal production**
Explosives industry	Textile operations	While most agricultural land is not likely to be contaminated, the potential for specific contaminating activities to have occurred over time should be considered, including: • Commercial use of pesticides (including herbicides, fungicides etc) • Biosolids application to land • Farm waste disposal See also activities in the 'high' category.
Fertiliser manufacture or storage	Timber preserving/treatment	
Fibreglass reinforced plastic manufacture	Tyre manufacturing	
Fill sites	Underground storage tanks	
Firefighting or training (use of foams)	Utility depots	
Foundry	Waste treatment/incineration/ disposal	
	Wool scouring	

This list is advisory in nature and is not exhaustive.

1 Strategies or programs may apply for regional historical goldmining activities.

2. What assessment is required?

If land is determined to be potentially contaminated, the planning or responsible authority must require appropriate assessment as part of a planning scheme amendment or permit application.

Which assessment approach is appropriate?

For proposals involving sensitive uses, children's playgrounds or secondary schools on potentially contaminated land, *Ministerial Direction No. 1* and the EAO allow for either an environmental audit or a PRSA to be undertaken. Under the provisions of clause 13.04-1S an audit or PRSA may also be required for permit applications where no EAO applies. The role of a PRSA is to determine the need for an environmental audit.

The decision whether to undertake a PRSA or proceed directly to audit will depend on the potential for contamination and the proposal, as set out in Table 3 below. A PRSA is recommended for scenarios where it is uncertain whether an audit is warranted: specifically those with lower potential for contamination (in the medium category in Table 2) or for sites where the proposal is relatively minor – i.e. involving modifications to an existing use, rather than a change in use. For sites in the 'high' contamination category, where a new sensitive use is established, proceeding directly to audit is recommended, as there will usually be reasonable certainty that an audit will be required, and this approach is likely to provide the most efficient outcome.

Where the land has been identified as having a 'high' potential for contamination, but a use other than a sensitive use, children's playground, or secondary school is proposed, a planning or responsible authority may require a preliminary site investigation (PSI), to inform decision making on next steps, including whether an environmental audit is warranted.

As the purpose of the PSI is to inform decision making on what (if any) requirements should be applied to a planning approval to address potential contamination, the PSI should be requested prior to notice being given for an amendment, or prior to a permit decision.

When requiring a PSI, the planning or responsible authority may specify that the limitations section of the PSI does not preclude reliance on the PSI by the planning or responsible authority. If a planning or responsible authority needs assistance in reviewing a PSI, further guidance on managing PSI requirements in land use planning can be found at **https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection** or the advice of a suitably qualified professional may be sought.

Table 3 on the next page guides planners and applicants on identifying the appropriate assessment approach for potentially contaminated land.

Table 3: Recommended approach to assessing potentially contaminated land

Planning Proposal		Potential for Contamination	
		High	Medium
Uses defined in *Ministerial Direction No. 1*, the EAO, and clause 13.04-1S			
• Sensitive uses: Residential use, childcare centre, kindergarten, pre-school centre, primary school, even if ancillary to another use. • Children's playground • Secondary school	New use, or buildings and works associated with a new use	A	B
	Buildings and works associated with an existing use	B	B
Other land use			
Open space Agriculture Retail or office Industry or warehouse	New use, or buildings and works associated with a new or existing use	C	D

	Planning Scheme Amendment	Planning Permit Application
A	PRSA or audit option applies Proceeding directly to an audit is recommended.	PRSA or audit option applies Proceeding directly to an audit is recommended.
B	PRSA or audit option applies PRSA to determine need for audit is recommended.	PRSA or audit option applies PRSA to determine need for audit is recommended.
C	PSI to inform need for audit is recommended	PSI to inform need for audit is recommended
D	Planning authority to document consideration of potential for contamination to impact proposal	Responsible authority to document consideration of potential for contamination to impact proposal

Note: Where land is used for more than one purpose, the most sensitive land use should be used to inform the approach to determining if an audit is required.

When does the environmental audit system apply to a planning scheme amendment?

For planning scheme amendments that propose to allow, whether or not by permit, a sensitive use, children's playground or secondary school on land that is potentially contaminated, *Ministerial Direction No. 1* requires a planning authority to satisfy itself that the land is suitable for the use by:

1) A PRSA statement stating that no audit is required; or

2) An environmental audit statement stating that the land is suitable for the proposed use; or

3) Where complying with 1) or 2) is difficult or inappropriate, deferring these requirements through application of an EAO or other appropriate measure.

Whether the audit system requirements are met at the time of amendment or deferred, the determination of whether land is potentially contaminated must always be made at the time of the amendment and be documented in the Explanatory Report.

Is assessment required at the time of the amendment?

Audit system requirements must be met at the time of the amendment unless the planning authority determines that compliance with this requirement is difficult or inappropriate, noting that assessment time and costs are not in themselves sufficient reasons to defer assessment.

Meeting a PRSA requirement prior to amendment is preferred because the PRSA can support consideration of the effects of the environment on the amendment pursuant to s 12 of the *Planning and Environment Act 1987* and may avoid unnecessary encumbrances on the land, where the PRSA concludes no environmental audit is required for the range of uses allowed by the amendment. The outcomes of a PRSA can also assist a planning authority in determining appropriate planning controls to be included in the amendment.

Meeting an environmental audit requirement prior to amendment is preferred, while acknowledging that in some instances this will be difficult or inappropriate, for example where:

- the rezoning relates to a large strategic planning exercise or involves multiple sites in separate ownership
- it would be hazardous to access the site to take samples – for example, there is an operational industry on the site and safety risks are present.

For proposed amendments on potentially contaminated land where requirements under the environmental audit system need to be deferred, the planning authority should consider:

a) Whether there is reasonable confidence that the land can be made suitable for its proposed use – i.e. that contamination will not preclude that use.

b) Whether there will be a practical mechanism available to mitigate or manage any contamination identified during the environmental audit process (for example, through the design of the development).

c) Whether there will be a subsequent planning approval required; this may afford an opportunity to include any restrictions on use or conditions on development recommended by the environmental audit.

While most land can be made suitable for its proposed use through appropriate remediation, some highly contaminated land types (such as a landfill, or gasworks site) may never be feasible for certain zones such as residential zones, because complex and restrictive management measures are likely to be required to make this land safe for these purposes. Consideration of this aspect may be informed by EPA's written view of a planning scheme amendment proposal provided under *Ministerial Direction No. 19 – Preparation and Content of Amendments that May Significantly Impact the Environment, Amenity and Human Health.*

Where an environmental audit is to be completed in response to an EAO, it is necessary to carefully draft the planning provisions in the planning scheme amendment to address implementation of the environmental audit statement recommendations.

The requirements of the EAO operate for both existing and new sensitive uses. Alternative options which address the risk of potentially contaminated land should be exhausted before an EAO is applied to land with established sensitive uses. In this circumstance, there may be a risk to current occupants that needs to be addressed, and notification to EPA may be warranted.

Can an exemption be requested?

