



Contaminated Land Impact Assessment Environment Effects Act 1978 Referral

**Brunswick Level Crossing Removal Project,
Brunswick and Parkville, Victoria**

**John Holland Pty Ltd
August 2025**

**Client No: J0022
Job No: 109761M**

Executive Summary

Prensa Pty Ltd (Prensa) was engaged by John Holland Pty Ltd (John Holland) to prepare this contaminated land impact assessment report (Assessment) for the Brunswick Level Crossing Removal Project (the Project) in Brunswick and Parkville, Victoria.

The objective of the Assessment was to present a summary of existing conditions based on completed contaminated land assessments to inform an assessment of the Project against the Ministerial Guidelines for Assessment of Environmental Effects under the *Environment Effects Act 1978*. This process is referred to as an *Environment Effects Act 1978* self-assessment.

The Assessment considers the Referral Project Area provided by John Holland as illustrated in figures attached to this report.

Soil impacts are the primary focus of this Assessment given the Project largely entails shallow excavations. Groundwater impacts potentially may occur in areas of deeper excavation (e.g. piling activities) where the works interact with groundwater.

The key issues pertaining to contamination and management which are discussed in the Assessment are as follows:

- The potential for pre-existing contamination;
- The nature and extent of identified contaminants in soil;
- Handling and reuse or disposal of large volumes of contaminated and clean soil;
- The potential for naturally occurring, acid sulphate soil / rock; and
- The potential for groundwater contamination to exist and for contaminated groundwater plumes to impact or be impacted by proposed project activities (i.e. dewatering) with potential exposure risks to humans or the environment.

Identified or reasonably suspected contaminated land issues on the Project are not considered to cause potential adverse environmental effects that could be significant in a regional or State context. The Environmental Effects Statement (EES) referral triggers relevant to contaminated land are not considered to have been met given the nature of the proposed works and the sites environmental setting.

Recommendations have been made to minimise the impacts on human health and the environment from contamination through mitigation and management measures. These measures will be formalised through management plans prepared and approved in accordance with the relevant planning approval.

The mitigation measures in relation to the potential contaminated land and groundwater impacts are well-established, including standard construction techniques and management processes. These measures would minimise, as far as reasonably practicable, the disturbance of sources of contamination and the excavation of contaminated soil.

Where groundwater may potentially be encountered, the works shall be designed to minimise changes to groundwater levels during construction and operation, including excavation and piling. A piling method should be selected that maintains groundwater levels with contingency measures and/or controls to maintain the groundwater levels and quality, prevent groundwater draw-down and change the extent of existing contamination plumes (if any).

The Project will develop relevant management plans including:

- Soil management plan (SMP);
- Health, safety and environmental plan (HSEP);
- Groundwater management plan (GMP); and
- Construction environmental management plan (CEMP).

The measures provided in these plans must be developed in accordance with the environmental risk management measures detailed in this Assessment report and must comply with relevant Victorian laws and policies, and with EPA Victoria and WorkSafe Victoria requirements. The recommended management measures set out in this document, provide proposed measures that would mitigate these impacts to acceptable levels, resulting in a low to very low risk to human health and the environment from the Project.

Therefore, the Assessment has determined that with consideration and implementation of standard management and mitigation measures, residual potential contaminated land and groundwater impacts would not pose a significant risk to the environment and / or human health.

Statement of Limitations

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

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

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

Sampling Risks

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

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

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

Reliance on Information Provided by Others

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

Recommendations for Further Study

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

Table of Contents

1	Introduction	1
1.1	Objective.....	1
1.2	Background.....	1
1.3	Scope of Works.....	1
1.4	Methodology	2
1.5	Assumptions and Limitations	2
2	Project Description.....	3
3	Environmental Framework	4
3.1	Environment Effects Act 1978.....	4
3.2	Environment Protection Act 2017	4
4	Existing Conditions.....	7
4.1	Preliminary Site Investigation.....	7
4.2	Intrusive Soil Assessment	12
5	Impact Assessment	17
5.1	Introduction.....	17
5.2	Excavation.....	17
5.3	Summary of Contaminated Land Impacts	19
5.4	Environmental Risk Management	23
6	Conclusion.....	27
6.1	Environment Effects Statement Implications.....	27
6.2	EPA Victoria (secondary consents)	29
6.3	Summary.....	30
7	References	31

List of Appendices

Figures

Summary Tables

Revision

Draft issues of this document are identified as Revision A, B, C etc. Upon initial acceptance and issue for use, this will change to a sequential numbering system commencing at Revision 00. Revision numbers will continue at 01, 02, etc.

Revisions Details		
Rev	Date	Purpose
A	30/06/2025	Draft
B	08/07/2025	Draft
C	21/07/2025	Draft
00	06/08/2025	Final

1 Introduction

Prensa Pty Ltd (Prensa) was engaged by John Holland Pty Ltd (John Holland) to prepare this contaminated land impact assessment report (Assessment) for the Brunswick Level Crossing Removal Project (the Project) in Brunswick and Parkville, Victoria.

1.1 Objective

The objective of the Assessment was to present a summary of existing conditions based on completed contaminated land assessments to inform an assessment of the Project against the Ministerial Guidelines for Assessment of Environmental Effects under the *Environment Effects Act 1978*. This process is referred to as an *Environment Effects Act 1978* self-assessment.

1.2 Background

The North Western Program Alliance (NWP), consisting of the Level Crossing Removal Project (LXRP), Metro Trains Melbourne (MTM), John Holland Group (JHG) and Kellogg Brown & Root (KBR), is undertaking due diligence assessments for the Project.

Prensa has performed a Preliminary Site Investigation (PSI) for the Project as well as opportunistic soil contamination assessment in areas of the rail corridor, station platforms and road level crossings.

The Project is being referred under the *Environment Effects Act 1978*. As part of this process, potential environmental effects (including contamination) are required to be assessed to determine if the Project requires further assessment such as an Environmental Effects Statement (EES).

As such, John Holland requested Prensa to prepare this Assessment report.

1.3 Scope of Works

The Assessment report included the following key tasks:

- Review and summarise areas where significant ground disturbance / excavation is proposed during the construction phase;
- Review and summarise the contaminated land investigation works completed on the Project to date, incorporating intrusive investigation and environmental sampling information;
- Provide indicative estimates of spoil volumes to be generated during the construction phase, based on proposed construction methods and assumptions;
- Provide an indicative spoil classification for waste management purposes under Victorian Environmental Legislation;
- Provide recommendations for environmental risk management that would apply to the design/delivery phases of the Project;
- Provide an overview of implications of these findings, including:
 - Spoil classification and waste management practices for each indicative classification;
 - Potential reuse of spoil material within the Project;
 - Data gaps that may be existing within the Project; and
- Provide recommendations for further investigation, fulfillment of environmental obligations, and spoil management practices.

1.4 Methodology

The preparation of the Assessment included the following:

- Review of the scope of works and mapping provided by LXRP;
- Review of relevant documentation, including desktop and intrusive contaminated land investigations and reports;
- Based on the desktop information review, the potential for contaminated land to impact the Project was characterised qualitatively, considering:
 - **The nature and extent of contaminated land:** Potential for soil and / or groundwater concentrations of contaminants to be present in exceedance of quality objectives applicable for the current land uses adjacent to the Project and the future use of land corresponding to the proposed rail development, and/or EPA Victoria waste guidelines for waste soil classification;
 - **The associated management responses required based on the identified contamination:** ‘complex’ contaminant classes include those that present remediation and/or disposal challenges and require active or additional management measures;
 - **The extent of ground disturbance during construction,** e.g. shallow versus deep excavation and / or piling, and likelihood of encountering groundwater.
- Potential impacts to the Project were primarily determined through the nature and extent of contamination and the extent of interaction of the Project construction and operation with that contamination. Prensa notes that those interactions are primarily associated with excavation, piling, and interactions with groundwater; and
- The potential impacts to the Project were assessed considering potential for risks to human health, amenity and the environment that may arise as a result of the Project, and impacts accordingly to project budget and program associated with implementation of recommended risk mitigation actions in design and construction, and potentially regulatory requirements/ implications, associated with contaminated land.

1.5 Assumptions and Limitations

The following assumptions and limitations apply to the Assessment:

- The Assessment is based on the available contaminated land information for the Referral Project Area;
- The Assessment should only be used for the objective outlined in **Section 1.1**. The Assessment is not intended to be a comprehensive report outlining all contaminated land issues, but rather a summary of the key potential impacts to inform the referral; and
- The report is subject to the statement of limitations attached to this report.

2 Project Description

The Project proposes to remove the following eight level crossings:

- Albion Street, Brunswick;
- Hope Street, Brunswick;
- Victoria Street, Brunswick;
- Albert Street, Brunswick;
- Dawson Street, Brunswick;
- Union Street, Brunswick;
- Brunswick Road, Brunswick; and
- Park Street, Parkville.

The level crossings are located on the Upfield Line, approximately 3-5 km north of the Melbourne CBD within the municipalities of the City of Melbourne and City of Merri-bek. The Project proposes an elevated rail bridge to separate the rail from the cross roads, beginning south of Park Street, Parkville and finishing at Tinning Street, Brunswick.

The existing three stations, Jewell, Brunswick, and Anstey will be merged into two new stations.

The new station at Brunswick south will be located between the existing Jewell Station and Brunswick Station, and the new station at Brunswick north will be located to the south of the existing Anstey Station. The Project will also deliver at-grade separated bike and pedestrian paths and new open space.

The Project will involve road works in conjunction with each of the level crossings and will include the removal of rail tracks, regrading, asphalt works and construction of associated pedestrian and bike crossing infrastructure. At Park Street, a slight lowering of the road will be required. The east west service road and footpaths on the north side of Park Street will remain at grade. Short-term road closures are anticipated to be required at each level crossing and on local roads adjacent to the rail corridor during the road works and installation of the rail bridge.

The Referral Project Area (RPA) is shown **Figure Series 1** in the 'Figures' section and extends approximately 3.8 kilometres along the Upfield rail line from approximately 450 meters west of Royal Park Station in the south to Moreland Road in the north. The RPA includes sections of Royal Park, private properties, residential and arterial roads, such as Sydney Road, Moreland Road and Brunswick Road, and a section of Clifton Park in Brunswick. Surrounding land uses included public open spaces, rail reserves, public roads, Melbourne Zoo, and industrial and residential land.

3 Environmental Framework

3.1 Environment Effects Act 1978

The *Environment Effects Act 1978* (EE Act) provides requirements for assessment of proposed projects considered to have or capable of having a significant effect on the environment. Section 8(4) of the EE Act, outlines that a referral is required to be submitted to the Minister for Planning to determine whether an EES is required in respect of works that could have a significant effect on the environment. The referral criteria are outlined in ministerial guidelines (DTP, 2023). The criteria considered relevant to contaminated land is summarised in **Table 1**.

Table 1: Referral Criteria Relevant to Contaminated Land (DTP, 2023)

Type	Criteria
Individual	Potential for extensive or major effects on the use and environmental values of water resources due to changes in water quality, water availability, stream flows, water system function, or regional groundwater levels, or the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term.
	Potential for extensive or major effects to human health or the environment, or displacement of residents, from pollution or waste emitted to air, land, water or groundwater.
Combined	Potential for extensive or major effects to the environment due to changes in land stability, disturbance of acid sulphate soils or project induced soil erosion over the short or long term.

Notes: Some potential effects warrant referral if an individual criteria is met. Combined referral criteria require a combination of two or more types of potential effects on the environment to warrant referral of a project.

3.2 Environment Protection Act 2017

The *Environment Protection Act 2017* (EP Act) emphasises a preventative approach to environmental protection, focusing on minimising risks of harm from pollution and waste, rather than solely managing the consequences of pollution.

A number of key aspects of the EP Act that relate to the assessment and evaluation of contamination risks at the Project include:

- Section 25(1) imposes a general environmental duty (GED) requiring that *“A person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable”*;
- Section 35 defines ‘contaminated land’ as *“waste, a chemical substance or a prescribed substance is present on or under the surface of the land, and the waste, chemical substance or prescribed substance –*
 - a) is present in a concentration above the background level; and*
 - b) creates a risk of harm to human health or the environment.”*
- Section 39, the ‘Duty to Manage’ contamination applies to a person in management or control of a site that meets the definition of ‘contaminated land’, and where there are reasonably practicable actions that can be taken to minimise the risks of harm associated with the contamination; and

- In meeting the Duty to Manage, those in management control of the land must perform an assessment proportionate to the risk, implementation of management measures to control the risk and sharing of information with others who may be impacted by the contamination.

In evaluating the risk of harm posed by contamination to human health and the environment, an assessment of risks against Environmental Values is required. The Environment Reference Standard (ERS) defines Environmental Values for ambient air, ambient sound, land and water environments. These Environmental Values are uses, attributes and functions of the environment that Victorian's value. The ERS sets benchmarks (i.e. indicators and objectives) which aim to support these values. In many cases, the benchmark /goal is to maintain the background level. Where this cannot be achieved the benchmark becomes a risk-based screening level. The NEPM (ASC) and other published guidelines and standards assist in evaluating the risk.

The current and proposed use of the Referral Project Area are considered to align with the recreation/open space, commercial or industrial land uses in the ERS. Given these current and proposed uses, **Table 2** provides a list of relevant Environmental Values and the adopted risk-based soil quality guidelines.

Table 2: Adopted Soil Quality Guidelines	
Protected Environmental Values	Risk Based Soil Quality Guidelines
Land Dependent Ecosystems and Species (Modified or Highly Modified)	1. NEPC, NEPM (ASC), Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs).
Human Health	1. NEPC, NEPM (ASC), Health Investigation Levels (HILs) and Health Screening Levels (HSLs). 2. CRC CARE (2011) <i>Technical Report No. 10</i>, Health Screening Levels for direct contact. 3. NEPC, NEPM (ASC), Management Limits for petroleum hydrocarbon compounds.
Buildings & Structures	1. Australian Standard (AS) 2159-2009 <i>Piling – Design and Installation</i>. 2. NEPC, NEPM (ASC), Management Limits for petroleum hydrocarbon compounds. 3. EPA Victoria Publication 655.1, <i>Acid Sulfate Soil and Rock</i>, July 2009.
Aesthetics	1. Risks primarily evaluated with field observations recorded during the works. 2. NEPC, NEPM (ASC), Management Limits for petroleum hydrocarbon compounds.

The EP Act further provides a framework for classifying waste, surplus to needs so that the risks of harm from waste to human health and the environment can be managed. This process entails determining a waste code and where required, a waste category for the waste. Some wastes are pre-classified based on their inherent risks and other wastes are subject to further assessment, including sampling and analysis to classify. Wastes are assigned one of the categories in **Table 3** (listed from lowest hazard to highest hazard) with reference to the *Environment Protection Regulations 2021* (EP Regulations) and subordinate EPA Victoria Publications such as Publication 1968.1, 1828.3, 702.2 and 655.1.

Table 3: Waste Types and Categories

Types of Waste	Waste Categories which Apply to Soils
Industrial Waste	Fill Material
Priority Waste	Waste Acid Sulfate Soil
Reportable Priority Waste	• Soils containing asbestos only • Category D • Category C • Category B • Category A

4 Existing Conditions

4.1 Preliminary Site Investigation

A preliminary site investigation (Prensa, 2023) was prepared for the Project to inform the environmental setting and provide an indication of the potential for contamination to exist as a result of current and/or historical activities in areas of key ground disturbance and in the immediate surrounding areas.

For the purposes of the PSI, the study boundary was referred to as 'the Site'. The Site boundary differs to the Referral Project Area with differences illustrated in **Figure Series 1** in the 'Figures' section of this report. The Site area was further divided into six geographical areas in the PSI due its length. These areas included:

- **Area 1:** Moreland Road to Albion Street (approximate chainage: 8,600-8,100 m);
- **Area 2:** Albion Street to Victoria Street (approximate chainage: 8,100-7,350 m);
- **Area 3:** Victoria Street to Dawson Street (approximate chainage: 7,350-6,850 m);
- **Area 4:** Dawson Street to Brunswick Road (approximate chainage: 6,850-6,250 m);
- **Area 5:** Brunswick Road to Royal Park Station (approximate chainage: 6,250-5,350 m); and
- **Area 6:** Royal Park Station to Manningham Street (approximate chainage: 5,350-4,350 m).

The key findings from the PSI including details pertaining to the environmental setting and the potential for contamination based on site history and site inspection sources are summarised in **Sections 4.1.1** and **4.1.2** below.

4.1.1 Environmental Setting

Table 4: Environmental Setting

Sensitive Receptors	There are numerous sensitive receptors within a 200m buffer distance of the Site, including but not limited to: • Kalimera Kids Childcare Services, located 170 m east of the Site, adjacent Area 4; • Dawson Street Children's Co-operative Childcare Services, located 180 m west of the Site, adjacent Area 4; • Residential properties immediately west of Area 2, Area 4 and Area 5.
Topography	The ground surface elevation at the Site was approximately 38 to 56 m AHD. The Site and surrounding area sloped downwards from the north towards the south and south west. More specifically: • Area 1 (Moreland Road to Albion Street) generally slopes upwards towards the north and upwards towards the west; • Area 2 (Albion Street to Victoria Street) generally slopes upwards towards the north, with little variation laterally away from the Site; • Area 3 (Victoria Street to Dawson Street) is generally flat with slight changes in elevation laterally from the Site (approximately 1 m with an approximate 100 m buffer); • Area 4 (Dawson Street to Brunswick Road) is generally flat with slight changes in elevation laterally from the Site (approximately 1 m with an approximate 100 m buffer); • Area 5 (Brunswick Road to Royal Park Station) generally slopes up towards Royal Park Station, with elevated hills surrounding the rail corridor. From south towards Brunswick Street, the Site and surrounding area generally flattens out; and

Table 4: Environmental Setting

	Area 6 (Royal Park Station to Manningham Street) generally slopes up towards Royal Park Station, with elevated hills surrounding the rail corridor.
Geology	Four geological units occur at the Site (from newest to oldest): 1. Quaternary-aged Newer Volcanics basalt; 2. Tertiary-aged Sandringham Sandstone; 3. Tertiary-aged Tullamarine Basalt; and 4. Silurian-aged Melbourne Formation. In the northern portion (Areas 1-3) of the Site, unit 1, 2 and 4 are likely to be encountered in sequence. The Silurian-aged Melbourne Formation is likely to be encountered from the surface in the central portion of the Site (Area 4, around Jewell Station). The Tertiary-aged Sandringham Sandstone will likely occur from the surface in the southern portion of the Site (Area 5) south of Brunswick Road and the Tertiary-aged Tullamarine Basalt will likely be encountered in Area 6, south of Royal Park.
Acid-Sulphate Soils	Acid Sulphate Soils (ASS) were not identified onsite with desktop sources indicating an: - Extremely low probability of occurrence in the northern portion of the Site (1-5% chance of occurrence); and - Low probability of occurrence in the southern portion of the Site (6-70% chance of occurrence). These maps were noted to be of very low confidence (map scale 1:2,000,000).
Hydrology	The nearest watercourses to the Site comprised the following: - Moonee Ponds Creek approximately 1.15 km west at its closest point; and - Merri Creek approximately 1.65 km east at its closest point. Both Merri Creek and Moonee Ponds Creek are tributaries to the Yarra River, which is situated approximately 3.5 km south-south west at its closest point. Two (2) wetlands were also noted to exist adjacent to Area 6, including: - Trin Warren Tam-Boore Bellbird Waterhole, approximately 200 m north west of the Site; and - Storage Wetland Park, approximately 400 m west of the Site.
Anticipated Groundwater Flow	Groundwater was inferred to flow towards the south to south-west. The likely receiving waters were considered to be Moonee Ponds Creek and/or the Yarra River. It is noted that Environmental Audits in the north portion of the Site indicated a south/south westerly flow however Audits near Union street in the south portion (i.e. Area 4) indicated a north/north westerly ground water flow.
Depth to Groundwater	<5-10 m below the ground level (m bgl) across most of the Site (i.e. Areas 1-4). Bores surrounding the Site indicated that groundwater may be encountered at greater depth (i.e. 10-15 m bgl). 10-50 m bgl in areas Area 5 and Area 6.
Groundwater Use	867 registered bores were identified within a 2 km radius of the Site, with their uses including: - Exploration (73); - Monitoring (203); - Stock and domestic (14); and - Unknown (577). The wells closest to the site (i.e. within 500 m of the site) were installed to depths ranging from 3.2 to 52 m bgl and were not registered for abstractive uses.

Table 4: Environmental Setting

Hydrogeological Units/ Groundwater Quality	In the northern portion (Areas 1-3) of the Site, the upper aquifer is likely in Newer Volcanics Basalt aquifer. The Silurian-aged Melbourne Formation is likely to be encountered from the surface in the central portion of the Site (Area 4, around Jewell Station). The Tertiary-aged Sandingham Sandstone will likely occur from the surface in the southern portion of the Site (Areas 5 and 6 south of Brunswick Road and around Royal Park). The most southern point of the Site may also comprise Lower Tertiary Basalts, Older Volcanics Aquifer. The salinity and likely segments in accordance with Part 5, Division 2 of the ERS range from: • 1,000 – 3,000 mg/L as total dissolved solids (TDS) in Areas 1-3 (Segment A2-B); • 1,000 – 7,000 mg/L as TDS in Area 4 (Segment A2-D); • 3,500 – 7,000 mg/L as TDS in Area 5 (Segment B-D); and • 3,500 and 13,000 mg/L as TDS in Area 6 (Segment B-F).
Groundwater Dependent Ecosystems	Groundwater Dependent Ecosystems (GDEs) including aquatic and terrestrial groundwater dependent ecosystems were not identified on-site.

4.1.2 Potential for Contamination

The potential for contamination was assessed based on the available desktop information and the previous environmental assessment reports reviewed as part of the PSI. The review of desktop information indicated that the Site was within an industrial area from the late 1800s with significant industrial processes undertaken throughout Areas 1-4. Area 5 and 6 were generally utilised as a public park and sporting area following the military encampment (accommodation) during and following World War II and the establishment of the railway line circa 1880s.

The rail alignment remained relatively unchanged over this period apart from various upgrades over time including electrification of the rail and demolition/construction of various structures along the alignment.

Based on the review it was evident that groundwater is regionally contaminated with heavy metals from general historical industrial processes and nitrate which was attributed to leaking sewerage infrastructure in the area. It is noted that Areas 1-4 are likely to have potential groundwater contamination from a variety of heavy industries covering a broad suite of contaminants. Area specific contaminants of potential concern (CoPC) are discussed in **Table 5** from sources identified at the Site or within close proximity.

Table 5: Preliminary Conceptual Site Model (Prensa, 2023)

Area	Surrounding current and historical land uses	Media	CoPC ¹	Potential risk to project
Area 1	Rail corridor with historical minor demolition and potential fill or historical dumping.	Soil	Metals, TRH, PAH, ACM, BTEXN, OCP, OPP, herbicides	Moderate to high – large volumes potentially disturbed as part of the Project with high likelihood of soil contamination
	Industrial area, including:			
	- Filling under rail corridor to north; - Adjacent clothing manufacture; - Adjacent auto mechanic; and - Adjacent plastic moulding premises.	Soil vapour	TRH, VOC	Low – given development plans with open space proposed across the alignment
		Groundwater	A broad range ² , key contaminants include: nitrate, heavy metals, TRH, BTEXN, solvents	Low to moderate – limited potential to encounter groundwater except in deeper excavations for piling
Area 2	Rail corridor with historical minor demolition and potential fill or historical dumping and Anstey Station.	Soil	Metals, TRH, PAH, BTEXN, OCP, OPP, herbicides, ACM	Moderate to high – large volumes potentially disturbed as part of the Project with high likelihood of soil contamination
	Residential and commercial area, including:	Soil vapour	TRH, VOC (TCE)	Low – given development plans with open space proposed across the alignment
	- Former Brunswick Gas works; - Restricted groundwater usage at West St due to regional TCE plume; and - Electrolux white ware manufacture.	Groundwater	A broad range, key contaminants include: Ammonia, benzene, cyanide, nitrate, heavy metals, TRH, BTEXN, CHC (including TCE)	Low to moderate – limited potential to encounter groundwater except in deeper excavations for piling
Area 3	Rail corridor with historical minor demolition and potential fill or historical dumping and Brunswick Station.	Soil	Metals, TRH, PAH, BTEXN, OCPs, OPPs, herbicides, ACM	Moderate to high – large volumes potentially disturbed as part of the Project with high likelihood of soil contamination
	Residential and commercial area, including:	Soil vapour/ ground gas	Methane, carbon dioxide, TRH, VOC	Low – given development plans with open space proposed across the alignment

¹ Abbreviations include – TRH: total recoverable hydrocarbons, PAH: polycyclic aromatic hydrocarbons, ACM: asbestos containing material, BTEXN: benzene, toluene, ethylbenzene, xylenes and naphthalene, OCP: organochlorine pesticides, OPP: organophosphorus pesticides, VOC: volatile organic compounds, CHC: chlorinated hydrocarbons, PCB: polychlorinated biphenyls, TCE: trichloroethene

² Metals, TRH, SVOC, VOC (including CHCs and MAHs), PFAS, nutrients, glycols, acids, alkalis, formaldehyde, cyanide

Table 5: Preliminary Conceptual Site Model (Prensa, 2023)

Area	Surrounding current and historical land uses	Media	CoPC ¹	Potential risk to project
	304 Albert St former clay pits (filling) and UST remaining onsite; and - Former quarries/ landfills 300 m and 500 m west.	Groundwater	A broad range, key contaminants include: nitrate, heavy metals, TRH, BTEXN, VOC, solvents, acids, alkalis, sulfide, chloride, fluoride, ammonia	Low to moderate – limited potential to encounter groundwater except in deeper excavations for piling
Area 4	Rail corridor with historical minor demolition and potential fill or historical dumping and Jewell Station.	Soil	Metals, TRH, PAH, BTEXN, OCP, OPP, herbicides, ACM	Moderate to high – large volumes potentially disturbed as part of the Project with high likelihood of soil contamination
	Residential and commercial area, including: - Wood product manufacturing; - Former landfill (approx. 350 m east); and - Jewell Station precinct with shallow contaminated fill.	Soil vapour/ ground gas	Methane, carbon dioxide, TRH, VOC	Low – given development plans with open space proposed across the alignment
		Groundwater	A broad range, key contaminants include: nitrate, heavy metals, VOC, solvents, acids, alkalis, sulfate, ammonia sulfide, chloride, fluoride	Low to moderate – limited potential to encounter groundwater except in deeper excavations for piling
Area 5	Rail corridor and Royal Park Station, with historical minor demolition, potential cut and fill and potential historical dumping.	Soil	Metals, TRH, PAH, BTEXN, OCP, OPP, herbicides, PCB, ACM	Low to moderate – relatively low volumes potentially disturbed as part of the Project with low to moderate likelihood of soil contamination
	Residential and reserve/public park, including: - Substation for rail infrastructure; and - Nearby former military Camp Pell and later slums.	Groundwater	Nitrate, heavy metals	Low to moderate – limited potential to encounter groundwater except in deeper excavations for piling
Area 6	Rail corridor with historical minor demolition and potential fill or historical dumping.	Soil	Metals, TRH, PAH, BTEXN, OCPs, OPPs, herbicides, ACM	Low – minor volumes potentially disturbed as part of the Project with low to moderate likelihood of soil contamination
	Reserve/public park area, including: Nearby former military Camp Pell and later slums.	Groundwater	Nitrate, heavy metals	Low – limited potential to encounter groundwater except in deeper excavations for piling which is not proposed in Area 6

In summary, the conceptual site model (CSM) indicated that contamination risks to the Project were higher in the northern portion of the Site (Areas 1-4). This was due to the identification of more significant historical contaminating activities, including a former gas works, former landfills, and chemical/product manufacturers. Potential sources of contamination in the southern portion of the Site (Areas 5 and 6) were considered to pose a lower risk to the Project.

It was acknowledged that additional point sources of contamination may be identified during site inspections or intrusive investigations. This additional information should be utilised to update the potential for contamination accordingly.

Soil

Key findings which relating to the potential for soil contamination included:

- Commercial and industrial activity was limited to Areas 1-4, with Areas 5 and 6 consisting of residential and public open space;
- Topsoil in Areas 1-6 is likely imported fill with historical minor demolition and potential dumping;
- CoPCs were similar in each Area with the exception of Area 5, which included polychlorinated biphenyls (PCB) due to the presence of a substation for rail infrastructure;
- Potential risk to the Project was moderate to high in Areas 1-4 due to the large volumes of potentially disturbed soil and the increased likelihood of soil contamination; and
- Potential risk to the Project was low to moderate in Area 5 and low in Area 6 due to the relatively low volumes of potentially disturbed soil and low to moderate likelihood of soil contamination.

Groundwater

Key findings which relating to the potential for groundwater contamination included:

- CoPCs in Areas 1-4 consisted of a broad range of contaminants, whereas CoPCs in Areas 5 and 6 were limited to nitrate and heavy metals;
- Potential risk to the Project was low to moderate in Areas 1-5 due to the limited potential for excavation works to reach groundwater, with the exception of deeper excavation for piling; and
- Potential risk to the Project was low in Area 6 due to the limited potential for excavation works to encounter groundwater and the absence of piling excavation.

Soil vapour and ground gas

Key findings relating to the potential for soil vapour/ground gas contamination included:

- The potential of contamination from soil vapour was limited to Areas 1-4, with potential ground gas in Areas 3 and 4; and
- Potential risk to the Project was considered to be low in Areas 1-4 given the development plans with open space proposed across the alignment.

