



Excavation Environmental & Civil Services P/L • Environmental and Geotechnical Engineering

HUNTER VALLEY OFFICE Ph: 0407 434 604

A.B.N: 65 113 418 223 A.C.N. 113 418 223

Email: seecservices@hotmail.com

seecservices.com

PRELIMINARY (ENVIRONMENTAL) SITE INVESTIGATION

PROPOSED TEMPORARY STORAGE YARD

For: JBC FAMILY NOMINEES P/L

**20 SELWYN STREET
EAST MAYFIELD, NSW, 2340**

Lot 1, DP 581002

26/02/2025



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EXECUTIVE SUMMARY

We are pleased to provide this Preliminary Environmental Site Investigation (formerly known as a Stage 1 Environmental Site Assessment) at the above-mentioned site to assess the possible extent of contamination on the site prior to development of the site for the purposed of temporary storage of scaffolds and materials.

The aim of this assessment is to provide an environmental assessment characterising potential contamination of the site from previous occupiers and to provide current contamination status of the site, drawing conclusions on the suitability of the site for its proposed redevelopment and making recommendation to enable such conclusions.

Data obtained in this assessment indicates that based on the site history review, site inspection and analytical results, the site is considered to present a low risk of contamination in its current and proposed configuration and that further assessment of the site is not required and the site is suitable for the proposed development with remediation or construction / long-term environmental management **not** required. The results of analytical testing have been reported at levels that do not preclude the proposed use of the site.

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Assessment Objectives:

The project objectives of a Preliminary (Environmental) Site Investigation (PSI) are to satisfy the general requirements of State Environmental Planning Policy No.55 (SEPP 55) in accordance with the NSW EPA Guidelines for Consultants Reporting on Contaminated Land – Contaminated Land Guidelines (2020).

Specifically, this PSI will consider the potential for historical activities to have caused contamination at the Site and determine the suitability of the land for future land use consistent with Commercial / Industrial 'D' in the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No.1) ('NEPM', NEPC, 2013).

As extracted from the NSW EPA Guidelines for Consultants Reporting on Contaminated Land – Contaminated Land Guidelines (2020), the following assessment is required for a Preliminary Site Investigation:

The objective of the preliminary site investigation and associated report is to assess whether contamination has the potential to exist on the site and whether further investigation is needed.

Key factors include:

- *the purpose of the investigation*
- *the site history*
- *past and present potentially contaminating activities (on- and off-site sources)*
- *potentially contaminated media*
- *the condition of the site and surrounding environment*
- *the geological and hydrogeological setting*
- *a preliminary assessment of site contamination and contaminants of potential concern*
- *a conceptual site model*
- *identification of data gaps in the assessment of site contamination*
- *recommendations for further investigation.*

An appraisal of the site history is fundamental to the preliminary investigation and may be used to assess the likelihood of site contamination. It is important to review and assess all relevant information about the site, including information available from planning authorities and the EPA and information obtained during site inspections.

A preliminary site investigation report must adequately identify potential human and ecological receptors (on and off-site) and identify potentially affected media (soil, sediment, groundwater, surface water, soil vapour and indoor and outdoor air). The report must also indicate all contaminants of potential concern including emerging contaminants that have been identified during the preliminary site investigation.

Where a complete site history clearly shows that activities have been non-contaminating, there are no impacts from off-site contamination sources, and observations do not indicate any potential for contamination, there may be no need for further investigation or site sampling.

However, where contaminating activities are suspected or known to have occurred, or if the site history is incomplete, it may be necessary to undertake a preliminary sampling and analysis program to assess the need for a detailed investigation.

Scope of Works:

The following assessment has been undertaken on the site:

- Identification of potentially contaminating activities and Contaminants of Concern (CoC's) that are currently being performed on the site and that may have been performed on the site in the past;
- Completion of a Site Walkover Inspection
- A desktop study including the following:
 - o a review of published information and information held in file related to soils, geology and hydrogeology;
 - o review of previous assessments undertaken on the site;
 - o a review of historical aerial photography;
 - o interviews with the people familiar with the history and operations of the site (if available);
 - o a review of NSW Office of Environment and Heritage (OEH) notices under the Contaminated Land Management Act (1997);
 - o a search of the NSW EPA database;
 - o a review and collation of the above information and identification of potential Areas of Environmental Concern (AECs) and potential Chemicals of Concern (CoCs);
- **Development and implementation of a Preliminary Sampling and Analysis Program as per the NSW EPA Contaminated Land Guidelines (2020) and the Desktop Study data;**
- Completion of a field investigation in to collect soil samples to be tested for CoC's identified by known information and the data collected from the desktop study;
- Data has been reviewed and reported against the relevant NEPM Health Investigation Levels (HIL's) and determination has been made to if further assessment, management and/or a Remedial Action Plan (RAP) or Environmental Management Plan (EMP) is required, in accordance with the relevant sections of the *National Environmental Protection Measures 1999 (Contaminated Sites) (Amended 2013)*, the *NSW EPA Guidelines for Consultants Reporting on Contaminated Land – Contaminated Land Guidelines 2020* and the *NSW EPA Contaminated Sites – Sample Design Guidelines 1995*.
- Reporting assessment is based on historical information, the proposed field investigation data and the National Environmental Protection Measure 1999 (NEPM) (Amended 2013).
- A Preliminary Site Investigation report has been prepared describing the work undertaken on the site and making an assessment on the following:
 - o If the site is suitable for proposed use;
 - o Or if further investigation, a Remedial Action Plan (RAP) or Environmental Management Plan (EMP) is required is required.

The PSI was conducted in accordance with:

- ASC NEPM 2013.
- Australian Standard ('AS') 4482.1-2005: Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds.
- AS 4482.2-1999: Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2: Volatile substances.
- Australia New Zealand Environmental and Conservation Council ('ANZECC') and Agriculture and Resource Management Council of Australia and New Zealand ('ARMCANZ') (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 1, The Guidelines ('ANZECC 2000').
- ANZECC and ARMCANZ (2018) Australian and New Zealand Guidelines for Fresh and Marine Water Quality ('ANZECC 2018').
- Department of Urban Affairs and Planning and Environment Protection Authority ('EPA') (1998) Managing Land Contamination, Planning Guidelines, SEPP 55 – Remediation of Land.
- Friebe, E & Nadebaum, P 2011, Health Screening Levels for Petroleum Hydrocarbons in soil and Groundwater. Part 1: Technical development document, CRC CARE Technical Report no. 10, CRC for Contamination Assessment and Remediation of the Environment ('CRC CARE'), Adelaide, Australia.
- National Health and Medical Research Council ('NHMRC') (2008) Guidelines for Managing Risk in Recreational Waters.
- NHMRC and National Resource Management Ministerial Council ('NRMCC') (2011) National Water Quality Management Strategy, Australian Drinking Water Guidelines 6, 2011 (version 3.5 updated August 2018) ('ADWG 2011').
- NSW Department of Environment and Conservation ('DEC') Guidelines for the Assessment and Management of Groundwater Contamination ('NSW DEC Groundwater Guidelines').
- NSW Environment Protection Authority ('EPA') (1995) Sampling Design Guidelines.
- NSW EPA (2014) Technical Note: Investigation of Service Station Sites.
- NSW EPA (2017) Guidelines for the NSW Auditor Scheme (3rd Edition) ('NSW Auditor Guidelines').
- NSW OEH (2011) Contaminated Sites Guidelines for Consultants reporting on Contaminated Sites.
- United State Environment Protection Agency ('USEPA') (2006) Guidance on Systematic Planning Using the Data Quality Objectives Process, ref: EPA QA/G-4.
- NSW EPA Excavated Natural Material Order (2014).
- Acid Sulfate Soil Manual (1998), NSW Acid Sulfate Soils Management Advisory Committee ('NSW ASS Manual').
- National Acid Sulfate Soils Guidance (2018) National Acid Sulfate Soils Sampling and Identification Methods Manual, Water Quality Australia ('National ASS Guidance').

1 INTRODUCTION

The purpose of this PSI investigation is to obtain past and current information about possible contamination levels and distribution on the site and to review all data on the site.

It has been indicated by The City of Newcastle Council that the following is recommended:

As the subject land has been vacant previously and a known contaminated sites is in close proximity, it is appropriate the application for the first use undertake an appropriate investigation. A Preliminary Site Investigation is recommended.

Based on the above information including the close proximity to the former BHP Steelworks site, a Preliminary Environmental Site Investigation, including a Preliminary Sampling and Analysis Program has been completed to provide the required data to assess the current possible contamination status of the site and to determine if the site is suitable for the proposed industrial use or if further assessment, remediation or management of the site is required prior to the proposed development.

1.1 Existing, Former and Proposed Development Details

1.1.1 Site Details, Existing Development and Former Developments

The site is located on the western side of Selwyn street with Maitland Road to the immediate west of the site adjacent to a rail loop and Coal Lading Facilities to the east of the site in the location as shown as shown on the attached Figure 1 and is currently vacant land with no existing development located on the site at the time of assessment. The entrance to the site in the southern corner had a layer of recycled concrete material placed as an access track and demountable buildings were temporarily stored on the site as seen in the attached site photographs. A small vehicle had recently been dumped and burnt on the site as also seen on the attached photographs.

Fill was encountered to a depth of around 400mm to 500mm at all of the test locations underlain by alluvial Clayey SAND. Fill comprised dark grey to black Sandy Gravelly CLAY material.

Vegetation comprised grasses on the surface of the site that has recently been slashed with some trees located in the western boundary and on the southern and northern portion of the eastern boundary.

1.1.2 Proposed Development Details

The proposed development on the site involves using the site as a scaffolding material storage area as can be seen on the referenced Shade Architectural Drawings and attached Figure 2. The proposed development involves placing a layer of hardstand material over the site as a working layer for the storage area and the installation of pre-fabricated office, deck and toilet building, The foundations system for the buildings and deck will be for light weight structures comprising of a standard masonry pier footing system minimising the requirement for bulk excavations.

The Health Investigation Limits for the proposed development is categorised as HIL 'D' – Commercial / Industrial.

1.2 Summary of Previous Site Assessments

Previous site assessment have not been made available to us or have not been undertaken on the site to the best of our knowledge.

2 SITE IDENTIFICATION DETAILS

Table 1 below contains a summary of the site details.

TABLE 1 – SUMMARY OF SITE DETAILS

SITE ADDRESS:	20 Selwyn Street, East Mayfield
SITE AREA:	Total Area – 3,600m ² Perimeter of 365m.
SITE IDENTIFICATION	Lot 1 DP 581002 Lat 32°54'07"S Long 151°45'12"E
CURRENT AND PREVIOUS LANDUSE:	Currently the site is vacant with evidence suggesting that the site has never been developed with the exception of the placement of fill material around 1945 and 1965.
PROPOSED LANDUSE:	The proposed land use involves using the site for temporary storage of scaffolding and material after covering the site with a working layer of gravel material and installing temporary demountable buildings for site amenities.
ADJOINING SITE USES:	The site is surrounded roads on all boundaries with industrial developments to the west, residential developments to the south and extensive industry to the east comprising rail and coal loading infrastructure and operations.

3 SITE TOPOGRAPHY, GEOLOGY AND HYDROLOGY

3.1 Site Topography

Topographically the site is located on the western edge of relatively flat estuarine alluvial deposits with residual deposits that rise in elevation about 150m to the west of the site.

Locally the site is relatively flat with only about 300mm difference over the site and sits at a Relative Level of about 3m AHD.

3.2 Site Geology

Reference to the 1:250K Newcastle Regional Geology Map S1 56-2 indicates that the site is underlain by Quaternary Alluvial material with residual deposits about 150m to the west of the site with alluvial deposits extending to the Hunter River situated about 1.5km to the east of the site as shown on the attached Figure 4.

3.3 Acid Sulfate Soil Risk

Reference to eSpade indicates that the site is located in an area of Disturbed Terrain with elevation around >4m with an area of low probability of known occurrence of acid sulfate soil >3m below surface levels as shown on the attached Figure 5.

3.3 Soil Landscape

The eSpade Soil landscape map indicates that the site is located in an area of disturbed terrain (xx) with the following properties:

Landscape—level plain to hummocky terrain, extensively disturbed by human activity, including complete disturbance, removal or burial of soil. Local relief and slopes are highly variable. Landfill includes soil, rock, building and waste materials. Original vegetation completely cleared, replaced with turf or grassland.

Soils—highly variable.

Limitations—highly variable depending on the site. Limitations may include mass movement hazard, steep slopes, foundation hazard, unconsolidated low wet bearing strength materials, potential acid sulphate soils, impermeable soils, poor drainage, erosion hazard, very low fertility and toxic materials.

LOCATION

Extensively disturbed terrain on a variety of geologies scattered mainly throughout the Lower Hunter Plain, Awaba Hills and the East Maitland Hills.

Geology

Includes Quaternary, Tertiary and Permian sediments.

Topography

Terrain disturbed by human activity including areas of landfill, heavy industrial complexes, gravel pits, sandmining, coal mining and municipal rubbish tips. The land surfaces are varied, most areas of landfill being level, whilst many quarries and excavation pits have irregular, steep sides.

Vegetation

Due to disturbance, very little natural vegetation remains.

Land Use

Includes all land uses which have extensively disturbed the soil and landscape over large areas. Predominantly heavy industrial areas, reclaimed estuarine flats, coal mines, coarse aggregate quarries and sandmining areas. Sand extraction has occurred on marine sediments along the coast. Coarse aggregate quarries and fine aggregate (river sand) quarries occur at various locations throughout the area. Other areas of major disturbance include rubbish tips, sewerage schemes and various landfill areas.

Existing Erosion

Erosion varies greatly according to site characteristics. Usually, sheet and rill erosion occur on exposed batters in quarries. Severe wind erosion may occur in sandmining areas. Landfill areas are usually flat, topsoiled and stabilised by a good ground cover and consequently have few erosion problems.

SOILS

Disturbed

In these areas most of the original soil has either been removed, buried, or greatly disturbed. In gravel pits, mines and quarries, bedrock is often exposed, whilst in landfill areas transported earths, sediments and industrial and household wastes are found. These areas may be artificially topsoiled or covered by concrete and bitumen.

3.4 Geotechnical Parameters

Site geotechnical parameters are detailed in the following Table 2;

TABLE 2 – SUMMARY OF SOIL TYPES ENCOUNTERED AT BOREHOLE LOCATIONS

SOIL UNIT	MATERIAL TYPE	DESCRIPTION
UNIT 1	FILL	GRAVEL; Coarse grained, recycled crushed concrete Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet
UNIT 2	ALLUVIAL	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft

Table 3 provides a summary of the distributions of the above soil units at each borehole location and the depth to encountered groundwater.

TABLE 3 – SUMMARY OF DISTRIBUTION OF GEOTECHNICAL UNITS AT BOREHOLE LOCATIONS

BH	DEPTH ENCOUNTERED BELOW EXISTING GROUND LEVEL (m)		
	UNIT 1 FILL	UNIT 2 Alluvial CLAY	SEEPAGE m bgl
BH1	0.0 – 0.4	0.3 – 1.2 +	1.0
BH2	0.0 – 0.4	0.4 – 1.2 +	0.9
BH3	0.0 – 0.5	0.5 – 1.2 +	1.0
BH4	0.0 – 0.5	0.5 – 1.2 +	1.0
BH5	0.0 – 0.5	0.5 – 1.2 +	1.0
NOTE: + denotes material continues for unknown depth.			

Groundwater seepage was encountered at the above depths in the boreholes on the day of investigation. It should be noted that fluctuations in the groundwater levels can occur because of seasonal variations, temperature, rainfall and other similar factors, the influence of which may not have been apparent at the time of investigation.

4 SUMMARY OF HISTORICAL INFORMATION AND CONTAMINANTS / AREAS OF CONCERN

4.1 Site Uses

Currently the site is vacant with evidence suggesting that the site has never been developed with the exception of the placement of fill material around 1945 and 1965.