Ministerial Direction No. 1 provides for an exemption to be granted from the need to comply with the Direction. Examples of where such an exemption may be appropriate are:

- Potentially contaminated land is already used for a sensitive use, agriculture or open space.
- Prior industry use of the land was benign and unlikely to result in any contamination.
- If there is a regional strategy to manage contamination (for example former gold mining activities).

A planning authority may request an exemption from the Minister or Executive Director, Statutory Planning Services, Department of Environment, Land, Water and Planning. The Minister or Executive Director must consult with EPA before making a decision. The planning authority should consult with EPA before requesting an exemption.

When does the environmental audit system apply to a planning permit application?

For permit applications relating to land that has been identified as potentially contaminated, the responsible authority must seek appropriate environmental assessment. In some, but not all cases, an EAO may already exist over the land.

If an EAO has been applied, and the proposed use is a sensitive use, secondary school, or children's playground, the required assessment is set out in the EAO provisions: a PRSA statement that no audit is required, or an environmental audit statement that the land is suitable, is required before a sensitive use or the construction or carrying out of buildings and works associated with the sensitive use can commence.

Where a proposal involves both buildings and works and establishment of a sensitive use, the environmental audit requirement must be met prior to whichever of these commences first. For example, if buildings and works are undertaken to prepare a site for use as a child care centre, the audit must be undertaken prior to the commencement of construction or carrying out of buildings and works, not just prior to the commencement of the use.

Where EAO requirements do not apply, s 60 of the *Planning and Environment Act 1987*, and clauses 65 and 13.04-1S of the VPP provide a basis for the responsible authority to consider the effect of potential contamination on a proposed use or development. At the time of the decision, the responsible authority must determine whether the land is potentially contaminated and identify the appropriate level of assessment.

As set out in Table 3, an assessment under the environmental audit system is recommended for permit applications relating to sensitive uses, secondary schools, or children's playgrounds. For other uses, if there is high potential for contamination, a PSI is recommended to inform the need for further action, which may include an audit.

Generally, environmental assessment, including as appropriate a PRSA or environmental audit, should be provided as early as possible in the planning process. A PRSA requirement will usually be feasible to undertake prior to the issue of a permit, but this may not always be possible or reasonable for an audit requirement. Requiring an environmental audit as a condition of a permit may be acceptable if the responsible authority is satisfied that the land can be made suitable for its proposed use or development – i.e. that contamination will not preclude the proposal.

This is usually the case where the site is a higher density residential or mixed-use redevelopment, where the management of contamination issues can be addressed as part of overall design or construction. It may not be the case for lower density development forms such as single dwellings where there are limited options to control the ongoing use or development. In disputed cases, one option may be to undertake a PRSA as part of the application process to understand the likely contamination and help inform decision making on whether the audit can be deferred to a permit condition.

Where an audit is made a condition of permit, guidance and a model condition to ensure that audit recommendations to make the land safe are provided for is included on page 13.

Remediation works

Works that are associated with a development and that might also be remediation works (such as excavation or basement construction), should not commence before the completion of an environmental audit if a planning permit has not been issued for the development.

Where a permit has been issued for a development and a requirement for an environmental audit is a condition of permit, the responsible authority should consider carefully wording the permit conditions to allow early building works that facilitate remediation of the site.

3. Is the land suitable, or can it be made suitable?

How do assessment outcomes inform planning approvals?

A planning or responsible authority must ensure that the effects of the environment on the proposal are considered, and that potentially contaminated land is suitable for its proposed use. The conclusions of assessments undertaken inform the planning or responsible authority in meeting this obligation.

If a PRSA process has been undertaken, the PRSA statement may either conclude that (1) no environmental audit is needed or (2) may conclude that an environmental audit is warranted to determine site suitability. If a PSI has been undertaken, findings can inform the planning or responsible authority in deciding whether an environmental audit, or alternative assessment or management measures, are appropriate, or in concluding that no further action is needed.

For sites where an environmental audit is required, the environmental audit statement:

(1) provides an opinion on whether the land is suitable for the planning proposal and

(2) makes recommendations on any conditions to be placed on the use/development to ensure contamination risks are managed. For example, for an apartment proposal, the audit may state the land is suitable subject to compliance with a recommendation to construct landscaped areas above ground level using imported soils.

To ensure that the site is made suitable for the proposal, applicable recommendations of the environmental audit must be translated into requirements of a planning approval. The legal basis for the planning or responsible authority to give effect to outcomes of an environmental audit is set out in s 12 and s 60 of the *Planning and Environment Act 1987*, and clauses 65.01 and 13.04-1S of the VPP.

Where a planning scheme amendment applies, provision needs to be made for applicable recommendations to be given effect, or where possible used to inform the drafting of planning provisions. Where a planning permit applies, any environmental audit recommendations that apply to the construction or the design of the development must be included as requirements in that approval.

Where requirements are technical in nature, the planning or responsible authority may require written confirmation of compliance provided by an environmental auditor or suitably qualified environmental consultant. This requirement may already be prescribed within the environmental audit recommendation.

Recommendations that relate to long-term contamination management during ongoing occupation of the site do not usually need to be translated into the planning decision. They are managed by being incorporated, where appropriate, into tools available under the *Environment Protection Act 2017*. More detail is provided in Table 4 below.

Table 4: Responsibility for managing environmental audit statement recommendations

Planning or responsible authority is responsible for:
• Implementing restrictions on permitted land uses. • Giving effect to environmental audit statement recommendations that relate to the use and development of the land regulated by the planning scheme and apply prior to commencement of use, development or occupancy.
EPA is responsible for:
• Enforcement of obligations associated with the duty to manage and environmental audit recommendations that are listed in a mechanism under the *Environment Protection Act 2017*, including: - A site management order - A remedial notice These typically relate to long term or ongoing monitoring or management.

The following sections provide more specific guidance on considering audit recommendations in circumstances where the audit is available prior to a decision on a planning scheme amendment or permit application, and where it is required as a condition of a planning permit.

Environmental audit statement available at time of decision

Where an environmental audit statement is available at the time of decision, the planning or responsible authority must first review the statement to confirm whether the land is suitable for the proposal. Second, the planning or responsible authority must consider any recommendations in an environmental audit statement.

Where recommendations relate to design or construction, provisions in a planning scheme amendment or conditions in a planning permit must reflect the recommendations in the statement. The applicant is required to demonstrate that the applicable recommendations included in the statement have been or will be met before the use commences.

For planning scheme amendments, the audit recommendations must inform the drafting of the relevant planning provisions including schedules, overlays and table of uses to give effect to and address the outcomes of the environmental audit statement.

If the recommendations of an environmental audit statement are impractical or inappropriate to include as requirements in a planning approval, this should be discussed with the environmental auditor who may choose to either re-issue the environmental audit statement or to confirm that the intent of the recommendations are adequately captured in the planning decision.