4.2 Intrusive Soil Assessment

4.2.1 Sampling Events and Sampling Locations

A total of 94 locations were established for the purposes of soil logging, sampling and analysis. Soil samples were collected and analysed from 91 of these locations. The sampling locations were established in November 2022, December 2022 and March 2023. **Figure Series 1** in the 'Figures' section shows the position of the sampling locations. Some of the locations were established concurrently with geotechnical investigations performed by Douglas Partners with other locations established by Prensa. These locations are differentiated by the preface to the label 'DP' for Douglas Partners or 'P' for Prensa.

The sampling locations were established for various purposes but were generally positioned in a systematic fashion along sections of railway alignment which are proposed to be disturbed during the Project, with additional investigations to assess soil beneath existing station platforms and road intersections.

4.2.2 Characterisation

A total of 169 soil samples were collected and analysed during the assessments. Intrusive groundwater, soil vapour or ground gas assessment was not performed by Prensa to date. Samples were analysed for a broad range of contaminants listed in EPA Victoria Publication 1828.2 Table 3. This analysis addressed analytes of primary concern based on the findings of the PSI.

Douglas Partners also performed soil sampling and analysis on 5 soil samples for analytes which may impact upon piles such as sulphate, chloride and pH (Douglas Partners, 2023).

A summary of the sampling samples analysed from each area/domain established is provided in **Table 6**.

Domain	Samples Analysed
Ballast	25
Underlying Fill	74
Natural	18
Platform Fill	30
Road Fill	22

Data gaps remain and further work will be undertaken so spoil can be appropriately managed in the delivery phase. However, the investigations performed to date provide an indication of the soil contamination likely to be encountered and managed as part of the Project.

Data gaps which remain and need to be addressed by further assessment include:

- Resolve uncertainty pertaining to soil contamination that may pose a risk to on-site receptors or a financial liability to the Project where offsite disposal is required. This may need to include analysis for other analytes which have been added to the waste guidelines since completion of the previous sampling;
- Evaluate whether groundwater contamination exists which may pose a risk during works or impact waste classification of deeper spoil; and
- Assessment of potential acquisition sites or laydown sites required for the Project.

Final spoil volumes and excavation areas are required to prepare a scope of works to close out the above data gaps.

4.2.3 Ground Conditions

Key field observations recorded during the intrusive assessment works are provided in **Table 7**.

Table 7: Field Observations

Area	Domain Description	Thickness (m)		Average Depth (m)	Soil type	Evidence of Contamination
		Min	Max			
Rail Corridor	Ballast (track formation only)	0.2	1.5	0-0.6	Cobbles, minor fines	Hydrocarbon staining (SB05)
	Fill	0.1	2.0	0.6-1.1	Silty CLAY, sandy CLAY, sandy GRAVEL, silty GRAVEL, gravelly CLAY, cement treated rock. Brown, light brown, dark brown	Oil odour (DP_BH7)
	Natural soil	ND	ND	1.1+	CLAY, silty CLAY. Grey, brown	None
Anstey Station	Platform fill	0.6	1.8	0-1.5	Gravelly SILT, gravelly SAND, gravelly CLAY, sandy CLAY. Dark grey to brown.	Coal, brick, ceramic
	Natural soil	ND	ND	1.5+	Sandy CLAY. Brown/orange.	None
Brunswick Station	Platform fill	0.5	1.5	0-1.2	Gravelly SAND, sandy CLAY, silty clay. Dark grey to dark brown.	Coal, brick, ceramic, glass
	Natural soil	ND	ND	1.2+	Sandy CLAY. Silty clay. Dark brown to red.	None
Jewell Station	Platform fill	0.2	1.6	0-1.0	Gravelly SAND, silty SAND, clayey SAND. Grey, brown, dark grey and orange.	Slag, coal, brick, ceramic, glass, concrete
	Natural soil	ND	ND	1.0+	Silty CLAY. Grey, brown, orange. Some calcrete.	None
Road Fill	Fill	0.9	1.2+	ND	GRAVEL, sandy GRAVEL, clayey GRAVEL, CLAY, sandy CLAY, silty CLAY. Dark brown, grey.	Brick, glass, ballast
	Natural	ND	ND	ND	CLAY. Grey brown mottle.	Sulfidic odour.
Road (Park Street)	Fill	0.3	0.7	0.5	Silty GRAVEL, gravelly SILT. Brown	Bitumen fragments.
	Natural	ND	ND	0.5+	CLAY. Brown with orange/red mottle	None.

NOTES: ND = Not determined. Fill depths beneath platformers were deeper at on the down (west) side of the track at each station assessed.

4.2.4 Risks to Environmental Values

The analytical results for soil samples analysed at the Site to date were compared against relevant soil quality guidelines for assessment of risks to Environmental Values in **Table A1** attached to this report. Review of the results indicated the following:

- Results were generally less than the adopted soil quality guidelines, indicating most soils assessed at the Site are unlikely to present a risk to Environmental Values if undisturbed or reused at the Project;
- Fill samples from the rail corridor and station platforms reported some evidence of contamination but these results generally showed low variability;
- Fill samples from pavement dip sampling locations established in the road reported significantly higher concentrations of contaminants indicative of a potential hotspot of contamination or cross contamination with asphalt; and
- Exceedances were not identified in natural soil samples.

A summary of the analytes which reported exceedances of Environmental Value soil quality guidelines is in **Table 8** below.

Table 8 Summary of Soil Analytical Result (Environmental Values)					
Area	Analyte	Concentrations (mg/kg)	No. Samples	Soil Quality Guidelines Exceeded	Criteria (mg/kg)
Rail Corridor and Platform (Fill)	TRH F3	<100 – 560	2	ESL (open space)	300
	Lead	<5 – 1,100	2	HIL (open space)	600
Platform (Fill)	Carcinogenic PAHs as Benzo(a)pyrene TEQ	<0.5 – 9.1	10	HIL (open space)	3
	TRH F3	<100 – 1,100	8	ESL (open space)	300
Road (Fill)	Benzo(a)pyrene	<5 - 130	2	ESL (open space)	33
	Carcinogenic PAHs as Benzo(a)pyrene TEQ	<5 - 180	8	HIL (open space)	3
			2	HIL (commercial/ industrial)	40
	PAH (Sum of Total)	<5 – 1,400	2	HIL (open space)	300
	TRH F2	<50 - 340	1	ESL (open space)	120
			1	ESL (commercial/ industrial)	170
	TRH F3	<100 – 24,000	11	ESL (open space)	300
			3	ESL (commercial/ industrial)	1,700
			2	HSL (open space)	5,300
	TRH F4	<100 – 4,500	1	ESL (open space)	2,800
				ESL (commercial/ industrial)	3,300

4.2.5 Off-site Disposal

The analytical results for soil samples analysed at the Site to date were compared against relevant soil criteria in **Table A2** attached to this report.

Based on the review of existing sampling data and contaminant concentrations observed:

- The contamination within the ballast, fill and natural soil in the rail corridor was consistent across the Site. These areas primarily reported low concentrations of inorganic contaminants (i.e. metals and fluoride);
- Platform fill and road fill were identified as areas of potential concern due to the type and frequency of contaminant exceedances observed relative to other areas of the Site. These areas identified higher concentrations of inorganics (i.e. metals) as well as polycyclic aromatic hydrocarbons (PAH) and total recoverable hydrocarbons (TRH);
- Fill and natural soil within the rail corridor were likely to classify as Fill Material following statistical appraisal;
- Ballast within the rail corridor is likely to be classified as Category D Priority Waste, with elevated levels of heavy metal contaminants (copper and nickel);
- There is a moderate to high potential for contamination in the areas identified as hotspots (platform fill, road fill), with some contaminant concentrations exceeding Category C and Category B upper limits; and
- Soil in hotspot areas should be classified separately to the soil in the rail corridor.

4.2.6 Groundwater

Groundwater was not encountered by Prensa during the soil sampling events performed in November 2022, December 2022 and March 2023. Douglas Partners assessed groundwater depth and elevation at eight borehole locations over two monitoring events as part of the geotechnical assessment of the Site (Douglas Partners, 2023). The boreholes assessed (BH10, BH12, BH16-BH20 and BH23) recorded groundwater at depths ranging from 6.04 to 11.83 metres below ground level (m bgl) with groundwater elevation ranging from 33.6 to 39.9 m AHD. These bores are situated along the linear rail alignment and as such only provide an indication of groundwater flow directions. However, the bores indicate:

- There is a northerly component to groundwater flow in the Melbourne Formation in the southern portion of the Site between Brunswick Road and Union Street; and
- There is a southerly component to groundwater flow in the Newer Volcanics north of Union Street.

These findings match expectations from the preliminary site investigation.

5 Impact Assessment

5.1 Introduction

The assessment of existing conditions with respect to land contamination issues is based on appraisal of information relating to current and historical land uses, and environmental investigation data reported in the public domain as well as the available data collected for the Project.

Project impacts in relation to contaminated land can be considered from broadly two perspectives:

- The potential impacts/effects of the Project on the environment and community. This was considered based on the residual impacts after mitigation measures to reduce impacts have been implemented within the Project. For the purposes of informing a referral under the EE Act, these impacts are considered after the application of mitigation measures and relate to the likely residual impacts; and
- The potential for Projects interaction with existing contamination to require complex, large scale or high cost mitigation measures.

This Assessment focusses primarily on the former and seeks to present the qualitative characterisation of the potential risk for contaminated land to impact the Project, considering the potential interactions of the Project with contaminated land as identified from assessment of existing land contamination conditions.

Major infrastructure projects within urban environments have the potential to encounter contaminated soil, rock and groundwater from the legacy of many years of commercial and industrial development combined with poor environmental management and waste disposal practices in the past. This is likely to be the case for the Project, with many known and potentially contaminated sites along or near the proposed project boundary.

The main impacts from disturbing sources of contamination would be associated with the construction phase and with shallow excavation works within the rail easements; including handling, transporting and reuse/ disposal of large volumes of soil which is either uncontaminated or contaminated with chemicals or other wastes such as asbestos-containing materials.

5.2 Excavation

5.2.1 Soil and Rock

John Holland provided the following information:

- The area and location of soil likely to require excavation at various stages of the Project; and
- The type of excavation and volume of potentially contaminated soil proposed to be disturbed.

It is noted that the design plans and spoil volumes provided by John Holland were indicative and may change throughout the timeline of the Project works. Prensa's estimations were based only on the plans and spoil volumes provided as well as Prensa's previous knowledge and experience working in rail corridors. Should further information relating to the extent and nature of excavation within the Referral Project Area become available, these estimations may change.

Details of the spoil volumes proposed to be disturbed are provided in **Table 9** of this report.

Table 9: Volume of Potentially Contaminated Soil Proposed to be Disturbed

Area	Excavation/Material Type	Estimated Volume (m ³)
3 km section of rail alignment	Ballast and fines within ballast	7,188
3 km section of rail alignment	Capping layer – assumed 0.5 m thick beneath the tracks	11,250
4.15 km linear alignment	Combined Services Route (CSR) trench	25,233
Areas north and south of the proposed rail bridge	Rail Tie Ins	4,532
Unknown location	Laydown/Haul roads	2,850
Proposed alignment of the rail bridge (25-30 m intervals)	Piling	1,847*
Unknown locations	Utilities	1,800
Unknown locations	Drainage	4,536
Unknown locations	Car parks/Shared use paths (SUP)	4,645
Along the proposed alignment of the rail bridge	Gantry Footings	7,134
Total		71,015

* Assumes contaminated soil will extend to approximately 2.0 m below ground level (bgl). Piling will likely extend to depths in the order of 20 m bgl. These volume estimates include approximately 10% of the soil proposed to be disturbed during piling works. The total volume of piling spoil was estimated to be 18,470 m³.

Review of these details indicated that the majority of excavation works for the Project will be shallow bulk earthworks and trenching. Excavation of contaminated soils may create an exposure pathway to sensitive receptors (this is further discussed in **Section 5.3.1**). This may have an impact on human health or the environment or will generate waste spoil in volumes that will require active management or disposal.

5.2.2 Groundwater

Groundwater is not likely to be encountered for bulk earthworks. Based on desktop sources and the results of geotechnical assessment, groundwater is expected to be encountered for piling activities.

Piling activities may require drilling down through multiple aquifers; controls are therefore required during piling to limit groundwater flow into excavations (including bored piles) to control potential mixing through different groundwater aquifers; and to control the potential for groundwater drawdown to prevent movement of any existing contaminated groundwater (if any).

5.3 Summary of Contaminated Land Impacts

5.3.1 Reuse / Retention of Soil

A discussion of contaminants which exceeded the adopted assessment criteria and their potential impact to the identified Environmental Values are summarised below:

Aesthetics

Overall, aesthetic issues which would have a significant impact on the Project have not been identified in the works completed to date. Some examples of staining, odours or minor building debris in soil were identified. However, these examples were generally isolated or were recorded in fill beneath pavements. It was considered that the soil from these areas will generally be reused in a similar setting as engineered fill and not remain exposed at the soil surface at the completion of the Project resulting in impact to this Environmental Value.

Buildings & Structures

Selected soil and rock samples were assessed for sulphate (as SO₄), chloride and pH to assess aggressivity of the soils to concrete and steel piles. These results indicated that the soils assessed were likely to be non-aggressive to concrete or steel piles.

Acid Sulphate Soil/ Rock

Desktop assessment identified a very low to low probability of acid sulphate soil occurrence at the Site.

This aligns with expectations given the surface geology at the Site comprises Quaternary to Tertiary-aged basalt, Tertiary-aged Sandstone and Silurian-aged siltstone and sandstone. These units do not typically present a high risk of acid sulphate soil occurrence. Low areas with water features such as creeks, rivers, lakes or swamps are not located on the Site.

Intrusive assessment for acid sulphate soils has not been performed to date. As such, the potential for pockets of acid sulphate soils to be present cannot be ruled out. Further sampling of natural soils/rock proposed to be disturbed as part of piling works should include some assessment for these analytes. However, the likelihood for large scale acid sulphate soil disturbance to occur on the Project and present a risk to the environment is considered to be low.

Human Health

Samples analysed were compared against NEPM guidelines protective of human receptors in a public open space or commercial/industrial settings. The results indicated:

- **Public open space:** Applicable for uses where members of the public can interact with the soil such as sporting reserves, parks or landscaped areas. Exceedances of these screening levels were identified in 20 fill samples from beneath existing station platforms and beneath roads. Exceedances were not identified in fill more broadly present across the rail corridor. These results are consistent with engineering fill within urban areas commonly reporting concentrations of contaminants which would not be suitable for deployment at the ground surface in landscaped areas; and
- **Commercial/industrial use:** Applicable for uses where humans have minimal opportunities for soil interaction such as uses where soil remains beneath pavements (i.e. shared use paths, roads, platforms, buildings). These screening levels are also adopted to evaluate potential risks to workers. Exceedances of these screening levels were limited to 2 samples from 1 location in the

road fill. This sample was located beneath Park Street where asphalt was identified in fill which may be attributed to the elevated results.

Given the above, the soil assessments have identified contaminant concentrations in soil which could present increased risks to human health or construction contractors or future users (in open space or commercial/industrial settings) if soils are excavated and reused in an uncontrolled manner. Risks to human receptors will likely require a more site-specific consideration of potential source-pathway-receptor linkages and development of site-specific management controls.

Ecological Health

Samples analysed were compared against NEPM guidelines protective of ecological receptors in a public open space or commercial/industrial settings.

- Exceedances of adopted screening criteria protective of ecological receptors in a public open space setting were reported for certain contaminants, for a total of 21 samples;
- Exceedances of adopted screening criteria protective of ecological receptors in a commercial / industrial setting were reported for certain contaminants, for a total of 3 samples.

Given the above, the soil assessments have identified concentrations which could present a risk to ecological receptors for future uses of land (open space or commercial/industrial settings) if soils are excavated and reused in an uncontrolled manner. Risks to ecological receptors will likely require a more site-specific consideration of potential source-pathway-receptor linkages and development of site-specific management controls.

5.3.2 Offsite Disposal and Reuse

The presence of significant volumes of contaminated soil has the potential to impact upon the delivery of the Project in multiple ways. Limitations in local landfill capacity may reduce offsite disposal options. Regulatory changes can also impact upon waste classification and management requirements.

The current estimates of spoil generation associated with the State land portion of the Project is approximately 88,000 m³, with over 80% of this spoil being excavated from the top 2.0 m. The balance of soil will be generated from deeper piling excavations. The soil excavated from the top 2.0 m of the soil profile are considered soils most likely to be impacted by contamination. Investigations to date have shown that the majority of fill and natural soil assessed from within the rail corridor will likely be classified as Fill Material (~65% of project spoil). Ballast fines and fill beneath existing station platforms and roads indicate a likely classification of Category D or Category C. The potential for hotspots of Category B or Category A soil was also identified in the assessment of fill beneath roads, particularly at Hope Street and Park Street.

The currently identified risk to the Project with respect to spoil re-use or waste management is considered to be moderate, primarily based on the presence of concentrations of contaminants that are not listed in 1828.2, which was in force at the time of the assessment works but are now required to be assessed (i.e. PFAS). However, it is noted that no significant point sources of PFAS contamination were identified within Prensa's PSI.

Further sampling and analysis will be required to characterise the waste soils prior to commencement of the Project.

5.3.3 Groundwater

Based on the information available to date pertaining to the geological and hydrogeological conditions at the Site, the potential for groundwater interaction during construction is anticipated to be limited to areas of deep excavation (i.e. piling). As such, the potential for project interaction with groundwater contamination (if any) is also limited to those areas.

Prensa was advised that the proposed piling methodologies comprise either:

- **Continuous flight auger (CFA):** Hollow-stem auger to drill to the desired depth, with concrete pumped into the hollow-stem as the auger is withdrawn; or
- **Bored piles:** Solid-stem auger to drill to the desired depth. Following completion of the drilling and removal of soil, a steel reinforcement cage is inserted into the bore and bore is then filled with concrete.

Both approaches are cast-in-place methods. Continuous pumping of groundwater to lower groundwater levels is not proposed for either method. As the CFA method drills and installs the pile in one continuous motion, this method is typically faster and will involve less displacement/disturbance of groundwater, with the disturbance likely to be limited to the bore volume. Comparatively, bored piles have a greater potential for groundwater displacement/disturbance as the bore will remain open for a period before concrete is poured. The volume of groundwater disturbance for bored piles will be a function of the pile volume, the depth of drilling below groundwater level, the yield/flow rate of the aquifer and the time between drilling and pouring of concrete. These factors remain unknown at this stage. However, it is considered unlikely that the volume of disturbance/displacement for bored piles will materially alter the groundwater flow regime in the region, with the effects likely to be:

- Local to the area immediately surrounding the piling activity; and
- Short term due to the nature of the construction works.

As such, the risks associated with groundwater movement due to piling is low, provided adequate controls are identified and implemented during the delivery phase, based on detailed design and construction planning. CFA, Bored Piles or a combination of both could be used. Determination of the most appropriate methodology will be informed by detailed geotechnical investigations.

The risk of groundwater contamination altering the waste classification of spoil generated during piling activities is also considered to be low as significant contamination is typically required before groundwater can alter solid waste classifications.

Intrusive groundwater assessment to identify the potential for groundwater contamination in the area which may impact upon dewatering activities has not been performed to date. Further assessment is proposed to inform design prior to delivery. This work will further inform the risk and appropriate management controls.

5.3.4 Soil Vapour and Ground Gas

Prensa's PSI identified several former quarries and waste disposal sites within a 500 m buffer of the Site, with various industrial uses also present in the northern portion of the Site. The potential for contamination from soil vapour was limited to Areas 1-4, with potential ground gas limited to Areas 3 and 4. Key on-site sources identified included:

- the former clay pit at 304 Albert Street;
- the existing TCE plume at West Street; and
- the area surrounding the former Brunswick Gas Works.

Ground gas and soil vapour can present a risk to human health when the gases migrate from the source beneath the ground surface into areas where the gas can accumulate in enclosed or semi-enclosed areas.

Based on the available data and understanding of the Project (elevated rail bridge with above ground railway stations), the risk of vapour contamination and / or landfill gas significantly impacting the Project is considered to be low.

If enclosed structures or trenches are proposed in the vicinity of sources of ground gas, further investigation into the risk posed by soil vapour/ground gas is required, prior to commencing works in these areas.

Risks from soil vapour and ground gas are primarily proposed to be assessed through conceptualisation of migration pathway and risk assessment informed by intrusive assessment as required.

5.4 Environmental Risk Management

5.4.1 Planning and Design

Additional Soil Assessment

The Project has already taken significant measures to identify the nature and extent of contamination in soil through opportunistic soil assessment. However, data gaps remain in the characterisation of contamination in soil with several known or potentially contaminated areas not yet assessed. Additional sampling of soil to target known or potentially contaminated areas and to meet sampling densities for soil classification are required.

Assessment for Spoil Reuse

Soil reuse will be prioritised in accordance with EPA Victoria's Waste Hierarchy. Initial work to identify potential reuse options based on the suitability of soil for reuse, including the waste classification and associated volumes and assessment of relevant risk-based screening levels has been performed. A options assessment will be undertaken to evaluate the feasibility and practicality of soil reuse, treatment management and disposal options in the delivery phase.

Reuse options will be further informed by risk workshops, including community and stakeholder management and budget aspects. The options should aim to be cost effective, practical and viable, where utilisation of reuse options in the delivery phase will have economic, environmental and social benefits.

Groundwater Assessment

Civil structures will need to be designed for the most adverse high and low groundwater levels, including variance between sides of the structure both during construction and throughout the Design Life, including accounting for effects of climate change. The works shall be designed to avoid changes to groundwater levels during construction and operation, minimising impacts on groundwater dependent values, ground movement and contamination plume migration.

A piling method should be selected that maintains groundwater levels. Design contingency measures and/or controls shall be established to maintain the surface and groundwater quality by:

- Limiting groundwater flow into any subsurface excavations or between different groundwater aquifers;
- Controlling the movement of any contaminated groundwater and minimising impact to existing plume geometry (if any);
- Ensuring maintenance in receiving surface waters; and
- Piles to be concreted (where possible) within 24 hours of excavation completion.

The building contractor will be responsible for implementing an appropriate monitoring program during piling to monitor groundwater levels to confirm drawdown does not cause adverse effects.

Soil Vapour and Ground Gas Assessment

The nature of the proposed development (i.e. elevated rail bridge, platforms and open space) largely mitigates risks from soil vapour and ground gas. However, further assessment of risks from these sources is proposed during the design phase where more information becomes available pertaining to the nature of proposed buildings and structures and areas of deep trenching/excavation.

In the event that soil vapour and ground gas issues are identified which could present a risk to human health, it is likely that changes to design such as implementation of barrier systems would mitigate

risks from the Project. Risks to workers can also likely be mitigated through control measures implemented during the delivery phase.

5.4.2 Delivery Phase

Each contractor must develop and implement a Construction Environmental Management Plan (CEMP), and other management plans that outline the relevant mitigation measures to control risks from contamination. The measures provided in the contractor's CEMP to mitigate risks must comply with relevant Victorian laws and policies, and with EPA Victoria and WorkSafe Victoria requirements. During delivery the contractor's compliance with these plans should be regularly audited through the Project lifecycle.

Well-established construction techniques and management processes to mitigate and avoid these potential impacts would be established in the CEMP with remedial works incorporated into designs as required. These measures would minimise, as far as reasonably practicable, the disturbance of sources of contamination and the excavation of contaminated spoil. Where sources of contamination are encountered and disturbed, established processes must be implemented to minimise the impacts of this disturbance and to handle, treat, retain or dispose of contaminated waste safely.

A draft of the key mitigation measures required to manage contaminated land issues and groundwater, based on current information, to be implemented by the Contractor are outlined below.

Soil, Rock, Vapour and Ground Gas

Prepare and implement a Soil Management Plan (SMP) in accordance with relevant regulations, standards and best practice guidelines. The SMP should be developed in consultation with the EPA Victoria and include processes and measures to manage risks from movement, reuse, retention and disposal of soil. The SMP must define roles and responsibilities and include requirements and methods for:

- Complying with applicable regulatory requirements;
- Completing a detailed site investigation (in accordance with Australian Standard AS 4482.1:2005 EPA Victoria Guidelines and the NEPM (ASC)) prior to any excavation of potentially contaminated areas to identify location, types and extent of impacts and to characterise spoil (waste determination/ designation) to inform spoil and waste management;
- Identifying locations and extent of any reportable priority waste, other waste, and the method for characterising these wastes prior to excavation;
- Identifying the nature and extent of contaminated soil requiring disposal;
- Storage, handling, transport and disposal of soil in a manner that protects human health and the environment, including:
 - Design and management of temporary stockpile areas;
 - Evaluation and implementation of appropriate treatment/remediation or management measures to mitigate risks from contaminated excavated spoil and contaminated residual material left on site;
 - Transporting soil material, the appropriate with obligations, transport permits, waste transport certificates and accredited agents; and
 - Disposal or reuse of soil to a lawful place.
- Soil must be managed in accordance with EPA Victoria's waste hierarchy, soil reuse must be prioritised over landfill disposal, including:

- Identifying and managing potential sites for re-use on the Project. The reuse must comply with requirements of the EP Act and EP Regulations; and
- Identifying suitable sites for disposal of waste. This includes identifying contingency arrangements for management of waste, where required, to address any identified capacity issues associated with the licensed landfills' ability to receive reportable priority wastes and other waste.
- Minimising impacts and risks from disturbance of asbestos in soils, acid sulphate soils, odour management and vapour and ground gas intrusion;
- Identifying where any contaminated or hazardous material are exposed during construction and manage these hazardous substances, including health, safety and environment procedures that address risks associated with exposure to hazardous substances for visitors and the general public. This process must contain measures to control exposure in accordance with relevant regulations, standards and best practice guidance and to the requirements of WorkSafe and EPA Victoria; and include method statements detailing monitoring and reporting requirements. This should include:
 - Identify the areas of known contamination risk and risk management procedures;
 - Include a contamination unexpected finds protocol in case localised contamination is encountered;
 - Safety procedures to protect human health and the environment; and
 - Identify and implement environmental monitoring of potential exposure risks.
- The SMP should refer to relevant WorkSafe and EPA Victoria publications related to soil management. These guidance documents provide best practice measures for applying the General Environmental Duty and maintaining environmental values of land listed in the Environmental Reference Standard. Key documents include (but are not limited to):
 - EPA Victoria, Publication 1834.1: Civil construction, building and demolition guide;
 - EPA Victoria, EPA Publication 1820: Construction – Guide to preventing harm to people and the environment;
 - EPA Victoria, EPA Publication 1895: Managing Stockpiles; and
 - WorkSafe Victoria, Industry Standard: Contaminated construction sites.
- Controls must reduce impacts to human health and the environment from contaminated land so far as reasonably practicable. These controls need to include consideration to site set out, stockpile management, dust suppression, erosion and sediment management. The SMP must detail methods for:
 - Construction of appropriate barriers at the surface where required such that no contamination is left exposed at the surface or where it may be readily accessed by the public or ecosystems or generate leachate and runoff during rain events;
 - Maintenance of the cover/barrier, where required and implemented;
 - Identification of the nature and depth of where contaminants are proposed to remain at the Referral Project Area; and
 - Measures to mitigate risks from sub-surface works in those areas (e.g. future drilling and excavation).
- Maintain records of management measures, monitoring and reporting.

Prior to commencement of works, prepare and implement a health, safety and environmental plan for the management of hazardous substances. The plan must include but not be limited to:

- Consideration of the risks associated with exposure to hazardous substances for employees, visitors and general public;
- The identification of methods to control such exposure in accordance with relevant regulations, standards and best practice guidance and to the satisfaction of WorkSafe Victoria and in consultation with EPA Victoria (as required); and
- Safe work method statements.

Prior to works commencing, the construction contractor should complete pre- and post-construction soil assessments in areas to be used for the Project office compounds, depots or laydown areas (where pre-construction investigations have not already been completed). This assessment will enable the comparison between the contamination status of each site prior to works and upon completion of the works and, if necessary, inform site remediation requirements. All sites are to be left in an equivalent condition at the completion of works as recorded in the pre-construction assessment.

Groundwater

Where groundwater is expected to be encountered, a groundwater management plan must be developed. Based on the information available, this will likely be during piling. As such, the piling methodology selected should maintain groundwater values, including maintaining local groundwater levels and using non-hazardous drilling fluids (e.g. polymer and bentonite fluids).

The groundwater management plan must include measures that aim for groundwater values (including groundwater dependent ecosystems) outlined in the ERS will be maintained and achieved. The plan may include groundwater modelling and/ or groundwater monitoring to validate that environmental values will be maintained. The groundwater management plan should consider the following:

- An approach to maintaining groundwater levels during piling activities, including cumulative impacts of multiple piles;
- Methods for collection, treatment and disposal of groundwater collected (if any) during construction;
- A monitoring program to assess that the groundwater levels and environmental values are being maintained and existing groundwater plume extents (if identified) are not altered by the works;
- Criteria used to evaluate whether changes in water level or contamination warrant review/amendment of procedures; and
- Contingency measures to manage unexpected groundwater conditions.

6 Conclusion

6.1 Environment Effects Statement Implications

The *Environment Effects Act 1978* (EE Act) provides requirements for assessment of proposed projects considered to have or capable of having a significant effect on the environment. Section 8(4) of the EE Act, outlines that a referral is required to be submitted to the Minister for Planning to determine whether an EES is required in respect of works that could have a significant effect on the environment. The Ministerial Guidelines provide the criteria used to determine whether a referral should be made to the Minister for Planning as detailed in **Section 3.1**.