4.2 Review of Aerial Photographs:

Photographs of the site have been attached for the following years with features noted below in Table 4:


TABLE 4 – HISTORICAL AERIAL PHOTOGRAPHS

YEAR	SITE	SURROUNDING AREA
1944 Black and White	The northern half of the site is vacant with the southern half comprising rectangular patterns of either agricultural use or material storage. They do not comprises buildings as they do not cast a shadow like the surrounding buildings.	A rail loop and vacant land can be seen, likely part of the adjacent steelworks to the east of the site. A large industrial building and dwellings are located to the west and dwellings are located to the north. Elevated roads and dwellings can be seen to the south.
1954 Black and White	The site is now vacant with the rectangular shapes likely used for agriculture / material storage are no longer visible.	Similar to the previous image
1965 Black and White	The site is vacant. Some disturbance on the western portion of the site is evident, likely associated with earthworks in the areas to the west due to expansion of the factory in a southerly direction and likely road construction preparation works for the future elevated roadway, namely Maitland Road.	The large industrial building to the west has expanded and the area to the east is similar to the previous image
1974 Black and White	The site is still vacant with the new elevated Maitland Road on the western boundary of the site.	Similar to the previous image with stockpiles and disturbance now noted to the east of the site in the BHP area of operations.

YEAR	SITE	SURROUNDING AREA
1984 Black and White	The site remains vacant with some vegetation now evident on the site boundaries.	Coal stockpiles and coal loaders can now be seen to the east of the site and the rail line and operations are more pronounced.
1994 Colour	The site is vacant with vegetation on the western boundary road embankment now evident.	Similar to the previous image with rail operations expanded to the east.
2005 Colour	Site is vacant and similar to the previous image	Similar to the previous image
2013 Colour	Site is vacant and similar to the previous image	Similar to the previous image
2021 Colour	Site is vacant and similar to the previous image	Similar to the previous image
2024 Colour	The site in its current condition, The gravel access track can be seen on the southern corner and the transportable buildings can be seen stored on the site.	Similar to the previous image

4.3 Search of the NSW EPA Contaminated Sites Register:

A search of the NSW EPA Contaminated Sites Register indicates that there are no sites that have Contaminated Land Record Notices in the suburb of Mayfield East:

Your environmentReporting, incidents and recovery programsLicensing and RegulationWorking together

Public registers

+ POEO Public Register

- Contaminated land record of notices

About the record of notices

List of notified sites

Tips for searching

Disclaimer

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Search results

Your search for: Suburb: MAYFIELD EAST

did not find any records in our database.

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

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

Search AgainRefine Search


Search TIP

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

... [more search tips](#)

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There are NO sites in Mayfield East that are designated as NSW EPA Notified Sites. All of the former BHP and OneSteel operations are located in Mayfield as detailed below:

LOCALITY	Current Land Use / Activity	Address	Current Industry	Regulation under CLM Act not required	Latitude	Longitude
MAYFIELD	7-Eleven (Former Mobil) Service Station	412-416 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.89292005	151.7300948
MAYFIELD	Shell Coles Express Service Station	63-69 Maud STREET	Service Station	Regulation under CLM Act not required	-32.89358962	151.7221298
MAYFIELD	Hunter River Sediments	Bed Sediments of the Hunter adjacent to Lot 221 DP1013964 RIVER	Metal Industry	Contamination formerly regulated under the CLM Act	-32.89203741	151.7646702
MAYFIELD	Australian Tube Mills Newcastle Site	Industrial DRIVE	Metal Industry	Under assessment	-32.88835767	151.7450751
MAYFIELD	BHP Steel River	The Buffer Zone' extending directly adjacent to the Hunter River; near the Tourle Street Bridge STREET	Metal Industry	Contamination currently regulated under CLM Act	-32.8773556	151.7252427
MAYFIELD	Waratah Steel Mill	23 Frith STREET	Metal Industry	Regulation under CLM Act not required	-32.89426592	151.7257429
MAYFIELD	OneSteel (BHP)	Industrial DRIVE	Metal Industry	Contamination currently regulated under CLM Act	-32.88365878	151.7448793
MAYFIELD NORTH	BHPB Closure site and bed sediments of the Hunter River	Bound by Hunter River, Selwyn Street & Industrial DRIVE	Metal Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-32.89436064	151.7590762
MAYFIELD NORTH	OneSteel - Newcastle Wire, Rod and Bar Mills	141 & 151 Ingall STREET	Metal Industry	Under assessment	-32.89008485	151.752949
MAYFIELD NORTH	Former BHPB Supply site	Industrial DRIVE	Metal Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-32.88583061	151.7386157
MAYFIELD NORTH	Swing Basin allotment on former Onesteel site - Lot 2 DP 1184252	151B Ingall STREET	Metal Industry	Under assessment	-32.880881	151.744457
MAYFIELD WEST	Stevenson Park landfill	2/559 Maitland ROAD	Landfill	Regulation under CLM Act not required	-32.88472556	151.7224791
MAYFIELD WEST	Koppers Coal Tar	East of Woodstock Street and Tourle STREET	Other industry	Contamination currently regulated under POEO Act	-32.88592437	151.7361839
MAYFIELD WEST	Tourle Street Bridge Project	Tourle STREET	Landfill	Regulation under CLM Act not required	-32.88075518	151.7330073

There are no site in Mayfield East that have POEO Licences at the time of assessment.



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Public registers

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 - [Licences, applications and notices search](#)
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Search results

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

Suburb - mayfield east

returned 0 result

4.4 Summary of Areas of Concern (AoC's) and Chemicals of Concern (CoC's)

A summary of the AoC's and CoC's is contained in Table 5 below:

TABLE 5 – POTENTIAL AECS AND COCS

AoC	POTENTIAL CONTAMINATING ACTIVITY	POTENTIAL COCS	LIKELIHOOD OF CONTAMINATION*	COMMENT
1 Imported Fill over the site	Importation of historical fill material	Heavy Metals, TRH, BTEX, PAH, OCP, OPP, Asbestos, Foreign Material	Low	<p>Importation of fill material may have occurred around the 1940's when the southern portion of the site appears disturbed and on the western portion of the site from road construction during the later late 1960's early 1970's.</p> <p>Fill was detected in the boreholes excavated on the site to a depth of around 500mm. This material was sampled at the time of assessment with Contaminants of Concern not detected above Health Investigation Level or Management Level Threshold Concentrations in any of the samples tested.</p>
2 Former Site Use of the lot	Storage of material or agriculture during the 1940's	Heavy Metals, TRH, BTEX, PAH, OCP, OPP,	Low	The site has been vacant since the 1940's with no evidence of buildings being previously located on the site, The site is outside of any of the former BHP Steelworks operations.
3 Adjacent commercial and industrial activities	Industrial operations to the west and BHP sites	Heavy Metals, TRH, BTEX, PAH,	Low - Med	<p>The area of BHP Steelwork Operations are to the east of the site and are likely hydraulically downstream of the site based on the areas topography and geology..</p> <p>Notified contaminated sites are lot located within suburb of the subject site, namely Mayfield East and Contaminants of Concern not detected above Health Investigation Level or Management Level Threshold Concentrations in any of the samples tested including fill material and underlying alluvial clays.</p>

NOTES:

* = It is important to note that this is not an assessment of the financial risk associated with the AEC in the event contamination is detected, but a qualitative assessment of the probability of contamination being detected at the potential AEC. Metals – Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc; TPH – Total Petroleum Hydrocarbons; PAH – Polycyclic Aromatic Hydrocarbons; OCP – Organochlorine Pesticides; OPP – Organophosphorus Pesticides, UPSS denoted Underground Petroleum Storage Systems

4.5 Assessment of Information Integrity

It is assessed that the integrity of the assessment of information is correct as supplied by the relevant regulatory sources and attached documents.

5 VISUAL ASSESSMENT

A site investigation, comprising a detailed site walkover and a preliminary intrusive soil investigation was undertaken on 20/01/2025 that involved undertaking a detailed site observation assessment and excavation of 5 boreholes.

Visual assessment of the site indicated the following possible visual sources of contamination;

- Fill material used as an access track on the surface of the site in the southern corner access point;
- Rubbish on the site, namely a vehicle that was burnt prior to assessment and a 1000L storage pod;
- Historical Fill located over the surface of the site.

Trees were located on the western and eastern boundaries with all vegetation appearing to be very healthy with no die back or dead areas.

Drums and other signs of chemical waste material were NOT noted over the main portion of site at the time of assessment. Odours were not noted at the time of assessment

6 SOIL ASSESSMENT

The *NSW EPA Contaminated Land Guidelines – Sampling Design Part 1 – Application (2022)* indicates that a Judgmental Sampling Pattern is required for this Preliminary Site Investigation.

Based on the site layout and the known site usage it was assessed that for a preliminary assessment that five (5) test locations were required with seven (7) primary samples and one (1) duplicate sample taken at depths where contamination is likely to be expected.

6.1 Sampling Methodology

Borehole locations were selected prior to commencement of excavation based on a grid pattern and onsite features such as locations of former development ensuring an appropriate spread of the site was sampled including up gradient and down gradient areas. All borehole locations are shown on the attached Figure 3 and all boreholes were excavated using hand augers due to access constraints.

Soil samples were taken from various depths from BH1 to BH5. The depth at which the soil samples were taken and tested was dictated by changes in soil characteristics and other such factors as odour and colour. Out of these collected samples, the selected samples were forwarded to Envirolabs NATA Laboratory for analytical testing.

All sampling was undertaken in accordance with all relevant Australian Standards, including AS 1726 – 1993 – *Geotechnical Site Investigations*, NSW EPA Sample Design Guidelines with reference to the CLM Act, NEPM (2013) Schedules and associated guidelines as detailed in the reference list. All laboratories used were NATA Certified.

6.2 QA/QC

New neoprene gloves were worn during sampling and replaced prior to collection of each sample directly from the auger. All collected samples were placed in laboratory supplied glass with Teflon coated lids. Decontamination of sampling equipment was carried out with Decon 90 and clean water. Samples were then placed on ice and transported to a fridge at our premises prior to dispatch to the laboratory.

Field screening involved visual observation to determine if the material was uncontrolled fill or natural topsoils or residual material. A Chain of Custody form was prepared and accompanied samples to the laboratory. Laboratory QA/QC procedures are detailed in the attached laboratory testing results.

All QA/QC documentation supplied by the laboratory is contained in Envirolabs document referenced in this report and a duplicate sample was collected, with results detailed in the attached Results table with Duplicate samples described there.

6.3 Soil Test Results

The attached laboratory testing results of the collected soil samples compared to the relevant NEPM Health Based Investigation Levels (HBIL's) for Commercial / Industrial "D" and Ecological Screening Level (ESL) - Commercial and Industrial Guideline Thresholds are detailed in the Attached Soil Test Results Table and summarised as follows:

Hydrocarbons

Laboratory testing results for soil samples tested indicate that **TRH, PAH's and BTEX levels detected are below** laboratory detection limits or relevant guideline thresholds at ALL test locations with one (1) exception of shallow fill material:

BH3 – 0.1m

C16 – C34 – 2,800 mg/kg detected

Below the Management Limit of (ML) Threshold of 5,000 mg/kg

1.12X the Ecological Screening Level (ESL) Threshold of 2,500mg/kg

No Data for Health Screening Levels (HSL's)

BH1 – 0.0m

Benzo(a)pyrene – 6.0 mg/kg detected

Below the Health Investigation Levels (HIL's) Threshold of 40 mg/kg

8X the Ecological Screening Level (ESL) Threshold of 0.7 mg/kg

BH1 – 0.6m

Benzo(a)pyrene – 4.0 mg/kg detected

Below the Health Investigation Levels (HIL's) Threshold of 40 mg/kg

6X the Ecological Screening Level (ESL) Threshold of 0.7 mg/kg

BH2 – 0.1m

Benzo(a)pyrene – 0.72 mg/kg detected

Below the Health Investigation Levels (HIL's) Threshold of 40 mg/kg

1.03X the Ecological Screening Level (ESL) Threshold of 0.7 mg/kg

Pesticides

Laboratory testing results for soil samples tested indicate that **OC/OP levels detected are below** laboratory detection limits at ALL test locations.

Metals

Laboratory testing results for soil samples tested indicate that **metal levels detected are below** the relevant guideline threshold concentrations at ALL test locations.

6.4 Laboratory Test Results Summary

6.4.1 Threshold Guideline Exceedances

Health Investigation Level (HIL) Thresholds and Management Limits of Non Sensitive Site (NS ML) Thresholds were NOT exceeded in any samples tested in the PSI.

Some exceedances of the Ecological Screening Level (ESL) Threshold (<10X the Threshold Guideline Concentrations) were detected for hydrocarbons in three (3) samples at two (2) test locations.

In summary, all laboratory test results for Contaminants of Concern of collected soil samples were below guideline thresholds for Health Investigation Levels (HIL's) or Management Limits (ML's) in ALL samples collected with 4 exceedances of Hydrocarbon Ecological Screening Level (ESL's) guideline threshold concentrations detected at 3 locations and it is assessed that further intrusive soil investigation of the site is **NOT** required as discussed further below in Sections 7 and 14.

7 RECOMMENDATIONS

It is assessed that former and adjacent site uses have not resulted in significant contamination from CoC's on the site and it is recommended that the site is suitable for the proposed use on the following conditions;

1. Any material including general rubbish or any excavation spoil proposed for the re-development of the site that require offsite removal should be removed offsite after Waste Classification Assessment as per the referenced NSW EPA Waste Classification Guidelines with all receipts and reports for material disposed offsite being retained.
2. Any material imported onto the site for use as hardstand material is either quarry sourced material or recycled aggregate accompanied by the relevant receipts and classification certificates OR Virgin / Excavated Natural Material also accompanied by material classification certificates,

The benzo(a)pyrene concentrations reported at BH1 exceeded the adopted ecological soil criteria, but not the health soil criteria, however with consideration to the proposed layout BH1 is **not** located within the proposed development area as shown on the attached Figure 2 and therefore is not considered to present a risk to future ecological or human receptors at the site.

The benzo(a)pyrene concentration reported at the sample collected at BH2 had a very minor exceedance of the adopted ecological soil criteria (1.03X the ESL) and therefore is not considered to present a risk to future ecological or human receptors at the site.

The C₁₆₋₃₄ concentrations reported at BH3 exceeded the adopted ecological soil criteria, but not the management limits soil criteria, with a minor exceedance of the adopted ecological soil criteria (1.12X the ESL) and is also therefore not considered to present a risk to future ecological or human receptors at the site.

8 CONTAMINATION SOURCES

The following sources of possible contaminated areas and possible contamination were identified;

Possible Onsite Contaminated Areas

- Access track on the surface of the site in the southern corner;
- Rubbish on the site, namely a vehicle that was burnt prior to assessment;
- Historical Fill located over the surface of the site.

Possible Offsite Contaminated Areas

- Former BHP Operations and rail infrastructure to the east of the site;

Contaminants of Concern (CoC's)

The following contaminants of concern were tested for in soil samples collected:

- TRH (Total Recoverable Hydrocarbons);
- Total PAH's (Polycyclic Aromatic Hydrocarbons);
- BTEX (Benzene, Toluene, Ethyl Benzene and Xylene);
- Naphthalene;
- Organochlorine Pesticides / Organophosphorous Pesticides (OC/OP);
- Lead and select heavy metals including cadmium, chromium, zinc, copper, mercury, arsenic and nickel.

9 CONCEPTUAL SITE MODEL

This Conceptual Site Model (CSM) is specific to this site and is based on a review of all available information, including site inspections / investigations, available data and historical searches.

The following sensitive receptors have been identified on the site;

- Nearby residents and businesses in both the short and long term;
- Site personnel working on any service excavations on the site;
- Long term residents and businesses after construction of the development;
- Any nearby waterways;
- Groundwater.