For any recommendations which are ongoing in nature, such as those requiring maintenance or monitoring, the planning or responsible authority should liaise with EPA or other agencies of appropriate jurisdiction where the nature of the conditions means that they are more properly considered by that agency (for example, liaise with EPA about conditions requiring ongoing management of groundwater). Where no other option is available, a s 173 agreement under the *Planning and Environment Act 1987* can be considered.

Requirements where an environmental audit is a condition of permit

Where an environmental audit is to be completed in response to a condition of a planning permit, it is necessary to carefully word the planning permit conditions to not only require an environmental audit statement to be issued but to also address the implementation of environmental audit statement recommendations which relate to design or construction. An example of a condition that might be placed on a planning permit is provided below. More detail is at: **https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection.**

1. Prior to the commencement of the use or buildings and works associated with the use (or the certification or issue of a statement of compliance under the *Subdivision Act 1988*) the permit holder must provide:

   An environmental audit statement under Part 8.3, Division 3 of the *Environment Protection Act 2017* which states that the site is suitable for the use and development allowed by this permit; or

   An environmental audit statement under Part 8.3, Division 3 of the *Environment Protection Act 2017* which states that the site is suitable for the use and development allowed by this permit if the recommendations made in the statement are complied with.

2. All the recommendations of the environmental audit statement must be complied with to the satisfaction of the responsible authority, prior to commencement of use of the site. Written confirmation of compliance must be provided by a suitably qualified environmental consultant or other suitable person acceptable to the responsible authority.

   Compliance sign off must be in accordance with any requirements in the environmental audit statement recommendations regarding verification of works.

In the absence of a site management order and where there are recommendations on an environmental audit statement that require significant ongoing maintenance and/or monitoring, the following condition may also be used:

3. The applicant must enter into a Section 173 Agreement under the *Planning and Environment*

Act 1987. The s 173 Agreement must be executed on the title of the relevant land prior to the commencement of the use and prior to the issue of a statement of compliance under the *Subdivision Act 1988*. The applicant must meet all costs associated with drafting and execution of the Agreement, including those incurred by the responsible authority.

The below planning permit note might also be included:

A suitably qualified environmental consultant acceptable to the responsible authority may include an environmental auditor appointed under the *Environment Protection Act 2017* or an environmental professional with qualifications and competence consistent with Schedule B9 of the National Environment Protection (Assessment of Site Contamination Measure 1999) (as amended 2013).

Where an EAO applies to the site, it is not necessary to duplicate the requirement to obtain an environmental audit statement in a planning permit condition. However, where a planning permit is triggered, a responsible authority should consider including a planning permit condition to compel compliance with applicable environmental audit recommendations.

How are environmental audit recommendations enforced?

Where a responsible authority becomes aware that an occupier is failing to comply with requirements set out in the planning scheme or planning permit, enforcement procedures under the *Planning and Environment Act 1987* are available. These may include planning infringement notices, enforcement orders or prosecution through the Magistrates Court.

EPA is responsible for enforcing site management orders and remedial notices, including those that incorporate environmental audit statement recommendations. Where there is a failure to address matters identified in environmental audit statement recommendations this may also constitute a breach of the duty to manage by the person in management or control of the land.

EPA may issue a remedial notice under the *Environment Protection Act 2017*. Depending on the nature of the recommendations, other agencies may also have a role in enforcement.

References

Contacts

- Specific Development/Planning Scheme Amendment enquiries:
  - development.approvals@delwp.vic.gov.au or stateplanning.services@delwp.vic.gov.au
  - DELWP regional Office: https://www.planning.vic.gov.au/contact-planning
  - EPA office Environment Protection Authority: free call 1300 372 842 or contact@epa.vic.gov.au
- General enquiries and web content about this topic: planning.systems@delwp.vic.gov.au
- Planning Practice Note: planning.systems@delwp.vic.gov.au

Websites

- https://www.epa.vic.gov.au/
- https://www.planning.vic.gov.au/policy-and-strategy/planning-for-environment-protection
- https://www.environment.vic.gov.au/sustainability/victoria-unearthed
- http://nepc.gov.au/nepms/assessment-site-contamination

Further information resources for identifying potentially contaminated land

- https://www.vvg.org.au/vvg_map.php
- Historical aerial images on VicPlan which includes historical planning zoning and aerial photos: https://mapshare.maps.vic.gov.au/vicplan
- Land title information Land Data - http://landata.vic.gov.au
- Victoria Unearthed - https://mapshare.vic.gov.au/victoriaunearthed

Planning legislation, policies and guidelines

- *Ministerial Direction No. 1 – Potentially Contaminated Land* 2021.
- *Victoria Planning Provisions*, particularly clauses 13.04 -1S, 15.06, 45.03, 54.01, 55.01, 65 and 73.01. Planning schemes may have local policies and schedules that reference contaminated land.

Environment Protection legislation, policy and guidelines

- *Environment Protection Act 2017*
- *Environment Protection Regulations 2021*
- *Environment Reference Standard*

Information on the Environmental Audit System

- https://www.epa.vic.gov.au/

National Standards for the Assessment of Contaminated Land

- *National Environment Protection (Assessment of Site Contamination) Measure* (National Environment Protection Council, 1999)
- *AS4482.1 - 2005 Guide to the investigation and sampling of sites with potentially contaminated soil*

Guidance on the Assessment of Contaminated land in specific applications

- *Assessing the soil in children's services – guidelines for environmental consultants* Department of Education and Training 2011

Appendix 1: Planning Regulatory Framework Overview

Planning and Environment Act 1987	
Planning Authority	For a planning scheme amendment: 'take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment' – s 12(2)(b).
Responsible Authority	For a planning permit application: consider 'any significant effects which the responsible authority considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development' – s 60(1)(e).
Ministerial Direction No. 1 – Potentially Contaminated Land	
Planning Authority	When preparing planning scheme amendments, to satisfy themselves that the environmental conditions of land are, or will be, suitable for that use. The planning authority must document their determination of whether land is potentially contaminated in the Explanatory Report. Additional specific requirements apply to sensitive uses, secondary schools or children's playgrounds. For these uses the planning authority must apply the environmental audit system. In cases where it is difficult or inappropriate to do this at the time of the amendment, deferment of requirements under the EAO is permitted.
***Victoria Planning Provisions* – Planning Policy Framework - Environmental Risks and Amenity** **Clause 13.04-1S Contaminated and Potentially Contaminated Land**	
Planning or responsible authority	Aims to ensure that contaminated and potentially contaminated land is suitable for its intended future use and development, and that contaminated land is used in a manner that does not create a risk of harm to human health or the environment.
***Victoria Planning Provisions* – Overlays – Other Overlays Clause 45.03 Environmental Audit Overlay**	
Planning authorities and applicants	A provision in the VPP and planning schemes which is designed to ensure the requirement for an environmental audit or preliminary risk screen assessment under *Ministerial Direction No. 1* is met before the commencement of the sensitive use or any buildings and works associated with that use.
***Victoria Planning Provisions* – General Provisions – Decision Guidelines** **Clause 65.01 Approval of An Application or Plan**	
Responsible authorities	Before deciding on an application or plan the responsible authority must consider, as appropriate: Any significant effects the environment, including the contamination of land may have on the use or development.
***Victoria Planning Provisions* – Operational Provisions – Meaning of Terms** **Clause 73.01 General Terms**	
Planning and responsible authorities and applicants	Definition of potentially contaminated land as land: a) used or known to have been used for industry or mining b) used or known to have been used for the storage of chemicals, gas, waste or liquid fuel (other than minor above-ground storage that is ancillary to another use of the land); or c) where a known past or present activity or event (occurring on or off the land) may have caused contamination of the land.