Based on environmental assessment undertaken to date and the current scope of the Project, it is considered that the Project has not triggered the referral criteria relevant to contaminated land issues warranting referral to the Minister for Planning.

The sections below further detailed the reasoning for this position:

6.1.1 Water Use and Values

Referral criteria:

“Potential for extensive or major effects on the use and environmental values of water resources due to changes in water quality, water availability, stream flows, water system function, or regional groundwater levels, or the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term.”

Assessment:

Surface waters do not intersect the Referral Project Area. The nearest watercourses to the Site include Moonee Ponds Creek approximately 1.15 km west, two wetlands situated adjacent to the southern portion of the Site, including Trin Warren Tam-Boore Bellbird Waterhole (approximately 200 m north west) and the wetland at Storage Wetland Park (approximately 400 m west).

The distance from the Site to nearby surface waters reduces the potential for risks to surface waters/stream flow from the Project.

The Project SMP and contractor CEMPs will detail best practice controls to mitigate risk from contamination to surface waters during earthworks, stockpiling, soil reuse and soil disposal.

There is potential for the Project to encounter groundwater during construction in some discrete areas of the Project, mainly associated with piling activities in the central portion of the Referral Project Area. The identified risk of groundwater contamination related project impacts is low, based on the current understanding of the Project and available data.

Risk associated with impacts to groundwater during piling are assessed as low provided appropriate measures to mitigate potential impacts are established and implemented. An appropriate piling methodology will be selected that will maintain groundwater levels and mitigate the potential for causing migration of existing groundwater contamination and/ or impacts to ground or surface water environmental values. Low volumes of potentially contaminated groundwater may require management during dewatering associated with piling, with potential exposure to construction workers. Engineering controls to segregate drilling slurry and standard management / mitigation measures implemented via the Construction Environment Management Plan (CEMP), are considered to be sufficient to minimise impact from the works. Piling works can likely be managed in a way that

maintains groundwater levels and will not impact on regional groundwater levels, water quality or groundwater flows.

In the event that some alternations to groundwater levels occur during piling, contingency measures will be in place and these alterations are unlikely to be long term, with levels likely to return to pre-construction levels post construction of the piles.

Given the above, the referral criteria for Water Use and Values is not considered to have been met.

6.1.2 Contamination

Referral criteria:

“Potential for extensive or major effects to human health or the environment, or displacement of residents, from pollution or waste emitted to air, land, water or groundwater.”

Assessment:

Based on the preliminary sampling undertaken to date, the risks to human health and the environment from contamination are considered low.

Although some exceedances of relevant risk-based criteria adopted to evaluate risks to human health or the environment were identified in soil, these exceedances were a small proportion of the data set to be established during the next phases of the Project. Based on the assessment undertaken to date, human health and environmental risk associated with identified contaminants are anticipated to be managed sufficiently by standard management / mitigation measures implemented via the SMP and CEMP, typical of the construction industry in Victoria.

Therefore, the potential for significant impacts associated with contaminated land are not anticipated with respect to the operational phase of the Project. Surplus spoil will be generated by the Project, with potential reuse options identified. Any proposed reuse of low-level contaminated soil will be in accordance with the relevant environmental legislation and may require approval from EPA Victoria. More hazardous material generated in small volumes will likely be sent to a licensed landfill (or treated and reused where appropriate).

The process of soil disturbance, storage, reuse and proposal presents the potential for contamination to be released into the environment through dust, leachate or sediment runoff. The risks of contamination migrating into air, surface water or groundwater from these pathways can be controlled through best practice stockpile management, sediment control and dust suppression controls. Risks can be further mitigated by staging works appropriately to minimise the periods of time where soil is exposed.

The construction contractor will be required to establish and implement appropriate management plans and procedures which will address standard control measures, and (where required) site specific controls for higher risk areas, these may include additional PPE and monitoring. The plans will outline an “unexpected finds” procedure. Where contaminated soils can only be reused/retained under certain management controls (i.e. underneath barriers), the management plan will detail the nature of these controls and the areas where this type of contamination remains.

Given the above, the referral criteria for Contamination is not considered to have been met.

6.1.3 Acid Sulphate Soils

Referral criteria:

“Potential for extensive or major effects to the environment due to changes in land stability, disturbance of acid sulphate soils or project induced soil erosion over the short or long term”

Assessment:

Land stability and soil erosion are considered outside the scope of this assessment and are considered to represent geotechnical aspects and not relevant aspects of contaminated land. This response therefore focuses on acid sulphate soils risks.

The desktop assessment identified a very low to low probability of acid sulphate soil occurrence. Assessment of soil pH in the surface soils did not identify acidic soils during assessments performed to date. It is acknowledged that detailed intrusive assessment for acid sulphate soils has not been performed to date. However, further assessment is proposed in areas where deep excavations are proposed into natural soil (i.e. piling).

Mitigation and management of acid sulphate soil (if identified) is a common and generally well-understood requirement of large infrastructure projects. Bridge piling and associated excavation for gantry footings are proposed within the Project. In the event that acid sulphate soils are identified and require management as part of the Project, these soils will likely be generated during piling. This spoil can be either treated and validated or disposed off-site. Given groundwater dewatering is proposed to be minimised, the potential for oxidation of acid sulphate soils in the subsurface is considered to be limited.

Given the above, the referral criteria for Acid Sulphate Soils is not considered to have been met.

6.2 EPA Victoria (secondary consents)

Where soil surplus to needs is classified as reportable priority waste this material must be disposed at an appropriate lawful place. The Project will entail excavation and reuse of soils across a number of different areas which are within the Project extents but cross property and title boundaries. In the event that Category D Soil is proposed to be retained on-site, permissions from EPA Victoria such as an A17 permit will need to be obtained. The application will involve a risk assessment of the spoil and proposed reuse site to ensure suitability. More stringent EPA Victoria approvals would be required under the permissions framework for more hazardous (i.e. Category C Soil and above) spoil retention or reuse.

The Project management plans will outline sufficient environmental mitigation measures related to the characterisation of soils and necessary spoil management processes, including handling during excavation, storage, transport and reuse/ disposal in relation to mitigate potential contaminated land impacts.

6.3 Summary

In summary, the Project is not likely to have a significant effect on the environment based on potential contaminated land impacts. As such, the relevant referral criteria outlined in the Ministerial Guidelines are not considered to have been triggered. Significant effects related to contaminated land have not been identified. This includes contamination that will have an impact on the future use or development of the land.

Further assessment of soil and groundwater is proposed to characterise contamination and further evaluate risks to human health and the environment during delivery and following completion of the Project. These further works can be completed before the Project commences construction and as the detailed design progresses.

Mitigation measures will be developed and incorporated into the Project management plans in relation to contaminated land. These measures will outline well-established construction techniques and management processes, that can be implemented to mitigate and avoid these potential impacts. The construction contractor's construction environmental management plan (CEMP) will be required to include these measures with remedial/management works incorporated into designs as required.

7 References

- Douglas Partners. (2023). *Report on Geotechnical Investigation. Brunswick Level Crossing Removal Project. Park Street to Albion Street, Brunswick (Project 218648.00. R.001.Rev0).*
- DTP. (2023). *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978. Eight edition.*
- EPA Victoria. (2021). *Publication 1827.2: Waste Classification Assessment Protocol.*
- EPA Victoria. (2024). *Publication 1828.3: Waste Disposal Categories – Characteristics and Thresholds.*
- EPA Victoria. (2024). *Publication 702.2: Soil sampling for waste soils.*
- EPA Victoria. (August 2021). *Publication 1968.1: Guide to classifying industrial waste.*
- EPA Victoria. (June 2009). *Publication 701: Industrial Waste Resource Guidelines, Sampling and Analysis of Waters, Wastewaters, Soils and Waste.*
- National Environment Protection Council. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999.*
- North West Program Alliance. (2025). *Brunswick Level Crossing Removal Project. Environmental Effects Act 1978 Referral. FLor and Fauna Assessment Report.*
- Prensa. (2023). *Preliminary Site Investigation. Brunswick 8 Level Crossing Removal Project (109761M PSI Brunswick 8 LXR).*
- Standards Australia. (1999). *Australian Standard 4482.2, Guide to the Sampling and Investigation of Potentially Contaminated Soil, Part 2: Volatile Substances.*
- Standards Australia. (2005). *Australian Standard 4482.1, Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil, Part 1: Non-volatile and semi-volatile compounds.*
- Standards Australia. (2009). *Australian Standard 2159, Piling – Design and installation.*
- The Cooperative Research Centre for Contamination Assessment and Remediation of the Environment . (2011). *Technical Report No. 10, Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater.*
- Victorian Government. (n.d.). *Occupational Health and Safety Act 2004.*
- Victorian Government. (2021). *Specifications for Receiving Recycled Aggregates (EPA Determination S302).*
- Victorian Government. (2021). *Environment Reference Standard.*
- Victorian Government. (2021). *Specifications Acceptable to the Authority for Receiving Fill Material (EPA Determination S301).*
- Victorian Government. (n.d.). *Environment Effects Act 1978.*
- Victorian Government. (n.d.). *Environment Protection Act 2017.*
- Victorian Government. (n.d.). *Environment Protection Regulations 2021.*
- Victorian Government. (n.d.). *Occupational Health and Safety Regulations 2017.*

Figures



- LEGEND**
- Railway
 - ▭ Referral Boundary
 - ▭ Site Boundary PSI



FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

CLIENT NO - J0022

NOTES

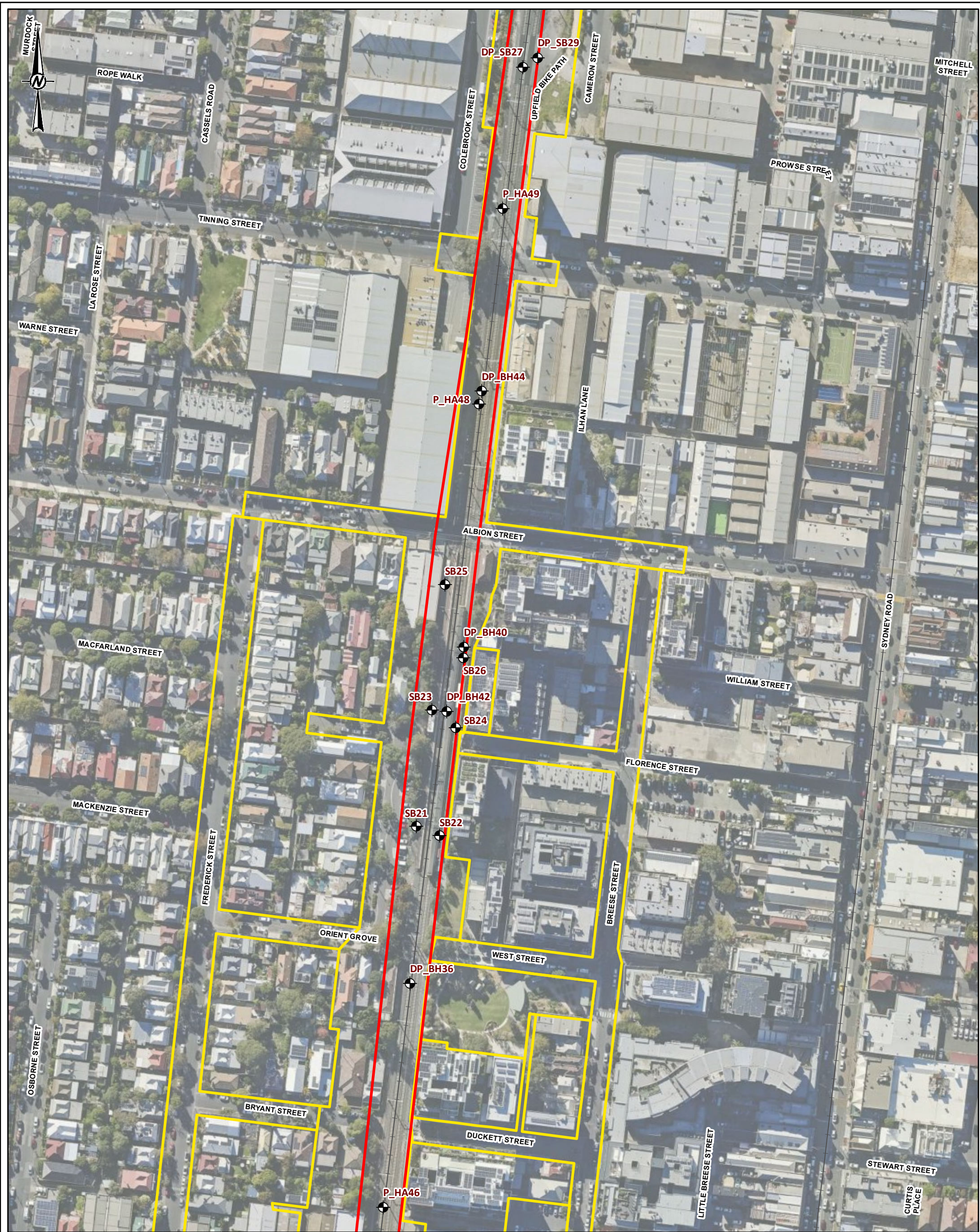
1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES

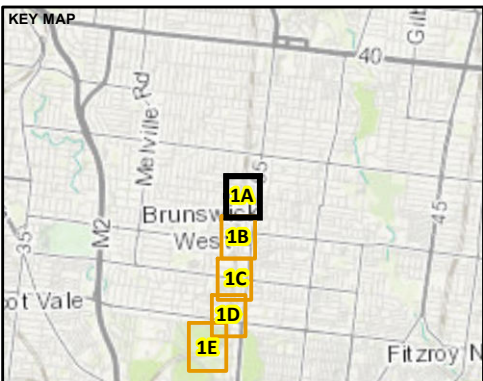
1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.

2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1



- LEGEND**
- Railway
 - Road
 - Referral Boundary
 - Site Boundary PSI
 - Investigation Location



prensa

FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

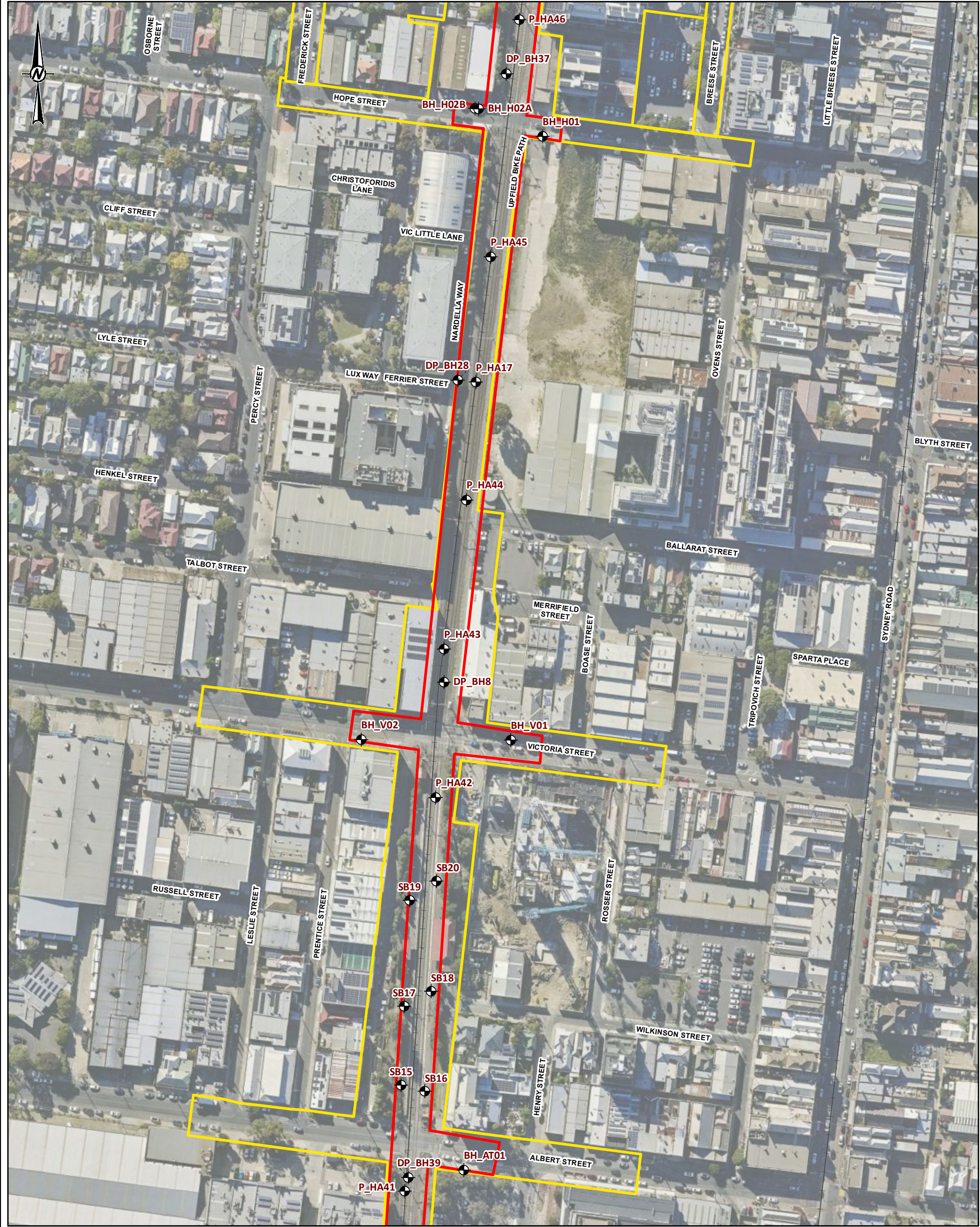
CLIENT NO - J0022

0 110
1:1,750 M

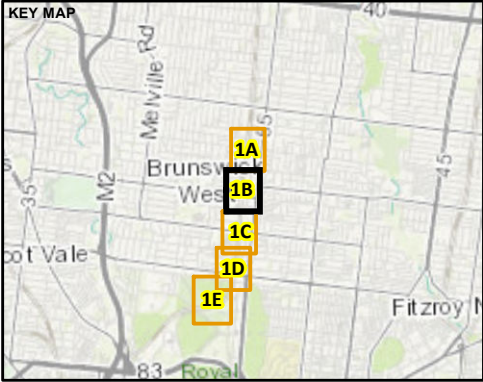
NOTES
1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES
1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.
2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1A



- LEGEND**
- Railway
 - Road
 - Referral Boundary
 - Site Boundary PSI
 - Investigation Location



prensa

FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

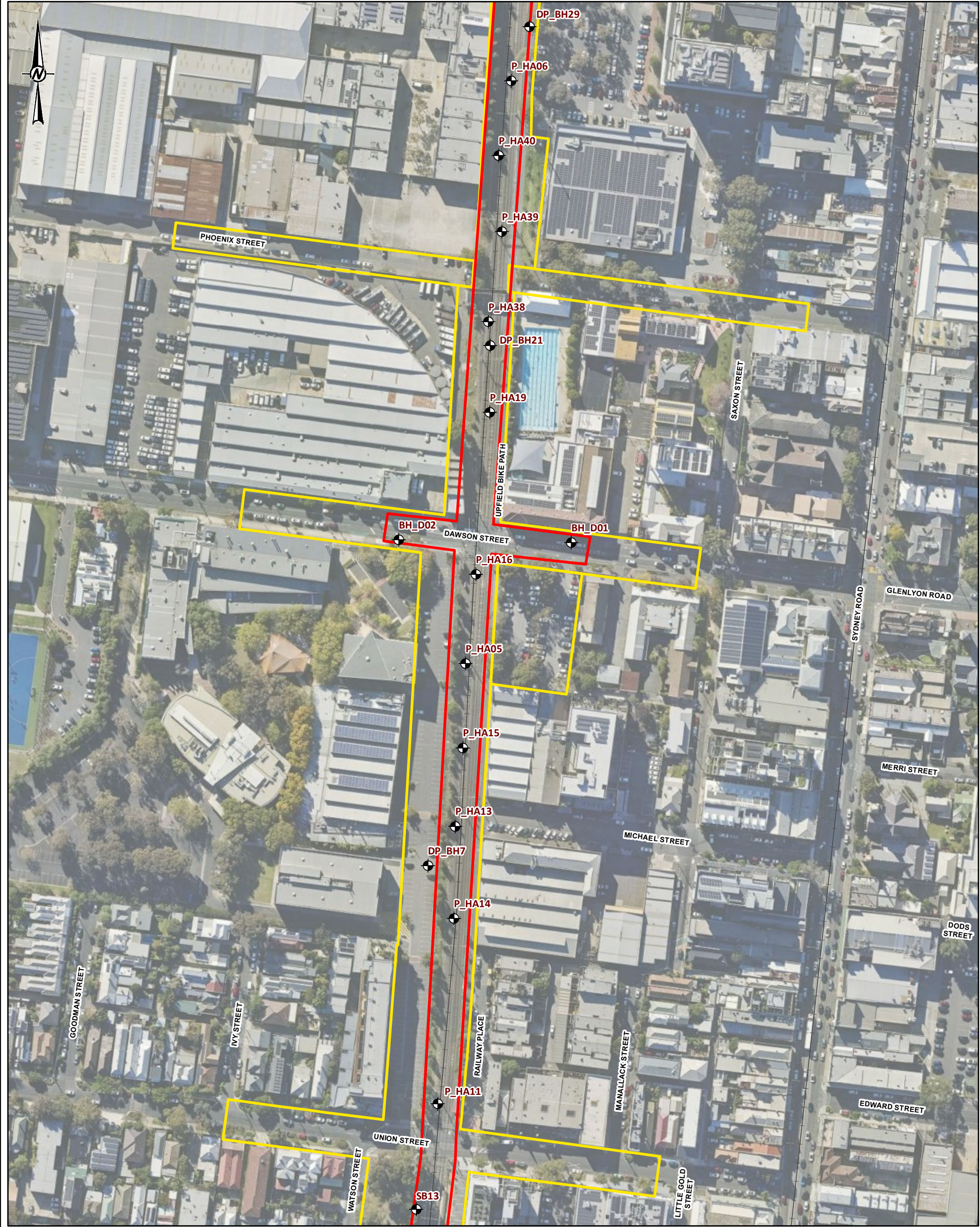
CLIENT NO - J0022

0 110
1:1,750 M

NOTES
1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES
1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.
2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1B



- LEGEND**
- Railway
 - Road
 - Referral Boundary
 - Site Boundary PSI
 - Investigation Location

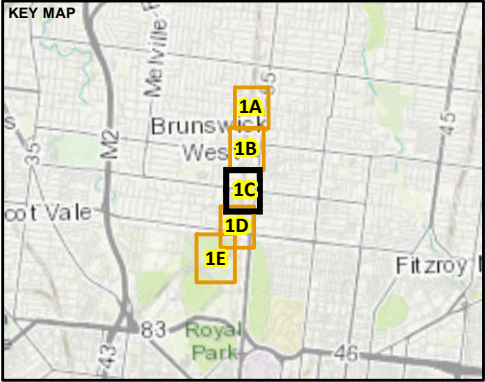


FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

CLIENT NO - J0022

NOTES

1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES

1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.

2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1C



- LEGEND**
- Railway
 - Road
 - Referral Boundary
 - Site Boundary PSI
 - Investigation Location

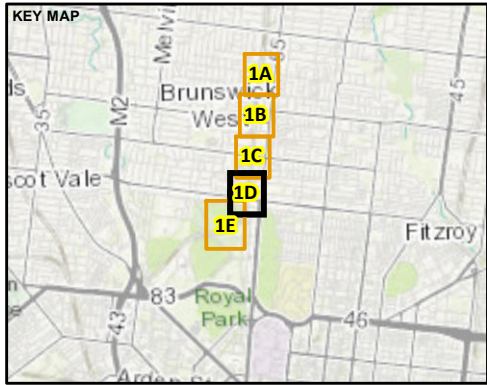


FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

CLIENT NO - J0022

NOTES

1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES

1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.

2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1D



- LEGEND**
- Railway
 - Road
 - Referral Boundary
 - Site Boundary PSI
 - Investigation Location

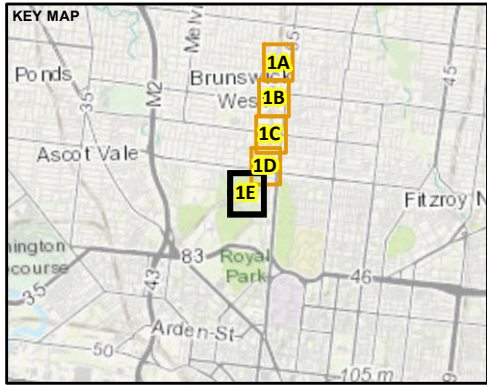


FIGURE - INVESTIGATION LOCATION PLAN

JOB NO - 109761M

PROJECT - BRUNSWICK 8 LXP

CLIENT - JOHN HOLLAND

CLIENT NO - J0022



NOTES

1. PROJECTION: GDA2020 MGA ZONE 55

REFERENCES

1. BASE IMAGE SOURCED FROM METROMAP.COM DATED 10 MAY 2025.

2. ROAD, RAIL & CADASTRAL DATA SOURCED FROM VICMAP.COM.

Drawn By: SXD Checked By : GJM Date: 2025-06-30 Figure:1E

Summary Tables

Table A1: Summary of Analytical Results



		Particle Size	BTEX							TRH						
		% H ₂ Clay*	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	CS-C10 Fraction (F1)	CS-C10	C10-C16 Fraction (F2)	C10-C16 Fraction (F2 minus Naphthalene)	C16-C24 Fraction (F3)	C24-C40 Fraction (F4)	C40-C60 Fraction (Sum)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																
NEPM EILs Urb Res																
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil			50	85	70			105			180	120	120	300	2,800	
NEPM EILs Comm/Ind																
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil			75	135	165			180			215	170	170	1,700	3,300	
NEPM 2013 Table 1A(1) HILs Rec C Soil																
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)			NL*	NL	NL			NL		NL		NL				
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation			120	18,000	5,300			15,000		5,100		3,800		5,300	7,400	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)			3	NL				230		260	260	NL				
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial			430	99,000	27,000			81,000		26,000		20,000		27,000	38,000	
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers			1,100	120,000	85,000			130,000			82,000		62,000	85,000	120,000	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil										700		1,000		2,500	10,000	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil										700		1,000		3,500	10,000	
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description											
Area 1	109761M_DP_BH44_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH44_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH44_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH44_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_S827_0.5	02 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_S829_0.5	02 Dec 2022	948152	Rail Tie In - North - Gridded	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_S829_0.8	02 Dec 2022	948152	Rail Tie In - North - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA48_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA48_0.95	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA49_0.75	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA49_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_BH_H01_0.3	28 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
Area 2	109761M_BH_H01_0.6	28 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_BH_H02A_0.3	28 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_BH_H02B_0.85	28 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_BH_V01_0.3	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_BH_V01_0.7	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH8_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH8_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH28_0.1	02 Dec 2022	948152	Piling locations - Systematic	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH28_0.5	02 Dec 2022	948152	Piling locations - Systematic	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH28_3.0	02 Dec 2022	948152	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH36_0.7	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH37_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH37_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH37_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH37_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH40_1.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH40_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH40_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH42_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH42_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_DP_BH42_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.2	<0.2	<0.2	<0.4	<0.2	<0.6	-	<40	<40	<50
	109761M_P_HA17_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA43_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA43_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA44_1.3	25 Mar 2023	977269	Natural	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA45_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA46_0.6	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S821_0.1	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S821_1.0	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S822_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S822_0.5	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S823_0.1	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S824_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S825_0.5	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S825_1.0	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S826_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_S826_0.5	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50

Table A1: Summary of Analytical Results



						Particle Size								BTEX							TRH						
						% "H Clay"	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	CS-Cl0 Fraction (F1)	CS-Cl0	CS-Cl0-C16 Fraction (F2)	CS-Cl0-C16 Fraction (F2 minus Naphthalene)	CS-Cl0-C16 Fraction (F3)	CS-Cl0-C40 Fraction (F4)	CS-Cl0-C40 Fraction (Sum)							
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							
EOL																											
NEPM EILs Urb Res						50	85	70			105			180	120	120		300	2,800								
NEPM EILs Comm/Ind																											
NEPM EILs with Bp CRC Care, Comm/Ind, Coarse Soil						75	135	165			180			215	170	170		1,700	3,300								
NEPM 2013 Table 1A(1) HILs Rec C Soil																											
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)						NL*	NL	NL			NL		NL		NL												
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation						120	18,000	5,300			15,000		5,100		3,800		5,300	7,400									
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)						3	NL	NL			230		260	260	NL												
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial						430	99,000	27,000			81,000		26,000		20,000		27,000	38,000									
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers						1,100	120,000	85,000			130,000			82,000		62,000		85,000	120,000								
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																											
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil													700		1,000		2,500	10,000									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil													700		1,000		3,500	10,000									
Monitoring Zone																											
Field ID		Date	Lab Report Number	Sample Comments	Matrix Description																						
Area 3	109761M BH AT01_0.3	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M BH AT01_0.6	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M BH D01_0.6	30 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M BH D01_0.8	30 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M BH V02_0.3	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	500	350	940							
	109761M BH V02_0.7	31 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	850	340	1,190							
	109761M DP BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	220	<100	220							
	109761M DP BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M DP BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	150	<100	150							
	109761M DP BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	140	<100	140							
	109761M DP BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	0.6	3.7	3.2	6.8	-	<20	<20	84	84	440	<100	524							
	109761M P HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA38_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA41_0.1	25 Mar 2023	977269	Ballast fines	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M P HA42_0.65	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100							
	109761M S815_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	260	180	440							
	109761M S815_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	140	110	250							
109761M S816_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	260	<100	260								
109761M S816_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	260	<100	260								
109761M S817_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100								
109761M S818_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100								
109761M S819_0.1	09 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100								
109761M S819_1.0	09 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	<100	<100	<100								
109761M S820_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	440	400	840								
109761M S820_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50	<50	120	<100	120								