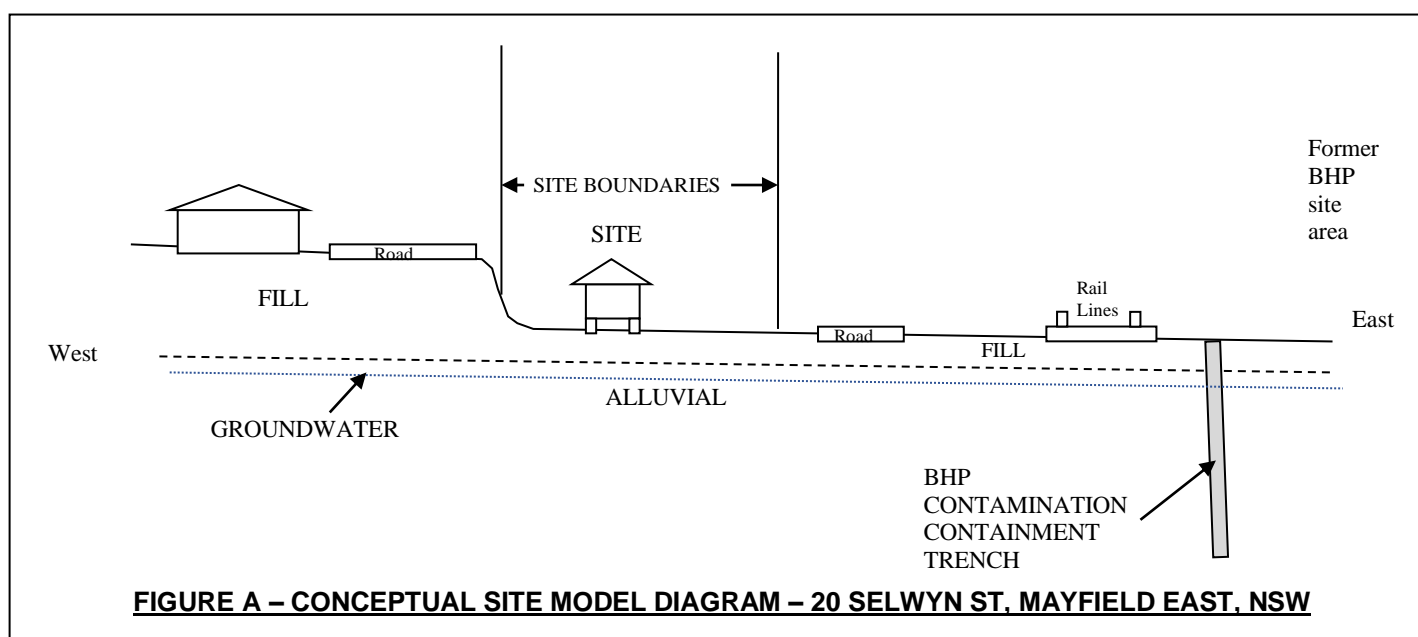
All potential contamination sources are noted in Section 8 – Contamination Sources. At the time of assessment, fill was detected on the site. The majority of the surface water exited the site by surface infiltration with some limited surface water runoff in an easterly direction. At the time of assessment, groundwater seepage was detected at about 1.0m depth as shown on the attached borehole logs. The site layout and possible contamination sources can be seen on the attached Figures.

See Section 3 – Site Geology and Hydrology above for detailed site geology and groundwater information. In summary, soil material encountered comprised of Sandy Gravelly CLAY FILL overlying Sandy CLAY alluvial material as shown on the attached borehole engineering logs.

It is assessed that the following potential contamination migration pathways are present on the site;

- Contaminated material being removed offsite during bulk future excavations;
- Migration of contaminants into and through the groundwater during rain events.

The nature and extent of contamination considered likely to be found on the site is summarised above, with Remediation or Environmental Management of the site NOT required for the site.



10 DATA QUALITY OBJECTIVITIES (DQO's)

The objective of this investigation is to determine the extent of possible onsite contamination and provide baseline contamination data for the site. Further soil and groundwater assessment may be required if further development of the site is proposed or if unexpected contamination is discovered.

The first stage of the process is to provide data to indicate that the site is suitable for the proposed continuing land use activity.

A conceptual Site Model has been detailed in Section 9 above.

Site boundaries are indicated on the attached Figures.

Decisions to be made and the criteria to be used is listed as follows;

- Assessment of the contamination type and distribution on the site will be made using all previous investigations carried out onsite with reference to the NSW EPA Guidelines for the NSW Site Auditor Scheme and the NEPM (2013);
- Assessment of the groundwater contamination using criteria described in the NEPM (2013);

To minimise the potential of decisions errors all data will be assessed against the NSW EPA Guidelines for the NSW Site Auditor Scheme – Appendix V – Quality Assurance and Quality Control.

It is assumed that some errors may be contained within the assembled data and information. If it is found during material excavation that conditions encountered onsite differ significantly from those suggested by the collected data, an environmental consultant should be contacted and made aware of the situation.

11 GUIDELINES TO BE USED

The following guidelines from the NEPM (2013) were followed during the assessment process;

Schedule B—General guidelines for the assessment of site contamination

The following general guidelines provide guidance on the possible ways of achieving the desired environmental outcome (PART 3 of the Measure) for the assessment of site contamination and should only be considered in relation to the assessment of site contamination.

Index of guidelines

Schedule B1—Guideline on Investigation Levels for Soil and Groundwater

Schedule B2—Guideline on Site Characterisation

Appendix A Possible analytes for soil contamination

Appendix B Data quality objective (DQO) process

Appendix C Assessment of data quality

Appendix D Example data presentation on scale drawings and borehole logs

Appendix E Dioxins and dioxin-like compounds

Schedule B3—Guideline on Laboratory Analysis of Potentially Contaminated Soils

Appendix A Determination of total recoverable hydrocarbons (TRH) in soil

Schedule B4—Guideline on Site-Specific Health Risk Assessment Methodology

Appendix A Structure of a risk assessment report

Schedule B5a—Guideline on Ecological Risk Assessment

Appendix A Summary of the EILs for fresh and aged contaminants in soil with various land uses

Appendix B Mixtures of chemicals

Schedule B5b—Guideline on Methodology to Derive Ecological Investigation Levels in Contaminated Soils

Appendix A Review and comparison of frameworks for deriving soil quality guidelines in other countries

Appendix B Method for deriving EILs that protect aquatic ecosystems

Schedule B5c—Guideline on Ecological Investigation Levels for Arsenic, Chromium (III), Copper, DDT, Lead, Naphthalene, Nickel and Zinc

Appendix A Raw toxicity for arsenic

Appendix B Raw toxicity for chromium (III)

Appendix C Raw toxicity for copper

Appendix D Explanation of the selection of the soil properties that control the added contaminant limits for copper

Appendix E Raw toxicity for DDT

Appendix F Raw toxicity for lead

Appendix G Raw toxicity for naphthalene

Appendix H Raw toxicity for nickel

Appendix I Raw toxicity for zinc

Schedule B6—Guideline on the Framework for Risk-Based Assessment of Groundwater Contamination

Schedule B7—Guideline on derivation of health-based investigation levels

Appendix A1 Derivation of HILs for Metals and Inorganics

Appendix A2 Derivation of HILs for PAHs and Phenols

Appendix A3 Derivation of HILs for Organochlorine Pesticides

Appendix A4 Derivation of HILs for Herbicides and Other Pesticides

Appendix A5 Derivation of HILs for PCBs and PBDEs

Appendix A6 Derivation of HILs for Volatile Organic Carbon Compounds

Appendix B Equations for derivation of HILs and Interim HILs

Appendix C Derivation of HILs for Generic Land Uses

Appendix D Blood lead model assumptions

Schedule B8—Guideline on Community Engagement and Risk Communication

Schedule B9—Guideline on Competencies and Acceptance of Environmental Auditors and Related Professionals

12 REMEDIAL ACTION PLAN (RAP)

A Remedial Action Plan is **NOT** required for the development proposed for the site.

13 LONG TERM SITE MANAGEMENT

Long term environmental management is **NOT** required for the development proposed for the site.

14 CONCLUSIONS

This report presents the findings of a PSI undertaken for the proposed development at 20 Selwyn Street, Mayfield East NSW and was required to satisfy an RFI from Newcastle City Council and the NSW Department of Planning, Housing and Infrastructure as part of the DA process in accordance with SEPP 55.

The site history indicates that the site is vacant with evidence suggesting that the site has never been developed with the exception of the placement of fill material around 1945 and 1965.

Fieldwork investigations comprised of a site walkover and excavation of five (5) boreholes and the collection of seven (7) primary samples and one (1) duplicate sample submitted to Envirolabs NATA Accredited Laboratory for testing of identified CoC's.

The following sources of possible types of environmental contamination were identified onsite:

- Access track in the southern corner;
- General Rubbish on the site;
- Historical Fill located over the surface of the site;
- Former BHP Operations and rail infrastructure to the east of the site.

The geotechnical conditions on the site are generally 0.4 – 0.5m of Sandy Gravelly CLAY FILL overlying Sandy CLAY ALLUVIUM to at least 1.2m depth with groundwater detected at approximately 1m below existing site levels.

Based on the analytical testing the following exceedances of the adopted criteria were reported:

- Benzo(a)pyrene concentrations reported at BH1-0.1m and BH1-0.6m exceeded the adopted ecological soil criteria however given the proposed layout, BH1 is not located within the proposed development area as shown on the attached Figure 2. This exceedance is therefore not considered to present a risk to future ecological or human receptors at the site.
- Benzo(a)pyrene concentration reported at BH2-0.1m had a very minor exceedance of the adopted ecological soil criteria (1.03X the ESL) and is not located within the proposed development area, therefore is not considered to present a risk to future ecological or human receptors at the site.
- The C₁₆₋₃₄ concentrations reported at BH3-0.1m had a minor exceedance of the adopted ecological soil criteria (1.12X the ESL). This long chained hydrocarbon does not pose a volatility risk and therefore is not considered to present a risk to human receptors at the site during the proposed development, the proposed use of the site or to future ecological receptors at the site.

It is assessed that further assessment, remediation or construction / long-term environmental management **not** required for the proposed development based on the following factors:

- Analytical results indicate that Health Investigation Limits were not exceeded in any of the samples tested indicating that their presence is not considered to present a risk to human receptors at the site during the proposed development or proposed use of the site.
- The proposed development will create minimal disturbance to site soils with all buildings being lightweight prefabricated transportable modules with some minor suspended decks for access with a minor foundation system of shallow pad footings or screw piers and minimal underground services, minimising the creation of spoil and exposure of site personnel to soil material at the time of construction.
- The storage area for the scaffolding will comprise hardstand material constructed from a layer of geofabric overlain by a 300mm layer of imported granular material minimising the exposure of underlying material to future human and ecological receptors.
- Due to the depth of groundwater onsite (around 1m bgl) it is assessed that groundwater will not be interacted with during the proposed developments construction or operation indicating that leachate testing of benzo(a)pyrene is not required as it does not pose a risk to human receptors on the site.
- Based on the data obtained in this PSI Assessment, the proposed development construction activities and proposed site use to not change the existing ecological risk posed by the site and the existing CoC's that are present on the site.

Summary of Findings and Conclusion

The assessment and reporting on the site has been completed in accordance with the at City of Newcastle requirements and the general requirements of the State Environmental Planning Policy No. 55 (SEPP55). All reporting has been undertaken in accordance with the *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines (NSW EPA 2020)* and the *Guidelines for the NSW State Auditor Scheme (NSW EPA 3rd Ed 2017)*.

Data assembled on the site indicate that there is a low chance of potential risk of exposure of CoC's to human receptors at the time of assessment.

This Environmental Site Assessment concludes that the site is considered suitable for the intended land use as per the recommendations that are listed above in Section 7 and is consistent with the *National Environmental Protection Council (NEPC) National Environmental Protection (Assessment of Site Contamination) Measure (NEPM 2013) – Schedule B1, Table 1A(1), Column D – Commercial / Industrial* and that the site assessment objectives of this report have been achieved with Remediation or Environmental Management of the site not required for the proposed development.

15 ASSUMPTIONS AND LIMITATIONS

It is the nature of contaminated site investigations that the degree of variability in site conditions cannot be known completely and no sampling and analysis program can eliminate all uncertainty concerning the condition of the site. Professional judgement must be exercised in the collection and interpretation of the data.

In preparing this assessment, current guidelines for assessment and management of contaminated land were followed. This work has been conducted in good faith in accordance with Sanko's understanding of the client's brief and general accepted practice for environmental consulting.

This assessment was prepared with the objective of providing guidance on the remediation and validation activities to be undertaken. No warranty, expressed or implied, is made as to the information and professional advice included in this report. Anyone using this document does so at their own risk and should satisfy themselves concerning the applicability of its application and where necessary should seek expert advice in relation to the particular situation.

If you have any further questions about this report, please contact the undersigned.

For and on behalf of
Sanko Excavation Environmental and Civil Services P/L



Damien Sankowsky *BE(Env)*
Principal Environmental Engineer
Australian Geomechanics Society (AGS) Member – EA ID 5879317

Attachments:

- *References*
- *Report Limitations*
- *Site Photographs*
- *Historical Aerial Photographs*
- *Figure 1 – Site Location*
- *Figure 2 – Proposed Development*
- *Figure 3 – Borehole Locations*
- *Figure 4 – Geology Map*
- *Figure 5 – Acid Sulfate Soil Map*
- *Log Explanation Sheets*
- *Engineering Borehole Logs (5X BH's)*
- *Laboratory Testing Summary Table*
- *Laboratory Test Results*
- *Architectural Drawings*

References:

- *NEPC National Environmental Protection Measures NEPM (2013)*
- *Guidelines for Consultants Reporting on Contaminated Land (NSW EPA 2020)*
- *NSW EPA Contaminated Land Guidelines – Sampling Design Part 1 – Application (2022)*
- *NSW EPA Waste Classification Guideline, Part 1: Classifying Waste*
- *NSW EPA Guidelines for the NSW Site Auditor Scheme (3rd edition)*
- *Guidelines for the Assessment and Management of Groundwater Contamination (DECC 2007)*
- *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (DECC 2009)*
- *Site Validation Reporting (DECCW 2010b)*
- *Decommissioning, Abandonment and Removal of UPSS Infrastructure (DECWW 2010)*
- *SHADE Design Drawings Project Number 2253 Rev D dated 22/11/2024*



Excavation Environmental & Civil Services P/L • Environmental and Geotechnical Engineering

REPORT LIMITATIONS

Sanko Excavation Environmental and Civil Service Pty Ltd have undertaken a site assessment in accordance with current industry and professional standards. The scope of works were limited to that as set out in the proposal as referred to in this investigation. This report is based upon limited site investigation and subsurface sampling and laboratory testing of samples as set out in the forementioned proposal. Report findings are based upon site conditions at the time of investigation and as such can not be relied upon for unqualified warranties or assume liability for site conditions not observed and/or accessible during or at the time of investigation. The works are restricted to the site detailed in the report with no offsite investigations conducted. Despite all reasonable care and diligence taken ground conditions encountered and contaminant concentrations may not represent conditions between sample locations. Site characteristics may also change subsequent to this investigation due to natural processes, chemical reactions, spilling or leaking of contaminants, change in water levels or dumping of fill. All observations and interpretation is made from a limited number of observation points assuming geological and chemical conditions are representative across the site. No other warranties are made or intended. Third parties should seek their own independent advice regarding report contents. This report has been prepared exclusively for the client as detailed on the report and remains the property of this company and the client and can not be reproduced without the written consent of the client as detailed on the report and can then only be reproduced in its entirety.