Appendix 2: Summary of key processes used to inform land use planning for potentially contaminated land

Purpose	**Identifying potentially contaminated land**	**Assessing potentially contaminated land**		
Assessment	**Site history review**	**Preliminary Site Investigation (PSI)**	**Preliminary risk screen assessment (PRSA)**	**Environmental Audit**
Summary	A review of past land uses at the site and surrounds	A consultant's primarily desktop assessment of likelihood of site contamination, and its potential to affect the planning proposal	An assessment similar to a PSI, but which additionally is conducted with oversight by an EPA appointed environmental auditor, and provides a determination of whether an environmental audit is required	A desktop and field assessment of a site, along with appropriate remediation, including independent review by an EPA appointed environmental auditor. The audit will make a statement on site suitability, along with recommendations on any measures needed to make the site suitable for the planning proposal.
Conducted by	Suitably qualified environmental consultant or urban planner	Suitably qualified environmental consultant	EPA appointed environmental auditor	EPA appointed environmental auditor
Method	Desktop review of sources listed in the NEPM Section 3.3, Schedule B2 or Australian Standard AS 4482.1-2005. Section 3.2.2	• Desktop investigation • Site inspection • May include limited field investigations and soil sampling • Conducted to the standard established in the NEPM, Schedule B2	As for PSI, but also: Conducted in accordance with Part 8.3 of the *Environment Protection Act 2017* Involving an EPA appointed independent auditor to confirm the reliability of the information	• Desktop and field investigation, may include remediation • Review by an EPA appointed independent auditor to confirm the reliability of the information • Conducted in accordance with the Environment Protection Act & NEPM

Outcome	A recommendation on whether the land meets the definition of potentially contaminated land.	A recommendation as to: • The likelihood of contamination and its potential to affect the planning proposal • Whether a risk-based remediation or management strategy can be derived or further investigation (such as an audit) is recommended	A PRSA statement specifying: a) the need for an environmental audit; and b) if an environmental audit is required, the proposed scope for the environmental audit	An environmental audit statement providing a conclusion on whether the site is suitable for the proposal or can be made suitable if the auditor's recommendations are implemented.

Notes:

- While this table summarises and compares assessment types most commonly used in land use planning, other types of assessment are provided for under the NEPM, such as the Detailed Site Investigation. Further information is available from the **NEPC website.**
- For information on suitably qualified environmental consultants: **Work with an environmental consultant | Environment Protection Authority Victoria (epa.vic.gov.au)**.

Appendix 3: Roles and responsibilities in managing contaminated and potentially contaminated land

Applicants, proponents, landowners and occupants

- Provide adequate information on the existing or potential for contamination to have future adverse effects, to enable a planning or responsible authority to make an informed decision, including through undertaking required environmental investigations, and comply with requirements of the planning scheme and planning approvals.
- Comply with contaminated land duties under the *Environment Protection Act 2017*, including the duty to notify and duty to manage contaminated land.

Planning and Responsible Authorities

Administering the planning scheme

A responsible authority must consider the potential for land to be contaminated when proposing land use changes (including changes to permitted land uses or through rezoning proposals) and when assessing planning permit applications and ensure that the site is suitable for its proposed use.

Enforcement of planning scheme

Where a responsible authority becomes aware that an occupier is failing to comply with requirements set out in the planning scheme or planning permit, enforcement procedures under the *Planning and Environment Act 1987* are available. These may include planning infringement notices, enforcement orders or prosecution through the Magistrates Court.

Outside remit

Managing risks from contaminated land where no planning approval or control applies, for example, risks to an existing or as-of-right use.

Environmental Auditors

An environmental auditor performs functions under the *Environment Protection Act 2017*, including the conduct of preliminary risk screen assessments and environmental audits. The auditor is required to have regard to guidelines and standards that ensure the environmental audit provides the best assurance available that the site is suitable for its intended use. Their primary role is to produce an independent environmental report for the site.

Outside remit

Provide advice on matters outside of their prescribed functions under the Environment Protection legislation

Suitably qualified environmental consultants

Suitably qualified environmental consultants have expertise in environmental science or engineering and can undertake assessments, studies and conduct cleanup programs for contaminated sites. Consultants may:

- take and test samples
- conduct data modelling or analysis
- prepare an assessment report or other report
- contribute to the auditing process.

Outside remit

Suitably qualified environmental consultants cannot conduct environmental audits.

EPA
Regulates contaminated land
EPA is responsible for administering the *Environment Protection Act 2017* and is the lead agency responsible for the regulation of contaminated land in Victoria, including preventing new contamination from occurring.
Provides advice to planning and responsible authorities
Under Ministerial Direction No. 19, EPA advises planning and responsible authorities on planning policies and decisions where there is a potential impact on the environment, amenity and human health due to pollution and waste. This advice is made in accordance with the *Planning and Environment Act 1987.* As the environmental audit system provides the mechanism for planning and responsible authorities to obtain independent site specific advice on site suitability and recommendations for controls on use and development, EPA is not a referral authority, however, for matters not addressed by the environmental audit process, referrals to EPA can be made under s 52 of the *Planning and Environment Act 1987.*
Administers the environmental audit system
EPA administers the environmental audit system in Victoria, which includes appointing environmental auditors and quality assurance of their work.
Outside remit
Whilst EPA can provide advice to planning authorities, EPA is not the lead agency in decisions regarding changes in land uses on sites where land is contaminated, as it does not have jurisdiction over land use and development.

Prepared in conjunction with EPA Victoria.