Table A1: Summary of Analytical Results



						Particle Size							BTEX							TRH						
						% < 63 μm	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	C6-C10 Fraction (F1)	C6-C10	C10-C16 Fraction (F2)	C10-C16 Fraction (F2 minus Naphthalene)	C16-C24 Fraction (F3)	C24-C40 Fraction (F4)	C10-C40 Fraction (Sum)						
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg						
EQ																										
NEPM EILs Urb Res							50	85	70			105			180	120	120	300	2,800							
NEPM EILs with Bp CRC Care, Urb Res, Coarse Soil																										
NEPM EILs Comm/Ind							75	135	165			180			215	170	170	1,700	3,300							
NEPM 2013 Table 1A(1) HILs Rec C Soil																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)							NL*	NL	NL			NL		NL		NL										
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation							120	18,000	5,300			15,000		5,100		3,800		5,300	7,400							
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)							3	NL	NL			230		260	260	NL		27,000	38,000							
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial							430	99,000	27,000			81,000		26,000		20,000		27,000	38,000							
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers							1,100	120,000	85,000			130,000						85,000	120,000							
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																										
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																										
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil													700			1,000		2,500	10,000							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil													700			1,000		3,500	10,000							
Monitoring Zone		Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																				
Area 4		109761M BH D02 0.6	30 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100						
		109761M BH D02 1.1	30 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M DP BH7 0.3	03 Dec 2022	947244	Piling locations - Systematic	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	180	160	340					
		109761M DP BH7 0.4	03 Dec 2022	947244	Piling locations - Systematic	Fill	18	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M DP BH7 2.0	03 Dec 2022	947244	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M DP BH7 3.0	03 Dec 2022	947244	Piling locations - Systematic	Natural	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		109761M DP BH11 1.8	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M DP BH14 0.5	03 Dec 2022	947244	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	210	<100	210					
		109761M DP BH14 0.7	03 Dec 2022	947244	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M DP BH14 0.9	03 Dec 2022	947244	Ballast fines - systematic sampling	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA5 0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA5 0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA5 0.7	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA09 0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	210	<100	210					
		109761M P HA09 0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA10 0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA11 0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA11 0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA13 1.0	25 Mar 2023	977269	Natural	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA13 1.3	25 Mar 2023	977269	Natural	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA13 1.5	25 Mar 2023	977269	Natural	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA14 0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA14 0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA14 0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA15 1.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA16 1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M P HA16 1.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M S809 0.1	09 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	410	150	560					
		109761M S809 0.5	09 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	57	57	460	140	657					
		109761M S810 0.1	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M S810 0.5	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	160	<100	160					
		109761M S811 0.1	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M S812 0.1	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100					
		109761M S813 0.1	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	200	<100	200					
		109761M S813 1.0	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	430	<100	430					
		109761M S814 0.1	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	110	<100	110					
		109761M S814 0.5	08 Dec 2022	952056	Assessment of platform fill - Anstey Station	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	200	<100	200					

Table A1: Summary of Analytical Results



Particle Size	BTEX							TRH							
	% < 6µm*	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	C6-C10 Fraction (F1)	C6-C10	C10-C16 Fraction (F2)	C10-C16 Fraction (F2 minus Naphthalene)	C16-C24 Fraction (F3)	C24-C40 Fraction (F4)	C40-C60 Fraction (Sum)
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
50	85	70				105			180		120	120	300	2,800	
75	135	165				180			215		170	170	1,700	3,300	
NL*	NL	NL				NL			NL		NL				
120	18,000	5,300				15,000			5,100		3,800		5,300	7,400	
3	NL	NL				230			260		260		NL		
430	99,000	27,000				81,000			26,000		20,000		27,000	38,000	
1,100	120,000	85,000				130,000			82,000		62,000		85,000	120,000	
									700		1,000		2,500	10,000	
									700		1,000		3,500	10,000	

Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description															
Area 5	109761M_DP_BH1_0.6	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH1_1.0	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH5_0.1	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH5_0.4	02 Dec 2022	947225	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH5_0.8	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH5_1.2	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH9_1.7	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH13_0.1	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH13_0.5	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH13_1.0	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH13_2.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_BH13_3.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_DP_S87_0.1	02 Dec 2022	947225	Rail Tie In - South - Gridded	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	120	<100	120
	109761M_DP_S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA01_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA02_0.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA03_1.2	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA04_0.6	25 Mar 2023	977269	Ballast Fines	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA05_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_P_HA08_1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S82_0.2	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S83_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S83_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S84_0.1	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S84_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Natural	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S85_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	120	<100	120
	109761M_S85_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S86_0.1	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	109761M_S88_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	110	<100	110
	109761M_S88_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	BH_P01_0.1	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	640	130	770
	BH_P01_0.55	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100
	BH_P02_0.1	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	340	340	24,000	4,500	28,840
	BH_P02_0.3	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	7,800	1,400	9,200
	BH_P03_0.2	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	2,200	440	2,640
	BH_P03_0.3	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	800	170	970
	BH_P04_0.2	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	1,500	380	1,880
	BH_P04_0.4	22 Mar 2023	981483	Road	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	-	<20	<20	<50	<50	<100	<100	<100

Table A1: Summary of Analytical Results



	Particle Size		BTEX							TRH						
	% < 63 µm		Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Total BTEX	C6-C10 Fraction (F1)	C6-C10	C10-C16 Fraction (F2)	C10-C16 Fraction (F2 minus Naphthalene)	C16-C24 Fraction (F3)	C24-C40 Fraction (F4)	C10-C40 Fraction (Sum)
EOL			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM EILs Urb Res																
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil			50	85	70			105			180	120	120	300	2,800	
NEPM EILs Comm/Ind																
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil			75	135	165			180			215	170	170	1,700	3,300	
NEPM 2013 Table 1A(1) HILs Rec C Soil																
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)			NL*	NL	NL			NL		NL		NL				
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation			120	18,000	5,300			15,000		5,100		3,800		5,300	7,400	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)			3	NL	NL			230		260	260	NL				
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial			430	99,000	27,000			81,000		26,000		20,000		27,000	38,000	
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers			1,100	120,000	85,000			130,000		82,000			62,000	85,000	120,000	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil										700		1,000		2,500	10,000	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil										700		1,000		3,500	10,000	
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description											
Area 6	109761M_P_HA50_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA50_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA51_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA51_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA52_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA52_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA53_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA53_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA55_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA55_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA59_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50
	109761M_P_HA59_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-	<20	<20	<50

* NL = non limiting

Table A1: Summary of Analytical Results



						Phenols																		Chlorinated Hydrocarbons													
						3,4-Methylphenol (m,p-cresol)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-Nitrophenol	Cresol Total	Pentachlorophenol	Tetrachlorophenols	Phenol	Phenol (Total Halogenated)	Phenol (Total Non Halogenated)	Chlorinated hydrocarbons EPA VC	Other chlorinated hydrocarbons EPA VC	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane		
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EQI																																					
NEPM EILs Urb Res																																					
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil																																					
NEPM EILs Comm/Ind																																					
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil																																					
NEPM 2013 Table 1A(1) HILS Rec C Soil																																					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																					
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																					
NEPM 2013 Table 1A(1) HILS Comm/Ind D Soil																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																					
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																					
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																					
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																					
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																					
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																
Area 1	109761M_DP_BH44_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH44_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH44_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH44_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_S827_0.5	02 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_S829_0.5	02 Dec 2022	948152	Rail Tie In - North - Gridded	Ballast	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_S829_0.8	02 Dec 2022	948152	Rail Tie In - North - Gridded	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA48_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA48_0.95	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA49_0.75	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA49_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_H01_0.3	28 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_H01_0.6	28 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_H02A_0.3	28 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_H02B_0.85	28 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_V01_0.3	31 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_BH_V01_0.7	31 Mar 2023	981483	Road	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH8_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH8_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH28_0.1	02 Dec 2022	948152	Piling locations - Systematic	Ballast	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH28_0.5	02 Dec 2022	948152	Piling locations - Systematic	Fill	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Area 2	109761M_DP_BH36_0.7	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	<0.4	<1	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_DP_BH																																				

Table A1: Summary of Analytical Results



			Phenols																	Chlorinated Hydrocarbons													
			3,6,4-Methylphenol (m&p-cresol)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-Nitrophenol	Cresol Total	Pentachlorophenol	Tetrachlorophenols	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	Chlorinated hydrocarbons EPA/VC	Other chlorinated hydrocarbons EPA/VC	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethane	1,1,2-trichloropropane	1,2-dichloroethane	
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQI	NEPM EILs Urb Res																																
	NEPM ESLs with Bsp CRC Care, Urb Res, Coarse Soil																																
	NEPM EILs Comm/Ind																																
	NEPM ESLs with Bsp CRC Care, Comm/Ind, Coarse Soil																																
	NEPM 2013 Table 1A(1) HILs Rec C Soil																																
	NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	4,000	120		40,000												
	CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																
	NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																
	NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	25,000	660		240,000												
	CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																	
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																	
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																												
Area 3	109761M_BH_AT01_0.3	31 Mar 2023	981483	Road	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_BH_AT01_0.6	31 Mar 2023	981483	Road	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_BH_D01_0.6	30 Mar 2023	981483	Road	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_BH_D01_0.8	30 Mar 2023	981483	Road	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_BH_V02_0.3	31 Mar 2023	981483	Road	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	7.8	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	6.1	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	27.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA38_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA41_0.1	25 Mar 2023	977269	Ballast fines	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA42_0.65	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_S815_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_S815_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2																			

[illegible]

Table A1: Summary of Analytical Results



					Phenols																	Chlorinated Hydrocarbons													
					3,4-Methylphenol (m,p-cresol)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,6-Dichlorophenol	2-Chlorophenol	2-Methylphenol	2-Nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-Nitrophenol	Cresol Total	Penta-chlorophenol	Tetra-chlorophenols	Phenol	Phenol (Total Halogenated)	Phenol (Total Non Halogenated)	Chlorinated hydrocarbons EPA/IC	Other chlorinated hydrocarbons EPA/IC	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2-dichloroethane	1,2,3-trichloropropane	1,2-dibromoethane	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																																			
NEPM EILs Urb Res																																			
NEPM ESLs with Bsp CRC Care, Urb Res, Coarse Soil																																			
NEPM EILs Comm/Ind																																			
NEPM ESLs with Bsp CRC Care, Comm/Ind, Coarse Soil																																			
NEPM 2013 Table 1A(1) HILs Rec C Soil																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																			
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																			
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																			
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																			
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																			
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																			
AS12159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																			
AS12159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																			
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																			
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																			
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																														
Area 5	109761M DP BH1_0.6	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH1_1.0	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH5_0.1	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH5_0.4	02 Dec 2022	947225	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH5_0.8	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH5_1.2	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH9_1.7	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH13_0.1	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH13_0.5	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH13_1.0	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH13_2.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP BH13_3.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP S87_0.1	02 Dec 2022	947225	Rail Tie In - South - Gridded	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M DP S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA01_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA02_0.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA03_1.2	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA04_0.6	25 Mar 2023	977269	Ballast Fines	Ballast	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA05_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M P_HA08_1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	109761M S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1														

Table A1: Summary of Analytical Results



						Phenols																	Chlorinated Hydrocarbons															
						3,6,4-Methylphenol (m&p-cresol)	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,6-Dichlorophenol	2-Chlorophenol	3-Methylphenol	3-Nitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-Nitrophenol	Cresol Total	Pentachlorophenol	Tetrachlorophenols	Phenol	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	Chlorinated hydrocarbons EPA/c	Other chlorinated hydrocarbons EPA/c	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethane	1,2,2-trichloropropane	1,2-dichloroethane			
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EQI																																						
NEPM EILs Urb Res																																						
NEPM ESLs with BaP CRC Care, Urb Res, Coarse Soil																																						
NEPM EILs Comm/Ind																																						
NEPM ESLs with BaP CRC Care, Comm/Ind, Coarse Soil																																						
NEPM 2013 Table 1A(1) HILs Rec C Soil																					4,000	120		40,000														
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																						
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																					25,000	660		240,000														
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																						
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																						
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																						
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																						
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																						
Monitoring Zone		Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																
Area 6	109761M_P_HA50_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA50_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA51_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA51_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA52_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA52_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA53_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
	109761M_P_HA53_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
	109761M_P_HA55_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
	109761M_P_HA59_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.4	<1	<1	<0.5	<0.5	<5	<0.5	<0.5	<0.2	<1	<5	<20	<1	<5	<0.5	<1	<10	<0.5	<1	<20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		

* NL = non limiting

[illegible]

Table A1: Summary of Analytical Results



					Chlorinated Hydrocarbons																	Explosives		Halogenated Benzenes												
					1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	dis-1,2-dichloroethene	dis-1,3-dichloropropane	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropane	Vinyl chloride	2,4-Dinitrotoluene	Nitrobenzene	1,2,4-Trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	4-Chlorotoluene	Isomonoarzene	Chlorobenzene	Hexachlorobenzene	Trichlorobenzene (total)	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																																				
NEPM EILs Urb Res																																				
NEPM EILs with Bp CRC Care, Urb Res, Coarse Soil																																				
NEPM EILs Comm/Ind																																				
NEPM EILs with Bp CRC Care, Comm/Ind, Coarse Soil																																				
NEPM 2013 Table 1A(1) HILs Rec C Soil																																				10
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																				
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																				80
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																				
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																				
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																				
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																				
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																				
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																															
Area 3	109761M_BH_AT01_0.3	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_BH_AT01_0.6	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_BH_D01_0.6	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_BH_D01_0.8	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_BH_V02_0.3	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_BH_V02_0.7	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_DP_BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.1	
	109761M_DP_BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.1		
	109761M_DP_BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.1		
	109761M_P_HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.1	
	109761M_P_HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.1	
	109761M_P_HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M_P_HA38_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-		
	109761M_P_HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-		
	109761M_P_HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5												

[illegible]

Table A1: Summary of Analytical Results



					Chlorinated Hydrocarbons																		Explosives		Halogenated Benzenes											
					1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Bromodichloromethane	Bromotrichloromethane	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	dis-1,2-dichloroethene	dis-1,3-dichloropropane	Dibromomethane	Dichloromethane	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropane	Vinyl chloride	2,4-Dinitrotoluene	Nitrobenzene	1,2,4-Trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	4-chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Trichlorobenzene (total)	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																																				
NEPM EILs Urb Res																																				
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil																																				
NEPM EILs Comm/Ind																																				
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil																																				
NEPM 2013 Table 1A(1) HILs Rec C Soil																																				10
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																				
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																				
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																				80
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																				
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																				
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																				
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																				
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																				
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																															
Area 5	109761M DP BH1_0.6	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH1_1.0	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH5_0.1	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH5_0.4	02 Dec 2022	947225	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH5_0.8	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH5_1.2	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BHP_1.7	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH13_0.1	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH13_0.5	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH13_1.0	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH13_2.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP BH13_3.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP S87_0.1	02 Dec 2022	947225	Rail Tie In - South - Gridded	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M DP S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA01_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA02_0.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA03_1.2	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA04_0.6	25 Mar 2023	977269	Ballast Fines	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA05_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M P_HA08_1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	
	109761M S82_0.2	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	<0.5	<																													

* NL = non limiting

Table A1: Summary of Analytical Results

		Halogenated Hydrocarbons					Herbicides		Inorganics					MAH					Metals																			
		1,2-dibromethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Diuron	Conductivity (1.5 aqueous extract)	pH (1.2 Aqueous extract)	Ion Exchange Capacity	Cyanide (monable)	Cyanide Total	Fluoride	Moisture Content (dried @ 103°C)	pH (1.5 aqueous extract)	pH (Lab)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	% Iron (%)	Selenium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+IV)	Cobalt	Copper	Iron				
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µS/cm	-	meq/100g	mg/kg	mg/kg	mg/kg	%	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EOL																																						
NEPM EILs Urb Res																								100														
NEPM EILs with Bp CRC Care, Urb Res, Coarse Soil																								160														
NEPM EILs Comm/Ind																																						
NEPM EILs with Bp CRC Care, Comm/Ind, Coarse Soil																																						
NEPM 2013 Table 1A(1) Hills Rec C Soil																							700				90	20,000	90	300		300	17,000					
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																						
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																						
NEPM 2013 Table 1A(1) HSL Comm/Ind D Soil																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																						
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																						
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																						
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																5.5																						
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																5																						
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																						
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																	
Area 1	109761M_DP_BH44_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<0.5	490	13	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	-	-	-	<0.4	<1	80	-	38	-
	109761M_DP_BH44_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<0.5	<100	13	7.6	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	-	-	-	<0.4	<1	73	-	37	-
	109761M_DP_BH44_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<0.5	<100	9.7	7.6	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	5.1	-	-	<0.4	<1	32	-	30	-
	109761M_DP_BH44_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<0.5	<100	15	7.8	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	77	-	39	-	
	109761M_DP_S827_0.5	02 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<5	<100	4.4	7.6	-	-	-	<0.5	<2	<2	<10	8.3	150	<2	<10	<0.4	<1	52	-	38	-	
	109761M_DP_S829_0.5	02 Dec 2022	948152	Rail Tie In - North - Gridded	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<5	<100	4.7	7.5	-	-	-	<0.5	<2	<2	<10	8	39	<2	<10	<0.4	<1	43	-	23	-	
	109761M_DP_S829_0.8	02 Dec 2022	948152	Rail Tie In - North - Gridded	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<5	<100	3.8	8	-	-	-	<0.5	<2	<2	<10	7.8	57	<2	<10	<0.4	<1	48	-	26	-	
	109761M_P_HA48_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.4	-	-	<5	<100	25	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	49	-	13	-	
	109761M_P_HA48_0.95	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7	-	-	<5	<100	26	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	60	-	6.8	-	
	109761M_P_HA49_0.75	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.9	-	-	<5	<100	26	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	52	-	5.8	-	
	109761M_P_HA49_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.9	-	-	<5	<100	21	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	44	-	<5	-	
	109761M_BH_H01_0.3	28 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.4	-	-	<5	<100	20	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	34	-	22	-	
	109761M_BH_H01_0.6	28 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.2	-	-	<5	<100	21	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	26	-	16	-	
	109761M_BH_H02A_0.3	28 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.3	-	-	<5	<100	15	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	23	-	52	-	
	109761M_BH_H02B_0.85	28 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.2	-	-	<5	<100	23	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	28	-	19	-	
	109761M_BH_V01_0.3	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.5	-	-	<5	<100	5.7	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	27	-	43	-	
	109761M_BH_V01_0.7	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	9.5	-	-	<5	<100	28	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	42	-	8.9	-	
	109761M_DP_BH8_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<5	<100	5.9	7.8	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	28	-	89	-	
	109761M_DP_BH8_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<5	<100	9.5	8.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	-	-	-	<0.4	<1	23	-	36	-	
	109761M_DP_BH28_0.1	02 Dec 2022	948152	Piling locations - Systematic	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	<5	<100	21	7.3	-	-	-	-	<0.5	<2	<2	<10	20	100	<2	<10	<0.4	<1	45	-	560	-	
	109761M_DP_BH28_0.5	02 Dec 2022	948152	Piling locations - Systematic	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	<5	<100	22	7.9	-	-	-	-	<0.5	<2	<2	<10	3.9	68	<2	<10	<0.4	<1	45	-	96	-	
	109761M_DP_BH28_3.0	02 Dec 2022	948152	Piling locations - Systematic	Natural	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<5	<100	21	7.6	-	-	-	<0.5	<2	<2	<10	2.1	110	<2	<10	<0.4	<1	32	-	11	-	
	109761M_DP_BH36_0.7	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<																					

Table A1: Summary of Analytical Results

						Halogenated Hydrocarbons					Herbicides	Inorganics					MAH					Metals																	
						1,2-dibromoethane	Bromoethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Diuron	Conductivity (1.5 aqueous extract)	pH (1.2 aqueous extract)	Cation Exchange Capacity	Cyanide (mmol/L)	Cyanide Total	Fluoride	Moisture Content (dried @ 103°C)	pH (1.5 aqueous extract)	pH (Lab)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	% Iron (%)	Selenium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+IV)	Cobalt	Copper	Iron	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µS/cm	-	meq/100g	mg/kg	mg/kg	mg/kg	%	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																																							
NEPM EILs Urb Res																																							
NEPM EILs with Bp CRC Care, Urb Res, Coarse Soil																																							
NEPM EILs Comm/Ind																																							
NEPM EILs with Bp CRC Care, Comm/Ind, Coarse Soil																																							
NEPM 2013 Table 1A(1) HILS Rec C Soil																																							
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																							
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																							
NEPM 2013 Table 1A(1) HILS Comm/Ind D Soil																																							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																							
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																							
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																							
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																							
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																							
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																							
Monitoring Zone						Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																													
Area 3	109761M BH AT01_0.3	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.2	-	-	<5	<100	16	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	32	-	19	-	
	109761M BH AT01_0.6	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.1	-	-	<5	<100	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.3	-	-	-	<0.4	<1	30	-	9.2	-	
	109761M BH D01_0.6	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	6.8	-	-	<5	<100	17	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.9	-	-	-	<0.4	<1	13	-	5.6	-	
	109761M BH D01_0.8	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	6.9	-	-	<5	<100	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4.2	-	-	-	<0.4	<1	11	-	9.4	-	
	109761M BH V02_0.3	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.1	-	-	<5	<100	12	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	18	-	43	-	
	109761M BH V02_0.7	31 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8	-	-	<5	<100	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	<2	-	-	-	<0.4	<1	18	-	44	-	
	109761M DP BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<100	10	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	8.2	-	-	-	1.2	<1	68	-	170	-	
	109761M DP BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<100	20	7.4	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	6.7	-	-	-	<0.6	<1	30	-	19	-	
	109761M DP BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	540	14	7.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	3.2	-	-	-	<0.4	<1	13	-	5.1	-	
	109761M DP BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	720	14	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	13	-	-	-	<0.4	<1	47	-	6	-	
	109761M DP BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<100	19	8.7	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.6	-	-	-	<0.4	<1	39	-	33	-	
	109761M DP BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	120	24	7.8	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	<2	-	-	-	<0.4	<1	41	-	13	-	
	109761M DP BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<100	22	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	41	-	14	-	
	109761M DP BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<100	8.8	7.5	-	-	-	-	-	<0.5	-	<2	<10	8	81	<2	<10	<0.4	<1	50	-	240	-	
	109761M DP BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<100	11	7.3	-	-	-	-	<0.5	-	<2	<10	3.8	68	<2	<10	<0.4	<1	30	-	190	-		
	109761M DP BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	140	17	8.5	-	-	-	-	<0.5	-	<2	<10	<2	160	<2	<10	<0.4	<1	31	-	9.8	-		
	109761M P HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	<100	11	7.8	-	-	-	-	<0.5	-	<2	<10	6.1	690	<2	<10	0.5	<1	47	-	390	-		
	109761M P HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	-	<5	140	9.4	7.4	-	-	-	-	<0.5	-	<2	<10	32	46	<2	<10	<0.4	<1	30	-	<5	-		
	109761M P HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.3	-	-	<5	100	20	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	7.9	-	-	-	<0.4	<1	61	-	8	-	
	109761M P HA38_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.1	-	-	<5	<100	13	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	<2	-	-	-	<0.4	<1	8.7	-	<5	-	
	109761M P HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.3	-	-	<5	<100	12	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.1	-	-	-	<0.4	<1	13	-	<5	-	
	109761M P HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	6.8	-	-	<5	<100	15	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	11	-	9.6	-	
	109761M P HA41_0.1	25 Mar 2023	977269	Ballast fines	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7	-	-	<5	<100	8.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	3	-	-	-	<0.4	<1	14	-	<5	-	
	109761M P HA42_0.65	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-																											

Table A1: Summary of Analytical Results

						Halogenated Hydrocarbons					Herbicides	Inorganics					MAH					Metals																			
						1,2-dibromomethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Dinoseb	Conductivity (1.5 aqueous extract)	pH (1.2 Aqueous extract)	Leakage Capacity	Cyanide (monable)	Cyanide Total	Fluoride	% Moisture Content (dried @ 103°C)	pH (1.5 aqueous extract)	pH (Lab)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	% Iron (%)	Selenium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+IV)	Cobalt	Copper	Iron			
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µS/cm	-	meq/100g	mg/kg	mg/kg	mg/kg	%	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EOL																																									
NEPM EILs Urb Res																														100											
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil																																									
NEPM EILs Comm/Ind																																									
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil																																									
NEPM 2013 Table 1A(1) HILs Rec C Soil																																									
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																									
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																									
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																									
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																									
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																									
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																									
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																									
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																				
Area 4	109761M_BH_D02_0.6	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<20	-	6.5	-	-	<5	<100	33	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	8.9	-	-	-	<0.4	<1	40	-	11	-	-			
	109761M_BH_D02_1.1	30 Mar 2023	981483	Road	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	6.9	-	-	<5	<100	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	21	-	-	-	<0.4	<1	36	-	-				
	109761M_DP_BH7_0.3	03 Dec 2022	947244	Piling locations - Systematic	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	<5	<100	18	7	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	7.2	-	-	-	<0.4	<1	34	-	240	-				
	109761M_DP_BH7_0.4	03 Dec 2022	947244	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	110	-	10	-	<5	180	14	8	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	<2	-	4.3	-	-	-	<0.4	<1	28	-	7.1	24,000			
	109761M_DP_BH7_2.0	03 Dec 2022	947244	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	600	17	8.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	15	-	<5	-			
	109761M_DP_BH7_3.0	03 Dec 2022	947244	Piling locations - Systematic	Natural	-	-	-	-	-	-	120	-	5.4	-	-	-	13	-	8	-	-	-	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	11,000	-		
	109761M_DP_BH11_1.8	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	230	19	8.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4.5	-	-	-	<0.4	<1	25	-	6.3	-			
	109761M_DP_BH14_0.5	03 Dec 2022	947244	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	<100	6.2	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	11	-	-	-	<0.4	<1	63	-	140	-			
	109761M_DP_BH14_0.7	03 Dec 2022	947244	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	170	10	7.7	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	63	-	-	-	<0.4	<1	70	-	<5	-			
	109761M_DP_BH14_0.9	03 Dec 2022	947244	Ballast fines - systematic sampling	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	<5	200	23	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.8	-	-	-	<0.4	<1	47	-	8.8	-			
	109761M_P_HA5_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	<100	8.6	7.1	-	-	-	-	<0.5	-	<2	<10	3	34	<2	<10	<0.4	<1	35	-	220	-					
	109761M_P_HA5_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	550	17	7.7	-	-	-	-	<0.5	-	<2	<10	12	86	<2	<10	<0.4	<1	32	-	76	-	-	-			
	109761M_P_HA5_0.7	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	<100	32	7.7	-	-	-	-	<0.5	-	<2	<10	27	120	<2	<10	<0.4	<1	48	-	32	-	82	-			
	109761M_P_HA09_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.6	-	-	<5	<100	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	53	-	58	-	-	-	6.2	<1	92	-	240	-			
	109761M_P_HA09_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.4	-	-	<5	<100	13	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.9	-	-	-	<0.4	<1	30	-	9.1	-			
	109761M_P_HA10_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.7	-	-	<5	<100	22	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	10	-	-	-	0.5	<1	29	-	280	-			
	109761M_P_HA11_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.4	-	-	<5	250	16	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.4	-	-	-	<0.4	<1	12	-	5.8	-			
	109761M_P_HA11_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	6.8	-	-	<5	230	18	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	-	-	-	-	<0.4	<1	13	-	<5	-			
	109761M_P_HA13_1.0	25 Mar 2023	977269	Natural	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.7	-	-	<5	<100	21	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.2	-	-	-	<0.4	<1	33	-	8.5	-			
	109761M_P_HA13_1.3	25 Mar 2023	977269	Natural	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.5	-	-	<5	130	22	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5	-	-	-	<0.4	<1	27	-	62	-			
	109761M_P_HA13_1.5	25 Mar 2023	977269	Natural	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.7	-	-	<5	<100	14	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.5	-	-	-	<0.4	<1	12	-	<5	-			
	109761M_P_HA14_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	250	10	7.2	-	-	-	-	<0.5	-	<2	<10	5.6	45	<2	<10	<0.4	<1	28	-	170	-	-	-			
	109761M_P_HA14_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	190	14	8.1	-	-	-	-	<0.5	-	<2	<10	8.3	42	<2	<10	<0.4	<1	44	-	270	-	-	-			
	109761M_P_HA14_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	<0.5	<0.5	<20	-	-	-	<5	<100	17	7.5	-	-	-	-	<0.5	-	<2	<10	5.5														