Access to site on southern corner



Southern corner with rubbish and transportable buildings



Site Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



Rubbish on the site



Central portion of the site looking south



Northern portion of the site looking north

Site Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



Road and embankment to the west



Surface of the site



Centre of the site looking east at former BHP Operations Area and current coal loading operations

Site Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



1944



1954

Historical Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025

E24 091-AR1



1965



1974

Historical Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



1984



1994

Historical Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



2005



2013

Historical Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



2021



2025

Historical Photographs

PSI

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025

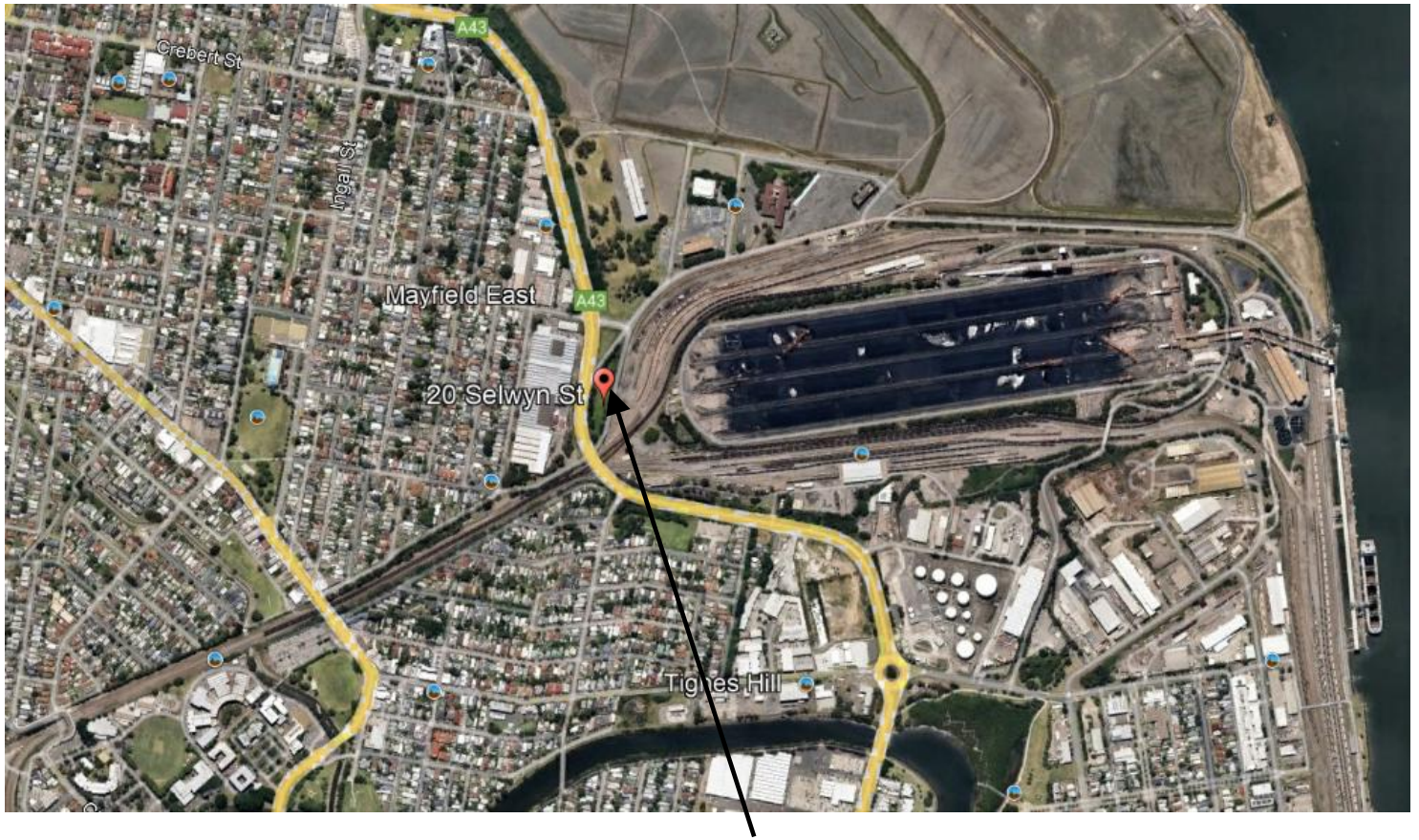


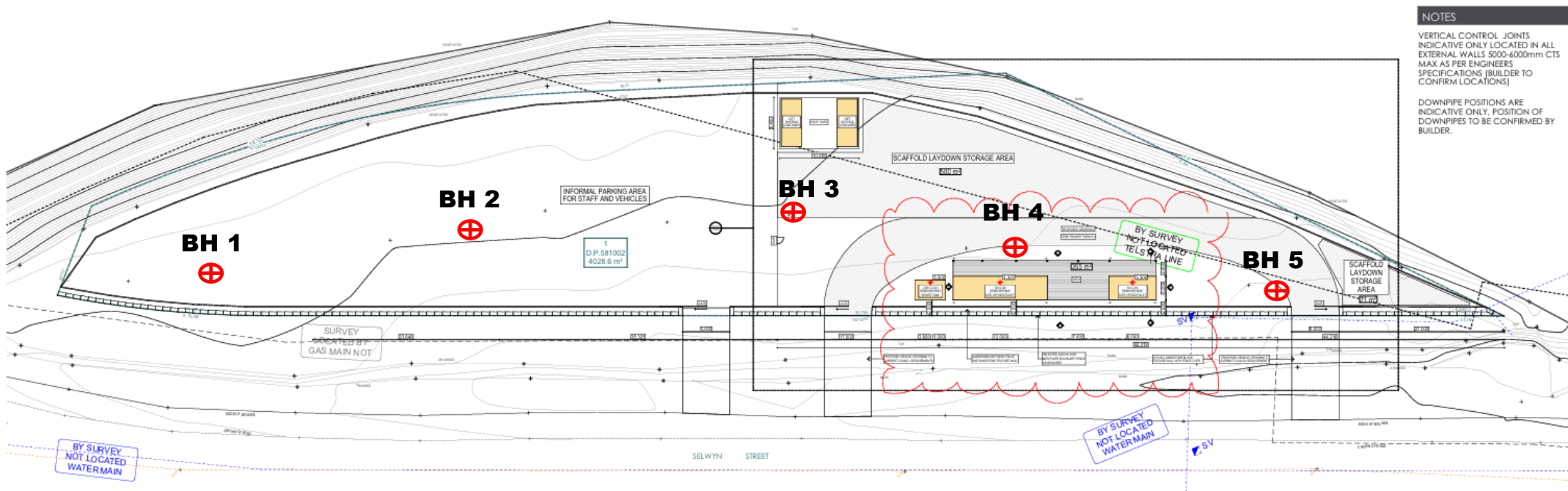
FIGURE 1 – SITE LOCATION

PRELIMINARY ENVIRONMENTAL SITE INVESTIGATION

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025





NOTES

VERTICAL CONTROL JOINTS INDICATIVE ONLY LOCATED IN ALL EXTERNAL WALLS 5000-6000mm CTS MAX AS PER ENGINEERS SPECIFICATIONS (BUILDER TO CONFIRM LOCATIONS)

DOWNSPIPE POSITIONS ARE INDICATIVE ONLY. POSITION OF DOWNSPIPES TO BE CONFIRMED BY BUILDER.

FIGURE 2 – PROPOSED DEVELOPMENT

PRELIMINARY ENVIRONMENTAL SITE INVESTIGATION

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025

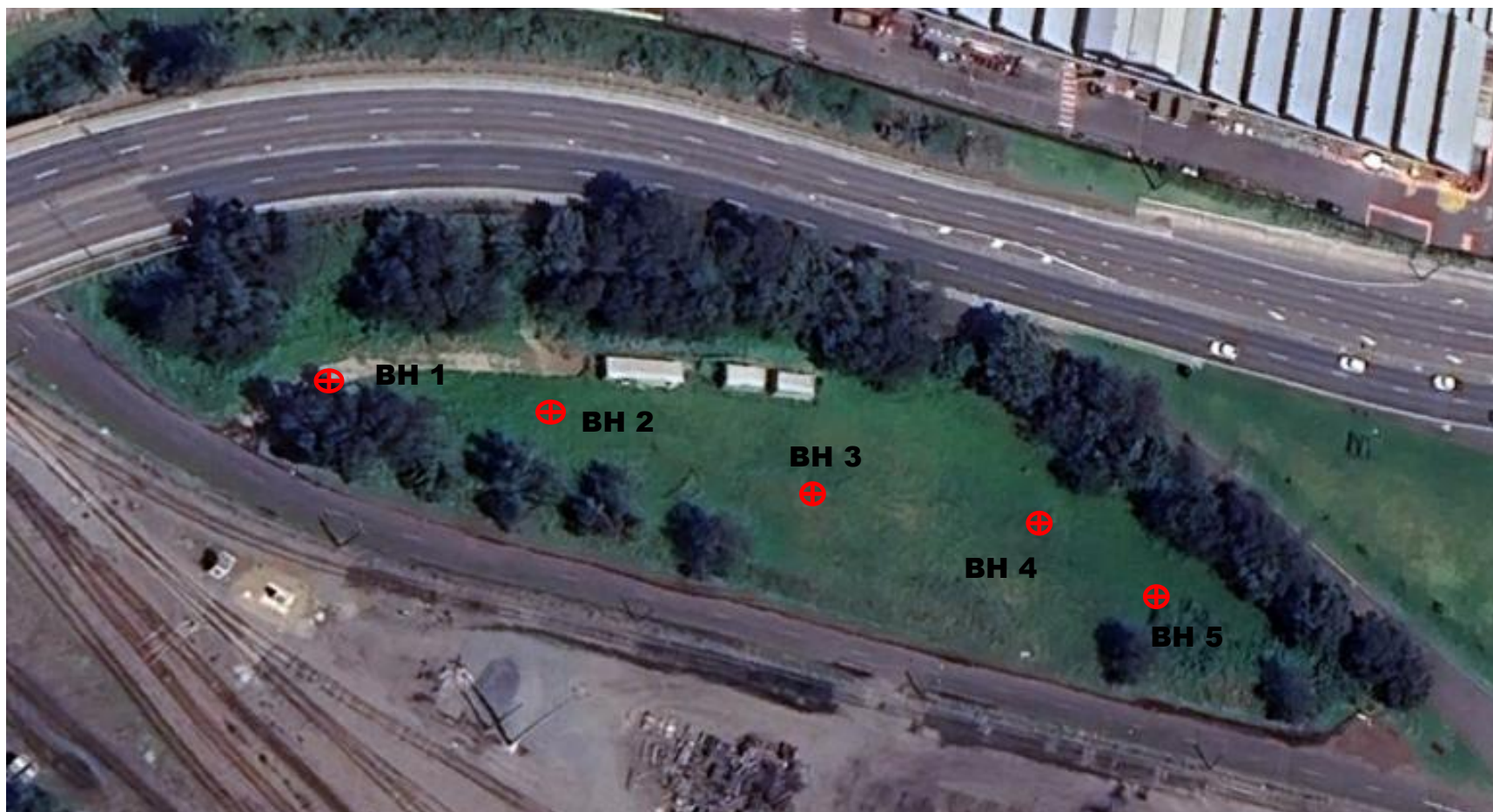


FIGURE 3 – BOREHOLE LOCATIONS

PRELIMINARY ENVIRONMENTAL SITE INVESTIGATION

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025

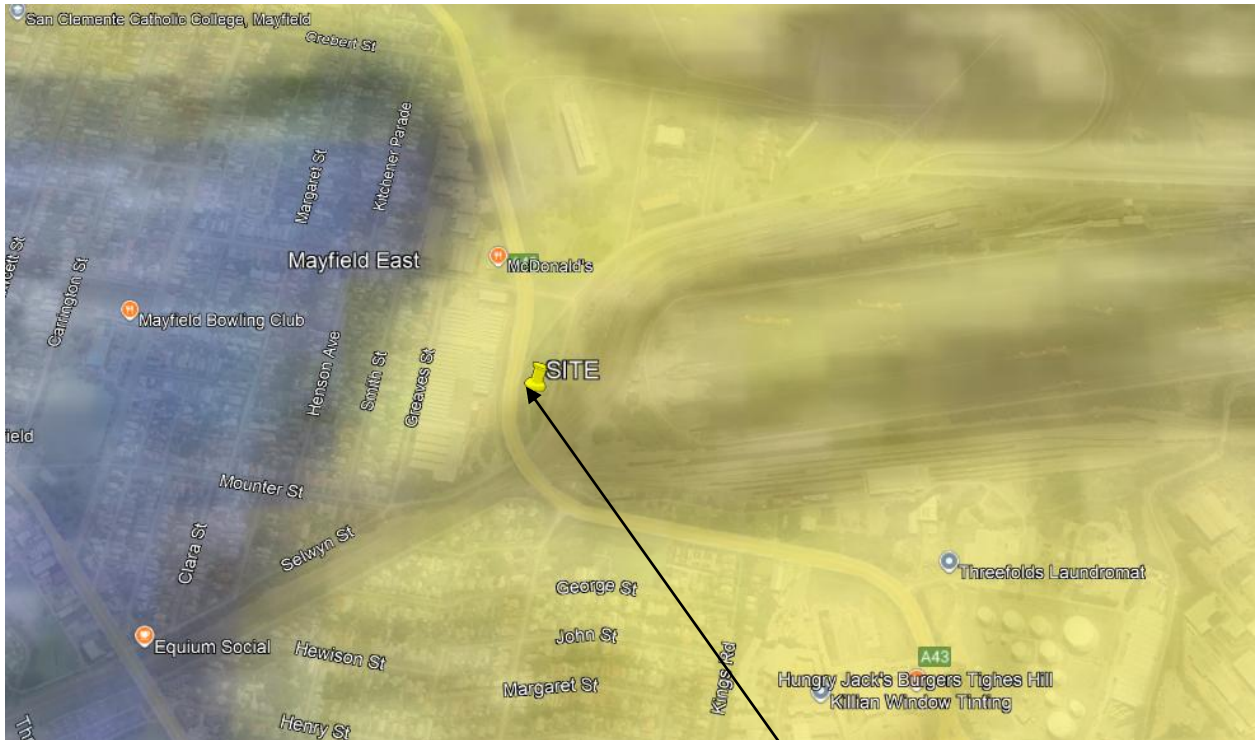
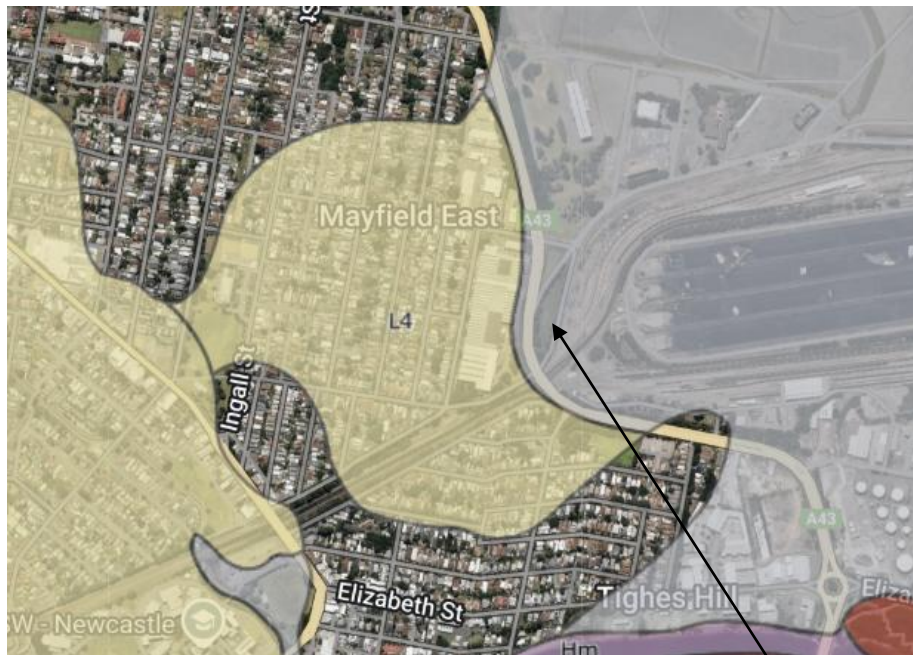


FIGURE 4 - GEOLOGY MAP OF SITE



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FIGURE 5 – ASS RISK MAP OF SITE

Site Location

PRELIMINARY ENVIRONMENTAL SITE INVESTIGATION

20 SELWYN STREET, MAYFIELD EAST, NSW

FEB 2025



DEFINITION:

In engineering terms soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL & SOIL NAME

Soils are described in accordance with the Unified Soil Classification (UCS) as shown in the table on Sheet 2.

PARTICLE SIZE DESCRIPTIVE TERMS

NAME	SUBDIVISION	SIZE
Boulders		>200 mm
Cobbles		63 mm to 200 mm
Gravel	coarse	20 mm to 63 mm
	medium	6 mm to 20 mm
	fine	2.36 mm to 6 mm
Sand	coarse	600 µm to 2.36 mm
	medium	200 µm to 600 µm
	fine	75 µm to 200 µm

MOISTURE CONDITION

- Dry** Looks and feels dry. Cohesive and cemented soils are hard, friable or powdery. Uncemented granular soils run freely through hands.
- Moist** Soil feels cool and darkened in colour. Cohesive soils can be moulded. Granular soils tend to cohere.
- Wet** As for moist but with free water forming on hands when handled.