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This document is also available in accessible Word format at www.planning.vic.gov.au

APPENDIX iii

AERIAL & SITE PHOTOGRAPHS

AERIAL PHOTOGRAPH: SUBJECT SITE

Client: H4 PROJECT GROUP
File No: 18195J
Date: 19/10/2021
Site: 672-690 Portarlington Road, LEOPOLD, VICTORIA

SITE PHOTOGRAPHS

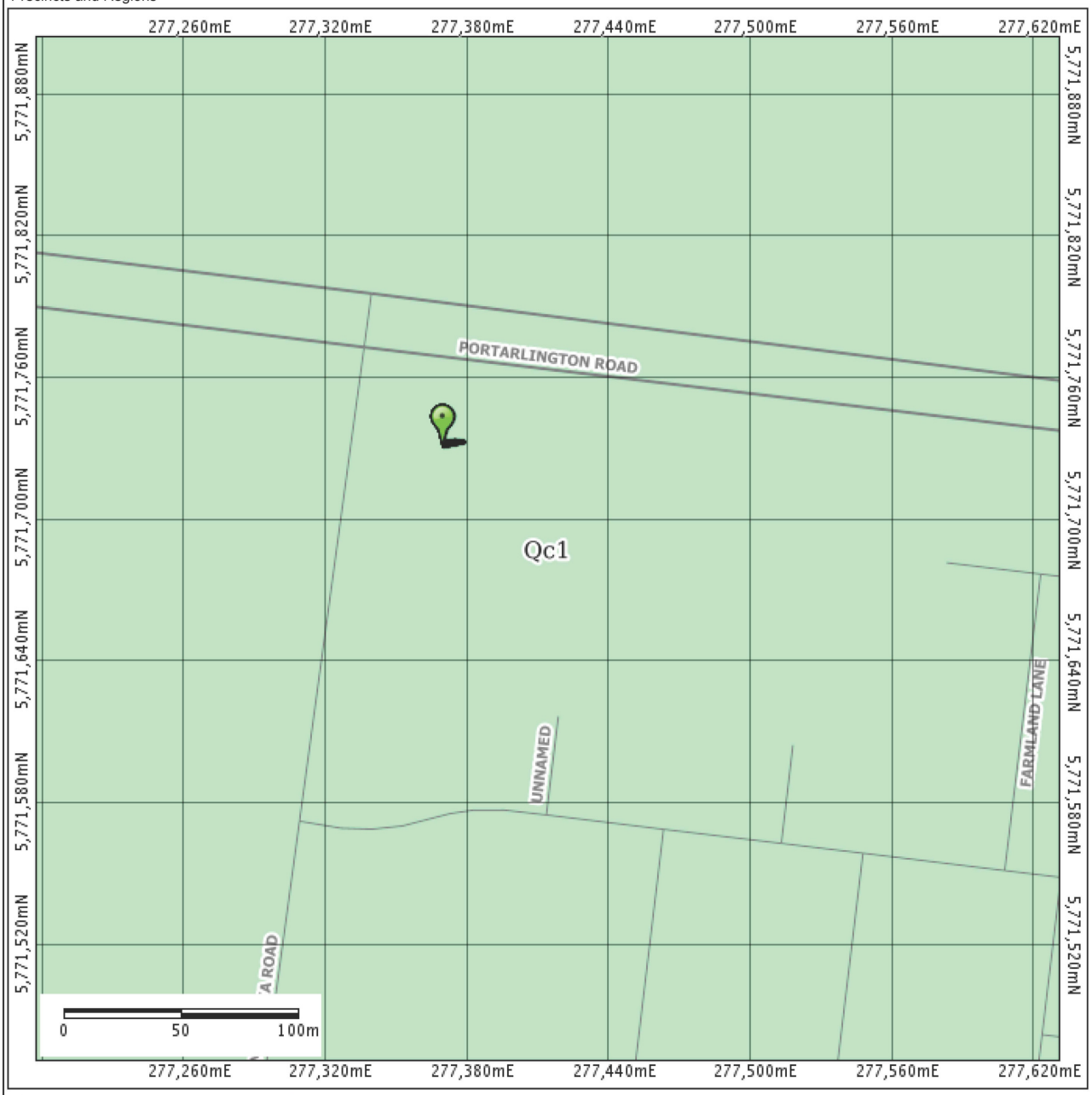
SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

APPENDIX iv

GEOVIC MAP

Department of Jobs,
Precincts and Regions



Legend

Towns (25K)

- Locality
- Small Town
- Town
- Large Town
- Major Town
- Regional Centre
- City

Geological Lines & Faults 250K

Map Scale: 1:2,500
Projection: MGA94 55
The map contains zonal grid lines that extends beyond their zone boundary.

Generated from GeoVic 3

Map Created Thu Nov 04 2021 14:07:10 GMT+1100 (AEDT)

APPENDIX v

TEST SITE LOCATION PLAN

PROVINCIAL GEOTECHNICAL PTY. LTD.
CONSULTING GEOLOGISTS

TEST SITE LOCATION PLAN
◯-Approximate borehole locations

Client: H4 PROJECT GROUP
File No: 18195J
Date: 19/10/2021
Site: 672-690 Portarlington Road, LEOPOLD, VICTORIA

APPENDIX vi

CRITERIA EXTRACTS

Table 2: Soil hazard categorisation thresholds

Category	Fill Material upper limits		Category C upper limits		Category B upper limits		
Contaminant concentration thresholds (dry weight)		TC0	ASLP1[1]	TC1	ASLP2[1]	TC2	
Units		(mg/kg)	(mg/L)	(mg/kg)	(mg/L)	(mg/kg)	
Inorganic species		**Inorganic species**	**Inorganic species**		**Inorganic species**		
Arsenic		20	0.7	500	2.8	2,000	
Cadmium		3	0.2	100	0.8	400	
Chromium (VI)		1	5	500	20	2,000	
Copper		100	200	5,000	800	20,000	
Lead		300	1	1,500	4	6,000	
Mercury		1	0.1	75	0.4	300	
Molybdenum		40	5	1,000	20	4,000	
Nickel		60	2	3,000	8	12,000	
Tin		50	-	500	-	-	
Selenium		10	1	50	4	200	
Silver		10	10	180	40	720	
Zinc		200	300	35,000	1,200	140,000	
Anions		**Anions**	**Anions**		**Anions**		
Cyanide		50	8	2,500	32	10,000	
Fluoride		450	150	10,000	600	40,000	
Organic species		**Organic species**	**Organic species**		**Organic species**		
Phenols (halogenated)[2]		1	2	10	8	320	
Phenols (non-halogenated)[3]		60	14	560	56	2,200	
Monocyclic aromatic hydrocarbons[4]		7	-	70	-	240	
Benzene		1	0.1	4	0.4	16	
Polycyclic aromatic hydrocarbons[5]		20	-	100	-	400	
Benzo(a)pyrene		1	0.001	5	0.004	20	
C6-C9 petroleum hydrocarbons		100	-	650	-	2,600	
C10-C36 petroleum hydrocarbons		1,000	-	10,000	-	40,000	
Polychlorinated biphenyls[6]		2	see note 6		see note 6		
Chlorinated hydrocarbons[7]		1					
Hexachlorobutadiene			0.07	2.8	0.28	11	
Vinyl chloride			0.03	1.2	0.12	4.8	
Other chlorinated hydrocarbons[8]			-	10	-	50	
Pesticides		**Pesticides**	**Pesticides**		**Pesticides**		
Organochlorine pesticides[9]		1					
Aldrin + dieldrin			0.03	1.2	0.12	4.8	
DDT + DDD + DDE			2	50	-	50	
Chlordane			0.1	4	0.4	16	
Heptachlor			0.03	1.2	0.12	4.8	
Other organochlorine pesticides[10]			-	10	-	50	