Table A1: Summary of Analytical Results

		Halogenated Hydrocarbons					Herbicides	Inorganics							MAH					Metals																						
		1,2-dibromomethane	Bromomethane	Dichlorodifluoromethane	Iodomethane	Trichlorofluoromethane	Dinoseb	Conductivity (1.5 aqueous extract)	pH (1.2 Aqueous extract)	Cation Exchange Capacity	Cyanide (monobale)	Cyanide Total	Fluoride	Moisture Content (dried @ 103°C)	pH (1.5 aqueous extract)	pH (Lab)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	% Iron (%)	Selenium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+IV)	Cobalt	Copper	Iron	Lead	Mercury	Manganese	Nickel	Vanadium			
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µS/cm	-	meq/100g	mg/kg	mg/kg	mg/kg	%	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EOL																																										
NEPM EILs Urb Res																									100																	
NEPM EILs with Bp CRC Care, Urb Res, Coarse Soil																																										
NEPM EILs Comm/Ind																									160																	
NEPM EILs with Bp CRC Care, Comm/Ind, Coarse Soil																																										
NEPM 2013 Table 1A(1) HILs Rec C Soil																																										
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																								700	300		90	20,000	90	300		300	17,000									
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																										
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																										
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																										
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																										
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																5.5																										
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																5																										
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																										
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																					
Area 5	109761M DP BH1_0.6	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	140	17	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	19	-	-	-	-	<0.4	<1	6.4	-	34	-			
	109761M DP BH1_1.0	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	770	9.8	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	22	-	-	-	-	<0.4	<1	6.1	-	32	-			
	109761M DP BH5_0.1	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<100	14	7.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	20	-	-	-	-	<0.4	<1	9.4	-	<5	-			
	109761M DP BH5_0.4	02 Dec 2022	947225	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	180	8.7	7.6	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4	-	-	-	-	<0.4	<1	14	-	5.6	-			
	109761M DP BH5_0.8	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<100	11	7.8	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4.7	-	-	-	-	<0.4	<1	24	-	12	-			
	109761M DP BH5_1.2	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<100	15	7.6	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.5	-	-	-	-	<0.4	<1	28	-	<5	-			
	109761M DP BH9_1.7	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	160	18	8	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	6	-	-	-	-	<0.4	<1	34	-	13	-			
	109761M DP BH13_0.1	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<100	11	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.8	-	-	-	-	<0.4	<1	14	-	11	-			
	109761M DP BH13_0.5	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	1,700	8.3	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	11	-	-	-	-	<0.4	<1	27	-	5.4	-			
	109761M DP BH13_1.0	30 Nov 2022	946362	Piling locations - Systematic	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	350	16	7.9	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	30	-	-	-	-	<0.4	<1	59	-	13	-			
	109761M DP BH13_2.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	570	13	7.8	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	3.6	-	-	-	-	<0.4	<1	25	-	<5	-			
	109761M DP BH13_3.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	550	14	8.6	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	7.6	-	-	-	-	<0.4	<1	33	-	7.5	-			
	109761M DP S87_0.1	02 Dec 2022	947225	Rail Tie In - South - Gridded	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<100	11	7.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2	-	-	-	-	<0.4	<1	14	-	90	-			
	109761M DP S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	120	22	7.7	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	14	-	-	-	-	<0.4	<1	30	-	21	-			
	109761M P_HA01_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	7.2	-	-	<5	140	14	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	8.2	-	-	-	-	<0.4	<1	9.1	-	39	-			
	109761M P_HA02_0.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	6.5	-	-	<5	<100	13	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	15	-	-	-	-	<0.4	<1	38	-	81	-			
	109761M P_HA03_1.2	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	6.7	-	-	<5	<100	15	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	38	-	-	-	-	<0.4	<1	18	-	<1	-			
	109761M P_HA04_0.6	25 Mar 2023	977269	Ballast Fines	Ballast	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	6.7	-	-	<5	<100	17	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	2.5	-	-	-	-	<0.4	<1	22	-	10	-			
	109761M P_HA05_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	6.2	-	-	<5	120	18	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	3.1	-	-	-	-	<0.4	<1	28	-	16	-			
	109761M P_HA08_1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	7.5	-	-	<5	<100	19	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.6	-	-	-	-	<0.4	<1	37	-	7.7	-			
	109761M S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	-	-	-	-	<5	<100	14	8.1	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4.6	-	-	-	-	<0.4	<1	11	-	38	-		
	109761M S82_0.2	01 Dec 2022																																								

Table A1: Summary of Analytical Results



						Halogenated Hydrocarbons				Herbicides	Inorganics						MAH					Metals																
						1,2-dibromoethane	Bromomethane	Dichlorodifluoromethane	Iodonomethane	Trichlorofluoromethane	Dinoseb	Conductivity (1.5 aqueous extract)	pH (1.2 Aqueous extract)	Cation Exchange Capacity	Cyanide (extractable)	Cyanide Total	Fluoride	Moisture Content (dried @ 103°C)	pH (1.5 aqueous extract)	pH (Lab)	Total MAH	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Isopropylbenzene	Styrene	Iron (%)	Selenium	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Chromium (III+VI)	Cobalt	Copper	Iron
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	µS/cm	-	meq/100g	mg/kg	mg/kg	mg/kg	%	-	-	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQI																																						
NEPM EILs Urb Res																																						
NEPM ESLs with BaP CRC Care, Urb Res, Coarse Soil																																						
NEPM EILs Comm/Ind																																						
NEPM ESLs with BaP CRC Care, Comm/Ind, Coarse Soil																																						
NEPM 2013 Table 1A(1) HILs Rec C Soil																																						
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																						
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																						
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																						
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																						
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																						
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																						
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																				5.5																		
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																			5																			
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																						
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																						
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																	
Area 6	109761M_P_HA50_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.1	-	-	<5	<100	8.8	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	4.8	-	-	-	<0.4	<1	17	-	32	-
	109761M_P_HA50_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.5	-	-	<5	<100	9.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.6	-	-	-	<0.4	<1	19	-	25	-
	109761M_P_HA51_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.5	-	-	<5	<100	8.8	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	56	-	-	-	<0.4	<1	260	-	58	-
	109761M_P_HA51_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.3	-	-	<5	110	17	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	25	-	-	-	<0.4	<1	18	-	24	-
	109761M_P_HA52_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.5	-	-	<5	280	9.6	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	15	-	-	-	<0.4	<1	18	-	34	-
	109761M_P_HA52_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.3	-	-	<5	410	11	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	9.8	-	-	-	<0.4	<1	17	-	22	-
	109761M_P_HA53_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8	-	-	<5	<100	12	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	<2	-	-	-	<0.4	<1	25	-	120	-
	109761M_P_HA53_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	7.5	-	-	<5	<100	14	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	13	-	-	-	<0.4	<1	41	-	97	-
	109761M_P_HA55_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.6	-	-	<5	<100	8.3	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	<2	-	-	-	<0.4	<1	10	-	21	-
109761M_P_HA59_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<20	-	8.9	-	-	<5	<100	9.2	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<2	-	5.8	-	-	-	<0.4	<1	23	-	52	-	

* NL = non limiting

						Metals						Organic	Organochlorine Pesticides																								
						Lead	Manganese	Mercury	Molybdenum	Nickel	Silver	Tin	Vanadium	Zinc	Formaldehyde	Other organochlorine pesticides OPATC	Total Organochlorine Pesticides	ΣPCPA 1828.2 OP Total)*	ΣPCPA 1828.2 Other OP Total)*	4,4-DDE	α-BHC	Aldrin	Aldrin + Dieldrin	β-BHC	Chlordane	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Mg/Kg	Mg/Kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
COL	NEPM EILs Urb Res					1,100																							180								
	NEPM EILs with BaP CRC Care, Urb Res, Coarse Soil					1,800																							640								
	NEPM EILs Comm/Ind																																				
	NEPM EILs with BaP CRC Care, Comm/Ind, Coarse Soil																																				
	NEPM 2013 Table 1A(1) HSL Rec C Soil					600	10,000	80		1,200					30,000										10		70			400					20		
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																																					
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																																					
NEPM 2013 Table 1A(1) HSLs Comm/Ind D Soil																																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)						1,500	60,000	730		6,000				400,000										45		530			3,600					100			
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																																					
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																																					
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																																					
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																																					
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description																																
Area 3	109761M_BH_AT01_0.3	31 Mar 2023	981483	Road	Fill	8.9	-	<0.1	<5	73	<3	<10	-	42	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_BH_AT01_0.6	31 Mar 2023	981483	Road	Fill	<5	<0.1	<5	29	<3	<10	-	21	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_BH_D01_0.6	30 Mar 2023	981483	Road	Fill	14	-	0.1	<5	12	<2	<10	-	11	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_BH_D01_0.8	30 Mar 2023	981483	Road	Fill	8.3	-	<0.1	<5	24	<2	<10	-	16	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_BH_V02_0.3	31 Mar 2023	981483	Road	Fill	47	-	<0.1	<5	110	<2	<10	-	65	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_BH_V02_0.7	31 Mar 2023	981483	Road	Fill	32	-	<0.1	<5	110	<2	<10	-	67	-	<0.1	<0.1	-	-	<0.1	<0.05	<0.05	<0.05	<0.05	0.07	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	75	-	0.2	<5	62	<2	<10	-	180	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	15	-	<0.1	<5	27	<2	<10	-	32	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	15	-	<0.1	<5	<5	<2	<10	-	6.5	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	16	-	<0.1	<5	8.7	<2	<10	-	10	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Natural	42	-	<0.1	<5	32	<2	<10	-	27	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	19	-	<0.1	<5	26	<2	<10	-	24	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	14	-	<0.1	<5	32	<2	<10	-	22	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	77	-	0.1	<5	140	<2	11	-	420	<1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	109761M_DP_BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	55	-	<0.1	<5	110	<2	<10	-	140	<1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_DP_BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	12	-	<0.1	<5	46	<2	<10	-	14	1.4	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	38	-	<0.1	<5	100	<2	24	-	140	<1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	109761M_P_HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	15	-	<0.1	<5	6.2	<2	<10	-	<5	1.2	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	19	-	0.2	<5	16	<2	<10	-	14	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA39_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	6.6	-	<0.1	<5	<5	<2	<10	-	<5	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	7.1	-	<0.1	<5	<5	<2	<10	-	<5	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	20	-	<0.1	<5	5.6	<2	<10	-	16	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA41_0.1	25 Mar 2023	977269	Ballast fines	Ballast	9.5	-	<0.1	<5	<5	<2	<10	-	6.2	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_P_HA42_0.65	25 Mar 2023	977269	Rail Corridor fill	Fill	40	-	0.1	<5	31	<2	<10	-	67	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	109761M_SB15_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	10	-	0.2	<5	78	<2	10	-	240	-	<0.1	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	

[illegible]

[illegible]

* NL = non limiting

		Organochlorine Pesticides					PAH																				PCBs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		g-HCH (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene	Benzof(1,2,3-cd)fluoranthene	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1268	Aroclor 1281	Aroclor 1282	Aroclor 1283	Aroclor 1291	Aroclor 1500	Aroclor 1542	Aroclor 1548	Aroclor 1566	Aroclor 1582	Aroclor 1591	Aroclor 1600	Aroclor 1606	Aroclor 1616	Aroclor 1621	Aroclor 1628	Aroclor 1631	Aroclor 1644	Aroclor 1648	Aroclor 1660	Aroclor 1671	Aroclor 1681	Aroclor 1699	Aroclor 1701	Aroclor 1704	Aroclor 1706	Aroclor 1710	Aroclor 1716	Aroclor 1721	Aroclor 1726	Aroclor 1731	Aroclor 1736	Aroclor 1741	Aroclor 1746	Aroclor 1751	Aroclor 1756	Aroclor 1761	Aroclor 1766	Aroclor 1771	Aroclor 1776	Aroclor 1781	Aroclor 1786	Aroclor 1791	Aroclor 1796	Aroclor 1801	Aroclor 1806	Aroclor 1811	Aroclor 1816	Aroclor 1821	Aroclor 1826	Aroclor 1831	Aroclor 1836	Aroclor 1841	Aroclor 1846	Aroclor 1851	Aroclor 1856	Aroclor 1861	Aroclor 1866	Aroclor 1871	Aroclor 1876	Aroclor 1881	Aroclor 1886	Aroclor 1891	Aroclor 1896	Aroclor 1901	Aroclor 1906	Aroclor 1911	Aroclor 1916	Aroclor 1921	Aroclor 1926	Aroclor 1931	Aroclor 1936	Aroclor 1941	Aroclor 1946	Aroclor 1951	Aroclor 1956	Aroclor 1961	Aroclor 1966	Aroclor 1971	Aroclor 1976	Aroclor 1981	Aroclor 1986	Aroclor 1991	Aroclor 1996	Aroclor 2001	Aroclor 2006	Aroclor 2011	Aroclor 2016	Aroclor 2021	Aroclor 2026	Aroclor 2031	Aroclor 2036	Aroclor 2041	Aroclor 2046	Aroclor 2051	Aroclor 2056	Aroclor 2061	Aroclor 2066	Aroclor 2071	Aroclor 2076	Aroclor 2081	Aroclor 2086	Aroclor 2091	Aroclor 2096	Aroclor 2101	Aroclor 2106	Aroclor 2111	Aroclor 2116	Aroclor 2121	Aroclor 2126	Aroclor 2131	Aroclor 2136	Aroclor 2141	Aroclor 2146	Aroclor 2151	Aroclor 2156	Aroclor 2161	Aroclor 2166	Aroclor 2171	Aroclor 2176	Aroclor 2181	Aroclor 2186	Aroclor 2191	Aroclor 2196	Aroclor 2201	Aroclor 2206	Aroclor 2211	Aroclor 2216	Aroclor 2221	Aroclor 2226	Aroclor 2231	Aroclor 2236	Aroclor 2241	Aroclor 2246	Aroclor 2251	Aroclor 2256	Aroclor 2261	Aroclor 2266	Aroclor 2271	Aroclor 2276	Aroclor 2281	Aroclor 2286	Aroclor 2291	Aroclor 2296	Aroclor 2301	Aroclor 2306	Aroclor 2311	Aroclor 2316	Aroclor 2321	Aroclor 2326	Aroclor 2331	Aroclor 2336	Aroclor 2341	Aroclor 2346	Aroclor 2351	Aroclor 2356	Aroclor 2361	Aroclor 2366	Aroclor 2371	Aroclor 2376	Aroclor 2381	Aroclor 2386	Aroclor 2391	Aroclor 2396	Aroclor 2401	Aroclor 2406	Aroclor 2411	Aroclor 2416	Aroclor 2421	Aroclor 2426	Aroclor 2431	Aroclor 2436	Aroclor 2441	Aroclor 2446	Aroclor 2451	Aroclor 2456	Aroclor 2461	Aroclor 2466	Aroclor 2471	Aroclor 2476	Aroclor 2481	Aroclor 2486	Aroclor 2491	Aroclor 2496	Aroclor 2501	Aroclor 2506	Aroclor 2511	Aroclor 2516	Aroclor 2521	Aroclor 2526	Aroclor 2531	Aroclor 2536	Aroclor 2541	Aroclor 2546	Aroclor 2551	Aroclor 2556	Aroclor 2561	Aroclor 2566	Aroclor 2571	Aroclor 2576	Aroclor 2581	Aroclor 2586	Aroclor 2591	Aroclor 2596	Aroclor 2601	Aroclor 2606	Aroclor 2611	Aroclor 2616	Aroclor 2621	Aroclor 2626	Aroclor 2631	Aroclor 2636	Aroclor 2641	Aroclor 2646	Aroclor 2651	Aroclor 2656	Aroclor 2661	Aroclor 2666	Aroclor 2671	Aroclor 2676	Aroclor 2681	Aroclor 2686	Aroclor 2691	Aroclor 2696	Aroclor 2701	Aroclor 2706	Aroclor 2711	Aroclor 2716	Aroclor 2721	Aroclor 2726	Aroclor 2731	Aroclor 2736	Aroclor 2741	Aroclor 2746	Aroclor 2751	Aroclor 2756	Aroclor 2761	Aroclor 2766	Aroclor 2771	Aroclor 2776	Aroclor 2781	Aroclor 2786	Aroclor 2791	Aroclor 2796	Aroclor 2801	Aroclor 2806	Aroclor 2811	Aroclor 2816	Aroclor 2821	Aroclor 2826	Aroclor 2831	Aroclor 2836	Aroclor 2841	Aroclor 2846	Aroclor 2851	Aroclor 2856	Aroclor 2861	Aroclor 2866	Aroclor 2871	Aroclor 2876	Aroclor 2881	Aroclor 2886	Aroclor 2891	Aroclor 2896	Aroclor 2901	Aroclor 2906	Aroclor 2911	Aroclor 2916	Aroclor 2921	Aroclor 2926	Aroclor 2931	Aroclor 2936	Aroclor 2941	Aroclor 2946	Aroclor 2951	Aroclor 2956	Aroclor 2961	Aroclor 2966	Aroclor 2971	Aroclor 2976	Aroclor 2981	Aroclor 2986	Aroclor 2991	Aroclor 2996	Aroclor 3001	Aroclor 3006	Aroclor 3011	Aroclor 3016	Aroclor 3021	Aroclor 3026	Aroclor 3031	Aroclor 3036	Aroclor 3041	Aroclor 3046	Aroclor 3051	Aroclor 3056	Aroclor 3061	Aroclor 3066	Aroclor 3071	Aroclor 3076	Aroclor 3081	Aroclor 3086	Aroclor 3091	Aroclor 3096	Aroclor 3101	Aroclor 3106	Aroclor 3111	Aroclor 3116	Aroclor 3121	Aroclor 3126	Aroclor 3131	Aroclor 3136	Aroclor 3141	Aroclor 3146	Aroclor 3151	Aroclor 3156	Aroclor 3161	Aroclor 3166	Aroclor 3171	Aroclor 3176	Aroclor 3181	Aroclor 3186	Aroclor 3191	Aroclor 3196	Aroclor 3201	Aroclor 3206	Aroclor 3211	Aroclor 3216	Aroclor 3221	Aroclor 3226	Aroclor 3231	Aroclor 3236	Aroclor 3241	Aroclor 3246	Aroclor 3251	Aroclor 3256	Aroclor 3261	Aroclor 3266	Aroclor 3271	Aroclor 3276	Aroclor 3281	Aroclor 3286	Aroclor 3291	Aroclor 3296	Aroclor 3301	Aroclor 3306	Aroclor 3311	Aroclor 3316	Aroclor 3321	Aroclor 3326	Aroclor 3331	Aroclor 3336	Aroclor 3341	Aroclor 3346	Aroclor 3351	Aroclor 3356	Aroclor 3361	Aroclor 3366	Aroclor 3371	Aroclor 3376	Aroclor 3381	Aroclor 3386	Aroclor 3391	Aroclor 3396	Aroclor 3401	Aroclor 3406	Aroclor 3411	Aroclor 3416	Aroclor 3421	Aroclor 3426	Aroclor 3431	Aroclor 3436	Aroclor 3441	Aroclor 3446	Aroclor 3451	Aroclor 3456	Aroclor 3461	Aroclor 3466	Aroclor 3471	Aroclor 3476	Aroclor 3481	Aroclor 3486	Aroclor 3491	Aroclor 3496	Aroclor 3501	Aroclor 3506	Aroclor 3511	Aroclor 3516	Aroclor 3521	Aroclor 3526	Aroclor 3531	Aroclor 3536	Aroclor 3541	Aroclor 3546	Aroclor 3551	Aroclor 3556	Aroclor 3561	Aroclor 3566	Aroclor 3571	Aroclor 3576	Aroclor 3581	Aroclor 3586	Aroclor 3591	Aroclor 3596	Aroclor 3601	Aroclor 3606	Aroclor 3611	Aroclor 3616	Aroclor 3621	Aroclor 3626	Aroclor 3631	Aroclor 3636	Aroclor 3641	Aroclor 3646	Aroclor 3651	Aroclor 3656	Aroclor 3661	Aroclor 3666	Aroclor 3671	Aroclor 3676	Aroclor 3681	Aroclor 3686	Aroclor 3691	Aroclor 3696	Aroclor 3701	Aroclor 3706	Aroclor 3711	Aroclor 3716	Aroclor 3721	Aroclor 3726	Aroclor 3731	Aroclor 3736	Aroclor 3741	Aroclor 3746	Aroclor 3751	Aroclor 3756	Aroclor 3761	Aroclor 3766	Aroclor 3771	Aroclor 3776	Aroclor 3781	Aroclor 3786	Aroclor 3791	Aroclor 3796	Aroclor 3801	Aroclor 3806	Aroclor 3811	Aroclor 3816	Aroclor 3821	Aroclor 3826	Aroclor 3831	Aroclor 3836	Aroclor 3841	Aroclor 3846	Aroclor 3851	Aroclor 3856	Aroclor 3861	Aroclor 3866	Aroclor 3871	Aroclor 3876	Aroclor 3881	Aroclor 3886	Aroclor 3891	Aroclor 3896	Aroclor 3901	Aroclor 3906	Aroclor 3911	Aroclor 3916	Aroclor 3921	Aroclor 3926	Aroclor 3931	Aroclor 3936	Aroclor 3941	Aroclor 3946	Aroclor 3951	Aroclor 3956	Aroclor 3961	Aroclor 3966	Aroclor 3971	Aroclor 3976	Aroclor 3981	Aroclor 3986	Aroclor 3991	Aroclor 3996	Aroclor 4001	Aroclor 4006	Aroclor 4011	Aroclor 4016	Aroclor 4021	Aroclor 4026	Aroclor 4031	Aroclor 4036	Aroclor 4041	Aroclor 4046	Aroclor 4051	Aroclor 4056	Aroclor 4061	Aroclor 4066	Aroclor 4071	Aroclor 4076	Aroclor 4081	Aroclor 4086	Aroclor 4091	Aroclor 4096	Aroclor 4101	Aroclor 4106	Aroclor 4111	Aroclor 4116	Aroclor 4121	Aroclor 4126	Aroclor 4131	Aroclor 4136	Aroclor 4141	Aroclor 4146	Aroclor 4151	Aroclor 4156	Aroclor 4161	Aroclor 4166	Aroclor 4171	Aroclor 4176	Aroclor 4181	Aroclor 4186	Aroclor 4191	Aroclor 4196	Aroclor 4201	Aroclor 4206	Aroclor 4211	Aroclor 4216	Aroclor 4221	Aroclor 4226	Aroclor 4231	Aroclor 4236	Aroclor 4241	Aroclor 4246	Aroclor 4251	Aroclor 4256	Aroclor 4261	Aroclor 4266	Aroclor 4271	Aroclor 4276	Aroclor 4281	Aroclor 4286	Aroclor 4291	Aroclor 4296	Aroclor 4301	Aroclor 4306	Aroclor 4311	Aroclor 4316	Aroclor 4321	Aroclor 4326	Aroclor 4331	Aroclor 4336	Aroclor 4341	Aroclor 4346	Aroclor 4351	Aroclor 4356	Aroclor 4361	Aroclor 4366	Aroclor 4371	Aroclor 4376	Aroclor 4381	Aroclor 4386	Aroclor 4391	Aroclor 4396	Aroclor 4401	Aroclor 4406	Aroclor 4411	Aroclor 4416	Aroclor 4421	Aroclor 4426	Aroclor 4431	Aroclor 4436	Aroclor 4441	Aroclor 4446	Aroclor 4451	Aroclor 4456	Aroclor 4461	Aroclor 4466	Aroclor 4471	Aroclor 4476	Aroclor 4481	Aroclor 4486	Aroclor 4491	Aroclor 4496	Aroclor 4501	Aroclor 4506	Aroclor 4511	Aroclor 4516	Aroclor 4521	Aroclor 4526	Aroclor 4531	Aroclor 4536	Aroclor 4541	Aroclor 4546	Aroclor 4551	Aroclor 4556	Aroclor 4561	Aroclor 4566	Aroclor 4571	Aroclor 4576	Aroclor 4581	Aroclor 4586	Aroclor 4591	Aroclor 4596	Aroclor 4601	Aroclor 4606	Aroclor 4611	Aroclor 4616	Aroclor 4621	Aroclor 4626	Aroclor 4631	Aroclor 4636	Aroclor 4641	Aroclor 4646	Aroclor 4651	Aroclor 4656	Aroclor 4661	Aroclor 4666	Aroclor 4671	Aroclor 4676	Aroclor 4681	Aroclor 4686	Aroclor 4691	Aroclor 4696	Aroclor 4701	Aroclor 4706	Aroclor 4711	Aroclor 4716	Aroclor 4721	Aroclor 4726	Aroclor 4731	Aroclor 4736	Aroclor 4741	Aroclor 4746	Aroclor 4751	Aroclor 4756	Aroclor 4761	Aroclor 4766	Aroclor 4771	Aroclor 4776	Aroclor 4781	Aroclor 4786	Aroclor 4791	Aroclor 4796	Aroclor 4801	Aroclor 4806	Aroclor 4811	Aroclor 4816	Aroclor 4821	Aroclor 4826	Aroclor 4831	Aroclor 4836	Aroclor 4841	Aroclor 4846	Aroclor 4851	Aroclor 4856	Aroclor 4861	Aroclor 4866	Aroclor 4871	Aroclor 4876	Aroclor 4881	Aroclor 4886	Aroclor 4891	Aroclor 4896	Aroclor 4901	Aroclor 4906	Aroclor 4911	Aroclor 4916	Aroclor 4921	Aroclor 4926	Aroclor 4931	Aroclor 4936	Aroclor 4941	Aroclor 4946	Aroclor 4951	Aroclor 4956	Aroclor 4961	Aroclor 4966	Aroclor 4971	Aroclor 4976	Aroclor 4981	Aroclor 4986	Aroclor 4991	Aroclor 4996	Aroclor 5001	Aroclor 5006	Aroclor 5011	Aroclor 5016	Aroclor 5021	Aroclor 5026	Aroclor 5031	Aroclor 5036	Aroclor 5041	Aroclor 5046	Aroclor 5051	Aroclor 5056	Aroclor 5061	Aroclor 5066	Aroclor 5071	Aroclor 5076	Aroclor 5081	Aroclor 5086	Aroclor 5091	Aroclor 5096	Aroclor 5101	Aroclor 5106	Aroclor 5111	Aroclor 5116	Aroclor 5121	Aroclor 5126	Aroclor 5131	Aroclor 5136	Aroclor 5141	Aroclor 5146	Aroclor 5151	Aroclor 5156	Aroclor 5161	Aroclor 5166	Aroclor 5171	Aroclor 5176	Aroclor 5181	Aroclor 5186	Aroclor 5191	Aroclor 5196	Aroclor 5201	Aroclor 5206	Aroclor 5211	Aroclor 5216	Aroclor 5221	Aroclor 5226	Aroclor 5231	Aroclor 5236	Aroclor 5241	Aroclor 5246	Aroclor 5251	Aroclor 5256	Aroclor 5261	Aroclor 5266	Aroclor 5271	Aroclor 5276	Aroclor 5281	Aroclor 5286	Aroclor 5291	Aroclor 5296	Aroclor 5301	Aroclor 5306	Aroclor 5311	Aroclor 5316	Aroclor 5321	Aroclor 5326	Aroclor 5331	Aroclor 5336	Aroclor 5341	Aroclor 5346	Aroclor 5351	Aroclor 5356	Aroclor 5361	Aroclor 5366	Aroclor 5371	Aroclor 5376	Aroclor 5381	Aroclor 5386	Aroclor 5391	Aroclor 5396	Aroclor 5401	Aroclor 5406	Aroclor 5411	Aroclor 5416	Aroclor 5421	Aroclor 5426	Aroclor 5431	Aroclor 5436	Aroclor 5441	Aroclor 5446	Aroclor 5451	Aroclor 5456	Aroclor 5461	Aroclor 5466	Aroclor 5471	Aroclor 5476	Aroclor 5481	Aroclor 5486	Aroclor 5491	Aroclor 5496	Aroclor 5501	Aroclor 5506	Aroclor 5511	Aroclor 5516	Aroclor 5521	Aroclor 5526	Aroclor 5531	Aroclor 5536	Aroclor 5541	Aroclor 5546	Aroclor 5551	Aroclor 5556	Aroclor 5561	Aroclor 5566	Aroclor 5571	Aroclor 5576	Aroclor 5581	Aroclor 5586	Aroclor 5591	Aroclor 5596	Aroclor 5601	Aroclor 5606	Aroclor 5611	Aroclor 5616	Aroclor 5621	Aroclor 5626	Aroclor 5631	Aroclor 5636	Aroclor 5641	Aroclor 5646	Aroclor 5651	Aroclor 5656	Aroclor 5661	Aroclor 5666	Aroclor 5671	Aroclor 5676	Aroclor 5681	Aroclor 5686	Aroclor 5691	Aroclor 5696	Aroclor 5701	Aroclor 5706	Aroclor 5711	Aroclor 5716	Aroclor 5721	Aroclor 5726	Aroclor 5731	Aroclor 5736	Aroclor 5741	Aroclor 5746	Aroclor 5751	Aroclor 5756	Aroclor 5761	Aroclor 5766	Aroclor 5771	Aroclor 5776	Aroclor 5781	Aroclor 5786	Aroclor 5791	Aroclor 5796	Aroclor 5801	Aroclor 5806	Aroclor 5811	Aroclor 5816	Aroclor 5821	Aroclor 5826	Aroclor 5831	Aroclor 5836	Aroclor 5841	Aroclor 5846	Aroclor 5851	Aroclor 5856	Aroclor 5861	Aroclor 5866	Aroclor 5871	Aroclor 5876	Aroclor 5881	Aroclor 5886	Aroclor 5891	Aroclor 5896	Aroclor 5901	Aroclor 5906	Aroclor 5911	Aroclor 5916	Aroclor 5921	Aroclor 5926	Aroclor 5931	Aroclor 5936	Aroclor 5941	Aroclor 5946	Aroclor 5951	Aroclor 5956	Aroclor 5961	Aroclor 5966	Aroclor 5971	Aroclor 5976	Aroclor 5981	Aroclor 5986	Aroclor 5991	Aroclor 5996	Aroclor 6001	Aroclor 6006	Aroclor 6011	Aroclor 6016	Aroclor 6021	Aroclor 6026	Aroclor 6031	Aroclor 6036	Aroclor 6041	Aroclor 6046	Aroclor 6051	Aroclor 6056	Aroclor 6061	Aroclor 6066	Aroclor 6071	Aroclor 6076	Aroclor 6081	Aroclor 6086	Aroclor 6091	Aroclor 6096	Aroclor 6101	Aroclor 6106	Aroclor 6111	Aroclor 6116	Aroclor 6121	Aroclor 6126	Aroclor 6131	Aroclor 6136	Aroclor 6141	Aroclor 6146	Aroclor 6151	Aroclor 6156	Aroclor 6161	Aroclor 6166	Aroclor 6171	Aroclor 6176	Aroclor 6181	Aroclor 6186	Aroclor 6191	Aroclor 6196	Aroclor 6201	Aroclor 6206	Aroclor 6211	Aroclor 6216	Aroclor 6221	Aroclor 6226	Aroclor 6231	Aroclor 6236	Aroclor 6241	Aroclor 6246	Aroclor 6251	Aroclor 6256	Aroclor 6261	Aroclor 6266	Aroclor 6271	Aroclor 6276</