CONSISTENCY OF COHESIVE SOILS

TERM	UNDRAINED STRENGTH S_u (kPa)	FIELD GUIDE
Very Soft	<12	A finger can be pushed well into the soil with little effort.
Soft	12 - 25	A finger can be pushed into the soil to about 25mm depth.
Firm	25 - 50	The soil can be indented about 5mm with the thumb, but not penetrated.
Stiff	50 - 100	The surface of the soil can be indented with the thumb, but not penetrated.
Very Stiff	100 - 200	The surface of the soil can be marked, but not indented with thumb pressure.
Hard	>200	The surface of the soil can be marked only with the thumbnail.
Friable	-	Crumbles or powders when scraped by thumbnail.

DENSITY OF GRANULAR SOILS

TERM	DENSITY INDEX (%)
Very loose	Less than 15
Loose	15 - 35
Medium Dense	35 - 65
Dense	65 - 85
Very Dense	Greater than 85

MINOR COMPONENTS

TERM	ASSESSMENT GUIDE	PROPORTION OF MINOR COMPONENT IN:
Trace of	Presence just detectable by feel or eye, but soil properties little or no different to general properties of primary component.	Coarse grained soils: <5% Fine grained soils: <15%
With some	Presence easily detected by feel or eye, soil properties little different to general properties of primary component.	Coarse grained soils: 5 - 12% Fine grained soils: 15 - 30%

SOIL STRUCTURE

ZONING	CEMENTING
Layers Continuous across exposure or sample.	Weakly cemented Easily broken up by hand in air or water.
Lenses Discontinuous layers of lenticular shape.	Moderately cemented Effort is required to break up the soil by hand in air or water.
Pockets Irregular inclusions of different material.	

GEOLOGICAL ORIGIN**WEATHERED IN PLACE SOILS**

- Extremely weathered material Structure and fabric of parent rock visible.
- Residual soil Structure and fabric of parent rock not visible.

TRANSPORTED SOILS

- Aeolian soil Deposited by wind.
- Alluvial soil Deposited by streams and rivers.
- Colluvial soil Deposited on slopes (transported downslope by gravity).
- Fill Man made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.
- Lacustrine soil Deposited by lakes.
- Marine soil Deposited in ocean basins, bays, beaches and estuaries.

SOIL DESCRIPTION EXPLANATION SHEET 1/2

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 60 mm and basing fractions on estimated mass)				USC	PRIMARY NAME	
COARSE GRAINED SOILS More than 50% of materials less than 63 mm is larger than 0.075 mm	GRAVELS More than half of coarse fraction is larger than 2.0 mm	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.	GW	GRAVEL	
			Predominantly one size or a range of sizes with more intermediate sizes missing.	GP	GRAVEL	
		GRAVELS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below)	GM	SILTY GRAVEL	
			Plastic fines (for identification procedures see CL below)	GC	CLAYEY GRAVEL	
	SANDS More than half of coarse fraction is smaller than 2.0 mm	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate sizes missing	SW	SAND	
			Predominantly one size or a range of sizes with some intermediate sizes missing.	SP	SAND	
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).	SM	SILTY SAND	
			Plastic fines (for identification procedures see CL below).	SC	CLAYEY SAND	
FINE GRAINED SOILS More than 50% of material less than 63 mm is smaller than 0.075 mm (A 0.075 mm particle is about the smallest particle visible to the naked eye)	IDENTIFICATION PROCEDURES ON FRACTIONS <0.2 mm.					
		DRY STRENGTH	DILATANCY	TOUGHNESS		
	SILTS & CLAYS Liquid limit less than 50	None to Low	Quick to slow	None	ML	SILT
		Medium to High	None	Medium	CL	CLAY
		Low to medium	Slow to very slow	Low	OL	ORGANIC SILT
	SILTS & CLAYS Liquid limit greater than 50	Low to medium	Slow to very slow	Low to medium	MH	SILT
		High	None	High	CH	CLAY
		Medium to High	None	Low to medium	OH	ORGANIC CLAY
HIGHLY ORGANIC SOILS	Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			PI	PEAT	
• Low plasticity - Liquid Limit W _L less than 35%. • Medium plasticity - W _L between 35% and 50%.						

• Low plasticity – Liquid Limit W_L less than 35%. • Medium plasticity – W_L between 35% and 50%.

COMMON DEFECTS IN SOIL

TERM	DEFINITION	DIAGRAM	TERM	DEFINITION	DIAGRAM
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (eg bedding). May be open or closed.		SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.	
JOINT	A surface or crack across which the soil has little or no tensile strength but which is not parallel or sub parallel to layering. May be open or closed. The term 'fissure' may be used for irregular joints <0.2 m in length.		TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter	
SHEARED ZONE	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting joints which divide the mass into lenticular or wedge shaped blocks.		TUBE CAST	Roughly cylindrical elongated body of soil different from the soil mass in which it occurs. In some cases the soil which makes up the tube cast is cemented.	
SHEARED SURFACE	A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.		INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open joints.	

72810 / 07-06

SOIL DESCRIPTION EXPLANATION SHEET 2/2

LOCATION: 20 SELWYN ST, MAYFIELD EAST, NSW JOB NUMBER: E24 091 DATE: 20/01/2025 MACHINE / LOGGED BY: HAND AUGER / DS		
BH - 1		
DEPTH (m BGL)	MATERIAL PROPERTIES	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0 – 0.1	GRAVEL; Coarse grained, recycled crushed concrete	RECYCLED CONCRETE ACCESS TRACK
0.1 – 0.4	Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet	FILL
0.5 – 1.2+	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft	ALLUVIAL
BOREHOLE 1 TERMINATED AT 1.2m (Limit Of Investigation) SEEPAGE ENCOUNTERED @ 1.0m		

LOCATION: 20 SELWYN ST, MAYFIELD EAST, NSW JOB NUMBER: E24 091 DATE: 20/01/2025 MACHINE / LOGGED BY: HAND AUGER / DS		
BH - 2		
DEPTH (m BGL)	MATERIAL PROPERTIES	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0 – 0.4	Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet	FILL
0.4 – 1.2+	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft	ALLUVIAL
BOREHOLE 2 TERMINATED AT 1.2m (Limit Of Investigation) SEEPAGE ENCOUNTERED @ 0.9m		

LOCATION: 20 SELWYN ST, MAYFIELD EAST, NSW JOB NUMBER: E24 091 DATE: 20/01/2025 MACHINE / LOGGED BY: HAND AUGER / DS		
BH - 3		
DEPTH (m BGL)	MATERIAL PROPERTIES	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0 – 0.5	Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet	FILL
0.5 – 1.2+	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft	ALLUVIAL
BOREHOLE 3 TERMINATED AT 1.2m (Limit Of Investigation) SEEPAGE ENCOUNTERED @ 0.9m		

LOCATION: 20 SELWYN ST, MAYFIELD EAST, NSW JOB NUMBER: E24 091 DATE: 20/01/2025 MACHINE / LOGGED BY: HAND AUGER / DS		
BH - 4		
DEPTH (m BGL)	MATERIAL PROPERTIES	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0 – 0.5	Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet	FILL
0.5 – 1.2+	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft	ALLUVIAL
BOREHOLE 4 TERMINATED AT 1.2m (Limit Of Investigation) SEEPAGE ENCOUNTERED @ 0.9m		

LOCATION: 20 SELWYN ST, MAYFIELD EAST, NSW JOB NUMBER: E24 091 DATE: 20/01/2025 MACHINE / LOGGED BY: HAND AUGER / DS		
BH - 5		
DEPTH (m BGL)	MATERIAL PROPERTIES	STRUCTURE AND ADDITIONAL OBSERVATIONS
0.0 – 0.5	Sandy Gravelly CLAY; low plasticity, black, fine to medium grained gravel, fine to coarse sand, wet	FILL
0.5 – 1.2+	Sandy CLAY; medium to high plasticity, dark grey, fine sand, M>Wp, soft	ALLUVIAL
BOREHOLE 5 TERMINATED AT 1.2m (Limit Of Investigation) SEEPAGE ENCOUNTERED @ 0.9m		

RESULTS TABLE - SOIL

Sample	PQL	GUIDELINES*										BH1	BH1	BH2	BH3	BH4	BH4	BH5	dup			
Depth		HSL D ^a					ESL C&I ^b		NS ML ^c		DC D ^Δ	0.0	0.6	0.1	0.1	0.0	1.0	1.0	2/0.1			
Date		Sand 0<1	Silt 0<1	Silt 1-2	Silt 2-4	Silt >4	Coarse	Fine	Coarse	Fine		20/01	20/01	20/01	20/01	20/01	20/01	20/01	20/01			
Material Profile												G	SC	SC	SC	SC	SC	SC	SC	SC		
Strata												Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt	Silt		
BTEX																						
Benzene	0.2	3	4	4	6	10	75	95			430	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Toluene	0.5	NL	NL	NL	NL	NL	135	135			99K	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Ethylbenzene	0.5	NL	NL	NL	NL	NL	165	185			27K	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
m&p Xylene	0.5											BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Ortho-xylene	0.5											BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Total Xylene	3	230	NL	NL	NL	NL	180	95			61K	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
PAH																						
Naphthalene	1	NL	NL	NL	NL	NL	370	370			11K											
TRH																						
C6-10	10								700	800	26K	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
C>10-16	50						170	170	1000	1000	20K	BDL	BDL	62	BDL	BDL	BDL	BDL	BDL			
C>16-34	100						1700	2500	3500	5000	27K	190	140	170	2800	BDL	120	BDL	BDL			
C>34-40	100						3300	6600	10000	10000	30K	BDL	BDL	BDL	2400	BDL	BDL	BDL	BDL			
F1	10	260	250	360	590	NL	215	215				BDL	140	BDL	BDL	BDL	BDL	BDL	BDL			
F2	50	NL	NL	NL	NL	NL						BDL	BDL	62	BDL	BDL	BDL	BDL	BDL			

BDL Denotes Below Detection Limits All units in mg/kg **NL** Denotes Not Limited as vapour considered not a risk for this compound

* Guidelines from NEMP 1999 (Amended 2013)

[^] DC D from CRC Care TR10 2011 – Direct Contact (DC) ‘D’ (Commercial/Industrial)

^a Vapour Based Health Screening Levels (HSL’s) ‘D’ - Commercial and Industrial - **Bold RED** exceeds guidelines

^b ESL C&I from Ecological Screening Levels - Commercial and Industrial (C&I) - **RED** exceeds guidelines

^c NS ML Management Limits of Non Sensitive Sites – Commercial and Industrial – **Italic RED** exceeds guidelines

RESULTS TABLE - SOIL

Sample	PQL	Guidelines *		BH1	BH1	BH2	BH3	BH4	BH4	BH5	dup		
Depth		HIL 'D' ^e	ESL C&I ^f	0.0	0.6	0.1	0.1	0.0	1.0	1.0	2/0.1		
Date				20/01	20/01	20/01	20/01	20/01	20/01	20/01	20/01	20/01	
Profile				SC	SC	SC	SC	SC	SC	SC	SC		
PAH													
Naphthalene	0.5		370	0.2	0.1	BDL	BDL	BDL	BDL	BDL	BDL		
Acenaphthylene	0.5			0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Acenaphthene	0.5			0.4	0.5	BDL	BDL	BDL	BDL	BDL	BDL		
Fluorene	0.5			0.4	0.4	BDL	BDL	BDL	BDL	BDL	BDL		
Phenanthrene	0.5			6.9	7.1	0.8	BDL	0.4	BDL	0.2	0.9		
Anthracene	0.5			1.3	1.3	0.2	BDL	BDL	BDL	BDL	0.2		
Fluoranthene	0.5			12	10	1.5	BDL	1	BDL	0.6	1.9		
Pyrene	0.5			11	9	1.4	0.1	1	BDL	0.5	1.8		
Benzo(a)anthracene	0.5			5.1	3.9	0.6	BDL	0.4	BDL	0.3	0.8		
Chrysene	0.5			5.2	3.9	0.7	BDL	0.4	BDL	0.2	0.6		
Benzo(b,j+k)fluoranthene	1			8.5	6.1	1	BDL	0.8	BDL	0.4	1		
Benzo(a)pyrene	0.5	40	0.7	6.0	4.0	0.72	0.2	0.5	BDL	0.3	0.74		
Indeno(1,2,3-c,d)pyrene	0.5			3.1	2.2	0.4	BDL	0.3	BDL	0.1	0.4		
Dibenzo(a,h) anthracene	0.5			1.0	0.7	0.1	0.1	BDL	BDL	BDL	0.1		
Benzo(g,h,i)perylene	0.5			4.0	2.8	0.6	0.4	0.4	BDL	0.2	0.5		
Total +PAH	0.5	4000		66	52	8.2	0.89	5.2	BDL	2.8	9.2		
METALS													
Arsenic	5	3000	160	4	5	<4	<4	<4	9	<4	<4		
Cadmium	1	900		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4		
Chromium	2	3600	310	11	10	46	4	25	11	39	29		
Copper	5	240K	400	49	28	40	13	29	3	36	46		
Lead	5	1500	1800	57	34	59	10	36	14	29	180		
Mercury	0.1	730		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Nickel	2	6000	55	7	6	6	5	6	3	8	11		
Zink	5	400K	360	170	65	160	100	220	22	240	280		

* Guidelines from NEMP 1999 (Amended 2013) Results in **Red BOLD** exceed HIL Guideline Levels and Results in **Red** exceed HIL Guideline Levels

^e HIL - Health Investigation Levels 'D' Commercial and Industrial ^f ESL C&I from Ecological Screening Levels - Commercial and Industrial (C&I)

CERTIFICATE OF ANALYSIS 371772

Client Details

Client	Sanko excavation Environmental & Civil Services
Attention	Damien Sankowsky
Address	76 Wollombi Rd, Millfield, NSW, 2325

Sample Details

Your Reference	<u>E24 091-20 Selwyn St Mayfield West</u>
Number of Samples	8 Soil
Date samples received	31/01/2025
Date completed instructions received	31/01/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
 Samples were analysed as received from the client. Results relate specifically to the samples as received.
 Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	07/02/2025
Date of Issue	07/02/2025
NATA Accreditation Number 2901. This document shall not be reproduced except in full.	
Accredited for compliance with ISO/IEC 17025 - Testing. Tests not covered by NATA are denoted with *	

Results Approved By

Dragana Tomas, Senior Chemist
 Giovanni Agosti, Group Technical Manager
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil

Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025	04/02/2025	04/02/2025
TRH C ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25	<25	<25
vTRH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	100	103	97	104	102

vTRH(C6-C10)/BTEXN in Soil

Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025
TRH C ₆ - C ₉	mg/kg	<25	<25	<25
TRH C ₆ - C ₁₀	mg/kg	<25	<25	<25
vTRH C ₆ - C ₁₀ less BTEX (F1)	mg/kg	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	108	107	100

svTRH (C10-C40) in Soil						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025	05/02/2025	05/02/2025
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	55	<500	<50
TRH C ₁₅ - C ₂₈	mg/kg	120	110	110	1,300	<100
TRH C ₂₉ - C ₃₆	mg/kg	<100	<100	110	2,400	<100
Total +ve TRH (C10-C36)	mg/kg	120	110	270	3,700	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	62	<500	<50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	62	<500	<50
TRH >C ₁₆ -C ₃₄	mg/kg	190	140	170	2,800	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100	2,400	<100
Total +ve TRH (>C10-C40)	mg/kg	190	140	230	5,100	<50
Surrogate o-Terphenyl	%	92	91	93	#	88

svTRH (C10-C40) in Soil				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025
TRH C ₁₀ - C ₁₄	mg/kg	<50	<50	<50
TRH C ₁₅ - C ₂₈	mg/kg	<100	<100	<100
TRH C ₂₉ - C ₃₆	mg/kg	110	<100	<100
Total +ve TRH (C10-C36)	mg/kg	110	<50	<50
TRH >C ₁₀ -C ₁₆	mg/kg	<50	<50	<50
TRH >C ₁₀ -C ₁₆ less Naphthalene (F2)	mg/kg	<50	<50	<50
TRH >C ₁₆ -C ₃₄	mg/kg	120	<100	<100
TRH >C ₃₄ -C ₄₀	mg/kg	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	120	<50	<50
Surrogate o-Terphenyl	%	85	83	87