FILL MATERIAL | CATEGORY C CONTAMINATED SOIL | CATEGORY B CONTAMINATED SOIL | CATEGORY A CONTAMINATED SOIL

National Environment Protection (Assessment of Site Contamination) Measure 1999

as amended

made under section 14(1) of the

National Environment Protection Council Act 1994 (Cwlth), the *National Environment Protection Council (New South Wales) Act 1995* (NSW), the *National Environment Protection Council (Victoria) Act 1995* (Vic), the *National Environment Protection Council (Queensland) Act 1994* (Qld), the *National Environment Protection Council (Western Australia) Act 1996* (WA), the *National Environment Protection Council (South Australia) Act 1995* (SA), the *National Environment Protection Council (Tasmania) Act 1995* (Tas), the *National Environment Protection Council Act 1994* (ACT) and the *National Environment Protection Council (Northern Territory) Act 1994* (NT)

Compilation start date:	16 May 2013
Includes amendments up to:	*National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*

This compilation has been split into 22 volumes

Volume 1:	sections 1–6, Schedules A and B
Volume 2:	**Schedule B1**
Volume 3:	Schedule B2
Volume 4:	Schedule B3
Volume 5:	Schedule B4
Volume 6:	Schedule B5a
Volume 6:	Schedule B5a

Prepared by the Office of Parliamentary Counsel, Canberra

Health screening levels (HSLs) have been developed for selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depths below surface to >4 m. Further detail on their use is provided in Section 2.4 and Friebel and Nadebaum (2011a, 2011b & 2011c).

'Petroleum hydrocarbon management limits' (**'management limits'**) are applicable to petroleum hydrocarbon compounds only. They are applicable as screening levels following evaluation of human health and ecological risks and risks to groundwater resources. They are relevant for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites. Further detail on their use is provided in Section 2.9, including factors to be considered in determining the depth to which they apply.

2.1.2 Inappropriate use of investigation levels and screening levels

Investigation and screening levels are not clean-up or response levels nor are they desirable soil quality criteria. Investigation and screening levels are intended for assessing existing contamination and to trigger consideration of an appropriate site-specific risk-based approach or appropriate risk management options when they are exceeded. The use of these levels in regulating emissions and application of wastes to soil is inappropriate.

The use of investigation and screening levels as default remediation criteria may result in unnecessary remediation and increased development costs, unnecessary disturbance to the site and local environment, and potential waste of valuable landfill space. Similarly, the inclusion of an investigation and screening level in this guidance should not be interpreted as condoning discharges of waste up to these levels.

2.2 Health investigation levels

The health risk assessment methodology that forms the basis for calculation of HILs is provided in Schedule B4. The derivation of the HILs is presented in Schedule B7 (and appendices) and uses the *Australian exposure factor guidance* (enHealth 2012). The derivation of the HILs is illustrated by two worked examples for cadmium and benzo(a)pyrene (refer Schedule B7 Appendix B). The spreadsheet for calculating HILs is included in the ASC NEPM Toolbox (www.scew.gov.au/nepms/assessment-of-site-contamination.html).

The HILs are listed in Table 1A(1), found at the end of this Schedule.

HILs are scientifically based, generic assessment criteria designed to be used in the first stage (Tier 1 or 'screening') of an assessment of potential risks to human health from chronic exposure to contaminants. They are intentionally conservative and are based on a reasonable worst-case scenario for four generic land use settings:

- HIL A – residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, (no poultry), also includes children's day care centres, preschools and primary schools
- HIL B – residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats
- HIL C – public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a site-specific assessment where appropriate
- HIL D – commercial/industrial such as shops, offices, factories and industrial sites.

The land use scenarios are described in detail in Section 3 of Schedule B7. To make generic estimates of potential human exposure to soil contaminants, scientifically based assumptions are made about the environment, human behaviour, the physicochemical characteristics of contaminants, and the fate and transport of contaminants in soil within each of these land use categories. The HILs are derived by integrating these exposure estimates with toxicity reference values, that is, tolerable daily intakes (TDI), acceptable daily intakes (ADI), and reference doses (RfD), to estimate the soil concentration of a substance that will prevent exceedence of the toxicity reference value under the defined scenario. The toxicity reference values are generally based on the known most sensitive significant toxicological effect. Where toxicity reference values come from multiple sources, their underlying assumptions, defaults and science policy should be compatible and generally similar.

HILs establish the concentration of a contaminant above which further appropriate health investigation and evaluation will be required. Levels slightly in excess of the HILs do not imply unacceptability or that a significant health risk is likely to be present. Exceeding a HIL means further investigation is required and not 'risk is present, clean-up required'.

The HILs are referred to by regulators, auditors and consultants in the process of assessing soil contamination. HILs apply generally to the top 3 m of soil for residential use. Site-specific conditions should determine the depth to which HILs apply for other land uses.

HILs are not intended to be clean-up levels. The decision on whether clean-up is required, and to what extent, should be based on site-specific assessment triggered by an exceedence of the HIL. Health risk assessment is the primary driver for making site decisions. Other considerations such as practicality, timescale, effectiveness, cost, sustainability and associated ecological risk assessment are also relevant.

2.3 Interim HILs for volatile organic chlorinated compounds

Interim HIL soil vapour levels for specific volatile organic chlorinated compounds (VOCCs) have been developed (see Table 1A(2) at the end of this Schedule) to assess the vapour inhalation pathway (also known as the 'vapour intrusion' pathway when referring to indoor exposure). The derivation of the interim HILs is presented in Schedule B7 and Appendix A6. The methodology employs a simple though conservative approach using an attenuation factor that relates the concentration of a volatile contaminant in indoor air to the concentration in soil gas immediately below a building foundation slab.

The interim HIL values derived for volatile compounds are driven by the vapour intrusion pathway (that contributes >99% of the total risk when all pathways are considered). However, it is noted that there are limitations and uncertainties associated with the assessment of volatile contaminants on the basis of soil concentrations. As these limitations are significant for volatile organic chlorinated compounds, interim HILs for soil have not been derived. Rather it is recognised that where indoor/ambient air data cannot be collected (or the data is adversely affected by background sources), the most relevant approach to the assessment of this pathway is through the collection of soil vapour data. On this basis, interim HILs have been developed for soil vapour.

The interim HILs provide Tier 1 guidance for health risks from soil contamination sources and groundwater plumes associated with this group of compounds. The values may be applied for general site assessment and sub-slab environments for evaluation of potential health risks for the 0–1 m sub-slab profile. The interim HILs broadly apply to the same generic land use categories as do the HILs, though the values for residential A and B are combined as they are based on the same exposure conditions (i.e. the same amount of time spent indoors) for the vapour inhalation pathway. In addition, secondary school buildings should be treated as residential for the purposes of evaluating risks from vapour intrusion.