[illegible]

[illegible]

				Organochlorine Pesticides										PAH										PCBs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				g-HCH (Lindane)	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene	Benzod(1,2,3-cd)fluoranthene	Aroclor 1216	Aroclor 1221	Aroclor 1222	Aroclor 1223	Aroclor 1224	Aroclor 1225	Aroclor 1226	Aroclor 1227	Aroclor 1228	Aroclor 1229	Aroclor 1230	Aroclor 1231	Aroclor 1232	Aroclor 1233	Aroclor 1234	Aroclor 1235	Aroclor 1236	Aroclor 1237	Aroclor 1238	Aroclor 1239	Aroclor 1240	Aroclor 1241	Aroclor 1242	Aroclor 1243	Aroclor 1244	Aroclor 1245	Aroclor 1246	Aroclor 1247	Aroclor 1248	Aroclor 1249	Aroclor 1250	Aroclor 1251	Aroclor 1252	Aroclor 1253	Aroclor 1254	Aroclor 1255	Aroclor 1256	Aroclor 1257	Aroclor 1258	Aroclor 1259	Aroclor 1260	Aroclor 1261	Aroclor 1262	Aroclor 1263	Aroclor 1264	Aroclor 1265	Aroclor 1266	Aroclor 1267	Aroclor 1268	Aroclor 1269	Aroclor 1270	Aroclor 1271	Aroclor 1272	Aroclor 1273	Aroclor 1274	Aroclor 1275	Aroclor 1276	Aroclor 1277	Aroclor 1278	Aroclor 1279	Aroclor 1280	Aroclor 1281	Aroclor 1282	Aroclor 1283	Aroclor 1284	Aroclor 1285	Aroclor 1286	Aroclor 1287	Aroclor 1288	Aroclor 1289	Aroclor 1290	Aroclor 1291	Aroclor 1292	Aroclor 1293	Aroclor 1294	Aroclor 1295	Aroclor 1296	Aroclor 1297	Aroclor 1298	Aroclor 1299	Aroclor 1300	Aroclor 1301	Aroclor 1302	Aroclor 1303	Aroclor 1304	Aroclor 1305	Aroclor 1306	Aroclor 1307	Aroclor 1308	Aroclor 1309	Aroclor 1310	Aroclor 1311	Aroclor 1312	Aroclor 1313	Aroclor 1314	Aroclor 1315	Aroclor 1316	Aroclor 1317	Aroclor 1318	Aroclor 1319	Aroclor 1320	Aroclor 1321	Aroclor 1322	Aroclor 1323	Aroclor 1324	Aroclor 1325	Aroclor 1326	Aroclor 1327	Aroclor 1328	Aroclor 1329	Aroclor 1330	Aroclor 1331	Aroclor 1332	Aroclor 1333	Aroclor 1334	Aroclor 1335	Aroclor 1336	Aroclor 1337	Aroclor 1338	Aroclor 1339	Aroclor 1340	Aroclor 1341	Aroclor 1342	Aroclor 1343	Aroclor 1344	Aroclor 1345	Aroclor 1346	Aroclor 1347	Aroclor 1348	Aroclor 1349	Aroclor 1350	Aroclor 1351	Aroclor 1352	Aroclor 1353	Aroclor 1354	Aroclor 1355	Aroclor 1356	Aroclor 1357	Aroclor 1358	Aroclor 1359	Aroclor 1360	Aroclor 1361	Aroclor 1362	Aroclor 1363	Aroclor 1364	Aroclor 1365	Aroclor 1366	Aroclor 1367	Aroclor 1368	Aroclor 1369	Aroclor 1370	Aroclor 1371	Aroclor 1372	Aroclor 1373	Aroclor 1374	Aroclor 1375	Aroclor 1376	Aroclor 1377	Aroclor 1378	Aroclor 1379	Aroclor 1380	Aroclor 1381	Aroclor 1382	Aroclor 1383	Aroclor 1384	Aroclor 1385	Aroclor 1386	Aroclor 1387	Aroclor 1388	Aroclor 1389	Aroclor 1390	Aroclor 1391	Aroclor 1392	Aroclor 1393	Aroclor 1394	Aroclor 1395	Aroclor 1396	Aroclor 1397	Aroclor 1398	Aroclor 1399	Aroclor 1400	Aroclor 1401	Aroclor 1402	Aroclor 1403	Aroclor 1404	Aroclor 1405	Aroclor 1406	Aroclor 1407	Aroclor 1408	Aroclor 1409	Aroclor 1410	Aroclor 1411	Aroclor 1412	Aroclor 1413	Aroclor 1414	Aroclor 1415	Aroclor 1416	Aroclor 1417	Aroclor 1418	Aroclor 1419	Aroclor 1420	Aroclor 1421	Aroclor 1422	Aroclor 1423	Aroclor 1424	Aroclor 1425	Aroclor 1426	Aroclor 1427	Aroclor 1428	Aroclor 1429	Aroclor 1430	Aroclor 1431	Aroclor 1432	Aroclor 1433	Aroclor 1434	Aroclor 1435	Aroclor 1436	Aroclor 1437	Aroclor 1438	Aroclor 1439	Aroclor 1440	Aroclor 1441	Aroclor 1442	Aroclor 1443	Aroclor 1444	Aroclor 1445	Aroclor 1446	Aroclor 1447	Aroclor 1448	Aroclor 1449	Aroclor 1450	Aroclor 1451	Aroclor 1452	Aroclor 1453	Aroclor 1454	Aroclor 1455	Aroclor 1456	Aroclor 1457	Aroclor 1458	Aroclor 1459	Aroclor 1460	Aroclor 1461	Aroclor 1462	Aroclor 1463	Aroclor 1464	Aroclor 1465	Aroclor 1466	Aroclor 1467	Aroclor 1468	Aroclor 1469	Aroclor 1470	Aroclor 1471	Aroclor 1472	Aroclor 1473	Aroclor 1474	Aroclor 1475	Aroclor 1476	Aroclor 1477	Aroclor 1478	Aroclor 1479	Aroclor 1480	Aroclor 1481	Aroclor 1482	Aroclor 1483	Aroclor 1484	Aroclor 1485	Aroclor 1486	Aroclor 1487	Aroclor 1488	Aroclor 1489	Aroclor 1490	Aroclor 1491	Aroclor 1492	Aroclor 1493	Aroclor 1494	Aroclor 1495	Aroclor 1496	Aroclor 1497	Aroclor 1498	Aroclor 1499	Aroclor 1500	Aroclor 1501	Aroclor 1502	Aroclor 1503	Aroclor 1504	Aroclor 1505	Aroclor 1506	Aroclor 1507	Aroclor 1508	Aroclor 1509	Aroclor 1510	Aroclor 1511	Aroclor 1512	Aroclor 1513	Aroclor 1514	Aroclor 1515	Aroclor 1516	Aroclor 1517	Aroclor 1518	Aroclor 1519	Aroclor 1520	Aroclor 1521	Aroclor 1522	Aroclor 1523	Aroclor 1524	Aroclor 1525	Aroclor 1526	Aroclor 1527	Aroclor 1528	Aroclor 1529	Aroclor 1530	Aroclor 1531	Aroclor 1532	Aroclor 1533	Aroclor 1534	Aroclor 1535	Aroclor 1536	Aroclor 1537	Aroclor 1538	Aroclor 1539	Aroclor 1540	Aroclor 1541	Aroclor 1542	Aroclor 1543	Aroclor 1544	Aroclor 1545	Aroclor 1546	Aroclor 1547	Aroclor 1548	Aroclor 1549	Aroclor 1550	Aroclor 1551	Aroclor 1552	Aroclor 1553	Aroclor 1554	Aroclor 1555	Aroclor 1556	Aroclor 1557	Aroclor 1558	Aroclor 1559	Aroclor 1560	Aroclor 1561	Aroclor 1562	Aroclor 1563	Aroclor 1564	Aroclor 1565	Aroclor 1566	Aroclor 1567	Aroclor 1568	Aroclor 1569	Aroclor 1570	Aroclor 1571	Aroclor 1572	Aroclor 1573	Aroclor 1574	Aroclor 1575	Aroclor 1576	Aroclor 1577	Aroclor 1578	Aroclor 1579	Aroclor 1580	Aroclor 1581	Aroclor 1582	Aroclor 1583	Aroclor 1584	Aroclor 1585	Aroclor 1586	Aroclor 1587	Aroclor 1588	Aroclor 1589	Aroclor 1590	Aroclor 1591	Aroclor 1592	Aroclor 1593	Aroclor 1594	Aroclor 1595	Aroclor 1596	Aroclor 1597	Aroclor 1598	Aroclor 1599	Aroclor 1600	Aroclor 1601	Aroclor 1602	Aroclor 1603	Aroclor 1604	Aroclor 1605	Aroclor 1606	Aroclor 1607	Aroclor 1608	Aroclor 1609	Aroclor 1610	Aroclor 1611	Aroclor 1612	Aroclor 1613	Aroclor 1614	Aroclor 1615	Aroclor 1616	Aroclor 1617	Aroclor 1618	Aroclor 1619	Aroclor 1620	Aroclor 1621	Aroclor 1622	Aroclor 1623	Aroclor 1624	Aroclor 1625	Aroclor 1626	Aroclor 1627	Aroclor 1628	Aroclor 1629	Aroclor 1630	Aroclor 1631	Aroclor 1632	Aroclor 1633	Aroclor 1634	Aroclor 1635	Aroclor 1636	Aroclor 1637	Aroclor 1638	Aroclor 1639	Aroclor 1640	Aroclor 1641	Aroclor 1642	Aroclor 1643	Aroclor 1644	Aroclor 1645	Aroclor 1646	Aroclor 1647	Aroclor 1648	Aroclor 1649	Aroclor 1650	Aroclor 1651	Aroclor 1652	Aroclor 1653	Aroclor 1654	Aroclor 1655	Aroclor 1656	Aroclor 1657	Aroclor 1658	Aroclor 1659	Aroclor 1660	Aroclor 1661	Aroclor 1662	Aroclor 1663	Aroclor 1664	Aroclor 1665	Aroclor 1666	Aroclor 1667	Aroclor 1668	Aroclor 1669	Aroclor 1670	Aroclor 1671	Aroclor 1672	Aroclor 1673	Aroclor 1674	Aroclor 1675	Aroclor 1676	Aroclor 1677	Aroclor 1678	Aroclor 1679	Aroclor 1680	Aroclor 1681	Aroclor 1682	Aroclor 1683	Aroclor 1684	Aroclor 1685	Aroclor 1686	Aroclor 1687	Aroclor 1688	Aroclor 1689	Aroclor 1690	Aroclor 1691	Aroclor 1692	Aroclor 1693	Aroclor 1694	Aroclor 1695	Aroclor 1696	Aroclor 1697	Aroclor 1698	Aroclor 1699	Aroclor 1700	Aroclor 1701	Aroclor 1702	Aroclor 1703	Aroclor 1704	Aroclor 1705	Aroclor 1706	Aroclor 1707	Aroclor 1708	Aroclor 1709	Aroclor 1710	Aroclor 1711	Aroclor 1712	Aroclor 1713	Aroclor 1714	Aroclor 1715	Aroclor 1716	Aroclor 1717	Aroclor 1718	Aroclor 1719	Aroclor 1720	Aroclor 1721	Aroclor 1722	Aroclor 1723	Aroclor 1724	Aroclor 1725	Aroclor 1726	Aroclor 1727	Aroclor 1728	Aroclor 1729	Aroclor 1730	Aroclor 1731	Aroclor 1732	Aroclor 1733	Aroclor 1734	Aroclor 1735	Aroclor 1736	Aroclor 1737	Aroclor 1738	Aroclor 1739	Aroclor 1740	Aroclor 1741	Aroclor 1742	Aroclor 1743	Aroclor 1744	Aroclor 1745	Aroclor 1746	Aroclor 1747	Aroclor 1748	Aroclor 1749	Aroclor 1750	Aroclor 1751	Aroclor 1752	Aroclor 1753	Aroclor 1754	Aroclor 1755	Aroclor 1756	Aroclor 1757	Aroclor 1758	Aroclor 1759	Aroclor 1760	Aroclor 1761	Aroclor 1762	Aroclor 1763	Aroclor 1764	Aroclor 1765	Aroclor 1766	Aroclor 1767	Aroclor 1768	Aroclor 1769	Aroclor 1770	Aroclor 1771	Aroclor 1772	Aroclor 1773	Aroclor 1774	Aroclor 1775	Aroclor 1776	Aroclor 1777	Aroclor 1778	Aroclor 1779	Aroclor 1780	Aroclor 1781	Aroclor 1782	Aroclor 1783	Aroclor 1784	Aroclor 1785	Aroclor 1786	Aroclor 1787	Aroclor 1788	Aroclor 1789	Aroclor 1790	Aroclor 1791	Aroclor 1792	Aroclor 1793	Aroclor 1794	Aroclor 1795	Aroclor 1796	Aroclor 1797	Aroclor 1798	Aroclor 1799	Aroclor 1800	Aroclor 1801	Aroclor 1802	Aroclor 1803	Aroclor 1804	Aroclor 1805	Aroclor 1806	Aroclor 1807	Aroclor 1808	Aroclor 1809	Aroclor 1810	Aroclor 1811	Aroclor 1812	Aroclor 1813	Aroclor 1814	Aroclor 1815	Aroclor 1816	Aroclor 1817	Aroclor 1818	Aroclor 1819	Aroclor 1820	Aroclor 1821	Aroclor 1822	Aroclor 1823	Aroclor 1824	Aroclor 1825	Aroclor 1826	Aroclor 1827	Aroclor 1828	Aroclor 1829	Aroclor 1830	Aroclor 1831	Aroclor 1832	Aroclor 1833	Aroclor 1834	Aroclor 1835	Aroclor 1836	Aroclor 1837	Aroclor 1838	Aroclor 1839	Aroclor 1840	Aroclor 1841	Aroclor 1842	Aroclor 1843	Aroclor 1844	Aroclor 1845	Aroclor 1846	Aroclor 1847	Aroclor 1848	Aroclor 1849	Aroclor 1850	Aroclor 1851	Aroclor 1852	Aroclor 1853	Aroclor 1854	Aroclor 1855	Aroclor 1856	Aroclor 1857	Aroclor 1858	Aroclor 1859	Aroclor 1860	Aroclor 1861	Aroclor 1862	Aroclor 1863	Aroclor 1864	Aroclor 1865	Aroclor 1866	Aroclor 1867	Aroclor 1868	Aroclor 1869	Aroclor 1870	Aroclor 1871	Aroclor 1872	Aroclor 1873	Aroclor 1874	Aroclor 1875	Aroclor 1876	Aroclor 1877	Aroclor 1878	Aroclor 1879	Aroclor 1880	Aroclor 1881	Aroclor 1882	Aroclor 1883	Aroclor 1884	Aroclor 1885	Aroclor 1886	Aroclor 1887	Aroclor 1888	Aroclor 1889	Aroclor 1890	Aroclor 1891	Aroclor 1892	Aroclor 1893	Aroclor 1894	Aroclor 1895	Aroclor 1896	Aroclor 1897	Aroclor 1898	Aroclor 1899	Aroclor 1900	Aroclor 1901	Aroclor 1902	Aroclor 1903	Aroclor 1904	Aroclor 1905	Aroclor 1906	Aroclor 1907	Aroclor 1908	Aroclor 1909	Aroclor 1910	Aroclor 1911	Aroclor 1912	Aroclor 1913	Aroclor 1914	Aroclor 1915	Aroclor 1916	Aroclor 1917	Aroclor 1918	Aroclor 1919	Aroclor 1920	Aroclor 1921	Aroclor 1922	Aroclor 1923	Aroclor 1924	Aroclor 1925	Aroclor 1926	Aroclor 1927	Aroclor 1928	Aroclor 1929	Aroclor 1930	Aroclor 1931	Aroclor 1932	Aroclor 1933	Aroclor 1934	Aroclor 1935	Aroclor 1936	Aroclor 1937	Aroclor 1938	Aroclor 1939	Aroclor 1940	Aroclor 1941	Aroclor 1942	Aroclor 1943	Aroclor 1944	Aroclor 1945	Aroclor 1946	Aroclor 1947	Aroclor 1948	Aroclor 1949	Aroclor 1950	Aroclor 1951	Aroclor 1952	Aroclor 1953	Aroclor 1954	Aroclor 1955	Aroclor 1956	Aroclor 1957	Aroclor 1958	Aroclor 1959	Aroclor 1960	Aroclor 1961	Aroclor 1962	Aroclor 1963	Aroclor 1964	Aroclor 1965	Aroclor 1966	Aroclor 1967	Aroclor 1968	Aroclor 1969	Aroclor 1970	Aroclor 1971	Aroclor 1972	Aroclor 1973	Aroclor 1974	Aroclor 1975	Aroclor 1976	Aroclor 1977	Aroclor 1978	Aroclor 1979	Aroclor 1980	Aroclor 1981	Aroclor 1982	Aroclor 1983	Aroclor 1984	Aroclor 1985	Aroclor 1986	Aroclor 1987	Aroclor 1988	Aroclor 1989	Aroclor 1990	Aroclor 1991	Aroclor 1992	Aroclor 1993	Aroclor 1994	Aroclor 1995	Aroclor 1996	Aroclor 1997	Aroclor 1998	Aroclor 1999	Aroclor 2000	Aroclor 2001	Aroclor 2002	Aroclor 2003	Aroclor 2004	Aroclor 2005	Aroclor 2006	Aroclor 2007	Aroclor 2008	Aroclor 2009	Aroclor 2010	Aroclor 2011	Aroclor 2012	Aroclor 2013	Aroclor 2014	Aroclor 2015	Aroclor 2016	Aroclor 2017	Aroclor 2018	Aroclor 2019	Aroclor 2020	Aroclor 2021	Aroclor 2022	Aroclor 2023	Aroclor 2024	Aroclor 2025	Aroclor 2026	Aroclor 2027	Aroclor 2028	Aroclor 2029	Aroclor 2030	Aroclor 2031	Aroclor 2032	Aroclor 2033	Aroclor 2034	Aroclor 2035	Aroclor 2036	Aroclor 2037	Aroclor 2038	Aroclor 2039	Aroclor 2040	Aroclor 2041	Aroclor 2042	Aroclor 2043	Aroclor 2044	Aroclor 2045	Aroclor 2046	Aroclor 2047	Aroclor 2048	Aroclor 2049	Aroclor 2050	Aroclor 2051	Aroclor 2052	Aroclor 2053	Aroclor 2054	Aroclor 2055	Aroclor 2056	Aroclor 2057	Aroclor 2058	Aroclor 2059	Aroclor 2060	Aroclor 2061	Aroclor 2062	Aroclor 2063	Aroclor 2064	Aroclor 2065	Aroclor 2066	Aroclor 2067	Aroclor 2068	Aroclor 2069	Aroclor 2070	Aroclor 2071	Aroclor 2072	Aroclor 2073	Aroclor 2074	Aroclor 2075	Aroclor 2076	Aroclor 2077	Aroclor 2078	Aroclor 2079	Aroclor 2080	Aroclor 2081	Aroclor 2082	Aroclor 2083	Aroclor 2084	Aroclor 2085	Aroclor 2086	Aroclor 2087	Aroclor 2088	Aroclor 2089	Aroclor 2090	Aroclor 2091	Aroclor 2092	Aroclor 2093	Aroclor 2094	Aroclor 2095	Aroclor 2096	Aroclor 2097	Aroclor 2098	Aroclor 2099	Aroclor 2100	Aroclor 2101	Aroclor 2102	Aroclor 2103	Aroclor 2104	Aroclor 2105	Aroclor 2106	Aroclor 2107	Aroclor 2108	Aroclor 2109	Aroclor 2110	Aroclor 2111	Aroclor 2112	Aroclor 2113	Aroclor 2114	Aroclor 2115	Aroclor 2116	Aroclor 2117	Aroclor 2118	Aroclor 2119	Aroclor 2120	Aroclor 2121	Aroclor 2122	Aroclor 2123	Aroclor 2124	Aroclor 2125	Aroclor 2126	Aroclor 2127	Aroclor 2128	Aroclor 2129	Aroclor 2130	Aroclor 2131	Aroclor 2132	Aroclor 2133	Aroclor 2134	Aroclor 2135	Aroclor 2136	Aroclor 2137	Aroclor 2138	Aroclor 2139	Aroclor 2140	Aroclor 2141	Aroclor 2142	Aroclor 2143	Aroclor 2144	Aroclor 2145	Aroclor 2146	Aroclor 2147	Aroclor 2148	Aroclor 2149	Aroclor 2150	Aroclor 2151	Aroclor 2152	Aroclor 2153	Aroclor 2154	Aroclor 2155	Aroclor 2156	Aroclor 2157	Aroclor 2158	Aroclor 2159	Aroclor 2160	Aroclor 2161	Aroclor 2162

* NL = non limiting

						Phthalates		Solvents					TPH				
						Bis(2-ethylhexyl) phthalate		Methyl Ethyl Ketone	4-Methyl-2-pentanone	Hexane	Carbon disulfide		C10-C14 fraction	C10-C14 fraction	C15-C28 fraction	C29-C36 fraction	C10-C36 fraction (Sum)
						mg/kg		mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																	
NEPM EILs Urb Res																	
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil																	
NEPM EILs Comm/Ind																	
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil																	
NEPM 2013 Table 1A(1) HILs Rec C Soil																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																	
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																	
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																	
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description												
Area 1	109761M_DP_BH44_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH44_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	360	240	600		
	109761M_DP_BH44_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	56	56		
	109761M_DP_BH44_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_S827_0.5	02 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50		
	109761M_DP_S829_0.5	02 Dec 2022	948152	Rail Tie In - North - Gridded	Ballast	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50		
	109761M_DP_S829_0.8	02 Dec 2022	948152	Rail Tie In - North - Gridded	Fill	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50		
	109761M_P_HA48_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA48_0.95	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA49_0.75	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
Area 2	109761M_P_HA49_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_BH_H01_0.3	28 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	290	410	700		
	109761M_BH_H01_0.6	28 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	110	76	186		
	109761M_BH_H02A_0.3	28 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	360	260	620		
	109761M_BH_H02B_0.85	28 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	75	110	185		
	109761M_BH_V01_0.3	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	310	560	870		
	109761M_BH_V01_0.7	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	61	61		
	109761M_DP_BH8_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH8_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH28_0.1	02 Dec 2022	948152	Piling locations - Systematic	Ballast	<0.5	<0.5	-	-	-	<20	<20	56	61	117		
	109761M_DP_BH28_0.5	02 Dec 2022	948152	Piling locations - Systematic	Fill	0.8	<0.5	-	-	-	<20	<20	67	73	140		
	109761M_DP_BH28_3.0	02 Dec 2022	948152	Piling locations - Systematic	Natural	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50		
	109761M_DP_BH36_0.7	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH37_0.6	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH37_0.8	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH37_0.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH37_1.25	30 Nov 2022	946362	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH40_1.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH40_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH40_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH42_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	53	98	151		
	109761M_DP_BH42_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_DP_BH42_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<40	<20	<50	<50	<50		
	109761M_P_HA17_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50		
	109761M_P_HA43_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA43_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA44_1.3	25 Mar 2023	977269	Natural	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA45_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_P_HA46_0.6	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S821_0.1	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S821_1.0	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S822_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	410	870	1,280		
	109761M_S822_0.5	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	310	630	940		
	109761M_S823_0.1	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S824_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S825_0.5	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	52	74	126		
	109761M_S825_1.0	09 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50		
	109761M_S826_0.1	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	210	410	620		
	109761M_S826_0.5	08 Dec 2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	140	420	560		

						Phthalates		Solvents				TPH				
						Bis(2-ethylhexyl) phthalate		Methyl Ethyl Ketone	4-Methyl-2-pentanone	Acetone	Carbon disulfide	Cis-Cl Fraction	Cis-Cl4 fraction	Cis-C8 fraction	Cis-C86 fraction	Cis-C86 fraction (Sum)
						mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																
NEPM EILs Urb Res																
NEPM ESLs with Bsp CRC Care, Urb Res, Coarse Soil																
NEPM EILs Comm/Ind																
NEPM ESLs with Bsp CRC Care, Comm/Ind, Coarse Soil																
NEPM 2013 Table 1A(1) HILs Rec C Soil																
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description											
Area 3	109761M BH AT01_0.3	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M BH AT01_0.6	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M BH D01_0.6	30 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M BH D01_0.8	30 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M BH V02_0.3	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	260	320	580	580
	109761M BH V02_0.7	31 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	470	390	860	860
	109761M DP BH21_0.1	07 Dec 2022	949045	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	22	120	140	282	282
	109761M DP BH21_0.5	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH21_0.8	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH21_1.25	07 Dec 2022	949045	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH29_0.5	01 Dec 2022	946897	Piling locations - Systematic	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH29_2.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH29_3.0	01 Dec 2022	946897	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M DP BH39_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	0.7	<0.5	-	-	-	<20	<20	84	82	166	166
	109761M DP BH39_0.6	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	-	-	<20	<20	72	90	162	162
	109761M DP BH39_0.8	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50	<50
	109761M P HA6_0.1	06 Dec 2022	948152	Ballast fines - systematic sampling	Ballast	9.4	<0.5	-	-	-	<20	99	330	160	589	589
	109761M P HA6_0.5	06 Dec 2022	948152	Ballast fines - systematic sampling	Fill	<0.5	<0.5	-	-	-	<20	<20	<50	<50	<50	<50
	109761M P HA19_1.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M P HA38_1.0	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M P HA39_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M P HA40_0.8	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M P HA41_0.1	25 Mar 2023	977269	Ballast fines	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M P HA42_0.65	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	50	<50	50	50
	109761M S815_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	130	190	320	320
	109761M S815_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	76	100	176	176
	109761M S816_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	180	56	236	236
	109761M S816_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	190	<50	190	190
	109761M S817_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M S818_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M S819_0.1	09 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M S819_1.0	09 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M S820_0.1	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	160	450	610	610
	109761M S820_0.5	08 Dec 2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	100	100	100

						Phthalates	Solvents					TPH					
						Bis(2-ethylhexyl) phthalate	Methyl Ethyl Ketone	Methyl-2-pentanone	Acetone	Carbon disulfide	C6-C9 Fraction	C10-C14 fraction	C15-C28 fraction	C29-C36 fraction	C40-C46 fraction (Sum)		
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
EOL																	
NEPM EILs Urb Res																	
NEPM ESLs with Bp CRC Care, Urb Res, Coarse Soil																	
NEPM EILs Comm/Ind																	
NEPM ESLs with Bp CRC Care, Comm/Ind, Coarse Soil																	
NEPM 2013 Table 1A(1) HILs Rec C Soil																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																	
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																	
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																	
</																	

						Phthalates		Solvents					TPH				
						Bis(2-ethylhexyl) phthalate		Methyl Ethyl Ketone	4-Methyl-2-pentanone	Hexane	Carbon disulfide		C6-C9 Fraction	C10-C14 fraction	C15-C28 fraction	C29-C36 fraction	C37-C46 fraction (Sum)
						mg/kg		mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL																	
NEPM EILs Urb Res																	
NEPM ESLs with Bsp CRC Care, Urb Res, Coarse Soil																	
NEPM EILs Comm/Ind																	
NEPM ESLs with Bsp CRC Care, Comm/Ind, Coarse Soil																	
NEPM 2013 Table 1A(1) HILs Rec C Soil																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																	
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																	
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																	
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																	
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																	
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																	
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																	
Monitoring Zone	Field ID	Date	Lab Report Number	Sample Comments	Matrix Description												
Area 5	109761M DP BH1_0.6	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH1_1.0	28 Nov 2022	949532	Rail Tie In - South - Gridded	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH5_0.1	02 Dec 2022	947225	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH5_0.4	02 Dec 2022	947225	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH5_0.8	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH5_1.2	02 Dec 2022	947225	Ballast fines - systematic sampling	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH9_1.7	28 Nov 2022	949532	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH13_0.1	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH13_0.5	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH13_1.0	30 Nov 2022	946362	Piling locations - Systematic	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH13_2.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP BH13_3.0	30 Nov 2022	946362	Piling locations - Systematic	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M DP S87_0.1	02 Dec 2022	947225	Rail Tie In - South - Gridded	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	71	62	133	62	133
	109761M DP S87_0.5	02 Dec 2022	947225	Rail Tie In - South - Gridded	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA01_0.7	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA02_0.4	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA03_1.2	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA04_0.6	25 Mar 2023	977269	Ballast Fines	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA05_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M P_HA08_1.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S81_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S82_0.2	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S83_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S83_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S84_0.1	01 Dec 2022	946897	Rail Tie In - South - Gridded	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S84_1.0	01 Dec 2022	946897	Rail Tie In - South - Gridded	Natural	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S85_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	64	<50	<50	64	<50
	109761M S85_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	53	<50	<50	53	<50
	109761M S86_0.1	01 Dec 2022	946897	Rail Tie In - South - Gridded	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	109761M S88_0.1	01 Dec 2022	946897	Ballast fines - systematic sampling	Ballast	-	<0.5	<0.5	<0.5	<0.5	<20	<20	55	62	<50	117	<50
	109761M S88_1.0	01 Dec 2022	946897	Ballast fines - systematic sampling	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	BH_P01_0.1	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	380	260	640	380	260
	BH_P01_0.55	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50
	BH_P02_0.1	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	15,000	11,000	26,000	15,000	11,000
	BH_P02_0.3	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	4,900	3,500	8,400	4,900	3,500
	BH_P03_0.2	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	1,200	1,200	2,400	1,200	2,400
	BH_P03_0.3	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	440	420	860	440	420
	BH_P04_0.2	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	750	900	1,650	750	900
	BH_P04_0.4	22 Mar 2023	981483	Road	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50	<50