PAHs in Soil						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025	05/02/2025	06/02/2025
Naphthalene	mg/kg	0.2	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.4	0.5	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.4	0.4	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	6.9	7.1	0.8	<0.1	0.4
Anthracene	mg/kg	1.3	1.3	0.2	<0.1	<0.1
Fluoranthene	mg/kg	12	10	1.5	<0.1	1
Pyrene	mg/kg	11	9.0	1.4	0.1	1.0
Benzo(a)anthracene	mg/kg	5.1	3.9	0.6	<0.5	0.4
Chrysene	mg/kg	5.2	3.9	0.7	<0.5	0.4
Benzo(b,j+k)fluoranthene	mg/kg	8.5	6.1	1	<0.2	0.8
Benzo(a)pyrene	mg/kg	6.0	4.0	0.72	0.2	0.5
Indeno(1,2,3-c,d)pyrene	mg/kg	3.1	2.2	0.4	<0.1	0.3
Dibenzo(a,h)anthracene	mg/kg	1.0	0.7	0.1	0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	4.0	2.8	0.6	0.4	0.4
Total +ve PAH's	mg/kg	66	52	8.2	0.89	5.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	8.8	5.9	1.1	<0.5	0.6
Benzo(a)pyrene TEQ calc(half)	mg/kg	8.8	5.9	1.1	<0.5	0.7
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	8.8	5.9	1.1	<0.5	0.7
Surrogate p-Terphenyl-d14	%	99	98	98	94	115

PAHs in Soil				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	06/02/2025	06/02/2025	06/02/2025
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.2	0.9
Anthracene	mg/kg	<0.1	<0.1	0.2
Fluoranthene	mg/kg	<0.1	0.6	1.9
Pyrene	mg/kg	<0.1	0.6	1.8
Benzo(a)anthracene	mg/kg	<0.1	0.3	0.8
Chrysene	mg/kg	<0.1	0.2	0.6
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	0.4	1
Benzo(a)pyrene	mg/kg	<0.05	0.3	0.74
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.1	0.4
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.2	0.6
Total +ve PAH's	mg/kg	<0.05	2.8	9.2
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	1.1
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	1.1
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	1.1
Surrogate <i>p</i> -Terphenyl-d14	%	112	120	124

Organochlorine Pesticides in soil						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025	05/02/2025	06/02/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	125	123	128	108	105

Organochlorine Pesticides in soil				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	06/02/2025	06/02/2025	06/02/2025
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	103	101	104

Organophosphorus Pesticides in Soil						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025	05/02/2025	06/02/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	125	123	128	108	105

Organophosphorus Pesticides in Soil				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	06/02/2025	06/02/2025	06/02/2025
Dichlorvos	mg/kg	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	103	101	104

PCBs in Soil						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	05/02/2025	05/02/2025	05/02/2025	05/02/2025	06/02/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	97	96	99	83	102

PCBs in Soil				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date extracted	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	06/02/2025	06/02/2025	06/02/2025
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	100	97	100

Acid Extractable metals in soil

Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025	04/02/2025	04/02/2025
Arsenic	mg/kg	4	5	<4	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	mg/kg	11	10	46	4	25
Copper	mg/kg	49	28	40	13	29
Lead	mg/kg	57	34	59	10	36
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	mg/kg	7	6	6	5	6
Zinc	mg/kg	170	65	160	100	220

Acid Extractable metals in soil

Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date prepared	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025
Arsenic	mg/kg	9	<4	<4
Cadmium	mg/kg	<0.4	<0.4	<0.4
Chromium	mg/kg	11	39	29
Copper	mg/kg	3	36	46
Lead	mg/kg	14	29	180
Mercury	mg/kg	<0.1	<0.1	<0.1
Nickel	mg/kg	3	8	11
Zinc	mg/kg	22	240	280

Moisture						
Our Reference		371772-1	371772-2	371772-3	371772-4	371772-5
Your Reference	UNITS	BH1	BH1	BH2	BH3	BH4
Depth		0.0	0.6	0.1	0.1	0.0
Date Sampled		20/01/2025	20/01/2025	20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	03/02/2025	03/02/2025	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025	04/02/2025	04/02/2025
Moisture	%	37	18	38	18	28

Moisture				
Our Reference		371772-6	371772-7	371772-8
Your Reference	UNITS	BH4	BH5	Dup
Depth		1.0	1.0	-
Date Sampled		20/01/2025	20/01/2025	20/01/2025
Type of sample		Soil	Soil	Soil
Date prepared	-	03/02/2025	03/02/2025	03/02/2025
Date analysed	-	04/02/2025	04/02/2025	04/02/2025
Moisture	%	18	19	27

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.

Method ID	Methodology Summary
Org-022/025	<p>Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.</p> <p>For soil results:-</p> <ol style="list-style-type: none"> 1. 'EQ PQL' values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero' values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL' values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. <p>Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.</p>
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	<p>Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.</p> <p>Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.</p>

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			04/02/2025	1	04/02/2025	04/02/2025		04/02/2025	04/02/2025
TRH C ₆ - C ₉	mg/kg	25	Org-023	<25	1	<25	<25	0	115	106
TRH C ₆ - C ₁₀	mg/kg	25	Org-023	<25	1	<25	<25	0	115	106
Benzene	mg/kg	0.2	Org-023	<0.2	1	<0.2	<0.2	0	108	100
Toluene	mg/kg	0.5	Org-023	<0.5	1	<0.5	<0.5	0	114	105
Ethylbenzene	mg/kg	1	Org-023	<1	1	<1	<1	0	117	108
m+p-xylene	mg/kg	2	Org-023	<2	1	<2	<2	0	117	108
o-Xylene	mg/kg	1	Org-023	<1	1	<1	<1	0	122	113
Naphthalene	mg/kg	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	110	1	100	99	1	113	108

QUALITY CONTROL: svTRH (C10-C40) in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			05/02/2025	1	05/02/2025	05/02/2025		05/02/2025	05/02/2025
TRH C ₁₀ - C ₁₄	mg/kg	50	Org-020	<50	1	<50	72	36	96	88
TRH C ₁₅ - C ₂₈	mg/kg	100	Org-020	<100	1	120	240	67	91	101
TRH C ₂₉ - C ₃₆	mg/kg	100	Org-020	<100	1	<100	180	57	114	71
TRH >C ₁₀ -C ₁₆	mg/kg	50	Org-020	<50	1	<50	83	50	96	88
TRH >C ₁₆ -C ₃₄	mg/kg	100	Org-020	<100	1	190	360	62	91	101
TRH >C ₃₄ -C ₄₀	mg/kg	100	Org-020	<100	1	<100	180	57	114	71
Surrogate o-Terphenyl	%		Org-020	87	1	92	102	10	87	91

QUALITY CONTROL: PAHs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			07/02/2025	1	05/02/2025	05/02/2025		05/02/2025	05/02/2025
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	0.1	67	86	82
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	1	0.2	<0.1	67	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	0.1	120	84	81
Fluorene	mg/kg	0.1	Org-022/025	<0.1	1	0.4	0.1	120	82	79
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	1	6.9	2.3	100	82	#
Anthracene	mg/kg	0.1	Org-022/025	<0.1	1	1.3	0.6	74	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	1	12	6.0	67	88	77
Pyrene	mg/kg	0.1	Org-022/025	<0.1	1	11	5.5	67	88	#
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	5.1	2.6	65	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	1	5.2	2.7	63	106	102
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	1	8.5	4.6	60	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	1	6.0	3.1	64	92	94
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	1	3.1	1.7	58	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	1	1.0	0.6	50	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	1	4.0	2.2	58	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	100	1	99	95	4	84	81

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			07/02/2025	1	05/02/2025	05/02/2025		05/02/2025	05/02/2025
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	90
HCB	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	84	82
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	92
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	96	80
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	86
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	86	86
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	94	86
Endrin	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	94
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	98	94
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	92	90
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	121	1	125	129	3	121	122

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			07/02/2025	1	05/02/2025	05/02/2025		05/02/2025	05/02/2025
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	104	108
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	88	86
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	124	140
Malathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	110	110
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	90	90
Fenthion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	120	126
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	102	106
Phosalone	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	121	1	125	129	3	121	122

QUALITY CONTROL: PCBs in Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	371772-2
Date extracted	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			07/02/2025	1	05/02/2025	05/02/2025		05/02/2025	05/02/2025
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	92	80
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	1	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	94	1	97	100	3	91	91

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	371772-2
Date prepared	-			03/02/2025	1	03/02/2025	03/02/2025		03/02/2025	03/02/2025
Date analysed	-			04/02/2025	1	04/02/2025	04/02/2025		04/02/2025	04/02/2025
Arsenic	mg/kg	4	Metals-020	<4	1	4	<4	0	100	92
Cadmium	mg/kg	0.4	Metals-020	<0.4	1	<0.4	<0.4	0	89	81
Chromium	mg/kg	1	Metals-020	<1	1	11	11	0	93	84
Copper	mg/kg	1	Metals-020	<1	1	49	46	6	93	91
Lead	mg/kg	1	Metals-020	<1	1	57	61	7	94	103
Mercury	mg/kg	0.1	Metals-021	<0.1	1	<0.1	<0.1	0	99	111
Nickel	mg/kg	1	Metals-020	<1	1	7	6	15	92	84
Zinc	mg/kg	1	Metals-020	<1	1	170	160	6	93	70

Result Definitions

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

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

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

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

Spikes for Physical and Aggregate Tests are not applicable.

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

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

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

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

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

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

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

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

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

Report Comments

PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of sample/s 371772-2ms.

PAHs in Soil - The PQL has been raised due to interferences from analytes (other than those being tested) in sample 371772-4.

PAHs in Soil - The RPD for duplicate results is accepted due to the non homogenous nature of sample/s 372772-1.

TRH Soil C10-C40 NEPM - The PQL for 371772-4 has been raised due to the sample matrix thereby requiring a dilution.

TRH Soil C10-C40 NEPM - # Percent recovery for the surrogate is not possible to report as the high concentration of analytes in sample 371772-4 have caused interference.



CHAIN OF CUSTODY - Client

ENVIROLAB GROUP - National phone number 1300 424 344

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

Perth Lab - MPL Laboratories
16-18 Mayden Crt Myaree, WA 6154
Ph: 08 9317 2503 / lab@mpl.com.au

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

Adelaide Office - EnviroLab Services
7a The Parade, Norwood, SA 5067
Ph: 08 7087 6800 / adelaide@envirolab.com.au

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

Darwin Office - EnviroLab Services
Unit 7, 17 Wilkes Rd, Berrimah, NT 0820
Ph: 08 8967 1201 / darwin@envirolab.com.au

Client Name: Seeco Excavation Environmental & Civil Services P/L

Contact Person: Damien Sankowdry

Project Name:

Sampler:

Address: 26 LEARMONTH ST, WILLOW TREE, NSW, 2339

0407 434 604

Phone:

Mob:

Email:

seecservices@hotmail.com

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

E24 091 - 20 SELWYN ST

PO No.:

MAYFIELD WEST

EnviroLab Quote No.:

17SY100C3

Date results required:

Or choose: standard / same day / 1 day / 2 day / 3 day

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

Additional report format: esdat / equls /

Lab Comments:

TKH/1670X/PAH/OCOP/4M8/PCB

Sample information

Tests Required

Comments

EnviroLab Sample ID	Client Sample ID or Information	Depth	Date sampled	Type of sample	Tests Required	Comments
1	BH1	0.0	20/1	soil soil		
2	BH1	0.6				
3	BH2	0.1				
4	BH3	0.1				
5	BH4	0.0				
6	BH4	1.0				
7	BH5	1.0				
8	DUP	-				

Relinquished by (Company): SMVCO

Print Name: D. SANKOWSKY

Date & Time: 23.1.25

Signature:

Received by (Company): ELS SYD

Print Name: Kathy Wayne

Date & Time: 31/01/25 1440

Signature:

Lab use only:

Samples Received: Cool or Ambient (circle one)

Temperature Received at: 8°C (if applicable)

Transported by: Hand delivered / courier

Issue date: 18 November 2016

Page 1 of 1

INVOICE DETAILS: JBC FAMILY NOMINEES PTY LTD
PO BOX 95, CANNINGTON NSW 1794

ATTN: ADAM JORDAN

SAMPLE RECEIPT ADVICE

Client Details

Client	Sanko excavation Environmental & Civil Services
Attention	Damien Sankowsky

Sample Login Details

Your reference	E24 091-20 Selwyn St Mayfield West
Envirolab Reference	371772
Date Sample Received	31/01/2025
Date Instructions Received	31/01/2025
Date Results Expected to be Reported	07/02/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	8 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

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

Invoice will be emailed separately. Results will be reported only if payment has been made. Details of analysis on the following page:



Envirolab Services Pty Ltd

ABN 37 112 535 645

12 Ashley St Chatswood NSW 2067

ph 02 9910 6200 fax 02 9910 6201

customerservice@envirolab.com.au

www.envirolab.com.au

Sample ID	VTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides In Soil	PCBs in Soil	Acid Extractable metals in soil
BH1-0.0	✓	✓	✓	✓	✓	✓	✓
BH1-0.6	✓	✓	✓	✓	✓	✓	✓
BH2-0.1	✓	✓	✓	✓	✓	✓	✓
BH3-0.1	✓	✓	✓	✓	✓	✓	✓
BH4-0.0	✓	✓	✓	✓	✓	✓	✓
BH4-1.0	✓	✓	✓	✓	✓	✓	✓
BH5-1.0	✓	✓	✓	✓	✓	✓	✓
Dup	✓	✓	✓	✓	✓	✓	✓

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

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Selwyn Street Industrial

Concept Design

Project Location:
20 Selwyn Street Mayfield East 2304

Client:
JBC Family Trust

Drawing Catalogue: (survey by others)

SK-000	Cover
SK-001	Site Analysis Plan
SK-002	Site Plan
SK-003	Site Plan 1:250
SK-004	Ground Floor Plan
SK-005	Roof Plan
SK-006	Elevations
SK-007	Elevations
SK-008	Section A-A



SUBJECT SITE - NTS



LOCATION - NTS

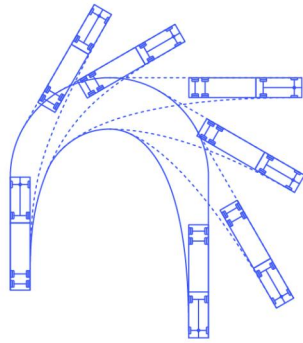
Site Information

Client	JBC Family Trust
Site Address	20 Selwyn Street Mayfield East 2304 Sec -, Lot 1, DP 581002, SP -
LGA	Newcastle
Land Zoning	SP1
Precinct	Limited
FSR/Site Coverage	NA
Maximum Height	NA
Flood Area	NA
Mine Subsidence Area	NA
Bushfire Area	NA
Heritage Area	NA

SHADE

e : info@shadedesign.net.au
m : 0412 879 643

Dimensions.Guide
Semi-Trailer Truck (40' WB) Turning Paths



DIAL 1100
BEFORE YOU DIG

NOTES:

- SETBACKS ARE APPROXIMATES ONLY & BASED OF CURRENT SURVEYORS DOCUMENTATION AT THE TIME OF BEING ISSUED TO THE DESIGNER WITH THE CONCEPT DESIGNS
- ALL SITE BOUNDARIES ARE TO BE CONFIRMED BY THE SURVEYOR PRIOR TO & DURING CONSTRUCTION
- ALL SETBACKS ARE TO BE CONFIRMED ON SITE BY THE SURVEYOR PRIOR TO & DURING CONSTRUCTION
- ANY SITE/SURVEY DISCREPANCIES ARE TO BE REPORTED TO SHADE DESIGN NEWCASTLE PTY LTD IMMEDIATELY

SURVEY BY OTHERS

NOTES:

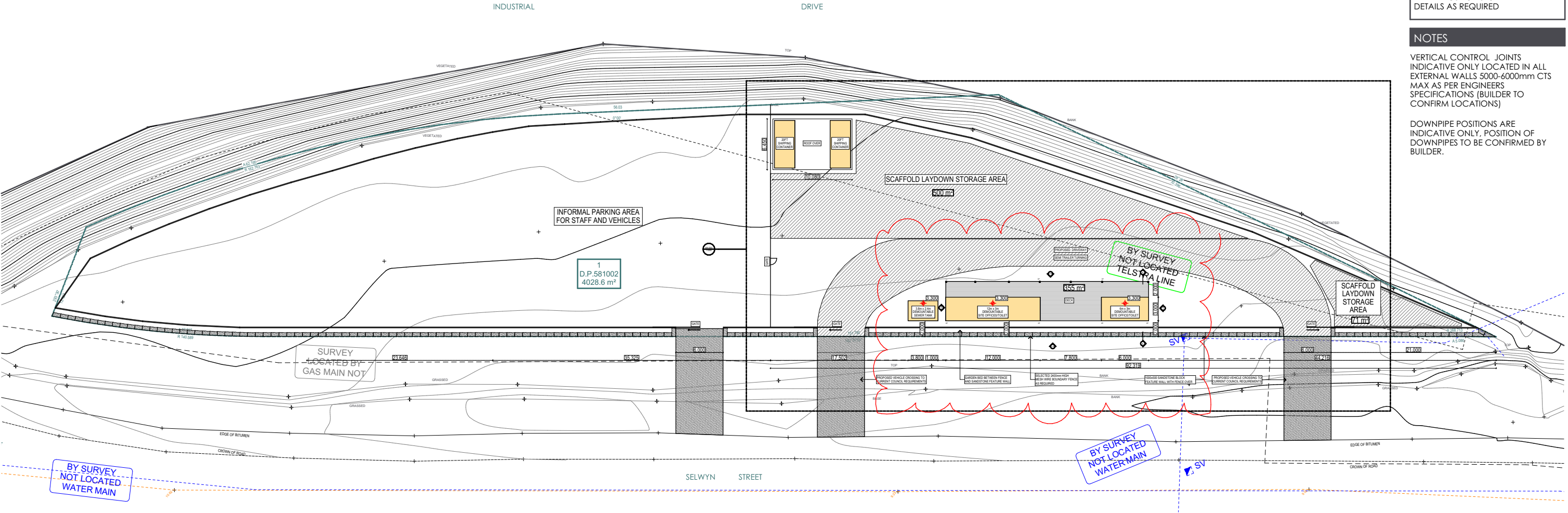
- BUILDER TO CONFIRM LEVELS AND DIMENSIONS PRIOR TO AND DURING CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED TO THE BUILDING DESIGNER BEFORE CONSTRUCTION.
- USE FIGURED DIMENSIONS ONLY. **DO NOT** SCALE FROM DRAWINGS
- BOUNDARY INFORMATION SUPPLIED BY BUILDER/SURVEYOR. BUILDER TO CONFIRM ALL BOUNDARY INFORMATION PRIOR TO CONTRACTS AND/OR COMMENCEMENT OF WORK.
- ALL SETBACKS TO COMPLY WITH LOCAL REQUIREMENTS UNLESS NOTED ON THIS SHEET, IN WHICH CASE A SEPARATE APPLICATION FOR RELAXATION IS TO BE APPLIED FOR AS PART OF BUILDING APPROVAL.
- BUILDER AND/OR CERTIFYING AUTHORITY TO NOTIFY BUILDING DESIGNER JOEL COLEMAN OF ANY DISCREPANCIES PRIOR TO APPROVAL.
- DOWNPIPE POSITIONS ARE INDICATIVE ONLY. POSITION OF DOWNPIPES TO BE CONFIRMED BY BUILDER. ALL LOCATIONS AND POSITIONS TO COMPLY WITH BCA SECTION 3.5.3 TO BE CONFIRMED BY BUILDER & READ IN CONJUNCTION WITH HYDRAULIC ENGINEERS DETAILS & SPECIFICATION.

LEGEND	
Site Area	4028.6m ²
Total Floor Area (GFA)	NA
Floor Space Ratio (0.0 Max, = -m ²)	NA
SP1 - Limited Growth	
Landscape Area (00% Min Req. = -m ²)	NA
Deep Soil Area (00% Min Req.)	NA
STORMWATER	
PLEASE REFER TO CONSULTING ENGINEERS DRAWINGS FOR STORMWATER DETAILS AS REQUIRED	

NOTES

VERTICAL CONTROL JOINTS INDICATIVE ONLY LOCATED IN ALL EXTERNAL WALLS 5000-6000mm CTS MAX AS PER ENGINEERS SPECIFICATIONS (BUILDER TO CONFIRM LOCATIONS)

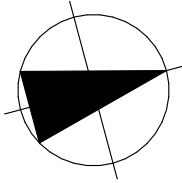
DOWNPIPE POSITIONS ARE INDICATIVE ONLY, POSITION OF DOWNPIPES TO BE CONFIRMED BY BUILDER.



1:500	Site Plan
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Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust



Drawing
Site Plan

Drawing No.
SK-002

Project Number
2253

Scale
As Shown @ A3

Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

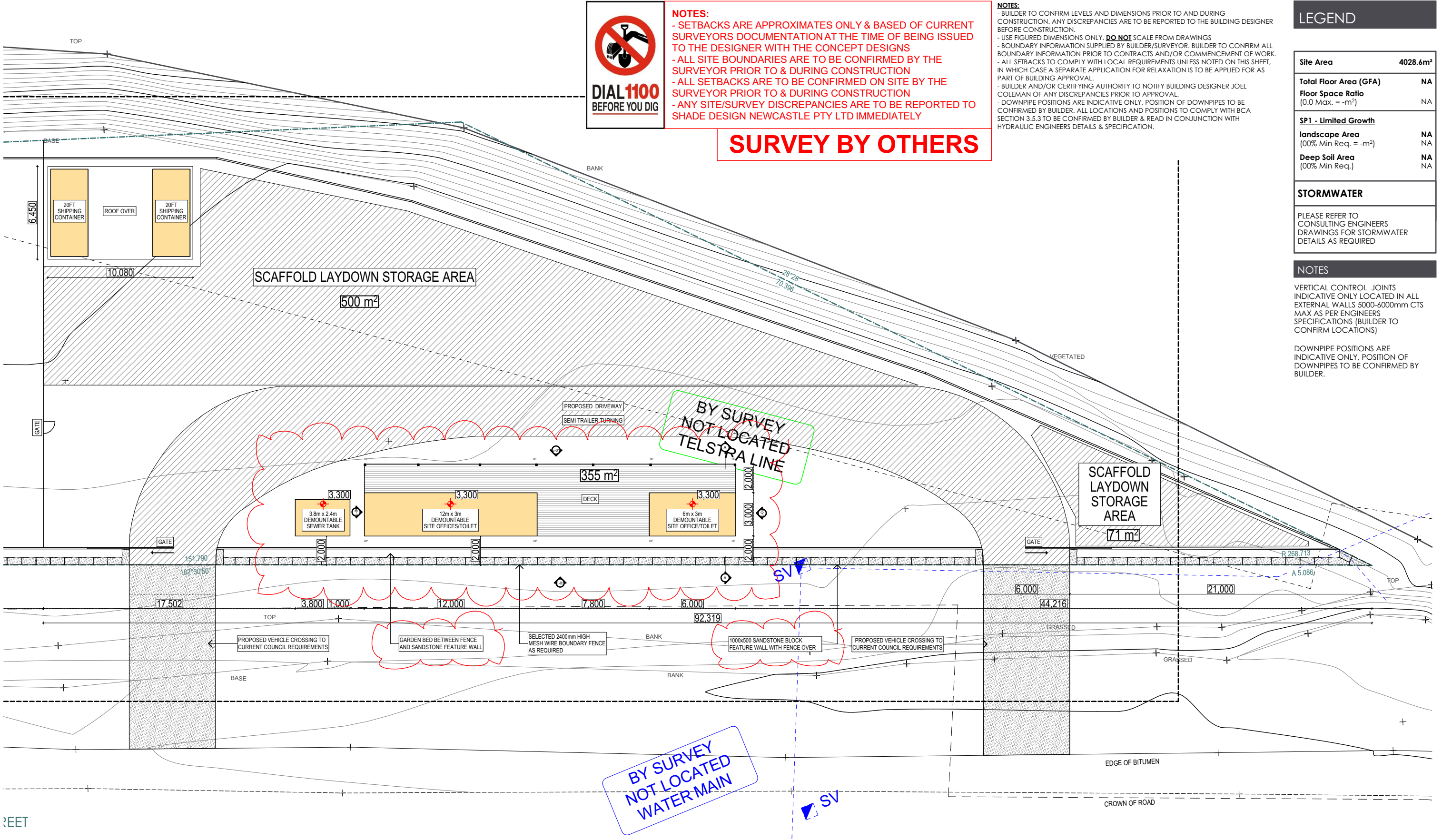
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e : joel@shadedesign.net.au
m : 0412 879 643

NOTES

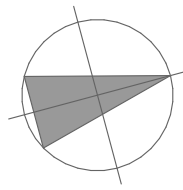
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1:250	Site Plan
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Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust



Drawing
Site Plan 1:250

Drawing No.
SK-003

Project Number
2253

Scale
As Shown @ A3

Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

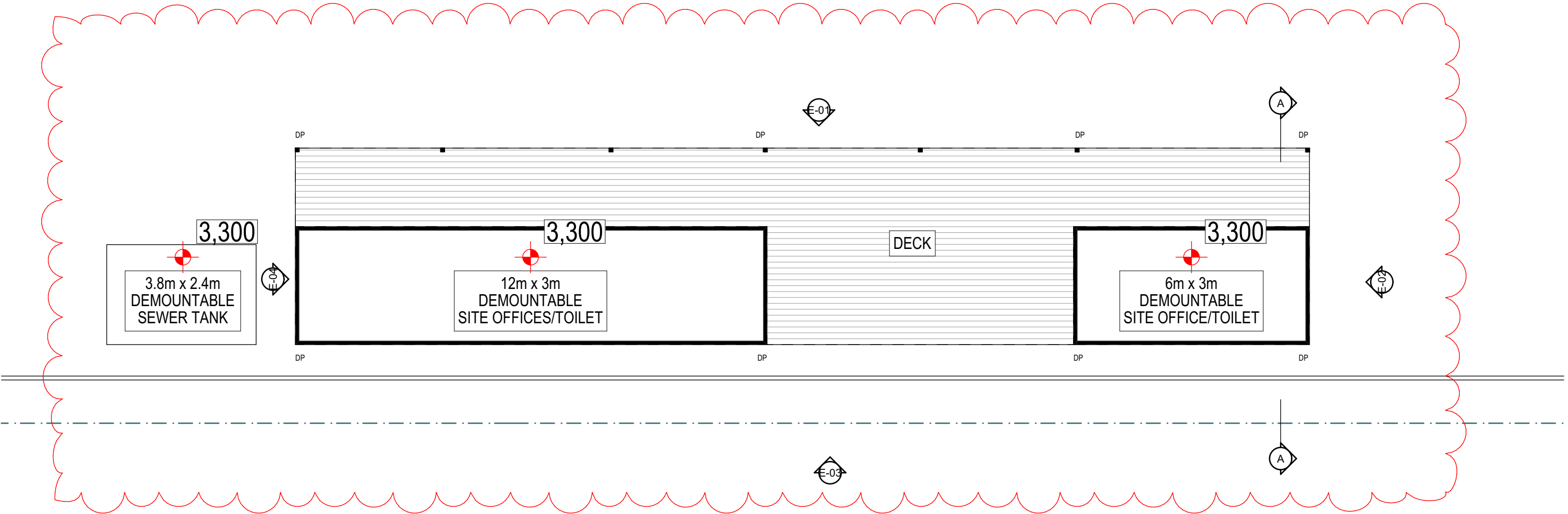
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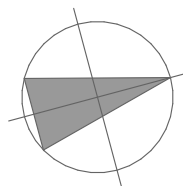
SURVEYOR TO PROVIDE
DETAILED DOCUMENTATION



	Ground Floor Plan
1:100	

Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust



Drawing
Ground Floor Plan

Drawing No.
SK-004

Project Number
2253

Scale
As Shown @ A3

Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

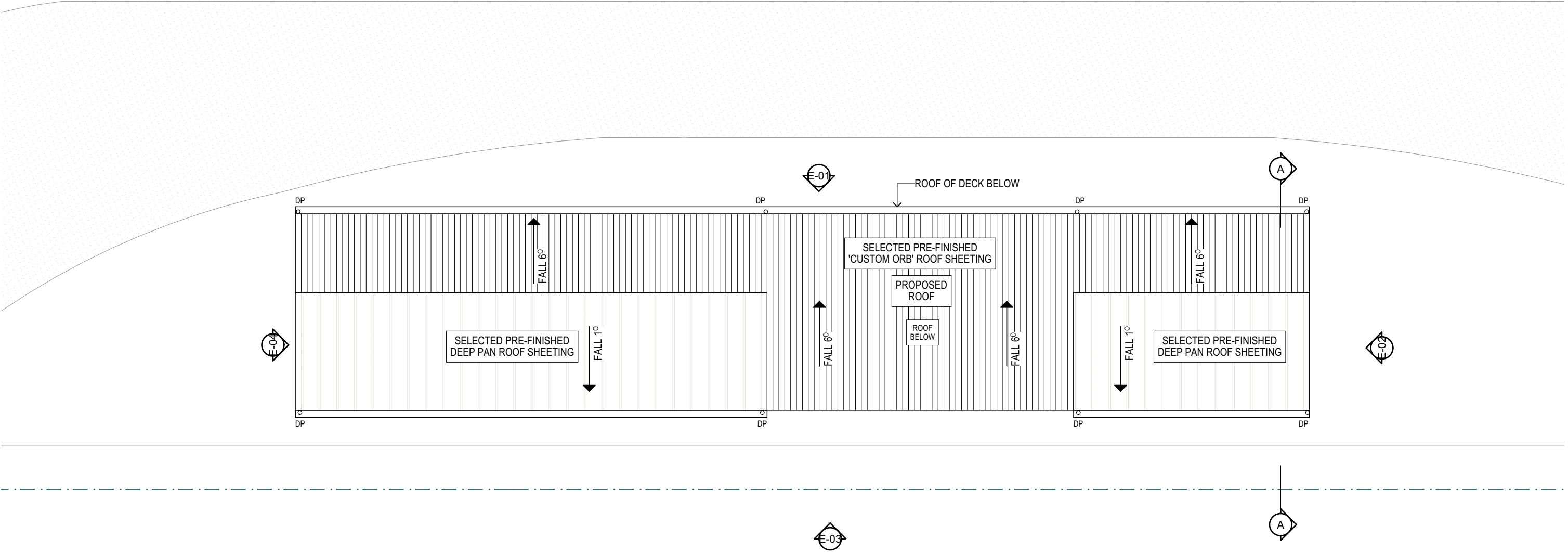
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e : joel@shadedesign.net.au
m : 0412 879 643

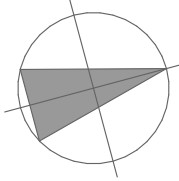
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SURVEYOR TO PROVIDE
DETAILED DOCUMENTATION



	Roof Plan
1:100	

Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304
Client
JBC Family Trust



Drawing
Roof Plan
Drawing No.
SK-005

Project Number
2253
Scale
As Shown @ A3

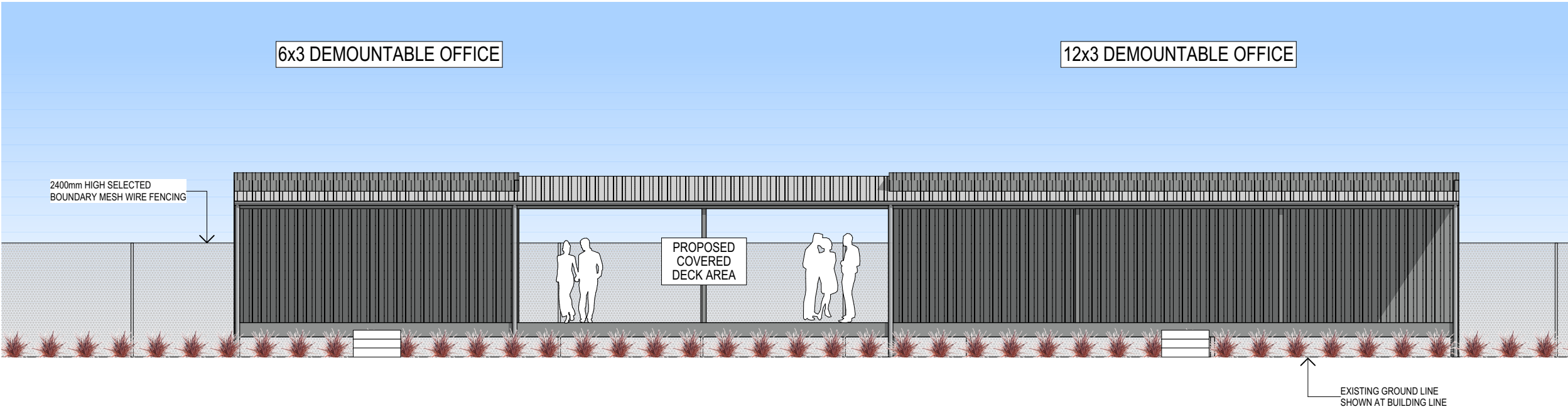
Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