Table 1A(1) Health investigation levels for soil contaminants

Chemical	Health-based investigation levels (mg/kg)			
	Residential[1] A	Residential[1] B	Recreational[1] C	Commercial/ industrial[1] D
Metals and Inorganics				
Arsenic[2]	100	500	300	3 000
Beryllium	60	90	90	500
Boron	4500	40 000	20 000	300 000
Cadmium	20	150	90	900
Chromium (VI)	100	500	300	3600
Cobalt	100	600	300	4000
Copper	6000	30 000	17 000	240 000
Lead[3]	300	1200	600	1 500
Manganese	3800	14 000	19 000	60 000
Mercury (inorganic)[5]	40	120	80	730
Methyl mercury[4]	10	30	13	180
Nickel	400	1200	1200	6 000
Selenium	200	1400	700	10 000
Zinc	7400	60 000	30 000	400 000
Cyanide (free)	250	300	240	1 500
Polycyclic Aromatic Hydrocarbons (PAHs)				
Carcinogenic PAHs (as BaP TEQ)[6]	3	4	3	40
Total PAHs[7]	300	400	300	4000
Phenols				
Phenol	3000	45 000	40 000	240 000
Pentachlorophenol	100	130	120	660
Cresols	400	4 700	4 000	25 000
Organochlorine Pesticides				
DDT+DDE+DDD	240	600	400	3600
Aldrin and dieldrin	6	10	10	45
Chlordane	50	90	70	530
Endosulfan	270	400	340	2000
Endrin	10	20	20	100
Heptachlor	6	10	10	50
HCB	10	15	10	80
Methoxychlor	300	500	400	2500
Mirex	10	20	20	100
Toxaphene	20	30	30	160
Herbicides				
2,4,5-T	600	900	800	5000
2,4-D	900	1600	1300	9000
MCPA	600	900	800	5000

Chemical	Health-based investigation levels (mg/kg)			
	Residential[1] A	Residential[1] B	Recreational[1] C	Commercial/ industrial[1] D
MCPB	600	900	800	5000
Mecoprop	600	900	800	5000
Picloram	4500	6600	5700	35000
Other Pesticides				
Atrazine	320	470	400	2500
Chlorpyrifos	160	340	250	2000
Bifenthrin	600	840	730	4500
Other Organics				
PCBs[8]	1	1	1	7
PBDE Flame Retardants (Br1–Br9)	1	2	2	10

Notes:

(1) Generic land uses are described in detail in Schedule B7 Section 3

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

HIL B – Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.

HIL C – Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate.

HIL D – Commercial/industrial, includes premises such as shops, offices, factories and industrial sites.

(2) Arsenic: HIL assumes 70% oral bioavailability. Site-specific bioavailability may be important and should be considered where appropriate (refer Schedule B7).

(3) Lead: HIL is based on blood lead models (IEUBK for HILs A, B and C and adult lead model for HIL D where 50% oral bioavailability has been considered. Site-specific bioavailability may be important and should be considered where appropriate.

(4) Methyl mercury: assessment of methyl mercury should only occur where there is evidence of its potential source. It may be associated with inorganic mercury and anaerobic microorganism activity in aquatic environments. In addition the reliability and quality of sampling/analysis should be considered.

(5) Elemental mercury: HIL does not address elemental mercury. A site-specific assessment should be considered if elemental mercury is present, or suspected to be present.

(6) Carcinogenic PAHs: HIL is based on the 8 carcinogenic PAHs and their TEFs (potency relative to B(a)P) adopted by CCME 2008 (refer Schedule B7). The B(a)P TEQ is calculated by multiplying the concentration of each carcinogenic PAH in the sample by its B(a)P TEF, given below, and summing these products.

PAH species	TEF	PAH species	TEF
Benzo(a)anthracene	0.1	Benzo(g,h,i)perylene	0.01
Benzo(a)pyrene	1	Chrysene	0.01
Benzo(b+j)fluoranthene	0.1	Dibenz(a,h)anthracene	1
Benzo(k)fluoranthene	0.1	Indeno(1,2,3-c,d)pyrene	0.1

Where the B(a)P occurs in bitumen fragments it is relatively immobile and does not represent a significant health risk.

(7) Total PAHs: HIL is based on the sum of the 16 PAHs most commonly reported for contaminated sites (WHO 1998). The application of the total PAH HIL should consider the presence of carcinogenic PAHs and naphthalene (the most volatile PAH). Carcinogenic PAHs reported in the total PAHs should meet the B(a)P TEQ HIL. Naphthalene reported in the total PAHs should meet the relevant HSL.

(8) PCBs: HIL relates to non-dioxin-like PCBs only. Where a PCB source is known, or suspected, to be present at a site, a site-specific assessment of exposure to all PCBs (including dioxin-like PCBs) should be undertaken.

APPENDIX vii

MINE SUBSIDENCE HAZARD REPORT

HISTORIC MINING ACTIVITY
Form No. 692

04 November, 2021

Property Information:

Address: 672-690 PORTARLINGTON ROAD LEOPOLD 3224

It is advised that:

Our records do not indicate the presence of any mining activity on this site, and the site appears to be outside any known mined area. (4)

For queries, contact:

Department of Jobs, Precincts and Regions
E-mail: gsv_info@ecodev.vic.gov.au

APPENDIX viii

ANALYTICAL LABORATORY RESULTS

Groundswell Laboratories

" A New Force in Analytical Testing"

CERTIFICATE OF ANALYSIS

Client Name :	Provincial Geotechnical	**Groundswell Batch # :**	GS21974
Client Address :	91 Nicholas Street, Newtown, Victoria, 3220	**Project Name :**	672-690 Portarlington Road, Leopold VIC
Client Phone # :	03 5223 1566	**Project # :**	18195J
Client Fax # :	03 5224 4560	**Date Samples Received :**	23/10/2021
Project Manager :	Andrew Redman	**Sample Matrix :**	Soil
E-mail :	admin@pgvic.com.au	**Sample # Submitted :**	9
Project Sample Manager :	Andrew Redman	**Groundswell Quote # :**	Not Applicable
E-mail :	admin@pgvic.com.au	**Date CofA Issued :**	28/10/2021

Paul Woodward
Managing Director
paul@groundswelllabs.com.au

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory 17067

Accredited for compliance with ISO/IEC 17025 - Testing

Reference AF56.Rev4 Date Issued : 3/11/2010

Analytical Results

Client Sample ID				Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8	Sample 9	
Laboratory Sample Number				GS21974-1	GS21974-2	GS21974-3	GS21974-4	GS21974-5	GS21974-6	GS21974-7	GS21974-8	GS21974-9	
Date Sampled				19/10/2021	19/10/2021	19/10/2021	19/10/2021	19/10/2021	19/10/2021	19/10/2021	19/10/2021	19/10/2021	
Metals	**Literature Reference**	**Units**	**LOR**										
Arsenic	EPA 200.2	mg/kg	1	10	13	13	13	11	8	9	9	9	
Cadmium	EPA 200.2	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Chromium	EPA 200.2	mg/kg	1	23	35	23	28	19	27	21	22	20	
Copper	EPA 200.2	mg/kg	1	7	4	7	10	5	5	8	6	5	
Lead	EPA 200.2	mg/kg	1	29	11	34	25	15	12	12	15	11	
Mercury	EPA 200.2	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nickel	EPA 200.2	mg/kg	1	13	2[illegible]	14	17	12	14	14	13	13	
Zinc	EPA 200.2	mg/kg	1	44	15	42	37	20	18	20	18	16	