						Phthalates	Solvents				TPH					
						Bis(2-ethylhexyl) phthalate	Methyl Ethyl Ketone	4-Methyl-2-pentanone	Acetone	Carbon disulfide						
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EOL																
NEPM EILs Urb Res																
NEPM ESLs with BaP CRC Care, Urb Res, Coarse Soil																
NEPM EILs Comm/Ind																
NEPM ESLs with BaP CRC Care, Comm/Ind, Coarse Soil																
NEPM 2013 Table 1A(1) HILs Rec C Soil																
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																
CRC CARE (2011) Direct Contact HSL C for Public Open Space/Recreation																
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand (0 - <1 m)																
CRC CARE (2011) Direct Contact HSL D for Commercial/Industrial																
CRC CARE (2011) Direct Contact HSL for Intrusive Maintenance Workers																
AS2159-2009 Non-Aggressive Exposure Classification for Concrete Piles (A&B)																
AS2159-2009 Non-Aggressive Exposure Classification for Steel Piles (A&B)																
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Coarse Soil																
Monitoring Zone						Field ID	Date	Lab Report Number	Sample Comments	Matrix Description						
Area 6	109761M_P_HA50_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA50_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA51_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA51_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA52_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA52_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA53_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA53_0.5	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA55_0.3	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50
	109761M_P_HA59_0.1	25 Mar 2023	977269	Rail Corridor Fill	Fill	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<50	<50

* NL = non limiting

Table A2: Summary of Analytical Results (Total Concentration)

					Inorganic Species																
					Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Copper	Lead	Mercury	Molybdenum	Nickel	Tin	Selenium	Silver	Zinc	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					7	2	1	1	3	0.4	1	1	1	0.1	1	1	1	1	2	1	1
EPA Vic Publication 1828.2 Category B Upper Limits					300	2000	25000	400	60000	400	2000	20000	6000	300	4000	12000		40000	720	140000	
EPA Vic Publication 1828.2 Category C Upper Limits					75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000	
EPA Vic Publication 1828.2 Category D Upper Limits					75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000	
EPA Vic Publication 1828.2 Fill Material Upper Limits						20				3	1	100	300	1	40	60	50	10	10	200	

Area	Field ID	Sampled Date	Lab Report Nur	Rationale	Lithology	<10	8	39	<2	<10	<0.4	<1	23	<5	<0.1	<5	32	<10	<2	<2	49
Area 1	109761M_DP_SB29_0.5	2/12/2022	948152	Rail Tie In - North - Gridded	Ballast	<10	7.8	57	<2	<10	<0.4	<1	26	<5	<0.1	<5	37	<10	<2	<2	58
	109761M_DP_SB29_0.8	2/12/2022	948152	Rail Tie In - North - Gridded	Fill	<10	8.3	150	<2	<10	<0.4	<1	38	8.4	<0.1	<5	53	<10	<2	<2	75
	109761M_DP_SB27_0.5	2/12/2022	948152	Ballast fines - systematic sampling	Fill	-	5.1	-	-	-	<0.4	<1	30	14	<0.1	<5	27	<10	<2	<2	40
	109761M_DP_BH44_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	38	<5	<0.1	<5	68	<10	<2	<2	77
	109761M_DP_BH44_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	37	<5	<0.1	<5	69	<10	<2	<2	160
	109761M_DP_BH44_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	39	<5	<0.1	<5	70	<10	<2	<2	79
	109761M_DP_BH44_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	5.8	11	<0.1	<5	43	<10	<2	<2	13
	109761M_P_HA49_0.75	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	<5	8.6	<0.1	<5	23	<10	<2	<2	12
	109761M_P_HA49_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	13	8.3	<0.1	<5	41	<10	<2	<2	22
	109761M_P_HA48_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	6.8	8.8	<0.1	<5	19	<10	<2	<2	12
Area 2	109761M_P_HA48_0.95	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	42	97	<0.1	<5	80	<10	<2	<2	96
	109761M_SB25_0.5	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	14	-	-	-	<0.4	<1	48	130	0.3	<5	88	<10	<2	<2	120
	109761M_SB25_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	5.6	-	-	-	<0.4	<1	8.6	13	<0.1	<5	27	<10	<2	<2	15
	109761M_DP_BH40_1.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<2	-	-	-	<0.4	<1	12	10	<0.1	<5	51	<10	<2	<2	21
	109761M_DP_BH40_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	2	-	-	-	<0.4	<1	26	26	<0.1	<5	82	<10	<2	<2	40
	109761M_DP_BH40_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	4.1	-	-	-	<0.4	<1	92	150	0.2	<5	79	<10	<2	<2	160
	109761M_SB26_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	7.7	-	-	-	<0.4	<1	74	110	0.3	<5	110	<10	<2	<2	170
	109761M_SB26_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	8.1	-	-	-	<0.4	<1	77	53	<0.1	<5	81	<10	<2	<2	110
	109761M_SB23_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	4.7	-	-	-	<0.4	<1	95	33	<0.1	<5	51	<10	<2	<2	75
	109761M_DP_BH42_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	-	6.7	-	-	-	<0.4	<1	13	12	<0.1	<5	58	<10	<2	<2	26
	109761M_DP_BH42_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	14	9.5	<0.1	<5	59	<10	<2	<2	25
	109761M_DP_BH42_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	2.4	-	-	-	<0.4	<1	94	81	0.1	<5	69	<10	<2	<2	110
	109761M_SB24_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	3.9	-	-	-	0.4	<1	55	44	<0.1	<5	130	<10	<2	<2	91
	109761M_SB21_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	4.5	-	-	-	<0.4	<1	57	22	<0.1	<5	120	<10	<2	<2	100
	109761M_SB21_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	11	-	-	-	<0.4	<1	21	25	<0.1	<5	41	<10	<2	<2	130
	109761M_SB22_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	2	-	-	-	<0.4	<1	23	41	<0.1	<5	45	<10	<2	<2	94
	109761M_SB22_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	4.5	-	-	-	<0.4	<1	15	18	<0.1	<5	15	<10	<2	<2	19
	109761M_DP_BH36_0.7	2/12/2022	947225	Ballast fines - systematic sampling	Ballast	-	<2	-	-	-	<0.4	<1	27	17	<0.1	<5	52	<10	<2	<2	38
	109761M_DP_BH37_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Ballast	-	2.7	-	-	-	<0.4	<1	10	14	<0.1	<5	46	<10	<2	<2	23
	109761M_DP_BH37_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	3.9	-	-	-	<0.4	<1	9.1	14	<0.1	<5	50	<10	<2	<2	21
	109761M_DP_BH37_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	3.9	-	-	-	<0.4	<1	6	10	<0.1	<5	38	<10	<2	<2	13
	109761M_DP_BH37_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<2	-	-	-	<0.4	<1	34	22	<0.1	<5	110	<10	<2	<2	43
	109761M_P_HA17_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<10	3.6	150	<2	<20	1.5	<1	250	82	<0.1	<5	160	<10	<2	<2	210
	109761M_DP_BH28_0.1	2/12/2022	948152	Piling locations - Systematic	Ballast	<10	20	100	<2	34	<0.4	<1	560	140	0.2	<5	70	23	<2	<2	260
	109761M_DP_BH28_0.5	2/12/2022	948152	Piling locations - Systematic	Fill	<10	3.9	68	<2	<20	<0.4	<1	96	30	<0.1	<5	54	<10	<2	<2	48
	109761M_DP_BH28_3.0	2/12/2022	948152	Piling locations - Systematic	Natural	<10	2.1	110	<2	<15	<0.4	<1	11	15	<0.1	<5	17	<10	<2	<2	13
	109761M_DP_BH8_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	-	3.8	-	-	-	<0.4	<1	89	29	<0.1	<5	84	13	<2	<2	85
	109761M_DP_BH8_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	6.6	-	-	-	<0.4	<1	36	19	<0.1	<5	36	<10	<2	<2	27
	109761M_P_HA46_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	12	18	0.1	<5	32	<10	<2	<2	21
	109761M_BH_H01_0.3	28/03/2023	981483	Road	Fill	-	2.7	-	-	-	<0.4	<1	22	86	0.1	<5	61	<10	<2	<2	260
	109761M_BH_H01_0.6	28/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	16	29	<0.1	<5	45	<10	<2	<2	95
	109761M_BH_H02A_0.3	28/03/2023	981483	Road	Fill	-	11	-	-	-	<0.4	<1	52	39	<0.1	<5	55	<10	<2	<2	62
	109761M_BH_H02B_0.85	28/03/2023	981483	Road	Fill	-	16	-	-	-	<0.4	<1	19	39	<0.1	<5	39	<10	<2	<2	52
	109761M_P_HA45_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	7.1	-	-	-	<0.4	<1	34	22	<0.1	<5	110	<10	<2	<2	43
	109761M_P_HA44_1.3	25/03/2023	977269	Natural	Natural	-	<2	-	-	-	<0.4	<1	7.1	14	<0.1	<5	11	<10	<2	<2	18
	109761M_P_HA43_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	15	19	0.1	<5	23	<10	<2	<2	110
	109761M_P_HA43_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	7.5	15	<0.1	<5	19	<10	<2	<2	17
	109761M_BH_V01_0.3	31/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	43	7.1	<0.1	<5	120	<10	<2	<2	60
	109761M_BH_V01_0.7	31/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	8.9	16	<0.1	<5	25	<10	<2	<2	23

Table A2: Summary of Analytical Results (Total Concentration)

					Inorganic Species																
					Antimony	Arsecnic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Copper	Lead	Mercury	Molybdenum	Nickel	Tin	Selenium	Silver	Zinc	
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					7	2	1	1	3	0.4	1	1	1	0.1	1	1	1	2	1	1	
EPA Vic Publication 1828.2 Category B Upper Limits					300	2000	25000	400	60000	400	2000	20000	6000	300	4000	12000		40000	720	140000	
EPA Vic Publication 1828.2 Category C Upper Limits					75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000	
EPA Vic Publication 1828.2 Category D Upper Limits					75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000	
EPA Vic Publication 1828.2 Fill Material Upper Limits						20				3	1	100	300	1	40	60	50	10	10	200	

Area	Field ID	Sampled Date	Lab Report Nun	Rationale	Lithology																
Area 3	109761M_SB20_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	25	-	-	-	<0.4	<1	110	83	<0.1	<5	64	<10	<2	<2	120
	109761M_SB20_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	8.5	-	-	-	<0.4	<1	68	39	<0.1	<5	35	<10	<2	<2	69
	109761M_SB19_0.1	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	31	-	-	-	<0.4	<1	52	74	0.1	<5	97	<10	<2	<2	81
	109761M_SB19_1.0	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	2.2	-	-	-	<0.4	<1	14	25	<0.1	<5	36	<10	<2	<2	28
	109761M_SB18_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	<2	-	-	-	<0.4	<1	16	13	<0.1	<5	56	<10	<2	<2	24
	109761M_SB17_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	3	-	-	-	<0.4	<1	69	65	<0.1	<5	48	<10	<2	<2	170
	109761M_SB16_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	79	-	-	-	1	<1	270	570	0.8	<5	100	52	<2	<2	660
	109761M_SB16_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	84	-	-	-	1.5	<1	550	690	0.5	<5	110	87	<2	<2	1100
	109761M_SB15_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	15	-	-	-	<0.4	<1	140	160	0.2	<5	78	10	<2	<2	240
	109761M_SB15_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	-	63	-	-	-	<0.4	<1	240	270	0.5	<5	110	48	<2	<2	310
	109761M_DP_BH39_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<10	8	81	<2	<10	<0.4	<1	240	77	0.1	<5	140	11	<2	<2	420
	109761M_DP_BH39_0.6	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	3.8	68	<2	<10	<0.4	<1	190	55	<0.1	<5	110	<10	<2	<2	140
	109761M_DP_BH39_0.8	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	<2	160	<2	<10	<0.4	<1	9.8	12	<0.1	<5	46	<10	<2	<2	14
	109761M_DP_BH29_0.5	1/12/2022	946897	Piling locations - Systematic	Ballast	-	2.6	-	-	-	<0.4	<1	33	42	<0.1	<5	32	<10	<2	<2	27
	109761M_DP_BH29_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<2	-	-	-	<0.4	<1	13	19	<0.1	<5	26	<10	<2	<2	24
	109761M_DP_BH29_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<2	-	-	-	<0.4	<1	14	14	<0.1	<5	32	<10	<2	<2	22
	109761M_P_HA6_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<10	6.1	690	<2	<10	0.5	<1	390	38	<0.1	<5	100	24	<2	<2	140
	109761M_P_HA6_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	32	46	<2	<10	<0.4	<1	<5	15	<0.1	<5	6.2	<10	<2	<2	<5
	109761M_DP_BH21_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	-	8.2	-	-	-	1.2	<1	170	75	0.2	<5	62	<10	<2	<2	180
	109761M_DP_BH21_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	3.2	-	-	-	<0.4	<1	5.1	11	<0.1	<5	<5	<10	<2	<2	6.5
	109761M_DP_BH21_1.25	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	13	-	-	-	<0.4	<1	6	16	<0.1	<5	8.7	<10	<2	<2	10
	109761M_DP_BH21_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	6.7	-	-	-	<0.4	<1	19	15	<0.1	<5	27	<10	<2	<2	32
	109761M_BH_V02_0.3	31/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	43	47	<0.1	<5	110	<10	<2	<2	65
	109761M_BH_V02_0.7	31/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	44	32	<0.1	<5	110	<10	<2	<2	67
	109761M_P_HA42_0.65	25/03/2023	977269	Rail Corridor Fill	Fill	-	3.3	-	-	-	<0.4	<1	220	40	0.1	<5	31	<10	<2	<2	67
	109761M_BH_AT01_0.3	31/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	19	<5	<0.1	<5	73	<10	<2	<2	42
	109761M_BH_AT01_0.6	31/03/2023	981483	Road	Fill	-	2.3	-	-	-	<0.4	<1	9.2	8.9	<0.1	<5	29	<10	<2	<2	21
	109761M_P_HA41_0.1	25/03/2023	977269	Ballast fines	Fill	-	3	-	-	-	<0.4	<1	<5	9.5	<0.1	<5	<5	<10	<2	<2	6.2
	109761M_P_HA40_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	9.6	20	<0.1	<5	5.6	<10	<2	<2	16
	109761M_P_HA39_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	-	2.1	-	-	-	<0.4	<1	<5	7.3	<0.1	<5	<5	<10	<2	<2	<5
	109761M_P_HA38_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	<5	6.6	<0.1	<5	<5	<10	<2	<2	<5
	109761M_P_HA19_1.4	25/03/2023	977269	Rail Corridor Fill	Fill	-	7.9	-	-	-	<0.4	<1	8	19	0.2	<5	16	<10	<2	<2	14
	109761M_BH_D01_0.6	30/03/2023	981483	Road	Fill	-	2.9	-	-	-	<0.4	<1	5.6	14	0.1	<5	12	<10	<2	<2	11
109761M_BH_D01_0.8	30/03/2023	981483	Road	Fill	-	<2	-	-	-	<0.4	<1	9.4	8.3	<0.1	<5	24	<10	<2	<2	16	
Area 4	109761M_P_HA5_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<10	3	34	<2	<10	<0.4	<1	220	43	<0.1	<5	74	<10	<2	<2	91
	109761M_P_HA5_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	12	86	<2	<10	<0.4	<1	76	39	0.2	<5	72	<10	<2	<2	67
	109761M_P_HA5_0.7	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	27	120	<2	<10	<0.4	<1	82	53	0.2	<5	55	16	<2	<2	66
	109761M_DP_BH7_0.3	3/12/2022	947244	Piling locations - Systematic	Ballast	-	7.2	-	-	-	<0.4	<1	240	150	<0.1	<5	78	<10	<2	<2	120
	109761M_DP_BH7_0.4	3/12/2022	947244	Piling locations - Systematic	Fill	-	4.3	-	-	-	<0.4	<1	7.1	14	<0.1	<5	14	<10	<2	<2	22
	109761M_DP_BH7_2.0	3/12/2022	947244	Piling locations - Systematic	Natural	-	<2	-	-	-	<0.4	<1	<5	6.8	<0.1	<5	<5	<10	<2	<2	5.7
	109761M_DP_BH7_0.0	3/12/2022	947244	Piling locations - Systematic	Natural	-	-	-	-	-	<0.4	<1	-	-	<0.1	<5	-	<10	<2	<2	-
	109761M_P_HA14_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<10	5.6	45	<2	<10	<0.4	<1	170	33	<0.1	<5	110	<10	<2	<2	110
	109761M_P_HA14_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	8.3	42	<2	<15	<0.4	<1	270	36	0.1	9	140	<10	<2	<2	130
	109761M_P_HA14_0.8	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<10	5.5	66	<2	<10	<0.4	<1	130	30	<0.1	<5	100	48	<2	<2	100
	109761M_SB13_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	-	13	-	-	-	<0.4	<1	32	77	0.2	<5	62	<10	<2	<2	120
	109761M_SB13_1.0	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	-	69	-	-	-	<0.4	<1	530	280	0.7	<5	98	60	<2	<2	320
	109761M_SB14_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	-	4.8	-	-	-	<0.4	<1	63	60	0.1	<5	75	<10	<2	<2	67
	109761M_SB14_0.5	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	-	14	-	-	-	<0.4	<1	56	64	0.2	<5	65	<10	<2	<2	90
	109761M_DP_BH14_0.5	3/12/2022	947244	Ballast fines - systematic sampling	Ballast	-	11	-	-	-	<0.4	<1	140	24	<0.1	<5	6				

Table A2: Summary of Analytical Results (Total Concentration)

	Inorganic Species															
	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (hexavalent)	Copper	Lead	Mercury	Molybdenum	Nickel	Tin	Selenium	Silver	Zinc
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EOL	7	2	1	1	3	0.4	1	1	1	0.1	1	1	1	2	1	1
EPA Vic Publication 1828.2 Category B Upper Limits	300	2000	25000	400	60000	400	2000	20000	6000	300	4000	12000		40000	720	140000
EPA Vic Publication 1828.2 Category C Upper Limits	75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000
EPA Vic Publication 1828.2 Category D Upper Limits	75	500	6250	100	15000	100	500	5000	1500	75	1000	3000		10000	180	35000
EPA Vic Publication 1828.2 Fill Material Upper Limits		20				3	1	100	300	1	40	60	50	10	10	200

Area	Field ID	Sampled Date	Lab Report Nun	Rationale	Lithology												
Area 5	109761M_DP_BH13_0.1	30/11/2022	946362	Piling locations - Systematic	Fill	-	2.8	-	-	-	<0.4	<1	<5	9.2	<0.1	<5	<5
	109761M_DP_BH13_0.5	30/11/2022	946362	Piling locations - Systematic	Fill	-	11	-	-	-	<0.4	<1	5.4	13	<0.1	<5	<5
	109761M_DP_BH13_1.0	30/11/2022	946362	Piling locations - Systematic	Fill	-	30	-	-	-	<0.4	<1	13	23	<0.1	<5	14
	109761M_DP_BH13_2.0	30/11/2022	946362	Piling locations - Systematic	Natural	-	3.6	-	-	-	<0.4	<1	<5	9.2	<0.1	<5	16
	109761M_DP_BH13_3.0	30/11/2022	946362	Piling locations - Systematic	Natural	-	7.6	-	-	-	<0.4	<1	7.5	10	<0.1	<5	13
	109761M_DP_BH9_1.7	28/11/2022	949532	Ballast fines - systematic sampling	Fill	-	6	-	-	-	<0.4	<1	13	14	<0.1	<5	22
	109761M_DP_BH5_0.1	2/12/2022	947225	Ballast fines - systematic sampling	Ballast	-	20	-	-	-	<0.4	<1	<5	<5	<0.1	<5	<5
	109761M_DP_BH5_0.4	2/12/2022	947225	Ballast fines - systematic sampling	Fill	-	4	-	-	-	<0.4	<1	5.6	8.1	<0.1	<5	<5
	109761M_DP_BH5_0.8	2/12/2022	947225	Ballast fines - systematic sampling	Natural	-	4.7	-	-	-	<0.4	<1	12	11	<0.1	<5	10
	109761M_DP_BH5_1.2	2/12/2022	947225	Ballast fines - systematic sampling	Natural	-	2.5	-	-	-	<0.4	<1	<5	10	<0.1	<5	12
	109761M_SB8_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	6	-	-	-	<0.4	<1	180	36	<0.1	<5	84
	109761M_SB8_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Fill	-	6	-	-	-	<0.4	<1	60	15	<0.1	<5	110
	109761M_DP_SB7_0.1	2/12/2022	947225	Rail Tie In - South - Gridded	Ballast	-	2	-	-	-	<0.4	<1	90	17	<0.1	<5	46
	109761M_DP_SB7_0.5	2/12/2022	947225	Rail Tie In - South - Gridded	Fill	-	14	-	-	-	<0.4	<1	21	11	<0.1	<5	24
	109761M_SB6_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Ballast	-	6.5	-	-	-	<0.4	<1	150	29	0.2	<5	120
	109761M_SB5_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	9.5	-	-	-	<0.4	<1	290	57	0.2	<5	98
	109761M_SB5_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	8.7	-	-	-	<0.4	<1	230	50	<0.1	<5	77
	109761M_SB4_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Fill	-	6.7	-	-	-	<0.4	<1	9.5	5.7	<0.1	<5	<5
	109761M_SB4_1.0	1/12/2022	946897	Rail Tie In - South - Gridded	Natural	-	2.2	-	-	-	<0.4	<1	6.7	9.7	<0.1	<5	<5
	109761M_DP_BH1_0.6	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	-	19	-	-	-	<0.4	<1	34	25	<0.1	<5	23
	109761M_DP_BH1_1.0	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	-	22	-	-	-	<0.4	<1	32	90	<0.1	<5	33
	109761M_SB3_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	8	-	-	-	<0.4	<1	180	23	<0.1	<5	120
	109761M_SB3_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Fill	-	13	-	-	-	<0.4	<1	170	27	<0.1	<5	76
	109761M_SB2_0.2	1/12/2022	946897	Rail Tie In - South - Gridded	Ballast	-	7.1	-	-	-	<0.4	<1	230	23	<0.1	<5	130
	109761M_SB1_1.0	1/12/2022	946897	Rail Tie In - South - Gridded	Fill	-	4.6	-	-	-	<0.4	<1	38	12	<0.1	<5	11
	BH_P01_0.1	22/03/2023	981483	Road	Fill	-	5.2	-	-	-	<0.4	<1	9.4	13	<0.1	<5	21
	BH_P01_0.55	22/03/2023	981483	Road	Fill	-	6.2	-	-	-	<0.4	<1	8.1	13	<0.1	<5	21
	BH_P02_0.1	22/03/2023	981483	Road	Fill	-	4.8	-	-	-	<0.4	<1	38	20	<0.1	<5	110
	BH_P02_0.3	22/03/2023	981483	Road	Fill	-	9.9	-	-	-	<0.4	<1	32	25	<0.1	<5	71
	BH_P03_0.2	22/03/2023	981483	Road	Fill	-	47	-	-	-	<0.4	<1	31	77	<0.1	<5	70
	BH_P03_0.3	22/03/2023	981483	Road	Fill	-	7.2	-	-	-	<0.4	<1	26	55	<0.1	<5	54
	BH_P04_0.2	22/03/2023	981483	Road	Fill	-	5	-	-	-	<0.4	<1	27	32	<0.1	<5	63
	BH_P04_0.4	22/03/2023	981483	Road	Fill	-	6.4	-	-	-	<0.4	<1	10	18	<0.1	<5	23
	109761M_P_HA08_1.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	5.6	-	-	-	<0.4	<1	7.7	15	<0.1	<5	17
	109761M_P_HA05_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	-	3.1	-	-	-	<0.4	<1	16	15	<0.1	<5	16
	109761M_P_HA04_0.6	25/03/2023	977269	Ballast Fines	Ballast	-	2.5	-	-	-	<0.4	<1	10	11	<0.1	<5	11
	109761M_P_HA03_1.2	25/03/2023	977269	Rail Corridor Fill	Fill	-	38	-	-	-	<0.4	<1	<5	<5	<0.1	<5	5.1
	109761M_P_HA02_0.4	25/03/2023	977269	Rail Corridor Fill	Fill	-	15	-	-	-	<0.4	<1	81	37	<0.1	<5	44
	109761M_P_HA01_0.7	25/03/2023	977269	Rail Corridor Fill	Fill	-	8.2	-	-	-	<0.4	<1	39	20	<0.1	<5	9
Area 6	109761M_P_HA50_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	32	17	<0.1	<5	72
	109761M_P_HA50_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	-	4.8	-	-	-	<0.4	<1	25	29	<0.1	<5	36
	109761M_P_HA51_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	56	-	-	-	<0.4	<1	58	69	<0.1	<5	84
	109761M_P_HA51_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	-	25	-	-	-	<0.4	<1	24	11	<0.1	<5	11
	109761M_P_HA52_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	15	-	-	-	<0.4	<1	34	55	<0.1	<5	21
	109761M_P_HA52_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	-	9.8	-	-	-	<0.4	<1	22	20	<0.1	<5	7.1
	109761M_P_HA53_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	120	140	<0.1	<5	110
	109761M_P_HA53_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	-	13	-	-	-	<0.4	<1	97	68	0.1	<5	37
	109761M_P_HA55_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	-	<2	-	-	-	<0.4	<1	21	16	<0.1	<5	43
	109761M_P_HA59_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	-	5.8	-	-	-	<0.4	<1	52	87	0.1	<5	50

Table A2: Summary of Analytical Results (Total Concentration)

			Anions and pH										Organic Species																											
			Cyanide (amenable)	Cyanide Total	Fluoride	pH (aqueous extract)	pH (Lab)	Phenols (Halogenated)	Phenols (Non Halogenated)	PAHs (Sum of total)	Total MAH	Total recoverable hydrocarbons (C6 - C9)	Total recoverable hydrocarbons (C10 - C36)	Bis(2-ethylhexyl) phthalate	Formaldehyde	Methyl Ethyl ketone	Benzene	Ethylbenzene	Toluene	Styrene	Nitrobenzene	Xylene Total	Benz(a)pyrene	2-chlorophenol	2,4-dichlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	Cresol Total	Polychlorinated biphenyls	Chlorinated hydrocarbons	Hexachlorobutadiene	Carbon tetrachloride	Vinyl chloride	Chlorobenzene						
			mg/kg	mg/kg	mg/kg	pH Units	pH Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EOL			5	5	100	0.1	0.1	1	20	0.05	0.5	20	50	0.5	1	0.5	0.1	0.1	0.1	0.5	0.5	0.3	0.05	0.5	0.5	1	1	0.5	0.1	0.5	0.1	0.5	0.05	0.5	0.5	0.5	0.5			
EPA Vic Publication 1828.2 Category B Upper Limits			1200	10000	40000	2-12.5	2-12.5		2200	400		2600	40000	160	8000	32000	16	4800	12800	480	320	9600	160	4800	3200	64000	320	32000	50								4800			
EPA Vic Publication 1828.2 Category C Upper Limits			300	2500	10000				560	100		650	10000	40	2000	8000	4	1200	3200	120	80	2400	40	1200	800	16000	80	8000	50						2.8	12	1.2	1200		
EPA Vic Publication 1828.2 Category D Upper Limits			300	2500	10000	4-10	4-10		560	50		325	5000	40	2000	8000	4	1200	3200	120	80	2400	20	1200	800	16000	80	8000	2						2.8	12	1.2	1200		
EPA Vic Publication 1828.2 Fill Material Upper Limits				50	450	4-10		1	60	20	7	100	1000				1						1							2	1									