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m : 0412 879 643

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E-01	NORTH ELEVATION
1:100	

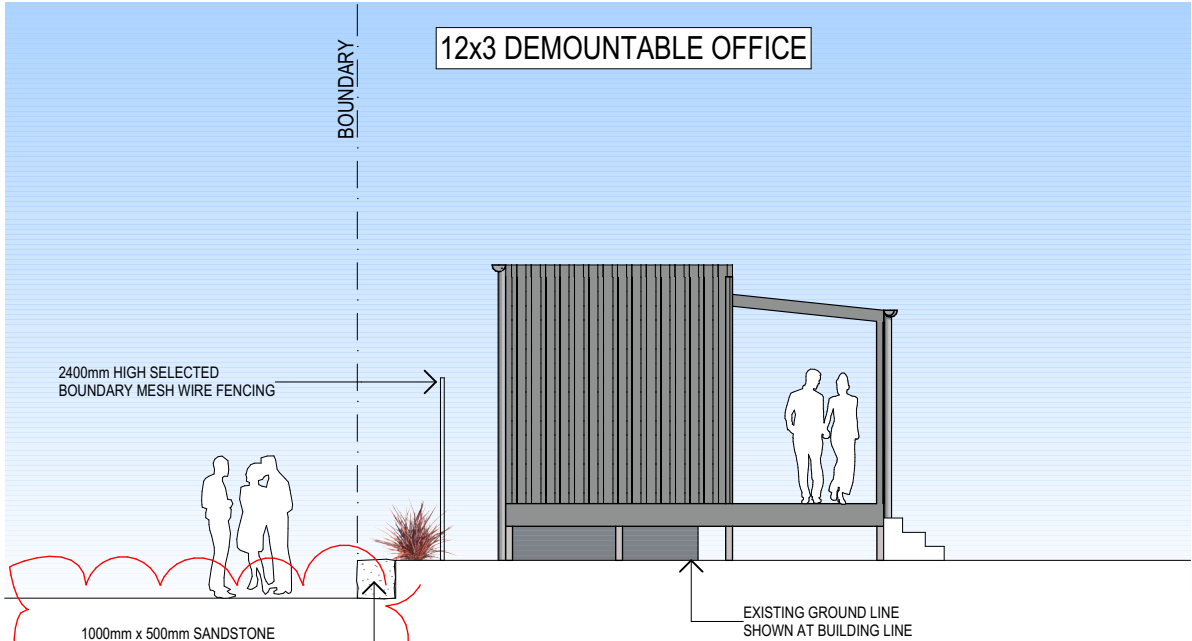
LEGEND

- SELECTED COLORBOND CUSTOM ORB METAL ROOF SHEETING
- SELECTED FACE BRICKWORK
- SELECTED WEATHERBOARD CLADDING TO LIGHTWEIGHT STRUCTURE
- SELECTED LIGHTWEIGHT VERTICAL WALL CLADDING
- SELECTED APPLIED FINISH

NOTES

VERTICAL CONTROL JOINTS INDICATIVE ONLY LOCATED IN ALL EXTERNAL WALLS 5000-6000mm CTS MAX AS PER ENGINEERS SPECIFICATIONS (BUILDER TO CONFIRM LOCATIONS)

DOWNPIPE POSITIONS ARE INDICATIVE ONLY, POSITION OF DOWNPipes TO BE CONFIRMED BY BUILDER.



E-02	EAST ELEVATION
1:100	

CONFIRM BUILDING DIMENSIONS PRIOR TO & DURING CONSTRUCTION

NOTES:

- BUILDER TO CONFIRM LEVELS AND DIMENSIONS PRIOR TO AND DURING CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED TO THE BUILDING DESIGNER BEFORE CONSTRUCTION.
- USE FIGURED DIMENSIONS ONLY. **DO NOT** SCALE FROM DRAWINGS
- BOUNDARY INFORMATION SUPPLIED BY BUILDER/SURVEYOR. BUILDER TO CONFIRM ALL BOUNDARY INFORMATION PRIOR TO CONTRACTS AND/OR COMMENCEMENT OF WORK.
- ALL SETBACKS TO COMPLY WITH LOCAL REQUIREMENTS UNLESS NOTED ON THIS SHEET. IN WHICH CASE A SEPARATE APPLICATION FOR RELAXATION IS TO BE APPLIED FOR AS PART OF BUILDING APPROVAL.
- BUILDER AND/OR CERTIFYING AUTHORITY TO NOTIFY BUILDING DESIGNER JOEL COLEMAN OF ANY DISCREPANCIES PRIOR TO APPROVAL.
- DOWNPIPE POSITIONS ARE INDICATIVE ONLY, POSITION OF DOWNPipes TO BE CONFIRMED BY BUILDER. ALL LOCATIONS AND POSITIONS TO COMPLY WITH BCA SECTION 3.5.3 TO BE CONFIRMED BY BUILDER & READ IN CONJUNCTION WITH HYDRAULIC ENGINEERS DETAILS & SPECIFICATION.

Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust

Drawing
Elevations

Drawing No.
SK-006

Project Number
2253

Scale
As Shown @ A3

Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

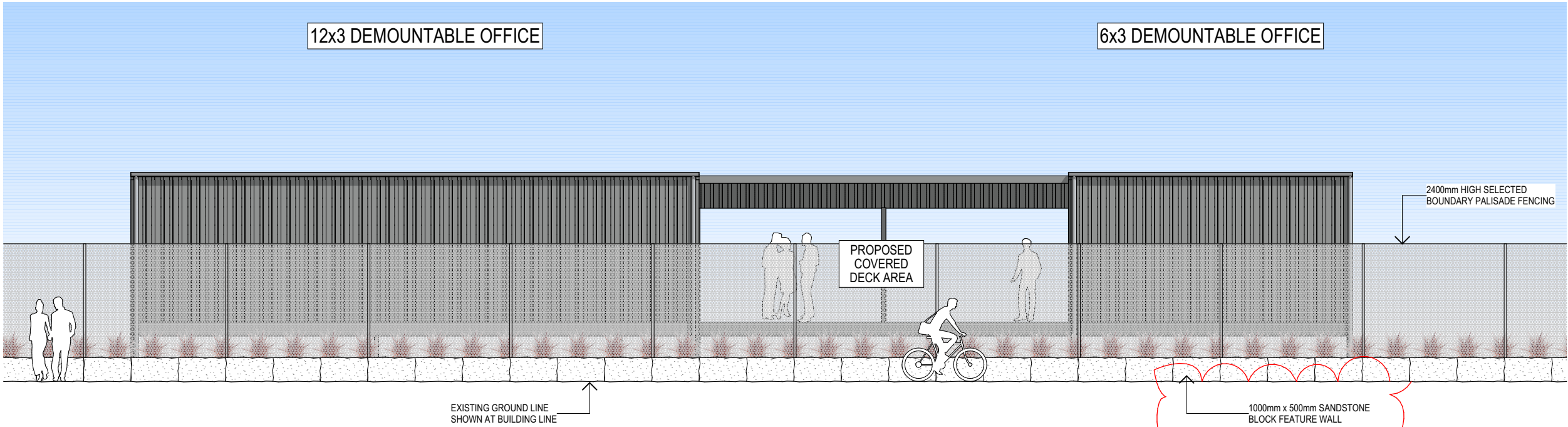
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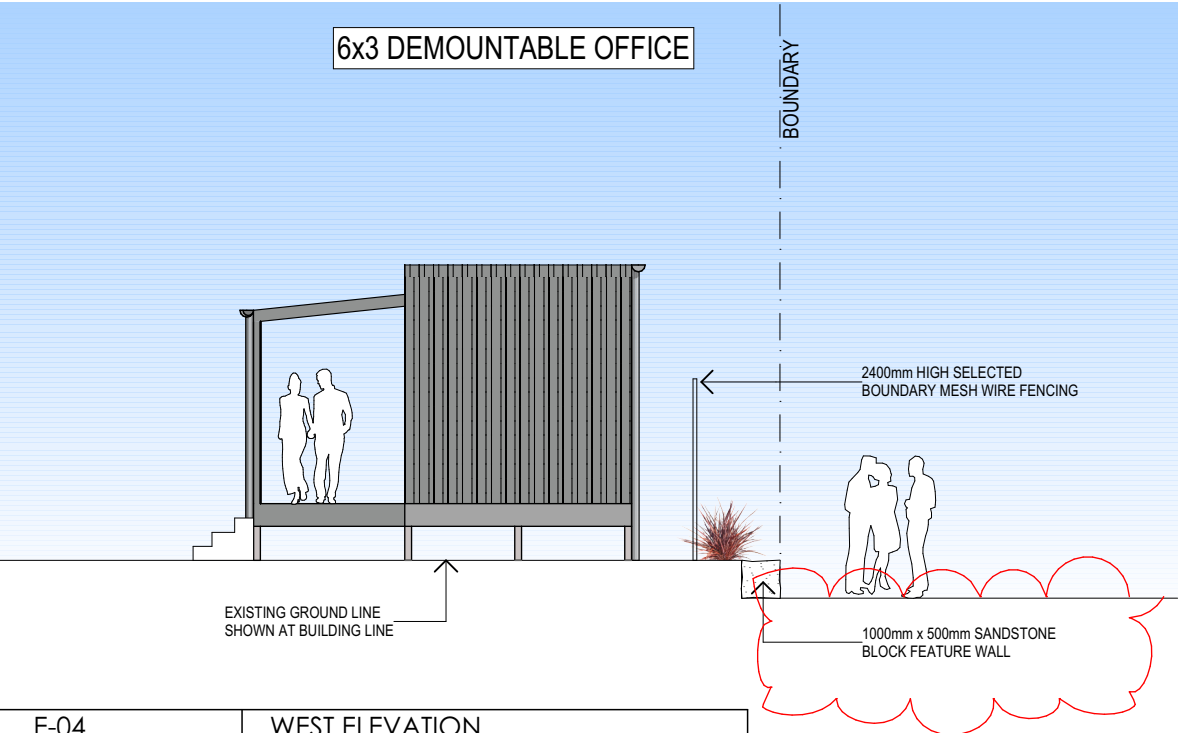
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m : 0412 879 643

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





E-03	SOUTH ELEVATION
1:100	



E-04	WEST ELEVATION
1:100	

LEGEND

-  SELECTED COLORBOND CUSTOM ORB METAL ROOF SHEETING
-  SELECTED FACE BRICKWORK
-  SELECTED WEATHERBOARD CLADDING TO LIGHTWEIGHT STRUCTURE
-  SELECTED LIGHTWEIGHT VERTICAL WALL CLADDING
-  SELECTED APPLIED FINISH

NOTES

VERTICAL CONTROL JOINTS INDICATIVE ONLY LOCATED IN ALL EXTERNAL WALLS 5000-6000mm CTS MAX AS PER ENGINEERS SPECIFICATIONS (BUILDER TO CONFIRM LOCATIONS)

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CONFIRM BUILDING DIMENSIONS PRIOR TO & DURING CONSTRUCTION

- NOTES:**
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Project
Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust

Drawing
Elevations

Drawing No.
SK-007

Project Number
2253

Scale
As Shown @ A3

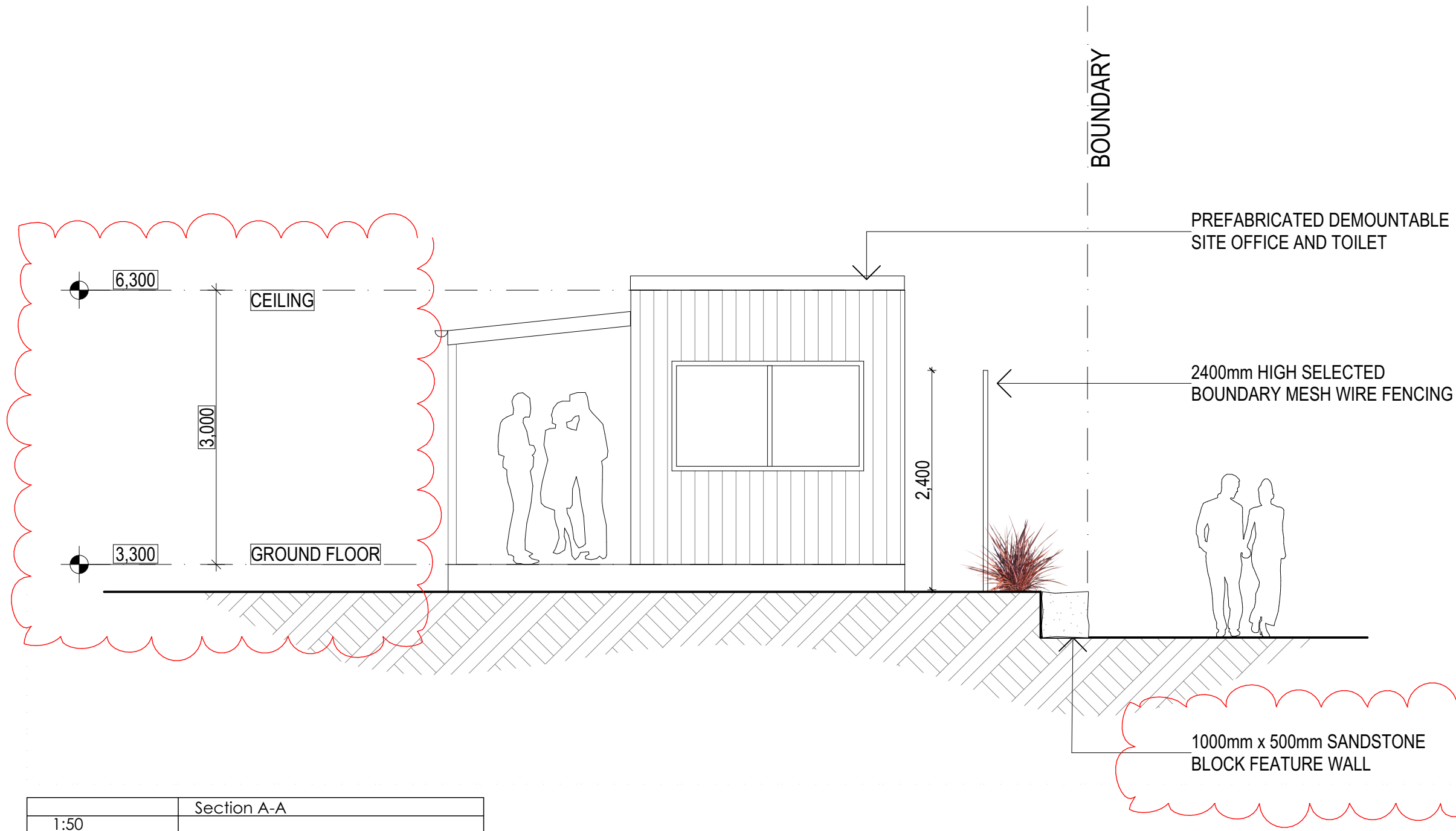
Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

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e : joel@shadedesign.net.au
m : 0412 879 643

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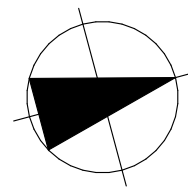
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Project

Selwyn Street Industrial
20 Selwyn Street Mayfield East 2304

Client
JBC Family Trust



Drawing
Section A-A

Drawing No.
SK-008

Project Number
2253

Scale
As Shown @ A3

Revision	Description	Date
A	Council Submission	12.12.22
B	RFI Amendment	26.07.23
C	RFI Amendment	25.09.24
D	RFI Amendment	22.11.24

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