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- Samples as received, prepared as per NEPC Measure 1999 Schedule B (3), involving air-drying, grinding and screening to -2mm, prior to the analysis of metals

2 - Samples digested by EPA Method 200.2 prior to the analaysis of metals

3- Measurement uncertainty is available upon request

Quality Control Report

Client Sample ID			Sample 1			Sample 9												
Laboratory Sample Number			GS21974-1			GS21974-9												
QC Parameter			Matrix Spike			Laboratory Duplicate					Method Blank		Laboratory Control Standard (LCS)			Certified Reference Material - AGAL10		
			Matrix Spike (%R)	Recovery Limit Acceptance Criteria(%)	Within GSL Acceptance Criteria (Pass/Fail)	Original Result	Duplicate	%RPD	%RPD Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	Method Blank	Within GSL Acceptance Criteria (<LOR) (Pass/Fail)	LCS (%R)	LCS Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)	CRM (%R)	CRM Acceptance Criteria	Within GSL Acceptance Criteria (Pass/Fail)
Metals	**Units**	**LOR**																
Arsenic	mg/kg	1	110%	80-120%	Pass	9	8	12%	No Limit	Pass	<1	Pass	104%	85-115%	Pass	89%	70-130%	Pass
Cadmium	mg/kg	0.1	104%	80-120%	Pass	<0.1	<0.1	NA	No Limit	Pass	<0.1	Pass	100%	85-115%	Pass	81%	85-115%	Fail
Chromium	mg/kg	1	114%	80-120%	Pass	20	19	5%	≤15%	Pass	<1	Pass	109%	85-115%	Pass	80%	75-125%	Pass
Copper	mg/kg	1	104%	80-120%	Pass	5	5	<1%	No Limit	Pass	<1	Pass	103%	85-115%	Pass	79%	85-115%	Pass
Lead	mg/kg	1	97%	80-120%	Pass	11	12	9%	≤15%	Pass	<1	Pass	96%	85-115%	Pass	95%	85-115%	Pass
Mercury	mg/kg	0.1	---	80-120%	---	<0.1	<0.1	NA	No Limit	Pass	<0.1	Pass	93%	85-115%	Pass	87%	80-120%	Pass
Nickel	mg/kg	1	114%	80-120%	Pass	13	12	8%	≤15%	Pass	<1	Pass	111%	85-115%	Pass	74%	70-130%	Pass
Zinc	mg/kg	1	114%	80-120%	Pass	16	16	<1%	≤15%	Pass	<1	Pass	103%	85-115%	Pass	73%	85-115%	Fail

Reference AF56.Rev4 Date Issued : 3/11/2010

Comments :

1- NA = Not Applicable

Technical Holding Time Compliance Report

Client Sample ID			All Samples									
Laboratory Sample Number			All Samples									
Date Sampled			19/10/2021									
Analyte	THT Parameters	THT (Days)										
Metals	Date Digested	180	25/10/2021									
	Analysis Time (Days)		6									
	THT Compliant		Yes									

Reference AF56.Rev4 Date Issued : 3/11/2010

LRM Global Pty Ltd
65 Stubbs Street
Kensington VIC 3031

Fax: (03) 9371 3499
Email: enquiries@lrmglobal.com.au
Web: www.lrmglobal.com.au
Telephone: (03) 9371 3400
ABN: 34 116 540 277

Qualitative Identification of Asbestos in Bulk Samples

Groundswell Laboratories
116 Moray St
South Melbourne Vic 3205

Client Ref: GS21974

Job Number: 53145.000
Batch Number: -
Received Date: October 25, 2021
Issue Date: October 28, 2021
Analysed Date: October 28, 2021
No of Samples: 9

Dear Paul Woodard,

This report presents the analytical results of samples forwarded by Groundswell Laboratories for asbestos analysis.

Methodology:
The samples were examined under a Stereo Microscope and selected fibres were analysed by Polarized Light Microscopy in conjunction with Dispersion Staining Method. (**LRM Global ID Method 1**) and AS4964 - 2004

Analytical Results:

Sample No.	Sample Description	Result
1	The sample consisted of soils and plant matter Sample weight = 86.0 grams	No Asbestos Detected* Organic Fibre Detected
2	The sample consisted of soils and plant matter Sample weight = 130.0 grams	No Asbestos Detected* Organic Fibre Detected
3	The sample consisted of soils and plant matter Sample weight = 113.0 grams	No Asbestos Detected* Organic Fibre Detected
4	The sample consisted of soils and plant matter Sample weight = 105.0 grams	No Asbestos Detected* Organic Fibre Detected
5	The sample consisted of soils and plant matter Sample weight = 112.0 grams	No Asbestos Detected* Organic Fibre Detected
6	The sample consisted of soils and plant matter Sample weight = 80.0 grams	No Asbestos Detected* Organic Fibre Detected

7	The sample consisted of soils and plant matter Sample weight = 109.0 grams	No Asbestos Detected* Organic Fibre Detected
8	The sample consisted of soils and plant matter Sample weight = 112.0 grams	No Asbestos Detected* Organic Fibre Detected
9	The sample consisted of soils and plant matter Sample weight = 87.0 grams	No Asbestos Detected* Organic Fibre Detected

No asbestos found at the reporting limit of 0.1 g/kg.

Approved Identifier
Karu Jayasundara

Report Issued by
Karu Jayasundara

NATA
WORLD RECOGNISED
ACCREDITATION
Accreditation No: 15684

Accredited for compliance with ISO/IEC 17025 - Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian Standards.

APPENDIX ix

STATEMENT OF LIMITATIONS

STATEMENT OF LIMITATIONS

Scope of Services

This report has been prepared in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Provincial Geotechnical Pty. Ltd. In some circumstances the scope of services may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

Reliance on Data

In preparing the report, Provincial Geotechnical Pty. Ltd. has relied upon data, surveys, analyses, designs, plans and other information provided by the Client. Except as otherwise stated in the report, Provincial Geotechnical Pty. Ltd. has not verified the accuracy of completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report are based in whole or part of the data, those conclusions are contingent upon the accuracy and completeness of the data. Provincial Geotechnical Pty. Ltd. will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Provincial Geotechnical Pty. Ltd.

Environmental Conclusions

In accordance with the scope of services, Provincial Geotechnical Pty. Ltd. has relied upon the data and has conducted environmental field monitoring and/or testing in the preparation of the report.

The nature and extent of monitoring and/or testing conducted is described in the report. No representations or warranties are made by Provincial Geotechnical Pty. Ltd. concerning the accuracy of completeness of conclusions with respect to the nature of quality of soil and water, or any other substance on the site except to the extent disclosed in the analytical data based upon Provincial Geotechnical Pty. Ltd. monitoring and/or testing as identified in the report.

Within the limitations imposed by the scope of services, monitoring, testing and sampling and the preparation of this report have been undertaken and performed in a professional manner, in accordance with general accepted practices and using a degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, expressed or implied, is made.