Area	Field ID	Sampled Date	Lab Report Num	Rationale	Lithology																																
Area 1	109761M_DP_SB29_0.5	2/12/2022	948152	Rail Tie In - North - Gridded	Ballast	<5	<5	<100	7.5	-	<1	<20	<0.5	-	<20	<50	<0.5	<1	<0.5	<0.1	<0.1	<0.1	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.05	<0.5	<0.5	<0.5
	109761M_DP_SB29_0.8	2/12/2022	948152	Rail Tie In - North - Gridded	Fill	<5	<5	<100	8	-	<1	<20	<0.5	-	<20	<50	<0.5	<1	<0.5	<0.1	<0.1	<0.1	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.05	<0.5	<0.5	<0.5
	109761M_DP_SB27_0.5	2/12/2022	948152	Ballast fines - systematic sampling	Fill	<5	<5	<100	7.6	-	<1	<20	<0.5	-	<20	<50	<0.5	<1	<0.5	<0.1	<0.1	<0.1	<0.5	<0.5	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.05	<0.5	<0.5	<0.5
	109761M_DP_BH44_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<5	<100	7.6	-	<1	<20	3.4	<0.5	<20	56	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	0.6	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH44_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<5	490	7.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH44_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<5	<100	7.6	-	<1	<20	<0.5	<0.5	<20	600	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH44_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	-	<5	<100	7.8	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA49_0.75	25/03/2023	977269	Rail Corridor Fill	Fill	-	<5	<100	8.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA49_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	-	<5	<100	8.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA48_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	-	<5	<100	7.4	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_P_HA48_0.95	25/03/2023	977269	Rail Corridor Fill	Fill	-	<5	<100	7	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
Area 2	109761M_SB25_0.5	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<5	280	8.9	-	<1	<20	17	<0.5	<20	126	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	0.7	<0.5	<0.5	<1	<1	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB25_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<5	270	8.4	-	<1	<20	3.7	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH40_1.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<5	<100	8.4	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH40_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<5	<100	8.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH40_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	-	<5	660	8.5	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB26_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<5	230	8.7	-	<1	<20	43	<0.5	<20	620	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	4.6	<0.5	<0.5	<1	<1	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB26_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<5	210	8.6	-	<1	<20	23	<0.5	<20	560	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	2.4	<0.5	<0.5	<1	<1	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB23_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	-	<5	260	7.7	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH42_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	-	<5	210	7.4	-	<1	<20	<0.5	<0.5	<20	151	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH42_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	<5	<100	7.1	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH42_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	-	<5	470	7.9	-	<1	<20	<0.5	<0.5	<40	<50	-	-	<0.5	<0.2	<0.2	<0.2	<0.5	-	<0.6	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5		

[illegible]

Table A2: Summary of Analytical Results (Total Concentration)

			Anions and pH										Organic Species																											
			Cyanide (amenable)	Cyanide Total	Fluoride	pH (aqueous extract)	pH (Lab)	Phenols (Halogenated)	Phenols (Non Halogenated)	PAHs (Sum of total)	Total MAH	Total recoverable hydrocarbons (C6 - C9)	Total recoverable hydrocarbons (C10 - C36)	Bis(2-ethylhexyl) phthalate	Formaldehyde	Methyl Ethyl ketone	Benzene	Ethylbenzene	Toluene	Styrene	Nitrobenzene	Xylene Total	Benz(a)pyrene	2-chlorophenol	2,4-dichlorophenol	2,4,5-trichlorophenol	2,4,6-trichlorophenol	Cresol Total	Polychlorinated biphenyls	Chlorinated hydrocarbons	Hexachlorobutadiene	Carbon tetrachloride	Vinyl chloride	Chlorobenzene						
			mg/kg	mg/kg	mg/kg	pH Units	pH Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg			
EOL			5	5	100	0.1	0.1	1	20	0.05	0.5	20	50	0.5	1	0.5	0.1	0.1	0.1	0.5	0.5	0.3	0.05	0.5	0.5	1	1	0.5	0.1	0.5										
EPA Vic Publication 1828.2 Category B Upper Limits			1200	10000	40000	2-12.5	2-12.5		2200	400		2600	40000	160	8000	32000	16	4800	12800	480	320	9600	160	4800	3200	64000	320	32000	50			11	48	4.8	4800					
EPA Vic Publication 1828.2 Category C Upper Limits			300	2500	10000				560	100		650	10000	40	2000	8000	4	1200	3200	120	80	2400	40	1200	800	16000	80	8000	50			2.8	12	1.2	1200					
EPA Vic Publication 1828.2 Category D Upper Limits			300	2500	10000	4-10	4-10		560	50		325	5000	40	2000	8000	4	1200	3200	120	80	2400	20	1200	800	16000	80	8000	2			2.8	12	1.2	1200					
EPA Vic Publication 1828.2 Fill Material Upper Limits				50	450	4-10		1	60	20	7	100	1000				1						1						2	1										

Area	Field ID	Sampled Date	Lab Report Nun	Rationale	Lithology																																
Area 5	109761M_DP_BH13_0.1	30/11/2022	946362	Piling locations - Systematic	Fill	-	<5	<100	7.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH13_0.5	30/11/2022	946362	Piling locations - Systematic	Fill	-	<5	1700	7.5	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH13_1.0	30/11/2022	946362	Piling locations - Systematic	Fill	-	<5	350	7.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH13_2.0	30/11/2022	946362	Piling locations - Systematic	Natural	-	<5	570	7.8	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH13_3.0	30/11/2022	946362	Piling locations - Systematic	Natural	-	<5	550	8.6	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH9_1.7	28/11/2022	949532	Ballast fines - systematic sampling	Fill	-	<5	160	8	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH5_0.1	2/12/2022	947225	Ballast fines - systematic sampling	Ballast	-	<5	<100	7.1	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH5_0.4	2/12/2022	947225	Ballast fines - systematic sampling	Fill	-	<5	180	7.6	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH5_0.8	2/12/2022	947225	Ballast fines - systematic sampling	Natural	-	<5	<100	7.8	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH5_1.2	2/12/2022	947225	Ballast fines - systematic sampling	Natural	-	<5	<100	7.6	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB8_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	<5	<100	7.3	-	<1	<20	1.1	<0.5	<20	117	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB8_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Fill	-	<5	<100	7.6	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_SB7_0.1	2/12/2022	947225	Rail Tie In - South - Gridded	Ballast	-	<5	<100	7.5	-	<1	<20	<0.5	<0.5	<20	133	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_SB7_0.5	2/12/2022	947225	Rail Tie In - South - Gridded	Fill	-	<5	120	7.7	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB6_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Ballast	-	<5	<100	7.3	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB5_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	<5	<100	7.2	-	<1	<20	1.4	<0.5	<20	64	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB5_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	<5	280	7.1	-	<1	<20	1.3	<0.5	<20	53	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB4_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Fill	-	<5	470	7.6	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB4_1.0	1/12/2022	946897	Rail Tie In - South - Gridded	Natural	-	<5	140	7.8	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH1_0.6	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	-	<5	140	7.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_DP_BH1_1.0	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	-	<5	770	7.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1	<0.1	<0.5	-	<0.3	<0.5	<0.5	<0.5	<1	<1	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5
	109761M_SB3_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	-	<5	150	6.9	-	<1	<20	<0.5	<0.5	<20	<50	-	-	<0.5	<0.1	<0.1																

[illegible]

[illegible]

[illegible]

[illegible]

Table A2: Summary of Analytical Results (Total Concentration)

					Other																																	
					Indeno(1,2,3-cd)pyrene	Benzo(a)pyrene TEQ calc (half)	Benzo(a)pyrene TEQ calc (Zero)	Benzo(a)pyrene TEQ (LOR)	Aroclor 1260	Aroclor 1254	Aroclor 1221	Aroclor 1232	Aroclor 1248	Aroclor 1016	Aroclor 1242	Phenol	4,6-Dinitro-o-cyclohexyl phenol	4-nitrophenol	2,4-dimethylphenol	3,4,4-methylphenol	2,4-dinitrophenol	4,6-Dinitro-2-methylphenol	4-chloro-3-methylphenol	2-nitrophenol	2-methylphenol	% Clay*	CEC	3-Chloropropene (Allyl chloride)	4-Methyl-2-pentanone	Acetone	Carbon disulfide	F1 (C6-C10 less BTEX)	C6-C10	F2 (C10-C16 less NAPHTHALENE)	C10-C16	F3 (C16-C34)		
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	20	5	0.5	0.4	5	5	1	1	0.2	1	0.05	0.5	0.5	0.5	0.5	20	20	50	50	100		
EPA Vic Publication 1828.2 Category B Upper Limits																																						
EPA Vic Publication 1828.2 Category C Upper Limits																																						
EPA Vic Publication 1828.2 Category D Upper Limits																																						
EPA Vic Publication 1828.2 Fill Material Upper Limits																																						

Area	Field ID	Sampled Date	Lab Report Nun	Rationale	Lithology	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	<20	<20	<50	<50	<100
Area 1	109761M_DP_SB29_0.5	2/12/2022	948152	Rail Tie In - North - Gridded	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	<20	<20	<50	<50	<100
	109761M_DP_SB29_0.8	2/12/2022	948152	Rail Tie In - North - Gridded	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	<20	<20	<50	<50	<100
	109761M_DP_SB27_0.5	2/12/2022	948152	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	<20	<20	<50	<50	<100
	109761M_DP_BH44_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<0.5	1	0.7	1.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH44_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH44_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	560
	109761M_DP_BH44_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_P_HA49_0.75	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_P_HA49_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_P_HA48_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_P_HA48_0.95	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
Area 2	109761M_SB25_0.5	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<0.5	1.4	1.2	1.7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	100
	109761M_SB25_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH40_1.0	1/12/2022	946897	Piling locations - Systematic	Natural	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH40_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH40_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_SB26_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	3.4	6.8	6.8	6.8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	460
	109761M_SB26_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	1.7	3.3	3.1	3.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	380
	109761M_SB23_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH42_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	120
	109761M_DP_BH42_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100
	109761M_DP_BH42_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<40	<40	<50	<50	<100
	109761M_SB24_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<																					

Area	Field ID	Sampled Date	Lab Report	NunRationale	Lithology																																					
						<0.5	0.6	<0.5	1.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	440						
Area 3	109761M SB20_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	120						
	109761M SB20_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M SB19_0.1	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M SB19_1.0	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M SB18_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M SB17_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M SB16_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	3.8	5.4	5.4	5.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	260						
	109761M SB16_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	4.3	7.3	7.3	7.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	260						
	109761M SB15_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	1.5	3.3	3	3.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	260						
	109761M SB15_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	0.5	0.7	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	140						
	109761M DP BH39_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	0.8	1.9	1.6	2.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	150						
	109761M DP BH39_0.6	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<0.5	1.1	0.8	1.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	140						
	109761M DP BH39_0.8	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M DP BH29_0.5	1/12/2022	946897	Piling locations - Systematic	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M DP BH29_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M DP BH29_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA6_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	7.8	<5	<5	<1	<1	6.1	-	-	-	-	-	-	-	<20	<20	84	84	440					
	109761M P HA6_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	-	<20	<20	<50	<50	<100					
	109761M DP BH21_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	220						
	109761M DP BH21_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M DP BH21_1.25	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M DP BH21_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M BH_V02_0.3	31/03/2023	981483	Road	Fill	0.9	1.5	1.3	1.8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	590						
	109761M BH_V02_0.7	31/03/2023	981483	Road	Fill	2.9	6.9	6.9	6.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	850						
	109761M P HA42_0.65	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M BH_AT01_0.3	31/03/2023	981483	Road	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M BH_AT01_0.6	31/03/2023	981483	Road	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA41_0.1	25/03/2023	977269	Ballast fines	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA40_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA39_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA38_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M P HA19_1.4	25/03/2023	977269	Rail Corridor Fill	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M BH_D01_0.6	30/03/2023	981483	Road	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	109761M BH_D01_0.8	30/03/2023	981483	Road	Fill	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	<0.5	<0.5	<0.5	<0.5	<20	<20	<50	<50	<100						
	Area 4	109761M P HA5_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<0.5	0.6	<0.5	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<20	<5	<0.5	<0.4	<5	<5	<1	<1	<0.2	-	-	-	-	-	-	-	<20	<20	<50	<						

Table A2: Summary of Analytical Results (Total Concentration)

	Other					Moisture	Organic	
	H4 (C34-C40)	C10 - C14	C15 - C28	C29-C36	C10 - C40 (Sum of total)	Moisture Content (dried @ 103°C)	Mc EPA 1828.2 OCP (Total)*	Mc EPA 1828.2 Other OCP (Total)*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	MG/KG	MG/KG
EQL	100	20	50	50	50	1	0.1	0.1
EPA Vic Publication 1828.2 Category B Upper Limits								
EPA Vic Publication 1828.2 Category C Upper Limits								
EPA Vic Publication 1828.2 Category D Upper Limits								
EPA Vic Publication 1828.2 Fill Material Upper Limits								

Area	Field ID	Sampled Date	Lab Report	Nun Rationale	Lithology									
Area 1	109761M_DP_SB29_0.5	2/12/2022	948152	Rail Tie In - North - Gridded	Ballast	<100	<20	<50	<50	<100	4.7	<0.1	<0.1	
	109761M_DP_SB29_0.8	2/12/2022	948152	Rail Tie In - North - Gridded	Fill	<100	<20	<50	<50	<100	3.8	<0.1	<0.1	
	109761M_DP_SB27_0.5	2/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	4.4	<0.1	<0.1	
	109761M_DP_BH44_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	56	<100	9.7	-	-	
	109761M_DP_BH44_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	13	-	-	
	109761M_DP_BH44_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	360	240	560	13	-	-	
	109761M_DP_BH44_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	15	-	-	
	109761M_P_HA49_0.75	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	26	-	-	
	109761M_P_HA49_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	21	-	-	
	109761M_P_HA48_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	25	-	-	
109761M_P_HA48_0.95	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	26	-	-		
Area 2	109761M_SB25_0.5	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	52	74	100	13	-	-	
	109761M_SB25_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	<50	<50	<100	19	-	-	
	109761M_DP_BH40_1.0	1/12/2022	946897	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	17	-	-	
	109761M_DP_BH40_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	12	-	-	
	109761M_DP_BH40_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	16	-	-	
	109761M_SB26_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	530	<20	210	410	990	7.8	-	-	
	109761M_SB26_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	610	<20	140	420	990	8	-	-	
	109761M_SB23_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	<50	<50	<100	6	-	-	
	109761M_DP_BH42_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	<100	<20	53	98	120	9.3	-	-	
	109761M_DP_BH42_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	31	-	-	
	109761M_DP_BH42_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	23	-	-	
	109761M_SB24_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	<50	<50	<100	13	-	-	
	109761M_SB21_0.1	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	<50	<50	<100	9.9	-	-	
	109761M_SB21_1.0	9/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	<100	<20	<50	<50	<100	16	-	-	
	109761M_SB22_0.1	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	590	<20	410	870	1690	15	-	-	
	109761M_SB22_0.5	8/12/2022	952056	Assessment of platform fill - Jewell Station	Fill	450	<20	310	630	1230	9.2	-	-	
	109761M_DP_BH36_0.7	2/12/2022	947225	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	21	-	-	
	109761M_DP_BH37_0.25	30/11/2022	946362	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	19	-	-	
	109761M_DP_BH37_0.6	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	22	-	-	
	109761M_DP_BH37_0.8	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	22	-	-	
	109761M_DP_BH37_1.25	30/11/2022	946362	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	20	-	-	
	109761M_P_HA17_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	32	<0.1	<0.1	
	109761M_DP_BH28_0.1	2/12/2022	948152	Piling locations - Systematic	Ballast	<100	<20	56	61	100	21	<0.1	<0.1	
	109761M_DP_BH28_0.5	2/12/2022	948152	Piling locations - Systematic	Fill	<100	<20	67	73	120	22	<0.1	<0.1	
	109761M_DP_BH28_3.0	2/12/2022	948152	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	21	<0.1	<0.1	
	109761M_DP_BH8_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	5.9	-	-	
	109761M_DP_BH8_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	9.5	-	-	
	109761M_P_HA46_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	20	-	-	
	109761M_BH_H01_0.3	28/03/2023	981483	Road	Fill	250	<20	290	410	860	20	-	-	
	109761M_BH_H01_0.6	28/03/2023	981483	Road	Fill	<100	<20	110	76	180	21	-	-	
	109761M_BH_H02A_0.3	28/03/2023	981483	Road	Fill	140	<20	360	260	710	15	-	-	
	109761M_BH_H02B_0.85	28/03/2023	981483	Road	Fill	<100	<20	75	110	150	23	-	-	
	109761M_P_HA45_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	31	-	-	
	109761M_P_HA44_1.3	25/03/2023	977269	Natural	Natural	<100	<20	<50	<50	<100	24	-	-	
	109761M_P_HA43_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	24	-	-	
	109761M_P_HA43_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	27	-	-	
	109761M_BH_V01_0.3	31/03/2023	981483	Road	Fill	480	<20	310	560	1300	5.7	-	-	
	109761M_BH_V01_0.7	31/03/2023	981483	Road	Fill	<100	<20	<50	61	<100	28	-	-	

Table A2: Summary of Analytical Results (Total Concentration)



	Other					Moisture	Organic	
	H4 (C34-C40)	C10 - C14	C15 - C28	C29-C36	C10 - C40 (Sum of total)	Moisture Content (dried @ 103°C)	Mc EPA 1828.2 OCP (Total)*	Mc EPA 1828.2 Other OCP (Total)*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	MG/KG	MG/KG
EOL	100	20	50	50	50	1	0.1	0.1
EPA Vic Publication 1828.2 Category B Upper Limits								
EPA Vic Publication 1828.2 Category C Upper Limits								
EPA Vic Publication 1828.2 Category D Upper Limits								
EPA Vic Publication 1828.2 Fill Material Upper Limits								

Area	Field ID	Sampled Date	Lab Report Num	Rationale	Lithology									
Area 3	109761M_SB20_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	400	<20	160	450	840	3.9	-	-	-
	109761M_SB20_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	<50	100	120	3.5	-	-	-
	109761M_SB19_0.1	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	<50	<50	<100	16	-	-	-
	109761M_SB19_1.0	9/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	<50	<50	<100	19	-	-	-
	109761M_SB18_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	<50	<50	<100	25	-	-	-
	109761M_SB17_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	<50	<50	<100	8	-	-	-
	109761M_SB16_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	180	56	260	7	-	-	-
	109761M_SB16_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	<100	<20	190	<50	260	8.7	-	-	-
	109761M_SB15_0.1	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	180	<20	130	190	440	12	-	-	-
	109761M_SB15_0.5	8/12/2022	952056	Assessment of platform fill - Brunswick Station	Fill	110	<20	76	100	250	7.3	-	-	-
	109761M_DP_BH39_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<100	<20	84	82	150	8.8	<0.1	<0.1	-
	109761M_DP_BH39_0.6	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	72	90	140	11	<0.1	<0.1	-
	109761M_DP_BH39_0.8	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	17	<0.1	<0.1	-
	109761M_DP_BH29_0.5	1/12/2022	946897	Piling locations - Systematic	Ballast	<100	<20	<50	<50	<100	19	-	-	-
	109761M_DP_BH29_2.0	1/12/2022	946897	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	24	-	-	-
	109761M_DP_BH29_3.0	1/12/2022	946897	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	22	-	-	-
	109761M_P_HA6_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<100	99	330	160	524	11	<0.1	<0.1	-
	109761M_P_HA6_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	9.4	<0.1	<0.1	-
	109761M_DP_BH21_0.1	7/12/2022	949045	Ballast fines - systematic sampling	Ballast	<100	22	120	140	220	10	-	-	-
	109761M_DP_BH21_0.8	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	14	-	-	-
	109761M_DP_BH21_1.25	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	14	-	-	-
	109761M_DP_BH21_0.5	7/12/2022	949045	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	20	-	-	-
	109761M_BH_V02_0.3	31/03/2023	981483	Road	Fill	350	<20	260	320	940	12	-	-	-
	109761M_BH_V02_0.7	31/03/2023	981483	Road	Fill	340	<20	470	390	1190	11	-	-	-
	109761M_P_HA42_0.65	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	50	<50	<100	26	-	-	-
	109761M_BH_AT01_0.3	31/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	16	-	-	-
	109761M_BH_AT01_0.6	31/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	11	-	-	-
	109761M_P_HA41_0.1	25/03/2023	977269	Ballast fines	Fill	<100	<20	<50	<50	<100	8.3	-	-	-
	109761M_P_HA40_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	15	-	-	-
	109761M_P_HA39_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	12	-	-	-
	109761M_P_HA38_1.0	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	13	-	-	-
	109761M_P_HA19_1.4	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	20	-	-	-
	109761M_BH_D01_0.6	30/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	17	-	-	-
	109761M_BH_D01_0.8	30/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	11	-	-	-
Area 4	109761M_P_HA5_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	8.6	<0.1	<0.1	-
	109761M_P_HA5_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	17	<0.1	<0.1	-
	109761M_P_HA5_0.7	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	32	<0.1	<0.1	-
	109761M_DP_BH7_0.3	3/12/2022	947244	Piling locations - Systematic	Ballast	160	<20	76	170	340	18	-	-	-
	109761M_DP_BH7_0.4	3/12/2022	947244	Piling locations - Systematic	Fill	<100	<20	<50	<50	<100	14	-	-	-
	109761M_DP_BH7_2.0	3/12/2022	947244	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	17	-	-	-
	109761M_DP_BH7_3.0	3/12/2022	947244	Piling locations - Systematic	Natural	-	-	-	-	-	13	-	-	-
	109761M_P_HA14_0.1	6/12/2022	948152	Ballast fines - systematic sampling	Ballast	<100	<20	<50	56	<100	10	<0.1	<0.1	-
	109761M_P_HA14_0.5	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	72	<100	14	<0.1	<0.1	-
	109761M_P_HA14_0.8	6/12/2022	948152	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	17	<0.1	<0.1	-
	109761M_SB13_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	160	<50	200	11	-	-	-
	109761M_SB13_1.0	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	25	350	92	430	7.3	-	-	-
	109761M_SB14_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	91	<50	110	3.5	-	-	-
	109761M_SB14_0.5	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	160	<50	200	7.9	-	-	-
	109761M_DP_BH14_0.5	3/12/2022	947244	Ballast fines - systematic sampling	Ballast	<100	<20	120	130	210	6.2	-	-	-
	109761M_DP_BH14_0.7	3/12/2022	947244	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	10	-	-	-
	109761M_DP_BH14_0.9	3/12/2022	947244	Ballast fines - systematic sampling	Natural	<100	<20	<50	<50	<100	23	-	-	-
	109761M_SB12_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	<50	<50	<100	11	-	-	-
	109761M_SB11_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	63	<50	<100	16	-	-	-
	109761M_SB10_0.1	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	64	<50	<100	12	-	-	-
	109761M_SB10_0.5	8/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	<100	<20	99	<50	160	5.2	-	-	-
	109761M_SB09_0.1	9/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	150	<20	250	240	560	19	-	-	-
	109761M_SB09_0.5	9/12/2022	952056	Assessment of platform fill - Anstey Station	Fill	140	38	320	210	657	12	-	-	-
	109761M_DP_BH11_1.8	28/11/2022	949532	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	19	-	-	-
	109761M_BH_D02_0.6	30/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	33	-	-	-
	109761M_BH_D02_1.1	30/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	11	-	-	-
	109761M_P_HA16_1.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	13	-	-	-
	109761M_P_HA16_1.3	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	12	-	-	-
	109761M_P_HA15_1.3	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	30	-	-	-
	109761M_P_HA13_1.0	25/03/2023	977269	Natural	Natural	<100	<20	<50	<50	<100	21	-	-	-
	109761M_P_HA13_1.3	25/03/2023	977269	Natural	Natural	<100	<20	<50	<50	<100	22	-	-	-
	109761M_P_HA13_1.5	25/03/2023	977269	Natural	Natural	<100	<20	<50	<50	<100	14	-	-	-
	109761M_P_HA11_0.7	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	16	-	-	-
	109761M_P_HA11_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	18	-	-	-
109761M_P_HA10_0.7	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	22	-	-	-	
109761M_P_HA09_0.7	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	110	140	210	11	-	-	-	
109761M_P_HA09_0.8	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	13	-	-	-	

	Other					Moisture	Organic	
	H4 (C34-C40)	C10 - C14	C15 - C28	C29-C36	C10 - C40 (Sum of total)	Moisture Content (dried @ 103°C)	Mc EPA 1828.2 OCP (Total)*	Mc EPA 1828.2 Other OCP (Total)*
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	MG/KG	MG/KG
EOL	100	20	50	50	50	1	0.1	0.1
EPA Vic Publication 1828.2 Category B Upper Limits								
EPA Vic Publication 1828.2 Category C Upper Limits								
EPA Vic Publication 1828.2 Category D Upper Limits								
EPA Vic Publication 1828.2 Fill Material Upper Limits								

Area	Field ID	Sampled Date	Lab Report Nun	Rationale	Lithology										
Area 5	109761M_DP_BH13_0.1	30/11/2022	946362	Piling locations - Systematic	Fill	<100	<20	<50	<50	<100	11	-	-	-	
	109761M_DP_BH13_0.5	30/11/2022	946362	Piling locations - Systematic	Fill	<100	<20	<50	<50	<100	8.3	-	-	-	
	109761M_DP_BH13_1.0	30/11/2022	946362	Piling locations - Systematic	Fill	<100	<20	<50	<50	<100	16	-	-	-	
	109761M_DP_BH13_2.0	30/11/2022	946362	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	13	-	-	-	
	109761M_DP_BH13_3.0	30/11/2022	946362	Piling locations - Systematic	Natural	<100	<20	<50	<50	<100	14	-	-	-	
	109761M_DP_BH9_1.7	28/11/2022	949532	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	18	-	-	-	
	109761M_DP_BH5_0.1	2/12/2022	947225	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	14	-	-	-	
	109761M_DP_BH5_0.4	2/12/2022	947225	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	8.7	-	-	-	
	109761M_DP_BH5_0.8	2/12/2022	947225	Ballast fines - systematic sampling	Natural	<100	<20	<50	<50	<100	11	-	-	-	
	109761M_DP_BH5_1.2	2/12/2022	947225	Ballast fines - systematic sampling	Natural	<100	<20	<50	<50	<100	15	-	-	-	
	109761M_SB8_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	<100	<20	55	62	110	21	-	-	-	
	109761M_SB8_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	11	-	-	-	
	109761M_DP_SB7_0.1	2/12/2022	947225	Rail Tie In - South - Gridded	Ballast	<100	<20	71	62	120	11	-	-	-	
	109761M_DP_SB7_0.5	2/12/2022	947225	Rail Tie In - South - Gridded	Fill	<100	<20	<50	<50	<100	22	-	-	-	
	109761M_SB6_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Ballast	<100	<20	<50	<50	<100	7.8	-	-	-	
	109761M_SB5_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	<100	<20	64	<50	120	4.1	-	-	-	
	109761M_SB5_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	<100	<20	53	<50	<100	9.6	-	-	-	
	109761M_SB4_0.1	1/12/2022	946897	Rail Tie In - South - Gridded	Fill	<100	<20	<50	<50	<100	12	-	-	-	
	109761M_SB4_1.0	1/12/2022	946897	Rail Tie In - South - Gridded	Natural	<100	<20	<50	<50	<100	15	-	-	-	
	109761M_DP_BH1_0.6	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	<100	<20	<50	<50	<100	17	-	-	-	
	109761M_DP_BH1_1.0	28/11/2022	949532	Rail Tie In - South - Gridded	Fill	<100	<20	<50	<50	<100	9.8	-	-	-	
	109761M_SB3_0.1	1/12/2022	946897	Ballast fines - systematic sampling	Ballast	<100	<20	<50	<50	<100	13	-	-	-	
	109761M_SB3_1.0	1/12/2022	946897	Ballast fines - systematic sampling	Fill	<100	<20	<50	<50	<100	13	-	-	-	
	109761M_SB2_0.2	1/12/2022	946897	Rail Tie In - South - Gridded	Ballast	<100	<20	<50	<50	<100	9.6	-	-	-	
	109761M_SB1_1.0	1/12/2022	946897	Rail Tie In - South - Gridded	Fill	<100	<20	<50	<50	<100	14	-	-	-	
	BH_P01_0.1	22/03/2023	981483	Road	Fill	130	<20	380	260	770	22	-	-	-	-
	BH_P01_0.55	22/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	31	-	-	-	-
	BH_P02_0.1	22/03/2023	981483	Road	Fill	4500	<20	15,000	11,000	28,840	8.8	-	-	-	-
	BH_P02_0.3	22/03/2023	981483	Road	Fill	1400	<200	4900	3500	9200	5.6	-	-	-	-
	BH_P03_0.2	22/03/2023	981483	Road	Fill	440	<20	1200	1200	2640	12	-	-	-	-
	BH_P03_0.3	22/03/2023	981483	Road	Fill	170	<20	440	420	970	12	-	-	-	-
	BH_P04_0.2	22/03/2023	981483	Road	Fill	380	<20	750	900	1880	11	-	-	-	-
	BH_P04_0.4	22/03/2023	981483	Road	Fill	<100	<20	<50	<50	<100	16	-	-	-	-
	109761M_P_HA08_1.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	19	-	-	-	-
	109761M_P_HA05_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	18	-	-	-	-
	109761M_P_HA04_0.6	25/03/2023	977269	Ballast Fines	Ballast	<100	<20	<50	<50	<100	17	-	-	-	-
	109761M_P_HA03_1.2	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	15	-	-	-	-
	109761M_P_HA02_0.4	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	13	-	-	-	-
	109761M_P_HA01_0.7	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	14	-	-	-	-
Area 6	109761M_P_HA50_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	8.8	-	-	-	
	109761M_P_HA50_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	9.3	-	-	-	
	109761M_P_HA51_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	8.8	-	-	-	
	109761M_P_HA51_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	17	-	-	-	
	109761M_P_HA52_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	9.6	-	-	-	
	109761M_P_HA52_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	11	-	-	-	
	109761M_P_HA53_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	12	-	-	-	
	109761M_P_HA53_0.5	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	14	-	-	-	
	109761M_P_HA55_0.3	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	8.3	-	-	-	
	109761M_P_HA59_0.1	25/03/2023	977269	Rail Corridor Fill	Fill	<100	<20	<50	<50	<100	9.2	-	-	-	